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Sgan-Cohen, Michael Samuel, Ph.D.

City University of New York, 1989

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FREDERICK KIESLER: ARTIST, ARCHITECT, VISIONARY--

A STUDY OF HIS WORK AND WRITING

by

MICHAEL S. SGAN-COHEN

Volume I

A dissertation submitted to the Graduate Faculty in Art History in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

1989

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Abstract

FREDERICK KIESLER: ARTIST, ARCHITECT, VISIONARY--
A STUDY OF HIS WORK AND WRITING

by

Michael S. Sgan-Cohen

Advisor: Professor E. C. Goossen

This study takes a comprehensive look at the little known work of a versatile artist with a complex mind who produced a considerable amount of work including writing. It offers to make it accessible on a descriptive, critical and interpretative level.

Kiesler (1880-1965), a European Jew, studied in Vienna where he was active to the middle 1920s. He left for Paris in 1925 and then moved to the United States in 1926. He was a member of De Stijl, although he developed his own ideas. He was as interested in spherical forms and the spiral, as he was in De Stijl's cubicals. His 1924 Space-stage, built in Vienna, was a spiral construction--a stage as set, and his 1925 City in Space, created in Paris, was a suspended, elementarist, multi-cubical model of a future city. He had great expectations from America, but it was not open to his grand designs, such as a Universal Theater or an Endless House. He did, however, build the Film Guild Cinema in New York in 1928. In the 1930s he intensified his interest in design as related to technology and commerce. He designed stores and store windows, planned multi-media innovative department stores, and wrote a book titled Contemporary Art Applied to the Store and Its

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Display, published in 1930. He developed his theory of Correalism--an interdisciplinary issue-oriented and comprehensive design strategy, not a style. It insisted on integrating mental, psychological, even cultural elements into any sound design. Kiesler's connection with Marcel Duchamp was important and qualifies his integration with Surrealism in the 1940s. A high point was Kiesler's design of Art of This Century gallery in New York in 1942, a major project within the meager chapter of Surrealist architecture. From the early 1950s to his death Kiesler revived his conception of the galaxy--an open, relational conception of painting, or sculpture. Thus he made some of America's earliest environmental works of art. He also further developed models of the Endless House—a cornerless shell building and a unique specimen in modern architectural history. His late work is a unique coordination of formal and spiritual elements. He made the Last Judgement, 1955-1963, an environmental sculpture and Us You Me, an environmental galaxy installation (unfinished when he died). His Shrine of the Book in Jerusalem, 1965, stands for much he thought and accomplished.

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FOREWORD

Almost ten years ago, when I began my research on the life's work of Frederick Kiesler, no comprehensive study on the artist existed in English.

There was a doctoral dissertation that studied Kiesler's theories and scenic design and a monograph on Kiesler in Japanese. In view of Kiesler's relative obscurity, it seemed almost imperative to attempt, first and foremost, to take a comprehensive look at Kiesler's work. This decision, considering the growing specialized character of dissertations, was perhaps unfeasible, and yet I felt that a comprehensive dissertation about Kiesler should precede any study covering a segment of his work. Considering Kiesler's diverse interests and radical shifts, a limited study of one period or particular interest would have presented a simplified and distorted picture of this complex artist who possessed, in my opinion, an original mind.

I should, however, add in this foreword to a philosophical dissertation that my choice of Kiesler as a subject was a subjective choice which, no doubt, must have affected, to some extent, the way I collected the material and interpreted it.

Indeed I was attracted to and wondered about the mind that sustained an artist and architect who was as committed to the philosophy of De Stijl and Constructivism as he was to Dada and Surrealism, an

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artist and designer who signals contradiction. He was as practical as he was a dreamer. He was a man who had a critical and realistic view of reality, yet he was an idealist and a utopian.

In my attempt to deal with Kiesler's range without losing sight of detail, I resorted to a nine-fold division, nine chapters or categories which bear titles that are names of works and/or concepts that Kiesler used (see introduction). Although the chapters are ordered chronologically, some of them follow their inner chronological line, which sometimes reaches ahead of the general chronology. In other words, the chapters are not perfectly synchronized.

Since any division is somewhat arbitrary and compromises the overall view, to some extent, I have made up for it by using Kiesler's complex mind and work as a license to indulge, to some extent, in digressions from the mainstream of my text, particularly when following an artist who himself avoided the exclusive dominion of linear thinking and advocated a science he called Correalism.

From a critical point of view, I have examined Kiesler as a phenomenon, i.e., an artist who has completed a creative life-cycle. Thus in trying to understand him I have looked with equal attention at much of what he made (by hand) and said (in writing), be it one of his ambitious works and projects or the last of semantic details, anecdotes and personal experiences he remembered and recounted.

Although I have generally tried not to be involved directly in matters of aesthetic judgment and art criticism, it should be clear that something of a championing vote is present in the following pages.

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I think it was called for, considering the fact that Kiesler's work is offered in its entirety for the first time. Interpretation, whenever attempted, was offered for the same reason.

Following Kiesler, I also found information he shared concerning the process of creation. He definitely considered it important enough to tell. Indeed, it is valuable information and Kiesler's contribution toward the demystification of creativity and inspiration.

Next to the primary information examined, Kiesler by Kiesler, the projects he performed as an avant-garde artist, i.e., socially involved, allowed an intimate look at social attitudes, as reflected in the press at the time. Thus, for example, Kiesler's exhibition of New Theater Technique in Vienna (1924) that traveled to New York two years later (1926) offers information for a comparison between these two societies in the mid-twenties.

I have offered limited comparisons, mostly similarity to qualify the notion of Kiesler's eccentricity and in order to validate his ideas by rescuing them from the impression being a mere idiosyncracy.

Last year, a major Kiesler exhibition was mounted at the Museum of Modern Art in Vienna. The exhibition was accompanied by an anthology in German, edited by Dieter Bogner, for which I was fortunate to make a contribution. The book contains the best chronology to date also based on new material released only recently by Kiesler's widow for the exhibition. I have incorporated the new material only where I deemed it necessary and absolutely relevant for my existing text and have, of course, corrected any factual errors I may have committed.

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Finally, there is a marked growing interest in Kiesler's work now. Barbara Lesak, who was involved with the Vienna exhibition, published (in German) her dissertation on Kiesler's stage experiments and architectural projects between 1922 and 1925, and the Whitney Museum mounted a Kiesler exhibition in January of this year. To these current Kiesler events, then, I offer at last my study and view of Kiesler and hope to add another voice.

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INTRODUCTION

Frederick John Kiesler, who died in New York in 1965, was born Friedrich Jakob Kiesler in 1890 in Czernowitz, Bucovina where he grew up (Bucovina was then part of the Rumanian component in the Austro-Hungarian Empire and is now Chernovtsy, part of the USSR). His formative and early years as an artist were spent in Vienna (1908-1924) where he studied for two years in Vienna's Technische Hochschule (1908-1910) and the Academy of Fine Arts (1900-1913). He did not graduate from either of these schools. In 1925 he spent a year in Paris, before coming to the United States in 1926, where he lived in New York and where he stayed.

Kiesler had a restless mind, was very short in stature and was most intense. Although somewhat sentimental he was an intellectual and a thinker, a free spirit and had a truly universal mind. He was a visionary, a futurist and a dreamer with a broad range of interests. He was a member of De Stijl from 1922 and close to radical constructivist circles, and later the Surrealists. It resulted in a complex body of work, multifaceted in style and he worked in various media. He was a painter and sculptor, an architect and interior designer. He designed art galleries and commercial store fronts, furniture and prefabricated housing. He designed numerous stage sets, mostly for the opera (at Juilliard where he was head of scenic design, 1934-1956) and some for

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the theater. He was a typographer and an author who spent much energy theorizing.

Considering the complexity of his work and the role theory and ideas played in his life, Kiesler's work is viewed, in the following study, through categories or terminology that governed his art. Specifically, the chapters in this dissertation derive their names from titles of works and/or concepts that Kiesler has used. One may suggest that the following chapters describe certain "language games," to use Wittgenstein's language, that Kiesler invented and played. Indeed, Wittgenstein is recalled advisedly since the first chapter begins by setting the intellectual stage for Kiesler's early years following Wittgenstein's Vienna, a book that describes a distinctly Viennese moral approach to art and culture, which to my mind left a lasting mark on Kiesler.

The first chapter is titled "The Spacestage." It was a constructivist set and spiral stage all in one which radicalized the advanced Russian constructivist stage. Kiesler erected it in Vienna in 1924, and it occupied the center stage in the Vienna Theater and Music Festival of that year, along with a New Theater Technique Exhibition that Kiesler organized and designed. Both projects were public projects and were thus much discussed at the time. Therefore, in this chapter the interaction of art and society as reflected in the press is surveyed. Since the Vienna exhibition was brought to New York two years later, a survey of the American reaction is also offered, in order to allow a unique comparative look. It also reflects the transition Kiesler had to undergo

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by coming to America or New York. Here at the time there was a greater apprehension concerning Kiesler's radical left of center ideology than in Vienna, which was at the time under a socialist government. Also in this chapter two formative set designs Kiesler made in Berlin in 1923 and early 1924 are discussed. The chapter also includes a note about Kiesler and Leger who came to Vienna for the exhibition and showed his film Ballet Mechanique there for the first time.

The second chapter, "City in Space," is named after an ambitious model Kiesler built as an exhibition display for the theater section of the Austrian Pavillion at the International Exhibition of Modern Decorative and Industrial Arts in Paris, 1925. The chapter centers on Kiesler as a member of De Stijl. Since De Stijl was barred from the Dutch pavillion of the international exhibition, Kiesler's elementarist City in Space assumed, in my opinion, great significance. Also in this chapter, the unique exhibition method Kiesler designed for the Vienna exhibition is discussed following Theo Van Doesburg who expressed great enthusiasm for it and along with the City in Space, published it in De Stijl magazine. Also in this chapter, the relevant aspects of Kiesler's unrealized Optophon are discussed since Kiesler considered it his only Neoplastic work. Other realized and unrealized projects are discussed primarily on the basis of their stylistic connection to De Stijl. Thus, for example, only the facade of the Film Guild Cinema, built in New York in 1928, is discussed as well as the Brooklyn Heights Theater that was never built and the plans for Horizontal Skyscrapers which belong to the subject at hand. Kiesler's contribution

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to the Berlin based G magazine is also relevant and is therefore discussed here. The chapter concludes with a translation of Kiesler's eulogy of Van Doesburg, a close friend, whose death also marked the decline of De Stijl.

The third chapter, "The Endless and the Universal," discusses these two related conceptions of architecture for the theater, as well as Kiesler's various ideas and theories about the theater. Thus, the Optophon is discussed once again from a different point of view, namely as an actorless audio-visual theater reflecting Kiesler's radical notion about the end or death of the theater. Relevant aspects of the Film Guild Cinema are also discussed, as well as Kiesler's various architectural projects for theaters.

The fourth chapter, titled "The Endless House and the Space House," introduces Kiesler's plans, models and ideas about the one family house epitomized in the Endless House. The Space House was a realized life size model, 1934, and was a forerunner of the Endless House. Considering Kiesler's ever-growing obsessive and persistent preoccupation with the Endless House, interpretation and/or iconographical models are offered in this chapter.

The fifth chapter, "Correalism," deals with the core of Kiesler's theory by that name as seen in his major theoretical writings which are described and quoted profusely. Among Kiesler's articles on Design Correlation, special attention is given to Kiesler's article on Marcel Duchamp's The Bride Stripped Bare by Her Bachelors, even (the Large Glass) since Kiesler's interest in Duchamp reflects his own mind and

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his unique and ideosyncratic notion of architecture, art and design. Kiesler's book Contemporary Art Applied to the Store and Its Display, 1930, is naturally discussed in this chapter as is all relevant material on theory found in Kiesler's posthumously published journals, Inside the Endless House, 1966.

The sixth chapter, "The Galaxy," discusses another persistent conception in Kiesler's work from its earliest stages to the end. It looks at its various manifestations and Kiesler's most important exhibition of galaxies. It also examines the way these works were understood and evaluated.

The seventh chapter deals with Kiesler and Surealism. It is titled "Totem of Religions" which is the name of a sculpture by Kiesler made for the last major Surealist exhibition mounted in Paris in 1947 at the Gallerie Maeght. It was organized by Andre Breton and Marcel Duchamp and designed by Kiesler. This exhibition, along with a design for a Surealist show called "Blood Flames," organized by Nicolas Calas at the Hugo Gallery in New York earlier that year and Kiesler's 1942 design of Peggy Guggenheim's Art of This Century Gallery constitute a unique sequel of Surrealist architecture, a category in Surrealism where Kiesler figures as an almost singular exponent. These projects are therefore discussed and described in great detail in order to offer a foundation for the heretofore elusive notion of such architecture. Concerning this rare notion of architecture ("magic architecture" as Kiesler also called it) a discussion of Roberto Matta's ideas on the subject is offered as a single relevant comparison. Various other contributions

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by Kiesler to the annals of Surrealism are discussed, mostly his contributions to the Surrealist magazines VVV and View.

The eighth chapter is titled "The Shrine of the Book." It is dedicated to this major project dedicated in Jerusalem in 1965. It is a unique building in the history of twentieth century architecture, being a deliberately symbolic and functional shrine built for the display of ancient biblical manuscripts. It is described and analyzed in detail, following Kiesler's own writings about it. The circumstances of this commission and the various stages of its creation are also described, as well as its critical reception. A comparison to Le Cobusier's church at Ronchamp is also offered. Kiesler's plans and model for the Grotto of Meditation are discussed in this chapter, since they relate to the Shrine and were planned at roughly the same year.

Finally, the ninth and last chapter of this study of Kiesler's writing and work deals with his late sculpture and his last major galaxy environment, Us You Me, which is the title of this chapter. It is preceded by a survey of and analysis of sculptures Kiesler has made in, roughly, the last ten years of his life, and which were exhibited at the Guggenheim Museum in New York in 1964. Although the chapter on the Shrine of the Book could have also made a suitable concluding chapter, and is interchangeable with this chapter, Us You Me ultimately offers an excellent summation of Kiesler's work and ideas about art theory and architecture alike and presents Kiesler's plastic and iconographic concepts as well as his artistic sensibility, with full moral authority and force, and was therefore chosen as the concluding chapter

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in this comprehensive study of Kiesler's work and writing, the subject of this dissertation.

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45. Walter Gropius, The Total Theater, 1927.

46. F. Kiesler, Model of Endless Theater, 1926, Steinway Hall, Newark (with Steffi Kiesler).

47. F. Kiesler, Model of the Endless House, plaster (21" x 9½" x 6), the Museum of Modern Art, New York.

48. F. Kiesler, Film Guild Cinema, 1928, section.

49. F. Kiesler, Model Universal Space Theater for Woodstock, New York, 1931, cardboard, wirescreen, and metal wire (location unknown).

50. F. Kiesler, Model, Universal Space-Theater for Woodstock, New York, 1931 (converted).

51. F. Kiesler, Model for Universal Theater, Woodstock, New York (converted), 1931.

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52. F. Kiesler, Longitudinal Section, Universal Theater for Woodstock, New York, 1931.

53. F. Kiesler, Elevation of Universal Theater for Woodstock, New York, 1931.

54. F. Kiesler, Mezzanine Plan, Universal Theater, Woodstock, New York, 1931.

55. F. Kiesler, Universal Theater (Tent) for the Empire State Festival, Ellenville, New York.

56. F. Kiesler, Universal Theater (Tent) for the Empire State Festival, 1955, Ellenville, New York.

57. F. Kiesler, "Venetian" Theater, 1958, Caramoor, New York.

58. F. Kiesler, The Universal, 1964, longitudinal section.

59. F. Kiesler, The Universal, 1964, model (top raised), cast aluminum, plexiglass and steel base (72" x 48" x 58"), Harvard Theater Collection, Cambridge, Massachusetts.

60. F. Kiesler, The Universal, 1964, model, aluminum (72" x 48" x 58"), Harvard Theater Collection, Cambridge, Massachusetts.

61. F. Kiesler, The Universal, model (interior).

62. F. Kiesler, The Universal, 1964, front elevation.

63. F. Kiesler, The Universal, 1964, main floor plan.

64. F. Kiesler, The Universal, 1964, ground floor plan.

65. F. Kiesler, The Universal, 1964, basement plan.

66. F. Kiesler, Conceptual drawing for The Universal, 1964, illustrated in Inside the Endless House, p. 429.

67. F. Kiesler, Space House, 1933/1934, facade, painted photograph, Kiesler estate.

68. F. Kiesler, Space House, 1933/1934, the Modernage Furniture Company, New York (corner view).

69. F. Kiesler, Space House, symetric perspective and ground plan.

70. F. Kiesler, Space House, 1933, ground plan and section (16½" x 26-3/4"), Kiesler estate.

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71. F. Kiesler, Space House, 1933/1934, interior view.

72. F. Kiesler, Space House, 1933/1934, stairway of exhibition hall adjoining Space House.

73. F. Kiesler, Space House, 1933/1934, interior.

74. F. Kiesler, Space House, 1933/1934, interior.

75. F. Kiesler, Space House, 1933/1934, interior.

76. F. Kiesler, Space House, 1933/1934, interior.

77. F. Kiesler, Space House, 1933/1934, interior.

78. F. Kiesler, Net Fabric, Material Sample for the Space House, illustrated in "Space House" by Frederick J. Kiesler, in Architectural Record 75 (January 1934).

79. F. Kiesler, Material sample for Space House.

80. F. Kiesler, Material sample for Space House, jute matting used as floor covering.

81. F. Kiesler, Material sample for Space House, sponge rubber used as floor covering.

82. F. Kiesler, Material sample for Space House, twine curtain (detail).

83. F. Kiesler, Tubular lighting, Space House, 1933/1934.

84. F. Kiesler, lighting fiture, Space House, 1933/1934.

85. F. Kiesler, lighting fixture, Space House, 1933/1934.

86. F. Kiesler, Loy's Shoes, 1935, Buffalo, New York.

87. F. Kiesler, Westerman's Bookstore, 1935, New York.

88. F. Kiesler, Horizontal Sky Scraper, 1925, Paris, illustrated in Contemporary Art Applied, p. 62.

89. F. Kiesler, The Furniture Exhibition of A.U.D.A.C., American Union of Decorative Artists and Craftsmen, 1930, Grand Central Palace, New York.

90. Design of prefabricated housing for Sears & Roebuck Company, ca. 1933, ink on paper (19-5/8" x 29-5/8"), Kiesler estate.

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91. F. Kiesler, Open Model of Endless House, "launching pad" with sculptured stairs by David Hare, c. 1950 (location unknown).

92. F. Kiesler, Model of the Endless House (Figure 47) as exhibited in "Muralist and the MOdern Architect" at the Samuel Kootz Gallery, New York, October 1950.

93. F. Kiesler, Model of the Endless House, 1950, transversal view.

94. F. Kiesler, The Endless House, section, ca. 1950, illustrated in F. Kiesler, "The Endless House," Architectural Forum 23 (November 1950): 125.

95. F. Kiesler, The Endless House, main floor, ca. 1950.

96. F. Kiesler, The Endless House, ca. 1950, first mezzanine, illustrated in F. Kiesler, "The Endless House," p. 126.

97. F. Kiesler, The Endless House, 1950, second mezzanine, illustrated in F. Kiesler, "The Endless House," p. 126.

98. F. Kiesler, Chart of Creation-Mutation, illustrated in F. Kiesler, "Pseudo-Functionalism in Modern Architecture," Partisan Review 16, no. 7 (July 1949): 736.

99. F. Kiesler, The Endless House, Design for a Color Clock, ca. 1950, pea riak, gouache on paper (14-2/3" x 18"), Museum of Modern Art, New York.

100. F. Kiesler, drawing for Endless House, ca. 1959, illustrated in "Forum Is a Language," Art News 59, no. 2 (April 1960): 34.

101. F. Kiesler, Endless House, including mezzanine, 1958, pencil on paper (8¼" x 11-5/8"), Frederick Kiesler estate.

102. F. Kiesler, Second Scheme of Endless House, ground plan and elevation, 1959, graphite on paper (37-5/8" x 52"), the Museum of Modern Art, New York.

103. F. Kiesler, Second Scheme of Endless House, ground plan and elevation, 1959, graphite on paper (37-5/8" x 52"), the Museum of Modern Art, New York.

104. F. Kiesler, Second Scheme of Endless House, 1959, sections, The Museum of Modern Art, New York.

105. F. Kiesler, Model of Endless House, model, 1959-1961, cement over wire mesh (38" x 96" x 42"), the Museum of Modern Art, New York.

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106. F. Kiesler, Model of Endless House, 1959-1961, wire mesh (before application of cement.

107. F. Kiesler, Multi-Purpose Chair and Stand for Peggy Guggenheim's Art of This Century Gallery, 1942, wood, leather cover, the Museum of Modern Art, New York.

108. F. Kiesler, Two Piece Coffee Table, 1935/1936, aluminum, private collection, New York.

109. Henry Moore, Reclining Figure (internal and external forms), plaster, 1953/1954, 84" length.

110. Hieronymus Bosch, The Tree-man, Albertina, Vienna, pen and ink on paper (11" x 8¼").

111. F. Kiesler, Drawing for Endless House, ca. 1961, illustrated in F. Kiesler, Inside the Endless House (New York: Simon & Schuster, 1966), p. 443.

112. F. Kiesler, The Nuclear Concept of Production as Expressed in Three of the Sciences, figure 2 in F. Kiesler, "On Correalism and Biotechnique," Architectural Record 86 (September 1939): 61.

113. F. Kiesler, Man = Heredity + Environment, figure 1 in F. Kiesler, "On Correalism and Biotechnique," p. 60.

114. F. Kiesler, Every Need Follows a Characteristic Pattern of Development, figure 4 in F. Kiesler, "On Correalism and Biotechnique," p. 64.

115. F. Kiesler, model, first Mobile Home Library, designed and built at the Laboratory of Design-Correlation School of Architecture, Columbia University, 1937/1938, figure 13 in "On Correalism and Biotechnique," pp. 72-73.

116. F. Kiesler, Correlation-Chart of Book-Storing, figure 12 in F. Kiesler, "On Coreralism and Biotechnique," p. 71.

117. F. Kiesler, Metabolism-Chart of Mobile-Home-Library, figure 9 in F. Kiesler, "On Correalism and Biotechnique," pp. 68-69.

118. Kiesler working on a Super-graphics Metabolism-Chart of Mobile Home Library, Columbia University, ca. 1939.

119. F. Kiesler, Morphology Chart of the Three Types of Technological Products, figure 3 in F. Kiesler, "On Correalism and Biotechnique," p. 62.

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120. F. Kiesler, News Documents I, illustration in F. Kiesler, "The Architect in Search of Design Correlation," The Architectural Record 81 (February 1987): 15.

121. F. Kiesler, News Documents II, illustration in F. Kiesler, "Design Correlation, Animals and Architecture," Architectural Record 81, no. 4 (April 1937): 92.

122. F. Kiesler, illustration (front page) collage, in F. Kiesler, "Design Correlation" (about M. Duchamp's "large glass"), Architectural Record 81, no. 5 (May 1937); 53.

123. F. Kiesler, Les Larves d'Imagie d'Henri Robert Marcel Duchamp, collage and flip-up, in View (special Duchamp issue), Series V, no. 1 (March 1945).

124. F. Kiesler, Photography and Architecture, illustration, in F. Kiesler, "Design Correlation," Architectural Record 82, no. 2, p. 84.

125. F. Kiesler, Contemporary Art Applied to the Store and Its Display, cover (New York: Brentano's, 1930).

126. Robert Rauschenberg, Homage to Frederick Kiesler, 1966 (offset lithograph on paper, 34-7/8" x 23").

127. F. Kiesler, Design for Store Front, illustrated in Contemporary Art Applied, p. 83.

128. F. Kiesler, Store Front for Radiator Concern, illustrated in Contemporary Art Applied, p. 94.

129. F. Kiesler, Design for a Department Store, illustrated in Contemporary Art Applied, 1930, p. 97.

130. F. Kiesler, Design for the Institute of Art and Industrial Design, illustrated in E. M. Benson, "Wanted: An American Bauhaus," Art 27, no. 6(June 1934): 309.

131. F. Kiesler, Sketch of Michelangelo's Last Judgement, the Sistine Chapel, illustrated in Inside the Endless House, 1966, p. 120.

132. F. Kiesler, Galaxy Portrait of Marcel Duchamp, 1947, pencil on paper in eight sections; 1-7: 14-3/8" x 10-7/10"; no. 8: 10-7/8" x 14-3/8"; plywood panel, 83¼" x 39½" on wood base, 6½" high x 31-3/8" wide x 12-3/4" deep, the Museum of Modern Art, New York; gift of the D. S. and R. H. Gottesman Foundation.

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133. F. Kiesler, E. E. Cummings, 1948, metallic paint, crayon and pencil on paper in eight sections: (1) 17 x 20-3/4"; (2) 20-3/4" x 16-7/8"; (3) 20-3/4" x 17"; (4) 20-3/4" x 16-7/8"; (5) 17 x 20-2/3"; (6) 20-3/4" x 17"; (7) 20-3/4" x 17"; (8) 16-7/8" x 20-3/4"; the Museum of Modern Art, New York, gift of D. S. and R. H. Gottesman family.

134. F. Kiesler, Jean Arp, 1947, pencil, 25-5/8" x 19-3/4", the Museum of Modern Art, New York, gift of the D. S. and R. H. Gottesman Foundation.

135. F. Kiesler, Galaxy, 1947-1948, 1951, wood, 12' x 14' (longest crossbar), collection Nelson A. Rockefeller.

136. F. Kiesler, Galaxy, 1961, wood, the Philip Johnson Collection (destroyed).

137. F. Kiesler, set design for The Poor Sailor by D. Milhaud and Jean Cocteau, Juilliard School of Music, 1948.

138. F. Kiesler, Galaxy (19 sections), Chinese ink and oil on paper mounted on cardboard 8'9-3/4" x 13'6-3/4"), Kiesler estate.

139. F. Kiesler, drawing for (1947/1948) Galaxy, 1951, ink on paper, 17" x 22-3/8", Museum of Modern Art, New York, gift of Mr. and Mrs. Alfred H. Barr, Jr.

140. F. Kiesler, Galaxy, illustration in Elaine DeKooning, "Dickinson and Kiesler," Art News, no. 2 (April 1952): 20, 21.

141. F. Kiesler, Small Horse Galaxy, 1954, oil and enamel on wood panels, left, 23-1/8" x 29"; center 24-1/8" x 29"; right 24½" x 17-5/8", the Museum of Modern Art, New York, gift of Mr. and Mrs. Thomas B. Hess.

142. F. Kiesler, Long Horse Galaxy, illustration, 1954, The Sidney Janis Gallery, New York.

143. F. Kiesler, one man show, Leo Castelli Gallery, New York, 1961.

144. F. Kiesler, A Sculptural Drawing, 1960, charcoal and pastel on paper, 42" x 85" x 6½", Kiesler estate.

145. F. Kiesler, Galaxy Study for Endless House, 1959, two units, charcoal on paper, mounted on cardboard, inside wood and glass frame, 1-3/4" deep, 45" x 57", Kiesler estate.

146. F. Kiesler, Galaxy A, 1961, three parts with interlocking sculptures and suspended part, pastel on paper/framed in three sections, wood 67-3/4" x 36" x 15" (deep), Kiesler estate.

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147. F. Kiesler, Galaxy H, 1960, pastel, charcoal on paper, wood, 93-5/8" x 86" x 3" (deep), Kiesler estate.

148. F. Kiesler, Galaxy, Black and White, 1959, black ink on paper, 52½" x 42½", Kiesler estate.

149. F. Kiesler, Totem of Religions, 1947, wood and rope, 9¾" x 34-1/8" x 30-7/8", upper rope extensions; left, 34¼", right, 33¾', the Museum of Modern Art, New York, gift of Armand B. Bartos.

150. F. Kiesler, Oconographical Scheme of Totem of Religions, 1947, illustrated in Partisan Review 15 (1948): 1270.

151. Frederick Kiesler next to his sculpture, Totem of Religions, Gallerie Maeght, Paris, 1947.

152. Marcel Duchamp, First Papers of Surrealism, twine installation, New York, 1942.

153. F. Kiesler, Conceptual Drawing for Hall of Superstitions, illustrated in F. Kiesler, "Manifest du Correalism," L'Architecture d'Aujourd'hui 2, special issue, Paris (1949).

154. F. Kiesler, Hall of Superstition, 1947, Gallerie Maeght, Paris.

155. F. Kiesler, Antitaboo Figure, 1947, plaster over wire mesh, Hall of Superstition, Gallerie Maeght, Paris (whereabouts unknown).

156. F. Kiesler, Preparatory Drawing for Anti-Taboo Figure, 1947, gouache and ink on paper (19-3/4" x 23-5/8"), Kiesler estate.

157. F. Kiesler, Design for Hall of Superstition, 1947, gouache and ink on paper (14-7/8" x 19-3/4"), Kiesler estate.

158. F. Kiesler, Hommage a Tanguy-Trois-Plan-Plan (t), 1947, gouache, wash, brush, pen and ink (14-3/4" x 19-7/8") sheet, Museum of Modern Art, New York, Kay Sage Tanguay bequest.

159. F. Kiesler, Drawing for the Hall of Superstition, 1947, Paris (location unknown).

160. F. Kiesler, Drawing for the Hall of Superstition,1947 (location unknown).

161. F. Kiesler, Drawing for Hall of Superstition (Black Lake feeding source of fear), 1947 (location unknown).

162. F. Kiesler, Exhibition Design. Blood Flames, 1947, Hugo Gallery, New York.

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163. F. Kiesler, Exhibition Design, Blood Flames, 1947, Hugo Gallery, New York.

164. F. Kiesler, Design for exhibition space, Blood Flames, 1947, catalogue cover, the Hugo Gallery, New York.

165. F. Kiesler, Study of stage design for Jean-Paul Sartre, No Exit, ca. 1946, pen and ink, gouache on paper, 8" x 11", the Harvard Theater Collection, Cambridge, Massachusetts.

166. F. Kiesler, Study of Stage Design for No Exit, 1946 (9" x 12").

167. F. Kiesler, study of stage design for No Exit, 1946 (location unknown).

168. F. Kiesler, Study of Stage Set for No Exit, 1946 (location unknown).

169. F. Kiesler, Design of Surrealism Gallery, 1942, Art of This Century Gallery, New York.

170. F. Kiesler, Picture Holding Device and Curved Wall, Surrealism Room, 1942, Art of This Century Gallery, New York.

171. F. Kiesler, Abstract Art Gallery, 1942, Art of This Century Gallery, New York.

172. F. Kiesler, Abstract Art Gallery, 1942, Art of This Century Gallery, New York.

173. F. Kiesler, Abstract Art Gallery with Chair and Display Units, 1942, Art of This Century Gallery, New York.

174. F. Kiesler, Picture Viewing Room, 1942, Art of This Century Gallery, New York.

175. F. Kiesler, peep-hole installation with rotation wheel (with Peggy Guggenheim viewing) for Marcel Duchamp's Valise, 1942, Art of This Century Gallery, New York.

176. F. Kiesler, Demonstration Drawing for Picture Display Method, 1942, illustrated in "New Display Technique," Architectural Forum 78 (February 1943): 52.

177. F. Kiesler, Demonstration Drawing for Picture Display Method, 1942, illustrated in "New Display Technique," The Architectural Forum 78 (February 1943): 52.

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178. F. Kiesler, Multi-Purpose Display Device and Chair, 1942, illustrated in "New Display Techniques," The Architectural Forum 78 (February 1943): 52.

179. F. Kiesler, Conceptual Drawing for Lighting System, Art of This Century Gallery, 1942, Indian ink on paper (8½" x 11"), Kiesler estate.

180. F. Kiesler, Demonstration Drawing for Picture-Viewing Device for the Painting Library, Art of This century Gallery, 1942, illustrated in "New Display Techniques," The Architectural Forum 78 (February 1943): 49.

181. F. Kiesler, An Instrument to Facilitate the Co-Reality of Fact and Vision, and Specifically to Demonstrate the Transformation of Images into Eidetic Vision (an instrument, installation for viewing Andre Greton's poem object "Portrait of the Actor A. B.), 1941, Art of This Century Gallery, New York, illustrated in F. Kiesler, "Design Correlation," VVV, no. 2-3 (March 1943): 2-3.

182. F. Kiesler, Natural and Artificial Means of More and More Permanent Recording of Images, ca. 1937, illustrated in "Design Correlation," The Architectural Record 82, no. 1 (July 1937): 90.

183. F. Kiesler, Drawing for Viewing Device, 1942, pen and ink on paper, ca. 5½" x 8½", Kiesler estate.

184. F. Kiesler, The Correalist tool, multi-purpose display device and chair in four-position turntable cut-out, in VVV, no. 2-3 (March 1943): 77.

185. Matta Echaurren, Project-Maquette for an Apartment, late 1930s, illustrated in Matta Echaurren, "Mathematique Sensible—Architecture du Temps," Minotaure, no. 11, 3rd series (1938): 43.

186. F. Kiesler, Twin-Touch-Test, in VVV, no. 2-3 (March 1943): 444.

187. Marcel Duchamp and Frederick Kiesler, "Twin-Touch-Test, VVV, no. 2-3.

188. F. Kiesler, Poeme Espace Tryptych, collage fold-out, with cut-out flip-up, in View (special Duchamp issue), Series V, no. 1 (March 1945): 26-27.

190. F. Kiesler, Design of Neon (Paris), no. 2 (February 1948) (left); no. 3 (May 1948).

191. F. Kiesler, Show Window Installation for Neon, Gotham Book Mart, New York, 1948.

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192. F. Kiesler, The Moon Eye, 1947, gouache and ink, 10" x 13¾' sheet, the Museum of Modern Art, New York, Kay Say Tanguy bequest.

193. F. Kiesler, Bird's Eye View Plan of the Shrine of the Book, illustrated in "Kiesler by Kiesler," Architectural Forum 123, no. 2 (September 1965): 68.

194. F. Kiesler, The Shrine of the Book, 1965, the Israel Museum, Jerusalem, tile dome and black basalt wall.

195. F. Kiesler, The Shrine of the Book, 1965, the Israel Museum, Jerusalem.

196. F. Kiesler, The Shrine of the Book, 1965, the Israel Museum, Jerusalem, dome with sprinkling/cooling system, 1965.

197. F. Kiesler, The Shrine of the Book, 1965, the Israel Museum, Jerusalem, stairs leading into entrance patio.

198. F. Kiesler, The Shrine of the Book, 1965, the Israel Museum, Jerusalem, entrance.

199. F. Kiesler, The Shrine of the Book, 1965, The Israel Museum, Jerusalem, interior hallway and display area.

200. F. Kiesler, The Shrine of the Book, 1965, the Jewish Museum, Jerusalem, dome, interior.

201. F. Kiesler, The Shrine of the Book, 1965, Israel Museum, Jerusalem, stairs leading to grotto.

202. F. Kiesler, Drawing for the Shrine of the Book, ca. 1964/1965, illustrated in American Institute of Architects Journal 46 (July 1966): 130-131.

203. F. Kiesler, The Shrine of the Book, 1965, section of the dome.

204. F. Kiesler, The Shrine of the Book, 1965, ground plan and section.

205. F. Kiesler, Drawing for the Shrine of the Book, 1962, illustrated in Inside the Endless House, pp. 550-561.

206. Le Corbusier, Notre Dame de Haut, 1955, Ronechamp.

207. Le Corbusier, Notre Dame de Haut, 1955, Donchamp (detail).

208. Le Corbusier, Notre Dame de Haut, 1955, Ronchamp (detail).

209. Le Corbusier, Notre Dame de Haut, 1955, drawing and roof construction.

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210. F. Kiesler, Grotto of Medication for New Harmony, Indiana, 1963/1964, model, bronze (5-3/4" x 32½" x 24"), the Andre Emerich Gallery, New York.

211. F. Kiesler, Grotto for Meditation, 1963/1964, ground plan and elevations, graphite on paper (36-5/8" x 67"), Andre Emerich Gallery.

212. F. Kiesler, Drawing for Grotto of Meditation, ca. 1963, illustrated in "The Grotto of Meditation," Craft Horizons 26 (July/August 1966): 25 (whereabouts unknown).

213. F. Kiesler, Drawing for the Grotto of Meditation, 1963, ballpoint on paper (8½" x 11"), Kiesler estate.

214. F. Kiesler, The Cup of Prometheus, 1956-1959, 1964; (a) The Cup of Prometheus, wood and bronze (120¼" x 48" x 43½"); (b) The Ectoplasm, bronze (18½" x 25" x 21"); (c) Heloise, bronze (60" x 30" x 19½"), Kiesler estate.

215. F. Kiesler, Drawing for Cup of Prometheus, 1963, illustrated in Inside the Endless House, pp. 30-31.

216. F. Kiesler, Pew-Pew, 1963, aluminum, 8½" x 23½" x 18", Joseph Shulman Collection, Hartford, Connecticut.

217. F. Kiesler, The Last Judgement, 1955-59, 1963, bronze aluminum, pewter, lucite and gold leaf (drains in stainless steel), 82" x 36" x 37", H 82" (to top of table), Lannan Foundation, Los Angeles.

218. F. Kiesler, suspended desk, 1930.

119. F. Kiesler, Arose Man, 1964, granite, glass bronze (33" x 24½" x 43½", Kiesler estate.

220. F. Kiesler, Rebirth, 1964, glass, bronze, granite, plexiglass (37½" x 25½" x 49½"), Kiesler estate.

221. F. Kiesler, Birth of a Lake, 1960, 1964, bronze, pewter aluminum; total sulpture, including wood frame with plastic armour, 144" x 57" x 132"; (a) foreground standing sculpture, height 81½"; (b) suspended sculpture, height 28", the Guggenheim Museum, New York.

222. F. Kiesler, Birth of a Lake, preparatory drawing, 1959, ink on paper (13-3/4" x 10-3/8"), the Guggenheim Museum, New York.

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223. F. Kiesler, Birth of a Lake, preparatory drawing, 1963-1964, ink on paper, mounted on cardboard (8-5/8" x 5"), Guggenhiem Museum, New York.

224. F. Kiesler, Birth of a Lake, preparatory drawing, 1959, pencil on paper (11-3/8" x 9-1/8"), Guggenheim Museum, New York.

225. F. Kiesler, Bone III, 1963, wood, bronze, and stone (78" x 15½" x 27¼"), Michael Werner Gallery, Cologne.

226. F. Kiesler, Goya and Kiesler, 1963-1964, bronze, wood, gold leaf, pastel and charcoal on masonite, total sculpture 105" x 66" x 50½", Michael Werner Gallery, Cologne.

227. F. Kiesler, The Prairie, 1961-1964, bronze and aluminum (44" x 29" x 21"), the Guggenheim Museum, New York.

228. F. Kiesler, The Earth's Finger, 1962-1963, bronze (46½" x 34-3/4" x 26), private collection.

229. F. Kiesler, The Marriage of Heaven and Earth, 1961-1962 (cast 1964), bronze and silver plate (6'½" x 63-1/8" x 27"), the Museum of Modern Art, New York.

230. F. Kiesler, Sketch for Three Landscapes; The Sower's Land (later titled the Prairie), the Earth's Finger, Ritual Landscape (later titled the Marriage of Heaven and Earth), ink on paper (13-3/4" x 10-7/16"), the Guggenheim Museum, New York.

231. F. Kiesler, Spring Horse, 1965, bronze, 10½" x 6" x 10", Kiesler estate.

232. F. Kiesler, Springing Horse, 1965, bronze (black glass and plexiglass stand), 10½" x 6" x 10", Kiesler estate.

233. F. Kiesler, Little Bucephalus, 1965, bronze (23" x 14" x 11").

234. F. Kiesler, Bucephalus, 1964/1965, concrete on mesh, 9' high, 9' wide, 27' long, Kiesler estate.

235. Kiesler inside mesh, of Bucephalus.

236. F. Kiesler, The Arch: A Sculpted Rainbow to Walk Through, 1960-1966, bronze and aluminum (118" x 134" x 36"), Kiesler estate.

237. F. Kiesler, Drawing for the Arch, location unknown.

238. F. Kiesler, Schematic Plan for Us-You-Me, ca. 1964, blue paint (35" x 72"), private collection.

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239. F. Kiesler, David (Us-You-Me), 1963-1964, bronze and steel (7" x 8" x 6' x 6'), Kiesler estate.

240. F. Kiesler, Exhausted by Still Driving Forward (Us-You-Me), bronze (30" x 16" x 10"), Kiesler estate.

241. F. Kiesler, The Gong (Us-You-Me), 1963-1964, bronze and aluminum (8'6" high, 9' x 2'), Kiesler estate.

242. F. Kiesler, Man Escaping into Outer Space (Us-You-Me), 1963-1964, nickel, bronze and aluminum (8' high x 5' x 2'6"), Kiesler estate.

243. F. Kiesler, Progress in the Devil (Us-You-Me), Kiesler estate.

244. F. Kiesler, Rushing Business Man with Briefcase (1963-1964, bronze (37" x 22" x 30½"), Kiesler estate.

245. F. Kiesler, Man and Woman Entangled in Business (Us-You-Me), 1963-1964, bronze (27½" x 24" x 47"), Kiesler estate.

246. F. Kiesler, The Wonder of Being Alive (Us-You-Me), 1963-1964, bronze, wood, Kiesler estate.

247. F. Kiesler, Arch as Triumph for Man (Us-You-Me), 1964/1965, bronze aluminum and gold plate, 6'6" high x 8'6" x 3'4", Kiesler estate.

248. F. Kiesler, Regular Success (Us-You-Me), 1963, bronze, 35" x 24½" x 36½", Kiesler estate.

249. F. Kiesler, Triumphant Man (Us-You-Me), 1967, bronze, 22½" x 10¼" x 11", Kiesler estate.

250. F. Kiesler, Savior automobile, help me climb (Us-You-Me), 1965, bronze (27" x 20" x 23½"), Kiesler estate.

251. F. Kiesler, Indian Temple Gong, bronze suspended in carved rosewood frame, length 24:, height 60", the Metropolitan Museum of Art, New York (the Crosby Brown Collection of Musical Instruments).

252. F. Kiesler, Lamb's Head (Us-You-Me), 1963-1964, bronze (8" x 15" x 7½"), Kiesler estate.

253. F. Kiesler, David (detail), Ox's Head, Back Part of Sculpture (Us-You-Me), 1963-1964.

254. F. Kiesler, Us-You-Me (environment), 1963-1964, installation shot.

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CHAPTER I

THE SPACESTAGE

Vienna--Background

The writer, critic, early film maker and theoretician Béla Balász, attempting to present a theory for the modern stage, wrote about the 1924 set design long attributed to Frederick Kiesler for Franz Wedekind's Franziska (figure 1) as follows:

> But the setting of this totality does not display a clear and expressible symbolism . . . it is the abstract and chaotic picture of an anxious hysteria of experienced environment uncomprhensive and uncontrolled . . . . "Finally a stage where Karl Kraus' 'Last Days of Humanity' can be shown adequately."[1]

There is strong appeal in Bela Balasz's association of this constructivist stage and Karl Kraus' vision. Indeed, the set with its curving, ascending stairs echoes Frederick Kiesler's major staging effort earlier that year (1924) at the Theater and Music Festival in Vienna--the Spacestage (Raumbuhne) (figures 2, 3, 4). The three-story spiraling Spacestage (built "off-stage" in the orchestra of a concert hall from which all seats were removed), would have made a closer association with Karl Kraus' Last Days of Humanity, the 700-page monumental tragedy in five acts. Balasz's association provides an insight and indirect intellectual link to Karl Kraus and his apocalyptic fervor, his moral and critical view of society that Kiesler has assimilated and which stayed with Kiesler all his life.

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Kraus, before "the big war," was a major intellectual force, inspiration and friend of Viennese creators such as the philosopher Ludwig Wittgenstein and the architect and polemicist Adolph Loos. There is an indirect connection between Kiesler and Kraus' circle. One of Kiesler's earliest "galactical" portraits (1913), which was lost, was of Leopold Lietzler who was Karl Kraus' secretary.[2] But Kiesler connects more closely through Adolph Loos with whom he worked in 1920 on a slum clearing project that was run by the city and which employed a large number of architects--a group where Loos was the head and chief consultant.[3] The intellectual character of this milieu was excellently portrayed in Allan Janik and Stephen Toulmin's Wittgenstein's Vienna.[4] The authors stressed the moral content underlying the thinking of Wittgenstein, Loos, et al. This moral point of view owes a lot to the thundering and scathing voice of Karl Kraus and his magazine Die Fackel, whose critique of culture and society dominated literary Vienna until World War I and to a lesser extent thereafter when Frederick Kiesler (who moved to Vienna in 1908) was forming his own intellectual identity. The architect Paul Engelmann, to whom we owe a great deal in understanding Wittgenstein's personality, informed us about the connection between Wittgenstein and Loos[5] and drew in the chapter titled "Kraus, Loos and Wittgenstein," the lines of similarity between them. Loos, then, is the connection between these people, their moral values, and Kiesler who mentioned Kraus but the only thing he said about him was that he was the "most feared satirist and critic."[6] He never mentioned Wittgenstein. But it is more than satisfactory since Loos ranked high in

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this group and was an architect. Loos and this circle consisted of people who like Kiesler himself were humanists with a broad range of interests. Wittgenstein, for example, was an architect in the Loosian manner,[7] and Loos himself was as much a writer/polemicist as he was an architect. His article "Ornament and Crime" (1908) is a serious art-historical rival to his reputation as an architect. Kiesler with his diverse activities was a creator of a similar inclination. Finally, it is of little surprise, therefore, that Kiesler translated "Ornament and Crime" into English and gave a lecture under that title at the Brooklyn Museum in 1932.[8]

It ought to be stressed that the Vienna from which Kiesler drew his initial inspiration saw its most heroic years before World War I. This spirit did not die after the War, but it lost some of its sting following the first World War—a catharsis and confirmation of the decline which almost seems to have invited a cruel and bloody end. After the war a socialist government was established in Vienna and the decadent political situation, at last came to an end. Kiesler, however, slightly younger than the main characters of the pre-war period, became most active and creative in the early post-war years and considered the twenties his most creative years.

But Kiesler's creativity did not take place in a vacuum. In an important article, Dieter Bogner, an Austrian, presented interesting information to support his revisionist view about the role and importance of Vienna in the period between the two world wars.[9] He showed that Vienna was still active and vital and played an enthusiastic role as

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a host to a variety of artistic directions. he showed that constructivism and elementarism (De Stijl) were well known. A strong Hungarian intellectual constituency made its contribution toward interest and exposure of constructivism in Vienna. Bela Balasz (quoted earlier) was one, and more important was Lájos Kassák. As early as 1920 Kassák, a writer and theoretician, organized instructive and educational matinees and soires where ideas and information were presented and discussed. One such evening was organized by the avant-garde group MA (which also published a magazine by that name). In it a Russian presented a lecture with slides on Russian art that included works by Rodschenko, Malevitsch, Falk, Altman and Tatlin.

The Hungarian artist Béla Utiz who lived in Vienna and visited Moscow, met Rodschenko and shows in his work the latter's influence which has also transpired to a local circle of students around Franz Cizek. Among other noteworthy events at the time were those organized by the "Freie Bewegung"--the Free Movement--among whom were Erich Heckel and Johanness Itten. For the latter Adolf Loos in 1919 organized an exhibition at the group's exhibition spaces at the Kartner Strasse. It is of course not surprising that Kiesler would talk with ease about the forerunners of his generation of "activists" as they were called (including the influence of Loos) but would make no references to his contemporaries working alongside. His activity, his Spacestage, and Design of the International Exhibition of New Theater technique in 1924, constituted after all according to Bogner a central and unique contribution to constructivism and elementarism, and thus as Bogner argued, represents Vienna's contribution at the time at its best.

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Now consider Vienna the way Kiesler cared to describe it.

In an interview with Thomas Creighton, Kiesler provided his list of characters and landmarks not only verbally but also in visual form. This was a kind of tourist's map of Vienna with numerals identifying the various cultural institutions (figure 5).

The eighteen-point map includes the Institute of Technology (Technische Hochschule) "Vienna's M.I.T." as he labeled it, which Kiesler attended for a year. The Cafe Museum designed by Loos, the State Opera, the Museum of Fine Arts, the Sezession building by Olbrich, the Academy of Fine Arts (which Kiesler also attended), the Museum of the City of Vienna by Wagner, the Concert Haus (the Konzerthaus where Kiesler built his Spacestage in 1924), Cafe Kremser by Hoffmann, the Artist's Lounge, a subway station by Wagner, and more. Kiesler took pride in this cluster of cultural institutions, museums, theaters, schools and great buildings.

In this setting Kiesler lists not only the "extraordinary individuals, but extraordinary groups and most significantly, meeting places." The list of characters includes Karl Kraus, Adolf Loos, the painter Oscar Kokoschka and composers Arnold Schonberg, Alban Berg and Anton Von Webern who gathered in the Cafe Imperial and at the Cafe Museum. Kiesler recalled also the composers Franz Lehar and Oscar Strauss. This cafe was "the Cafe for all of young artists and architects. At the Kremser Hoffmann presided with the professors of the School of Industrial Design" (probably the Vienna "Werkstätte"). Kiesler also recalled intense group meetings at the home of Fritz Lampl with Franz Werfel, Kafka and Albert Ehrenstein.[10] The names of Werfel and Kafka

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are mentioned elsewhere as the Kieslers' neighbors (i.e., Kiesler and his wife Steffi, nee Stefanie Frischer, who he married in 1920) who lived on the same floor.[11] What was important for Kiesler, however, was to stress the intellectual exchanges of groups and individuals as such, and their creative significance--"That is what's missing here--the caves of the artists for the germination of their ideas."[12] Kiesler also spoke about the Hoffmann, Loos, Kafka or Werfel as "groups fighting it out with each other and against each other."[13]

But if Kiesler did not care to detail his intellectual connections in Vienna, he did have a clear art historical notion about his place as an architect in the Viennese tradition. "You see," he told Thomas Creighton, "Wagner was the first generation. Then came Adolf Loos and Joseph Hoffmann. I was the third generation, and now there is a fourth generation continuing."[14]

Still, the towering figure at that time was the elder architect and a cornerstone in modern architectural history Otto Wagner. Speaking to Creighton about Wagner, Kiesler eloquently said: "Wagner really was the wave and crest at the same time. He not only created very much in the manner of Art Nouveau, he also changed over to a new movement, and brought it to a turning point."[15]

In Kiesler's words again:

> Wagner had created the City for the insane outside Vienna, with the famous "golden dome" which is one of the most perfect examples of over ornamented, luxuriously erected architectural buildings in the modern craft manner of that period, but he also had in him, strangely enough, the opposite desire--the feeling for elimination of all ornament.[16]

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Kiesler had a deep respect for Wagner and expressed it, contrary to his usual custom of reserved enthusiasm for almost anybody. He labeled Wagner's famous People's Bank (the Postal Savings Bank, figure 6) "the most modern building of the first decade of the 20th century." Kiesler then went on to describe this building in detail, stressing its generative and innovative power. "He used ship railings, which others used later with great pride as balustrades."[17]

This specific example seems to make a reference to Le Corbusier. (Kiesler, now over seventy, puts Le Corbusier's "ship aesthetics" into historical perspective, or at least his own Viennese perspective, and it sounds as if he were saying that he learned of such ideas from Wagner's work in Vienna and did not have to wait for Le Corbusier.)

Kiesler's admiration for Wagner was not distant. Young Kiesler had sought Wagner's personal advice; "He was, I think, 71 years old when I had the chance of meeting him and asking him for advice."[18]

Since Wagner was born in 1841 (if we rely on Kiesler's estimation of Wagner's age when he met him), it must have been around 1912 when Kiesler—twenty-two years old—sought the master's advice.

Kiesler's description of Wagner's Postal Savings Bank is itself interesting. He emphasized the ingenious use of all materials and a bold freedom in design.

> The most amazing thing about this bank was the main teller hall, done entirely in aluminium; the floor was linoleum and the ceiling was a slightly curved vault in glass. That was done in 1904, and it still stands and holds out against our curtain walls. Most amazing are the units for heating in the big room, small aluminum coils sticking out about three feet from the ground, symbols of artificial heat beautifully sculptured.[19]

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As late as 1961, four years before his death in 1965, Kiesler was viewing his historical place still in the light of the pioneering tradition of modern Viennese architecture and that is cardinal for any understanding of his life's work and his moral contribution.

Active at that time in Vienna was composer Josef Matthias Hauer who may well have been the true inventor of serial (twelve tone) structural atonal music, contrary to the common view which figures Arnold Schonberg, Alban Berg, and Anton Webern at the center of this kind of new music. Kiesler, as we have seen, mentioned the latter but did not mention Hauer. Dieter Bogner, who suggested the importance of Hauer's abstract formalist music, compared it to De Stijl elementalism and constructivism and followed the argument about Hauer by mentioning the philosophers of the "Vienna Circle" with Rodolf Carnap at the center, who subscribed in their logical positivism to a similar formalist view.[20] However it ought to be remembered that the extreme formalism of the "Vienna circle" was challenged by no other than Wittgenstein himself, one of the "circle's" major inspirations, who challenged this narrow formalist view and, in Toulmin and Janik's words:

> insisted on reading the Vienna Circle philosophers the poetry of Tagore, this then was a highly Krausian action with a genuine polemical point. For it amounts to a declaration that philosophical technicalities are, at best a means to an end--namely, the liberation of a man's mind, so he can face the truly profound and significant issues dealt with by writers like Tolstoy and Tagore.[21]

It seems to me that this distinction is important and that Kiesler subscribed to similar ideas aiming at the profound beyond the formalities of style.

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A second look at Wagner is necessary in order to see the extent of his influence and the territory that he covered as a source of inspiration.

Otto Wagner, in the pre-war years, was head of Architecture at the Academy of Fine Arts. He was influential through his architecture and as a teacher. His published ideas were known to all young architects. Die Baukunst Unserer Zeit (The Architecture [literally building art] of Our Time) first published in Vienna in 1894 gives a clear picture of Wagner's ideas. In this book, the stress is on contemporaneity, an idea which was current in nineteenth century French thinking ("Il faut etre de sont temps").[22] Wagner also believed this and carried the idea over into the twentieth century. In his book he stated his idea of contemporaneity as follows:

> One thought is the soul of the entire book namely, the idea that the predominant views about architecture be removed and the realization prevail that the only starting point possible for our artistic creation be Modern Life.[23]

This open-minded and broad view of architecture, stressing the contemporaneity principle above any pre-conceived stylistic or aesthetic notion, is of great importance. It is a principle that Kiesler accepted and developed, looking at the present and into the future. This was published in 1894 against the background of Art Nouveau--a high point in stylistic self-consciousness, and strangely enough a style practiced also by Wagner.

Against this strange inconsistency, Kiesler's observation about the difference between Wagner and Gaudi is elucidating: "The difference

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between Gaudi, for instance, and Wagner is that Gaudi got stuck in Art Nouveau whereas Wagner stepped out of it toward functional architecture."[24]

As to the state of society at large J. M. Hauer, the composer, wrote in a letter about the difficulty of being a contemporary among people who are fifty or a hundred years behind.[25] Wagner stressed continuity in historical development as a dimension of changing architectural needs for new social realities.

> Every new style is gradually evolved from what came earlier through new constructions, new materials, new human tasks and viewpoints which demanded a rebuilding of the existing forms.[26]

Sullivan's famous "form follows function" can be matched with Wagern's

> The functions of the inhabitant should become one with the appearance of the space.[27]

An attitude such as the one expressed in this conception of space, i.e., space as reflecting a unified function or the integrity of space and the inhabitant's functional needs, is not only a design strategy that may be found in Loos' "Raumplan" method, but is also an expression of cultural integrity or culture not capitalized. Kiesler accepted this.

The art-historian Hans Tietze who wrote a contemporary monograph on Wagner, said that Wagner "shifted through the natural dimensions of his personality, the aesthetic question into the realm of the ethical."[28]

Tietze's book, published in 1922, identified the ethical Viennese in Wagner. It is also of little surprise that a comment such as Wagner's

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should come from the contemporary critic and organizer of exhibitions, Hans Tietze. Tietze, in 1923, founded the Society for the Promotion of Modern Art ("Gesellshaft zur fördurung Moderner Kunst") where art was promoted with total oppenness and a sense for the contemporary and without a specific formal or stylistic preference. Culminating in Tietze's activity—and important here is the international exhibition Tietze organized in the Secession, as part of the activities of the "Society." The exhibition took place in the fall of 1924, the year Kiesler organized his International Exhibition of New Theater Technique. An observation by Tietze allows us to touch on yet another matter. Tietze, although regarded by Bogner, incidentally less for his contribution to the discussion of formal issues than for his activity as such, made nonetheless the general and plausible observation concerning the difference between nineteenth and twentieth century architecture. He pointed to the stress on external appearance in nineteenth century architecture and in contrast to the emphasis on interior space in our century. In Vienna, in particular, the interior was of cardinal importance and was the measure and expression of humanistic and ethical modern functionalism.

Wagner's Postal Savings Bank (figure 6) is often reproduced showing the interior which looks more inventive and "modern" than the art nouveau exterior. With Loos a similar point can be made. Loos started his career with interior remodelings of which his Leopold Langer flat (1901) is a prime example as is his beautiful Kartner Bar (1907). Indeed, space as the architect's foremost "stuff" is by definition "interior."

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Kiesler was heir to this tradition; much of his architecture dealt with interiors. Kiesler's Spacestage, his designs for art galleries, all reflect this attitude to space.[29]

Wagner's influence as a teacher was as important, and he practiced what he preached. A study devoted to his school Die Vergessene Wagnerschule helps to sense not only Wagner's emphasis on contemporaneity and his often outright futurism. This is seen in the airport designs he had his students draw during a decade in which aviation was barely getting off the ground.[30]

A more direct influence and working relationship developed between Kiesler and the second genration of Viennese architects. In particular were Josef Hoffmann and Adolf Loos, although these two were quite different in attitude and temperament.

In response to a question about their relationships, Kiesler related to Creighton the "scholastic" situation in Vienna "at the time" he started:

> There was a double trend in Vienna, one group followed the School of Arts and Crafts, led by Hoffmann, and was interested in the revival of handcraft. This was opposed by that free-wheeling spirit and highly individual architect--Adolf Loos. Loos considered ornament superfluous from the social point of view, from a craftman's point of view, from an economic point of view, it was a crime. Loos and Hoffmann were opposed to each other. Loos claimed that Hoffmann tried to educate students to produce a modern Biedermeier, and he was violently opposed to it.[31]

Kiesler worked with both men. He worked under Loos (one of many young architects) on a slum-clearing project in 1920, and it was Hoffmann who as the head of the Austrian Pavillion in the great International

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Exhibition of Fine and Industrial Arts in Paris in 1925 gave Kiesler an opportunity to head the theater section there.

Concerning the slum-clearing project, Kiesler worked for Loos who ran the project.[32] Kiesler's following quotation is perhaps relevant:

> We felt that the whole world was going into a new realm of living together in peace and harmony, now everybody would have what had been promised and society finally would be the fulfillment of utopia.[33]

It was this quote, incidentally, in German translation that Bogner used as the title for his article. Indeed, Utopia—a social conception—was for Kiesler at least was of great importance then and in later years when it remained a ubiquitous presence in his work. As to the housing project specifically, Kiesler described it as follows:

> The idea of mass housing was rolling-on. We wanted to be helpful—doing things for the populace, clamoring for more hygiene, for more sunlight, for fresh air, for children's playgrounds, for housing, in other words, the whole architectural movement at this point was on a social basis, away from aristocracy, away from the bourgeoise and toward the people.[34]

But the work did not lead to much and Loos himself became discouraged and quit the project before it was ever completed. Shortly after that he left Austria altogether and moved to Paris. But the credentials Kiesler has gathered from that period in Vienna carried over to the United States (where Kiesler came in 1926). The "National Public Housing Conference" employed him as a consultant between 1931 and 1932.[35]

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Two Early Set Designs in Berlin: R.U.R. and the Emperor Jones

If Vienna and its pre-World War I moral/intellectual currents were of formative importance for the young Kiesler, the early twenties were the years when Frederick Kiesler came more fully into his own.

One also has to go beyond the boundaries of Vienna and see Kiesler in the broader European context where he properly fits. In his most informative--Art and Politics in the Weimar Period: The New Sobriety 1917-1933, John Willett has defined the circumference of his discussion as follows:

> Virtually all the writers, artists, musicians, and filmmakers involved were born no earlier than 1893; only the architects were on the whole a decade older, no doubt because an architectural training takes so long to complete.[36]

Kiesler, who started his Avant-Garde route as a set designer in Berlin, is included in Willett's book in several contexts and fits into the above quoted formula as an architect; indeed, he was born before 1893. But historical formulas and their potential inaccuracies aside, Kiesler was a part of this generation of artists. He made his first fully significant and recognized works outside Vienna, in Berlin, in set design, not architecture or art: the first done, late in mid-1923 was a set for Karl Čapek's R.U.R. (figures 7 and 8) in the Theater am Kurfürstendamm followed, in early 1924, by a set for Eugene O'Neill's The Emperor Jones (figure 9) in what Kiesler described as "a very poor theater in East Berlin" and which Roger Held has identified as the Theater am Hall'schen-Thor.[37]

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The circumstances leading to Kiesler's work in Berlin have not been established. Kiesler himself provided few facts. He mentioned that "Viertel (who later went to Hollywood) arrived in Vienna, stayed in his studio, and persuaded him to go to Berlin."[38] Indeed Berthold Viertel staged The Emperor Jones, whereas concerning Kiesler's first set, that for R.U.R., the impulse to go to Berlin is not entirely clear.

Held quoted a source according to which a certain Dr. Robert "commended the Viennese painter Frederick Kiesler."[39] Kiesler himself recalled an unexpected telegram from the director of a theater in Berlin inviting him to do the set for R.U.R., and also recalled a fiery discussion with him before 1919, when Kiesler "violently lashed out against the present theater."[40] It is possible, therefore, that this man was Dr. Eugene Robert.

These two productions in Berlin got Kiesler's career in motion by attracting the attention of the international avant-garde artists led by Theo Van Doesburg and friends who sought Kiesler out after the second performance of R.U.R.

To understand the artist's enthusiasm for the set, we ought to describe it and its innovation before going any further.

Roger Held lists the following points as the key historical innovations Kiesler has introduced in this set: (1) use of film, (2) use of a Tanagra apparatus, (3) use of neon lights, (4) use of moving settings.[41]

To that "style" of construction that constitutes the set itself should be added; the bulk of it was a flat construction designed as

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a control-board for a factory--in accordance with the play's content dealing with the modern subject of the mechanization of humans as robots in a factory. The construction on stage aimed at an electro-mechanical appearance. The "external" aspect of the set was far more important than Held realized; after all, Kiesler described the set as "the first attempt to make an electro-mechanical set."[42] He titled the written commentary and description of the R.U.R. set "De les Nature Morte Vivante," i.e., the set as still life set in motion. This combination of new devices, including film, with a construction on stage which reflects and is a machine, expresses reflecting a new machine age aesthetic.

The set was constructed with unusual materials and methods. Tin was used, as well as aluminum plates.

Research reveals only two existing photographs of this set: one frontal shot (figure 7), excluding elements in the room itself such as maps on the walls, boards, an armchair, a big window through which one sees factories—all instructed by the author and which Kiesler has trimmed,[43] and a second diagonal shot. The first illustrates Kiesler's revolutionary electro-mechanical aesthetic; shot from an angle provides a fair feeling for the industrial "texture" Kiesler sought; bolts on metal surfaces, a sysmograph, the iris which opened electro-mechanically for the hind-screening of a fragment from a film and another square shutter for the Tanagra apparatus, as well as electric circuits and stenciled letters. The Tanagra apparatus, invented at the turn of the century, is a configuration of mirrors through which a reduction of

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the silhouette action backstage can be projected. Interestingly enough, Kiesler saw the Tanagra apparatus as a device forecasting television or for that matter, as Roger Held commented correctly, closed circuit television.[44]

Kiesler's own appreciation and description of these two revolutionary devices on stage reads:

> This R.U.R. play was my occasion to use for the first time in a theater a motion picture instead of a painted backdrop, and also television in the sense that I had a big square panel window in the middle of the stage drop which could be opened by remote control. When the director of the human factor in the play pushed a button at his desk, the panel opened and the audience saw two human beings reflected from a mirror arrangement backstage. The actors appeared in this window as a foot-and-a-half tall, casually moving and talking heard through a hidden loud-speaker. It was quite an illusion, because a minute later, you saw the same actors appear on stage in full size. There was, inevitably, a burst of applause at this moment.[45]

There was also a constant motion in the set, simulating the factory's machines, and a seismographic needle which moved occasionally, adding visually to the desired electro-mechanical effect of the set. This seismographic arm was in fact making a mechanical drawing or—literally—an automatic drawing made by a machine, and Kiesler counted it as part of the means through which the still-life set was rendered alive. He also counts among the devices extreme contrasts of color, the exact effect of which is difficult to imagine. Kiesler always stressed that functional/practical solutions create ideas and innovations but are not pursued for their own own sake. His lecture on the R.U.R. production to the Yale School of Architecture (see note 40), presents additional details about the set, particularly the use of neon light; it reads as follows:

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> There was a black background and the whole design of a laboratory which the author described as shelves with bottles, and you know, the normal chemical equipment. From a window, which I designed, one could look out and see a forest of chimneys of factories. On a black background in front of that hanging from the ceiling and from the sides and standing on the floor was a whole abstract design in neon lighting, in different colors, which flashed on and off, while the "inventor" in the play, Conrad Veidt, walked on and off between these strange formations.[46]

Elsewhere in this lecture Kiesler also described how the film was "moving" inside the factory and how the actors on stage simulated walking so as to enhance the illusion of movement as if inside the factory. Also in this lecture Kiesler provided measurements of the iris (the opening for the film) and the "television" (the opening for the tanagra apparatus); the first measured eight feet, the second six by three feet. These devices were all operated by remote control.

As pioneering as the set for R.U.R. was, Kiesler simply said: "I did it not because I was progressive, but I simply didn't do it otherwise. It was a logical thing, in the spirit of the play."[47] Kiesler wanted to suggest that practical solutions create ideas and innovations. The set also forecasts many of Kiesler's future concerns. Kiesler's interest was in light and vision and in the semi-cinematic use of film as moving-scenery—moving pictures. These interests will in later years result in theoretical surveys on "design by light" or photography and the "vision machine."[48] Concerning the opening shutter and iris Kiesler, many yars later, wrote: "The opening of the eye is a mechanism of great interest to the stage designer. It is the curtain of the stage of vision."[49]

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The use of television screens and small screen information was also on Kiesler's future mind and part of his modern-day department store as described in his 1930 book Contemporary Art Applied to the Store and Its Display.[50] Kiesler's 1928 design of a movie theater also stems from similar interests; in fact, he included an illustration of it in his article on "Design by Light" (photography) as an example of how "photography in motion creates new architectural design in motion picture houses."[51] Finally, and this returns us to the set, the "motion picture house" (movie theater) Kiesler planned in 1928 had a round shutter as a circular kind of curtain which revealed the screen within when opened.

The set for R.U.R. was greeted with enthusiasm by Theo Van Doesburg and others who came to see it in Berlin. The passage describing the meeting between the then still-unknown Kiesler and "the avant garde" reads:

> After the second performance, as I walked out through the stage door at night, a man pushed his way in. He was tallish. I remember he had on a black shirt and a white necktie, and a monocle was screwed in his eye; his hands were in elegant chamois gloves--and he had no hat. It was Van Doesberg. He pushed me aside and asked, "Where is Kiesler?" I was rather astounded at this behavior of a stranger and I said He is right here pointing at myself. He said (evidently surprised) "You are Kiesler?" and he made a sign, as you do when you call your gang, you know. The gang came in and the gang was Kurt Schwitters, Hans Richter, Moholy-Nagy, Eli Lissitzky, Werner Graeff and Theo Van Doesburg. They came in, grabbed me without saying a word, lifted me up, and took me 6 or 7 blocks around the corner to a club where we met Mies Van der Rohe and spent the whole night talking about architecture and the future theater (I described "The Endless") and it seemed to each of us as though we were individuals who had known one another for a long, long time. And this is how I joined the group known as "De Stijl" which

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> so ardently continued the job of cleaning up the architecture of the Victorian age which Wagner and Berlage had started.[52]

This description gives an idea as to the way artists of the avant-garde sought each other at that time. The character and spirit of Theo Van Doesburg stands out as a man who played a key international role spreading new ideas, bringing people together. Kiesler, here, also provided anecdotal information about Theo Van Doesburg's "Bohemian" demeanor and Dadaistic spirit. Incidentally, Van Doesburg's surprise when Kiesler identified himself was due to Kiesler's extremely short stature which also partially explains the strange procession that followed, carrying Kiesler a few blocks to a bar where all met Ludwig Mies Van der Rohe. Van Doesburg, who was Dutch, lived in Germany from the middle of 1921, in Weimar (home town of the first Bauhaus). Willet, in Art and Politics in the Weimar Republic, to which earlier reference is made, wrote about Theo Van Doesberg in a chapter entitled "International Constructivism." In it, Theo Van Doesberg's international activities are recounted, his relations to the Bauhaus and the people of his own "constructivist" circle. The list of artists is almost equivalent to the names Kiesler has listed as Van Doesberg's friends with whom Kiesler met after the R.U.R. performance in Berlin. It included Schwitters, Lissitzky, Maholy-Nagy, Graef and Hans Richter. This event and meeting was the beginning of Kiesler's contact with De Stijl and the beginning of his "membership" in the group, the ideals of which Kiesler had supported all along and with which he was already familiar in Vienna. It was a natural fusion. But De Stijl was an open kind

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of group centered around the magazine by that name which was first published in 1917 and came to an end with Van Doesberg's death in 1931. Kiesler first published in De Stijl in the April issue of 1925. Earlier, however, Kiesler's name appears as one of the editors of G magazine (G for "Gestaltung" in German, meaning "forming" or "design"), subtitled "Zeitschrift für elementare Gestaltung" (Journal for Elementary Design). The magazine was published in Berlin and the original editors were Hans Richter, Werner Graeff and Ludwig Mies Van der Rohe. Kiesler joined and his name is added in the June issue (no. 3) of 1924. It seems clear that the contacts made as a result of this visit by Van Doesberg and friends started these interrelations. G magazine also had El Lissitzky as contributing editor and the participants included Tristan Tzara, Kurt Schwitters, Viking Eggeling and Malevitch. However, it was only 1926 when Kiesler published his "city in space" in G;[53] he was to design in Paris in 1925.[54]

Most of the participants in G, the artists who came to see Kiesler, met earlier in May of 1921 in Dusseldorf for the "International Congress of Progressive Artists."

The contact made in 1922 between Kiesler and the progressive artists was also important in preparation for the theater and music festival of Vienna where Kiesler, in 1924, organized the International Exhibition of New Theater Techniques and constructed the Spacestage. Kiesler's interest in film, as seen in his own way of using it on stage, could find a resonance in such pioneers of progressive work in film as Hans Richter and Viking Eggeling.[55]

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Reconsidering the advanced character and innovation of the set for R.U.R., and its early date, the question of primacy has been raised; that is, whether or not Kiesler could claim that it was the set for R.U.R. that first introduced film as part of a set on stage. It was compared to the early work of Sergei Eisenstein's work for the stage. Eisenstein was indeed just about the only designer whose work comes close to using film significantly. Held refers to Eisenstein's Glumov's Diary and the cinematic interlude introduced there. His conclusions read:

> Apparently, while the film was shown no other events were performed, it was offered as an interlude, an occurrence between two other events.[56]

Held's discussion is interesting but one useful text by Eisenstein has eluded him--"The Cinema as an Outgrowth of Theater: Through Theater to Cinema."[57]

The text, as its title promises, provides a broad perspective on this question. First, Eisenstein gives the chronological answer concerning his use of film on stage. According to Eisenstein, Ostrovsky's play, Enough Simplicity in Every Stage at the Preltcult Theater in Moscow, staged in March of 1923, is the first time film was made part of a set design. We learn from Eisenstein that a short film was made especially for the play and that it was "not separate, but included in the montage plan of the spectacle."[58] But Eisenstein's date points to a draw in the matter of primacy since his R.U.R. was also put on stage in Berlin in March of the same year.

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Fortunately what can be extracted from Eisenstein's text goes beyond the "primacy race." It is an attitude toward the stage and film alike, he shared with Kiesler. Both were motivated, in their rather similar and apparently independent innovations, by a concern for a more concrete or "realistic" stage and set. For example, Eisenstein did not consider the very inclusion of some film on stage as the most important phase in a process that led him ultimately to cinema and filmmaking. For him, an earlier stage production, Jack London's story "The Mexican," was the beginning and far more important. Eisenstein's idea was to use a certain climactic boxing prize-fight not backstage unseen, with the actors merely reacting to it, but to literally stage the fight and bring it into view. "Moreover," Eisenstein adds, "I suggested that the scene be staged in the center of the auditorium to re-create the same circumstances under which a real boxing match takes place." Eisenstein also wrote of a "concreteness of factual events" and it seems to me that what motivated him was a rather similar spirit of, say, constructivism as concretion (in contrast to stage-set illusionism) similar to what motivated Kiesler and his vision for R.U.R.

Yet it is noteworthy considering our context that Eisenstein, again for the sake of a strong realistic impact, thought about moving part of the action into the center of the auditorium itself; that is exactly what Kiesler did literally in his Spacestage that was built in Vienna in 1924.

Another matter is an account by Eisenstein of a play by Tretiakov, Gas Masks (1923-1924) for which the director—in Eisenstein's words—

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"had the marvelous idea of producing this play about a gas factory--in a real gas factory"; and Eisenstein continues:

> As we realized later, the real interiors of the factory had nothing to do with our theatrical fiction. At the same time the plastic charm of reality in the factory became so strong that the element of actuality rose with fresh strength--took things into its own hands--and finally had to leave an art where it could not command thereby bringing us to the brink of cinema.[59]

This is relevant because Kiesler used film in R.U.R. to realistically show an interior of a factory within a stage set.

To sum up, Eisenstein and Kiesler alike were motivated by what can be termed a "constructivist," "realist" or "concretist" impulse aiming at a new type of stage design. Kiesler seems to have outdone Eisenstein (at least as a set designer) by fully integrating film and stage set.

But Kiesler and Eisenstein's use of film on stage, Roger Held pointed out that the entire topic of film on stage did not start with either but had its beginnings with the Berlin Dada group which produced Walter Hehning's Simply Classical, a satire which also included a variety of stage devices that amounted to a kind of Dada Collage including film.[60] Even as early as 1911, "crossover" scenes in film were used in Posen, Germany, in a city theater production of One Million by Berr and Guimare.[61]

The second of the early set designs Kiesler made was also in Berlin for Eugene O'Neill's The Emperor Jones in 1924 (figure 8). This second set dealt with motion and constant change, and in its own way was bold, maybe bolder than the set for R.U.R. in that it put the entire stage in motion. This is Kiesler's detailed description of it:

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> The stage was elevated, I left the stage open with no curtain. The stage floor was inclined to an angle of 32 degrees. The ceiling was tilted toward the back of the stage by 20 degrees. The stage represented an extension of the auditorium into a square-shaped funnel. The motive for this type of plastic stage was in the play itself, which is a pursuit of the Emperor by his own people until he escapes them. . . . He runs away, takes refuge in the forest and is haunted by visions of his wrong-doing in this little island. At the end he comes back to his palace room and shoots himself with his last silver bullet. Well, the performance started with this funnel-shaped room I had devised, the floor was painted brilliantly red, the sides were painted black and the ceiling was painted black-green; rear-stage one saw just a little slit of a cyclorama. There the Emperor appeared, and he walked down the incline of the floor, thus space became visible. As he hears the beat of a tom-tom, he tries to escape. He starts to run, and as he moves the transformation of the stage begins. The drum beat gets faster and faster, indicating the passage of time and time merges into space. I carried this inspiration into scenery, designing it kinetically and having it move through the length of the play. The sides of the funnel opened up, and the ceiling opened. From the sides flats moved across the stage, turning, moving continuously back and forth. From the ceiling, semi-transparent materials in various colors were dropped and made to move rhythmically. Usually a hanging drop can be moved in only two directions; I made them revolve. The Emperor's fleeing figure cast fleeting shadows. It was convincing in its dream quality, but more important to me was the translation of the beat of the drums into a continuous flow of light, moving scenery, and color. Only now, so late, is kinetic plasticity being fostered in painting, sculpture, and architecture.[62]

What is striking is the fact that this second set, although designed about a year later, is as original yet different from the set for R.U.R. This hints at a principle in Kiesler's design and thinking; his insistence on an individual and genuine solution for every design problem at hand, beyond the need for stylistic consistency for its own sake.

Indeed, this set invites several "stylistic" associations: Expressionism, Futurism, and Constructivism. The stage was tilted so as to

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allow visibility from everywhere in the audience and the three positions possible for each side resulted in "twelve different space articulations." Kiesler explained this in the ground-plan drawing of the stage that he printed in 1924 along with a full forty-five minute sequence of change was also illustrated in a series of six photographs[63] (figure 9). The variety of textures and materials that Kiesler listed included softwood, plywood, velvet, shirting fabric, silk, and cheesecloth. The materials were colored; the wood was stained.[64] A few other features which the surviving photographs cannot convey are the use of light (including the shadows it created in conjunction with the actor on stage) and the brilliant colors Kiesler liked to use. The key phrase in Kiesler's text puts it all together. "It was convincing in its dream quality, but more important to me was the translation of the beat of the drums in a continuous flow of light, moving scenery and color."[65] Kiesler's enthusiasm for his success was not just of his own fancy. Hans Richter, for example, many years later wrote about it with similar enthusiasm and delight.

> There were simple linen flats dropped from above without any painting, but placed criss cross, through which the erring man walked like in a deep forest losing his way. Here and there a spotlight hit the "walls," the person, the path. From nothing an eerie world was created. For me this belongs to the most perfect that Kiesler has created, a masterpiece in its simplicity.[66]

Richter's passage speaks for itself. His comment about Kiesler's simplicity of means with maximum results was and remained to the end one of Kiesler's most admirable talents. Kiesler's lengthy description with all its firsthand information ends up, however, with a somewhat

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surprising paragraph which is very important in tying the set for The Emperor Jones with its major future endeavor and reads:

> This experience led me from the static aspect of a room to opening it up into multiple mobility of all its parts. It was a constant change, this brought to my consciousness the meaning of continuous tension. Returning to Vienna, I went ahead further to crystalize The Endless.[67]

The Endless is Kiesler's design of a flattened sphere built in a tensionist architecture shell which was the essence of his Endless Theater and Endless House, and the model of his central construction principle, continuous tension. The set for The Emperor Jones was a step in the development of the Endless which translated motion to spherical space.

Looking at the six existing photographs of the set (figure 9), illustrating six stages of the same moving set, one can hardly see how this led to the concept of continuous tension. But the tilted, funnel effect and the realization of a transforming space by means of continuous change of the stage's architecture, seemed to have triggered the act of creation leading to the idea of continuous tension and dynamic space. In terms of the creative process which Kiesler often recorded, we have to acknowledge the creative leap which Kiesler's last paragraph on the subject demonstrates. One line of thinking leads to another, yet it is not an obvious connection but rather one that requires an act of creation, making a new connection, drawing an unexpected conclusion.

The Spacestage, the International Exhibition of New Theater Techniques and Its Public Reception

The two early theater productions in Berlin can be said to have paved the way for Kiesler's multi-faceted involvement in the Music and

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Theater Festival--this time in Vienna in 1924. Here Kiesler brought to bear his developing ideas about the theater, design and architecture. Thus, 1924 culminates the sequence of three years (1922, 1923, 1924) which Kiesler, as late as 1961, regarded as the most fruitful years of his life.[68]

As a main pragmatic project, Kiesler constructed for the festival what he called or coined as "Raumbühne," translated as "Spacestage." This unusual three-story, spiral "stage" was built off stage in the midst of Vienna's Konzerthaus—in the orchestra—from which Kiesler has removed all the seats (figure 2).

Adjacent was the large exhibition of "New Theater techniques," part of the music and theater festival of Vienna. Kiesler was its artistic directed and organized and invented a modern revolutionary exhibition method. He edited the catalogue which he also designed and which had contributions by a large number of avant-garde artists. Kiesler wrote a short opening statement:

Under the title of "Abrüstung der Kunst" (The Disarmament of Art) it reads:

> Die schöpferische Jugend bleibt in Projekten stecken,
> befriedigt sich mit Plänen, Mansardenillusionen. Das Publikum
> will Realitaten. Il faut quitter les mansardes sacerdotles!
> Genug der Projekte. Wir brauchen Wirklichkeiten.
> Il faut descendre des piédestaux futuristes, expressionistes, cubistes, constructivistes, mystiques, naturalistes, abstractes, etc.
> L'art a démobilisé.
> Que faire?
>
> Vivre.
>
> Kiesler

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(The creative youth gets stuck in projects, content with plans, attic-illusions. The public wants realities. It is necessary to stop the priestly garrets. Enough projects. We need realities.

It is necessary to get off the pedestals of futurism, expressionism, cubism, constructivism, mysticism, naturalism, abstraction, etc. Art has demobilized.

What to do? LIVE

Kiesler)

The statement, in German and French combined, is an international voice, a call and a challenge to the young creators, stuck in plans and projects and dominated by "isms" of art. The statement is also characteristic of his attitude to style.

Then, as a young architect, Kiesler said he had exhibited his plans for the Endless--"designed in 1923 as a space theater, a double-shelled structure for 10,000 people. Open platform elevators were connected by bridges—a continuous intertwining of vast ramps used as stages, along with central arena stage and two proscenium stages"[69] (figure 30).

But the Endless was, at that time, and still remains only a plan, and it is not clear if the plans for the universal were exhibited; the catalogue does not mention any. What was built, however, was the Spacestage—stage architecture.

The total avant-garde spirit of the theater section of the festival is apparent with opening night and its artistic events on September 15, 1924. On Kiesler's Spacestage was a world premiere of Arnold Schonberg's "a capella" chorus, "Friede auf Erden" (Peace on Earth), a world premiere of Fernand Léger's film Ballet Mechanique (with Dudley Murphy and with music by George Antheil), a lecture by Leger, and a

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reflected light game by Ludwig Hirschfeld Mack from the Bauhaus at Weimar.[70] The program presents an idea of Kiesler's scope and wide range of artistic and personal connections. Symbolically, Schonberg can be regarded as a "representative" of Vienna and the Milieu emphasized in the beginning of this chapter. Schonberg was a great admirer and friend of the architect Adolf Loos.[71] Fernand Leger can no doubt at this point be regarded as a "representative" of Paris or the broader more political and technological interpretation of Cubism in 1924, and including Film. Last, the Bauhaus, the school of Modernism was "represented" by an abstract light game by Ludwig Hirschfeld-Mack. All of this was on a stage which probably has as its closest kin the Russian Constructivists stage. Kiesler reached in all directions, bringing together onto the Spacestage a variety of avant-garde voices in various arts and media, and of a distinctly international character.

The Spacestage (figures 2, 3, 4) was the most talked about--and provocative project of the festival, if one is to judge by the extensive coverage it received by the press--the dominant mass medium at that time.

It was an open construction of wood and iron of an ascending (or descending) ramp, a spiral, which at the height of the second story, or level, closed on itself to create a circle or ring. It was topped above by a third level which was a round stage. The connection between the "ring," the round stage on top and the ascending bottom ramp was through ladders. There also was an elevator which, in Held's words, "rose through the central supporting framework and could be stopped

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at the ring level and raised to the upper circular stage."[72] The visual association it evoked in the public's mind ranged from the Tower of Babel[73] (in its northern tradition rendering it as an ascending spiral) to a carousel or just to a useless monster machine.[74] Some of the writers/critics' descriptions were, no doubt, influenced by Kiesler's own essay in the catalogue about "the railway theater."[75] The word "railway" which was also used in the original German text was the term that was used at the time to describe the rollercoaster found in Luna Parks in all major cities. It became a symbol of modernity in its construction, as well as an expression of movement and mechanized speed with which Kiesler wanted to infuse the static old fashioned stage. Helpful in visualizing the Spacestage and its relation to the audience are some caricatures of the stage, usually drawn from the audiences' seats on the balconies. These drawings enhance the unaccustomed experience of seeing action going on all around, in three directions, and the experience of being seated over the stage looking almost down at this ascending construction "off stage" as a free-floating stage. From the balconies it was easier to "see" what Kiesler was aiming at when he wrote:

> It [the Spacestage] uses the floor merely as support for its open construction.[76]

These caricatures also demonstrate that everything was seen from everywhere; the seats in the Konzerthaus' orchestra have been removed to allow for the Spacestage's construction instead. The Konzerthaus' legitimate stage was not seen or used at all, and the curtains were dropped. Thus, Kiesler has unequivocally realized one of his stage

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and theater design principles, expressed in his article "Debacle des Theaters" (die gesetze der G. K. Bühne) which he published in the new exhibition catalogue--that the stage should be visible equally well from everywhere.[77]

Held quoted the size of the Spacestage as four meters high and based on the various figures quoted by the press, concluded that seven meters was the size of the top round stage.[78] Color also played a role. Three colors were used: red for the iron; the wood was painted black, the ropes along the ramps were gray.

From the few existing photographs of the Spacestage the unusual stage and its architecture was reconstructed in Vienna, discovering that the ascending ramp was slightly tilted toward the center.[79]

The most obvious source of inspiration for any ascending spiral built in the twenties was Tatlin's monument for the third international 1920 (figure 11) which must have also inspired the Endless. It soon became an international symbol for a totally new spirit in design and art, a new machine "aesthetics," functional, practical and bold, bearing a revolutionary content (function). As early as 1920 the Berlin Dada artists, who were possibly the most extreme and most political of the different Dada factions, declared in a printed poster, which was part of their subversive international Dada fair that year: "Die Kunst ist tot es lebe die neue Maschinenkunst Tatlins" (Art is dead, long live the new machine art of Tatlin). So while they were killing Art in Berlin, others were inspired by Tatlin's alternative, his positive message. Berlin was the gateway to Western Europe for the new spirit of

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constructivism in Russia. In 1922, Kiesler was in Berlin for a while. The first Russian exhibition of modern art was held in Galerie Van Diemen.[80] El Lissitzky designed the constructivist section of the exhibition, spreading Tatlin's word. Between 1921-1922 Lissitzky also designed a famous image--(photomontage, gouache and pencil) titled "Tatlin Working on the Monument for the Third International" (figure 12). That Kiesler saw the show at the Gallery which opened in October, is doubtful since it is known that he only came to Berlin later in December. Kiesler also never mentioned it. But since he met Lissitzky the free flow of information can be assumed.[81] There is little doubt, however, that Kiesler knew Tatlin's work at the time, and by 1924 was also aware of "the new Russian Stage." An article by that title is included in his catalogue for the exhibition of new theater technique. The stage designs of Vesnin Popova, et al., provided the actual examples for functional constructions on stage; the simple techniques and materials iron and wood, basic colors and open bare constructions, becoming the stuff of the design itself. But Tatlin's spiral and the Russian stage design can be said to have found a new synthesis in Kiesler's Spacestage unifying set and stage. Furthermore, in his statement "Das Railway Theater" in the catalogue for the exhibition, one also reads:

> The poet of our time is an engineer of the highest mathematical precision of calculated optophonetical symphony-play.[82]

The metaphor of the artist/poet as engineer is no doubt in debt to the constructivist spirit seen also in Lissitzsky's aforementioned "Tatlin Working on the Monument for the Third International" where the

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artist is represented as a scientist/engineer employing mathematical formulas.

> Tatlin used to say that a modern factory at work is the culminating manifestation of our times, surpassing the opera or ballet, that or book by Albert Einstein is certainly more enthralling than any of Dostoevski's novels.[83]

The Russian inspiration and influence, however, cannot be taken without a reservation. In the article "Debacle des Theaters" quoted earlier, Kiesler explained the space stage and its underlying philosophy. In it Kiesler mentioned Tairoff and Meyerhold (which is his only direct reference to the Russians) and confirms that he was aware of Russian theater. However, both Tairoff and Meyerhold are practically rejected and the young Kiesler expresses his own ambitious ideas leading to a conception far more radical.

Kiesler termed Tairoff's stage "painterly" (malerisch) and Meyerhold's stage "sculptural" (plastisch) which is a fair description. Kiesler called for an equation of the actor and the text to the artist and nature. Such a conception, wrote Kiesler:

> Would be so strong that the entire useless jumble of modern old-fashioned picture postcard romanticism in sets and costumes--still preserved even in the pictorial scenery of Tairoff and the plastic scenery of Meyerhold--would be superfluous in order to shape space and derive from its own laws an enlivened composition.[84]

The Spacestage was built in order to liberate actor and stage and drew its laws from the very nature of space itself, which was viewed as dynamic.

This way of thinking, incidentally, got Kiesler the nickname of "Doctor Raumlich"--"sort of Professor Emeritus of space"[85] as Kiesler later translated it.

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One other striking parallel to Kiesler's Spacestage and the Endless has to be quoted. Laslo Moholy-Nagy, who was among the artists in Berlin, who came to see R.U.R., designed in 1922 a "kinetic constructive system" intended, as it were, "for general recreation." It was a round structure with spiraling ramps and elevator, and is also in debt to Tatlin's monument (figure 13).

The "kinetic construction system" illustrated ideas which Moholy-Nagy, in collaboration with Alfred Kemeny, published in Der Sturm (no. 12/1922) and it is entirely possible that Kiesler saw it. Kiesler, however, two years later realized his version of these related ideas--in accordance with his manifesto--as stage architecture (the Spacestage) which as stage design was revolutionary. Moholy-Nagy's 1936 set for Things to Come, a film by Alexander Korda based on a science fiction story by H. G. Wells, is a compromise (decorative) realization of a structure like the Endless, but can nevertheless help to visualize something of Kiesler's original idea.[86]

The attention The Festival of Music and Theater received in the press was considerable. There was a preview of the stage and exhibition for the press, Kiesler designed a poster that was printed and even a film was planned, though not realized.

The early reports of the event in the press were somewhat overshadowed by a scandal at the opening night due to a provocative announcement by Jacob Levy-Moreno who stood up and from the audience loudly said, "I hereby declare openly that Kiesler is a plagerist and scoundrel."[87] Jacob Levy Moreno was then taken out by the police and order was restored.

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This provocation resulted in the publication of an open letter of support for Kiesler by the avant garde artists/participants in the festival: architects, actors and supporting critics. The list included Josef Hoffman, Hans Fritz (architect), Fernand Leger, Enrico Prampolini, Karlheinz Martin (journalist, critic), Viktor Blum (free union of actors) and Oskar Maurus Fontana (theater critic).[88]

Who was Dr. Jacob Levy-Moreno and what was the basis for his accusation? First, although this man had his own ideas about the theater, he was not a designer, an artist or an architect. In 1924, he published a book titled Das Stegreiftheater[89] which, as the word suggests, was a theater of improvisation, or as he later translated it into English (1947), Theater of Spontaneity. The social and psychological was the basis of Levy-Moreno's conception of theater and he collaborated with the architect Rudolf Honigsfeld in devising a design for a concentric theater-in-the-round, the model of which Kiesler himself considered worthy of including in the exhibition, and reproduced it in the catalogue of the New Theater Technique exhibition (figure 15), where he also printed an excerpt from a letter from Levy-Moreno[90] in which he expressed the need for a non-mechanistic form of theater, a theater that will be productive as a result of its connection to psychoanalysis and consciousness, namely his Stegreiftheater. It is also true that Jacob Levy-Moreno lectured on his ideas at the time, ideas which thus were known in Vienna.

A writer for the Arbeiter Zeitung, for example, writing under the title "Das Volkshaus der Kunst,"[91] wrote about the Spacestage as

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theater-in-the-round, said it was a familiar conception and quoted among others Levy-Moreno's ideas. The theater designed for Levy-Moreno by Honigsfeld was a central round stage with a few surrounding steps leading up to it, and completely outside the constructivist orbit.

The theatrical conception of Levy-Moreno was practiced from 1922 when a theater of spontaneity was opened.[92] According to the reporter of the Neue Züricher Zeitung, who titled his article "Wiener Stegreif-theatr und Raumbühne," the Stegreiftheater was a kind of living journal and a place where feuilletons were performed, scenes from the courts, sports items and living advertisement--a theater of reality. He mentioned "Stegreifreporters" who sometimes presented news items spontaneously before they were ever printed. He also mentioned a lively contact with the audience which brought about the need to build a special theater.[93]

All in all, Kiesler who has acknowledged Levy-Moreno's contribution by including him in the catalogue had no reason to anticipate anything like the scandal Levy-Moreno caused groundlessly and probably unfairly.

Thus the open letter of support for Kiesler was justified in rejecting, Levy-Moreno's provocation. The signees were stating as artists and professionals that only laymen strange to the theater could claim the absurdity that the exhibited model of the "Stregreiftheater" and Kiesler's Spacestage have anything in common.

Kiesler sued for slander and the trial took place in January 1925. Kiesler's lawyer, Dr. Pressburger, quoted the critic Hans Liebstoeckl who was invited to court as an expert and who said that the similarity

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between Kiesler's Spacestage and Levy-Moreno's theater of spontaneity is no closer than a radio and a crocodile. This metaphor was promptly caricatured in the press showing Kiesler and Moreno-Levy, each holding his own, one a radio, the other a crocodile.[94] Kiesler claimed to have won the trial.[95]

As side information, one can learn from the press something about the intellectual climate in Vienna. Concerning the Jewish origin of both disputants, the position and counter-position of Kiesler and Levy-Moreno were described by a journalist/critic as a "Machlokte"—a Yiddish usage of a Hebrew word meaning a "rift" such as in a Talmudic discussion. These "Yiddishisms" express a mild anti-semitic attitude hiding behind this form of journalistic charm and humor. The same journalist, Hans Liebstoeckl, went on writing thus:

> Mr. Moreno-Levy wants to achieve a synagogue-like non-building where the public itself is making theater; whereas Mr. Kiesler arranged round slices one above the other connecting them with transportation facilities giving the actor the possibility of riding into it with a motorcycle and taking off from the top by plane.

Liebstoeckl summed the dispute up with the help of another "Yiddish" word saying that Moreno-Levy, so to speak, tells Kiesler: "I was 'Meschugge' (crazy, in Yiddish) earlier than you, and you just imitate me."[96]

But this "Jewish" aspect of social and cultural life in Vienna of the twenties did not set the tone and is, within our account, a comic relief at best.

The artists' letter of support opens with a generous acknowledgment by the signing artists, of the management of the theater and music

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festival--which one should identify as part of the new social democratic regime in Vienna--for its courage in realizing the exhibition of new theater techniques and Kiesler's own Spacestage. Indeed, the festival was government sponsored and its avant-garde activities were perceived as a collaboration of the new socialist government and artistic progress. This is clearly expressed in an article by a certain Anton Kuh, for example, who was writing for the Praeger Tageblatt and opened his review as follows:

> The social-democratic party of Vienna, to which we owe a reasonable school system, extensive street lighting, the installment of parks and public baths and a mild theater-censorship, set also a several-week long "theater and music week."[97]

These words of acknowledgment, opening an article on the festival, indicate that the festival, sponsored by the social-democratic government, was perceived as a cultural indicator of this government's attitude toward the arts, or for that matter, advanced art. We ought to recall that in Russia at that time, the collaboration of the government with the advanced arts was successfully realized. Indeed, Russia was a world model for such cooperation.

Kiesler, who on the whole, cannot be said to have had a Marxist orientation was nonetheless no stranger to the new spirit advanced by the social-democratic government in Vienna. For him, however, it expressed a humanistic hope, a common hope among artists in the post-war period--for a more enlightened world.[98] It was this spirit which was invested in and expected from the social-democratic government in Vienna.[99]

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However, bourgeois philistism did not vanish and there was enough in the press to demonstrate it. This ranged from criticism complaining about the costs of the Spacestage (between 500,000,000 to 800,000,000 kronen) through negative bickering against the avant-garde to criticism of the socialist government.

Thus, the critic of Die Stunde, for example, described the Spacestage as an idea originating in the Cafe Central;[100] Kiesler, one may recall, had counted among its regulars--Lenin (in earlier years), Adler, the disciple of Freud, and Robert Musil,[101] that is to say, a place of radical talk and at a costly price.[102]

Harsher yet than the Die Stunde critic's criticism of the Spacestage as a reflection of the new socialist government, is an article in Neues Wienner Journal entitled sarcastically "Genossen unter sich" (comrades among themselves).[103] The subtitle goes even beyond the suggestive title and simply reads, "das Riesen fiasko des socialistischen musik und theater festes in Wien" ("the gigantic fiasco of the socialist Music and Tehater festival in Vienna"). This does not leave any room for doubt that the festival was indeed regarded as a social-democratic enterprise in the spirit of progress, and that not everybody in Vienna was enthusiastic.

In the Neue Zeitung there is a similar expression of discontent with Kiesler's Spacestage; the social democratic aspect of it is not stressed but it is called a fiasco all the same and the article's words radiate a conservative disdain:

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> All the attackers have made, what they call the peep-show stage, the subject of their all out war instead, they want to install the Spacestage, Kiesler's Spacestage that was built in four days.[104]

Beyond outright rejection, critical attempts were made to come to terms with the new Spacestage. On September 6, 1924 the liberal Neue Freie Presse titled its article on the "Raumbühne," "Die illusionlose Buhne" (the illusionless stage).[105] This was an accurate perception of at least one of Kiesler's basic ideas leading to the construction of his Spacestage. He wanted to replace what he called the peep-show-stage with a Spacestage. In his own article for the Berliner Börsen-Courier about the Spacestage, Kiesler stated boldly:

> For us, the illusion-theater has ended. The courage for this realization is not found. There is a bit of decoration, talk, presentation, the time for the open play is ripe.[106]

The reporter for the Observer of London wrote an impartial description of the Spacestage.

> There is no curtain, no scenery, but merely a scaffolding of beams, to which the actors mount on steps. Everything goes on before the eyes of the spectator, but a reflector throws light only on the scene played. As the Raumbuhne consists of several floors, there are many new opportunities of expression for author and stage manager.[107]

This English description impartially conveys the extremity of Kiesler's Spacestage, his attempt to unify stage architecture and a set. Since the Spacestage offered new opportunities for author and stage manager alike, the impulse to criticize the Spacestage as unsuitable for the traditional repertoire, although understandable, was irrelevant. The writer for the Volkzeitung however raised the question and even a caricature showing Hamlet on the Spacestage illustrated the

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review.[108] The review in Neues Wiener Journal[109] raised similar reservations concerning the effectiveness of the Spacestage for any kind of play as did the critic Anton Kuh who criticized the Spacestage for dictating and dominating the action on it and not for the better.[110]

The only play Kiesler was to be involved with on the spacestage was Der Neue Methusalem by Ivan Goll and this did not materialize due to a dispute over production rights. In a report about this problem in the Berliner Boersen Courier [111] it was also reported that Kiesler objected to most of the production realized on the Spacestage which, according to this source, were staged contrary to his wishes. Kiesler saw in the Spacestage an entirely different conception of theater which could not tolerate the kind of theatrical compromises and plays it was made to accept.[112]

More specific reservations concerning the Spacestage can be found in a review which reads:

> The Spacestage on the whole, but in particular Kiesler's stiff model as a kind of motionless machine, has proven little in its favor by this attempt. The unchangeability of its dimensions, the unchangeability of its three of four viewing angles, the undoubtful illusion--breaking or confusing iron-polls, which through lighting of the lowest part still do not promise the manifoldedness of this extreme stage construction. Mass scenes may ignore more easily the unfortunate in this technical construction. The sounds and squeaks of the wood under the actors steps could not be turned off. These non-sounds of the heavily built do not belong naturally to the most desired effects which strengthen the realistic impression. If, then, Kiesler would let audience sit all around his "Railway" stage in the Konzerthaus auditorium, the public will not be able to avoid a certain sense of dizziness.[113]

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As negative criticism goes it tends to discount everything innovative seeing in it only the down side. Yet we ought to respect this view as someone's authentic impression.

Some Viennese critics resorted to the humorous like this invented conversation between two critics who made fun of the curtainless Spacestage looonically:

Critic A: "Are you leaving already, my colleague?"

Critic B: "Well, I cannot wait for the curtain to fall. . . ."[114]

Be that as it may, one has to acknowledge a bit of truth in an exclamation by an angry critic who said:

> One thing is clear, this kind of theater turns the theater up-side down. It is a nasty revolution resulting from misfortune and "chutzpah" in Caffe-conversations and a joke against actor and public alike.[115]

If we are to disregard a sheer negative motivation on Kiesler's part as suggested here the observation is not far off. It appears that Kiesler wanted to turn things upside down. His description of Tairoff and Meyerhold as mild in their break with the traditional conception of the stage may suggest that Kiesler's more extreme attitude sought a deliberate provocation—in the Dada spirit of avant-gardism.[116]

A common misunderstanding concerning the Spacestage was the tendency among some critics to discuss it as a form of theater-in-the-round, which, however understandable, is incorrect.[117]

Kiesler who no doubt foresaw the problem stated unequivocally:

> The central stratification of a scene which is of ancient origin does not have anything to do with the modern problem of the Spacestage. A central stage or a theater-in-the-round is not a Spacestage or a theater of the times.[118]

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The distinction between the theater-in-the-round, which goes back to antiquity and the Greek amphitheater, can be further clarified by another of Kiesler's statements which declares:

> The playground determines, with regard to the architectonics and acting, the impulses for the building foundation of our theaters. The theater of our time is the theater of speed. Therefore, its construction form and the action in motion is poli-dimensional, that is, spherical. The individual actor vanishes completely into a supernatural typology.[119]

It is in this sense that Kiesler both relates to Max Reinhardt's theater and tries to go beyond it at the same time, observed by the writer for Die Stunde who wrote about the Spacestage:

> It can process the outcome of Reinhardt's theater, but prefers, already, to go beyond it, and hint at an entirely new form of theater.[120]

The theater of Max Reinhardt aimed at mass participation, a fusion of viewers and actors. The architect Hans Poelzig adapted the Grosses Schauspielhaus in Berlin for 5,000 spectators, and it opened in 1919. This, no doubt, was somewhere in the background of Kiesler's mind. This social democratic dimension was clearly expressed appropriately by the writer for the Volkszeitung, and the paragraph seems to have won Kiesler's approval since he marked this part in the clipping, and it reads:

> The war against today's peep-show-stage is, incidentally, fought all over the world by young artists for artistic reasons as well as social ones. How are the theaters built today? In the orchestra the comfortable armchairs, around it the spacious boxes above it, high up all the way to the roof in tight spacings the galleries with their narrow rows of seats into which the people are crowded. The stratification of the theater is the social impression (picture) of society which the "young" want to overturn.[121]

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In his article titled "Erneuerung des theaters" (The Renewal of the Theater) published in De Stijl Kiesler expressed quite similar ideas.

> If one considers that most of the models for our theaters stem more or less from the times of Monarchies, one understands their building conception, the stage should be effective mostly for the orchestra and some prominent boxes, all other seats of the theater have to contend with costly seats instead of seats where one can see and hear well.[122]

And he continues as follows:

> Even the first practical requirement of a theater of today, our theaters prove insufficient, namely the demand that every action on stage be seen equally well from all seats in the audience.[123]

The Arbeiterzeitung also pointed to the connection between the revolutionary nature of the Spacestage and social change concerning the role of individualism in society saying:

> The revolutionaries of art among whom the Russians are not accidentally the strongest, have had enough of individualism, they do not want any more within the new social order, the tragedy of the individual (hero) but the drama of the masses.[124]

The writer goes on to suggest that the socialist or social content expressed by the avant-garde is not unreasonable; on the contrary, it may be too rationalistic for its own artistic good.

But with all these realizations and support for the Spacestage as a new social, architectural and theatrical notion, Oskar Maurus Fontana, one of the critics who signed the open letter in support of Kiesler against Levy-Moreno, wrote that the Spacestage has a future but does not have a "gestalt" yet and its mutation has not completed its development.[125]

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Béla Balász, who lectured from the Spacestage and who wrote about it, saw its future as inevitable, expressing the world view or philosophy of the modern intellectuals, and one which in spite of its debt to the Russian theater, does not have anything to do with a Marxist view of a world revolution. It does express, however, a "totalitatsbewusstsein(s)," i.e., a total consciousness,[126] and in that Balász offered as good an insight any critic has provided for the Spacestage and Kiesler's ambition at the time.

Kiesler and Léger

As an addendum to this account on the "music and theater festival" I want to concentrate briefly on the interrelations between Frederick Kiesler and Fernand Leger. Leger was one of the early cubists in Paris in the pre-war years, roughly a decade earlier than 1924. He came to Vienna as a participant in Kiesler's exhibition of new theater technique—as an experimental filmmaker whom Kiesler gave the opportunity to show his recent Ballet Mechanique for the first time anywhere.

Strangely enough, the reviews of the opening night event (in which Leger lectured standing on the Spacestage[127] and his film was shown), hardly mentioned this experimental and ground-breaking film. The lecture was described and "covered," but I found no direct impressions of the film itself.[128] The screening was arranged not on the Spacestage, which obviously was least suitable for showing films, but on a "white sheet spanning the existing proscenium to be used for projections."[129] The reporter for the Neues Wiener Journal did, however, report the content

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of Léger's lecture, in which the artist talked about such ideas as the necessity of learning to see art as life, i.e., in the store front, the movies, or the circus. He also reportedly stressed the importance of color comparing its cardinal role in art to natural phenomena such as fire, water or light (red, blue, yellow?). In the exhibition catalogue—which will be discussed later, separately, Leger published "Das Schauspiel" (The Spectacle) subtitled "Licht Farbe, Film" (Light, Color, Film). The article is apparently closely related to the content of the lecture Leger delivered.[130] Also in the catalogue is a brief exposition of Ballet Mechanique.[131]

Standish D. Lawder, who wrote The Cubist Cinema, devoted considerable space to Leger's Ballet Mechanique. He thus discussed Kiesler and the Festival where the film had its premiere. He referred to the Vienna screening most, but could not furnish hard evidence considering its exact circumstances. Lawder quotes a French film critic--George Chareusol who, in 1925, complained that Ballet Mechanique, "which was a great success at the theater exhibition in Vienna last year," has not been shown at home yet.[132] Lawder also relied on eye witnesses who recalled the screening in Vienna.

But inasmuch as one might have any doubts concerning Kiesler, Leger and Ballet Mechanique in Vienna, a recent development definitely helped remove it. I refer to the surfacing of a unique copy of the film found in Kiesler's estate. It so happened that Lawder's book had something to do with it. The book was published in 1975 and was read by Katsuhiro Yamaguchi, who was working on Kiesler. He called Mrs.

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Lillian Kiesler's attention to Lawder's book and its passages on Kiesler, Leger, and Ballet Mechanique. Mrs. Kiesler, the artist's widow, had an incentive to look for anything related to the subject and came up with an early, possibly the earliest (working) copy of Ballet Mechanique which was brought by Kiesler to this country; she also found a short "commercial" by Walter Ruttmann, a pioneer of commercial film-making, called Excelsior Reifen (Excelsior tires).[133]

Kiesler's possession of a copy of Ballet Mechanique, as well as the film by Ruttmann and, as it were, films by Viking Eggeling and Hans Richter,[134] definitely demonstrate once again that film, in 1924, was for Kiesler part and parcel of "new theater techniques" and he included films in this event as a matter of course just as he included film in his own stage set for R.U.R. The copy of Ballet Mechanique could have been a present or an expression of gratitude by Leger for Kiesler whom he deeply respected not only as the man who gave him that first opportunity to show Ballet Mechanique but as an artist who shared his views. According to Lawder, the connection between Kiesler and Leger started earlier than 1924; the magazine Querschnitt published Kiesler's sets for R.U.R. in 1923[135] and Lawder's reasonable assumption is that Leger was familiar with it, since he knew the magazine and published in it his important article "L'esthetique de la Machine." According to Lawder, Léger's sets for Marcel L'Herbier's (1923) film L'inhumaine--a film related to R.U.R. in its science-fiction content and set requirements, was in fact inspired by Kiesler's electro-mechanical set for R.U.R. Lawder even goes further and contends that Fritz Lang's (1927) Metropolis

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was in turn influenced by Léger sets for L'inhumaine,[136] and a continuation of the same science fiction aesthetics, or the aesthetics of the machine, a subject in which Kiesler's sets for R.U.R. fare, as one of the earliest and foremost examples, at least in stage design.

The subject of machine aesthetics is not new and already existed on the margin of cubism (with Marcel Duchamp and his brother Raymond Duchamp-Villon), and was essential to Futurism, constructivism and Dadaism.[137] Léger himself always had a genuine interest in the aesthetics of the machine which, as we have mentioned, was the title of his article in Querschnitt. Kiesler's set was indeed most uncompromising in its exploration of this "aesthetic" and was advanced in its departure even from the machine and the mechanical, moving toward electronics, and automatic control, thus slightly different in emphasis and possibly an expression of an even more radical conception. But the two men of whom Léger was the senior, had an even broader dialogue beyond film, set design and the aesthetics of the machine. In the report on Leger's lecture it is interesting, for example, that the storefront window was mentioned as part of the modern sensibility and it is even mentioned that Leger expressed great appreciation for Viennese display windows. It is significant therefore that the show window of the common store and department store was the subject of Kiesler's first book entitled Contemporary Art Applied to the Store and Its Display (New York, 1930, 1938).

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Notes

[1]Archives of American Art (henceforth AAA), Der Tag, 23 December 1924.

[2]Lillian Kiesler, Kiesler biographical note, Museum of Modern Art, Special Collections, Kiesler Archive, p. 166.

[3]Paul Engelmann, Letters from Ludwig Wittgenstein with a Memoir (New York: Horizon Press, 1968), pp. 2, letters 1, 2, and 14, letter 18.

[4]Allan Janik and Stephen Toulmin, Wittgenstein's Vienna (New York: Simon & Schuster, a Touchstone book, 1973).

[5]Engelmann, p. 127. See also Walter Benjamin, Reflections (New York: Schocken, 1979), "Karl Kraus," pp. 239-273. A most relevant intellectual portrait.

[6]"Kiesler's Pursuit of an Idea," Progressive Architecture 41 (July-September 1961): 106. Interview with Thomas H. Creighton, henceforth Creighton.

[7]See Bernard Leitner, The Architecture of Ludwig Wittgenstein: A Documentation (Halifax: The Press of the Nova Scotia College of Art and Design, 1973).

[8]Museum of Modern Art, Special Collections, Kiesler Archive, Lillian Kiesler's biography, and Dieter Bogner, Friedrich Kiesler 1890-1965, p. 61.

[9]Dieter Bogner, "Wien 1920-1930: Es War Als Wurde Utopia Realität Werden," Alte und Moderne Kunst, Heft 190/191, Wien 1983, pp. 35-48.

[10]Creighton, pp. 106-109.

[11]"Design's Bad Boy," Architectural Forum 86 (February 1947): 90.

[12]Creighton, p. 109. See also Dieter Bogner, Friedrich Kiesler 1890-1965, p. 11.

[13]Creighton, p. 109.

[14]Ibid., p. 105.

[15]Ibid., p. 105.

[16]Ibid.

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[17]Ibid.

[18]Ibid.

[19]Ibid., p. 106.

[20]Bogner, p. 43.

[21]Janik and Toulmin, p. 257.

[22]Cf., Realism by Linda Nochlin (Baltimore: Penguin Editions, 1971), p. 222.

[23]Otto Wagner, Die Baukunst Unsere Zeit (Wein, 1914), pp. 10-11.

[24]Creighton, p. 105.

[25]Bogner, p. 34; see his footnote 2.

[26]Wagner, p. 31.

[27]Wagner, p. 103.

[28]Hans Tietze, Otto Wagner (Wien, Berlin, München, Leipzig, 1922), p. 4.

[29]The extent of this attitude is maybe best illustrated by the almost absurd "space house" which is a complete house built indoors.

[30]See Graf Otto Antonia, Die Vergessene Wagnerschule (Wien, 1969). A student described the school's philosophy in Architecture as stressing "purpose, construction, poetics" ("Zweek, Konstruktion Poesie"), tenets to which Kiesler would more than agree. Among the projects undertaken: festival tents (ill. 67, 61) with suspension systems, cables, etc., reminiscent of Kiesler's Karamoor festival tent (1956).

[31]Creighton, p. 106.

[32]See Abraham Goldfeld, Toward Fuller Living Theory: Public Housing and Leisure Time Activities (New York: National Public Housing Conference, 1934), p. 11. "The outstanding pioneer in public housing, of course is the socialist city of Vienna. Socialists the world over have held up the municipal housing projects of Vienna as brick and mortar models of what the cooperative commonwealth might look like."

[33]Creighton, p. 105.

[34]Creighton, p. 106.

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[35]Cf. F.N. 27. See also Helen Alfred, Municipal Housing (New York: National Public Housing Conference, 1935). In this publication the objectives of the organization are stated clearly: "Increased appropriations by Congress for slum clearance and low rent home productions"; this is exactly what Kiesler worked on with Loos.

[36]John Willett, Art & Politics in the Weimar Republic: The New Sobriety 1917-1933 (New York: Pantheon Books, 1978), pp. 12-13.

[37]Creighton, p. 111; Held, pp. 20, 40.

[38]Creighton, p. 111.

[39]Roger Held, "Endless Innovations: The Theories and Scenic Design of Frederick Kiesler" (doctoral dissertation, Bowling Green State University, 1977), p. 20.

[40]Lecture by Frederick Kiesler on his use of film in the 1922 production of R.U.R. by Karel Capek in A Tribute to Anthology Film Archives' Avantgarde Film Preservation Program: An Evening Dedicated to Frederick Kiesler (New York: Anthology Film Archives, 1977), p. 30.

[41]Held, p. 21.

[42]Internationale Ausstellung Neuer Theatertechnik Katalog Programm Almanach, ed. Friedrich Kiesler (Wien: Velag Kunsthandlung Wurthle & Sohn, 1924), Frederick Kiesler, "De la Nature Morte Vivante," p. 20.

[43]Ibid. It reads: "Das Direktions zimmers der Meuschen-Fabrik aus Capek's Drama W.U.R., l'aimable auteur a ordonne: Zimmer, auf den Wanden Landkarten, Tabellen-Schreibtisch, Klub-sessel-Garanitur. Grosses Fenster, durch das man Fabriken sicht. Excusez moi, ce que j'ait fait: Erster Versuch eitner elektro-mechanischen Kulisse."

"The control room of the human factory of Carl Capek's drama R.U.R. The beloved author has required: room, on the walls landmaps, boards, desk, club-armchair trimming. Big window through which one sees factories. Excuse me, this is what I have done: first attempt of an electro-mechanical set." Kiesler's text stresses his unorthodox solution in contrast to the author's conventional requirements.

[44]Held, p. 23.

[45]Creighton, p. 109.

[46]Anthology Film, p. 31.

[47]Ibid.

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[48]See Frederick Kiesler, "Design-Correlation: Certain Data Pertaining to the Genesis of Design by Light (Photo-graphy), Part I," Architectural Record 82 (July 1937): 89-92; and Part II, Architectural Record 82 (August 1937): 79-84. Reprinted in Anthology Film, n.p. The "vision machine" that Kiesler designed starting in the late thirties, and for which he made drawings is the subject of interest; yet it is not quite clear and deserves further study.

[49]Frederick Kiesler, Inside the Endless House (New York: Simon & Schuster, 1966), p. 82.

[50]Frederick Kiesler, Contemporary Art Applied to the Store and Its Display (New York, 1930).

[51]Frederick Kiesler, "Design Correlation, Part II," p. 84. The English translation here is from a later article by Kiesler published in the United States as "Notes on Improving Theater Design," Theater Arts Monthly 18 (September 1934; July-December 1934): 727-730. It is based in part on the article "Das debacle des Theaters," quoted above, and its earlier version in the Berliner.

[52]Creighton, p. 109.

[53]See below, Chapter II, "The City in Space."

[54]F. Kiesler, "Die Stadt in der Luft," G. Zeigschrift für elemuntare Gesstaltung, no. 4 (March 1926): 10; in G, no. 5, p. 32, of that year Kiesler published his "Eintrit 75 Cents," his manifesto of the new theater which first opened in the previously quoted Catalogue Kiesler edited for the Vienna Festival.

[55]For Kiesler on Eggeling and Richter, see "Writings by Frederick Kiesler, Early Film-makers: Symphonie Diagonale by Viking Eggeling; Rhythms by Hans Richter," Anthology Film Archives, p. 31.

[56]Held, p. 26.

[57]Sergei Eisenstein, "The Cinema as an Outgrowth of Theater: Through Theater to Cinema," in Aesthetics: A Critical Anthology, eds. George Dickie and R. J. Sclafini (New York: St. Martin's Press, 1977).

[58]Eisenstein, p. 347.

[59]Ibid., pp. 348-349.

[60]Kiesler, incidentally, included a poem by Walter Mehring in his catalogue for the international exhibition of new theater techniques." See "Europaische nachte," Internationale Ausstellung, p. 62.

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[61]Held, p. 28-29.

[62]Creighton, p. 111.

[63]Internationale Ausstellung, pp. 24-25.

[64]Ibid., p. 24.

[65]Creighton, p. 111.

[66]Hans Richter, Köpfe und Hinterkopfe (Zurich: Verlag der Arche, 1977), p. 77.

[67]Creighton, p. 111.

[68]Ibid., p. 110. "The three years 1922, 1923, 1924 were the most fruitful years of my life. What I am doing today are follow-ups of these ideas, . . ."

[69]Ibid., p. 112; text for illustration of ground plan and section of The Endless.

[70]AAA, roll 127, frame 129, Neues Wiener Tagblatt, 25 September.

[71]The work by Schonberg Peace on Earth suggests by its title that same moral and humanistic spirit of Vienna. In terms of European consciousness at the time it is a cry for peace which characterized the post-World War I period, which unfortunately has a bitter taste of irony in retrospect. The post-World War I call for peace is in a way reflected also in Kiesler's statement on the "disarmament" of art. For Schonberg on Loss, see Arnold Schoenberg, Letters, ed. Erwin Stein (New York: St. Martin's Press, 1965), particularly letters 118, p. 144, no. 120, p. 145, no. 122, p. 146.

[72]Held, p. 57.

[73]AAA, roll 127, frame 149, Die Stunde, 4 October 1924.

[74]AAA, roll 127, frame 111, Die Stunde, 20 September 1924, and roll 127, frame 150, Neues Wiener Journal, 4 October 1924.

[75]See Internationale Ausstellung. Friedrich Kiesler, "Das Railway-theater," inside the front cover. It reads in part, "Die Raumbuhne des Railway theaters, des theaters der Zeit schwebt im Raum." ("The railway theater, the theater of the day, sways in space.") See also Barbara Lesak, "Friedrich Kiesler's Railway-Theater Oder: Wie Spiele ich Theater auf der Achterbahn?" in HFG (Hochschule fur Gestalfung), Offenbach/Main, 10.6, 1985.

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[76]"The Railway-Theater." For caricature-demonstration on the spacestage, see AAA, roll 127, frame 125, Illustrierte Kronen Zeitung, 25 September 1924; frame 129, Neues Wiener Tagblatt, 25 September 1924; frame 130, Wiener Morgan Zeitung, 28 September 1924; frame 132, "Hamlet on the spacestage," Volkszeitung, 27 September 1924.

[77]Internationale Ausstellung, p. 46 (pp. 43-58). This article appeared in a much shorter form earlier that year in the Berlin newspaper Berliner, 16 March 1927, AAA, roll 127, frame 206/207. Its title was there "Schanspieler, Bildbuhne Raumbuhne."

[78]Held, p. 55. See also his footnote with 69. His reconstructed drawing of the stage, however (p. 58, Figure 8), leaves much to be desired and is of no help and by far less accurate than the caricatures I have mentioned.

[79]Space stage. See Friedrich Kiesler Raumbühne 1924 (Wien: Exacte Tendenzen, n.d.), ground plan and photographs, including essays by Dieter Bogner and Thomas Weingraber (who executed the reconstruction), and Barbara Léssak, A-1010.

[80]Willet, p. 76, "International Constructuvism," and p. 78.

[81]In a letter dated December 6, 1924, Lissitzky tells about a letter from Van Doesburg and he writes, "He [Van Doesburg] writes that Kiesler is a nice chap, has made his open stage on the lines of the Tatlin tower," in Sophie Lissitzky-Kuppers, El Lissitzky: Life, Letters, Texts (London, 1968), p. 55. This information confirms that Tatlin's monument was seen, at least by Van Doesburg, as inspiring Kiesler's spacestage. On the other hand, it seems that Kiesler and Lissitzky did not know each other then.

[82]"Das Railway Theater," Internationale Ausstellung, inside front cover, n.p.

[83]Quoted in K. G. Pontus Hulten, The Machine (New York: The Museum of Modern Art, 1968), p. 109, the words of Yuriy Annenkou, a student of Tatlin.

[84]"Debacle des Theaters," Internationale Ausstellung, pp. 50-52.

[85]Frederick Kiesler, Inside the Endless House (New York, 1966), p. 385.

[86]See L. Moholy-Nagy, The New Vision, trans. Daphne M. Hoffmann (New York: W. W. Norton & Company, 1938), pp. 138, 186, illustration and text on the "Kinetic Constructive System." See also K. G. Pontus Hulten, The Machine, pp. 137, 139, illustration of Moholy-Nagy's set for Things to Come.

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[87]AAA, roll 127, frame 145-146, Neues Wiener Tagblatt, 3 October 1924; the German reads: "Ich erklare hermitt vor aller offinlichkeit herren Friederich Kiesler fur einen Plagiator and Lumpen."

[88]AAA, roll 127, frame 166, Neue Freie Presse, 6 October 1924.

[89]Jacob Levy-Moreno, Das Stegreiftheater (Potsdam, 1924).

[90]Internationale Ausstellung, letter in inner front cover and plan on p. 67.

[91]AAA, roll 127, frame 167/168, "Das Volkhaus der knust," Arbiter Zeitug, 7 October 1924.

[92]Held, pp. 75-76. See also Held's note ill., p. 74.

[93]Roll 127, frame 174, Neue Zuricher Zeitung, 15 October 1924.

[94]AAA, Roll 127, frame 160/161, Die Stunde 24, no. 1 (1925); Der Tag, 20 January 1925.

[95]Held, p. 80, footnote 127.

[96]AAA, roll 127, frame 136, Wiener Sonn and Montage Zeitung, 29 September 1924. Theater by Hans Liebstoeckl.

[97]AAA, roll 127, frame 137, Prager Tagblatt, 1 October 1924.

[98]Cf. Creighton, p. 105, and fn. 33.

[99]Ibid., p. 106.

[100]In the paper Die Stunde, 8 October 1914, the figure cited is 500,000,000 Kronen (400 trillion for spacestage, 100 million rent of the Konzerthaus), AAA, roll 127, frame 171. The Neues Wiener Journal, 19 October 1924, AAA, roll 7, frame 182, quotes 800,000,000 (the price of bread at the time was 9,000 Kronen).

[101]Creighton, p. 106.

[102]AAA, roll 127, frame 171, Die Stunde, 8 October 1924.

[103]AAA, roll 127, frame 182, Neues Wiener Journal, 19 October 1924.

[104]AAA, roll 127, frame 184, Neu Zeitung, 20 October 1924.

[105]AAA, roll 127/105, Neue Freie Presse, 6 September 1924.

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[106]AAA, roll 127, frame 207, Berliner Börsen-Courier, 16 March 1924, "Schauspieler, Bildbuhne Raumbuhine."

[107]AAA, roll 127, frame 114, Observer (London), 21 September 1924.

[108]AAA, roll 127, frame 132, Volks Zeitung, 27 September 1924.

[109]AAA, roll 127, frame 150, Neues Wiener Journal, 4 October 1924.

[110]AAA, roll 127, frame 163, Bühne und Kunst, n.d.

[111]AAA, roll 127, frame 171, Berliner Boersch Courier, 7 October 1924, "Der kampf um die Raumbuhne in Wien."

[112]AAA, roll 127, frame 171, Die Stunde, 8 October 1924. The dispute was with the Viennese theater, "Der Gong," that bought the production rights earlier in June and sued.

[113]AAA, roll 127, frame 153, Arbeirterzeitung, 4 October 1929.

[114]AAA, roll 127, frame 65, Der Tag, 6 October 1924.

[115]AAA, roll 127, frame 173, Neues Wiener Journal, 10 October 1924.

[116]Some writers, probably inspired by Kiesler's preview, saw the revolutionary nature of the stage. In the Linzer Volksblatt we read: "The sensation of this exhibition will be, no doubt, the Spacestage constructed by the academic painter Kiesler; it will be an equivalent to a complete revolution in the realm of the Theater-house." AAA, roll 127, frame 120, 29 September.

[117]See, for example, AAA, roll 127, frame 128, Arbeiterzeitung, 28 September 1924; AAA, roll 127, frame 167-168, Arbeiterzeitung, 7 October 1924.

[118]Internationale Ausstellung, "Das Railway-theater," inside front cover.

[119]Internationale Ausstellung.

[120]AAA, roll 127, frame 111, Die Stunde, 20 September 1924.

[121]AAA, roll 127, frame 127, "Sehr Modernes Theater," Volkszeitung, 25 September 1924.

[122]F. Kiesler, "Erneuerung des Theaters," De Stijl, nos. 75-76, Series 13 (7 January 1926), p. 51.

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[123]Ibid., p. 52.

[124]AAA, roll 127, frame 131, Arbeiterrzeitung, 27 September 1924.

[125]AAA, roll 127, frame 171, Berliner Börsen Courier, 8 October 1929.

[126]Balasz (see fn. 1, p. 1).

[127]AAA, roll 127, frame 122, Der Tag, 25 September 1924.

[128]AAA, roll 127, frame 129, Neues Wiener Journal, 25 September 1924. It is possible that the reporter of the Neues Wiener Tagblatt described as a cubist futurist event was his response to Leger's Ballet Mechanique as well as Ludwig Hirshfield-Mack's light performance.

[129]Frederick Kiesler, Inside the Endless House, p. 82.

[130]Internationale Ausstellung, pp. 6-16; the translation from the French was done by Erika Tietze; Hans Tietze, the art-historian I quoted elsewhere was on the executive committee of the exhibition.

[131]Internationale Ausstellung, pp. 39-42.

[132]Standish D. Lawder, The Cubist Cinema (New York: New York University Press, 1975), p. 183.

[133]See Anthology Film, p. 22, "November 1975, Films Salvaged: Lillian Kiesler Finds Ballet Mechanique by Leger and Excelsior Reifen by Ruttmann Stored in Her Home." For details on the films found see there also "Letter from Jonas Mekas, Anthology Film Archives to Lillian Kiesler, November 29, 1975," p. 24.

[134]Ibid., footnote 3. According to Lillian Kiesler, Kiesler had possession of Symphonie Diagonal by Viking Eggeling and Rhythms by Hans Richter. He offered the films to the film library of the Museum of Modern Art but the offer was not accepted. Consequently Kiesler sent Eggeling's film to his widow. As to Richter's film, Lillian Kiesler offers no details.

[135]Der Querschnitt, no. 3, nos. 1-2 (1923).

[136]Lawder, pp. 108-113. The illustration of the set for R.U.R. from Der Querschnitt (Lawder, Figure 37) is incidentally reproduced upside down.

[137]See K. G. Pontus Hulten, The Machine, as seen at the end of the machine age.

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CHAPTER II

CITY IN SPACE: KIESLER'S RELATION WITH DE STIJL

City in Space

The City in Space (figure 16) was part of the Austrian Pavillion in the International Exposition of Decorative and Industrial Modern Arts (Exposition International des Arts Decoratifs et Industriels Moderns) held in Paris in 1925. It was at this international event that Frederick Kiesler built "under the guise of exhibiting pedestals for theater models—a city, decentralized and entirely suspended in space. It was a rectangular structure for a suspension-town . . ." as Kiesler's own words described it.[1]

The exposition itself (which was sponsored by the French government's Ministry for Commerce, Industry, Postal Services and Telegraph) was variously described as "a source of the popular jazz-modern style that was for some time a rival to the International style,"[2] "the beginning of the 'modernistic' style with its applique of sharp, geometric patterns,"[3] and from another point of view, that of Henry Russell Hitchcock, "An exhibition organized in part to reclaim for France the primacy in the arts and crafts of decoration that had by this time passed to Vienna largely because of Hoffman's leadership."[4]

Hoffman, who was the head architect in charge of the Austrian Pavillion, was in this particular event more conservative in his own

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work compared to what he had done before. In Hitchcock's words, "The rather Neo-Rococo stuccoed block that he provided was much less advanced in character than the greenhouse-like portion designed by Behrens."[5]

In this context, Hoffman's role was most important because he was the man who invited Kiesler to participate in the Paris event.

Kiesler described Hoffman's attitude as follows:

> Hoffman had a quality that was--and still is--rare with architects of high repute. When he reached the age of about sixty, he diverted most of his jobs to young artists and architects.
>
> Appointed commissioner for the Austrian section of the World's Fair in Paris 1925, after failing to have Loos accept an assignment, he invited Peter Behrens (who had succeeded Otto Wagner at the academy and lived in Vienna) to design the Austrian Pavillion, gave other sections to his very talented students Haerdtl and Fellerer, and asked me to design the international theater section in the grand Palais.[6]

Hoffman knew what to expect from Kiesler and his enterprising ideas, such as those he had undertaken at the Vienna Festival of the previous year. These projects must have given Hoffman a good idea about Kiesler's daring mind, his energy and inventive imagination. According to Kiesler, Hoffman gave him "carte blanche" at the Paris exposition, telling him to go ahead with his plans without asking to see them before construction and, in good humor, told the young man not to forget to invite him to the opening.

So Hoffman's generous investment and trust in Kiesler allowed him to embark on a project that became a unique example of neo-plasticist (De Stijl) design principles as applied to a plan for a city in space.

Alfred H. Barr, who included the City in Space in the catalogue for his 1936 exhibition "Cubism and Abstract Art," wrote the following description and evaluation of Kiesler's project:

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> Technically and imaginatively the boldest creation in the Stijl tradition was the "space construction" designed by Kiesler, an Austrian member of the group, for his country's section at the Paris Exposition of Decorative Arts in 1925. It was a suspended framework constructed on a tension system without foundations of walls and without a static axis. In its radical technics it suggests the experimental designs of the Russian Constructivist architects, but in its consistent use of rectangles asymmetrically arranged it is a development of such Stijl designs as Rietveld's house of the year before.[7]

Barr's contention that Kiesler's "space construction" (City in Space) was technically and imaginatively the boldest creation in the Stijl tradition was more than a writer's eloquence and insight. In fact, this was how Van Doesburg himself, the leader of De Stijl, felt about it. Kiesler related the following story:

> The day after the opening of the "City in Space" I sneaked in to see my exhibition (I wasn't at all apprehensive about it, but very curious) and there was Van Doesburg with Mondrian. He turned, saw me, made a veritable leap at me and with tears in his eyes said, "You have done what we all hoped one day to do. You did it."[8]

This exclamation, coming from Theo Van Doesburg, is without a doubt his total legitimization of Kiesler's project and its place in De Stijl history. But there was a fore-story that led to this moving moment as its conclusion.

The Problem of a Modern Exhibition Method and Kiesler's Texts for De Stijl Magazine

The connection between Kiesler and De Stijl started, as I have described in the previous chapter, in 1922, in Berlin, after Kiesler's R.U.R. production. This group of artists, architects and designers met in 1922 in Düsseldorf for the "congress of progressive artists."

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Among the subjects discussed there was the problem of the modern exhibition about which the artists, who later met Kiesler in Berlin, had radical ideas. Among the artists who gathered in Dusseldorf, Theo Van Doesburg, Hans Richter and El Lissitzky took a dissenting line on several issues which they published in Dusseldorf on May 30. They described themselves as the international faction of constructivists, and among the points they made was one specifically regarding the problem of a modern exhibition method which read:

> We reject the art exhibitions of today as shops where goods, stacked together without any purpose, are bought and sold. Today we stand between a society which does not need us and one which does not exist; therefore we can only contemplate exhibitions which demonstrate what we hope to realize (sketches, plans, models) or what we have realized.[9]

Thus the modern exhibition method and technique was, in this circle a political issue as well as an artistic objective. Kiesler's 1924 exhibition system for the international theater technique exhibition in Vienna was his first response to this issue. City in Space was the second project along this line of progress, connected to De Stijl.

This connection is found also in an article written by the traveling Theo Van Doesburg in 1924.

In the article, published in the Neues Wiener Journal (October 31, 1924) under "Viennese Impressions" (Wiener Eindrucke),[10] Van Doesburg talked mostly about the exhibition and the display system Kiesler had designed, expressing great enthusiasm for it. The article was titled "Das Problem einer Aktiven Ausstellungsmethode" ("The Problem of an Active Exhibition Method").

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Van Doesburg, who traveled extensively in Western Europe seeking progressive architects and designers everywhere, talked about his travels in Italy, Germany, Holland and France, and confessed to have had little expectations from Austria. He did list the architects Loos, Hoffman, Oskar Strand and Peter Behrens as working in the direction of the "International De Stijl movement" and went on to say:

> Completely surprised, however, was I by the new formation of the international theater exhibition of new theater techniques, which in its way and consequences hasn't been realized so far in any city in the world.

This, coming from the well-informed Van Doesburg, is as authoritative a confession and an indication that Kiesler was breaking new ground in the relatively uncultivated field of the modern exhibition method. Van Doesburg went on to say that no one could be surprised if the modern artist saw in the traditional exhibition method something damaging and degrading, turning the exhibition into a store or a bazaar.

As a result of this situation, Van Doesberg went on, the radical artists such as the group who met in Dusseldorf in 1922, came up with a resolution--"a rejection of the conventional art exhibition and the introduction of 'demonstration-shows' for the newest efforts in art." This, I believe, was a reference to the statement I have quoted above and reflects the dissenting position of Van Doesburg, El Lissitzky and Hans Richter who opposed the rest of the artists in the congress who supported, as Van Doesburg alleged, a "policy of mercantile colonization." (Others in the congress included Graeff, Arp, Hausmann, Schwitters, Berlewi, Van Eesteren.)

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Kiesler, then, was among the few who realized the dissenting position expressed in the Dusseldorf Congress. Van Doesburg greeted it with enthusiasm.

Van Doesburg also analyzed Kiesler's exhibition method as follows:

> In contrast to the earlier exhibitions, in which art products were hung with disregard to each other, [next to each other] the issue in demonstrative exhibition is focused on pointing to the closest relations between the various works. These works should not only be displayed one next to the other, but also and at the same time, after one another (in tandem), i.e., spatially.

Van Doesberg's enthusiasm for Kiesler's work led naturally to its publication in De Stijl magazine. A De Stijl issue gave Kiesler the cover showing a photograph of the energetic architect taken in Vienna against the background of the Spacestage.[11] Kiesler published two articles in this issue. The lead article was on his exhibition method in Vienna. It was titled "Leger und Trager" and followed by a second text, a "Manifest" subtitled "Vital Building, Space-City Functional Architecture" ("Vitalbau, Raumstadt Funketionelle architektur") about the City in Space.

Thus Kiesler's two De Stijl/constructivist exhibition projects were published in the same issue of De Stijl. This also points to a certain continuity between these two projects which, at least from a functional point of view, were exhibition displays. Technically and stylistically, these two projects were essentially bare constructions, made of wood, and elementist in style.

Let us now turn to the two texts. The first article, "Leger und Trager," about the Vienna display aids (figures 17, 18, and 19) refers

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in its title to the two basic display units Kiesler has devised, the first word, "Leger," coming from the German "Legen"—to lay, and the second word "Trager" from the word "tragen" meaning to carry or hold up.

The text, written in a formal style reminiscent of a proposal or a commercial presentation, breaks down into the following headings: the problem, purpose, budget, solution, construction system and result.

Under "purpose" Kiesler explained that what existed as a display system was a romantic "museum ersatz" and he described the wall treatment as a decorative bluff; therefore another solution had to be found in which the architecture of the room/space will not allow the visitor to skip any work but deal with each object separately. This was to be done by "melting the rigidity" of the space down, as Kiesler metaphorically described it.

This stated purpose contains--in metaphor and substance--a great deal of Kiesler's idea of an effective exhibition. This spatial conception also guided him in all of his subsequent exhibition designs. Two other related principles can be extracted; one maintains a high degree of control over the spectator's viewing pattern, coupled with a flowing dynamism and a truly spatial (environmental) handling of space. An expression such as "melting the rigidity" of the space designed is important to notice and hints at Kiesler's experience of space as flow and the opposite of stiffness.

The text starts with a straightforward statement of purpose: "To display (1) unframed sheets, (2) framed sheets, (3) models, (4)

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photographs, (5) figurines, (6) posters." A variety of objects of different types and media had to be orchestrated into a comprehensive unity. The solution was simple and practical: build two "space constructions" (Raumconstruktionen), a Leger type and a Trager type. These units stand free in space (off the wall) and are meant to be seen from various sides, each side allowing a different possibility for display. In the Vienna exhibition (the first of two times this method was ever used, twelve T-type space constructions and six L-types were manufactured. The placement of the space constructions was such that the 1.5-2 meters distance between the space constructions allowed for a free-flowing and comfortable movement within the display area.

Recall Van Doesburg's article about the exhibition in which he testified that enough intermittent space was left to allow a comfortable movement of the spectator.

The L-type (figure 18) was proportioned so that three quarters of it was the horizontal flat element and one quarter the vertical part. This L-type unit served mostly to display models placed on the horizontal flats—laying next to or attached to the vertical part.

The T-type (figure 19) space constructions were made of a flat vertical grille connected to a diagonal arm (the top of the T). Three viewing angles determined the T-type: looking up, down, straight and all around. This reasoning determined the object's construction; man in relation to the constructed object is important since it became one of Kiesler's key design principles. Later in his career he will approach the whole subject of design from this point of view with a discipline he called "biotechnique."

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The T-type space unit served to take framed as well as unframed pictures (sketches). The unframed sketches were "hung" through a special clip that was attached to the grille in different places according to the size of the sketch. In short, some drawings were seen by looking down, others would face the spectator straight-on, and more would be above him leaning at an angle of 45 degrees.

Color served as a code unifying all related works, grouping them according to subject. Light, which always played a key role in Kiesler's designs, was used actively, that is, all outside light was blocked off and the lighting was completely artificial in order to better direct the viewer's attention effectively. The walking areas between the space-structures was to be covered with linoleum, cork or rubber in order to control sound and set a quiet mood for observing visual material. If this could not be realized Kiesler suggested the use of grey, a quiet hue, as floor color.

In listing the advantages resulting from such an exhibition construction, Kiesler wrote that a regular exhibition area is tripled in wall space and at the same time the existing walls are not damaged. This comment makes one realize how early in the history of the modern exhibition all this took place. Common neutral exhibition space and the push-pin were practically unknown, and unframed works of art on display were not common, not to mention the idea of devising special free-standing exhibition constructions such as the L- and T-types. The unframed works and unsuitable walls necessitated these grilled constructions that created the "walls" of the space constructions on and

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off the given walls. Kiesler's method was easy to build since only two types of structures were designed and all parts were standardized in order to simplify production.

A glimpse at the contemporary press will put this innovative exhibition method in socio-art-historical perspective. One critic, for example, referred to the exhibition as "the wall-less exhibit"[12] which confirms the contention that such an exhibition was uncommon at the time. Despite a certain caution on the critic's part in dealing with this innovation, he did acknowledge the exhibit's practical merits. But as always, for each favorable critic there was one criticizing harshly (as did another writer—for the same paper—who saw the exhibition as an augmentation of the already bizarre space-stage). He called the exhibition "truly and exceedingly modern."[13]

The critics, including the more sympathetic ones, saw the exhibition as highly unusual and difficult to accept without reservation. Following the very practical and detailed expose of his exhibition method was a second text for De Stijl—a two-part "Manifest." The "Manifest" was as far-reaching and speculative as the first text about the exhibition method was specialized, practical and concrete. The "Manifest" constitutes Kiesler's only complete statement about city planning and the City in Space constructed in Paris was the demonstration model and possibly the trigger for writing it. The "Manifest" was written in Paris, and was dated 19 April 1925 which was nine days before the opening of the international exposition. As mentioned earlier, Kiesler has subtitled the "Manifest" provocatively by introducing new terms such

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as "Vitalbau" (vital building) and "Raumstadt" (space city). Kiesler, who was well aware of the power of words, manipulated the German language, coining synthetic terms to serve his inventive ideas, as well as publicity needs.

The "Manifest" starts with three definitions: for the Time city, the Space city and the Automatic city. Time city--"because it is the measuring-yard of its own organization in space, whereas Space City is floating free in space and is thus—in relation to the ground—centralized. The Automatic city—because the daily business of life is mechanized."

Kiesler, then, went on to present his new ideas about the city, first by criticizing sarcastically the present state of the city:

> What are our houses but stone-coffins which soar from earth to air. One story, two stories, three hundred stories high. Four sided walls, ten-sided walls, buried stone--wood--mud--or concrete—coffins with air holes.

The style of writing and the militant spirit is in the modern tradition of all Manifestos from the Futurists on. The comparison of the conventional building to a coffin with holes is reminiscent of Marinetti's exclamation in the first Futurist manifesto--"Museums, Cemeteries." In fact, Kiesler himself went on to draw on this image of the cemetery, comparing the city as it exists to a cemetery—a comparison in which the cemetery fares better, and ahead of the city. There is more open air, more privacy in the cemetery with its lots separated by gravel paths and everybody is surrounded by a green lawn.

He then posed the question: "and what about cities" and the answer echoed: "Mauern, mauern, mauern" (walls, walls, walls). This is

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followed by a key sentence that exclaims: "We do not want walls any more, barracks of bodies and souls, the whole barracks-culture ornamented or without ornament."

This almost claustrophobic experience of constriction and a deep-felt discontent with present-day architecture and its walls as straight imprisonments of body and soul relate to Kiesler's contemporary plans for the spherical Universal (figure 30) (the basis for his Endless House) probably planned in 1925.

The first section of the "Manifest" was followed by a second one in which Kiesler suggested his five point solution; he called for

1. Transformation of spherical space into cities.
2. To set free from the ground, the task of the static axis.
3. No walls/no foundations.
4. A building system of tensions in free space.
5. Creation of new positions of living and through them, needs that will restructure society.[14]

A rhetorical question which echoes Loos concluded the "Manifest" asking:

> Are these your problems? If the walls are ornamented or not? We don't give a damn for these questions! Put the walls away.

Kiesler ended with a biting, humorous remark bordering on the sarcastic:

> Run in your heads by the empty space! We have to have something to laugh about.

The opening sentence of the second part of the "Manifest" expressed unequivocally Kiesler's unusual attitude toward architecture and his dissenting views. It sets the tone, declaring: "Enough architecture has been made." Kiesler's ideas went beyond a mere promotion of yet another style of building or an aesthetic:

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> We do not want a new addition, no matter how clever the conception. Instead of the early made-up single-elevation-models now plain four-elevation models instead of Baroque lines straight lines, instead of rectangular windows square windows. The expert is bankrupt.

In a new direction he pointed to the real questions:

> What interests all is how does one live within these straight or curved walls: what kind of life, new life, springs from these four or X-elevations? Instead of ornaments plain walls, instead of art architecture—nothing of all this: I promote vital building, the space-city functional architecture.

Kiesler's "Manifest" concerning the City in Space aimed at a complete shift in direction, re-thinking habitual habitation. He said that all spaces, domed or cubic, suffocate the inhabitants and the windows are not much help. Turning to the alternative he wrote:

> It is necessary to discover the impulses of the time just like electricity was discovered and it is necessary to invent the new life, the way the motor was invented. Till then it's a corporeal digestion process.

The new City in Space was intended to solve the problems of traffic and hygiene, and provide for the many dimensions of private life as well as freedom for the masses. Kiesler proceeded to explain that the City in Space was not built merely to be sufficient but was designed in order to achieve greatest prosperity through tight economic means. No more regular houses and small alleys. Finally, Kiesler, who mocked all emphasis on fashion or style and wrote:

> Now it's the square. Tomorrow . . .?? Beware that the nag you are riding won't go under your law and your sensing nose will lay in the dirt.

The two texts were accompanied by four illustrations (photographs) of the projects under discussion; three of the exhibition in Vienna

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and one of the City in Space (figures 16-19). Built in wood and basically elementarist in character, they are reminiscent in some way of Rietveld's elegant wooden furniture constructions (figure 20).

Thus the City in Space then, and Kiesler's exhibition method of 1924 by way of Van Doesburg's support for it were an important contribution of Kiesler to De Stijl, but there is another aspect to the story of the City in Space, Kiesler and De Stijl in Paris, 1925. Since the Dutch government did not represent De Stijl in the international event which also featured Le Corbusier's Pavillion de l'Esprit Nouveau as well as Melnikov's constructivist design for the Russian Pavillion, Kiesler's participation assumed a new significance. Kiesler has provided some detail concerning the events in Paris in which Van Doesburg found himself out of the picture. Kiesler reported that a week before the opening he had a fight with Van Doesburg. He was specific but said it was unprovoked and that it was resolved once Van Doesburg saw the City in Space.[15] Since Kiesler was the only exponent of De Stijl in the Paris exposition, it is possible that Van Doesburg expressed some apprehension concerning De Stijl's representation in the event and the two men must have disagreed on substance. But they remained friends until Van Doesburg's death in 1931, when Kiesler published (for the last time in De Stijl magazine) a eulogy to his friend and mentor (see below).

The Optophon (I)

In addition to the City in Space which was Kiesler's closest application of De Stijl elementarism and a realized project, there were other

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projects which have to be counted in our context even though they were never realized, not even as models.

One such project is the Optophon which Kiesler has described as his only neo-plasticist building:

> A horizontally stretched building more or less in a cross form, built in between the trees. Where the four wings met in the center was a mobile-machine for partly abstract or realistic visual and phonetic plays which would run automatically.[16]

The Optophon was Kiesler's idea for a rather ambitious project for the Paris exposition outside the Grand Palais, along the Seine. Not only was it never realized but--as Kiesler has related--all his drawings for this project were lost.

Held has tried to reconstruct the general scheme of the Optophon (figure 21) from the cover of the Little Review (winter of 1925-1926) where Kiesler has reproduced the Optophon's ground plan using it as a cover illustration. The illustration as well as Held's reconstruction gives one little to go by however, and the project remains obscure.[17] This author's interest in the Optophon is in connection with its "neo-plasticism" and what Kiesler understood under this term, since he used it only in reference to this project. If we assume that the neo-plasticism Kiesler had in mind in referring to the Optophon as Neo-plastic, included the Optophon's audio-visual core, i.e., went beyond its mere form, then we may be able to understand Kiesler's statement better. This, following an earlier point we have raised explaining Van Doesburg and Mondrian's enthusiasm for the City in Space, which we have explained by pointing out that for them the modern city was the ultimate

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Neo-plastic design objective superceding even painting (see footnote 8). Thus, following a similar logic the Optophon being an environmental conception in time and space according to Kiesler's design, could, indeed, have been his only real Neo-Plasticist plan as he contended.

Horizontal Skyscraper

Another work, which also dates from the same year (1925), is the Horizontal Skyscraper (figure 22). Like the Optophon the Horizontal Skyscraper was a horizontally spread building and similar to the City in Space, it was based on suspension and the constructive concept of "tensionism."

In his 1930 book Contemporary Art Applied to the Store and Its Display, Kiesler has explained the "horizontal skyscraper" as follows:

> The horizontal skyscraper--designed 1925 Paris, for residential purposes, in contrast with the vertical skyscraper, which serves through concentration on a small plot, the necessity of an efficient place for business transaction . . . it is a dream for our living quarters, but one that might come sooner than we expect. The four center blocks are for garages. The four wide stretching wings are the living quarters, each wing surrounded by light and air. All of this open space gives greater health and more privacy to the inhabitants than the usual "community system" where the houses are piled on top of each other like boxes, all alike, each one keeping out light and air of its neighbor. Neither does this huge horizontal skyscraper take up valuable ground space. Because the entire structure is raised off the ground. Except for the crossed runway for cars, the complete area, however large the skyscraper may be itself open for traffic, park space or whatever is needed.[18]

So the Horizontal Skyscraper was based on principles similar to the City in Space which is not surprising, since all these ideas stem from the same period in Paris. Indeed, the Horizontal Skyscraper and the

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City in Space are closer than any other two architectural projects as Kiesler's description of the City in Space from the same publication will demonstrate. About the City in Space he wrote in his book:

> Model of a whole city in which houses, streets, landing stages, etc. are spanned and suspended above each other and net to each other in space. First example of "tensionism" as elastic building system of tubes, platforms and cables developed from bridge building.[19]

Thus the Horizontal Skyscraper can be viewed as a more limited application of the same principles (tensionism and off-the-ground suspension with cables) on a more modest scale.

Kiesler's book provides further clues and confirmations of the connection between these two projects and De Stijl, one connecting De Stijl with what Kiesler called "Functional Horizontalism"[20] and a second reference in which one reads: "De Stijl April 1925 Kiesler; Tensionism organic building, the city in space functional architecture."[21]

There is, of course, more to the name Horizontal Skyscraper than a plain description; the same irony and provocative bite that we have detected in the "Manifest" which in spite of its serious content, ended in both parts with a touch of sarcasm. A skyscraper derives its name from its skyscraping verticality and a horizontal skyscraper is of course a provocative contradiction in terms which Kiesler must have used deliberately.

The quotation from Kiesler's book concerning the horizontal skyscraper ends, as it were, with another ironic comment which reads:

> We are for complete standardization of building materials, of manufacturing and construction but we are certainly not for standardization of individuals.[22]

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This comment entails Kiesler's insistence that alongside vigorous design, as form and reform, the human/psychological factor ought at all times be fully considered, and any compromise on humanism and individualism cannot be tolerated. It is this strong belief that in later years brought Kiesler closer to the Surrealist circles.

The avant-garde artists of the day attended the exhibition in Paris and an existing photograph shows a gathering at the Austrian pavillion in which an impressive group of artists, musicians and writers can be identified. In the picture one identifies Theo Van Doesberg, Pierre Loring, August Perret, George Antheil, Tristan Tzara and Juan Gris.

There is an anecdote from that time which is of some interest involving Le Corbusier and Kiesler's friend Fernand Leger where Le Corbusier's reaction to the City in Space was recorded as follows:

> Le Corbusier, in reply to Fernand Leger's glowing description of the "Floating City" replied: "But how does he keep the houses up? Does he hang them from zeppelins?"[23]

This, I think, is interesting in itself since Le Corbusier seems to have taken a rather philistine position for an architect who was interested in architecture beyond the mere present.

But it has been commented, on the basis of this story, that Kiesler and Le Corbusier were antinomes. Friedrich St. Florian, writing on Kiesler, suggested that Le Corbusier was a poet and a realist whereas Kiesler was a visionary.[24] Be that as it may, the City in Space instigated Le Corbusier's ironic criticism and that to the best of my knowledge is the only recorded information about this architect's opinion about Kiesler.[25]

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The French press did not go beyond descriptions of Kiesler's intentions and a sentence such as the one written by the Opinion of Saigon is fairly characteristic:

> Mr. Frederick Kiesler, a Viennese architect, wants to send us to live in the air and regenerate human society at the same time.[26]

But the Figaro under the title of "A Monkey with Reason" was less impartial and enthusiastic for the City in Space, exclaiming ironically:

> What progress and what ideal existence that we don't want it! But with current civilization itself, doesn't one have to realize that—in admitting that we are descendants of monkeys, one doesn't have to make us degenerate monkeys?[27]

So the City in Space was susceptible to misunderstanding and abuse. The above quoted Opinion of Saigon provided its colonial readership with a semi-caricaturistic illustration of the city in space as a set of bridges built on top of each other (like Roman aquaducts, but on a much larger scale) and by doing so did not, as it were, help its readers to visualize the City in Space to which today's planned space stations come much closer.

The New York Herald wrote from Paris "Artist Plans City in Air, Without Traffic Jams, Noise or Discomfort"[28] and reported that Kiesler was engaged in building a model for the Gibbons Construction Company of New York to solve the problems of modern industrial civilization.

Most of the information the newspapers had originated with Kiesler himself who called a news conference in which he elaborated on his ideas which at the time were not available in print. So from the New York Herald we learn also that the City in Space was to have adjustable,

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not solid, walls accommodated to summer's heat and winter's cold. In other words the flexible nature of Kiesler's "tensionist" city was not only applied to its total construction in relation to its suspension; rather elasticity was applied, not extended, to wall conversions--a conception Kiesler used extensively and applied, for example, to his mostly convertable theater designs, as well as the Space House (1934).[29]

The New York Herald also reported that Kiesler "expects to visit the United States this year in connection with his work on a huge model of his city built in space. He will also confer with American experts on traffic problems." Kiesler did come to America in 1926.

The City in Space in G Magazine and El Lissitzky's Influence and the Futurist Precedent

Mentioned previously was Kiesler's association with G magazine, edited by Hans Richter, Werner Graeff and Ludwig Mies Van der Rohe. Kiesler was to join the editorial staff from the third issue on. In G, no. 4 of March 1926[30] Kiesler republished part of his "Manifest" on the City in Space, this time under the title "Die Stadt in Der Luft." The art critic Maurice Reynal contributed an appreciation of this project.

His article, written in the spirit of Kiesler's Manifest in De Stijl, referred critically to contemporary architecture saying that the word architecture stands for little--"Something that stands for a collection of specialized means, for the sake of meeting our needs--far from any elevation of our vital life needs." Reynal then turned to his own metaphor (reminiscent of Kiesler's) describing contemporary buildings by saying:

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> Houses are a form of pastery, cheese in which rats and ants drill their subterranian walks. The room is nailed off, walled in, choked. Basalt, loam, glass stone or wood--it all does not make a difference. The living human being is but a corpse enclosed in a tomb. Walls circumscribe life--we do not want them, maybe in the cemetery.

He then made the interesting observation saying:

> Something totally different is to observe architecture not as a subject of art history. Building art (architecture) is not literature. We conquered the air; now we have to fight for the conquest of our living space.

He ended by saying that ideas such as these were conceived and brilliantly realized by Kiesler.

It is entirely possible, considering the imagery, that Reynal was familiar with Kiesler's "Manifest" in De Stijl magazine. The article reflects Kiesler's discontent with the state of architecture--contributing to modern claustrophobia instead of claiming space as an expression of formal and spiritual freedom. Concerning Reynal's point about architecture as a subject beyond art history, it is definitely true that Kiesler intended his architecture to go that way, and even if one cannot so easily escape or transcend culture, there is no doubt that Kiesler tried to avoid the kind of historicism to which Le Corbusier more readily succumbed--Le Corbusier who confessed to have learned everything from the past.[31]

In connection with G magazine and its milieu (already discussed), one other important point has to be recognized. In the first issue of G, July 1923, the year following the time Kiesler made the acquaintance of this avant-garde circle, Lissitsky published his "Proun Space, the Great Berlin Exhibition of 1923." Since Kiesler was undoubtedly

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familiar with this magazine from its beginning, we have to regard Lissitzky as a contributing source for the interpretation of space in general, and exhibition space and display methods in particular. Lissitzky wrote the following:

> The space (as exhibition space) was designed by using elementary forms and materials, line, surface and rod, cube sphere, black, white, grey and wood. The two reliefs on the walls provide the theme and focus for all the wall surfaces.[32]

The terms in which the problem was approached were similar to the way Kiesler approached exhibition.

The closing paragraph of Lissitzky's text, leaves little doubt that these ideas exerted a considerable influence on Kiesler beyond the mere subject of the exhibition though Kiesler developed his own method. Lissitzky wrote:

> The cubic footage required by man for rest, work and social intercourse must be brought into harmony, and this harmony must be brought into motion by means of an elementary structural system that will respond to his various needs and requirements. We reject space as a painted coffin for our living bodies.[33]

We are quite familiar, at this point, with the literary motive of dead space, or bad architecture, as a restricting coffin for living bodies. It was used by Kiesler in the "Manifest" as well as in Reynal's appreciation of Kiesler's City in Space and Lissitzky provided yet an earlier example.

There is another text by Lissitzky relevant in this context, a text written probably in Hanover, Germany. In this text titled "Exhibition Rooms," Lissitzky described his plan and conception for the

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International Art Exhibition in Dresden (1926) he was invited to design. The principles he developed are once more very reminiscent of Kiesler's ideas of a highly activated exhibition space, and it reads:

> While passing along the picture-studded walls of the conventional art exhibition set-up, the viewer is lulled into a numb state of passivity. It is our intention to make man active by means of design. This is the purpose of space.[34]

Another side of Lissitzky's germinating power is his so-called Sky-Hooks, designed in 1924. And even if one cannot easily count them as "sources" for Kiesler's City in Space, they definitely point to a contemporary interest among the artists and architects of the international constructivists and De Stijl.

These ideas were discussed by Lissitzky in print in his 1930 publication Russland: Die Rekonstruktion der Architecture in der Soviet Union, a book Kiesler owned[35] which was translated as Russia, an Architecture for World Revolution. The Sky-Hooks (figure 23) were horizontal buildings, constructed above the ground, with an urbanistic rationale similar to Kiesler's arguments for the City in Space and the related Horizontal Skyscraper (free the ground level from traffic congestion, leave the ground areas for parks, parking, etc). In the book in which Lissitzky surveyed Russian revolutionary architecture, in the section entitled "The Future and Utopia," Lissitzky stated:

> The idea of the conquest of the substructure, the earth-bound, can be extended even further and calls for the conquest of gravity as such. It demands floating structures, a physical-dynamic architecture.[36]

and earlier in the text:

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> One of our Utopian ideas is the desire to overcome the limitation of the substructure, the earthbound. We have developed this idea in a series of proposals (sky-hooks, stadium grandstands, Paris garage).[37]

So in one way or another, such ideas traveled in these active circles of artists with whom Kiesler associated, participated and published and whose books he read. But the origins of ideas in this futuristic direction go back to Futurist architecture itself. Futurism was an obvious source and the architectural drawings of Antonio Sant'Elia were familiar. Kiesler mentioned Sant'Elia's work in his 1930 book Contemporary Art Applied to the Store and Its Display, where he wrote:

> Antonio Sant Elia, an Italian who was killed in the war in 1916, had already in 1913 planned excellent skyscrapers with streets on four levels.[38]

The name of Tatlin and his Monument for the Third International, which was quoted earlier as a source for the Spacestage, is again mentioned, following the reference to Sant'Elia and multi-leveled building, and has to be counted as a background source for Kiesler's ventures into multi-storied space architecture.

So Kiesler's City in Space, drawing its inspiration from Futurism and Russian Constructivism, was a bold manifestation in De Stijl elementarist language of these various ideas.

In discussing the historical place of Kiesler's bold project Reyner Banham, who has also noted its relation to Lissitzky's Proun space, has written in conclusion:

> In creating this space structure, he had reached the end of the possibilities of an aesthetic, as Malevitsch had done in 1918 with his white on white, and subsequent exhibition structures have achieved a similar extreme position

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> to Le City dans L'Espace without ever being able to go any further. It represents the ultimate condition of the ideas of De Stijl and Elementarism, and the road of progress lay in side-stepping them, or replacing their merely analytical approach by a synthetic one.[39]

It is also true in my opinion, as Banham has stated, that

> De Stijl as a generating influence was practically finished by 1924-5, yet some of the most indicative works of art generated by that influence were produced in those years.[40]

In the list of these "indicative" works of art Banham listed Rietveld's Schroder House, Oud's factory project of 1919 and Kiesler's City in Space which, in Banham's words once more, "was fully and properly seen by the world at large at the Paris exhibition."

These words confirm that in Paris in 1925 Kiesler's City in Space was the only, most provocative and energetic example of De Stijl's international and last phase. At the same time it was De Stijl's swan song, a fact which was understood perfectly well by Kiesler himself who soon afterwards left Europe permanently for the United States, and gradually "side stepped" De Stijl's "aesthetics" onto a road which led him as far as surrealism.

The Brooklyn Heights Theater and the Film Guild Cinema

In looking at Kiesler's interrelations with De Stijl and its aesthetic principles, two other projects ought to be considered, both planned in America, and only one of which was realized, albeit incompletely. The first is Kiesler's plan for a Brooklyn Heights Community Theater (figure 24), the second the Film Guild Theater (now the 8th Street Playhouse in Manhattan) (figure 25), built in 1928.

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The latter is related to De Stijl formally only in its facade which has not survived (all other aspects of this project will be discussed in the next chapter). The drawing for the facade does however relate quite closely to J. J. P. Oud's facade for his 1925 Cafe de Unie in Rotterdam[41] (figure 26).

Kiesler's poster advertising the Film Guild Cinema and its ideology has to be counted among his purest De Stijl works. Its typography uses the horizontal and vertical as well as a bold diagonal (figure 27). Various typeface letters were used to announce the "first 100 percent cinema unique in design," "radical in form" reflected in the poster itself. It is one of the earliest posters in this country to employ the bold De Stijl/constructivist, even Dada practice of radical typography. In fact, Kiesler has reproduced this work by Oud on the opposite page of the reproduction of his facade for the Film Guild Cinema.[42] Both facades were articulated neo-plasticist compositions in which horizontals and verticals dominate. In both cases there is an alternating use of light and dark geometric (rectangular) elements. (Oud also used elementary color whereas Kiesler, who wanted to make a reference to cinema before the introduction of color, stayed with black and white.) The lettering incorporated in both facades into the composition follows the same de Stijl rationale running across as well as vertically echoing De Stijl's experiments in typography. But Kiesler's handsome facade has not survived and New York has lost an authentic example of De Stijl architecture. The second project which was never realized was the Brooklyn Heights Theater. This was actually

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an earlier commission than the Film Guild Theater and Kiesler's earliest chance to build in America. But it turned out to be part of a political intrigue, and when the political climate changed the project was soon abandoned.[43]

The Brooklyn Heights Theater reflects ideas about theater architecture that dominated Kiesler's philosophy of the theater all along his long-standing involvement with the theater and its architecture--from his 1923 Universal through his 1960 proposal for the Universal Theater. A multiplicity of functions, i.e., the theater as a communal center for the arts, and the possibility of converting the same structure--from a large auditorium to smaller concert-halls or a movie theater—is what always attracted Kiesler and the Brooklyn Heights Theater was an elegant and progressive example, using De Stijl elementarist language.

> Here for the first time in America was a truly flexible theater which could be used for movies, plays, concerts and large or small entertainments with equal acoustical and visual excellence. Here was the first in-theater restaurant, the first provision for underground parking.[44]

Besides a general ground plan and section, details about the Brooklyn Heights Theater are not available. An architectural bird's eye view of the project published recently shows that the theater was to be enclosed in glass through which, I believe the inner diagonals of the theaters would have been visible.[45] The Brooklyn Heights theater was included because it seems to signify a transition from De Stijl and constructivist aesthetics to a conception in which these associations would not be relevant any more. The Brooklyn Heights theater, however,

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echoes this European background. Specifically, the theater is reminiscent of the brother's Vesnin's 1923 Palace of Labor which Kiesler could have known through Lissitzky who reproduced it in his aforementioned book (figure 28).

If in fact there is a connection between the Vesnin brothers' Palace of Labor and Kiesler's Brooklyn Heights theater, following are the arguments. First, Kiesler's very interest in a community theater with multi-functions is informed by Russian art of the twenties that stressed the social communal function of architecture. Recall Kiesler's own Viennese experience as an artist who worked for a socialist government in Vienna in 1924 with similar social goals.

From a formal point of view it is arguable that what the brothers Vesnin designed as a tower adjacent to a large auditorium (a vertical articulation next to a horizontal element) Kiesler has transformed elegantly (visually and for functional considerations) into his stage house separating vertically between two lower sides. At the same time it is possible that the massive roof diagonals which were designed for the Brooklyn Heights proposal owe something to the "diagonal mode of composition" which Banhan cited as derived from Ladowskian aesthetics that Van Doesburg has adopted in the mid-twenties by way of Lissitzky.[46] The great diagonal was of course also a dominant feature of Melnikov's Russian Pavillion for the Paris 1925 exposition and Kiesler saw it there.

Thus it seems likely that Kiesler, informed by these latest trends in De Stijl/constructivist aesthetics, applied them to his Brooklyn Heights project which could have made a great contribution to New York architecture and the architecture of Brooklyn Heights.

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The End: Kiesler's Eulogy for Van Doesburg

Finally it seems appropriate for this chapter to include full translation of Kiesler's eulogy to Van Doesburg published in the commemorative issue of De Stijl.[47] It expresses Kiesler's deepest feelings for his friend, champion and mentor. It is also expressive of Kiesler's unique style of writing, his contempt for philistinism, which he expressed with great sarcasm. It translates:

> Doesburg is no more, but his not-being is more being than the present of all neo-architects, citizens and writers.
>
> *
>
> They have made him dead before his death, the clicks, by-friends and writers, and now they want to build him up, to raise monuments for themselves; since time, which denied him the right for a lifetime, has in final account done him right. This pure character weighed down to the breaking point by the emptiness created around him. Except for two or three the "De Stijl" profiteers left him alone. After he has fought for them and their cause for ten years; for when they grew, even getting good commissions or positions, his critical look followed them, and made them all equal before the given problem.
>
> This they took personally. The propagated "Neue Sachlichkeit" was in one's own stable something too new and exorbitant; treachery was cheaper, in France, in Germany, in Russia and in Holland.
>
> *
>
> Now all the journals will publish him, now in France, in Germany, in Russia, in Switzerland, America, Holland.
>
> Now housing projects will build his houses, now, in Stuttgart, in Moscow in Berlin in Zurich in the Haag. Now the International Congress of Architects will make him a member.
>
> Now that he is dead.
>
> Now publishers will find the nine rejected manuscripts in the estate, now.
>
> Now, a strange present. And even now, still, they and their by-friends will find consolation for their own great incapacity: that he was only a theorist. He was the best of practitioners hot for action; that he appeared outside like a theorist was not his fault, but was that of his surroundings; a deceit, which enclosed the truth: He was not a theorist by compulsion, not choice, like Wright, like Loos.

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> Where is progress, saver-of-architects?
> Your functionalism is stuffed to the nose with self-search. Or are you going to play hide and seek forever behind coffins?
> I am repulsed by the recapitulated story of the fore-fighter's fate, who stand behind ahead of the followers, through whom the depravity of other generations is coming back again, and who besides pretend to give more than good craft, namely social-solutioning, but whose enterprise would be greater by staying with enterprise.
> *
> What is left for the creative temperament but to escape into his sense of humor. Divine narcotic, to drive the fun into extravagance, to fall into grotesque clowning which hides all the heights and depths of human tragedy, till his breath and heart betray him.
> *
> A theoretist, the judgment will be the same in spite of death and all other deaths he died before. Since the wholeness of his personality which included everything, man, metier and theory was a totality which could have materialized unbroken, but everything was demanded: complete trust and compete means—or nothing.
> *
> For less only fellow friends make it. And their's is and remains forever the success.
> *
> Doesburg died the most unnatural, the best of all deaths, that of his personality.
> Kiesler (New York, May 1931)

This is no doubt a deep-felt eulogy; written in New York where Kiesler has already experienced disappointment (the Brooklyn Heights theater project that fell through) that gave a reinforced sense of personal identification. The same holds true for the issue of practitioner versus theorist that Kiesler identified with, as he did with the attitude that transforms misfortune into humor as a refuge for the frustrated creative mind who is not given a chance. The same spirit can be found much later in Kiesler's career as a writer, in his journal, Inside the Endless House, where he would speak, for instance, of "Pioneers turned

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into Philistines, and Philistines into artists of cash"[48] which is a latter day version of a similar mood by an older man. Yet in another form he would write about the destiny of the artist:

> Society (not the people--they are innocent) buries the artist alive. Decades later it exhumes him, dresses him up in purple, sets a crown on his skull and diamonds in the caves of his eyes.[49]

The City in Space, which was an unparalleled project in De Stijl history and an extreme application of its principles, marked at the same time De Stijl's decline as a generative force which could not go any further than it has with the City in Space. Kiesler, who expressed extreme dislike for any epigone aesthetics and creative philistinism will go on to further develop his own ideas on architecture. De Stijl provided a milieu, to a certain extent an aesthetic, but Kiesler was different, always an eccentric and a visionary. This is easier understood when reading Kiesler's hindsight view of what he did in Paris in 1925--the name De Stijl does not appear. Some thirty-six years later, on October 27, 1961, he wrote in his journal:

> Yes, one of these months I come, I hope I shall return to Paris on wings of the spirit of 1925, when, for the first time, I exhibited at the Grand Palais my projected "City in Space." I described it then as a "constellation without boundaries." Floating dwellings, the habitat for the man of the future, when he can feel at home in anyone's place, and is welcome. After all, it's a matter of eating, sleeping, dressing, resting. Why must there be such diverse designs for housing when the functions are so simple and so similar? The variations in room sizes and materials for which we now clamor are really meaningless. The forced dissimilarity in housing today is outrageously naive. So much ado about nothing. It would be a lovely world, to feel at home everywhere. Of course, the sense of property would have to be abandoned because every house would belong to everybody. But the only real problem would be the standard of living:

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> it should be on a high cultural level, not measured by the yardstick of plumbing. I imagine that Gandhi and Einstein could have exchanged homes very easily.
>
> Once caught in the laws of continuity, we cannot escape the rhythm of leaving, returning, leaving again, which is inherent in the cycles of eternal transformation. These laws seem to be the only solidity we can build on.[50]

De Stijl and the interpersonal influences it brought about was an important stage in Kiesler's development but deep down Kiesler was a visionary beyond the boundaries of De Stijl or any style. But historically, inasmuch as De Stijl led to the Bauhaus, it is significant that Kiesler's contribution to the great series of the Bauhaus Bucher was to be on the City in Space.[51]

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Notes

[1]Creighton, p. 110. A complete and excellent reconstruction of the Leger and Trager display units, the City in Space (and the Space-stage) has been undertaken by Thomas Weingraber, in Dieter Bogner, Friedrich Kiesler, pp. 320-330.

[2]Reyner Banham, Theory and Design in the First Machine Age (New York: Praeger, 1972, p. 215.

[3]"Design's Bad Boy," p. 84.

[4]Henry Russell Hitchcock, Architecture of the Nineteenth and Twentieth Centuries (The Pelican History of Art, 1975), p. 472.

[5]Ibid.

[6]Creighton, p. 106.

[7]Alfred H. Barr, Jr., Cubism and Abstract Art (New York: The Museum of Modern Art, 1936; reprint 1966), p. 144.

[8]Creighton, p. 110. About Mondrian Neo-Plasticism and the city, see also Manfredo Tafuri, Architecture and Utopia: Design and Capitalist Development (Boston: MIT Press, 1976; rpt. 1985), p. 92 and footnote 59. Cf. also a related idea about Mondrian and Kiesler's City in Space in Robert Pincus-Witten's essay, "Thinking About Kiesler," in Frederick Kiesler: 1890-1965 Galaxies (New York: The Alfred Kren Gallery and Jason McCoy, Inc.), n.p., fn. 8.

[9]Hans L. C. Jaffe, De Stijl (London: Thames Hudson, 1970), pp. 173-177, particularly p. 174.

[10]AAA, Roll 127, frame 142-178.

[11]Frederick Kiesler, "Ausstellungssystem Leger und Trager," De Stijl, 6 year, nos. 10 and 11, Series XII (1924-1925), pp. 138-141; and "Manifest Vitalbau-Raumstadt Funktionnelle Aschtectur," De Stijl, 6 year, nos. 10 and 11, Series XII (1924-1925), pp. 141-146.

[12]Nene Wiener Presse, 6 September 1924, AAA Roll 127, frame 106.

[13]Nene Wiener Presse, 25 September 1924, AAA roll 127, frame 118.

[14]These five points can be found in a useful volume of tests titled Programs and Manifestoes on 20th-Century Architecture, ed. Ulrich Conrad, trans. Michael Bullock (MIT Press, 1971), p. 98. Kiesler is represented by two texts, the second of which is "Magical Architecture of 1947," and which will be reported later. See also Conrad's Foreword which

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presents the entire collection as anti-functionalist and puts Kiesler's texts in this most appropriate context. Conrad however, did not take Kiesler's first text from De Stijl where it was first published but from G magazine, no. 4 (March 1926): 10-11. He mentioned De Stijl but has omitted the first part of the manifest for some reason, as well as its entire second part. Cf. also Friedrich Kiesler, "L'Architecture Elimentarisee," De Stijl, no. 79-84 (1927): 50-62, 101-102.

[15]Creighton, p. 110. About De Stijl's exclusion, cf. Dieter Bogner, Friedrich Kiesler 1890-1965, p. 21 and fn. 30.

[16]Creighton, pp. 109-110.

[17]Roger Held, Endless Innovation, pp. 89, illustration, p. 90.

[18]Frederick Kiesler, Contemporary Art, p. 62.

[19]Ibid., Contemporary Art, p. 58.

[20]Ibid., p. 40.

[21]Ibid., p. 48.

[22]Ibid., p. 62.

[23]Design's Bad Boy, p. 89.

[24]Friedrich St. Florian, "Frederick Kiesler Architekt der Unendlichkeit," in Frederick Kiesler 1890-1965 (St. Stephan, Wien: Galerie Nachst), p. 4.

[25]A comparison between the two architects will be made in the chapter on Kiesler's theories.

[26]AAA, Roll 127, frame 293, 10 September 1925.

[27]AAA, Roll 127, frame 283, Figaro, 3 August 1925.

[28]AAA, Roll 127, frame 295, 29 July 1925.

[29]There is a significant similarity between the conception of the single unit (like the Endless House or the Space House) and the approach to city planning as a whole. Kiesler seems to have anticipated this idea expressed two years later, in 1927, by a contemporary scholar L. Hilberseimer who wrote:

> "The architecture of the large city depends essentially on the solution given to two factors: the elementary cell and the urban organism as a whole." (Quoted in Architecture and Utopia, p. 104)

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[30]G (Berlin), no. 4 (March 1926), p. 10.

[31]"Today I am accused of being a revolutionary. Yet I confess to having had only one master: the past; and only one discipline: the study of the past." Quoted in Le Corbusier in Perspective, ed. Peter Serenyi (New Jersey, 1975), p. 40, as motto to Karel Teige's article, "The Mundanean."

[32]See El Lissitzky, Russia: An Architecture for World Revolution, trans. Eric Dinhosch (MIT Press, 1970), pp. 138-140; "Prown Space," the Great Berlin Art Exhibition of 1923, p. 139.

[33]Lissitzky, p. 139. The text was written in The Hague and this may provide a territorial if not substantial connection to De Stijl.

[34]Ibid., p. 149.

[35]Museum of Modern Art, Kiesler Archives, List of books owned by Kiesler, p. 6.

[36]Lissitzky, p. 66.

[37]Ibid., p. 64.

[38]Frederick Kiesler, Contemporary Art Applied, p. 41. See also Creighton, p. 121, "I never met Sant'Elia, the Italian architect who impressed us greatly at that time with his multi-elevated street levels."

[39]Banham, pp. 197-198.

[40]Ibid., p. 199.

[41]About a planned visit to Amsterdam Kiesler wrote, "In Amsterdam I hope I'll meet my old De Stijl friends: J. J. P. Oud, Rietveld and Van Eesteren--and Rembrant Van Rijn at home. I never did." Frederick Kiesler, Inside the Endless House, p. 554.

[42]Frederick Kiesler, Contemporary Art Applied, pp. 86, 87.

[43]Design's Bad Boy, p. 89.

[44]Ibid.

[45]Illustrated in Bogner, Friedrich Kiesler, p. 38.

[46]Banham, p. 199.

[47]De Stijl, Dernier numero (Janvier 1932): 53-54.

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[48]Frederick Kiesler, Inside the Endless House, p. 223.

[49]Ibid., p. 234.

[50]Ibid., p. 507.

[51]Creighton, p. 106. According to Kiesler, tbook was announced according to Kiesler in the year he left for the United States but was never published.

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CHAPTER III

THE ENDLESS AND THE UNIVERSAL: KIESLER'S APPROACH TO THE THEATER

A fresh attitude to set design and the stage has distinguished Keisler's emergence within the avant-garde of Europe in the 1920s, and it is for the immediate purpose of introducing his exhibition of new theater techniques that Kiesler came to the United States. Thus, these important junctures in Kiesler's career point to the pivotal role the theater played in Kiesler's "Weltanschauung" and career. The Endless as well as the Universal is what Kiesler called his super-theaters and mega-plans for "theater" complexes with "endless" possibilities and activities. They attest to Kiesler's all-encompassing view of theater and express an ambitious outlook on the subject. He preferred to refer to these designs not as "the Endless theater" but "the Endless," and not the "Universal theater" but the "Universal." Thus for Kiesler, it was not just another theater, but a totality of correlated activities.

Given this universal attitude, architecture, the most comprehensive field of design, naturally played a major part. Kiesler, however, also had ideas about acting, stage craft, and certain expectations from the content of plays. He also engaged in the formation of an International Theater Arts Institute (see below). Thus Kiesler was also eager to spread his theories and plans and in America he saw a haven for such activities.

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Kiesler's Exhibition of New Theater Technique in New York

First, follow the ideas about the theater as introduced to and received by the American public. The idea of bringing the New Theater Technique exhibition to New York originated in Paris, in 1925, where Kiesler spent most of that year and where he participated in the landmark International Exhibition of Applied and Industrial Arts as elaborated upon in the previous chapter. Jane Heap, the editor of the Little Review, came to see him about bringing the show to New York, and as Kiesler related, she came at the insistence of Tristan Tzara.[1] She must also have been aware of his previous activities[2] as well as his latest ones, and thus extended the invitation. The financing of the exhibition was to be provided by the philanthropist Otto Kahn who paid for its transportation to New York and promised Kiesler a retainer of $250. The latter part did not come through and this may characterize the material aspect of Kiesler's early American years which he described as the most difficult of his life.[3]

The exhibition was first meant to be fairly modest in scale. As the New York Tribune reported it: "(The) International Theater show far exceeds original plans. From a modest little exhibition the event has grown into the most extensive showing of modern stage craft ever held."[4] This expansion was also reported as a "surprise" that Kiesler had prepared for his sponsors when he arrived from Europe "on the last trip of the Leviathan with 59 cases of exhibits comprising some 1500 individual models, drawings, and constructions of stage scenes"[5] (figure 29).

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Thus, recalling the original exhibition in Vienna (1924) one realizes that Kiesler did not intend to install anything modest in New York. The exhibition was Kiesler's New York debut which brought him into the American limelight and he intended to do it on a scale which well suited the occasion and his own high expectations.

The original location selected for the exhibition was the Fifth Avenue Playhouse at 66 Fifth Avenue (at 13th Street, today's Parsons School of Design) and the designated dates reported were February 15th to March 7th; later the location was changed and the exhibition was destined for the fourteenth and fifteenth floors of the new Steinway building which was just then opening on 57th Street.[6] The actual opening date was February 27th, and the exhibition was ultimately extended until March 21st--two weeks longer than was originally planned.[7]

The Paris Time reported that Mr. Maurice Langner may also have been behind the project and behind the extension of the exhibition in scale so as to include "models embodying his [Kiesler's] ideas at Steinway Hall."[8] The Little Review (with Jane Heap as the editor) was instrumental in bringing the exhibition to New York in the first place, but the Brooklyn Citizen, for example, while reporting of a steady growth in attendance, also credited the sponsorship of several advanced theaters which took the event under their auspices: "The Theater Guild," "the Provincetown Playhouse," "the Neighborhood Playhouse" and "the Village Theater."[9] The New York Times described this group of theaters as "the rebel theaters of New York."[10] The article on the exhibition was titled "Stagecraft Shows Its Newest Heresies" and if irony has not totally

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deprived the meaning of words, the use of the word "heresies" is equivalent to calling experimental theaters "rebel theaters." This should help form a picture of the artistic, social, and political climate into which Kiesler plunged with his exhibition.

The original location for the show was also the address of the Film Guild or the Film Associates, Inc., with which the name of Sheldon Cheney was associated alongside the names of Jane Heap and Kiesler himself.[11] The Film Associates was a distribution company founded for that purpose by the Film Guild--the group for which Kiesler designed, in 1928, the Film Guild Cinema on 8th Street (see below). Cheney was a Kiesler devotee from early on and mentioned Kiesler in several of his books.[12] Cheney also reviewed the exhibition at Steinway Hall in Theater Arts Monthly.[13] For the show Kiesler constructed for the second (and last) time his special display constructions, the "Leger and Trager" method already discussed.[14]

These De Stijl-constructivist display constructions were, indeed, prime examples of what was perceived as the latest style of modernism in Europe. "'After Impressionism,' says this new prophet [Kiesler], 'comes Expressionism, then Cubism, then Constructivism,'" quoted the Evening Post.[15]

There were, however, differences between the show in Vienna and New York. The American theater section was separated from Kiesler's show and the space-stage that Kiesler constructed in Vienna was not erected in New York. Most interesting to the present context was Kiesler's strong message and his conviction that he brought to America

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new ideas about theater suitable to the American spirit which, incidentally, may have inspired his own ideas originally. Recall that Adolf Loos visited America and was greatly impressed by it. and Kiesler's trip and expectations from the New World was equally hopeful and ultimately brought him to this country at that (early) stage of his career. With the intention to stay as he did, turning down an offer to work with Piscator in Berlin.[16] Kiesler's words in the opening of the Exhibition should testify to his feelings about America at the time:

> In bringing this exhibition to New York I represent the youth movement in the theatres of Europe. There is a special fitness in this because we who consider ourselves architects in the theatres look to America as the originator of a new-world architecture, and therefore in a sense the originator of the new type of staging that are here demonstrated. We are bringing you a thing in a sense new to you and yet it is yours. Especially it is your spirit that has brought this new art into the theater.[17]

The New York Tribune picked this idea for its headline "'Youth Movement' Reflected in International Theatre Show."[18]

During the exhibition Kiesler was actively involved in explaining the revolutionary conceptions the show has introduced through lectures[19] and on-the-floor discussions as described by the Tribune. For example:

> The contemporary of Einstein who plans this enterprise was very much in evidence at the coronation, even though the theater itself, owing to metaphysical reasons, was not in sight. A man not taller than five feet, Kiesler stood amid post-Impressionistic surroundings, interpreting for the multitudes what the fourth-dimensional theater had to say to them.[20]

During the time of the exhibition, Kiesler and the actress known as Princess Matchabelli (Maria Carmi) announced the establishment of the International Theatre Arts Institute. On this occasion, and speaking

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through a translater and with the help of Princess Matchabelli, Kiesler expressed ideas that may have sounded slightly out of line to the political sensibility of his American audience at the time. The World (March 16, 1926) as well as the Tribune (March 15, 1926), while reporting about Kiesler's new ideas about a fourth-dimensional theater which will cover the psychology of the theater and the science of physical coordination as applied to the stage, both quoted the princess as saying, "that the scenery of the old school was born of imperialism." "Wherever there is democracy and liberty," she said, "the old conventional theater cannot prevail."[21]

The New York Review also reported what was most likely the same event. Here, however, the quote about "the old school theater that was 'born in the spirit of imperialism'" was given to Kiesler himself who also said that his spirit "could not prevail in a country where democracy and liberty were [not] dominant" and then he is quoted as saying: "We need a theatre of the people and the theatre of today is not of the people." This, so it seems, sounded too Russian ("Bolshevist") for the paper which allowed an innuendo reporting that the second interpretor helping Kiesler to communicate was Charles Recht, attorney for the Soviet government. Kiesler then is quoted as declaring—in the same spirit and tone--a Manifesto, a loaded word in this context, saying: "We will create a theatre for the masses approaching the project by all paths." The paper then reported that Kiesler--in response to a question--"denied that his plans were to exemplify Soviet ideals" and the paper added that "Kiesler appeared surprised to learn of his interpretor's affiliation with the Bolshevist representatives here."[22]

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It emerges quite clearly that the political climate which Kiesler found in the United States was somewhat different from that in Vienna where he presented the very same material. In Vienna, the exhibition was sponsored by a socialist government and the artistic influence of Russian revolutionary art was accepted or better understood. It was regarded as a matter of course, was known and was not a cultural/political threat. Here it seems the apprehension in regard to Soviet ideals was a real force in public opinion and a factor shaping the attitude toward, and evaluation of, the exhibition and its revolutionary artistic content. Kiesler, as this writer has come to perceive him, was not a very "political" man in the narrow dogmatic and/or partisan sense. He was a true democrat and a somewhat romantic populist and he would side with "the people" or even "the masses" not "the rich" bourgeois whom he did not respect. Thus, his surprise, while learning that his interpretor was connected to Soviet interests, was no doubt authentic.

Kiesler's attitude to the subject may be extracted from a letter to the New York Telegram concerning the school of the theater (a project which seems to be related to the International Theatre Arts Institute, the address of which was given then as 2 West 78th Street) in which Kiesler wrote in conclusion: "The aim of the school is to crystalize the beauty of our time, no isms, no politics, no negation of the past nor copying the past but art of our time."[23] "To be of the time" was the objective, and contemporaneity Kiesler believed, America naturally possessed and therefore should also claim for its theater, for its social

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and democratic life as well as for its architecture and design. But this, one realizes, was not so easily and naturally accepted in 1926. "America," as reflected in the press, was quite obviously sensitive to any manifestation that seemed ideologically linked to "Bolshevism," and this points, incidentally, to what will develop again after the Second World War in the "Cold" War. But the political content of the show and some of the apprehensive responses should not dominate one's impression. The press covered the event generously and extensively, and the name of Kiesler was and an inseparable part of it. In the eyes of at least one German language paper, the exposition Kiesler brought to New York made him an overnight success, and made his name known.[24] And this "gossip" among the "Viennese of New York," an outsider's view, represents credibly at least Kiesler's fame, if not necessarily his real success: be that as it may in the Europeans' eyes, he "made it" in New York.

The International Exhibition of New Theater Techniques and its diverse contents and Kiesler's own works and contributions to this international event are to be separated. Kiesler as a curator provided information about the young European theater: Futurist, Cubist, Banhaus, Constructionist, and Expressionist. This was as an art curator arguing through an extensive and generous supply of material. But Kiesler made his own contribution outside the curator's role consisting of his own architecture; plans for the Endless Theater, the sculpture model of the Endless by way of plans for the Optophon.

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The Optophon II

The Optophon in today's perspective was a multi-media "event," a space installation, as actorless theater. But almost two generations ago, it was perceived as a challenge to the traditional theater and its recitation made action on stage. Here the mechanical component--the control board--was the script and the actor's action was substituted by electrically generated sound and visuals which in the Optophon substituted human action or acting. Kiesler regarded the Optophon as important enough to reproduce (in ground plan) on the cover of the special issue of Little Review, dedicated to the exhibition. It is quite interesting that this audiovisual, sight and sound, was perceived as offering a terminating challenge to the theater. In today's perspective, once again looking at a short history from the "happening" to the performance, i.e., semi-theatrical conceptions originating in the visual arts (not theater arts) it is much easier to see where Kiesler was headed.

The apprehension at the time was related to the fact that Kiesler went a step beyond a mere audiovisual conception and planned it as a theater. According to Roger Held's reconstruction of the Optophon's ground plan, the Optophon was a square theater with a central square "stage" (a theater in the square) with rows of seats building up on each side of the (square) open stage forming a Greek-cross of seats. Columns were located on twelve right angled corners of the cross and another four columns of the theater's square circumference, thus leaving four open-air squares on four corners except for the two right angular ramps connecting two sections of seats each (two arms of the cross)

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on diagonally opposite sides. There were four entrances leading up to each of the four seating areas.

In spite of Kiesler's provocative, "foreword" to the special issue of the Little Review and a long article on the "Debacle of the Modern Theatre," Kiesler did not intend to terminate the theater or acting. The Endless Theater Kiesler planned (figure 30) was a theater of theaters; it provided space for more than one theater and the plans for this gigantic flattened sphere, metal and glass shell construction attest to its complexity. The plans for the Endless were shown in the New York as was an egg-shaped model of it (figure 31) and all in a prominent place. The total of Kiesler's ideological and architectural contributions stirred a diversity of responses and counter explanations which demand the viewer's attention.

First, recognize the professional press, Theater Arts Monthly to be exact, where Sheldon Cheney who, as mentioned already, supported Kiesler and wrote about the Exhibition:

> Some of the promised things that are likely to prove of interest—even to stir us to argument and protest—are Kiesler's Optophon, an auto-theatre set in a hollow in space without stage or actors, presenting a mechanical symphony of color, lights, music and movement of volumes gaining absolute precision through manipulation by an electric switchboard. Depros mechanical flowers Prampolini-magnetic theatre actorless.[25]

This paragraph seems to indicate that the Optophon played a particular role in stirring "interest" or "argument and protest."

Since existing information concerning the Optophon is reduced to descriptions and a very general ground plan, Cheney's "description" should be read as interpretation and for information.

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But the Optophon emerges as an early, environmental architectural "sculpture" (performing electro-mechanically) that Kiesler described the Optophon as his "only 'neoplastic' building."[26] Therefore, the Optophon, as architectural sculpture and a challenge to the theater at the same time, should also be considered as one of this century's earliest mechanized "performances."

Kiesler's description of the Optophon, analyzed in the previous chapter from an architectural and stylistic point of view, shall not be repeated. The specifics of the Optophon's stage-machine, however, deserve a second reading: "In the center was a mobile-machine for partly abstract or realistic visual and phonetic plays which would run automatically."[27]

Kiesler, then, just presented an open-ended definition of the Optophon--a name probably of his own invention--and it is left to the viewer's imagination to decide exactly what a "visual and phonetic play" is and what an "abstract or realistic" play could be like. There is no indication that Kiesler ever went as far as specifying in these matters, and it is interesting that he has in fact accepted and acknowledged the difficulty at the time in realizing a long-shot project as the Optophon was. "The Austrian Government couldn't get any money even for ordinary types; this was too vague and too fantastic anyway to spend Government money on."[28]

Recall that Kiesler experimented with quite similar techniques on stage as early as 1922 with the electrically mechanized sets for "R.U.R." and particularly the gradually changing stage in motion for

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The Emperor Jones a year later. The Optophon then was a bolder move in this direction, where Kiesler has indeed made the move toward an actorless theater. It is here that the ideas of Oskar Schlemmer of the Bauhaus come to mind, since he has spoken about the modern mechanization of man, which he wanted to express on stage. But Schlemmer has stayed with the actor/dancer while Kiesler has made this significant extra step, superceding the actor altogether developing the automated audio-visual Optophon. Therefore, little is gained by comparing the Optophon to Schlemmer's work. Schlemmer was important but only in the general context of the new theater and its various techniques, which Kiesler exhibited in Vienna and New York where Schlemmer was included. Kiesler, then, was well aware of Schlemmer's work which may have influenced his own sets and perhaps the various costumes he designed for his Juilliard sets, but in this particular context, the Optophon and Schlemmer's work have little in common.

Jack Burnham, who dealt in his study Beyond Modern Sculpture with kinetic art and has described quite succinctly the kinetic impulse in modern art wrote:

> at its roots Kinetic Art represents the contemporary artistic recognition of the drive toward total mechanization; it is the celebration of what Franz Reuleaux, in defining the machine, called the "closed kinematic chain"--the ability of man to control motion and power in a determinate fashion.[29]

The chapter from where this is quoted, entitled "Kineticism: The Unrequited Art," provides related, albeit not directly relevant, information concerning our subject. Kiesler is not included in this account, or for that matter anywhere in the book. But his Optophon could easily

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fit into the topic. However, if the Optophon is to be viewed more as actorless theater (architecture, not sculpture) the omission can more easily be understood, and this will also bring this discussion back to a line of presentation and Kiesler's philosophy of the theater at large. Roger Held, whose writings about Kiesler concentrated on the stage, described the Optophon as a "pavillion." He focused on the Futurist influence on Kiesler, and Prampolini's work in particular, taking into consideration the fact that Kiesler knew about Futurist theater, and knew Prampolini personally. Held also related correctly that Prampolini was in Vienna during the first New Theater Techniques Exhibition in 1924, and stayed with the Kieslers.

Futurist Influence and the Influence of Edward Gordon Craig

There is hardly any doubt that Futurist ideas about the stage and theater played a key role in Kiesler's development. As Held has noticed, "Prampolini spoke of actorless theater as early as 1915."[30] It is curious to note that in Paris at the international exhibition of decorative and industrial art (for which Kiesler planned his Optophon and showed his City in Space), Prampolini exhibited his Magnetic Theater which won him the Grand Prize for theatrical design.[31]

Michael Kirby, in his Futurist Performance has described Prampolini's Magnetic Theater as "basically a completely abstract or nonobjective composition of moving three dimensional elements, light, and sound."[32]

Kirby has also shown that the idea for the actorless theater existed in Futurist theory and practice quoting as an example Balla's

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staging of Igor Stravinsky's Fireworks (Feud'Artifice) in Diaghilev's production of the Ballet Russe, in Rome in 1917. But beside the actor-less theater, a conception which both Kiesler and Prampolini brought to the International Exhibition in Paris, the idea of a dynamic set (which Kiesler employed successfully and realized in R.U.R. and The Emperor Jones, 1922, 1924) had a precedent in Futurist-manifested theory and practice. In his first manifest concerned entirely with theater, "Futurist Scenography," Prampolini expressed ideas which Kiesler must have known. Thus Kiesler executed in the Emperor Jones, quite literally, a tenet proposed by Prampolini which says that "One must create an abstract entity that identifies itself with the same action of the play."[33] Prampolini also talked quite explicitly about "dynamic stage architecture that will move" and distinguished between "the dynamic stage" and the "static stage."[34] In the set for The Emperor Jones, the moving set was an "abstract entity" and more than a painted backdrop in motion. The electromechanical set for R.U.R. echoes Prampolini's ideas and terminology such as "electromechanical architecture," which Kiesler seems to have adopted.

Kiesler included three Futurist texts in his catalogue for the New Theater Technique exhibition in Vienna (and the American version that followed) by Marinetti, Russolo, and Prampolini's second most important text on the theater: "L'Atmosphera Scenica."[35]

Thus, Futurist influence on Kiesler's earliest efforts in the theater has to be acknowledged; yet similar to the situation in painting and sculpture, Futurist practice was not as advanced as the inflamatory

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rhetoric and the extremity of ideas expressed in the abandon of its manifestos. Thus, Kiesler, who never saw himself as a Futurist or heir to the movement can be said to have realized just as much of Futurist "dogma" as have the Futurists themselves. And his two early set designs which included movement, engaging electromechanical elements and cinema, realized Futurist ideas as successfully as any of the Futurists.

Along the same lines, Marinetti's ideas about the total theater which "systematically intermingled performer and audience and had radically changed the spectator's relationship to what he saw,"[36] may have inspired Kiesler's thinking resulting in his Endless theater, which may have come close yet to Marinetti's circular, total theatre which "employed a large round central stage, eleven smaller stages scattered throughout the audience area, and a peripheral stage ringing the circumference of the auditorium."[37]

But it was left to Kiesler to show what such a total theater would be like and the Endless, albeit a plan only, made the step toward what the futurist left to the future. Thus, there can be a qualified acceptance of the futurist's influence on Kiesler, as Held has done. But we disagree with Held who also indicated that "Kiesler seems not to have given emphasis to the Futurist cause"[38] in the International New Theater Technique exhibition. One other historical factor that forces one to avoid the tempting overemphasis of Futurist influence on Kiesler is a common source for the Futurist and Kiesler alike--the work of Edward Gordon Craig. Kirby stated unequivocally:

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> Although Prampolini's imagery was energetic and violent, Craig already had foreshadowed the basic concept of kinetic scenography. In January 1908 he exhibited a series of etchings in Florence that showed a stage setting or "instrument" called "scene" that was endlessly transformable and in which the movement of the physical elements was to be an important part of the performance. The etchings do not actually show movement: each one, representing a movement in the progression of changing spaces, shapes, and lights, appears static.[39]

Lillian Kiesler, the artist's widow, mentioned to this writer on several occasions that Kiesler was profoundly impressed by Craig, whom he much admired. She may have even hinted, somewhat inaccurately, to that very set of "Florentine" etchings in what she described in a recently published essay as "a copy of Gordon Craig's Florentine Journals" being one of "three important objects he brought with him to America in 1926."[40]

In reading Craig himself, one finds the intense spirit and vision that Kiesler must have liked and which consequently found its way into his own writings (and work). In an article on Craig, Paul M. Talley stated that "with Craig architecture is an obsession."[41] He stressed Craig's emphasis on the connection between stage design and theater architecture. Kiesler studied this subject extensively, and was no doubt inspired by Craig. Thus in Craig's Towards a New Theater[42] one reads:

> Once upon a time, stage scenery was architecture. A little later it became imitation architecture; still later it became imitation artificial architecture. Then it lost its head, went quite mad, and has been in a lunatic asylum ever since.[42]

Elsewhere, commenting on his design for an entrance hall of a theater Craig wrote: "one of these days we shall get away from the gilt and

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the rococo and the inconvenient conveniences of modern theater building."[43] These quotes can be related to what Kiesler wrote saying: "Our theaters are copies of obsolete architectures. Systems of superannuated copies. Copies of copies. Barococo theatres."[44]

In a discussion of new attitudes to the show window, Kiesler, in his 1930s book Contemporary Art Applied to the Store and Its Display, gave a short history of "the revolution in the theatrical arts" saying it was "forecast by Gordon Craig practically carried out by Reinhardt, and developed into 'constructivism' in Russia and Austria."[45] Thus it seems that Kiesler who was among the "architects in the theaters" also found profound inspiration in Craig's attitude to styles and change and his emphasis on theater architecture. Craig may have played a formative role in Kiesler's development similar in its impact to that of Wagner and Loos.

"Death of the Theater" and the Optophon; "Debacle" and "Renewal" of the Theater

The Optophon as an actorless multi-media environmental conception, was no doubt consistent with Kiesler's rhetorical expressions concerning the death of the theater. An example of his unequivocal and purposely provocative rhetoric was that "The theater is dead," was the opening statement in Kiesler's "foreword" to the special issue of the Little Review, as well as to the catalogue for the exhibition. Something in this provocative style and tone was owed to Futurism and its revolutionary defiant voice. In this foreword--consisting of a sequence of similarly structured short statements--Kiesler set a challenging tone which will be best served by quotation in full. It reads:

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Foreword

The theatre is dead
We are not working for new decoration.
We are not working for new literature.
We are not working for new lighting systems.
We are not working for new masks.
We are not working for new stages.
We are not working for new costumes.
We are not working for new actors.
We are not working for new theaters.
We are not working for the theatre that has survived the theater.
We are working for the sound body of a new society and we have confidence in the strength of newer generations that are aware of their problems.
The theater is dead.
We want to give it a splendid burial.
Admission 75 cents.

Kiesler[46]

I have indicated already that one should distinguish in Kiesler's provocative manner of writing--between the deliberately daring and provocative--and a real intention to terminate the theater. Thus for the sake of a revolutionary sound, and in order to state a radical position, Kiesler was ready to declare the theater dead. He meant that the exhibition did not represent a modernizing reform, but a totally new, revolutionary and socially relevant attitude to the theater.

The Foreword ended with a prosaic "price tag"--"admission 75 cents" which of course is a part of Kiesler's irony and also serves within the provocative content of the statement, as a humorous qualifier to the Futurist extremity to which the statement resorts. A voice in the Morning Telegram responded promptly: "Damn cheap, I'll say for funeral services held in a morgue. And nobody has to go to work in the bargain. But maybe we're all dead at that, and don't know it."[47]

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Incidently, the unsympathetic humor expressed by this paper was carried over to the next morning when the paper took a more sarcastic and negative attitude toward Kiesler's design of the catalogue (which followed the same experimental typography as in the catalogue for the 1924 Exhibition in Vienna) as well as his special installation method (Leger and Trager). Under the title "what fun foreigners are" some of what the article contains reads:

> And a murrai non the man who printed the catalogue in that crab-wise form, so looking up an exhibit number was hardly worth the effort and on whosoever--presumably Herr Kiesler--insisted on hanging the exhibit on $2000 worth of rabbit hutches made of fantastically painted wooden slats. The background should have been neutral, unless one preferred to look at it rather than risk an eye on some of the exhibits.[48]

So, if the paper's attitude to "foreigners" displays the traces of a provincial bias, it is nonetheless instructive concerning the existence of such attitudes and remember that considerable fortitude and a real avant-garde determination was required to challenge an unsympathetic establishment, and that philistine opinions definitely still existed outside the immediate circle of the art world or better its more radical members.

In the Optophon Kiesler developed an instance for the "theater that has survived the theater." But it is in Kiesler's article "Debacle of the Modern Theater," also in the special issue (of the Little Review), which incidentally like the foreword/manifesto we quoated already was and previously published in German in the catalogue for the New Theater Technique exhibition in Vienna 1924, that Kiesler expounded his ideas

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about the stage. The article's subtitles specify its subjects: "Picture-Stage, Actors, Space-Stage, Laws of the Stage."

The emphasis in this article is on the new stage as a spatial conception that breaks the two dimensionality of the peep-hole, the proscenium stage barrier which was Kiesler's and the modern stage's greatest "enemy." Kiesler has analyzed succinctly the state of the stage and theatre architecture--two aspects of the same, for which the space-stage and space-architecture was to offer an alternative. The Spacestage was discussed previously. In this article, however, there is a clear statement which should clarify the role of the Optophon as pure stage: "the basic principle of the stage," he wrote, "is optophonetic construction."

The plan for the Optophon then was a straightforward application of this basic principle radicalized; it had no actors. The rationale for the Optophon is further explained:

> Plays for such a stage are not novels, histories, stories, poems turned into dialogue. The stage has its own laws: it does not sublet from bookmakers and directors. The instruments it has to work with are elementary: space, speech, color. The tone of the idea is the structural theme.[49]

The Optophon, albeit not cited by name, was clearly implied in these lines, and was, no doubt, planned to realize Kiesler's rather radical alternative for the common play.

This article, originally published in the Vienna Catalogue, was translated and republished because it was Kiesler's most comprehensive article about the stage. A critical analysis of the present-day peep-show stage was an important task that the article has undertaken; this,

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as opposed to the more "positive" content and attitude in the 1926 article published in De Stijl "Renewal of the Theatre."[50] One article, as the title suggests, talks about "debacle," the other about "renewal."

Kiesler's analysis of the "Picture-stage" went as far as a "mathematical" "formula" as Kiesler termed it "Summing up, . . . the laws of construction in the peep-show stage."

C = stage + Elements x Motion

$$C = \frac{G}{ZH \times EW \times NS} + \int_{e}^{u} \left(\frac{F}{M_i^a} + L + R\right) \times \frac{dB}{dT}$$

The denotation is as follows:

C = construction

G = sphere

ZH = direction: stage zenith-stage nadir

EW = direction: stage east-stage west

NS = direction: stage north-stage south

u = integral between upper and lower limits (in the strength of)

c = color

M_i^a = material (animate-inanimate)

L = light

R = sound

dB = differential of motion

dT = differential of time

In plain words, the construction of the conventional stage with its four directions is added to the integrated elements of color, material, light and sound, multiplied by motion and time.

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It is quite possible to see this formula as no more than a trivially true definition of the stage, shrouded as a pseudo-mathematical "formula." Kiesler may have had the intention of stressing that the peep-show stage is an hermetic entity bound by an inevitable law or formula which it cannot supercede. Therefore, only new conceptions such as the Spacestage or the Optophon offer an alternative to the closed peep-show stage.

Another point that Kiesler makes relates to film. Kiesler (whose interest in this new medium was already mentioned) stated clearly:

> The film has nothing to do with the symphonic, spatial organization of the stage elements. Its task is to break clear of all imitation of the theater. And the stage must not become a replica of the film; it must go deeper into its own laws.[51]

This is a purely formalist position. The stage becomes pure form by going deeper into its own governing laws, becoming its own definition. Along the same lines a clear distinction is made between the stage, its implied architecture, and what is required to show films. Kiesler had an opportunity, two years hence, to design and build a "theater" designed purely for showing films. This is the project of the Film Guild Cinema in the year 1928.

The Film Guild Cinema

If Kiesler required the stage to go deeper into its own laws so as to function and become pure form like the Optophon, he expected the same for the moving picture theater. And when the Film Guild of New York decided to build its own cinema Kiesler was chosen to design it. Kiesler has described the events leading to it as follows:

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> When I came to America in 1926 with the International Theater Exhibition, a little man by the name of Simon Gould became wide-eyed and talkative: "Won't you design me a cinema just as you feel it should be? I'm an importer of foreign films and have created with Irvin Shapiro the little cinema movement—just last year. I haven't much money but we'll find enough to build it." We did build it in 1927-28, and it's still there, the 8th Street Cinema, and unchanged except for its proscenium.[52]

As we have seen, Frederick Kiesler was connected to avant-garde theater groups which sponsored the international exhibition at Steinway Hall and the Film Arts Guild was one of them.

The Film Guild itself was a pioneering group directed by Simon Gould who took it upon himself to introduce to America the best and most advanced silent movies, American and Continental. The avant-garde character of this Guild is perhaps best illustrated in Gould's "tough battle with censors" to allow Potemkin before the American public. This adds to the appreciation of the intellectual climate of the time which was suspicious of foreign artistic innovation, The apprehension that was expressed in the press toward Kiesler and his "constructivist" or so-called "Bolshevist" exhibition in 1926, motivated the censors who Simon Gould had to fight in order to admit Eisenstein's masterpiece Battleship Potemkin into this country. (Potemkin represents a dramatization of an early revolutionary insurgence in Russia.) Simon Gould himself described his guild as follows:

> The Film Art Guild is the pioneer group in the "Little Cinema Movement of America" which has for its aim the presentation of artistic films of unusual merit and appeal in order to focus on the screen in its growth toward an individual art form embodying new ideas of expression.[53]

Introducing Kiesler he described him as

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> the noted Viennese architect who has especially conceived, and is planning and designing a structure directly inspired by the innate necessities of the cinema and embodying revolutionary principles of architectural formations, both interior and exterior.[54]

For the inaugural program[55] of the newly built Film Guild Cinema from which I have quoted, Kiesler contributed an outline he titled "Tracings of the Architect" (figure 32) in which he listed his previous activities leading to the design of the Film Guild Cinema. According to Kiesler, he started the search and research toward the ideal theater and the ideal cinema in 1918 (after World War I and ten years previous to the commission). Kiesler then listed his set at the theater Am Kurfurstendamm (Berlin)—his electromechanical stage-set for ..U.R., as a stage toward the screen-o-scope. The screen-o-scope was a specially designed curved screen which Kiesler defined as "a device for the main screen with three auxiliary screens spanning the auditorium."

Another historical point Kiesler made related to his 1923 moving set for The Emperor Jones with its funnel-set as an idea to the funnel-shape cinema auditorium he built, so as to direct maximum attention toward the screen. In his "tracings" Kiesler has also quoted as precedent his experiments with lights for the Vienna Festival as well as a "black auditorium with a screen." He mentioned plans for "conic-shaped" and "rag-shaped" auditoria. As the three functional innovations for the Film Guild Cinema Kiesler listed the "projectoscope," which he described as "a gallery of light-stations encircling the auditorium sending rays in all directions" (reminiscent of the projection device used in a planetarium), the screenoscope the multiple screen

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accommodating the various projections, and a "seating plan" which was designed to complement the screenoscope in providing ideal viewing conditions for all 485 viewers. The "tracings of the architect" ends with two paragraphs where Kiesler expresses some of his views on architecture in general as well as the difficult process involved in realizing a vision; it reads:

> the realization of any architectural ideal means combat; the realization of an ideal cinema means war—war against space and time; war against an army of salespeople and experts.

There is of course some truth to this description of the obstacles confronting any architect and one as innovative and unconventional as Kiesler in particular, but this commission--one of the few buildings Kiesler ever completed in the United States and a commission for a sympathetic patron--should not have aroused such a combative spirit. Therefore what this paragraph probably indicates is that for Kiesler any architectural, creative realization was involved with conflict and combat. This may account partially for Kiesler's very limited building record. The final plans were filed on August 1, 1928 at the Department of Buildings of the City of New York. Indeed Kiesler had his share of disappointments and, beside the facade which did not last long and had to be altered, the projectoscope he planned as the device that could turn the interior of the theatre into a total environment through multiple projections of light and slides was also not realized.

Incidentally the word CINEMA used on the facade of the Film Guild and which was also part of Kiesler's original plan commenced the purely

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cinematic alternative to theater-inspired moving picture "theaters." This view is also reflected in the words Theodore Dreiser who made a contribution to the inaugural program of the Film Guild Cinema. He extended the following comments on the work of the Film Arts Guild, some of which sound almost as relevant today despite two generations that have since passed. At the same time the words stress the pioneering efforts of the group for which Kiesler designed his first "100 percent cinema." Thus wrote Dreiser:

> I am in accord with the Film Arts Guild, which, as I sincerely believe, is opposed to the America(n) Cinema magnates on the ground that they are more or less concentrated on the bastardization of the cinema, not only in wearisome nonsense in regard to sex and romance, but now with the talking pictures, the aim of which apparently is to exhume old stage plays which can be reproduced poorly and cheaply, yet made to pay well.

Dreiser then went on to criticize Hollywood and its "photographed literature" and star system, saying:

> This being so, the only hope for true advance appears to lie in the little cinema theatres, which should and I hope will, act as havens for artistic Americans as well as European productions and such experimental efforts of "amateurs" here as many have the real interests of the screen as art truly at heart.
>
> The Russians lead in advanced artistic exploration, a subject

which was discussed previously, and is also addressed quite straightforwardly:

> The only other country which is seriously interested in developing the inherent possibilities of screen is in Russia. In other words, Russia refuses to adapt stage technique for its cinema but is trying to develop a new technique which is "cinema" as opposed to "theater." And the Film Arts Guild as I see it has been quick and first to recognize the superiority of this method as opposed to the American money

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> method. It has not only sponsored Russian films in America, but better, has constantly emphasized such aspects of the film art as are inherently opposed to merely meretricious and ignorant entertainment--the guide and light of the Hollywood lords.[56]

So Kiesler was not alone in his social/artistic criticism and in good company at that. He concluded his entry to the inaugural program with the following words about the nature of architecture:

> The function of a building determines its form, color and material. Architecture is function materialized in space. The time dictates the style. The talent of an architect is in ratio to his respect for materials and the limits of utility. A semi-solution of this principle makes for decoration. The perfect solution of function and material becomes beauty.[57]

This statement in itself recalled Sullivan and this was noted by one newspaper that wrote without much sympathy for Kiesler's style and language; thus wrote Meyer Levin of the Chicago News:

> Kiesler is one of those modernists who like to wrap their "theories" in mumbo-jumbo. If he prints some notes upon his career, he must head them "Tracings of the Architect" and he must use such terms as "projectoscope," "screenoscope." He does say in these notes "The function of a building determines its form, color, material" . . . . "Form follows function," said Sullivan, and he designed a telescopic opera house. "Function determines color, form, material," says Kiesler, and he designs a telescopic movie theatre in black and white.[58]

When the Cinema opened on February 1, 1929, "after nine months of construction work,"[59] it was cited for its novelty. "The place is unique in its modernistic design and a novel setting for the type of film entertainment," wrote Betty Colfax for the New York Graphic[60] and in the New York Sun the article was titled: "A Cinema Moderne"[61] and it explained the following:

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> Designed by Frederick Kiesler, the Viennese architect, its sponsors claim that it is the first Modernist theatre structure in America, the others being but prettified boudoirs, with a few relevant angles, planes and glasses.

Since much of the original detail and appearance of the theatre has changed, a contemporary, quite literal, description not only points to what was noticed at the time but provides a great deal of detail:

> The exterior of the Film Guild Cinema is an almost square surface broken up by large windows irregularly arranged. The surface is smooth, glistening black, marked off by the heavy white lines of structural concrete work. The electric sign and the angular marquee are designed in a piece with the theatre front. The lobby of the theatre is walled with broken forms of black and white tiles, and indirectly lighted by frosted glass lamps. The doors are wide, with small metal knobs; like safe doors. . . .
>
> The theatre itself is a down-slanting black-tube. A heavy, round frame circles the usual rectangular screen, which is set many feet back from this frame, gaining third-dimensional depth effect for the pictures. Spreading light from behind the round frame, and from spaces along the coffin-like walls of the theater permits the changing of the "atmosphere" of the house to harmonize with the film on display.[62]

Other descriptions were motivated by different impressions and ideas:

> The inside of the theatre is built to resemble the inside of a cinema with the screen where the camera shutter would ordinarily be. The walls and ceiling slope away from the screen and the floor is built in "stadium" fashion.[63]

Another description of the shape of the interior said that "The house is built in what mathematicians pronounce an oblique rectangle. All of the lines converge towards the screen which is framed in a circular proscenium."[64]

The unusual screenoscope and its giant framing (figure 33) device which is no more in existence was described along with the entire

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interior in an article titled "The Film Guild Cinema--An Experiment in Theatre Design," which was published in Exhibitors Herald World.[65]

The screenoscope was described as circled with a giant wooden ring from proscenium to floor, a fixture which was said to correct the angle of vision for a person seated anywhere in the theater. This ring was constructed mechanically so as to allow for various screens of any size or shape. The theater's width of 38 feet; the floor is pitched one inch in ten and slopes down for 91 feet. There were sliding silver shutters, with a silvery ceiling surface. The lower sidewalls were lined with black leather.

The article also related that "the mechanics of the ring are held in secret by Kiesler who had to create many inventions in order to properly present his ideas of what a cinema should be."

Some other modernist features, which were unusual at the time, were described as follows:

> In the lobby there is a traffic stripe leading up to the ticket seller's booth, where from a circle in the center of a silver disc or a red wall the vender deals with the patrons through a semicircular office directly below the opening for his face.

The lobby was also illustrated in Kiesler's 1930 book, Contemporary Applied to Store and Its Display (figure 34) and Kiesler's caption reads:

> to guide and focus the public into the theatre is the purpose of wall, ceiling, and floor treatment. The light on the ceiling of this theatre is incorporated into the architectural scheme, and is twice reflected. No lighting fixture. (Materials: glass, cloved cement, monel metal)[66]

The poster Kiesler designed for the opening of the Film Guild Cinema according to De Stijl/constructivist principles of typography

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and compositional boldness (figure 27) announced the arrival of "the art sensation of New York"--the Film Guild Cinema. This poster, which in itself is one of the few "constructivist" posters designed in this country, advertised the project as the "Quintessence of Cinema." It also said that the Film Guild Cinema was "the first 100% cinema" and elaborated:

> --unique in design
> --radical in form
> --original in projection

All the radical ideas which the cinema featured and the new attitude it advertised were sure to yield a diversity of reactions as the New York Sun reported on February 2nd, the day after the slightly belated opening (the poster promised an "opening in early January"):

> opinions varied as to what it [the cinema] resembled--some insisted that it was the interior of a coffin, others the interior of a camera, and still others, one of the underground torture chambers of Ivan the Terrible, while the last school held that it was similar to the corridor of a particularly bleak jail. At any rate, it is positively eye smiting in its hard, black severity of line and lining.

In spite of the paper's delight in quoting the various of derogatory comparisons it ended the passage by saying about the movie theater that "it at least carries severity to such an extent that it causes rather violent reactions."[67] Kiesler, who probably was aware of the controversial character of his design published the day after the cinema was opened an article in the New York Evening Post (February 2, 1929)[68] entitled "Building a Cinema Theatre."

Kiesler stressed the following points: first, a difference between America and Europe; saying that "America" albeit "a great inventive

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genius" was not versed in "research in the arts" that was common practice in Europe among the constructivists--the circle with whom he associated. He then emphasized that: "the film has nothing to do with the symphonic spatial organization of the stage elements." The ideas about the unique spirit of America and the message and method of the young generation of European artists with whom he was closely associated, are reminiscent of Kiesler's message during the international exhibition at Steinway Hall three years earlier. The "formalist" position, namely that the cinema requires its own unique architecture defined by its function and character, a point encountered earlier in his "Debacle of theatre" is argued once again, but to a wider public, and in simpler terms. Kiesler then wrote about the "speedy" character of film concluding that "the film is the optical flying machine of camera . . . . The film is a play on surface, the theatre a play in space."[69]

So if the Spacestage of 1924 was designed to fill the entire theater with a stage, as the set, as Kiesler did in Vienna (emptying the seats from the orchestra) the Film Guild Cinema realized, practically the opposite. The space is empty and there are no traces of a stage. All is orchestra slanted "stadium style" toward the screen. The projectoscope, engaged all or most other surfaces in the theater in order to project all over the theater's wall-surface and additional screens. Kiesler wrote that the "most important quality of the auditorium, [is] its power to suggest concentrated attention and at the same time destroy the sensation of confinement that may occur early when the spectator concentrates on the screen."

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The abolition of the proscenium-arch was the first radical step toward the creation of "the ideal cinema." Kiesler explained that the creation of the screenoscope was to take the place of the theatrical elements of the stage and its framing proscenium arch which he substituted with this "new method of opening the screen which eliminates curtains."

He also mentioned once again his long-standing position concerning theatre architecture (film and other), namely that all viewers should have an "equal opportunity" to view well from anywhere. He ended his "popular" article by saying "Pitch black darkness must rule when the screen play is on. The orchestra must be completely obscured, no draperies or decorations must be employed, since these are too strongly reminiscent of the theatre."

It is interesting that Kiesler considered the drapery obsolete from a functional point of view due to its theatrical connotations and something he wanted to avoid. So Kiesler declared the first 100 percent cinema and practiced quite literally what he preached.

Kiesler had received some popular recognition by the time the Film Guild Cinema was completed. Vanity Fair magazine featured him, declaring:

> We nominate for the Hall of Fame Frederick Kiesler, because he is an architect who has devoted his attention to the peculiar problems of the moving picture theater, because three years ago he brought the international theater exhibit to New York, because he revolutionized window display by his modernist designs, and finally shaped theatre providing an improved vision for motion pictures.[70]

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Kiesler, as it were, was always involved in several projects, and the window displays of that year (1929) (figures 35-39) he designed very successfully for Saks Fifth Avenue remind us of his versatility--an aspect of his creative personality that suffers somewhat in a presentation according to a narrower adherence to single issues.

Kiesler's newspaper articles during the exhibition at Steinway Hall, all attest to his efforts to reach out to "America"--as the future society. Kiesler's solution, however, was populist, possibly even of a slightly sentimental inclination. Thus, it is interesting to notice that the illustration Kiesler used in an architectural drawing demonstrating the Film Guild's "projectoscope" and its environmental side-slide-projections (figure 40) was a photograph of an older woman and a young woman (and a few people in the dark background) who may look like freedom-seeking refugees under the guard of a soldier with a gun protecting or threatening them. Along the same lines, Kiesler had a photo mural in his 1934 Space House he titled "determination" and subtitled "labour and play" (figure 41) showing two men partially overlapping, one digging in the ground with a shovel, the other about to hit with backhand in tennis.[71] These were perhaps American motifs: the search for freedom, honest work and the pursuit of happiness.

Social matters were very much part of what his vision for the "theater that has survived the theater" meant. Another side of that broad social perspective is reflected in what Kiesler said in a lecture on "the theater of the future" at the Civic Club (14 West 12th Street) in March 1926:

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> The time is ripe for a theatre which will represent contemporary life as our architecture, our machinery and our department stores represent life and the demands of life today.[72]

With such ideals in mind, the International Theatre Arts Institute was founded on March 14, 1926.

The International Theater Arts Institute

The International Theater Arts Institute was a part of Kiesler's multiple activities, then, related to the New Theater Technique exhibition on view at that time.[73] The Times reporting about the planned school as the "Laboratory of Modern Stage" quoted Kiesler--"former Vienna director"--as saying that he will develop a "fourth dimensional theatre," and reported that Kiesler wanted the school to "Exemplify Democracy." Mentioned earlier was that some of Kiesler's pronouncements were over-interpreted to mean that Kiesler was promoting "Bolshevist" ideas, whereas what Kiesler had in mind was an open exploration of new directions which required a democratic-of-the-people-condition, and saw them as an expression of democracy at the same time.

Kiesler encountered considerable misunderstanding. His conception of the "fourth dimensional theatre"--an idea, the sound of which alone was provocative if not outright intimidating was, therefore, criticized by the press. The fact that Kiesler, who at the time spoke little English and often needed the help of an interpreter, was not helpful in solving this problem, and it was coupled with the newness of his ideas. In the retrospective view of the Architectural Forum which ran an article on Kiesler in 1947, "Kiesler was so far ahead of America

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that nobody knew what he was talking about."[74] In Kiesler's eyes, I believe, America was behind whereas he was contemporary and therefore did not give up hope.

Thus Kiesler marked, probably with approval, a clipping containing the following quote from a newspaper titled "The Fourth-Dimension Theater," concerning the school:

> It seems that the new theater, in addition to giving attention to the fourth dimension, will cover the psychology of the theatre, the science of physical coordination as applied to the stage.[75]

The fourth dimension in theater, for Kiesler, was not just the mechanization of the play, through a timed, continuous, change of sets that was coordinated with the text. Kiesler, reportedly, also spoke about "fourth dimensional acting [that] will be offered on a 'space stage.'" He explained that

> seats in the new theatre . . . will not be arranged in an orchestra and balcony, but will be set on a spherical eminence resembling an ant hill, with each member of the audience in full view of every other member, that they might have mutual enjoyment of each other's reactions to the play.[76]

This quotation is how the Evening Post paraphrased Kiesler, connecting fourth dimensional activity with an adequate seating method. Kiesler had quite a broad definition of the fourth-dimensional theater. This included an active employment of time through electro-mechanical sets in motion, and a certain psychological attitude in acting which would or should yield a new type of playwriting as well as new theater architecture. In fact, The Tribune reported that on the occasion the Theater Art Institute was announced by Kiesler and its co-founder

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Princess Matchabelli, the princess was asked to explain the fourth dimensional theater. In consultation with Kiesler, the princess (who was also his interpretor) said that the idea was to have all the elements of the theater function toward the fourth dimension."[77] They were also quoted as saying: "We will create a theater for the masses, approaching it by all paths."[78]

Kiesler obviously felt the need to explain further in the press, in order to remove misunderstanding. He wrote:

> It must be said here that we plan to establish a stagecraft faculty which will begin by teaching the study of all the classical stages as a foundation for the new work. New work means not as has been conflictingly stated specialties of constructivism or expressionism or the fourth or fifth dimensionism or other isms, but simply to give the actor and writer greater and richer opportunities to unfold greater possibilities. I will have charge of this phase of the instruction.[79]

In other words, Kiesler felt his ideas were type-cast as constructivist or expressionist whereas he saw himself free of "isms," and was even ready to include the fourth or fifth dimensions under the list of rejected "isms." This should lessen discomfort and potential overinterpretation of the fourth dimensional theatre.

His closing paragraph (quoted in a different context) said:

> The aim of the school is to crystallize the beauty of our time.
> No isms, no politics, no negation of the past nor copying of the past but art of our time.[80]

This is a very helpful passage containing much of what Kiesler believed in particularly concerning the relations between the objective--"to crystalize the beauty of our time" and the art of the past. Held provided a somewhat pedestrian picture which stayed with the mere notion

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of respect for the past as the foundation of everything. But Kiesler went beyond this merely conventional wisdom.

Thus, Kiesler believed that inasmuch as (art) history reflects early solutions to vital issues it should be acknowledged, the classical stage he proposed to study; classical also in the qualitative sense, that of essense. At the same time, however, Kiesler allowed himself to draw conclusions from history and even reject certain parts, not so much on aesthetic grounds, but on moral grounds, or social relevance.

This was, for example, reflected in the decision to reproduce in his book a picture of some meaningless contemporary Neo-Gothic architecture (figure 42) only to literally cross it out by two diagonal lines. The caption, for that illustration in his book Contemporary Art Applied to the Store and Its Display reads: "This shows how the architecture of today should not look. Brick, stone, cement, bronze modernized Gothic, plastic symbolism."[81]

Examine, however, more information concerning the Theatre Art Institute and the phlosophy behind its foundation and method. The school was to adopt a tripartite curricular division. The first section, the psychological, was to be headed by the Princess Matchabelli; the second, scientific section, was under the supervision of a certain Dr. Bess Mensendieck; and the third, the artistic section, was to be headed by Kiesler.[82]

The Princess Matchabelli, the co-founder of the International Theatre Institute, was an actress who worked extensively in Europe and New York. She worked with Max Reinhardt, participated in Diaghileff's

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Russian Ballet and did plays by Pirandello and the futurist Marinetti. The Institute was destined for Brooklyn (New York) thanks to a contribution by Ralph Jonas, president of the Brooklyn Chamber of Commerce who donated a house at 102 Remsen Street.

The catalogue for the institute was written by Princess Matchabelli with Kiesler who, most likely, designed the constructivist logo for the institute. The catalogue contained a fairly detailed outline of the different classes as follows: theater architecture (twice a week) and a daily shopwork including execution of plans for the modern theater and drama as well as cinema (which is not surprising knowing about Kiesler's interest in that field). There also would be studies for auditorium spaces on a large scale, and studies of/for the stage space. And there would be instruction and study of stage settings and costume design (three times a week) and tentative sketch and design classes for plastic models and lighting.

Under stage decoration (one evening a week, open to the public) the outline included the study of settings for drama, opera, and vaudeville revues. Under design (three times a week), it included painting and modeling after nature, exteriors and interiors of house and street. Kiesler added an explanation saying that "To master the plastic and picturesque forms of nature is the basis for the study of the theater, decoration and direction." Under the topic of stage direction, the curriculum included the study of plans for direction and there was a division between written plans and models.[83]

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These last subjects of the theater and its architecture were to be taught by Kiesler who was the artistic director. An idea of Princess Matachabelli's attitudes on this topic was revealed in a lecture she gave representing the Institute. It occurred at a dinner sponsored by several experimental theaters on October 3rd of 1926 at the Astor Hotel Ballroom. In her lecture she said:

> The human body is a temple in which the brain is the high governor and the voice the magic "wireless" means of expression"

or

> He [the actor] must be awakened to a new vitality--the vitality of our time, the "electric era."

She talked about co-ordination of all elements (body, psyche, space, etc.) very much the way Kiesler treated the subject and there is no doubt she was in tune with Kiesler and identified with his goals. In fact, she quoted Kiesler concerning a topic considered earlier, Kiesler's faith in America, its youthful vitality and future: She quoted Kiesler as follows:

> Youth is modernity. America is youth, hence America is modernity; there would have been no Marinetti, the initiator of the modern conception, nor Picasso without America. America fertilized all modern ideas from philosophy to Architecture, and we Europeans who are the result of the new European spirit wish now to bring back to America this modern spirit fertilized by European culture.[84]

So, America was in Kiesler's eyes the embodiment of the contemporarnety he so deeply admired, which could be fertilized by European culture and the International Theatre Arts Institute was one of the means to do just that.

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The International Theatre Institute was, however, ill fated, and did not last, like so many of Kiesler's projects. Thus, besides plans for the curriculum and a theory concerning the school's objectives there is nothing left for examination. Last, it should be pointed out that some of what the school professed to practice, such as the science of physical and psychological coordination, is related to Russian constructivist acting theory as had been developed by V. E. Meyerhold, and what he called "bio-mechanics."[85] This was just one clear source, which may have had a significant influence in shaping Kiesler's terminology, although the institute tried not to subscribe to a single philosophy or "ism."

The whole idea of a mechanical analysis of the human body exists of course in Cubist sculpture such as Archipenkos, and his fascination with the manequin,[86] and in Oskar Schlemmer's conception of theatre and dance as he taught and practiced it at the Bauhaus.[87] But the core of Kiesler's originality was the Endless to which, at this point we shall turn for a closer look.

The Space Theater, the Endless and the Universal

In the retrospective interview with Thomas Creighton, the Endless Theatre (figure 30) was introduced as the answer to the question: "When did you first conceive the Endless House." We want to keep this in mind since morphologically, both the Endless Theatre and the Endless House are similar spherical shells. Let us turn to Kiesler's answer in full:

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> The three years, 1922, 1923, 1924, were the most fruitful years of my life. What I am doing today are follow-ups of these ideas, and I'm still looking, as I was 40 years ago, for a chance to build them. My Endless House I had started to conceive for the Theater and Musical Festival of the City of Vienna, which opened in May 1924, even before the Optophon and the City in Space. I was the architect and director in charge of the festival. The completed plans of the Endless were meant for a capacity of ten thousand people, all in one double-shell building of "cast glass." This double shell would contain the heating and the cooling, and consisted of an interplay of ramp, platform, and elevator—an endless show place throughout the whole space. This theater and music center included also hotels, parking lot, gardens, all enclosed in the same shell. Looking at Wright's ramp approach to a museum, I see the same spirit in my plans. The Endless had continuous intertwining of vast ramps which lead into others at several levels until spectators and actors practically reach the ceiling. The various levels connect through three elevators which are exposed; the elevators are nothing but platforms that take off from one level to another. The players and the audience can intertwine anywhere in space. There, I feel, is a first attempt at an architectural expression of spatial integration. It fully used the construction principle of continuous tension--there was not a single column in the whole structure.[88]

The Endless Theater, then, that Kiesler developed in his early thirties, and which, according tohim, pre-dated his City in Space and the Optophon, was one of Kiesler's earliest architectural ideas. There are two dominant aspects to the Endless Theater, one formal/morphological which is related to an idea about construction, and a broader "spatial" aspect, the philosophy behind the multiple purpose of this supertheater. However, in 1924, when Kiesler erected the Spacestage, its unusual and entirely novel presence dominated the discussion.

The Spacestage is related to the Endless since beside being stage-architecture and set design all in one, it was also a sort of model for a greater, more ambitious Endless Theater. This is related to

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Kiesler's ideas about this subject as published in Vienna in the catalogue as the "Railway Theater."[89] The driving vision was the same, advocating multiple activities, fusion between audience and actors (audience becomes part of the action), all on vast, dynamic ramps sweeping in curves inside an oval space. But the plans for the Endless were probably prepared in Paris in 1925 (figures 30, 43) and were shown in New York, in 1926, at the International Exposition Kiesler brought over. Since the Space-stage was not there, the plans for the Endless attracted considerable attention. This was also due to the unusual model of the Endless that was also made. The Brooklyn Eagle in an article on the Exposition mentioned the Optophon and said that the Endless Theater "of which the plans are on display in the exhibition [was] causing more talk and speculation perhaps than any other single exhibit."[90]

The plans for the Endless Theater, however, were far from being self-explanatory and the following passage from the New York Times is instructive in many respects:

> Asked about the "Endless Theater" Mr. Kiesler spread a dozen huge sepia prints on the floor and began to elucidate what at first seemed like a geometrical puzzle. As the plan came clear under the explanation, the interviewer grasped that here was a theater grander in conception than anything ever before projected in this field, and made possible only by the development of building in steel and glass and by the precision of modern machinery. The central idea seems to be an endless stage like a continuous runway resembling an interweaving railroad track--somewhat on the "scenic railway" principle--with rings of seats for spectators at various levels, but with the audience itself becoming part of the "show" along with actors, choruses, masses, processions, films, prize-fighters, moving machinery, etc. "This is really a plan for a stadium of art for the people" it was explained. "A future theater of all life for all people, in itself bringing forth a new architectural form without a real stage,

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> and yet a stage without end. Only rails perhaps." It seems that there also will be two film show rooms, with two audiences accommodated at once. Very large crowds can be admitted at a low admission.[91]

Another description of the Endless after writing that "a great deal of space was devoted to it," stressed also the complexity of the plans and the vastness of the vision:

> It provides for an immense indoor theater shaped like a bowl, with concentric signs for horse races, motor races, a grandstand for music, a grid for sports and twisting in and out, up and down, amongst these promenades, automobile roads, etc. through which the life of the city may pass unhindered. As described by Mr. Kiesler the endless theatre sounds like the tenth circle of Dante's Inferno, but some of its terrors might be removed by its conversion into an open-air stadium. Its very intricacy of interwoven paths crossing and recrossing at ever higher levels, paths on which the promenade would be himself at once spectacle and spectator, has attractive possibilities.[92]

These descriptions are successful in giving the picture of a project of a vast urban scale far beyond a theater, but the fact of the matter is that exact or detailed plans did not exist and its multiple function as theater(s), stage, arena, cinema, etc. was left open.

Thus, for example, when Kiesler published his "Project for a 'Space Theater' seating 100,000 people" (figure 43) in the Architectural Record, not much more detail was added and the entire text added to the two reproductions, a section of the Endless and a ground plan, was rather short and said:

> The whole structure is encased in double shells of steel and opaque welded glass. The stage (shown white on the plan) an endless spiral. The various levels are connected with elevators and platforms. Seating platforms, stage and elevator platforms are suspended and spanned above each other and next to each other in space. The structure is an elastic building system of cables and platforms developed from bridge

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> building. The drama can expand and develop freely in space mounted on spiral.[93]

This description does not add much detail to the ambitious plan, which seem to never have been worked out in greater detail. But notice that the system of ramps and platforms was conceived as a suspension structure which as Kiesler indicated derives its inspiration from "bridge building" (suspension bridges), and this is consistent with Kiesler's other projects where the suspension system was employed such as the City in Space (figure 16), the horizontal skyscraper (figure 22), or a project for a department store (figure 44) anchored to the ground only at the central axis, and encased in glass.[94]

The Endless Theater, in its constructive and conceptual foundation, was quite similar to the department store, with its spiraling "system of spans (tension) in free space" enclosed in a glass structure constructed according to the principle of tensionism. Kiesler, as we have seen, referred to this method as "elastic" which ought to characterize the kind of construction he had in mind. Nothing concerning the exact scale of the Endless is definitely determinable. It is clear that the scale was vast considering the number of people it was designed for, and the variety of theatrical activities the Endless was meant to house. As a matter of fact, two figures concerning the number of people were given in the interview where Kiesler's answer concerning the Endless talks about 10,000 people whereas the short note about the space theater which we have to identify as the Endless, under another name (the plan is the same), 100,000 is the figure given. It could be a mistake, yet

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it may indicate that the lack of any specification concerning the scale of the Endless means it could be built on several scales. The apparent contradiction between the section of the Endless being an oval, and the ground plan(s) is resolved when one realizes that it was a sphere--pressed down thus round--circular seen from above as a ground plan and oval (figure 43) in its profile or section (figure 30). The section also indicates that the shell or double shell was thicker at the bottom and thinner toward the top. This is similar to the one and only continuous tension construction that Kiesler carried out, the Shrine of the Book (1965) with its dome, which is also thicker at the bottom and becomes thinner toward the top (figure 203).

The issue of the Architectural Record which featured Kiesler's space-theater or the Endless also introduced the Total Theater by Walter Gropius, and since the report written by Gropius was the article preceding Kiesler's project a comparison is quite naturally called for, and the editors must have also meant it this way.

What one has to point out at the outset is the fact that Kiesler's Endless dated in the article, 1916, 1924, predates Gropius' Total Theater (figure 45) dated 1927. These two projects, however, are comparable only to a limited extent since what Gropius featured was not much more than a convertible, multi-functional theater in the round; in Gropius' own words:

> The arrangement of a revolving floor permits the same theater to be used in three ways, circus, amphitheatre or conventional box stage.[95]

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Gropius' project, then, in comparison to the Endless was a much less ambitious conception, and one that Kiesler far surpassed with his mega-"theater" for 10,000 or possibly a 100,000 people. As will be noted shortly, Kiesler had his own ideas about convertible multi-functional theaters as applied to more modest scales as well, which in themselves are more inventive than Gropius' conception as we shall see. Gropius, furthermore, did not introduce any groundbreaking conception in construction like Kiesler's flattened sphere or tensionist shell. Groupis' shell covering the Total Theater was carried by twelve columns, whereas Kiesler made it a point and stressed the fact that the Endless "fully used the construction principle of continuous tension"--adding "there was not a single column in the whole structure."[96] For Gropius, at any point, columnless architecture was not an objective.

In spite of Kiesler's germinating ideas, their influence was not often acknowledged. An exception, however late, discussing his influence on Gropius is a 1962 review in Progressive Architecture of the English version of O. Schlemmer's 1924 Die Buehne im Bauhaus translated as The Theater of the Bauhaus; where the reviewer wrote as follows:

> but it must be less than accurate to consider the concept of the total theater as the innovator on behalf of flexibility and convertibility, without reference being made to Frederick Kiesler's Endless Theater which predates it by three years and must certainly have exerted some influence on the Gropius-Piscator project.* It is known, for instance, that at Gropius' request six Bauhaus students attended the Vienna Theater Festival, 1924, and saw the full-scale space-stage which had been erected in the Konzerthall--the space-stage of course being the central core of the Endless theater.[97]

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*The Total Theater was designed for Piscator.

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It is not certain that the way the reviewer The fact related here that Gropius sent students from the Bauhaus to the Vienna festival in 1924 in order to view the Spacestage is very significant, and it is also a further confirmation that Kiesler's advancing efforts promoting new theater techniques, his own and others, influenced by the international community of advanced artists all over Europe.[98] Lillian Kiesler also mentioned Gropius' interest in the theater festival and exhibition of 1924. But her point of view being quite naturally biased, and thus perhaps less reliable at times, mentioned that Gropius himself went to Vienna, saw Kiesler's Spacestage and plans for the Endless and then returned to Germany to design his own. Mrs. Kiesler, however, was much closer to the truth when she reported that "It did irritate him [Kiesler] very much that Gropius never gave him credit for the so-called 'Endless Theater'; Kiesler was first."[99]

Back in New York in 1926, Kiesler, besides exhibiting and explaining the plans for the Endless, showed a model of it (figure 46). This unusual and strange model was acknowledged though unfavorably by the Philadelphia Public Ledger in its article on the Steinway Hall exhibition; it stated: "There is an Endless Theatre which squats insultingly like a deformed egg in the middle of the room."[100]

In his book Contemporary Art Applied to the Store and Its Display, Kiesler reproduced a photograph of this model which indeed was a squatting egg and the caption read: "Model of the Endless Theatre. Designed to shelter all types of amusements, viz: motion picture, theatre, sports. The external shell of the building made of welded glass. F. Kiesler--Paris, 1925, New York 1926"[101] (figure 31).

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The model as seen in the photograph--although meant to illustrate a "welded glass" shell, seems to have been made from some kind of plaster. Therefore, its form and shape were very similar to Kiesler's later models of the Endless House which are closely related to the Endless Theatre and Kiesler described the origins of both as being one. Thus the egg-shaped "model" of the Endless Theater is thus expectedly quite similar to Kiesler's later model of the Endless House (1950) now in the collection of the Museum of Modern Art[102] (figure 47). What is noteworthy concerning the strange egg-shaped model of the Endless is its sculptural qualities, reminiscent to a certain extent of some of Brancusi's work--because the model is "bio-morphic" and a sculpture without pedestal. Thus it was indeed "squatting" on the ground, and as such unconventional, and advanced not only as architecture but also as sculpture. Furthermore, since Kiesler had not been able to build the Endless Theater, or for that matter, the Endless House, much of what was realized at all was realized as sculptural models. Such are several sculptural "models" of the Endless House or his last conception of the Universal (1959-1962). It is also important to notice that Kiesler, albeit an affiliate of the constructivists and a member of De Stijl, was breaking with the straight line and right angle as early as the mid-twenties, and the sculptural biomorphic model squatting as it was in the 1926 Exhibition demonstrated to it unequivocally.

The Space Theater of Woodstock, New York

In 1932 Kiesler first published his project for a "Festival Shelter, the space theater for Woodstock, New York," a theater he planned

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during the previous year. This publication in the Philadelphia-based, architectural magazine, Shelter[103] is important for several reasons. First, the article was prefaced by a short passage written by no other than Buckminster Fuller. Fuller stressed the "purity" of Kiesler's work, and his influence that was aestheticized by others saying that "the purity of Kiesler's work was sure to survive this 'sugared' plagarism." He quoted some of Kiesler's work up to that time and was clearly impressed by his book (Contemporary Art Applied to Store and Its Display, 1930) which he called excellent. In reference to one of the space-theatre's most innovative features, (the enthusiasm for which is consistent with what we know about Fuller's work since that time), namely its steel and aluminum pipe construction, flexible joints, or generally inventive combinations of materials and construction methods which Fuller described as "lightweight or 'spiderweb' in principle."[104] Fuller ended his short introduction with the following words:

> For many months people have "raved" about the lacy beauty of pipe scaffoldings zipping about cathedral spire repair, and running lightly up beside massive monuments. None have designed reproducibly in it until Kiesler evolved the FESTIVAL SHELTER. "Lithesome" seems to describe it. Many designs will be inspired by his invention. Respect and honor to him.[105]

It is of course tempting to speculate about Kiesler's possible influence on Fuller, or assume with reason that Kiesler may have inspired Fuller's own thinking about the geodesic dome which he designed later, and which is also spiderweb in principle. Fuller's own accounts of his development however do not mention Kiesler.

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The second important point about this particular publication is in that Kiesler has listed in it his earlier works leading to the Woodstock "space theatre." Significant in this context, as we try to understand Kiesler's conception of the theater and theater architecture is the fact that he listed his early sets for The Emperor Jones (Berlin, 1922) as leading to his ideas in theater architecture. Thus, the set and stage for the Emperor Jones described as a "First Demonstration (of) Time-Space Planning" was generative of the Endless. In other words, there was a natural continuity from set and stage design to architecture. Kiesler, then, listed his 1924 Spacestage followed by a circular ground plan with circular scaling and ramps he subtitled "Summer, 1925 Paris, World's Fair. Civic Center. Double Auditorium, Bridge between the Proscenium-Stages. Called: The Universal, Record-House, Maximum, the Endless."[106]

That this very same ground plan was reproduced by Kiesler himself for his 1938 article on the Space Theater quoted above (figure 43 and footnote 90). This means that Kiesler may have renamed it in Paris the Record House (probably because of the visual association evoked by its round shape and circular lines). The "Record House" introduced the idea of a double auditorium which Kiesler used in his first American-planned theater, the Brooklyn Heights Theater (1926) (figure 24) which he reproduced following the 1925 so-called Record House double auditorium. The double auditorium was one of Kiesler's major ideas and coupled with convertability it was the basis for its economy as a civic center. Or, as Kiesler pointed out in the subtitle for the reproduction

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of the Brooklyn Heights Theater, describing it as a "second concept of Double-House as a civic center, multi-purposed. Combination of large and small auditorium, megaphone-shaped. Sloping ceiling. Automatic clutch for acoustics."[107]

The Brooklyn Heights Theater was the first American plan for such a double theater. The Brooklyn Heights Theater featured also the megaphone-shaped auditorium, something new Kiesler has developed, namely, gradually narrowing side walls leading toward the central and single stage serving both theaters built on each side of the stage. This relates to the funnel shape-sets for The Emperor Jones (figure 7).

Next in the list of projects leading to the Woodstock Theater, Kiesler reproduced a section of the Film Guild Cinema (1928) (figure 48) and cited it as a third concept of the Megaphone-Auditorium (the funnel set for the Emperor Jones being most probably the first, the Brooklyn Heights second). Recall the Film Guild Cinema also employed a strongly sloping ceiling and auditorium, but since it was a cinema and design primarily for silent movies, the acoustical features were not stressed, even though Kiesler was definitely also concerned with sound. But the Woodstock Space Theater, the Universal Theater marks a particular achievement in its fresh attitudes to all aspects of theater architecture.

In the article Kiesler described the requirements for the "experimental theater" for "the small artist's colony at Woodstock, New York." Such considerations like the great difference in attendance during the 3-1/2 months of the summer activity and a much smaller attendance during

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the rest of the year, or the experience gathered by researching the size of two existing theaters in Woodstock, one with the capacity of 600, the other of 200 seats--one too big, the other too small, and budget limitations, all lead Kiesler to the realization that "There could be no 'monumental' architecture. One could not drop a primped up, pretentious construction on this site and expect it to live and thrive as part of the community environment."[108] Kiesler went on to conclude as follows:

> The enterprise is to be more than a mere theatre. It is to be a shelter for the drama of life as interpreted by the following chart:
> In interaction of all types of dramatic expression is:
> Multi-proposed versatility
> rather than a
> single-purposed stability
> Sprech--Spiele: Drama--Proscenium stage
> Sing--spiele: Opera, revue--principal stage
> Ton--spiele: Orchestra--acoustic-radial stage
> Licht--spiele: Cinema--focal auditorium
> Bewegungs--spiele: Dance--infinite stage
> Wett--Spiele: Sports--arena
> Sociale--spiele: Convention halls.[109]

Thus, through this "linguistic" English-German analysis of the theater, a type of language game Kiesler liked, he has pointed to the multipurpose versatility of theatrical expressions, each requring an adequate architectural expression.

It is also interesting to notice that Kiesler led to his language game by saying that the festival shelter was meant for more than mere theater, but "the drama of life," and this was the experience, or perception of the theater at large, and the philosophy motivating a <u>universal</u> conception of his architecture for the theater.

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The elementary division of the theater for several kinds of "theatrical" activities led to conclusions concerning the size of the theaters (number of seats) and the solution was the conversion of one and the same space into a larger space; thus the breakdown into the "ratio of audience" to type of performance:

Drama, dancing	84-311 persons
Orchestra, opera revue	311-451 persons
Sport, cinema	451-535 persons
84	Small auditorium
311	Large auditorium (11 revolving seats, 124 orchestra seats, 60 group seats, 116 grandstand seats)

351-311 seats + 40 folding seats
451-351 + 100 standees
535-451 seats + 84 small auditorium seats.[110]

One of the most important aspects of Kiesler's solution and plan was his humble, as well as practical, rejection of sheer monumentality, or what he also described as "monolithic construction" in favor of "a flexible ephemeral construction in a building technique best achieved through tensionist structures: light weight, easily fabricated tubular supports of metal and web coverings of weather-proofed fabrics."

As principal materials Kiesler listed steel-tubing, steel-cables, electro-forged steel grating for floors (except wooden floor for stage), water and fire-proof canvas, and concrete-block footing. The method of construction was based on prefabricated, assembled flexible joints, and was demountable. This would allow for a rapid contraction Kiesler estimated as lasting two weeks at an estimated cost of $35,000. The stage would be flexible as well. Generally, the auditorium's flexibility ranged from "housing" 80 persons to 551 (and later 2000).

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Kiesler concluded his expose with a philosophical proposition to the effect that "creation is polarizing non-dimension into dimensions of a new cycle. Such cycles we call amorphis or crystallization--created by nature of man--words, buildings, beings."[111]

Mentioned earlier was Walter Gropius' 1927 Total Theater. It is interesting that, following the presentation of the Space-Theater, Kiesler wrote a footnote about Groupios' Total Theater, criticizing it primarily for trying to change Van de Velde's theater (the theater he built in 1913-1914 for the Werkbund Exhibition at Cologne) into a circus by revolving one part of the auditorium around. Unfortunately, according to Kiesler, "the small circle that should be used as a stage in the center of the theatre is still covered with seats." Kiesler suggested that in order to remove the seats during a performance, the round platform must be lowered by mechanical power. He also said that certain changes in the total visibility of the stage should occur. Furthermore, he claimed that the mechanical device needed to lower the stage is costly and complicated and

> not an organic growth of a new scheme but rather a conglomeration of older (Van der Velde's tryptichon-stage) and newer (circus ring) stages and auditoriums into an artificial unit by evasive-mechanical adjustment, instead of proper planning.[112]

It is significant that Kiesler found it necessary within the context of his article on the Woodstock Universal Theater to dispute the architectural validity and good planning of Gropius' Total Theatre. It means that, at the time, he perceived Gropius' theater as a single rival to the Universal, contrasted it with his own "organic" solutions

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which were in contrast to Gropius' artificial unity supplemented by a mechanical device employed to make up for "improper planning," as he described it. In any event Kiesler's plan, which won him that commission, presumably over Frank Lloyd Wright, was indeed attractive in its totally unconventional and pragmatic, not dogmatic, character. The reason this project was not realized was the economic depression following the 1929 crash of the New York stock market.

But unlike the Brooklyn Heights Theater for which only a few plans were completed, in this project Kiesler included (now lost) models and their photographs which have survived and were reproduced.

The Woodstock Space Theater (figures 49-54) was commissioned as an experimental theater. This allowed Kiesler to set free his various ideas concerning theater architecture, planning an all-purpose community playhouse. Practically and conceptually a light type of construction and convertability was the main principle. In greater detail it unfolds as follows: the double auditorium allowed for five sizes of theaters; one small theater with a capacity of 84 seats and from the other side of the central stage a second auditorium with a capacity of 311 seats and the option to extend it and add another hundred. Each auditorium could be used separately, but the seats of the smaller auditorium could also be moved on to the stage itself, and the seats of the larger auditorium, made of two segments, could be separated in the middle, form two seating sides, so as to open the orchestra for an arena stage. This arena stage could be used in combination with the proscenium stage or without it. The stage arena could be used for dance programs,

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spectacular revues, opera scenes, circus and even sports events. It could also be used as a convention hall in which case seats could be added--placing them on the arena stage. Besides the rectangular stage between the two facing theaters, the stage extends toward the larger auditorium (when the seats are pulled or rolled toward each other) separating the upper and lower segments of the semi-circulaar seating (closed) with a semi-circular ramp and a second such peripheral stage circling all the seats. These peripheral stages or ramps are reminiscent of the Spacestage as well as the ramps in the 1924 Universal Theater, and it was on these peripheral stages in their relation to the audience's position that experimentation in new forms of theater could be attempted. These peripheral stages are also useful for placing the chorus in opera, but mostly they allow a new interaction between actors and audiences. The stage house, instead of being above the stage, is built next to it as an extension of the stage and on its level on one side; drops are thus not dropped but hung on pulleys and swung in from the side. The same goes for the cyclorama, which can be placed variously on the stage's floor and is mounted on wheels and rolled in whenever needed. The stage house is large enough to allow for workshop space, rehearsals, and the storage of complete sets. Kiesler has also planned decentralized stage "traffic" so as to make it easier, working back stage. The construction with pipe, tubes, wire mesh, and fireproof reinforced canvas walls and other technical details[113] all made this project a unique type of theater.

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A few other features should be mentioned. Considering the "ephemeral" construction, a great deal of the structure's "design" would be "revealed" by means of color and mainly through an elaborate long-range lighting system and floodlights. The stage was not provided with floodlights which Kiesler considered something left over from the times of short-range candles or gas flames. Kiesler also planned in his words:

> movable border lights for the rear of the stage and movable tower lights for vertical lighting [that] will provide light of any intensity, color, direction or motion. In the auditorium, 22 feet from the proscenium, will be rows of floodlighting reflectors which can be directed diagonally toward the stage, or used to flood the arena with light by merely putting in operation the mechanical rotator which changes the inclination of the light from diagonal to directly vertical.[114]

The auditorium's general lighting was obtained by rows of indirect lighting reflectors along the flanges of the two main roof girders. These two roof girders, incidentally, supported the entire ceiling, resting on four posts on each side constructed with steel tubing, and suspension--circus-tent style--by means of cables and weights, and were essential in this conception, which like a circus tent is assembled from prefabricated elements and thus also is 100 percent salvagable. This of course accounts for the short construction time of two weeks. Footing for the structure and frame were concrete blocks. Kiesler also predetermined largely the acoustic properties of the two auditoriums and the slope of the ceiling was established by wave transmission formula. The movable cyclorama functioned also as an "opto-phonetical clutch" or device Kiesler introduced earlier in his Brooklyn Heights Theater.[115] Along the same lines, Kiesler figured all possible sight

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lines from all seats in order to comply with his own most important self-imposed principles--equally good visibility from all seats.

As a community center, a conception Kiesler always coupled with his plans, the "theatre" could be used and had the space, for club quarters, exhibition hall, restaurant, gasoline service station and parking--considering that 80 percent of the people would use cars to get to this community theater and cultural center. One can only quote the opening words introducing the second major expose of the Woodstock Theater that time as The Universal in the Architectural Forum reads:

> Something new, something unusual, something unique is always a bit startling and frequently stimulating to the imagination. Ingenuity is a part of the architect's creative equipment and, when coupled with a background of intensive research, produced logical results that pry one out of the rut of traditional thinking and design. This is the case in considering the "Universal" theater, no matter what one's reactions to it aesthetically may be.[116]

So, Kiesler's attitude to design as seen in the Woodstock project was advanced and highly unconventional. It seems that practicality and flexibility was the strategy. Kiesler used the word "practical" deliberately, preferring it over "functional," a word somewhat eroded with the discourse of twentieth-centuryarchitecture. But it is also an accurate use in terms of Kiesler's attitude, a result of considerable practical experience in the theater and its workings. No aesthetic formal codes of any kind were operative, at least not separated from the very specific practical demands that Kiesler had to consider based on his own research and previous experience. Kiesler maintained a truly humble position since there was the constant temptation of most

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architects to build monumentally. Furthermore, Kiesler's use of materials such as the materials he had chosen for The Universal were an aspect of the same straightforward approach to design; thus "style" as a separate aesthetic criterion independent of construction was also rejected in favor of Kiesler's tensionist approach and the "ephemeral" type of construction. This, as we have seen, earned him the utmost respect of Buckminster Fuller who subscribed to a similar approach. It was in a way "high-tech" long before this became fashionable; but not self-conscious and totally authentic.

To illustrate the opposite approach (architects of a deliberately aesthetic and monumental approach to all architectural projects), one ought to think of Erich Mendelsohn, who would conceive of a project first in a drawing showing the completed building in its entirety, and seen from a distance. Only then would he develop its plan. Such was his 1925-1928 Universum, a theater and cinema in Berlin. It is thus of little surprise to find Mendelsohn in Kiesler's book (Contemporary Art Applied to the Store and Its Display) represented by two illustrations which Kiesler did not even identify (they are, probably, the Schocken Department Store in Stuttgart, 1926-1927 and the Schocken Department Store, Chemmitz, 1928-1929) which Kiesler in his caption condemned with the following words: "Horizontalism is here used as a decoration without functional reason," adding "Imitation of this kind of poor modernism is now spreading all over the world. On the contrary, these parallel horizontal 'cornices' are nothing else but pointless decoration."[117] An approach such as Mendelsohn's, was the more conservative,

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decorative school of Modernism which Kiesler disliked on moral/practical grounds, developing his own different approach.

But the great depression, as I have indicated, did not allow this project to materialize in spite of considerable enthusiasm for it, and it was only in 1955 that Kiesler had a second chance to design and build a theater for another summer festival, the Empire State Music Festival in Ellenville, New York (figures 55 and 56).

The Endless Theater for Ellenville, New York

This project could be considered as a continuation of the Woodstock Universal, "Space Theater. The reason for relating the Ellenville "theatre" to the Universal is that, in Ellenville, Kiesler stayed with his interest in "ephemeral" construction this time erecting a festival tent. Interestingly enough the idea of demountable architecture and the elevation of that most elementary of shelters--the tent--to the status of sophisticated architecture has a Viennese precedent.

In an exhibition dedicated to The Forgotten Wagner School (Die Vergessene Wagnerschule)[118] there are designs for a festival tent (festzelt) by students in Otto Wagner's school dating 1901 and 1903. These student projects, quite similar to Kiesler's design, employed, quite naturally, cables, suspension construction (or tension) supported by masts. This indicates, I believe, that such ideas concerning architecture were not totally unknown during Kiesler's formative years and it is against this background that Kiesler's projects make more art-historical sense.

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The theater tent for the Empire State Music Festival was this time called the Endless, not Universal. As I have suggested earlier, both the Universal and the Endless are similar and interchangable in many ways.[119] The basic difference in architectural conception was that the Woodstock Universal was a double-theater whereas the Ellenville Endless was not; it was a single stage tent, but what a tent it was: 180 feet wide, 160 feet long, and 50 feet high. Its weight was approximately 11,000 pounds. The capacity was 2,000 seats. For the construction of the tent Kiesler worked with the American Tent Corporation of Norfolk, Virginia, the world's largest maker of theatrical tents.

Comparing the Ellenville tent to the "lightweight" construction planned for Woodstock, one has to acknowledge the general similarity in strategy avoiding monumental offering the practical, demountable and the most economical of solutions. Yet the Woodstock plan counted on the construction worker to put the prefabricated units together. The Ellenville project materialized through the services and existing know-how of tent makers, in other words. Kiesler engaged "craftsmen" in his low-profile architecture, in the manner of Loos.

The tent consisted of seven canvas sections which were colored in blue, yellow and white. A webb of heavy-duty nylon rope was sewn into the canvas to provide greater strength and rigidity and help maintain the tent's shape.

Kiesler also planned separately attached side "walls" in sections that could be drawn up during performances to provide a better view for the audience outside the tent, thus expanding the tent into an outdoor theater as well.[120]

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The stage designed was 75 feet wide and 50 feet deep. All backstage facilities, dressing rooms, equipment, studios and "stagehouse" were extended in the rear of the stage and tent. The stage Kiesler planned would be extended from both sides reaching toward the audience to make a stage 100 feet across the auditorium.[121] No proscenium arch was planned.

The Ellenville festival being primarily a music festival augmented the necessity to provide adequate acoustics; in the words of the festival's press release:

> to achieve that Mr. Kiesler has stretched the wings of the stage over 100 feet across the auditorium and has inclined and broken up the resonance well into different angles in order to throw the sound away from the roof all around into the farthest rows of the audience. The surface of the wooden sound baffles has been treated with paint that closes the pores and makes the surface an ideal sounding board. In addition there are two curves of canvases in back of the orchestra to prevent further escape of sound.[122]

Acoustics belongs to that realm of problems in architecture for which the architect cannot expect to find a purely visual/formal solution on the drawing board. Kiesler was interested in and challenged by it and attended to the call to design an adequate auditorium with great care. It is thus quite possible that the Ellenville festival being the "Empire State Music Festival" led Kiesler to choose an enclosure that of a tent over the type of shelter he had planned for Woodstock. So Kiesler committed himself to the more "natural" curvatures of the tent, and a permanently closed shelter over a more complex use of canvas as in the plans for Woodstock; he considered the tent—more sound for music. Kiesler, as we have seen, used several devices to control the

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passage of sound such as the attachment of an acoustic roll to the outstretched wings extending on either side of the stage, as well as the broken-up resonance wall, or wooden sound baffles, which he covered with paint in order to seal them. This last textural touch of the science of acoustics may have been inspired by Loos who attached great significance to materials and texture in matters of acoustics.[123] Lillian Kiesler described the acoustics at Ellenville somewhat simplistically, but possibly not totally wrong and maybe even in the spirit if not necessarily the letter of Kiesler's thinking, saying: "He designed it so that he placed the tent in position so that against a mountain it was tennis, back and forth. They didn't have to use microphones."[124]

The tent could seat 2000 people inside and an additional 2000 could be seated on the lawn surrounding the tent, of which the side "walls" could be rolled up, thus unifying inside and outside space, and the topography of the 100 acres farm, of sloping hills overlooking valleys and the Shawangunk Mountains to the east. The acoustics worked; one paper wrote that the quality of the sound inside the tent was somewhat "seccoo" (dry) and unresonant, but was enthusiastic about the "spacious but well designed tent" and added that "outside, the music floated to the ear with sweetness and clarity."[125] It was also commented elsewhere "that were the structure permanent, acoustics would be even better."[126]

Besides the possibility of extending the theater into an open-air auditorium, conversion was possible also by moving the platform

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stage and its two smaller side wings toward the middle of the tent, thus transforming the concert stage to a theater in the round or a smaller concert hall suitable for chamber music. The seats would be rearranged somewhat similar to the way it was planned for Woodstock. Visibility was maximum, the sight lines from every seat were figured out carefully and even the inevitable "columns" or rather, support poles holding the tent up were narrow enough so as not to obscure the viewing of the stage. The press release stressed other theatrical features as follows:

> an important factor in the Ellenville Theatre is the element of surprise in the appearance and disappearance of actors in the inexpectancy of stage arrangements and the endless varieties of lighting systems that must go hand in hand with such varied stage possibilities.[127]

In other words the unconventional tent yielded the element of surprise and light played a big role in constructing the endless' space.

The results were quite magnificent to look at yielding extremely unusual and festive results (figure 56). Kiesler, after publishing the Woodstock project and models more than twenty years earlier, earned himself the reputation of an inventive and very advanced theater designer, but it was not until the Ellenville tent was erected that Kiesler established himself as a practical builder as well. In fact, this aspect of the festival tent was underscored when the whole project was completed five weeks after Kiesler was commissioned to design the main tent.[128] But the tent really made the news when a storm and floods in early August which devastated more permanent structures left the festival tent intact.[129] This was not only good for public relations, but in my opinion,

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a confirmation to the structural advantages of tensionist construction such as was at the basis of many of Kiesler's designs and, of course, the essence of building a tent.

The tent's many advantages and its practicality as well as beauty led to its re-erection for the following 1956 season and this test of architectural competence, which is usually not possible, in monumental architecture should attest to the project's real success and utmost practicality. Interior magazine, which published an article on new experiments in theater design, including Kiesler's Ellenville tent, did not give Kiesler as much credit as he deserved, since Kiesler conceived his ideas a generation earlier.

The Venetian Theater at Katonah, New York

Another project for a summer festival, which was somewhat odd and by no means what Kiesler wanted it to be, was the so-called "Venetian theater" Kiesler designed in 1958 at Katonah, New York (figure 57). The project at Katonah was not a virgin plan; rather it was a conversion job reduced to a design of a stage and had to deal with existing elements, a "classical" colonade in the form of Greek and Roman columns which the original owners of the estate, Walter and Lucie Rosen, brought from Venice.[130] The architectural solution that Kiesler provided, working at that time with an associate (Armand Bartos) was to build an enveloping modern structure incorporating the existing colonade. Yamaguchi reproduced this theater stage perhaps wisely in conjunction with Kiesler's 1951 wooden galaxy sculpture[131] which was originally used

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on stage. It was a stage within a stage and raised problems of architectural perspective and the delimitation of visual space. The result was modest and definitely outside such ambitious projects as the Woodstock Universal or the Ellenville tent. Still, it demonstrates all the same that Kiesler was consistent in applying his principle that no single style should ever prevail. Thus the imported "Venetian theater" was incorporated into an overall design of a stage. This was a unique and suitable solution to a peculiar and particular given. But Kiesler had other plans for this project, consistent with his philosophy of the theater in general and summer festivals in particular; a design for multiple theatrical functions which we have learned to recognize as Kiesler's trademark. The information comes from an entry in Kiesler's journal Inside the Endless House. The topic of that entry, as it were, was not the Caramoor (Venetian Theater) but a story illustrating the conflict between patron and artist and, as often is the case, it is the artist's predicament and it is he who often has to yield to the patron. We will ignore Kiesler's quite amusing prose in describing the meeting between him and the patron--here a certain Mrs. Wright, on the grounds of her "gardened estate." From the description Kiesler has provided it seems that the conversion of the existing summer theater with its "Venetian" colonade was one part of the plan and the only part realized. The colonade was covered with a new high roof. But to Kiesler's surprise, he found out upon visiting the site that the patron has started the "sweeping operation of sloping the ground--without consulting me (him), her confessor-planner" and Kiesler went on to say:

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> The fact is I had made another very definite plan to provide for elevation of the audience. The plan was fully developed in blueprint and well known to the owner. The idea was new, a transformation scheme, and inexpensive. Three separate plazas would be built in the lawn area at different heights, each of them a foot or two higher than the next one. They would be flat, covered with tile, and could be used as open-air stages for ballets and dramatic performances--or what normally would be called three theaters-in-the-round or in the oval--or for audience seating. The varying height of the plazas would allow for audience elevation. In addition, I had proposed a covered arcade running around three sides of the rectangle of the total lawn area. This arcade would contain three stadium rows for audience seats so that in case of rain, spectators could retire there to sit--again with elevation. These rows could also serve to seat the audience in case the three plazas were used for performances.[132]

So Kiesler had indeed new ideas of a kind he has never planned before turning the open grounds into a three platform stage and/or seating arrangement, although one can see the similarity between Kiesler's earlier projects which were all centered on a multiple stage and seating arrangements, convertible, so as to serve a multiplicity of performance functions. Yet what was new was the idea of utilizing the slope for that purpose. It is reminiscent of Kiesler's use of ramps on stages such as in the Endless theater which also introduced the idea of stadium seating surrounding the total area. In July of 1959, the Caramoor theater, or Venetian theater, was exhibited in the Katonah Gallery in a small show titled "Three Architects in Northern Westchester" (which included also architects Barnes and I. M. Pei--Barnes showing the Mount Kisco radio station, Kiesler the "Venetian Theatre" and Pei the Pei house at Holly Road).

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The Venetian theater was after all only a conversion job and anything other than the plan as outlined by Kiesler in the beginning did not materialize. In Kiesler's own words:

> Seeing now the slope-in-the-making, I felt that my original plan for transformation auditorium was definitely rained out. The result would be a commonplace auditorium looking into a common place proscenium theater. Perhaps that was really all that Mrs. Wright wanted, and I should damn my own imagination for finding myself in a quandary yet I was filled with an irrepressible feeling of futility.[133]

So, the Caramoor Venetian theater was realized in part, but Kiesler's entire plans in which he expected to realize new ideas which were a continuation of his earlier advanced designs with regard to multi-purpose theaters were not.

The Last Proposal for a Universal Theater

The last of Kiesler's ambitious architectural plans for theaters reflecting his philosophy of the theater and theater architecture was the Universal theater (figures 58-65), a project completed in 1962, three years before his death. Like too many of Kiesler's projects, this one was not built either although this time it was in the nature of the commission.

In 1959 the Ford foundation and the American Federation of Arts commissioned plans for Eight Ideal Theaters and Kiesler was one of the architects invited to participate and commissioned to submit a plan. The projects were published in 1962[134] and in this year the results were exhibited first in the New York Crafts Museum, and then toured fourteen American cities,[135] a tour that was to last from January 1962 to January 1964.

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In this last ambitious plan for a theater complex that Kiesler planned after a long career in which, as we have tried to show, the theater occupied a major place, Kiesler recapitulated (as one would expect many of his earlier ideas concerning the theater). By that time many of Kiesler's ideas, as an examination of the other proposals shows, became commonplace. Convertability, multi-purpose theaters with various seating and stage arrangements (which often determined the total plan), and a general acceptance of the principle according to which inventive designs could and should open up new possibilities for stagings, acting and even play-writing were quite naturally practiced by all. In his introduction to the presentation of the Eight ideal theaters in Industrial Design magazine Harold Clurman, quoting W. McNeil's introduction to the catalogue, recalls a meeting of theater folk where playwrght Arthur Miller was asking "why he could not write the kind of plays he wanted to write without the encumbrances he found in a Broadway theater."[136] Kiesler addressed such issues as early as 1924-1926 over a generation earlier in his talks and press conferences connected with the New Theatre Technique expositions in Vienna and at Steinway Hall as well as in the announced plans for the International Theatre Institute in which design, architecture, acting and playwriting were all discussed as facets of one and the thing. So, when Kiesler was challenged, late in his life, to examine the subject once again he had considerable experience and could draw on his own earlier conclusions, yet he contributed some new ideas as well. Kiesler named this theater The Universal which is not surprising since it was, at least, for him a well-

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established conception and a name he has introduced long before. What he stressed this time was new and is best expressed in his own introductory words in the Ford Foundation Catalogue where he wrote the following:

> For some time it has become very clear to me that a new prototype theater for our day could not exist by itself either artistically or economically, no matter how good its architecture design or equipment might be.[137]

With his last Universal which he also titled "an Urban Theater Center" he stayed with all of his earlier ideas but expanded it also considerably to include a skyscraper (next to the large theater shell) (figure 58) which was to support the theater economically and was to house large and small theaters, television studios, radio stations, offices for publishers, record and motion picture producers and art-exhibition spaces. In other words, if the previous theaters could serve theater—functions of all sorts, including concerts and conventions, Kiesler has in effect planned his last project as theater and a media center. He thus also correlated the economic factor, what Kiesler described as a "changing relationship between art and economy."[138] So, Kiesler at that point in his career came to the conclusion that the persisting economic problems that plague theaters can and should be solved by incorporating the theater into an architectural complex of many facets and multi-media functions that will broaden its economic basis and strengthen its usually shaky financial foundations.[139] The thirty-story building, then, attached to the main auditorium was an extension of the theater into other ever-growing art industries (TV, records, etc.) which were to function as its economic "support system," assuring the theater's survival.

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The Universal's main auditorium was planned to seat 1412 people with additional room for 288 standees. The second, smaller auditorium opposite the large theater could seat 599. The area next to the large theater's stage is the foyer of the smaller theater which could be used as the lobby of the thirty-story satellite tower. The lower part of the large auditorium could be converted within minutes into an arena stage, and there was also a rotating stage. Kiesler has also done away with the theater's standard fly-loft and suggested projection as its modern and more effective substitution for the painted backdrop. Kiesler, however, has not eliminated totally the possibility of using painted backdrops that could be rolled in from the side (as he had planned for Woodstock). So, the Universal, however, beside the introduction of a new economic conception was as a theater a conclusive project integrating the best of what Kiesler developed in his earlier theaters starting with the Endless. What makes Kiesler's last version of the Universal unique is its concrete shell construction. In Kiesler's own words from the introduction once again:

> The ceiling of the theater flows into the sides left and right from the proscenium in the form of a shell. This strongly inclined hood serves to remind us of a sheltering sky, with all the possibility of infinities produced by light and projection. As a matter of fact, the Universal is an endless theater as far as vision and sound are concerned.[140]

The idea of a strongly inclined ceiling takes us back to the 1929 Brooklyn Heights Theater where this was to be a dominant feature as well as to the Film Guild Cinema where Kiesler has also planned a strongly inclined auditorium. We also recall that the planned

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"projectoscope" and "screenoscope" for the Film Guild Cinema was meant to enable slide projections over the ceiling and side walls of the cinema. The shelled "hood" planned for the Universal (figure 59), then, is a revival of this idea. So the shell ceiling, or more precisely the shelled envelope, which Kiesler elevated metaphorically to the rank of a "sheltering sky," was thus made functional on two levels: as a screen for projection and as a metaphor of a "heavenly envelope." This brings into the fore something new, a certain metaphysical metaphor and symbol which is the direction Kiesler's late architecture has taken exemplified also in his Shrine of the Book and the Grotto of Meditation, both plans completed in the early to mid-sixties. These were all contemporary projects, albeit the Shrine of the Book was the only one built.

Kiesler, as we have stressed earlier, never repeated himself in the designs he conceived for theaters. Constant change and search have been his guiding principles, although his own innovations were applied time and time again. His attitude to the issue of building something new was also expressed anew and clearly in the introductory statement Kiesler wrote for this last Universal, where he stated the following:

> It is natural that a building for a new content should have a new form and a new construction principle. It is quite questionable whether one could pour new wine into old-modern architecture.[141]

Thus while the other projects submitted to the Ford Foundation project could be seen as "old-modern" architecture, Kiesler's shell could not. His construction method and the character of its "organic" building took a totally different direction, constructively and thus aesthetically:

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> The Universal theater as well as the sky scraper, in spite of being large structures, are constructed without the support of a single column or beam. They are enveloped in continuous shells of reinforced concrete. This is a building method which I had invented in 1923 in the so-called "Endless," in the space-house (1933) and last year in the Endless House, the model of which was exhibited at the Museum of Modern Art in New York City.[142]

True, as mentioned earlier, the 1923 Endless was originally planned as a glass and steel shell, built according to the same principle of continuity; that is to say, building beyond the principle of post and lintel, or building a columnless shell.

The difference between the Endless and this Universal was that this time it was not glass and steel, it was cast concrete. We also should acknowledge once again that employing a new principle of construction was just as important to Kiesler as were his ideas about convertability, practicality, or building economically. Kiesler's ambition was to break away from the horizontal/vertical or generally straight line post and lintel construction method, and the way to do it was to construct in continuous tension.

However, as a late work and in relation not only to the Shrine of the Book and the Grotto of Meditation but also to Kiesler the sculptor, the architecture of the Universal has taken a more deliberately sculptural direction.

We shall look at the natural interaction between architecture and sculpture later in the discussion of Kiesler's late sculpture, but suffice to realize at this point that such a mutual sensibility took place deliberately during the late period turning each medium slightly

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in the direction of the other in a process of cross fertilization. Thus, for example, reporting in his journals about this project, Kiesler described his work for this commission as "A giant piece of drafting and sculpting finished in nine months."[143] The information contained here regarding the length of time it took him to complete the work is interesting in itself.

Kiesler also reported that a quarter-inch scale model in plaster and wood was made, and that he ordered the model cast in aluminum (figures 58, 59)even though he did not have the 6,000 dollars to pay for it saying: "Money has never interfered with my work. To have or not have is not the question."[144] The choice of the word "sculpting" was, of course, deliberate, maybe even self-conscious, but the best "proof" that Kiesler regarded the model as a sculpture rests in his decision to cast it, and in great expense with money he did not even have.

Only the auditorium part was cast (without the tower), and was placed, as an impressive "sculpture," on a steel and plexiglass table-pedestal (figure 59). As an architectural model the cast had to be cut to create a removable lid, so as to enable a viewer to look inside the theater, see its unique inner space.

Kiesler, however, when showing the model to some distinguished guests, made sure to put the lid on before his other guests entered to view it.[145] And if a sculptural effect was called for by the model, the same impact was expected from the architecture-biomorphic and organic in character and form. It looks like a rolling rock that has been brought to a halt or a monumental bulb resting comfortably on some

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underlying foundations (figure 58). We also have to imagine this structure as an urban theater center that would contrast sharply and unequivocally with its urban environment, likely to be predominantly horizontal and vertical, post and lintel architecture[146] (in the same way Frank Lloyd Wright's Guggenheim Museum does it).

Kiesler, of course, hoped to build his Universal; he brought Broadway producer and art collector/entrepreneur Billy Rose to see it.[147] In his journals Kiesler has titled the entry about this project "The Universal Theater: Poetry Versus Automation."[148] The entry consists mostly of a complete reprint of his introduction to the Universal printed in the Ford Foundation catalogue. What we do learn from the journal, however, is that Kiesler dictated the entire passage (in the morning) shortly before sending off the plans. One can only be impressed by the fluency and ideological coherence, considering this fact, yet it is not all that surprising if we realize that most of the ideas expressed were the stock in trade of Kiesler's "forty years in the world of theater" as one of the paragraphs explained. The title chosen for this entry, which was not the title used in the catalogue, is important and suggests Kiesler's state of mind at that period of his life. Now, in the latter part of his creative career he wanted more than in earlier years to stress the poetic not technological features of his architecture which is also consistent with the greater emphasis on the sculptural in his architecture. His hopes and frustration in having to contend with the unrealized state of his architecture is also expressed in that entry where Kiesler reproduced a longitudinal section of the entire

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project for which he wrote the following caption: "Will the Universal ever be built, or will it be another concept whose formula serves others for semi-solutions in committee enterprises?"[149]

Kiesler obviously felt, as we summarized earlier from a comment on Gropius, that he was one of the earliest inventors of the new theater, and that his ideas circulated freely without him ever getting the credit a feeling that has not left him at that advanced age. He also felt that his ideas and plans were not given a chance to materialize while compromise, "semi-solutions," dominated architecture. In the words of a review of Kiesler's journals Inside the Endless House, where the reviewer looked over Kiesler's various projects, and agreed that "Kiesler's projected Universal Theater would certainly have been a more exciting and probably a more practical set of buildings than Lincoln Center."[150]

In another review for the Providence Sunday Journal of the traveling exhibition of the Ideal Theater: Eight Concepts, Bradford F. Swan wrote that

> A project which might prove interesting to Providence, if its down town renewal plans ever come to fruition, is a scheme called "The Universal," the work of Frederick J. Kiesler, New York architect.[151]

So some could envision the Universal built. The comment about Lincoln Center is particularly appealing, granted Kiesler's low opinion of Johnson and rejection of the "old-modern" style for which Johnson's colonaded Lincoln Center is a prime example. Kiesler did not believe you could "pour new wine into old modern architecture."[152] Indeed, the

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new economic conception of building an adjacent financial "support tower" has taken hold since. The Museum of Modern Art in New York has now, next to it, and on its property a tower which will assure the institution's economic security for some time to come. This high rise is not art related, as Kiesler conceived his satellite tower. but the logic is the same, and Kiesler was prophetic in his analysis. But Kiesler's projects more often than not aroused adverse reactions in the philistine mind. A critic from Houston, Texas, said about the Universal that one should "take a bracer before approaching" it;[153] another wrote as follows:

> perhaps the most "far out" theater concept in the exhibition is Frederick J. Kiesler's the Universal: An Urban Theater Center. It combines a molded auditorium which one observer described as resembling an unborn moose, with a sky scraper and free of straight lines, edges or angles.[154]

But even if it was somewhat ridiculed, it no doubt stood out, as "far-out" and an advanced-garde. But this Universal still "lives" as sculpture, although no one has built it yet; Harvard University has recently acquired the unique model and plans. In the journals, the entry concerning the Universal, being mostly a reprint, did not contain much new material, except for one illustration, described as a "first conceptual sketch" (figure 66). It is a pencil drawing showing a complete conception, with the essential determinants being section and ground plan.

In terms of Kiesler's creative process, the drawing shows a reasonable closeness to the final conception; right from the start Kiesler thought about a shelled "large auditorium" (words marked on the drawing),

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an "office building" (words indicated on the drawing) and a second small "theater" opposite the auditorium. It is interesting, incidentally, that Kiesler simply described the tower he later called a "satellite tower" as office building since it stresses that this new economic conception of combining a regular office building with theaters was there from the start. With regard to the form itself in the drawing the rounded heavy contour lines envelope the shape continuously in the ground plan and section alike. Thinner lines cover the shape from within in rapid round movements so as to indicate the surface roundness intended for the entire shape.

With his growing preoccupation with sculpture, Kiesler conceived his projects more in formal, sculptural terms and his preparatory drawings served that purpose. These sculptural features of the universal are visible quite clearly in the plans as well which in and by themselves are quite impressive. Thus, for example, it is quite remarkable how the shell as seen in the section looks structurally as an independent element enveloping uninterrupted the entire theater including the bottom, like a bubble or cell which appears separated from such inner parts of the theater as the seating balconies or the imposing "communication towers."

Finally upon a close examination of the plan one notices Kiesler's love and intimate acquaintance with the theater and theater life, be it in the lobby, the auditorium, on stage or backstage, be it the services, dressing rooms, etc. He knew all technical requirements and planned to facilitate everything. As an exhibition designer he allocated

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space for displays in the lobby; as a theater goer he made sure there was a cafetria and a cocktail lounge; as a theater man he designed a room for the stage manager as well as the assistant stage manager.

All in all, the Universal sums up Kiesler's lifelong involvement with the theater, and its architecture and set design, seeking to accommodate its practical needs through unconventional and inventive solutions in order to expand one's universal consciousness.

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Notes

[1] Frederick Kiesler, Inside the Endless House, p. 464.

[2] Cf. Paris Times, 9 January 1926, AAA Roll 127, Frame 0392, where sources are quoted crediting Kiesler with the American Production of R.U.R. by Capek (which Kiesler designed in Berlin in 1922) and for which I have found no collaborative evidence. The Chicago Tribune (AAA 127, no. 391), January 10th also reported under the title "Kiesler Sailing for America," that "Although this is his first visit, he is not unknown to New Yorkers having been the originator of the drama R.U.R. produced with great success by the Theater Guild two years ago.

[3] Creighton, pp. 110, 113; and Held, p. 96.

[4] AAA, Roll 127, Frame 0423, New York Tribune, 21 February 1926.

[5] AAA Roll 127, No. 0366, no source quoted. The correct figure was, in fact, 1541. Three hundred two new exhibits were added of current American scenic designs. See Frederick Kiesler, International Theater Exposition (New York, 1926) catalogue, pp. 32, 36; see also Held, p. 99.

[6] See Held, p. 98; and Variety (New York), 31 March 1926.

[7] AAA, Roll 127, Frame 458, Evening Post, 15 February 1926, and Frame 0340, The Brooklyn Eagle, 5 March 1926.

[8] See also AAA Roll 127, Frame 351, the New York Sun, and Frame 354, the Brooklyn Citizen, 12 March, which reported a steady growth in attendance. AAA, Roll 127, Frame 392, Paris Times, 9 January 1926. The models encouraged by Langener referred to here may have resulted in the first sculpture of the Endless, the eggshell shape that was exhibited and photography on its location in the show in front of a work by Picasso.

[9] New York Sun, 8 February 1926, AAA 127, Frame 397.

[10] New York Times Magazine, 14 February 1926, p. 18. "Stagecraft Shows Its Newest Heresies" by Kenneth MacGowan; AAA Roll 127, no. 456-457.

[11] The Boston Evening Transcript (4 March 1926) gave the most complete picture; the paper reported about a "new Guild in Manhattan" that calls itself "the Film Associates" and lists among its advisory board the following: Mr. Macgowan of the Greenwich Village group, Mr. Gilbert Seldes, Mr. Langener of the Theater Guild of New York, Miss Jane Heap, editor of the Little Review, Mr. Sheldon Cheney and Mr. Frederich Kiesler (AAA, Roll 127, Frame 364).

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[12]Sheldon Cheney, The New World of Architecture (London, Toronto, 1930), pp. 288, 360-361; Sheldon Cheney, The Story of Modern Art (New York, 1941), p. 477; Sheldon Cheney, Expressionism in Art (New York, 1934; rpt 1948), p. 384; and Sheldon Cheney, Art and the Machine (New York, 1938).

[13]Sheldon Cheney, "The International Theater Exhibition," Theater Arts Monthly, March 1926.

[14]AAA, Roll 127, Frame 411, World (New York), 28 February 1926.

[15]AAA, Roll 127, no. 369, Evening Post, 6 March 1926.

[16]"Design's Bad Boy," p. 89.

[17]AAA, Roll 127, Frame 418, The Tribune (New York), 28 February 1926.

[18]AAA, Roll 127, No. 440, New York Tribune, 14 March 1926.

[19]AAA, Roll 127, Frame 339, Brooklyn Times, 19 March 1926; AAA, Roll 127, Frame 479, Brooklyn Eagle, 20 March 1926.

[20]AAA, Roll 127, Frame 345, Tribune (New York), 15 March 1926.

[21]AAA, Roll 127, Frames 344, 345.

[22]AAA 127, Frame 444, New York Review, 27 March 1976.

[23]AAA, Roll 127, Frame 447, n.d.

[24]AAA, Roll 127, Frame 0537, "Bei don Weitnern Von New York" (With the Viennese of New York) by Andi. The name of the publication is missing.

[25]AAA, Roll 127, no. 570, Theater Arts Monthly, March 1926.

[26]Kiesler's permit, p. 109.

[27]Ibid., p. 110.

[28]Ibid.

[29]Jack Burnham, Beyond Modern Sculpture (New York: G. Braziller, 1968), p. 218.

[30]Held, p. 103.

[31]Michael Kirby, Futurist Performance (New York: E. P. Dutton, 1971), p. 87.

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[32]Ibid., p. 87.

[33]Enrico Prampolini, Futurist Scenography (April-May 1915); Kirby, p. 203.

[34]Kirby, p. 205.

[35]Internationale Ausstellung, Marinetti: Wir Er Erfinden, pp. 26-27; Russolo, Kinst der Gerausche, pp. 35-37 (The Art of Noises, 1913); Prampolini, L'Atmosphera Scenica, pp. 67-77.

[36]Kirby, p. 89.

[37]Ibid., p. 89.

[38]Held, p. 105.

[39]Kirby, p. 77.

[40]See Lillian Kiesler, November 1975; "Films Salvaged: Lillian Kiesler Finds 'Ballet Mechanique'" by Leger and "Excelsior Reifen" by Ruttman stored in her home in "A Tribute to Anthology Film Archives," Avantgarde Film Preservation Program: An Evening Dedicated to Frederick Kiesler, Leger-Murphy-Ruttman-Cornell-Deren Leslie (New York: Museum of Modern Art, 19 October 1977, published by the American Film Institute, John F. Kennedy Center, Washington, D.C., 10 November 1977), p. 22.

[41]Edward Gordon Craig, Towards a New Theatre (London, Toronto, New York:, 1913), p. 6.

[42]Paul M. Talley, "Edward Gordon Craig," Educational Theatre Journal 19 (March 1967): 53.

[43]Craig, p. 58.

[44]"Debacle of Theatre," Little Review (special issue), March 1926.

[45]Frederick Kiesler, Contemporary Art Applied, p. 110.

[46]The Little Review (Winter 1926), special issue, International Theater Exhibition. See also "Eintritt 75 Cents," G 5-6 (April 1926): 51.

[47]Morning Telegram, AAA Roll 127, no. 436, 14 March 1926.

[48]Morning Telegraph, AAA, Roll 127, no. 441, 15 March 1926.

[49]The Little Review, p. 62.

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[50]Frederick Kiesler, "Erneurung des Theaters," De Stijl 7, nos. 75-76 (1926): 494.

[51]The Little Review, p. 70. Also cf. Chapter 14.

[52]Creighton, p. 121.

[53]AAA, Roll 127, Frame 545.

[54]AAA, Roll 127, Frame 546.

[55]Film Guild Cinema Inaugural Program, 1929, "Tracings of the Architect," p. 8.

[56]Theodor Dreiser, "Comments on Film," Film Art Guild Cinema Inaugural Program, p. 9.

[57]"Tracings of the Architect."

[58]AAA, Roll 127, Frame 575, Chicago News, 12 February 1929.

[59]AAA 127, Frame 570, Exhibitors Daily Review, 1 February 1929.

[60]AAA 127, Frame 569, New York Graphic, 2 February 1929.

[61]AAA 127, Frame 568, New York Sun, 2 February 1929.

[62]AAA 127, Frame 575, News (Chicago), 12 February 1929.

[63]AAA 127, Frame 570, Exhibitors Daily Review, 1 February 1929.

[64]AAA 127, Frame 572, Herald Tribune, 4 February 1929.

[65]AAA 127, no. 590, Exhibitors Herald World 94, no. 11 (16 March 1929).

[66]Frederick Kiesler, Contemporary Art Applied, p. 126.

[67]AAA 127, Frame 568, "A Cinema Medicine," New York Sun, 2 February 1929.

[68]AAA Roll 127, Frame 587, U.S Evening Post, 2 February 1929.

[69]Ibid.

[70]AAA 127, Frame 565, Vanity Fair, May 1929.

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[71]Architectural Report 75 (January 1934), "Space House" by Frederich Kiesler, p. 48.

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[72]AAA, Roll 128, no. 494, The Tribune 25 (1926).

[73]AAA, Roll 128, no. 452, New York Times, 15 March 1926.

[74]"Design's Bad Boy," p. 88.

[75]AAA 128, Frame 341, The World, 16 March 1926.

[76]AAA 128, Frame 450, Evening Post, 15 March 1926.

[77]AAA 128, Frame 345, Tribune (New York), 15 March 1926, "Kiesler Waves Old Theater Out and New One In."

[78]AAA 128, 444, New York Reivew, 27 March 1926.

[79]New York City Telegram. (Held has it as New York Times, 16 March, p. 23:2).

[80]New York Telegram.

[81]Frederick Kiesler, Contemporary Art Applied, p. 44.

[82]AAA 128, no. 444, New York Review, 27 March 1926; and AAA 128, no. 447, New York Telegram, n.d.

[83]International Theater Arts Institute Catalogue, 1926, pp. 5-6.

[84]AAA 128, no. 532, Independent Theaters Dinner Notes, 3 October 1926, Ballroom, Astor Hotel.

[85]See Kenneth L. Graham, "Meyerhold and Construction in the Russian Theater," Quarterly Journal of Speech 29 (April 1943), 182-183.

[86]See Jack Burnham, Beyond Modern Sculpture (New York: G. Braziller, 1968), p. 185.

[87]See also B. F. Dolbin, "Die internationale Ausstellung Neuer Theatertechnik in Wien," Der Sturm 6, no. 7-8 (August 1925): 97-101, particularly p. 98.

[88]Creighton, pp. 110, 111.

[89]Friedrich Kiesler, "Das Railway-theater," Internationale Ausstellung, inside cover, n.p.

[90]AAA 128, no. 370, Brooklyn Eagle, 7 March 1926; and AAA 128, no. 348, American Art News, 6 March 1926.

[91]AAA 128, no. 452, New York Times, 15 March 1926.

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[92]AAA 128, no. 348, American Art News, 6 March 1926.

[93]Frederick Kiesler, "Project for a 'Space Theater' Seating 100,000 People," Architectural Record 67 (May 1930).

[94]Frederick Kiesler, Contemporary Art Applied, p. 49.

[95]Walter Gropius, "The Total Theater," Architectural Record 67 (May 1930): 492.

[96]See quote above note.

[97]Thomas DeGaetani, "A Theater Flexible and Spacious," rev. of The Theater of the Bauhaus, Progressive Architecture, February 1962, p. 166.

[98]Cf., Der Sturm.

[99]Taped conversation between Lillian Kiesler and Judith Vasallo, 1970, Tape 1, transcript, MOMA, Special Collections, pp. 28-29.

[100]AAA 128, no. 350, Philadelphia Public Ledger, 7 March 1926.

[101]Frederick Kiesler, Contemporary Art Applied, p. 112.

[102]The particular model I have in mind is a 1949/1950 refired clay model reproduced in Frederick Kiesler, "The Endless House," Architectural Forum 93 (November 1950): 124. It was acquired by the Museum of Modern Art in 1952.

[103]Frederick Kiesler, "A Festival Shelter: The Space Theatre for Woodstock, N.Y.," Shelter 2, no. 4 (May 1932): 42-47.

[104]Frederick Kiesler, "The Universal," Architectural Forum 57 (December 1932): 542.

[105]"A Festival Shelter," p. 44.

[106]"Ibid.

[107]Ibid.

[108]Ibid., p. 42.

[109]Ibid., p. 42.

[110]Ibid., p. 42.

[111]Ibid., p. 43.

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[112]Ibid., p. 43.

[113]For an even more detailed description see Morton Eustice, "A Universal Theatre, Frederich Kiesler's All-Purpose Community Playhouse," Theater Arts Monthly 16, no. 6 (June 1933): 444.

[114]"The Universal: A Multi-Purpose Community Center Theatre Designed for Woodstock, N.Y., Frederick J. Kiesler, Architect," Architectural Forum 57 (December 1934): 534.

[115]"A Festival Shelter," p. 45.

[116]"The Universal," Architectural Forum, p. 536.

[117]Frederick Kiesler, Contemporary Art Applied, p. 42.

[118]Cf. Antonia Graf Otto, Die Vergessene Wagnerschule.

[119]Cf. Frederick Kiesler, Inside the Endless House, p. 513, where Kiesler talks about the Endless Theater (1923) and the Universal, both lawfully termed multiple purpose theaters.

[120]AAA, Roll 128, no. 0029.

[121]Press release from the Empire State Music Festival, Inc., AAA 128, no. 0033.

[122]Press release.

[123]Adolf Loos, Samliche Schriften Herausgegeben Von Franz Gluck. Verlag Herold Wien, munchen, 1962 (Vol. 2), p. 319, "Das Mysteriam der Akustik."

[124]MOMA, special colelctions, Kiesler Archive, reduced, taped conversation with Judith Vasallo, Tape 1, p. 69.

[125]Sunday Review, 20 August 1955, AAA 128, no. 44.

[126]G. M. Kallman, "Interiors Contract Series 56: Theaters," Interiors 116 (September 1956): 114 and illustrations.

[127]Press release, Empire State Music Festival.

[128]Kallman, p. 114.

[129]New York Times, 23 August 1955.

[130]Held, p. 167.

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[131]Yamaguchi, n.p.

[132]Frederick Kiesler, Inside the Endless House, p. 90.

[133]Frederick Kiesler, Inside the Endless, pp. 90-91.

[134]The Ideal Theater: Eight Concepts (New York: American Federation of the Arts, 1963).

[135]See AAa roll 58, frame 58-61, New York Times, 26 January 1962; and New York World Telegram, 27 January 1966.

[136]Harold Clurman, "Eight Ideal Theatres," Industrial Design 9 (April 1962): 40.

[137]The Ideal Theatre: Eight Concepts, p. 93.

[138]Ibid., p. 93.

[139]One may compare this idea to the economic and architectural considerations behind adding a tower to the Museum of Modern Art, New York.

[140]The Ideal Theater: Eight Concepts, p. 93.

[141]Ibid., p. 94.

[142]Ibid., p. 94.

[143]Frederick Kiesler, Inside the Endless House, p. 487.

[144]Ibid., p. 487.

[145]Ibid., p. 473. C. J. Aragan and Mme. Bucarelli, director plenipotentiary.

[146]The kind of contrast between the Universal's shell or shape brings F. L. Wright's Guggenheim Museum to mind. But Kiesler has entertained similar ideas as early as 1934 in his proposed plan for an American "Institute of Art and Industrial Design" which was not a biomorphic structure, but was a strong contrast to its neighboring buildings. See M. Benson, "Wanted an American Bauhaus," The American Magazine of Art 27, no. 6 (June 1934): 307-311; illustration p. 309.

[147]Frederick Kiesler, Inside the Endless House, p. 481.

[148]Ibid., pp. 487-492.

[149]Ibid., p. 492.

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[150]Corinne Robius, "Review of Inside the Endless House," Book Week, 14 May 1967, pp. 11, 13.

[151]Providence Sunday Journal, AAA Roll 58, no. 62.

[152]The Ideal Theater: Eight Concepts, p. 94.

[153]Houston Texas Post, 8 April 1962, AAA, Roll 58, no. 61.

[154]New York World Telegram, 27 January 1962, AAA Roll 58, no. 61.

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CHAPTER IV

THE ENDLESS HOUSE AND THE SPACE HOUSE

Introduction

In formal terms, the Endless House and the Endless Theater, at least in the early stages, constituted a single architectural conception. Therefore, as argued in the previous chapter, much of what is said about the latter applies to the Endless House and vice versa. In the retrospective interview with Thomas Creighton, for example, Kiesler replied to a question concerning the first conception of the Endless House with an answer about the Endless Theater,[1] and in his own article (published posthumously), "Notes on Architecture as Sculpture," Kiesler reproduced the single surviving longitudinal section of the Endless Theater with the following caption: "Longitudinal section of the first Endless House (a 'space theater') continuous double shell construction designed in Vienna in 1924"[2] (figure 30). In "Notes on Architecture as Sculpture," however, Kiesler approached the Endless House differently, looking at its space from the inside out, which is instructive. He wrote:

> [But] it is important to note that the principle embodied in this flattened sphere is not the solid enclosure of space but the disclosure of space, deliberately limited by the shell.[3]

This distinction is one of attitude to building and space, and it can be also expressed as building from without—enclosing space, and building

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from within--disclosing its unique nature. This is consistent with my earlier observations, namely that Kiesler, was, to a certain extent, heir to builders/architects such as Wagner, Loos and Perret who conceived and designed basically from within. This of course is difficult to prove. However, Kiesler's writings provide confirmation to this observation. In his 1949 article "Pseudo-Functionalism in Modern Architecture," the following are the opening words:

> The floor plan is no more than the footprint of a house. From a flat impression of this sort it is difficult to conceive the actual form and content of the building. If God had begun the creation of man with a footprint, a monster all heels and toes would probably have grown up from it, not man. (He might have been without head and arms, to say nothing of his internal structure.) Fortunately the creation proceeded otherwise, growing out of a nuclear conception. Out of a single germ cell which contained the whole and which slowly developed into the separate floors and rooms of man. This cell, owing its origin to the erotic and creative instinct and not to any intellectual mandate, is the nucleus of the human edifice.[4]

Kiesler elaborates the metaphor further and points outthat planning should first be concerned with "the nucleus of the 'dwelling-universe': the nervous system of the house."[5] The way in which Kiesler saw a plan unfolding from within is another aspect of space disclosure which led the discussion here. The interest in stressing the relevance of this attitude to building for Kiesler brings us to the first and last time he had an opportunity to realize his ideas concerning the one-family-house, in 1934, namely the Space House (figures 67-75).

The Space House

The Space House was the extent to which the Endless House was ever built. This calls for a clarification concerning the relationship

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between the Endless House and the Space House. The Space House, built within the showrooms of the Modernage Furniture Company, was a domesticated version of the Endless Theater which was conceived ten years earlier than the Space House. The Endless House, as the Endless Theater, existed as early as 1924, but then its initial application was in the theater, and no specific plans exist at the time for the Endless House as a living space for one family.[6] So the Space House should be viewed as the first conception of Kiesler's ideas about residential architecture.

A confirmation of this connection between the Endless House and the Space House exists in a drawing Kiesler made for the Surrealist magazine VVV where the sign for endlessness is drawn connecting 1924 and the Endless House, with 1934 and the Space House.[7] Along the same line in a 1950 exhibition at the Samuel Kootz gallery titled "The Muralist and the Modern Architect," Kiesler participated as an architect and showed a model of the Endless House. In his statement for the catalogue Kiesler elaborated on the construction method of the Endless House and also provided the following history connecting the Endless House and the Space House:

> The Endless House was first conceived in 1922, the plans first exhibited at the international festival of the city of Vienna in 1924, in 1925 at the World's Fair in Paris, and in 1926 in New York City. This large project was adapted to a one-family house in 1933 and a full-size model of it exhibited in New York City under the name of "Space House."[8]

This ought to clarify the picture.

One previous plan for a modern interior was incidentally proposed by Kiesler earlier, than the Space House, that is, in 1926, the year

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Kiesler arrived in New York. He was introduced to Katherine Dreier and for her 1927 International Exhibition of Modern Art (sponsored by the Societe Anonyme) proposed a construction of a modern room (which of course is not an Endless House). It was to show how one would live with art at home in the future. Kiesler planned it as a project that would be financed by construction companies (preferably in Brooklyn--where the exhibition was to take place) companies, that would donate the materials as a promotion of their products.[9]

The Space House was built inside the second floor exhibition rooms of the Modernage Furniture Company, headed by Martin F. Feinman, which was located at 162 East 33rd Street in Manhattan.[10] It was an event of considerable importance in the story of America's slow introduction to Modernism in design and architecture.

One can get an idea about the state of taste or the relative standings of modernism at the time from one of the four professional publications that featured the Space House--the Architectural Forum. This publication under a single title--"Space and the Years"--published Kiesler's Space House at Modernage and a certain "House of Years" built in the showrooms of W.&J. Sloane and Company as a deliberately conservative design in eighteenth-century style. The article's leading paragraph reads as follows:

> To serve as a setting for the setting of furniture, two architects designed houses recently built indoors. One is called "Space House" by architect Frederick Kiesler, and is thoroughly ultra-modern; and the other is "House of Years" designed by architects Henry Otis Chapman Jr. and Harold W. Bedez, and is the last word in an adapted traditional vogue. Both are eminently suited to their purposes. Both are proving

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> profitable to their possessors; both are excellent examples of their respective kind.[11]

The magazine's approach was to treat these two styles even handedly, stressing the relativity of style as changing fashion, accepting a balanced coexistence of the conservative and the advanced in architecture and design:

> there is usually room for more than one fashion; conservative and advanced tastes can both be catered to, as these two contrasting houses demonstrate. Each has its partisans and patrons to whom the other is anathema.[12]

The article described the Space House as going "the present limit in simplicity and directness" and "the House of Years" as elaborate in "refinement, style and elegance." It was admittedly an eighteenth century design. Kiesler's Space House featured by Modernage--a company which the Architectural Forum complimented as "sagacious"--was discussed in quite different terms:

> "Epatez les bourgeois" is useful in intriguing the possible purchaser, for one is impressed by what one does not fully understand. The ingenious architect has produced one of the most outstanding examples of modern design and plan yet seen in this country.[13]

These words ought to speak for themselves in expressing, at least, this particular magazine's evaluation of the Space House art historically and socially, but it also showed respect, even admiration, for Kiesler's design.

> He gives the lie to those who would term the new forms "ugly" for he is incapable of being either brutal or gauche. The result is distinguished designing, full of feeling for form, texture and material.[14]

It then goes on to make the following observation:

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> It goes Mies Van der Rohe one better in plan theory for it adds differences in levels as a divisional element to the flexibility of separation obtained by curtains on overhead tracks.

As the short article proceeds Kiesler's Space House is discussed singularly and it ends saying

> Space House will open up new vistas of the possibilities of planning and designing for a new, more rational, more unconfining, uninhibited full living, a precursor of the new era of cultural leisure.[15]

House Beautiful also featured the Space House under the title "One Living Space Convertible into Many Rooms,"[16] which names one of Kiesler's principal ideas in design, one that was recognized in his theater projects and which he applied vigorously in the Space House. Flexible partitions of different kinds facilitate a new conception of large open space, keeping the total space of the house flowing uninterruptedly, while keeping the option of partitioning it (figures 69 and 70).

We need not speculate about the Space House since Kiesler published elaborate "Notes on Architecture," subtitled "The Space House, Annotations at Random."[17] The article, besides expounding the principles which guide the design of the Space House in unequivocal, practical terms, contributes significantly in clarifying Kiesler's philosophy that crystalized during the thirties.

At the outset of his article Kiesler stressed that the Space House is no more, no less than "a proportionate substitute indicating the actual possibilities of the original plan." In other words, he had to contend with the circumstances in which the Space House was built

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as a mere demonstration model and not a fully implemented design of the Endless House. However, contrary to what one would expect from an architect, a professional eager to build, Kiesler presented a modest position, along with the clear dividing line between his theory and that of "Le Corbusier, Mies, Oud and others." He wrote that "they" (all the others) "started with the idea of a house: not with a unified architectural dogma. Not from architecture as a science. Not from architecture as biotechnique," which he explained as "The Interrelation of a Body to Its Environment: Spiritual, Physical, Social, Mechanical." Kiesler went on to say:

> I was never eager to build; no building at the moment can satisfy. The possibilities are not ripe. Of course laymen and specialists may think that a modern house (of Corbusier for instance) is a definite modern solution of architecture. The answer to that is: that in our present state of accidental handi- and machine-craft and of accidental state--and private ownership, organic result in buildings cannot be achieved.[18]

So Kiesler sought to establish architecture as a multi-faceted science far beyond mere interest in building a house or a new idea in design. In his words once again:

> Opposing such "designs" I always advocated the principle of a new unified theory first--from which new houses, factories, or whatever structure it might be--result; not vice versa.[19]

Kiesler admitted that he was not eager to build because he thought he did not have enough answers, and that the times (socially and technologically), were not ripe for his kind of unifying theory. At the same time he was confident enough to reject Mies, Le Corbusier or Oud. Yet he called his "notes" "annotations at random" in spite of a rather

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systematic analysis of architecture which he had developed, explained and applied to a project he had realized, and for which his article was a supplement.

Kiesler divided the discussion of the Space House into three parts: (1) social, (2) tectonic, and (3) structural. As shown on several occasions, Kiesler had an eccentric and provocative style of writing. Thus, after listing the three problems or guiding strategies for analysis—the social aspect being first (the tectonic second), he started the explanation of the social category as follows: "A Space-House takes its tectonic conception secondarily, its first consideration being social necessity."[20]

Kiesler started his paragraph on the first category (social) with a reference to the second (tectonic) in order to stress the importance of this specific hierarchy or better to emphasize that the tectonics of his architecture are subordinated to the social category which, as he wrote, determines it. In the social category Kiesler is identifying the elements that ought to be considered such as "the proper relationship of parents to their children; men toward women, adults toward minors. Interchangeable education. Definite possibilities of physical separation."[21] The sociology of the family, its social life as related to education as well as psychological needs of its individual members all are to be considered first in order to plan properly.

In spite of the primacy of the social category it was treated by Kiesler briefly and Kiesler comes into his own when tackling the tectonic aspect. Here, first the economy of space is listed as the primary objective of good planning, one achieved in the Space House.

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> It gives more livable space on the same area than any other dwelling. It treats one-, two- or three-story-one-family-house as ONE SPACE UNIT. The inner divisions of the cubic content are of light weight materials and make together with their light-weight shell, an easily mounted operated and de-mountable house.[22]

The emphasis on "one space unit" is important in Kiesler's conception of the house and is one of the ideas which distinguishes his plan. Similar to his ideas for the design of theaters, flexibility and convertability of a space was the key. In this context, however, Kiesler expressed this idea also as a humanist aspect of the individual's self-fulfillment.

> The house must act as a generator for the individual. His generated forces are to be discharged to the outer world. The outer world: his own family or any other group. The house is built on this two-way principle: charging and discharging through a flexibility that is contracting and expanding the cubic content of each segment within the whole area it occupies.[23]

For Kiesler, the idea of a house as generator was to emphasize its psychological and mental vitality, like an organism of which the individual's energies are an inseparable part. Elsewhere Kiesler made the same point in the following terms: "The Endless House is a result of a different type of planning, based on our inner needs and processes rather than on the dictates of mechanics."[24] Thus the flexible partitioning of the Space House into various segments, according to shifting needs at different times, is one of the features that give it the life of an organism as time-space architecture; this is how this organism is organized to accommodate the private and social lives of its inhabitants.

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Kiesler stressed that the house is divided through the partitions into segments: "Segments not rooms; segments being indicative as a part of an entity while 'room' is a final unit in itself." These exactitudes of expression were not always understood as the following title for the article on the Space House in The House Beautiful indicates, "One Living Space Convertible into Many Rooms." Although the article also paraphrased Kiesler's contention that "we are still living in boxes and it is time we live in space."[25] For Kiesler the room, as box and cage, was anathema and the total space-unit of the Space House was thus segmented or partitioned at will, but not divided into rooms.

Return to Kiesler's "Annotations at Random" where, following the remark on "Segments," Kiesler wrote: "This expansion and contraction possibility is the fundamental concept of the House." It seems that Kiesler alludes here to a metaphor of a live organism, expanding and contracting. More specifically, Kiesler explains that this fundamental concept of the Space House is achieved by separating the space into several levels "which are acting as a lateral division of space," and what he calls "semi-static vertical divisions," which are partitions made in materials "adequate to function for sound-proofing, light-conditioning and air control."[26]

Finally Kiesler explains his ideas about construction, which could not be implemented in the Space House. It is in this section that he elaborates on his theory of construction which is in effect the theory for the Endless House and Endless Theater. It also confirms that the Space House was a compromise and a substitution for the Endless House.

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The argument here is simple: modern construction and the use of iron or steel "is nothing more than imitation of wood construction in steel. The steel beam is merely a fortified wooden bar. The manner in which horizontal and vertical bearers are joined in steel is an exact repetition of the manner in which wooden beams are joined."[27] Kiesler objected to this way of thinking, since it did not change the basic post and lintel method prevalent since antiquity and which changed only in the materials employed. His description of present practices and his alternative solution reads:

> The roof solution of concrete and steel is still very conglomerate: it consists of many layers of different unrelated materials (riveted, welded, pasted, screwed, etc.) into one mass--without being it. Therefore, the limitations of such constructions as to resistance to weather forces. And logically the increased maintenance changes to insure safety. Engineering knows that steel, glass, concrete, or any other material have different expansion and contraction coefficients and that the correlation into one is a task only achieved by force. Such force can never be strong enough to hold the unity for too long a time. The different materials are constantly trying to come into their own after the completion of such multi-layer-units. The Space House tries to build in one rather than two or more materials. It aims to replace conglomeration with uniformity. A roof consisting of only one material is the ultimate goal.[28]

This section which was the first subdivision of the third structured aspect, was under the heading "Roof." Next comes the alternative, namely, "Continuous Tension," which is the title of the second subdivision of the structural analysis. Simplification is a guideline leading to the elimination of the four-fold division of column, roof, floor, and wall, and this alternative construction Kiesler called a "shell-monolith." Its advantages were listed as follows:

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> Easily erected. Weight minimized. Mobile. Separation into floor, walls, roof, columns, is eliminated. The floor continues into the roof, the roof into the wall, the wall into the floor. It might be called: conversion of compression into continuous tension.[29]

Finally, concluding his annotations at random, Kiesler referred to the eggshell as the ultimate model for his idea of efficient construction, and at the same time contributed to our understanding of the geometrical foundation of his shell; he wrote:

> The egg-shell construction is the most exquisite example we know of utmost resistance to outer and inner stress with a minimum of strength. We can learn from such simplicity. That does not mean that a house should look like an egg. The ideal house configuration with least resistance to outer and inner stress is not the ovoid but the spheroid matrix: a flattened sphere. In its equatorial section a circle, in its longitudinal section an ellipse. Stream-lining becomes here an organic force as it relates to the dynamic equilibrium of body-motion within encompassed space. It is rather an integral component of the complex than a mere adaptation of hydro- or aero-dynamics. This function I call proprio-spatial dynamic.[30]

This article, which was Kiesler's most comprehensive article on the Endless House (as a one-family space-house) to date, has as an appendix called a "morphology chart of architecture." This chart shall be discussed later, but at this point it can serve as a reminder of Kiesler's zest for theory and speculation and love for charts and diagrams, a medium he practiced vigorously during that decade.

In House Beautiful a ground plan and a bird's eye view perspective showing the interior were published (figure 69). The ground plan in itself was fairly common and included a living room or a dining room, a library and a game room, a master bedroom, a second bedroom and a kitchen. Another area was allocated to a music and a projection room and a convertible guest room.

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The perspective makes it clear that the house was built on several different levels.

> Certain rooms calling for lower or loftier ceilings according to their function. The living or main congregating space has a high ceiling, the library a very low one, and to embody still further the significance of a place to which one may retreat with one's thoughts, Mr. Kiesler has placed the library several steps below the level of the living room. The dining room, on the other hand, is raised two steps above the living room level to create an air of slight formality. Bedroom spaces are intimate private places and again imply low friendly ceilings.[31]

The magazine's writer who is quoted in this description was, no doubt, informed by Kiesler and also reported that Kiesler planned the roof as a large play and recreation area with a about a quarter section, roofed over for outdoor sleeping. There were also plans for a ground floor terrace off the garden and two other smaller terraces, one for the living room and one for the master bedroom. The furniture that was shown was not designed by Kiesler (who was a furniture designer), who planned all the furniture for the Endless House as built-in, except for the chairs. He also suggested that "bedrooms may be made convertible by designing the beds as low couches, or planning for their disappearance into walls."[32]

The Space House, as a life-size model, was made of plywood, glass and metal (figures 67, 68). The use of plywood is noteworthy on two accounts. First, that the Space House was a rather successful substitution for the monolithic structure. Second, the plywood model was forecasting the imaginative use of bent plywood in Kiesler's 1942 important design of the Surrealist room in Peggy Guggenheim's Art of This

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Century Gallery. For partitions, fabric curtains were used, net, rubber and jute matting covered the floors, as well as straw floor matting in both carpet width and continuous roll. Kiesler attached a great deal of significance to the choice and use of (unorthodox) materials and reproduced in the article on the Space House in the Architectural Record, a great number of close-up photographs dramatizing the materials he chose (figures 77-82). Light played an important role in Kiesler's design. He used round aluminum light fixtures with or without covering cups (figures 83-85). "Imagine parallel rows of gray wood supported, several feet from the ceiling and studded at regular intervals with electric bulbs set against streamlined aluminum shields with hardly a screw or a bolt visible to disturb the rigid metal surface," wrote one magazine which also described the light as "soft" and "shaded."[33] The "look" was Bauhaus minimalism. There is no clear indication, however, that the light fixtures used were of Kiesler's own design even though he had designed light fixtures before. Some photographs of details also show a use of a tubular lighting fixture (figure 85) and a combination feature--a lighting fixture of spun aluminum over a roll-down door--which was unusual and somewhat odd as a partition, yet functional for Kiesler's purpose.

The furniture used was modern, but Kiesler, in his own plans, wanted a totally new attitude trying to keep the flow and the integrity of the space through the design of in-built furniture. This he could not realize here. He tried, however, to keep the furniture, as decoration, under control. Sidney Janis reported that at the time he went

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to see the Space House with Kiesler, and helped to choose some pictures for the walls, he was stopped at one prominent wall by Kiesler who, to Janis' surprise, said that he wanted to keep the wall clear and clean and let the architecture itself satisfy all need for visual and aesthetic integrity.[34] Kiesler also decorated the Space House with a photo-mural entitled Determination, subtitled Labor and Play, which showed photo-montaged images of two men, one working with his shovel, the other enjoying leisure time, playing tennis[35] (figure 74).

This image, however marginal in the total scheme of Kiesler's art, is interesting since it introduces into a seemingly bourgeois context an image which includes physical labor in the form of "super graphics" expressing an avant-garde spirit that tried to make art or design for a better life for all. An adequate house was in this context an elementary right, and Kiesler's Space House, no matter how bourgeois it may look now, was a step in that direction. The significance of it was augmented against America's conservatism. Keep in mind that the Space House was built after the fall of the stock market in 1929, and the Depression which somewhat changed America's socioeconomical innocence. In this sense the eight years that passed since 1926 and the New Theater Technique Exposition marked a period of significant social change. It was not a radical change, but nonetheless a social change.

The road of progress, however, is winding and long; thus one still finds common caution with regard to modernism in the press. The New York Sun announced: "And Now It's the 'Space-House,'" saying: "Latest

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thing in dwellings likely to leave you gasping with surprise."[36] But information about the Space House other than what was published in the professional press, whether written by Kiesler or by the magazine's staff indicates, that the Space House was an experimental venture, and that its construction was meant to be manufactured "on a serial basis." There was to be prefabricated mass production, and a house was to cost, then, approximately 5,000 dollars.[37] The press also noted that the Space House "represents the solution to the housing problem of the average wage earner of today."[38] The Space House, then, considering the circumstances was quite well received in a new "climate" that was socially open to seek an architecture for the average wage earner, notwithstanding its modernist style. In the complimentary words of Retailing magazine: "Honesty and frankly functional, the store [Space House at Modernage] refutes the assertion sometime made that pure modernism is too stark and unrelieved to be aesthetically pleasing."[39]

Related Interests, Works and Designs

But Kiesler's commission to build the Space House as a "set" for Modernage's furniture business indicates that the origins of this unusual project can be found in his growing reputation as a designer of stores and show windows. His landmark window displays for Saks Fifth Avenue contributed toward building Kiesler's reputation in the field of design and the applied arts where nothing succeeds like success. It was indeed one of Kiesler's unfortunately few unblemished successes: it was practical, it was an aesthetic triumph and good for business. "During this

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period," writes the Architectural Forum concerning this period and project we are discussing,

> Kiesler designed his famous show windows for Saks 5th Avenue, the first application of modern design techniques to American commercial display. Their influence can still be seen in 5th Avenue shops today. At that time windows were always constructed as separate units made of expensive Tudorish wood paneling. Kiesler's then-startling innovation was to rip out all partitions between windows and run a continuous background panel the full length of the store. Other features which set the window-dressing world on its ear were the use of stark white as background color and the substitution of one or two dramatic items for the usual jumble of merchandise. Saks expected to change these windows in two or three weeks but the permanent architectural background proved so flexible that it was retained for nine years, saving Saks a sizable chunk of money.[40]

The Saks windows (figures 35-39) were published by the Architectural Record in 1930, the year Kiesler published his book on the subject which bears the long and somewhat didactic title Contemporary Art Applied to the Store and Its Display, published by Brentano's.[41] Other projects post-dating the erection of the Space House are a prize winning storefront for Jay's Shoes in Buffalo, New York (1935) (figure 86) and another interior design in New York City for Westerman Book Store (figure 87) during the same year. Stylistically, the Westerman Book Store (where Kiesler seems to have designed the interior only) shows the same use of the winding stairs used in the Space House. It also appears that Kiesler tried to preserve the integrity of the space by dividing it into inner sections with a gallery much like he did in the Space House.

Lillian Kiesler, the artist's widow, who has her own way of telling the facts, said that the design for the Saks Fifth Avenue windows were used not nine years--as the article in Architectural Forum suggested--

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but twenty-five years(!) which is doubtful, considering the "restless" nature of fashion. However, in her short biographical outline of Kiesler's life and work she also wrote that he had "plans for the model of a 'nucleus house'--a prefabricated house under commission by Sears and Roebuck--plans the company received but nothing ever came of it."[42]

Kiesler was interested in prefabrication, made plans for a prefabricated and family house (1931), the Nucleus House, and the plans for the Woodstock Universal Theater (1931) included the use of prefabricated elements. In 1934 the subject emerges again in connection with Kiesler's visit to Chicago where he participated in a "clinic for buyers."[43] There he expressed his ideas on design, prefabrication and housing and city planning in general. "Architect Sees Nation Living in Home Hotels" reads a headline subtitled: "Kiesler Predicts Ultimate Disappearance of One-Family American House."[44] Kiesler predicted the eventual doom of the one-family house because "that isolation which Americans were once so very anxious to keep does not work any longer to their benefit." He added that the "one family house was an old fashioned concept of civilization--every savage family has its own home." Kiesler is said to have acknowledged that "it is an awful thing to say bad things about the one family house" but he asked the question: "Why do we want the family house?" and the answer he gave was: "for privacy and to show off." The alternative was mass construction of collective housing centers--enormous home-hotels. Kiesler, however, credited America with advanced achievement in "collective living" and cited the apartment house/hotel, saying it is "utterly foolish for American

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architects to look to Vienna and Berlin for concepts in modern houses."[45] Kiesler's own American solution was to seize upon the existing conception, successful in America, of the home-hotel but "his home hotels will not be a place for the rich alone; it will be for everyone" and will be mass produced.

> These houses, Mr. Kiesler says, will be turned out like machines, as automobiles are now, and will be put up near the spiritual industrial or financial centers of the new state. The present city has outlived its day.
>
> The city of today is not serving the people, the people are serving the city. I think this came about because of profiteering becoming the ambition of life instead of cooperation, of helping one another.

The article, which paraphrases and echoes Kiesler's earlier ideas published in De Stijl as a manifest concerning the City in Space, continues as follows:

> The next step regarding architecture and the centralization of the city is the abolition of the division between city and country, mentally and physically. The problem will be to work out a proper correlation between working centers and living centers.

Finally, there are a few important comments which explain the very interest in public housing at the time and which place the issue in a specific social context. They read:

> Before the depression only a few social organizations considered the bringing of these benefits to the public at large. Since the depression started, however, even governments and political parties and many architects who formerly thought they would never need anything more in their lives, have come to think socially. Every one must consider the welfare of the whole--that must become the architect's conception too. It thus becomes the duty of every city to clear immediately its slums. We are on the verge of great new things.

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So Kiesler had definite and well-articulated ideas concerning mass housing and prefabricated building. Recall that during Kiesler's Parisian period (1925) that he developed plans for the Horizontal Skyscraper of which he planned two versions[46] (figures 22 and 89) and a 1933 adaptation of the Horizontal Skyscraper for the Sears and Roebuck Company using prefabricated building elements (figure 90).

From the caption written for the illustration of the Horizontal Skyscraper in Kiesler's book we learn that it was designed horizontally, partially in order to contrast with the "Vertical Skyscraper, which serves through concentration on a small plot, the necessity of an efficient place for business transaction."[47] But housing, as opposed to office buildings, required a different strategy,

> four wide-stretching wings, each wing surrounded by light and air. All of this open space gives greater health and more privacy to the inhabitants than the usual "community system" where houses are piled on top of each other like boxes, all alike, each one keeping out the light and air of its neighbor.[48]

Similar reasoning backed the Sears and Roebuck prefabricated housing plan, where "Each family has a separate terrace fenced by opaque glass partitions and access to roof recreation center."[49] An emphasis on individuality and privacy, air, recreation and light is common to Kiesler's big housing plans and the Space House, where large windows with rolling panels at window edges allow for "light and view conditioning."[50]

The sensitivity to individuality and the emphasis on its cardinal significance, in spite of prefabrication, is expressed in the last paragraph of the caption explaining the Horizontal Skyscraper in Kiesler's

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book, which reads: "We are for complete standardization of building materials, of manufacturing and construction but we are certainly not for standardization of individuals."[51] Kiesler expressed a similar sentiment when he said:

> It is only the average that has been stamped. The person with the intellect will always be an individual. And as for the average, it is far better to become a healthy average than it is to fake individuality through idiosyncracy.[52]

So the massive housing projects such as the two horizontal skyscrapers and particularly the Sears Roebuck adaptation of it to a prefabricated building were Kiesler's version of the American Home-Hotel which he liked. It is important to see Kiesler's involvement with housing and industrial design at the time as relating to the great Depression. This raised the issue of design in the service of society, a concept that was fully compatible with Kiesler's roots in Vienna and its government's attempts (during the twenties) to address similar issues. Thus, as mentioned in an earlier chapter, Kiesler's Viennese credentials led to his membership in the executive committee of the housing section of the Welfare Council of New York.[53]

A second point also has a familiar sound—Kiesler's belief that the new ideas such as design under the easy and practical application of prefabrication, could be and should be America's advance over and beyond Europe's still dominant modern design. In this sense this attitude is reminiscent of his argument and conviction (expressed during the 1926 New Theater Technique Exposition), when he tried to convince America to apply its "American inspiration" and claim the lead from

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the European avant-garde. Kiesler felt that industrialized America was the natural environment for the fermentation of such new directions. His book was oriented toward business and industry, and a pronouncement saying that "Design is a merchandising problem, not a style problem"[54] reflects quite adequately his eagerness to involve business and industry in the process of design the way he saw it, rather than alienate it by an elitist predilection for European "modernism" and "style."

Kiesler was involved in big scale design schemes and social design, yet this did not contradict his interest in small, practical detail. For him both were equally important. Thus, during that visit to the Midwest while participating in the clinic of Modern Design Merchandise Mart in Chicago, he attracted national attention with his statement that what America needs is a skidless bathtub, building "for service, not for looks."[55] This type of statement was typical of his publicity style; provocative in its prosaic content, somewhat erotic in its connotation and as an observation concerning a practical matter, quite true and since accepted. There is also a didactic intention, that is, to challenge the often aloof respectability of the art of design, call it to task, bring it down to earth and set the priorities straight--placing "service" ahead of "looks." This is not merely a call to rate function over form, and Kiesler knew what he was saying when he used the more prosaic words "service" and "looks," thus demythologizing architecture and design, bringing it closer to industrial design.

This issue concerning the relationship between design as an aspect of architecture or art and industrial design was discussed during these

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years. Noted earlier, Buckminster Fuller introduced Kiesler to the readers of Shelter magazine in 1932[56] with sympathy and respect because Kiesler, like himself, advocated an integration of all aspects of design. Along the same lines of argument Harvey Wiley Corbett, who was an architect and Kiesler's first employer in the United States,[57] published an article titled "Industrial Design and the Architect" where he argued that separating industrial design from other forms of design "indicates a misconception of the underlying principles of all design."[58] It also explains how Kiesler got to work for Corbett--they shared a vision and Corbett wanted to try and build the Endless.

Returning to the Space House, Lillian Kiesler related that Kiesler

> Designed [the] exterior and interior of Modernage Furniture Company, New York City. Following his basic concepts for a store front, he designed a bold canopy with modern graphics--as the coordination between the store exterior passerby and the interior.[59]

She than quotes Kiesler himself, saying:

> the entrance became a window, with its psycho-functional colors (dark brown walls, light grey at the far end). This foyer was of low ceiling; turning a right angle one entered [through] an open area which was spacious and light.[60]

There is only one published photograph that confirms this information concerning Kiesler's designs beyond the Space House itself; Kiesler published it in his Architectural Record presentation of the Space House. It is a picture of the "Stairway of Exhibition Hall Adjoining Space House" (figure 72) as the caption reads[61] and this is to my knowledge the only visual confirmation that Kiesler did approach the Space House project, at least in part, as a store, thus devoting

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considerable attention to the area leading to the house. It was designed in the same modern vein with its plain articulations of the walls with Kiesler's special (indirect) lighting fixtures.

The Space House or "everyman's house," as the Times[62] called it, was very much integrated with the period since it introduced new ideas suitable to current concerns and socioeconomic circumstances. But the Space House was a compromise, particularly with regard to the continuous tension shell, which was merely simulated.

Kiesler kept trying, to the end of his life, to build a complete version of the Endless House but did not succeed, in spite of some close calls. In the years following the 1934 Space House, the Endless House entered a long period of oblivion. Kiesler himself, of course, never abandoned it, and since no real interest in building it was ever expressed, Kiesler delved deeper into an almost obsessive preoccupation with the Endless House. It underwent transformations and further development in directions which were not likely to increase its chances of ever being built. Thus, for example, during the forties, when Kiesler came in close contact with the Surrealists, he digressed from the Endless House and play/planned his Tooth House, and the so-called Paris Endless.

It was during his visit to Paris to plan the Surrealist exhibition at the Gallerie Maeght in 1947 that Kiesler planned the Tooth House. In the surrealist context, Kiesler could more readily indulge in fantasy and play, and thus rendered the Tooth House which is a Surrealist version of the Endless House. No detailed plans exist for the Tooth House which, as the name suggests, was an attempt to add some humor and playfulness

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to the somewhat intimidating seriousness of the Endless House. The Tooth House obviously derives its name from the fact that Kiesler has transformed or used the structure and shape of a "molar" into his type of the one family Endless House. The choice, however, is not entirely arbitrary since the tooth, like a house, is a hard and bony part of our body and as such a part of the body or nature, a small example of nature's architecture. Thus there is something in a molar's form which is related to Kiesler's predominant conception of a rounded monolithic form built continuously as a complete enclosure like the enamel and dentin covering a tooth.

But the Tooth House, on the whole, should be seen as an attempt to loosen up the potentially restricting and dogmatic notion of the Endless House as solely and inevitably egg shaped. Kiesler always insisted that this was not the case. In reference to this issue and the egg-shaped models of the Endless House, Lillian Kiesler stated unequivocally:

> The models of the Museum of Modern Art happen to be egg shaped. The later models are; they are curved; they are variations so to speak of the egg shape. But he said it could be any shape because the main structure is continuous tension.[63]

So the Tooth House drawings were Surrealistic exercises expressing the possibility of designing in continuous tension while breaking into forms other than the egg.

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The Various Plans and Models of the Endless House

Since the Endless House was never built, the different models that Kiesler has made over the years are the closest we can get to a full scale three-dimensional projection of this unusual building.

The first model of the Endless House which now exists in a photograph only (figure 31) shows an egg-shaped object made of plaster sitting straight on the floor of what must be Steinway Hall during the 1926 New York Exposition of New Theater Techniques that Kiesler brought from Europe. However as a most likely identification rather than a certainty since the caption for this photograph in Kiesler's book lists as its location Paris 1925 as well as New York 1926.[64] But if it was ever seen in the Paris International Exposition of Applied and Decorative Arts, it would have been along with Kiesler's City in Space. Yet of the latter there is a photograph and press coverage, none of which exists for the model of the Endless House in question. Therefore since an architectural model as unusual and provocative as the Endless was unlikely to have been left unnoticed and unphotographed in Paris, it seems that this model was born in America. Kiesler listed Paris legitimately because the model and its reproduction demonstrated the Endless in its capacity as a theater and the plans for the Endless Theater were exhibited in the landmark Paris exhibition in 1925.

This writer has never seen any specifications concerning the scale of this first model. It is estimated as having measured between 3-4 yards in length and over 1½ to 2 yards in width. It is in a way surprising that the size of this model was never quoted. It is possible

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that in the context of the organic type of dynamic geometry the Endless represents the issue of scale was of secondary importance since the Endless was a uni-form and this was bound to come across regardless of the scale, or for that matter the material from which it was constructed.

The flattened-sphere that was the Endless House was in its first version an Endless Theater. As such, Kiesler planned it at the time as a construction in steel and glass, following the engineering principle of continuous tension. In other words, in the twenties Kiesler was more deeply committed to a transparent web construction conbining glass and steel, although the first known model he made was made of plaster. However, while developing the Endless as the Endless House Kiesler had a different idea than the steel and glass he envisioned for the earliest Endless Theater. Thus, it seems that the curvy windows that Kiesler designed for the Space House, while reflecting early ideas about transparency, are the beginning of a change in attitude, i.e., away from total transparency and the steel and glass web. Kiesler was more interested in constructing the shell as a monolith built in concrete or even prefabricated glass or plastic.[65] The fact that the 1926 model was already built in plaster may suggest that the monolithic construction of the Endless in a non-transparent material was for Kiesler at the time already a legitimate alternative, to a net-construction in glass and steel. But in 1926, a plaster egg-shaped model was a challenge to the predominant trend in modernism horizontal/vertical steel and glass architecture from constructivism through neo-plasticism and to the Bauhaus. On that subject Kiesler said the following:

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> Among our friends of the De Stijl group it was known that I deviated from the "quadrat," but Van Doesburg stood by me enthusiastically, as did Mondrian. The others were doubtful; Mies was neutral and reserved[66]

and from the same interview with Creighton concerning the question why Kiesler had such a hard time late in the twenties to solicit a real interest in the Endless House in spite of Harvey Wiley Corbett's support and interest in it, Kiesler said:

> the time was not ripe; no friend could change time. Here were plans for a building that looked like an egg, not like the customary box. It wasn't square, it wasn't in steel, it wasn't in glass, it wasn't in aluminum, it was absolutely outside the mode of the International Style. That made it difficult enough; but the great depression had moved into our land, too, and life and work looked hopeless.[67]

So the 1926 model for the Endless was in every respect outside the mainstream of modern architecture and the International Style, and this, coupled with a harsh economic reality, made it twice (even thrice) as improbable as a vital building proposition, if one is to consider also the reserve and lack of enthusiasm for the Endless House expressed by such respected representatives of Modernism in architecture as Henry Russell Hitchcock and Philip Johnson, who had seen the plans for the Endless House at the time.[68]

I would like to point out that a situation such as the one escribed by Kiesler here should help to form an idea concerning his art historical position. So, at the risk of sounding apologetic, it can be argued that Kiesler's account illustrates that he was not a minor or an epigone modernist architect. He was a maverick. It is therefore of little surprise that it was not until a 1950 exhibition at the Kootz

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Gallery that the Endless House was shown in public for the second time in what was the second version of it, again only as a model.

The exhibition at the Samuel Kootz Gallery in New York was called The Muralist and the Modern Architect and originally was not to include Kiesler. According to Kiesler, it was a friend, the sculptor David Hare, who asked him to design a house for which he wanted to make a related sculpture. Kiesler replied that he could not do that but could only make "a one-family version of the Endless House, and since one enters the Endless from underneath near the center, there is a chance of making a beautifully sculpted staircase."[69]

Kiesler made a model and took it to Hare who decided it should be bigger. Kiesler's model of the Endless House measured, according to him, a foot in length, was eight or nine inches wide and seven or eight inches high. But the larger version—about five times the original—did not come off well, and both agreed it could not be used. As a result, they decided to show the original small version of the Endless House next to the sculpture staircase David Hare made in spite of the discrepancy in scale, and the separation between house and staircase (figure 91). The exhibition at the Kootz Gallery (600 Madison Avenue) between October 3 and 23, also included architects Marcel Brauer, Philip Johnson, and Town Planning Associates; the muralists and sculptors other than Hare were William Baziotes, Adolph Gottlieb, Hans Hofmann and Robert Motherwell.[70]

This second model was small. Kiesler related that for this small model he made what he described as a "launching pad" for the shell to

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rest on. But this "launching pad" marks in my opinion a certain development from the bare egg-shaped model exhibited in 1926 resting on the ground (figure 31). As the photograph illustrates (figure 91), this "launching pad" was in effect a modification of the original conception which had the Endless House resting straight on the ground. This modification was not a mere cosmetic change. Kiesler made the suggestion to Hare to design a staircase because he developed the plan for the Endless' shell and in it the entrance was from underneath near the center. The photographs from the time show the Endless surrounded by greenery (figures 92, 93). It was cast in two parts, a bottom smaller "half" and a top larger section resting on it. This mold of a second version had a rich surface texture which added to the sculptural quality of the Endless House which was becoming an elaborate and ambitious example of "Architecture as Sculpture" (to quote the title of a later article by Kiesler). At that time, however, in connection with and as a result of some new interest in the Endless House, Kiesler published two articles on the Endless House which for the first time combined the "exterior" and formal features of it, as seen in the small model he made for the show at Kootz. Included were the specific plans such as he had published and built as the Space House. Both articles were published in November 1950,[71] the month following the exhibition of the second model of the Endless House. In fact, it seems likely that Kiesler "sculpted" the model first and rendered the plans and layout of the Endless' second version later, following his philosophy according to which "the floor plan is no more than the footprint of chance" (see above).[72] The

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photographs reproduced in these two articles are only of this model of the Endless House which adequately represent the state of Kiesler's Endless House at that time.

In 1950, Kiesler was approaching sixty. His attitude to everything he produced had grown bolder and freer. The designs for the Endless House were no exception expecially as he modified the Endless House between the first and second versions. The change in attitude is perhaps best illustrated by the drawings Kiesler has submitted for the article on the Endless House. It is instructive to compare the architectural drawings of the Space House (1934) and the architectural drawings of the Endless House of some seventeen years later. The drawings in 1934 were technical, more conventional in character and executed by somebody other than Kiesler (Carl Sigman) (figures 69, 70). All this was primarily due to the fact that the Space House was built inside a loft and was a compromise. In 1950 we witness a different Kiesler. This time he drew the four plans in free hand. Kiesler liked to break the rigidity of printed typography with illustrations in a free style. In the context of an architectural magazine, a freehand drawing of a house is more oustanding. This did not escape Kiesler; in fact he no doubt meant it that way, not only to enhance the effectiveness of the printed page, but he wanted to convey the organic free flow character of the Endless House by using free drawing which demonstrates its unique spirit.

Specifically and in spite of the freehand architectural drawing, this article and its illustrations (figures 94-97) provide considerable

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information as well as a general impression concerning the unusual Endless House. First, the measurements of the single space-shell of the Endless House were given: 40 feet in width, 40 feet in length and 24 feet was the height of this three storied-shell-space construction (figure 97).

An examination of the floor plan (of the main floor) (figure 95) consisted of an overall impression of an organism or a cell, due to the round shape, enveloping the space as well as a rounded and "soft" or limited application of partitioning. There were several sections: a large section for group living, an eating section with kitchen next to it, a children's playground and workshop, a large section with optional divisions of the individual recreation and sleeping area, lavatory designed with its back wall attached to the fire place of the group living area which is no doubt an economical way to cut down the lavatory's heating expenses. There is a noteworthy feature in the Endless House, namely a sound-proof study. This is indicative of Kiesler's care for mental well being through architectural means. Along the same lines one finds a seclusion chamber up in the second mezzanine of the Endless House. The entire space is surrounded by five large windows and two skylights. The entrance is from underneath, but here Kiesler has also designed a ramp leading up to an upper side entrance; there is a second ramp attached to the second mezzanine and the seclusion chamber which in effect is a balcony and there is a device called a color clock (which will be discussed separately).

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This article on the Endless House has, besides Kiesler's drawings or plans, a few direct quotations from Kiesler as the source of information, as well as a literary attempt, a conversation wherein a certain "Professor Thrugg" explains the Endless House to a would-be critic or a potential skeptic. Speaking for himself Kiesler stressed that

> The Endless House is through its formation and construction more economical with regard to materials fuel consumption, space-coordination, management and maintenance than post-and-lintel house concepts.[73]

The second quotation from Kiesler explains the measurements and construction methods of the Endless House which repeats some of the earlier information we have quoted about the Space House and adds some other details and it reads:

> The construction of the Endless House in continuous tension can be safely carried through in a single material, such as concrete or reinforced plastics (including glass) through wet-construction over mold on location. This one family house . . . consists of a shell which diminishes from a basic thickness of 1 foot to a section of 2½ inches on its top level. The reinforcement-ribs which are 3-6 feet apart protrude toward the interior from 8 to 20 inches and are mostly 1½ to 5 inches thick. The space between the ribs is used for two layers of different insulation blankets which the interior covering is laid. Another method is to form a cross-netting of 2½ inch steel rods and a layer of 2½ inches of sprayed concrete.[74]

The magazine's literary sketch starts with a reference to the small model (figure 92)—somewhat mysterious and not immediately comprehensible:

> "No, no," said Professor Thruggs, "this object is distinctly not an egg. And it's not a pebble among ferns—it's 25 feet high and 66 feet long. No sir, that does not make it a baby whale landed on the beach, nor Easter Island money, nor a new Hollywood roadside bar, although your guess that it's a home for a primitive tribe comes close."[75]

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The measurements listed here incidentally differ slightly from the measurements I have figured from the plans and the difference represents total size here and inner measurements in the plan. The literary strategy adopted here in order to make a case for the Endless House is to ask the rhetorical question which is given as Kiesler's reason for doing what he was doing; it reads:

> Why not, after all those glass houses let the family crawl up into a cave and pull the cave in after them . . . why not build the house all in one piece like a piece of sculpture, . . . or again why not build a house with ribs the way "shell concrete" hangers are built?[76]

As to the window shapes or the round ground plan the rhetorical question is asked again:

> Why not a fine free carelessness about window shapes, like the tower of the Chrysler Building? Then why not have a totally free-flow floor plan for a change, one where the vacuum cleaner has not a corner to contend with?

The text then lists other advantages, such as in plumbing, heating and wiring and conduits "all bunched together." Now, "As for living in such a house," replies the professor to his questioning skeptic about the Endless House, "you must admit that no one can prove it would not be charming--and ever so cozy. Every room an endless variation, as in Nature."[77]

As to the name, the Endless House, the professor quotes a folksong, "A ring that's round, it has no end" and there is something to that explanation, even though I have seen Kiesler himself give a different explanation albeit one not entirely unrelated. In a replay of the 1960 CBS television program Camera Three Kiesler who was interviewed

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and who also demonstrated in drawing some of his ideas, answered the question concerning the origins and name of the Endless House by drawing for the interviewer the mathematical sign for the Endless—a "figure eight" on its side. He then extended the two loops to three as an expansion of the original figure.

This triple loop (figure 96) was also used by Kiesler elsewhere, in his 1949 article titled "Pseudo-Functionalism in Modern Architecture."[78] In this article, however, the context was entirely different. It was to illustrate what Kiesler called "creative transmutation" which is his principal challenge to static "functionalism" or "pseudo-functionalism," which does not allow for a dynamic and a truly creative way of thinking. Now, if we combine the explanation Kiesler has given on Camera Three illustrating the dynamic formation of the Endless House and the use of this very same drawing to explain "creative transmutation" we can infer legitimately that the Endless House and its spherical or circular origins represent also a dynamic conception of creativity and endless spiritual transmutation. This, in other words, is at least in part an aspect of the Endless' meaning or name's sake.

The second article published about the Endless House in 1950 was about "the Endless House and its psychological lighting." Once again Kiesler reproduced several photographs of the small model he exhibited at Kootz. He also illustrated a series of explanatory drawings of the subject at hand, drawn in freehand and at times going over or under the printed segments of the text and for this article he has even used color (figure 99). It is of course quite natural that a man of the

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theater, as Kiesler was, would have more than a conventional idea about the psychological power invested in light "to do more than merely give physical information."[79] Light can be used to "push back the physical boundaries of our houses and surround us with stimulating color and exuberating brilliance; or it can set us apart in sharply defined work spaces in which to study, read, concentrate, or it can cradle us securely in remote havens of rest."[80] Since the Endless House is not divided into rooms but is basically one partitioned space, light, could be used economically. This is due to the "curving surfaces, the light multiplies itself, and even the minimal amount switched on only to enable us to see gives us physical information over a wider area."[81] For night time when artificial lighting is necessary, Kiesler planned light sources at every level of the shell, the sides, the ceiling and even the floor. Also, within the designs for the artificial light system Kiesler included:

1. Traveling light sources (on trolleys) to get light exactly where it is wanted with relatively few sources.
2. Elastic light, rheostatically controlled dimmers raising and lowering the wattage at the dweller's will.
3. A system of electric eyes to turn lights on automatically. Connected to the rheostats, they would enable light to accompany the dweller wherever he walks in the house, and to brighten or dim and disappear depending on whether he stays or goes on. If these were geared to a color control system one can easily surmise the tremendous range of visual stimulation available to the dweller's imagination.[82]

Kiesler assured his readers that the technology for this system of lighting was readily available and quoted his design for Peggy Guggenheim's Art of This Century Gallery, where his strategy with regard to artificial lighting was similar.

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It is clear that Kiesler had a bias toward theatrical lighting. He also had a predilection for gadgetry and a playful application of the latest technology. This should not invite a philistine reservation in us. There is a serious proposition involved—the delicacy and sophistication in "technological" gadgetry is something an architect should use for psychological subtlety as well as function and efficiency. As to daytime natural lighting, Kiesler designed it as depended on the size and free shapes of the windows including skylights and a manipulation of the sunlight sent "through a lens in order to concentrate it and pass it through convex mirror reflex devices to define it."[83] This is part of Kiesler's "color clock" which in the text is described as follows:

> Daylight is transmitted through a prismatic glass crystal of three basic colors, gradually shifting to each in turn from dawn to dusk. The rays are filtered into the interior through a convex mirror, and the dweller can gauge the hour by the color of the tinted light around him. Instead of depending solely on a mechanical clock, splintering his life into minute particles of time, he becomes aware of the continuity of time and his own dynamic integration with natural forces.[84]

Similar to the way the sound-proof room was to allow a person to meditate, work, think or read, the color clock was a device designed to take the dwellers of the Endless outside the confining digital time table.

Generally in this article Kiesler reiterated that

> the Endless House is not a fancy sculptural idea nor is it the imitation of an egg. The spheroid shape derives from the social dynamics of two or three generations living under one roof. The generous spaces preferable for group living demand double or even triple heights in such areas as the

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> living room, while minimal eight-foot heights are best in bedrooms and other private areas.[85]

So in the fifties Kiesler was still as convinced as ever that his Endless House was a new and vital proposition with regard to family living and psychological well being. This did not interfere with more unusual features that he kept developing for it over the years and 1950 was an important stage in the ever-growing elaboration and detail that was added.

In 1952 the Museum of Modern Art in New York organized a two-man exhibition: Frederick Kiesler and Buckminster Fuller. Fuller's Geodesic Dome and Kiesler's Endless House were brought together in an exhibition called Two Houses.

Recall that some twenty years earlier an enthusiastic Buckminster Fuller introduced to the readers of the Philadelphia based Shelter magazine a young fellow designer from Austria with great understanding and deep respect.[86] Indeed, something in the attitude to design that the two men shared separated them both from the mainstream of modern architecture. Both recognized that architecture is more than planning buildings or, for that matter, cities. For both, matters of form or aesthetics were subordinated if not entirely eliminated in favor of a practical attitude to design. Fuller came from engineering and remained in the business of global problem-solving. Kiesler came from the avant-garde circles of Europe which, in spite of similar objectives, were a part of the "art-world" and he did not intend to break with art-history the way Fuller did. Kiesler was a one-man movement, approaching the

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position taken by Fuller, breaking away from Modernist aestheticism without relinquishing its humanist foundation and the relevance of art. Kiesler's education was also two-fold: the Vienna Institute of Technology (Technische Hochschule) as well as the Academy of Fine Arts. In reply to Thomas Creighton's question concerning his experience or background in engineering, Kiesler said:

> I was trained at the Institute of Technology in Vienna. But Tom engineering often becomes one of the most reactionary arts and crafts today, manipulated by the engineering profession, the industry, and the building code. We all speak now of Nervi; you have here or there an extraordinary person who has a real feeling for engineering, for advancing new ideas. It took an Eiffel or a Fuller to set new standards.[87]

Significantly enough, as related here in the present context Kiesler cited Eiffel and Fuller for standard setting and innovation and at the same time expressed the opinion that engineers may also contribute in the opposite direction--restricting progress. Fuller received Kiesler's fullest approval and admiration. And yet Kiesler's position was revealed through a follow-up question by Creighton who asked:

> Candella and Nervi--Tarroja also--have spoken of intuitive design in engineering. Do you think this is a tenable concept; is there such a thing?

Kiesler's answer was prompt:

> Oh yes! but it takes an artist of an engineer to design that way.[88]

The New Yorker, in its detached manner, addressed the same issue and wrote the following:

> Like Mr. Fuller, Mr. Kiesler has a long record of pioneering in architecture and engineering. He too has attempted to alter the accepted architectural concepts of our time. His concepts are more advanced than Fuller's, because he

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> is less interested in pure technics than in biotechnics; that is, in the norms and conditions of life. Being an artist, he knows that form of the structure is as significant as its function.[89]

An interest in form, from an artistic point of view, is not what distinguishes the two men. Rather it is a greater sensitivity on Kiesler's part to the psyche and its innermost needs that he, unlike Fuller, tried to include in his engineering. This appears to be the major difference between the Endless House with its texture, color clock or sound-proof study (etc.), and the Geodesic Dome as pure engineering. The New Yorker went on, however, criticizing both Kiesler and Fuller on similar grounds:

> Fuller's eye is fixed on constructional facility, economy, inner flexibility, a self-contained entity that entirely escapes the domination of nature. This is the technocrat's dream, which is another way of saying that it is the humanist's nightmare. Kiesler, though conscious of the spiritual effects of light and space on the human organism, likewise tends to think of human needs in limited terms and to place the architect's yearning for original design above traditional human requirements.[90]

Kiesler no doubt would object to both criticisms, and what appears support the contention that form was not a single objective for him, as was "traditional human requirement." Kiesler would answer that if anything, he contributed to the redefinition of these human requirements attempting to integrate them into a new architecture.

The exhibition at the Museum of Modern Art in New York was seen as a glimpse into an unknown future rather than a proposition relevant to the present. Time magazine, which titled its review "Beyond the Horizon," referred to Fuller's Geodesic Dome as an igloo and was amused

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by Kiesler's color clock--introduced in this exhibition along with the small model--citing such time marks as "half past blue," "quarter to pink," or "yellow 15."[91]

The 1950 model exhibited, and later purchased by the Museum of Modern Art, marks a stage in the history of the Endless House that will establish it more as a sculpture while its chances of ever being built diminish. The interest and energy generated by the exhibition at Kootz and MOMA's "Two Houses" that followed was fading and it was not until 1958 that a second wave of interest formed, culminating in a third and last major model of the Endless (including new plans) which once again made their way to a show at the Museum of Modern Art in Arthur Drexler's show, Visionary Architecture.[92] Arthur Drexler, before becoming the Museum of Modern Art's Curator of Architecture and Design, was editor of Interiors[93] when he featured the article on "The Endless House and Its Psychological Lighting"[94] (discussed earlier--see above). Now that Drexler was at the Museum of Modern Art it was through him that plans to show the Endless House at the museum were realized.

There was another reason for Kiesler's return to this two-year period of intensive work on the Endless House. In 1956 Kiesler joined with a former student from the years he was head of the short-lived Department for Design Correlation at Columbia University, and opened an architectural firm. For Frederick Kiesler the association with Armand Bartos was a lucky one. Not only was Bartos a pleasant and modest person to complement Kiesler's highly spirited and restless nature but Bartos was related by marriage to the Gottesmann family who sponsored through

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the Gottesmann Foundation artistic projects and gave grants. One such grant was given in 1958 to the Museum of Modern Art for a "preparation of working drawings, engineering studies and models of Frederick Kiesler's project for an Endless House."[95] This appears to have started Kiesler's accelerated activity that finally led to the 1960 show of Visionary Architecture already mentioned. Kiesler never entirely abandoned work on the Endless House, which in spite of an ever-growing involvement with sculpture and painting during the mid-fifties, has never ceased to be the single most important project he dreamed to realize. Thus the chance of promoting or further exploring the Endless House yielded a gamut of new drawings of the subject. These drawings are of course important in following the changes and understanding the new direction that the last, the biggest and the most elaborate model of the Endless House took. The 1950 model was still quite tight; it took the form of a uniform (the flattened sphere) egg-shape, slightly elevated off the ground, and was placed on what Kiesler called a "launching pad." The new conception of the Endless House has broken with quite a few of these early distinguishing features. The new conception of the Endless House abandoned the uni-formal conception of the Endless House as a single shell in the egg form and developed into a combination of several shells of various shapes and with a variety of windows as "cut-outs,"[96] as Kiesler liked to see them. Also from the plans proposed for the Museum of Modern Art to the elaborate model exhibited in MOMA's Visionary Architecture Kiesler elevated the Endless deliberately off the ground so that the model was in fact an Endless House built on

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stilts. The drawings made by Kiesler at that time give an indication as to the origins of these meaningful changes that the Endless House, as a single uniform structure, underwent.

Before pointing to some of the relevant drawings it is interesting to quote Kiesler's words on the subject of his drawings, a statement he wrote in connection with a group show in which he took part. It was a group-show with four participants, all artists whose major fields were other than the visual arts and included, besides Kiesler, Kenneth Rexroth, poet, critic, painter; John Cage, composer; and Julian Beck, stage designer, painter. The exhibition was at the Great Jones Gallery and took place between April 12 and May 1, 1960. In his statement for the exhibition Kiesler wrote the following:

> These are drawings written into space. And since my wet nurse told me that space is nothing but one cheek of time, I slap it on the other and there I am and she is. The table is square and has four legs and is as steady as I am unstable. We together make a bad team; therefore I never draw. However, a link between my work in cement and mud, lingering on the couch, and my inwalking friends, and my dervishing assistants, there is that dread necessary; and so I spin it in a calligraphic tongue, the saliva running out of the ball pen without end, a skein of lines intertwining into knots from time to time, and there you have it on paper.[97]

This statement, written to a certain extent in a "Dada" spirit, reflects a surrealist spirit of contradiction, and can be interpreted as a rejection of drawing for its own sake, drawing as a reproduction of reality. Kiesler suggested it by the example of the incompatibility between the stability of the four legged table and his own unstable state, as he described it. And it is true that in spite of the fact that Kiesler

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always drew, he never produced drawings for their own sake. On the other hand (and this is expressed in the second part of the statement) Kiesler acknowledged his own kind of drawing, as his "calligraphic tongue" and the metaphor used of "a skein of lines intertwining into knots from time to time" is a well-suited metaphor as well as an adequate description of Kiesler's style of drawing. Even the reference to the ball-pen as his tool of drawing is interesting, since Kiesler did not shun this tool. It was much like Giacometti who also used it, and who had a style of drawing similar to Kiesler's web of lines of an informal character ("saliva running out") and a flow of lines (figure 100).

Kiesler's drawings usually served a purpose. Most of his drawings were of ideas for projects or studies and in this category the Endless House was naturally a foremost subject. The drawing reproduced shows an open view of the Endless' shell, one of the most common renderings of that time. The view revealed a shell "broken" open, showing some of the inner divisions, ramps, and big openings for windows. As previously indicated, this stage in the exploration of the Endless House marks an opening up of the hermetic shell, allowing for rather large windows in its monolith shell that made it to the latest model which, unlike its 1950 predecessor, was open--hallowed and rich with cut-out windows of all shapes and sizes[98] (figure 101).

The Endless House as a complex of shells, was the biggest change Kiesler introduced to the original Endless as a single shell. It developed gradually during the late forties, and occurred at the same time that Kiesler spent in Paris in 1947 designing the Surrealist show

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at the Gallerie Maeght. That was the time period when Kiesler introduced the Tooth House, which was a confirmation that the Endless did not have to be an egg-shaped shell. There exists at least one series of drawings made in Paris in 1947 where Kiesler had already broken quite freely the uniformity of the Endless House, suggesting variations on the theme, allowing for greater complexity.[99] Some of the drawings let the shape grow like an organic growth (figure 107); others go as far as a combination of straight-lined geometrical cubicals, integrated with streamlined parts. Thus it is quite likely and fitting that some of these new ideas originated at that period in spite of the fact that the 1950 model was still "conservative" with regard to these forecasted developments.

Later drawings, which date from the time Kiesler was already working on the Museum of Modern Art grant, show some experimentation with multiple-forms such as a 1959 drawing called "construction in different layers."[100] In this Kiesler drew five shells--one growing from inside the other--and which he marked with letters from "a" through "e." Kiesler was looking at seashells, less for an inspiration of forms (although he did that too, such as in the three drawings he actually marked with the words "shell house," written over a shell shape[101]) but mostly as a source for the Endless' surface texture.[102]

The grant Kiesler received from the Museum of Modern Art and the Gottesmann Foundation was an architectural challenge, since Kiesler was expected to submit fairly detailed architectural plans. (It is possible that a plan to build a full scale "model" of the Endless House on the Museum's grounds existed already; see below.)

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The plans submitted to the museum in 1959 are titled: "2nd Scheme Endless House," and it appears that Kiesler titled them "second" following the early single shell Endless House like the 1950 model. The plans are dated April 1959-June 30, 1959 (figures 102-104). In this viewer's biased eyes the first impression that these plans leave is one of aesthetic delight, wonder and curiosity. There is a certain aesthetic tension between the meticulously drawn lines and straight measurement lines (radia) and the elegant, refined, streamlining of the forms.[103]

In more specific terms, this second scheme for the Endless House is different from the earlier plan and model in its expansion the single shell into three such continuous spatial enclosures, as the preparatory studies hinted. This is naturally clearer in the Endless' elevations and seen to a lesser extent in the ground plan. The newness of this tripartite conception is qualified, however, because in essence it remains consistent with the idea of inner spatial flow and continuity.[104] In terms of scale, the "second scheme" is bigger compared to the measurements specified in Kiesler's 1950 expose of the Endless House.[105] The total length of the early (1950) plan was 40 feet whereas the total length of the second scheme was 84 feet. The width is 40 feet in the early plan, 52'6" in the latter, and the height of about 25 feet in the early plan was the same in the second scheme. So, since the height or the profile of the Endless remaind the same, this is a change in scale, is a change in proportions and results in a generally lower profile.

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Many ideas which Kiesler envisioned and specified in the early plan were preserved and developed. Kiesler always wanted an entrance from underneath the shell through a set of free flow, suspended stairs, and this idea was kept along with entrance-ramps leading to side entrances directly into the main living area. In the early version there was one of each; in the "second scheme" there are two entrances from underneath one in the center, another service entrance to the kitchen area, and two ramp entrances with another optional auxiliary entrance and exit.

As indicated earlier, this last scheme of the Endless House was elevated off the ground more than what Kiesler allowed in the 1950 model and its so-called "launching pad." The original idea, such as the 1926 model, was to rest the entire continuous structure directly on the ground. So Kiesler designed two versions of the supporting structure, one low and close to the ground, the other higher, and the support looked like stilts or columns. This (second) version was used for the model (figure 105). In the lower setting the shell was at some places as close as one foot off the ground, in others up to five feet. In the higher setting the house was built approximately eight to twelve feet above the ground and was set on foundations close in appearance to classical columns. Kiesler's assistant during that time, Len Pitkowsky, reported that Kiesler attached a new symbolic meaning to the columns supporting the columnless shell built in continuous tension. It was a formal way to show the Endless House as the new era of architecture terminating the supremacy of the old regime of post-and-lintel

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architecture--the new on top of what symbolizes the old. An entry in the Journals entitled "Post and Lintel Game" articulates this idea and its importance for Kiesler. Describing the "old-new" train station in Rome as a schizophrenic design and a mixture of styles, Kiesler went on to say:

> This is a la nervi, very nervous, playing the post-and-lintel game, old as Western civilization--a game he also plays in every one of his stadia (including the one for the Olympics in Rome). His domes derive from a circular array of bush stems bent to a knot on top of the skull. A forest of columns supporting a windblown sinuous umbrella-sheet, a concession of shell styles. You too, Brutus, on the bandwagon? He has abandoned the diamond skeleton of dome beams, crisscrossing concrete crowns. But even Nervi continues to use all-mighty column support of roofs, of which, they tell me, I am the assassin. Correct. The traditional post-and-lintel shelter has collapsed. The column as a support of roofs is dead indeed. Long live shell continuity. That play-game of colonnades supporting roofs and roofs supporting snow and tons of water--great-Grandpa's architecture.[106]

So it was "the assassin of roof-supporting columns" who placed his shell-continuity right on top of posts, as an act of conquest. Along the same free flow of lines, Kiesler also assassinated the square or rectangular window. The plans show a variety of bio-morphic and other complex geometric shapes as windows placed according to the various needs for light (natural and artificial, day and night, look-out, views, etc.). The gamut of studies showing these cut-out windows and some of the inner structural partitions or stairs, seen from the outside through the windows, have resulted in their actual realization in the final plans and model.[107] When the model was shown, Kiesler described it as installed and said:

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> My model was cruising like a flying saucer of reinforced concrete full of holes and gaps to look through, people sticking their heads in and getting nothing out of it--with of course the exceptions, those exceptions on which the creative world has been resting, since Grecian times, men and women with progressive ideas.[108]

Some of the roof's little protrusions that Kiesler studied as alternative placements of artificial lights on the exterior, as well as sky lights and an enrichment of texture, also made their way into the final plans.[109]

The model that was built as part of the $12,000 Gottesman grant was a major undertaking and considering Kiesler's growing involvement with sculpture during his last years--including the period he worked on the model--was just as much the work of a sculptor as it was the "routine" of an architect preparing a model of his plans. The model itself was probably constructed during the first part of 1959.

In a Journal entry dated March 10, 1959 Kiesler paid tribute to his photographer, a black photographer Kiesler respected and employed to photograph an important stage in the process of making the wire-mesh concrete covered model. Kiesler incidentally related in this entry that it was this photographer, Percy Rainford, who photographed the 1950 model "sensitively." (Kiesler first employed this photographer in 1947 when he, Duchamp and Breton were in need of a photographer for Triple V, the Surealist Review.) So Kiesler, who liked the man and his work (and the published photographs of the 1950 model are indeed sensitive and very effective, transmitting the mysterious spirit of the Endless House) called on him to photograph the new model in its

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unfinished state as a copper wire-mesh sculpture before applying the concrete (figure 106). Photographing the model in this state was not easy since the lighting, the most difficult part, was "making images like x-ray photographs without body and form." He admitted the images "were beautiful to look at, but were even less than two dimensional" and added: "The house looked like streaks of black smoke dispersed in curves and parabolas over an indefinite horizon."[110] Kiesler solved the problem by directing the lighting while looking through the camera and succeeded finally in lighting the outer surface "without piercing into the interior." The results were good. I dwelled on this side show a little following Kiesler's journal entry, or some of its relevant parts, leading to the last paragraph which explains why Kiesler bothered to photograph the model in this intermediary stage. I looked for reasons other than aesthetic, although the model was quite impressive as a sculpture in that state and the photographs prove it. But there was more to it, and the last paragraph reads as follows:

> We knew that it was the last time the model would look as it did when the pictures were taken, because we had already started to cover the naked wire mesh with the dough of concrete. The transparency and glitter of the copper wire will now vanish behind the solid shell of concrete as the sun disappears behind the massive Earth. But thanks to Rainford, we had fixed the model's years of youth. The prints were magnificently alive with the work just past.[111]

The key phrase is "the model's years of youth"; since Kiesler may have referred to his earliest ideas concerning the construction of the Endless; a construction in glass and steel, and an idea he never abandoned even in later years, when he always made it clear that the Endless could

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as a cast-monolith shell be made in glass or even transparent plastic. In that Kiesler was part of the modern movement from Paxton to Mies, for whom transparency and construction had an irresistable architectural appeal.

The successful photographs, whatever the transparency may have meant to him, were good enough for Kiesler to publish as legitimate information about the Endless House. He did this in a short expose of the Endless House in Art in America[112] where only these photographs were used. He also published a second short article on the Endless and its latest model in Art News[113] where the Endless House was shown in this transparent state as well as after covering the wire-mesh with cement (figures 105, 106).

The year 1960 was an important year in the life of Kiesler particularly with regard to the Endless House which by that time was his best known work and the single concept with which he will be increasingly identified. Kiesler sensed at that time that there were reasons for this new interest in the Endless House related to developments in science and the exploration of space. So it is possible to see Kiesler's appearance on CBS' program Camera Three[114] along the same lines. Thus the Endless House was featured quite naturally as the center of attention in that nationwide television program.

Before reviewing the program (available in transcription and on a 16mm film made from the original TV footage), let us digress briefly to an episode related to the program. Among the opening lines that the moderator used in his introduction was one by the architect Philip

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Johnson whose respect for Kiesler was inconsistent and who once called Kiesler the "greatest non-building architect of our time." This somewhat ironic line and a sadly adequate description of a phenomenon like Kiesler was promptly seized upon by the architecture critic of the New York Times who titled her review article of the television interview with Kiesler with the words: "Architecture on TV, Greatest Non-Building Architect of Our Time Expounds His Ideas."[115] Kiesler did not let it pass and did not miss the opportunity to shoot right back, and wrote the Times the following response:

> Building Architect
>
> In an article on Sunday, March 27 you quoted Mr. Philip Johnson's double-edged compliment naming me as the "greatest non-building architect of our time." This might have been followed by the same architect's remark that my "influence has been enormous."
>
> My actual constructions, from the 1924 "space stage" at the theater and Music Festival of the City of Vienna to the 1956 Ellenville Festival Theater, nullify remarks about my "theories refuted by practice."
>
> It is true that I have continuously rejected purely commercial orders. I still feel that it is better to concentrate on a few honest possibilities to build and otherwise wait, unconcerned at being named "the greatest non-building architect of our time" than to be, as is sometimes the case, a most building non-architect.
>
> Frederick J. Kiesler, N.Y.[116]

Kiesler was fighting skeptics, tried to challenge the "image" he had of a non-practical, phantasy-man, and at the same time gave vent to his sharp mind and biting tongue, without losing his sense of humor.

Return to the program itself. The introduction reported a plan to build the Endless House in the garden of the Museum of Modern Art (see below). Kiesler talked about his Endless House, and projected the image of an elderly gentleman and artist, full of life--a man who

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possesses and is somewhat possessed by a consistent and distinct idea. Then he used his pad and pencil to draw the symbol for Endlessness (∞) as the source for the name and (related) shape of the Endless House. He also spoke quite deliberately of the visionary character of his design. It was a vision that he developed years ago, which was continuously tended and expanded over the years. The psychological dimension was also expounded in related terms in what Kiesler wrote in the article for Art News mentioned earlier where he stated as follows:

> How to begin, how to end the "Endless House" was not a problem of start and finish. The idea had developed over forty years and it nests deep and wide all over in my body, groin, muscles, nerves; it is part of my bloodstream, memories past of past moments. It's now a matter of timing when to cut loose somewhere the elastic mesh and let it out, which is to let the sea become a river of fountains, depth-charges erupting.[117]

This was the prevailing mood during this period when Kiesler started this last major effort to show and possibly build the Endless House. It was also somewhat similar in spirit to what Kiesler had written in his letter to the Times stressing his devotion to the Endless House over a long period of time. He was patient, yet at this point anxious to build. The interview on Camera Three was also most interesting a unique opportunity to watch Kiesler draw. Some device was invented whereby Kiesler stood behind a glass or glass-like drawing-surface; and while he was not seen during the time he was drawing, his rapidly moving lines and the unfolding drawing could be seen, and Kiesler's deep "voice-over" explaining it all, could be heard. The program was instructive because Kiesler expounded many of his theories, having to

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choose the most essential points, due to the limited time given in such television programs. He stressed the universal all-encompassing solutions offered by the Endless House as the only structure aimed at liberating us from the box. He spoke of the flow of space in the Endless and its contribution to the greater sense of individual freedom in such an environment. He explained that the so-called "functionalism" was basically a (reasonable) reaction to Victorian "over-stuffed" architecture and insisted modestly that his new type of architecture was a "dynamic" proposition, which he hoped would take over "functional architecture" which has run its course. He spoke of a type of architect who has to know his way about, can feel his way, and gave his (favorite) definition of architecture, that "architecture is the attempt to make the superfluous necessary." He said

> what is superfluous? The superfluous in architecture is a matter of measure, a matter of light, a matter of color, a matter of freedom, of expanse, or wide big space, where you embrace the world, and of small areas and spaces where you feel embraced and held tight.

He resorted, as he has some twenty-five years earlier in Chicago, to the bathroom example, this time as "one of the most precious inheritances of the modern age, the bathroom and the kitchen." He said it with some irony, "some" because Kiesler did not deny this proposition altogether as much as he wanted to stress that modern gadgets, no matter how good, cannot replace a deeper need for a basically happy life. For Kiesler this meant an architecture that should go beyond a mere "great" kitchen and a "modern" bathroom which in the modern age made real progress, but that architecture should include, as the Endless

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House does, considerations of both the inner psychology of space as well as the mundane and functional. He explained that architecture should not take its cues from equipment that exists on the market, but that design should take its cues from "what we feel inside." He spoke about furniture and how conventional furniture could not suit the Endless House and said that "we cannot build an Endless House and equip it with all the gadgets that you do in an ordinary functional house. In other words one must learn to sacrifice something for a better inner understanding of yourself and all the world." Thus, the prospective dweller of the endless house is expected to have made an anti-materialistic, almost moral, choice! He explained how the construction of the Endless House is 30 percent cheaper and that he has introduced a new building method which necessitates a single contractor, not several. He admitted that the Endless House cannot, at this point, be built by industry, and that he was trying to find a comprehensive environmental strategy for the house and not go backward. He stressed that there was nothing primitive about the Endless House and that it was not a return to primitive living in a cave. In fact, Kiesler completed his exposition by explaining the broader, cosmic connections of the name Endless House, saying:

> We have become part and parcel of a wider world. Now we know that it is not only the dream of the French Romancier or the cartoonist. We are thick and thin in it. We are bombarded by cosmic particles every split second with millions and billions of bullets. He can prove it now. This is not any more theory and we have became aware of it.[118]

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Kiesler spoke as he wrote, with great eloquence. Ada Louise Huxtable, who wrote about the program in the New York Times, described Kiesler quite well when she wrote:

> His ideas are important, influential, and to some degree maddening. For Mr. Kiesler has a singular talent. He is a master of intellectual persuasion, an aesthetic salesman on an almost evangelical level.[119]

In at least one recorded case Huxtable's description applied. One viewer in Des Moines, Iowa, converted by the program, wrote to CBS that if she were in the financial bracket she surely would contract Mr. Kiesler to design a home that she could leave to posterity.[120]

From the first years after Kiesler's emigration to America late in the 1920s when he worked at the office of Corbett, Kiesler had hoped to build his Endless. Nothing came of it. During the years 1958-1960, a few chances seem to have emerged, only to disappoint Kiesler time and time again.

One opportunity which Kiesler considered probable is described in the Journals in an entry dated "Friday noon, April 22, 1960." It is titled: "Herbert Mayer--Endless House" and the first paragraph gives the following facts:

> The chief of the tribe of World House Galleries wanted the Endless House to be built for him on his grounds in Connecticut and ready on September 27th. At the same time, he would have an exhibition of my work at his Gallery, thus promoting the Endless House.[121]

The World House Galleries were designed by Kiesler in 1956 after Kiesler joined Armand Bartos to form an architectural firm. Thus Kiesler naturally had reasonable expectations considering his previous successful cooperation with Mr. Mayer.

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We learn from the entry, that all this occurred while Kiesler was waiting to hear from the Museum of Modern Art in New York about the plan to build the Endless on the Museum grounds. At the advice of a friend Kiesler decided to write the museum and ask them about the status of their plans. Meanwhile Kiesler met Mr. Mayer and told him he considered withdrawing from the museum project if his intention was serious, whereupon the prospective private patron seemed to have seized the opportunity to bow out; as Kiesler reported it he said:

> Oh, Fred, don't do that. I don't want you to lose the opportunity of doing it there on account of me; and besides, you know I'm not in a hurry. I still have my house, and my children aren't going away to college until two years from now, so I won't be in actual need of the Endless for two years.[122]

Kiesler wrote that he was shocked. He then reported that Mr. Mayer had an idea of building the Endless somewhere in the city as a type of promotion for it as well as a museum which will pay off its building costs. Nothing resulted from these plans. As to the surviving plan to build the Endless at the Museum of Modern Art, Kiesler's Journals relate a conversation he had about it with the Museum of Modern Art director Rene d'Harnoncourt and the museum's curator for design Arthur Drexler.

Kiesler reported that he first planned to build in the garden an ambitious "model" eight stories high. A problem existed since it had to be built before the museum's $21,000,000 expansion plan would get underway (as Kiesler's lifesize "model" was to be built on the very same grounds). Since Kiesler said it could not be done in time (within a year), Arthur Drexler made the suggestion that Kiesler wait for the

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museum's new wing to be completed and build a more modest two-story Endless House on top of it. It would take three years to complete the additional sections of the museum and Kiesler did not want to wait. Drexler then suggested construction of a somewhat reduced model of the Endless House as the center project for his planned exhibition of "Visionary Architecture." Drexler said he had allocated the sections 20' x 21' each for Kiesler's model which ought to be big enough to enter and experience the inside of the Endless House. Rene d'Harnoncourt assured Kiesler that all these new plans did not mean that a full scale Endless House would not be built. Kiesler accepted the offer to participate in a special place in "Visionary Architecture" (which included Bruno Taut, Frank Lloyd Wright, Buckminster Fuller and Le Corbusier) but realized the space was not large enough to show the 1923-1925 original plan of the Endless as well as other additional material he wanted to show. Thus, the limited space allocation resulted in a further compromise. He contributed a small-scale model plus an exhibition of plans, drawings, and other things.

John Canaday's review of "Visionary Architecture" titled "Art Dreams at Work,"[123] stated that the exhibition presented more than a view of contemporary visionary architecture; it featured the "model of Frederick Kiesler's Endless House as end part of an exhibition from Leonardo to Kiesler's model." In an entry dated September 28, 1960,[124] a day after the opening of "Visionary Architecture" Kiesler quoted in his Journal this same passage from Canaday's review in the New York Times and expressed delight in it and the fact that only he was mentioned

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out of the group show. About the exhibition itself Canaday wrote that "Visionary Architecture" looks like a tour de force, but is closer to social philosophy. He observed that the future of architecture is inevitably connected to sociology and philosophy and may leave the art to the realm of dreams. Kiesler would agree, yet see his Endless House as a form of solution which is in itself not necessarily beyond reform or further development. Social philosophy was, after all, one important aspect in the comprehensive design theory which constituted the theory for the Endless House.

Inasmuch as one tries to read Canaday's view as reflecting art criticism, as expressing a preference, it appears to be true that there was a certain sense of discomfort with the tension the exhibition displays between dreams or ideals and/or art and practical application. This ancient philosophical problem is reflected in another way in Ada Louise Huxtable's review in the Times called "The Architect as a Prophet"[125] where she credited all the participants as being "some of the most respected architectural theorists and philosophers of the twentieth century," acknowledged the importance of their dreams as "inescapable" but wrote that they were here concerned with "what we should build." In other words, the visions are "excused" from the present because they belong to the future, and what it should look like, and this in spite of the fact that all participants "are well-versed in practical construction." This future delay of what is now a prophecy is not how Kiesler--who was eager to build the Endless--would see it. In fact, it was this kind of cautious and sophisticated conservatism that prevented him from

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realizing his "prophecy." Recall that it was in response to an article by the same writer that Kiesler composed his letter to the Times titled "Building Architect."

But Huxtable also provided information and described Kiesler's section saying that "with the help of life-size photographs, the spectator can enter Frederick Kiesler's world of 'endless space' a kind of free form fan house or gelatinous cabinet of Dr. Caligari." What we learn is that life size photographs were used to make up for the discarded plan to build a "model" that could be entered.

The review in the New York Herald Tribune by Emily Genauer is far less educated and refined in its experience of Kiesler's Endless House which she decribed as "a house shaped like a tunnel, twisting and curving like a ribbon wrapped around itself, and admitting daylight through holes in the ceiling and sides."[126] Yet she also made a curious observation, talking about Kiesler's "subconscious eagerness for revenge." This is interesting since it leads the discussion to the inevitable brink of the question of meaning or the "iconography" of the Endless House, a building which seems to stimulate and invite such a discussion. I shall try to suggest some such interpretations shortly. But we ought to examine two important texts by Kiesler in order to help us "see" the Endless clearer before tackling the more speculative realm of interpretation.

Both texts are consistent in the principles they list and which constitute the philosophy behind the Endless House. They also include definite ideas about practical matters. One text is a typewritten text

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titled "Short Statement About the Endless House, Pertaining to Questions Usually Asked," and the date given says only 1960.[127] This text, as the title explains and the data suggest, was put together during the time the last model was built and shown. Quite naturally, many questions were asked about all aspects concerning the Endless House. It is thus conveniently divided into subjects: Form and Function, Construction, Floors, Furniture, Light Closets, Heating and Cooling, Bath, Kitchen, and Mechanized Labor Saving Devices.

Thus, on the subject of floors, for instance, Kiesler assured the reader that the floor was not a curved floor but "only curved at the very edge" and reiterated that the continuum of floors-walls-ceilings "do not enclose the individual in straight jackets of brick or glass, as any of the old or modern industrial walls do."

About furniture Kiesler explains that old-type furniture cannot fit into the Endless House. He described the furniture he would design as more sculptural in nature made in different materials, and either easily movable or built-in. In the TV program Camera Three, Kiesler quoted his multi-functional chair-seat-pedestal-table, he designed for Peggy Guggenheim's Art of This Century Gallery (figure 107), as an example for the type of furniture he had in mind: flexible, convertible into many functions and sculptural in character. To that example one may want to add Kiesler's 1935 biomorphic intertwinable tables made in aluminum (figure 108).

The closets in the Endless House or storage space would be provided by built-in double-shells especially in sleeping quarters, the kitchen

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and the dining area. The heating will be built into the floor. The bath, a favorite subject of Kiesler's, was planned to be an integral part of the various individual living quarters and not cut off or separated.

As to the kitchen, Kiesler only explained that modern equipment could be installed according to the available funds. This was important since the impression that prevailed in people's mind was that the Endless House was trying deliberately to be primitive, against technology and modern convenience. Finally under the heading of "Mechanized Labor Saving Devices" Kiesler admitted the best of modern "machines" into the Endless but stressed his moral guideline that "it is based on simple, healthful and direct ways of living, where work is recreational activity rather than drudgery." In other words, the Endless House stands unequivocally for a modest, energy-conscious and mentally healthful building. It was not meant to be a rich man's extravaganza of the latest in modernist architecture.

The other text is the concluding part for 1963 in Kiesler's journal Inside the Endless House and practically the end of this 575 page book. It obviously is similar in most points to what is already known, yet the text's literary context, being part of a journal, is somewhat different from the previous text and therefore valuable mostly in the ideas it expresses and the metaphors it evokes. To begin with, the title itself is significant: The Endless House: A Man-Built Cosmos.[128] The first sentence declares: "The Endless House is called the 'Endless' because all ends meet, and meet continuously."[129] There is, of course,

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an evocation of the expression "to make ends meet," which hints at a practical dimension. Kiesler then explained the idea by comparing the Endless House to the human body, an architectural strategy which has art historical precedents.[130] We may want to see in this a radical application of modern humanism in architecture.

In conjunction with the rest of this paragraph, a new idea is formed; Kiesler writes that "The Endless is rather sensuous, more like the female body in contrast to sharp-angled male architecture." We should keep this metaphor in mind for it leads to further and deeper, even architypal levels of meaning that we want to consider. But even on the surface, level, the egg is in nature the feminine end of procreation. As far as the sensuous goes, it is contrasted to male-sharp-angled building. In other words Kiesler has discovered and advocated the feminine side of architecture. He then went on to say: "All ends meet in the Endless as they meet in life. Life's rhythms are cyclical." One is tempted to relate the feminine to the cyclical, namely the feminine cycles of menstruation--the cyclical being a natural aspect of the feminine. I think that Le Corbusier is an architect to contrast with Kiesler at this point since he, unlike Kiesler, compared the house not to the human body but to a machine, and built according to a human modular where the human body is a source for a set of definite (not infinite) proportions and not for its endless continuity as organic life.[131] But life cannot be defined mechanistically. Kiesler clarifies his alternative when he contrasts it to the existing "machine-age houses" as "split-ups of cubicles"; it is therefore the non-mechanistic, feminine

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architecture which, he continues, "must definitely make room and comfort for those 'visitors' from your own inner world. Communion with yourself, the ritual of meditation inspired.

There is an interesting reference to vernacular building and architecture (without architects) of the Western American Indians' Adobe houses. In Kiesler's exact words: "Automotive tools can be very welcome, but the architect as a craftsman can build with any material and express the ritual of life within a dwelling even with such primitive means as earth solidified in the manner of the American Indians in their adobe houses."[132] The key phrase is "express the ritual of life within a dwelling" because Kiesler perceived his Endless as a feminine receptive type of architecture designed for spiritual matters such as the rituals of life.

This essay on the man-built cosmos also includes a few other bits of new ideas such as the use of color or the incorporation of such artistic devices as fresco-like paintings or areas of color and sculptural, or plastic relief. But it was not meant as decoration and was more "like vegetation, [which] grows its form and color at the same time"; finally, some last concluding statements, were made one of which declares: "Art as a ritual cannot be an afterthought. It must again become the usual link between the known and the unknown." This has a mystical sound to it, inasmuch as it proposes to see art and architecture as a means to point in a direction of a higher end, i.e., not an end in itself. Kiesler summed it all up with the following words:

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> The Endless House is indeed a very practical house if one defines practicality in not too narrow a sense, and if one considers the poetry of life an integral part of everyday happenings.

The final lines have a heightened eschatological and almost messianic sound:

> The coming of the Endless House is inevitable in a world coming to an end. It is the last refuge for man as man.

Kiesler worked in an age when the theory of relativity expanded our notion of time space and matter, connecting them, thus making them relative to each other. This affects the notion of time, its direction, past and future, which in turn is related to the notion of a curved space[133] pictured as dynamic, turning inside on itself in no time, or the "kiss of time"[134] as Kiesler once called it. It (infinity) is an ongoing-endless process symbolized by the figure eight (∞), and also a spiral, representing the change of rate as well as spiritual growth at every point. Kiesler said that the Endless House must make room for the inner world and go beyond a mere "home for the family" but inspire "the ritual of meditation,"[135] not as related to religion but as Kiesler saw, the Endless House usually the place "and the means to live an exuberant life, not only the life of a digesting body, of routine social duties."[136] The Endless House was to serve the need for active as well as contemplative life, and it was house and home for one's higher being.

Interpretive Models and Iconography

I have indulged in a somewhat free flow of images, from physics to metaphysics, from social philosophy to depth psychology, following

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the spirit of Kiesler's view and his ultimate goal. We may recall a notion of the Endless that Kiesler advanced, the place where all ends meet and which is therefore without end. This can be related to the Jungian notion of the Uroboros, symbolized commonly by the snake holding its tail in its mouth, a closed circuit picture of the earliest preconscious and all encompassing stage in the "history of consciousness" as well as its ultimate end.[137] The uroboros as the center of the unconscious world in the early stage of life is also the center symbol of the second part of life, that of self-formation or centroversion, and here it stands for perfection. In Judeo/Christian theological terms the same is expressed as the cycle starting with the early notion of Paradise to the ultimate of "Heavenly Jerusalem."[138] Both ends of the polarity are relevant in illuminating the iconography of the Endless and the intuitive depth which it attempts to reach.

From a cultural point of view Kiesler realized quite naturally the inevitable unity of the human psyche and spirit, whether expressed in historical, psychological or philosophical terms, Eastern or the Western, in physics or philosophy, seen by Lao-Tse, Socrates, Gandhi or Einstein.[138] Kiesler extended himself beyond the boundaries of Western culture; thus he quotes the Taoist I Ching as well as Thoreau and Artaud. In his art-historical analysis of issues he looks both to Eastern Art as well as Western Art.[139] It is significant that he visited a Jungian psychoanalyst (see footnote 137).

A look at some archetypal images that Kiesler drew from his innermost being, should strengthen our interpretation. In the Journal entry

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quoted earlier called "Post and Lintel Game," Kielser wrote about his ideological position in relation to the tradition and the still predominant practice of post and lintel architecture. The last section, however, reads as follows:

> A big wave rolled over the land from the sea and flooded all concrete columns and colonnades and they collapsed like sand, disintegrating like bubbles. And the people were without roofs. Without roofs over their heads they almost lost their minds. But unexpectedly, the big wave set a magic eggshell ashore. And it rolled. The fire couldn't catch it, and on the flood it swam. No beam, no column made its structure, yet a roof and a wall and a floor were all there. In a day.[140]

Two associations come to mind, one biblical, namely, the ark of Noah floating on the waters of a flood that came to wipe out a corrupted age. The second image is Greek mythology, namely the birth of Venus, coming out of the sea. But beyond the evocation of myth, Kiesler wrote specifically about the "magic eggshell," and since, as we have seen, he made every effort to challenge the simple equation between the Endless House and an egg, it is significant he allowed for it here. The emergence of the eggshell from deep waters suggests its primordial origins. Thus, Erich Neumann in the footsteps of C. G. Jung, writes as follows:

> The creature that still exists in the round participates in the knowledge of the unformed, is merged in the ocean of wisdom. The primal ocean, likewise an origination symbol--for as a ring-snake the uroboros is also the ocean--is the source not only of creation but of wisdom.[141]

I have resorted to Erich Neumann since he like no other has shown how art or an artist can express an archetypal image out of the state of culture and his own experience. He also maintains that the artist as a true individual (thus a hero along the path of evolutionary

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consciousness) is giving mankind--through the man-made art object--an image expressing a collective unconscious. This has legitimized, to a certain extent, the trans-personal analysis of the artist beyond the specific determinants of his own biography. Thus Kiesler and his egg-shell may have expressed a modern-day subconscious uroboric need for wholeness as the only alternative to "rational" life as it is expressed in rectangular box architecture. The Endless House is the natural image for that uroboric magic-circle without beginning or end. As the "magic egg shell" it represents the echo of a generative past, perfect in its formal organization as well as a symbol of natural regeneration wisdom.

The "past"--not an historical past but a stage in the psychic structure of total interconnectedness--plays a key role in the conscious conquest for a similarly perfect future to which an organism strives.

It is not altogether irrelevant to digress momentarily from the psychoanalytic context to surrealism. Hans Arp, who was Kiesler's friend for many years and a sitter for one of his portraits, wrote on Kiesler under the title "The Egg of Kiesler and His Hall of Superstitions" (Das Ei Kieslers und Seine Salle des Superstitions),[142] the latter being the name of the hall Kiesler has designed for the 1947 Surrealist exhibition at Maeght, Paris. Arp, writing in Surrealist prose and expressing a Surrealist point of view, saw Kiesler's egg not only as an anti-materialist position attempting to cast a shadow over crude modern architecture but also as refuge from a modern alienation from nature and modern "angst" for which Kiesler offered an alleviation.

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In addition to the surrealist iconography and the collective unconscious that the Endless represents--the "angst" and the uroboric yearning that I suggest can be seen in its transpersonal level, there may be a more personal dimension to Kiesler's Endless that is rooted in his past and which expresses yet another symbol which relates to, but is not identical with, the uroboric stage. It is the second stage in Neumann's section dealing with "the mythological stages in the evolution of consciousness"--namely The Great Mother.

Kiesler suggested that the Endless House was like the human body and more specifically the female body. It is also quite easy to see in the egg shape and round envelope that makes the Endless House a sort of womb wherein life is formed and prescribed in the most hospitable maternal of conditions. It is in this sense that Kiesler's "obsession" with the egg shaped Endless expresses the "primordial Feminine"-archetype. Once again, I elect to follow Erich Neumann and this time in his most sensitive and convincing analysis of the work of Henry Moore approached in similar terms, i.e., as an expression of the all embracing great mother earth archetype.[143]

There is a formal similarity between Moore's later, more abstract work which is biomorphic and hollowed (figure 109), and Kiesler's late version of the Endless House (figure 105). A description such as the following, albeit of Moore's work, is therefore applicable quite literally to Kiesler's Endless House, as well as to his model sculptures Endless House.

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> Haptic experience leads, as we have seen, to sculpture being felt with all its hollows, passages, crannies, and apertures, so that the female body opens out into a landscape, its elevations being perceived as hills and mountains, and its depressions as valleys and ravings between mountain masses. This wandering over the inside and outside of the primordial feminine results in an effacing of boundaries, an abolition of the clear division between inside and outside that is characteristic of our cerebral consciousness.[144]

Thus, while describing how the solution to the problem of how to connect the inside and the outside of the Endless House, Kiesler has introduced the issue, writing:

> I always felt that there should be a way of getting onto the roof of the house, because it has such lovely valleys, where one can sit or lie in full form in delicious comfort, sheltered on its plains and inclinations.[145]

I believe that further credence to such psychoanalytical interpretations of Kiesler's work and spiritual world is added when we read Kiesler's following conclusion to the section from which we have just quoted, following the solution he has found to the problem posed:

> Heavens, masters and mistresses of Earth, gods of the underworld of human psyche, Lucifers of the brain machines--why, why had you kept this secret away from me so long? Wasn't I enough of an obedient servant to your commands all this time? Had your generosity once more to resort to the satisfaction of sadism? And why did you lift the curse only before it was almost too late, why?[146]

In spite of my attempt to avoid a simplistic psychologization of Kiesler's biography and his personal life and attitudes, it is more than tempting to quote the following information which was no doubt considered significant enough by Kiesler himself who has related it to his wife, who wrote:

> His mother had died when he was only a year old. He was brought up by a Ukranian "nanny" of ample proportions and

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> a warm personality. One day, when she was kneading some dough, Kiesler, then three years old, crept under her voluminous peasant skirts, struck a match, and "discovered architecture."

This passage was used as part of a press release for a 1969 exhibition at the Howard Wise Gallery where following that quote from Lillian Kiesler's biographical data it went on to interpret:

> Certainly all of Kiesler's work evidences a high respect for the feminine mystique, invariably utilizing curved lines and plans and "the embrace of space" but whatever the reason, Kiesler had a penchant for cave-like structures, from his endless house first conceived in 1923 to the Shrine of the Book in 1965.[147]

This biographical bit of information is relevant to our interpretation even if it was a latter-day embellished recollection. The interpretation given by Howard Wise is more literary than psychoanalytic, but it forms--significantly enough--a similar picture of Kiesler's mental world. Kiesler was also a rather short man (approximately 5 feet tall) and with this shortness, as a man, he had to contend all his life. Women who knew him have related, somewhat bashfully, stories which confirm his attraction and love for all women, often big women. One can also read between the lines of his journals and find confirmation. I want to conclude this particular mode of interpretation with the following words from an entry in the journals titled "Luster of the Sun" which is indirectly relevant:

> Today once more the sun hands out all her beauty with a reckless giveaway. What other comparison would be adequate than with Helen of Troy who belonged to every one of the men of Greece. She was too beautiful to keep it all for one.
>
> Like a woman she dresses her beautiful body in tender veils of clouds, an infinite variety of sheer materials,

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> tight, dense, loose, transparent, apparently shielding herself, in fact only heightening the mystery of her Truth, even covering up with furs of snow and evening coats of endlessly strung pearls of rain.[148]

One last area where Neumann, Moore and Kiesler share a notion is the distinction between patriarchal and matriarchal cultures. Moore represents for Neumann the re-emergence of the matriarchal spirit and culture in an age which is still largely governed by the masculine spirit. Kiesler, as we have seen, saw his own architecture as feminine and a genuine challenge to the reigning post-and-lintel, hard-edge masculine architecture bound to come to an end.

Reference to Neumann is not as a single, authoritative method for all criticism of architecture, but as a certain method which it was felt was applicable to Kiesler and thus helpful in the search for profound meanings of the Endless. A different method, the phenomenological approach of Gaston Bachelard such as discussed in his Poetics of Space[149] is, however, also relevant, illuminating and helpful to decipher the underlying meaning of Kiesler's Endless House.

Kiesler wrote about his alternative architecture:

> any shell will do: mud, straw, wood, canvas, brick, polychrome, polyester--as long as the nest is warm
> in its embrace
> and permits changes and transformations at will and responds to change.[150]

What drew me to these few lines are the images, metaphors, or simply words used--"nest," "warm," "embrace." In fact, the quote is from one of the four poetic epilogues in the Journals that Kiesler has written in short lines, spreading over some twenty-three pages. Kiesler

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thus is a natural subject to apply Bachelard's primarily literary analysis. What distinguishes Bachelard's approach is the methodical attention he pays to the details of language expressions in his analytic search for "the poetics of space." In essence it is a concordance of sorts--sorting out common words covering the psychological/emotive territory of space-related language. The very results of his findings confirm the relevance of this phenomenological study of the (verbal) imagination not only to Kiesler's architecture and his image of space but also to his poetic language and the many texts he produced.

Let us return to the last quote from Kiesler's poetic epilogue and to some words used in it, words that are key images in Kiesler's conception of the Endless House--the house as nest, for example, a place of embracing warmth, mental and physical comfort. This type of metaphor is exactly the kind that Bachelard collected. Thus, a chapter such as "House and Universe" for example fits quite well with Kiesler's definition of the Endless House as a man-made cosmos and Bachelard has collected enough examples to demonstrate the literary persistence of such an image which can be related specifically to the unique habitat that was the Endless House. Thus Bachelard writes, for example:

> In this dynamic rivalry between house and universe, we are far removed from any reference to simple geometrical forms. A house that has been experienced is not an inert box. Inhabited space transcends geometrical space.[151]

What such a quote makes us realize is that Kiesler was well in tune with the experiences of a house Bachelard described and he planned the Endless House much as it is pictured in Bachelard's linguistic model.

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We have isolated the word "nest" that was used by Kiesler and it is not surprising that one of Bachelard's chapters is devoted to the "nest," just as he has a chapter about shells and corners. Even the dialectics of outside and inside we have discussed (connecting Kiesler and Moore) is one of Bachelard's topics and there is also a concluding chapter on the phenomenology of roundness. In the chapter on nests we read:

> For the world is a nest, and an immense power holds the inhabitants of the world in this nest. In Herder's history of Hebrew poetry there is an image of the immense sky resting on the immense earth: "The aria," he wrote, "is a dove which, as it rests on its nest, keeps its young warm."[152]

So the images connect: the house, the cosmos, the nest, and the shell.

Kiesler, so it seems, in his writings alone could nave provided Bachelard, or anybody using his phenomenological method, with much collaborative evidence to sustain his insight and observations. Bachelard's general strategies are relevant ideologically as well as phenomenologically since Kiesler had no doubt a conception of architecture which included the spirit of poetry and the imagination.

Yet there is another side to Bachelard's conclusions that add to the understanding and interpretation of the Endless House. Granted the difference between the situation described in the following passage and the work of an architect, it seems to add perspective to a unique building such as Kiesler's Endless House. It reads:

> This dream house may be merely a dream of ownership, the embodiment of everything that is considered convenient, comfortable, healthy, sound, desirable by other people. It must therefore satisfy both pride and reason, two irreconcilable terms. If these dreams are realized, they no

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> longer belong in the domain of this study, but in that of the psychology of projects. However, as I have said many times, for me a project is short-range onerism, and while it gives free play to the mind, the soul does not find in it its vital expression. Maybe it is a good thing for us to keep a few dreams of a house that we shall live in later, always later, so much later, in fact, that we shall not have time to achieve it. For a house that was final, one that stood in symmetrical relation to the house we were born in would lead to thoughts--serious, sad thoughts--and not to dreams. It is better to live in a state of impermanence than in one of finality.[153]

This is a striking passage. Reading it with Kiesler and the Endless House in mind, it applies and maybe explains amply the elusive nature and destiny of the Endless. Bachelard's bias is to prefer the dream over its realization--a moment which also marks the termination of this ever-creative state of mind. So, inasmuch as the Endless House was a future dream house a notion which, according to Bachelard, originates with our childhood experience of architecture (much like Kiesler's own, as described above), it may have been destined (almost by definition) not to be realized but to stay alive as art (in drawings, plans and even the biggest of models)--that is, remain an ideal and the creation of the imagination. Yet Kiesler resisted that and said he could stretch art and the imagination and bring it closer to reality, "make the superfluous necessary," as he defined architecture. As an architect he knew how to do it, and this is where the comparison between Bachelard's intellectual analysis and the reality of architecture ends.

One other comment about Bachelard should be made, namely that this French thinker was known to the Surrealists in America. Julien Levy, the Gallery owner and champion of Surrealism, included an article

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by Bachelard titled "Surrationalism" in his 1936 anthology titled Surrealism. Dore Ashton, who mentioned Bachelard in her book The New York School, wrote about Levy, Barchelard and the American artists and listed Kiesler as one of the artists who most probably had read Bachelard's article.[154]

While this information does not bear directly on our interpretation of Kiesler's Endless House through Bachelard's book of some twenty years later, it definitely adds credibility to the Surrealist aspect of Kiesler's architecture when viewed through Bachelard's method.

Before completing the poetic realm of the imagination consider a remote but interesting visual comparison to the Endless House coming from painting (c. 1500) and originates from a late gothic master of phantasy and Surrealist imagination, Hieronymous Bosch. It is plausible to assume that Kiesler was familiar with Bosch. The image most reminiscent of Kiesler's eggshell architecture is in Bosch's most famous work known as the Garden of Delights—a triptych at the Prado. The specific image referred to is in the right wing of the triptych in the section which is commonly described as hell, punishment or the so-called "infernal concert," and is a sort of treehouse in the shape of an egg, very much like Kiesler's Endless House. Notwithstanding the various theological interpretations which Bosch's monumental work invites, much can be extracted from a semi-secular, straightforward examination of the painting which may redeem the suggested source from being merely a part of Hell.

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This idea, however, calls for a somewhat lengthy explanation. The main panel, no doubt, centers on the world of mankind as it is, love and personal relations (foreground), the social "parade" or social organization (the middle ground) and war (background). Thus in the background a dark castle with "cannons" of war stands ready to blast with its cannon-spears the opposite side painted as a pink castle of peace and prosperity.

There are two other such strange strongholds or towers in this central "square" game. In the foreground the "actors" and "actresses" of this colorful world engaged in erotic pursuits, fun, love and life. In the middle ground society makes its rounds, riding parading its mostly domesticated animals, while in the middle of both the four castled "war" and the social circles of life are pleasure pools which may symbolize the best this world has to offer. The left wing offers a higher aspiration--what Christianity calls salvation. God-Christ is here offering his left hand in grace to the woman--devout, graceful, beautiful and genteel--who is kneeling to his left while the man is sitting attentively on the ground to the right of God, his legs stretched and his feet touch the Master's red robe. He is contemplating or listening to God, the Christ. Thus it is a world of no more conflict, and the towered castle in the background is a single tower in war with none. All the animals live here in peace and harmony and a monkey is seated comfortably on an elephant's back.

Now in our attempt to qualify somewhat the reigning iconography--in the three panels representing Paradise, Purgatory and the Inferno

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and following the tradition of the Middle Ages, we gain a fresh view of the inferno, seeing it more as a territory of the imagination than simply and exclusively as the domain of the "sinners" whoever they are. Thus it seems that this more "liberal" reading would explain the inclusion of the Arts in this section where phantasy rules. It is the place of temptation and lust but it is also where art originates existentially from the sexual phantasy like a man in an embrace with a pig dressed with a head cover of a nun (in the lower right) or another person wrecked by gambling and drinking, to the temptation offered by a woman with a die on her head. A board of Backgammon also played with dice is decipherable. Above this are musical instruments and a book of music--people literally "attached" to music are seen; one is strapped to the neck of a lute, another stretched over the strings of a harp.

There are also some wind instruments. Even the art of ice skating or "sports" and the art of joggling are depicted in this section and finally architecture. Some people climb a ladder into the egg-shaped tree house.

Now, the open egg itself is attached to two tree trunks which function like stilts, supporting the shell. These tree trunks themselves are mounted on boats which makes the architecture, as it were, floating architecture. One tree trunk also reads as an animal's hind leg; thus supporting an animal's empty torso. Behind this structure or house in which some people sit near a table, in a domestic setting is a large portrait, most likely of the artist himself, who significantly elected to place his self portrait in this section and behind this phantasy

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architecture. His head is covered by a round "stage" (reminiscent of Kiesler's space stage) with "actors" on it circling around some strange big pipe. The upper part in this section represents dire visions of humanity, torture, executions and a dark landscape set on fire. (Next to the egg shell house there is a skull of a horse which may make the empty body the torso of a horse, which is thus tempting to relate to some of Kiesler's shell sculptures of a horse.) It is therefore quite fascinating and plausible to speculate that Kiesler, who was also a Surrealist, found inspiration in this image by Bosch. It is relevant to mention that Bosch's preparatory drawing for this particular egg shell is in the Albertina in Vienna where Kiesler studied, which he therefore may have seen (figure 110). In this preparatory drawing the egg shell tree house is even more clearly seen as a house or shelter with a few people inside sitting around a table and since the house is here isolated it could have acted as an early, possibly even subconscious, forgotten inspiration for the Endless House.[155]

Epilogue

Finally and back to reality is the following story from the Journals which marks the last chapter of any hopes that Kiesler may have had to build the Endless House.[156] Following the Visionary Architecture show at MOMA, Leo Castelli gave Kiesler a show repeating some of what was shown at MOMA but concentrating on the Endless and related sculpture.

Leo Castelli himself, who was Kiesler's long-time friend, revealed that he liked Kiesler's architecture and the Endless House very much

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but did not care that much for his painting and sculpture. So he showed the Endless House which seems to have suited the order of the day somewhat better than before.

Kiesler described how Leo Castelli "reported" to him that at the last hour of the last day of his exhibition a lady from Florida invited him down to her estate to inspect the grounds for building. This was following an earlier conversation apparently between the woman and Kiesler, where she was surprised that the model/sculpture was a house at all, said she loved it, asked for the artist's name again, and then exclaimed, "I'd like to live in it." Kiesler was not easy with her; he told her the Endless House was not to be entered with shoes and that it was planned for informal dressing in general; he told her it was built for "inspiration of a more enchanting life." Some other unknown details were also suggested then by Kiesler: the floor would be multi-textured: pebbles, sand, rivulets, grass, planks, or heated terra cotta tiles.[157] The lady liked it and said she liked the idea of walking through her house like strolling in the open indoors. All looked great and the woman invited Kiesler to Florida. Castelli was to go as well as Kiesler's architect-assistant Len Pitkowsky and Lillian (not Lillian Kiesler yet).

In this particular story there is an overall dramatic sense of violence, the guns Kiesler saw in the woman's house "near Palm Beach, Palm Beach" (the entry's title). The hostess, who was apparently very fond of sport, shooting and hunting, took her guests through her estate for a hunting/shooting/planning tour. There is a comic description of a scene where she tries to offer Kiesler a suitable hunting uniform.

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Kiesler made a rough sketch (figure 111) (where the Endless was marked as 98 feet long, 30 feet high on one side, a little lower on the other side with a central space with a maximum height of 46 feet) and the company of a father and son, contractors, who came along, assured Kiesler they have built lots of fancy houses and that they were ready for his.

Kiesler spotted "a clump of cypress trees and a few low pines" as a possible location. The rest of the grounds were monotonous and "a marshy, boggy, quaggy landscape" as Kiesler described it. At this spot where they stopped the cars, Kiesler attached his working drawing at some distance to a bush. The lady was busy shooting with great skill. "She hit the pigeons at the high point of their parabolic orbit," as Kiesler, who was a sculptor of pigeons, put it with some sarcasm, even disgust. Castelli was shooting next. Kiesler described his record, saying: "Leo came either too early or too late" (which incidentally may describe the professional relations between these two friends). Finally, Kiesler's turn to shoot came up, at which point, after some instructions by the woman, Kiesler, in a surprise move, aimed at the bush and shot the drawing of the Endless House.

It was a "performance," indeed a final expression of both his deepest feelings of frustration and contempt for the rich hunter woman who Kiesler did not like. Kiesler ended the episode, saying: "The entire group ran over to see what I had done to the drawing. I had killed it squarely. It was riddled with innumerable holes as though hit by a rain of cosmic particles."[158]

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The shot drawing is reproduced in the journals (p. 443) as documentation (figure 111). As it turned out, the potential patron wanted Kiesler's Endless House not as a house for her to live in but as a building that would help to promote and sell large portions of her ranch. This was the final blow. Kieslerwrote that later he agonized over the events for a while. It was doubt, as close a chance to build the Endless House he ever had.

Yet Kiesler never seriously considered compromising the Endless House and building it as anything other than a house where people live. Thus in spite of the temptation that this lost opportunity offered Kiesler wrote in conclusion: "It had dawned on me, through my agonizing dilemma--to build or not to build--that: Thou shalt not build."[159]

Kiesler wrote this later part of this entry in his Journals in Jerusalem where he went to discuss his project for the Shrine of the Book. He wrote that he felt comfortable with his (moral) decision not to compromise the Endless House at a time when his Shrine of the Book was beginning to be built as planned. The Endless House was to remain a dream.

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Notes

[1]Creighton, pp. 110, 111.

[2]Frederick Kiesler, "Notes on Architecture as Sculpture," Art in America, May-June 1966, pp. 60-61.

[3]Ibid., p. 61.

[4]Frederick Kiesler, "Pseudo Functionalism in Modern Architecture," Partisan Review 16 (July 1949): 733.

[5]Ibid., p. 734.

[6]One source reported that "Mr. Kiesler built one space-house in Vienna nine years ago and somebody is still happily living in it, only it wasn't complete, or fully developed in idea and execution as the one Modernage has built for demonstration purposes here." AAA Roll 58, no. 700. I have never seen any collaborative evidence to that fact from Kiesler or any other source and it seems to be a journalistic fancy based on Kiesler's information about the 1924 Endless Theater as the prototype for the Space/Endless House for which he had plans.

[7]VVV, no. 4, 1944, pp. 60, 61. See also L'Architecture A'Aujourd'hui, June 1949, nos. 3-4 (inner cover illustration).

[8]Sam Kootz Gallery, The Muralist and the Modern Architect, exhibition and catalogue, 3-27 October 1950. It is the source that generated the idea that the plans for the Endless were shown in Vienna for which there is no evidence. The large sepia drawings now at the MOMA (gift of the artist) were more likely made in Paris, 1925, and first shown in New York in 1926.

[9]Societe Anonyme and Katherine Dreier Papers at Yale University, the Berbecke Rare Book and Manuscript Library, letter to Katherine Dreier, 2 September 1926. Kiesler listed four companies: one producing metal frames and doors, a linoleum or rubber manufacturer for the floors, a lighting company, and one specializing in mechanized advertisement. The latter company was the key since the idea was to somehow screen or project the art automatically instead of hanging pictures.

[10]AAA, Roll 58, frame 70.

[11]"Space and the Years," Architectural Forum 60 (January 1934): 17-21.

[12]Ibid., p. 18.

[13]Ibid., p. 19.

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[14]Ibid.

[15]Ibid., pp. 20, 21.

[16]"One Living Space Convertible into Many Rooms," The House Beautiful 75 (January 1934): 32.

[17]Frederick J. Kiesler, "Notes on Architecture, the Space House: Annotations at Random," Hound and Horn 7 (January-March 1934): 292.

[18]Ibid., pp. 292-293.

[19]Ibid., p. 292.

[20]Ibid., p. 293.

[21]Ibid., p. 294.

[22]Ibid.

[23]Ibid.

[24]Creighton, p. 121.

[25]"One Living Space Convertible," p. 32.

[26]Frederick Kiesler, "Notes on Architecture, the Space House," p. 295.

[27]Ibid.

[28]Ibid.

[29]Ibid., p. 296.

[30]Ibid.

[31]"One Living Space Convertible," p. 32.

[32]Ibid.

[33]Retailing (Home Furnishing edition), 6 November 1933. AAA, Roll 58, no. 703.

[34]Taped conversation with Sidney Janis.

[35]There was apparently a second photo-mural--an "abstract composition of a ruler, a calendar, a ball and other objects juxtaposed in a rare play of balance." AAA, Roll 58, frame 703, Retailing (Home

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Furnishing edition), 6 November 1933. I have never seen this mural reproduced.

[36]AAA, Roll 58, The New York Sun, frame 700.

[37]AAA, Roll 58, no. 700, n.d., no source identified.

[38]AAA, Roll 58, no. 701, n.d., no source identified.

[39]AAA, Roll 58, nos. 703-704, Retailing (Home Furnishing Edition), 6 November 1933.

[40]"Design's Bad Boy," p. 90.

[41]Frederick Kiesler, Contemporary Art Applied.

[42]Lillian Kiesler, Frederick Kiesler Biography, MOMA special collection, Kiesler archives, no. 172.

[43]AAA, Roll 58, no. 638, New York Sun, n.d. This could have been the Clinic of Modern Design in Chicago sponsored by the Merchandise Mart, where Kiesler also spoke about "the difference between good and bad Modern Design." See also Bogner, Friedrich Kiesler, p. 75. For the one-family prefabricated house and the Nucleus House see Bogner, pp. 64, 65.

[44]AAA, Roll 58, no. 639, New York Herald Tribune, 13 July 1932 (all quotations henceforth from this article).

[45]Thus Kiesler published in a French magazine an article on a certain "Oceanodrome"--a mid-Atlantic anchored and floating airport with residences, which Kiesler obviously was interested in from his futuristic perspective as well as an example of "pure mathematical inspiration as opposed to the European function-form principle," as he explained. See Frederick Kiesler, "Notes d'Amerique," Cahiers d'Art 6, no. 3 (1931).

[46]Frederick Kiesler, Contemporary Art Applied, pp. 62, 63.

[47]Ibid., p. 62.

[48]Ibid..

[49]"Design's Bad Boy," p. 91.

[50]Ibid.

[51]Frederick Kiesler, Contemporary Art Applied, p. 62.

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[52]AAA, Roll 58, no. 630, New York Herald Tribune, 13 July 1932.

[53]AAA, Roll 58, no. 692, Grand Rapids Herald, 19 January 1933.

[54]AAA, Roll 58, no. 692, Grand Rapids Herald 19 January 1933.

[55]Lillian Kiesler biography, p. 174.

[56]See above, Chapter III. Generally during the thirties Kiesler was most involved with design. See Bogner, Friedrich Kiesler, pp. 53-100 and Matthias Boeck, "Kiesler und die Wiener Architekten," in ibid., pp. 305-319.

[57]Creighton, p. 113.

[58]Harvey Wiley Corbett, "Industrial Design and the Architect," The Architectural Record 77 (April 1935): 234. Corbett reproduced for his article a design for a lamp by Kiesler (p. 239).

[59]Lillian Kiesler Biography, Museum of Modern Art, New York, Kiesler Collection, pp. 172-173.

[60]Ibid., p. 173.

[61]Frederick Kiesler, "Space House," Architectural Record 75 (January 1934): 46.

[62]AAA, 58, no. 670, New York Times, Sunday, January 29, 1932.

[63]Museum of Modern Art, Special Collections, Kiesler Archives, Tape 1, Lillian Kiesler with Jutith Vassallo, transcript, p. 25.

[64]Frederick Kiesler, Contemporary Art Applied, p. 112.

[65]See Statement for the Exhibition at Kootz, AAA, Roll 128, no. 1059.

[66]Creighton, p. 113.

[67]Ibid., p. 114.

[68]Ibid., p. 113.

[69]Creighton, p. 114. According to Kiesler, David Hare returned a favor, inviting Kiesler since Kiesler gave him a chance to participate in the 1947 Surrealist exhibition in Paris.

[70]AAA, Roll 128, no. 1059. See also Reviews, New York Times 1 October 1950 by Aline B. Lonchheim and The Art News 49 (October 1950).

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[71]Frederick Kiesler, "The Endless House," Architectural Forum 93 (November 1950): 124-126; and Frederick Kiesler, "Endless House and Its Psychological Lighting," Interiors 110 (November 1950): 122-129.

[72]The quote is the opening sentence in Kiesler's article, "Pseudo-Functionalism in Modern Architecture."

[73]Frederick Kiesler, "The Endless House," p. 125.

[74]Ibid., p. 126.

[75]Ibid., p. 125.

[76]Ibid.

[77]Ibid., p. 126.

[78]Frederick Kiesler, "Pseudo-Functionalism in Modern Architecture."

[79]Frederick Kiesler, "Endless House and Its Psychological Lighting," p. 122.

[80]Ibid.

[81]Ibid., p. 124.

[82]Ibid., pp. 128-129.

[83]Ibid., p. 126.

[84]Ibid., p. 122.

[85]Ibid., pp. 124-125.

[86]Frederick Kiesler, "A Festival Shelter."

[87]Creighton, p. 112.

[88]Ibid.

[89]AAA, Roll 129, nos. 4, 5, 6, New Yorker, 11 October, pp. 72-74.

[90]Ibid., p. 73.

[91]AAA, Roll 128, no. 2, Time, 15 September 1952, p. 68.

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[92]Visionary Architecture, The Museum of Modern Art, New York, 29 September-4 December 1960, checklist and notes by Arthur Drexler.

[93]Creighton, p. 114.

[94]Frederick Kiesler, "The Endless House and Its Psychological Lighting, p. 126.

[95]Frederick Kiesler, Environmental Artist (New York: The Guggenheim Museum, 1964), Biography, n.p.

[96]Frederick Kiesler, "The Endless House and Its Psychological Lighting," p. 126.

[97]Frederick Kiesler, "Form Is a Language," Art News 59 (April 1960): 35, illustration p. 34. See also Frederick Kiesler, Inside the Endless House, p. 242. Kiesler described "a young Armenian-American lady with burning eyes but frozen hand shake" who asked him for a drawing and a comment which he dictated. This was the statement published in Art News and which Kiesler reprinted in his Journals.

[98]See drawings no. 18 (1959), no. 212/13 (1959), no. 232/A (1959). The numerical references are from a checklist of drawings from the estate of Frederick Kiesler handled by the Andre Emmerich Gallery and prepared by Lillian Kiesler.

[99]See checklist nos. 891, 893, 894, 895, 896, 897. Generally these drawings have a certain surrealist fantasy like quality; see particularly nos. 891, 893, 896.

[100]Checklist nos. 20/22 (the latter is marked textures of an Endless Structure) and no. 86. Another drawing, no. 15 (1958) shows an elevation of the Endless House and also demonstrates quite clearly a concern with several interconnected shells.

[101]Checklist nos. 136-139 (1958).

[102]See also no. 1 (1959).

[103]This is similar to the aesthetic impression one gets from looking at Le Corbusier's architectural plans for Ronchamp, although there the floor plan and the floor itself which is made up of straight lines, set the curved wall lines off in a balance different and less extreme than the totally organic character of the plans for the Endless House. Cf., Le Corbusier, Le Livre de Ronchamp, pp. 127-135.

[104]I draw from one opening sentence in Kiesler's "The Endless House: A Man-Built Cosmos," in his Journals, Inside the Endless House, p. 566, where he wrote: "The Endless House is called the Endless because all ends meet and meet continuously."

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[105]Frederick Kiesler, "The Endless House," p. 126.

[106]Frederick Kiesler, Inside the Endless House, p. 172.

[107]See checklist drawing no. 18, 1959, "Endless House Two Large Light Openings," no. 232/A (1959) and more.

[108]Frederick Kiesler, Inside the Endless House, pp. 299-300.

[109]See checklist, nos. 2, 3 (1959), 196 (1956), 517 (1958), Endless House light study.

[110]Frederick Kiesler, Inside the Endless House, p. 196.

[111]Ibid., p. 196.

[112]"Frederick Kiesler," Art in America 48 (Spring 1960): 70-71.

[113]Frederick Kiesler, "Hazard and the Endless House," Art News 59 (November 1960): 47-49.

[114]CBS, "Camera Three," 20 March 1960.

[115]The New York Times, 27 March 1960.

[116]The New York Times, 17 April 1960. AAA, Roll 128, no. 151. Concerning the "enormous" influence that, according to Kiesler was another of Johnson's opinions. Johnson told me that he thought Kiesler was not important because he had no following.

[117]Frederick J. Kiesler, "Hazard and the Endless House," p. 49.

[118]CBS, "Camera Three, transcript, AAA, Roll 128, nos. 169-182.

[119]AAA, Roll 128, no. 151, New York Times 27 March 1960.

[120]AAA, Roll 128, no. 216.

[121]Frederick Kiesler, Inside the Endless House, p. 267.

[122]Ibid.

[123]AAA, Roll 128, no. 155/6.

[124]Frederick Kiesler, Inside the Endless House, pp. 299-302. The entry is titled "Endless Opening at M.M.A." It expresses Kiesler's hopes that this show will increase the chances of ever building the Endless. In terms of recognition, Kiesler said, what is commonly accepted, that the most important recognition one appreciates is the

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recognition by colleagues. He was particularly proud that two of the day's young stars from his friend Castelli's "stable"--Jasper Johns and Robert Rauschenberg, were impressed or in his words "struck by the precision of my curvilinear concepts in ink of the original (1924) Vienna plans of the Endless" (p. 302).

[125]AAA, Roll 128, no. 159.

[126]AAA, Roll 128, no. 157/8. The title is "Fantasies Seen as Practical Solution--Museum Shows Architect's Dream World."

[127]AAA, Roll 128, nos. 149-150.

[128]Frederick Kiesler, Inside the Endless House, pp. 566-569.

[129]All quotations henceforth are from this entry.

[130]Rudolf Wittkower, Architectural Principles in the Age of Humanism (New York: Random House, 1964-1965).

[131]See Rudolf Wittkower, "Le Corbusier's Modular," in Le Corbusier in Perspective, ed. Peter Serenyi (Englewood Cliffs, N.J.: Prentice-Hall, 1975).

[132]Lillian Kiesler has mentioned to me on several occasions the interest and admiration Kiesler expressed in the American Indian adobe houses.

[133]See John P. Nikonow, "Is Space Curved?" Scientific American 147 (November 1932): 278-279.

[134]Frederick Kiesler, Inside the Endless House, p. 367.

[135]Specifically, Kiesler's soundproof room was designed with such general ideas in mind.

[136]Frederick Kiesler, Inside the Endless House, p. 568.

[137]See Erich Neumann, The Origin and History of Consciousness, Bollingen Series, 42 (Princeton, 1970), pp. 5-39. See also C. G. Jung, Psychology and Alchemy (New York, 1953), pp. 45, 53, 99.

[138]Neumann, p. 34; also Frederick Kiesler, Inside the Endless House, p. 378 and 323 where Kiesler talks about "rebirth" in connection with the related iconography of the Shrine of the Book.

[139]See Frederick Kiesler, "Notes on Architecture as Sculpture."

[140]Frederick Kiesler, Inside the Endless House, p. 173.

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[141]Neuman, The Origin and History of Consciousness, p. 23.

[142]Hans Arp, "Das Ei Kieslers und Seine Salledes Superstitions," in Onze Peintres vus par Art (Zurich: Editions Girsberger, 1949), p. 29.

[143]Erich Neumann, The Archetypal World of Henry Moore (1959; rpt. Harper Torchbooks, the Bollingen Library, 1965).

[144]Ibid., p. 82.

[145]Frederick Kiesler, Inside the Endless House, p. 234.

[146]Ibid., p. 235.

[147]Howard Wise Gallery, Frederick Kiesler (17 April-10 May 1969), press release, AAA, 128, no. 410.

[148]Frederick Kiesler, Inside the Endless House, p. 233.

[149]Gaston Bachelard, The Poetics of Space (Boston: Beacon Press, 1969).

[150]Frederick Kiesler, Inside the Endless House, p. 156.

[151]Bachelard, p. 47.

[152]Ibid., p. 104.

[153]Ibid., p. 61.

[154]See Dore Ashton, The New York School (New York: Viking Press, 1972), p. 98.

[155]There is a drawing reproduced in Kiesler's journal titled "Which Way Insecurity"—sketch for a sculpture—which consists of a stack of animal figures, making a totem-tree trunk type of image which is reminiscent, at least in spirit, to Bosch's Surrealism and a similar interest in tree trunks containing figures or a figure such as The Field Has Eyes, the Wood Has Ears (Berlin-Dahlem, Staatlische Museen).

[156]Frederick Kiesler, Inside the Endless House, pp. 437-446. There was another earlier discussion concerning a possibility of building the Endless House in Rome with architectural historian Bruno Zevi. See Inside the Endless House, p. 221. The woman who was interested in building the Endless House was probably Mary Sisler. See Bogner, Friedrich Kiesler, p. 173.

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[157]To the list of features in the Endless House which were to strengthen the presence of nature and the natural one has to add visible fire and streaming water. See Frederick Kiesler, Inside the Endless House, p. 414. In this transcript of a conversation with/about Kiesler a great deal is added to our perception of the holistic and poetic nature of Kiesler's architecture and particularly the Endless House (Inside the Endless House, pp. 404-417). It is maybe significant that this inspired conversation is brought in the Journals just before the Florida story, almost as an anti-climax.

[158]Ibid., p. 442.

[159]Ibid., p. 446.

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CHAPTER V

CORREALISM

Kiesler's Major Theoretical Writings and His Ideas

In 1930 Kiesler introduced Correalism, a term that he coined as a "logo"--a word, which was to name "a new approach to design" and be its "trademark" at the same time.

Kiesler was a master of written expression. He wrote clearly and forcefully, and was prone to invent words. "Correalism" was a composite of correlation and realism. As a created word, Kiesler wanted to introduce it as an avant garde slogan and he planned a series of promotional low-cost publications under "correalism" as its logo. The idea never picked up beyond the first issue which introduced Correalism in a short essay. This first typewritten short pamphlet shows what Kiesler had in mind.

He had a rubber stamp made of the logo, the word "correalism," in a plain type. An asterisk pointed to a note calling it ("Correalism") a "trade mark." The logo was copyrighted. The price of the leaflet was ten cents. The title, Correalism, was subtitled "Biotechnique, a new approach to design." The essay opened with a note to the reader in which Kiesler explained that he coined "correalism" for the "purpose of issuing under this signature, pamphlets, books, and articles from time to time, dealing with architectural topics and the interdependence

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of science, art and industry, as well as topics pertaining to the socio-economic life and other subjects of general interest."[1]

Preceding the body of the text Kiesler wrote that his writings will appear "in fiction form as well as nonfiction." Since Correalism was an elusive term to define, Kiesler considered a fictional form of explanation helpful. Kiesler chose to open with a question: "What constitutes reality for the designer?" Kiesler asked, and continued with the following reasoning:

> If any building unit is not which it geometrically presents, but what it emanates, realism will then be found in the interplay of forces that are innate in nature and which he has in addition re-coordinated in his artificial technological product. This realism is the very reality. His objects and these of nature are nothing less than trading posts of forces. Reality is not the circumscription of any body in itself but of its power of coordination. Reality does not lie in any object of natural or human creation, but in Correalism. Correalism is the very stuff life perpetuates.[2]

Important here is Kiesler's expansion of reality from the static-singular object oriented reality, to another reality or co-reality where natural forces interplay and physical bodies naturally coordinate.

Another key term that Kiesler introduced is "continuity". Kiesler also defined Correalism as "the very power of continuity" saying in fact "it is continuity." He then wrote that

> the study of the structure of continuity must break down, finally, the barriers between all sciences; already many of these break-downs have begun, but correalism as a science in itself remains to be established.[3]

Kiesler, admitted that he could only point to a comprehensive science, integrating all sciences, and coordinating them. Within

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Correalism, an ambitious science with a metaphysical sound, Kiesler distinguished Biotechnique. He defined this as the designer's method applying correalistic principles to shelter-design. Biotechnique is also described as the "science of housing man."

The argument or (art) historical proposition involved is a revisionist one. In Kiesler's words:

> heretofore architectural environment has not been based upon the measured influence of man-built environment upon body and mind of society; instead by generality it has been [a] conglomeration and cross-breeding of art and technology.[4]

For an architecture that was a hybrid and a conglomeration of art and technology, Kiesler offered an integrative, "correalist" alternative. It was based on research correlating the social function of architecture with its influence on the well being of the individual's body and soul. Kiesler felt this was the purpose of Biotechnique.

Kiesler stressed that the correalist designer who would understand the way nature builds, would not imitate nature. He quotes for example the famous Crystal Palace in London "built in 1851 by Paxton, who by imitation of structural principles of the American water lily's foliage, of and its longitudinal and transverse girders brought about collapse in 1936." This was a revisionist view of Paxton and the Crystal Palace. The Crystal Palace was regarded as a magnificent monument and a landmark of in cast-iron and glass architecture. It set a precedent for modern steel and glass architecture. This was the view of the Crystal Palace expressed by James Marston Fitch who considered it, along with Roebling's Brooklyn Bridge and the Eiffel Tower a "leap forward," and rightfully

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described these nineteenth-century men as people who not only worked in the field of science but also as men thinking scientifically.[5]

Fitch, who knew Kiesler's work, quoted the latter's reservations about Paxton's application of nature's design principles, and Kiesler's opinion that he was essentially Romantic. Thus he did not think of the hazard of fire, which brought the Palace down. But he also resisted Kiesler's criticism as doing injustice to history and Paxton. Fitch argued that viewed within the context of Victorian England, Paxton's design was "profoundly scientific," whereupon Kiesler would say not scientific enough, citing its destruction by fire as proof.

It is not important here to decide whether Kiesler was right or wrong. It is clear, however, that in Biotechnique Kiesler did not envision a design method imitating nature in a simplistic and naive fashion. Yet he knew that this was an interpretation of Biotechnique which was rather likely to occur and which he sought to subvert. Thus, it seems that Kiesler was well aware of the provocative nature of his unorthodox view of Paxton and he meant it that way. He was quite right. For example, in Circle, published in 1937 as an international constructivist manifesto and anthology, in the section titled "Art and Life," there is "A Note on Biotechnics" written by Karel Houzik.[6] This title is striking since it uses the term Biotechnic, which is the same word Kiesler has used, and it claimed to have "evolved to cover the science of housing man," much like Kiesler's definition.

Although Houzik, unlike Kiesler, did not see in Paxton's precedent a romantic fallacy, much of what he said about Biotechnics is not that

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different from Kiesler's ideas. This raises two points; one, that Kiesler's interpretation of Paxton was unusual, and two, the question about the term Biotechnic and its connection to Kiesler, since Houzik used it without any reference to Kiesler. Kiesler, however, circulated his ideas on Correalism and Biotechnique only in the typewritten pamphlet which was quoted (dating from 1930). He did not use the word Biotechnique as a title in any of his printed publications after the publication of Circle until 1939.[7] Thus no direct connection can be assumed. Most important, however, is a footnote in Kiesler's 1939 article on "Correalism and Biotechnique" where he gave an account about the term Biotechnique saying that he has used it first in his treatise on town planning as the German word "vitalbau," published in De Stijl magazine in 1925.[8] This helps to understand the term Biotechnique within Kiesler's vocabulary. The German word "vitalbau," another invented word, definitely points to the vital and dynamic character that this principle of building (bau) implies. The Manifesto, about city planning analyzed in a different chapter, should also help to form an idea about Biotechnique as an interdisciplinary strategy of design and not a style. Kiesler wrote also that the English translation of "vitalbau" as "Biotechnique" was first introduced in his "Notes on Architecture" to which I shall shortly return. In spite of the early German version of Biotechnique as "vitalbau" Biotechnique in its English version was, at least in part inspired by Russian constructivist theater theory where the term biomechanics was used by Meyerhold[9] to describe a scientific technique of analyzing and applying the human body to movement, the stage and

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acting. Kiesler who was familiar with constructivist theater adopted it, and instead of Bio-mechanics talked about Biotechnique, as applied to building shelter for man.

Another source that Kiesler revealed originates in Biology and was used by the English biologist Sir Patrick Geddes who used the word Biotechnics in speaking about nature's way of building. The word does of course have a close relative in Biotechnology which is defined in the dictionary as "the aspect of technology concerned with the application of biological and engineering data to problems of relating to man and machine" (Webster). This relates to Kiesler's idea which he applied to building specifically and expanded it to include all tools. Most significant, however, among the precedents in which the term Biotechnique was used in art is L. Mohody-Nagy's book, The New Vision, which was the English title given to a new revised edition of his Bauhausbuch, published as part of the important series of fourteen books published by this school between 1925 and 1930. The original title was Von Material zu Architerture (From Material to Architecture) and Moholy's book was indeed encyclopedic covering a wide range of modern movements, "isms" and artists as well as a wide range of visual information, as Reyner Banham has adequately described it.[10]

Biotechnics as a method of creative activity is one heading in the general section on "materials." The fact is that Moholy-Nagy has derived the term Biotechnics from Raoul France who, in 1920 published a study--Die Pflanze als Erfinder (The Plant as Inventor) which Moholy-Nagy acknowledged and quotes as the core and basis for his (short) discussion of Biotechnics.

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France, who according to Banham was more a popularizer of scientific ideas than a scientist of standing in the field,[11] wrote that "all technical forms can be deduced from forms in nature."[12] Moholy-Nagy, as the title of this section also suggests, saw in Biotechnics, following France, a source of inspiration for human creativity and invention. Its usefulness, he wrote, was in bringing about a "more conscious approach to inventions which are generally believed to be only the results of intuition."[13] The objective, one that Moholy-Nagy shared with Kiesler, was to develop new avenues of design and creativity approaching a science. Under the title of "The Basic Law" immediately following the section on Biotechnics, Moholy-Nagy wrote:

> In all fields of creation, workers are striving today to find purely functional solutions of a technical-biological kind: that is, to build up each piece of work solely from the elements which are required for its functions. Of course, "function" means here not a pure mechanical service. It includes also the psychological, social and economic components of a given time. It seems that it would be better to use the terms "organized functional" for design. Such a design must be serviceable even to function unforeseen while it is in use.[14]

So, although Moholy-Nagy endorsed nature as a source of functional forms in a way that Kiesler, who criticized Paxton's approach, would not, we ought to acknowledge that Moholy, somewhat like Kiesler, sought an integrative new approach to design comprising several sciences and may have influenced Kiesler.

According to Kiesler, his own Bauhaus book on the City in Space was announced the year he went to America (1926).[15] This book was never published but it is clear that Kiesler was familiar with the

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Bauhausbucher, since he was a candidate to get published in that series himself. So the word Biotechnics Kiesler adopted was not his own invention, but he gave it his own definition. Thus, Kiesler's 1930 text on Correalism and Biotechnique rejected unequivocally any naive notion about imitating nature, even in search for a principle of design. His reasoning stated that

> there is a trans-world-wide difference between the building methods open to nature and to man. Building in nature is growth. Building by man is joining. Nature builds by division and multiplication. Man builds by addition.[16]

He then makes the point that a building (which he calls the "sum-total of parts--specialties, accumulation and astounding patchwork held together by the magic of artificial techniques") once built is not controlled by man, but by the natural forces of disruption that come into play and become the only way the naturalization of architecture occurs. With this point, Kiesler's early expose of Correalism ended.

Kiesler's plan for pamphlets, books on Correalism, did not amount to much in spite of the expectation he cultivated. The ten cent pamphlet, for example, also advertised Correalism at its margin with lines like: "Correalism designates articles from the pen of Frederick J. Kiesler" or "Whenever you encounter 'Correalism' connect it with the writing of Frederick J. Kiesler." The reader however had to wait until 1939 for a full and comprehensive publication under the title of "Correalism and Biotechnique," although the 1939 article was based, at least in part, on the early and very short pamphlet on the subject from which I have quoted so far.

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Kiesler published during the thirties various other articles. One was his presentation of "A Festival Shelter, the Space Theater for Woodstock, N.Y."[17] that was discussed earlier in connection with theater design. Now recall it once again since in it R. Buckminster Fuller wrote an introductory "salute" to Kiesler.

Considering the way Kiesler distinguished between the way nature and man builds the affinity between Kiesler and Fuller is not difficult to see. Contrast this to his relationship with the Bauhaus or Moholy-Nagy.

"Notes on Architecture" and the "Morphology Chart of Architecture"

I have pointed to Kiesler's "Notes on Architecture, the Space-House,"[18] subtitled "Annotations at Random" earlier, following Kiesler's tip stating that it was in this article that the term Biotechnique was first used in an article in English. The article centers on the Space House, but the specific context allowed Kiesler to relate his work in architecture to his fellow architects, pointing to the major differences between their theory and his own which is relevant in the present context. Thus Kiesler wrote:

> Architecture was always threefold: social, tectonic, structural. But Corbusier, Mies, Oud and others have started with the concept of a House; from a one family-house; or with a collective instead of a threefold architectural principle. They started with the Idea of a House: not with a unified architectural dogma. Not from Architecture as a Science. Not from Architecture as Biotechnique. (The interrelation of a body to its environment; spiritual, physical, social, mechanical.) The work of these men deals with houses: esthetic or techno-functional semi-solutions, from which an architectural principle might be deduced, if the spectator is creatively inclined. . . .

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> Opposing such "designs" I have always advocated the principle of a new unified theory first—from which new houses, factories or whatever structure it might be—results; not vice versa. That was and still is the difference.[19]

One point looms quite clearly: Biotechnique starts with the human body, interrelating it to the environment operating on several fronts: practical, physical, spiritual, social, economic. But architects' "designers" such as those Kiesler listed start with some notion, aesthetic or what Kiesler described with irony as "techno-functional semi-solutions." We recall that Kiesler was also a member of the Berlin based G magazine, and Reyner Banham pointed out that this group "seems to have regarded Moholy's 'Vorkurs' at the Bauhaus just as deplorably 'arty' as Ittens."[20] This is important and is confirmed in Kiesler's criticism. It was related to the point Buckminster Fuller made in his introductory remarks about Kiesler that were recalled earlier.

Kiesler made it clear that what he was attempting was no more than a plan for the "unified architectural principle." He also claimed that no other such attempt had been made and cited his article on the "City in Space" in De Stijl magazine as a first attempt in that direction. (This we recall was anarticle/manifesto where he used the German [invented] word "Vitalbau.") Kiesler also wrote that "architecture is no longer the expression of a single trade; it is a coordinated manifold, each unit specific in itself."[21]

The "Note on Architecture" centered on the Space House, but they were concluded by a "Morphology of Architecture" chart which the present context dealing with Kiesler's theories calls for.

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To understand the chart (p. 286), turn first to its categories. Thus, on the vertical column the character of Architecture is analyzed as a progression, from Craft through Art, Applied Art, Mechanical Art to Science. On the horizontal column the chart describes a typical manifestation, a social aspect, a constant variable, material, spirit and method of plan, construction method, and life span. The chart can be read in several ways; thus a category such as life-span reveals that the architectural morphology is examined in time. Looking at the four corners of the chart note that the core of this picture charts the progression of architecture from temporary craft to the science of time-space-continuity, which is its life-span, and therefore definitely includes a more open-ended attitude than does craft. The morphology chart of architecture implies time but does not really pick an historical angle; as a morphology chart, it is not linear but coordinated. Inasmuch as the chart pictures a linear progression, in time, each of the horizontal categories is significant if read vertically. Thus the social aspect, for instance, will point to a morphology that moves from Tribalism through Deism, Feudalism, Capitalism to what Kiesler called communalism (another of his composite words no doubt). It is Kieslerian indeed since the progression from Capitalism is to Communalism not Communism and advisedly so. Note a subtle point, the social aspect of the science of architecture resolves and fulfills its destiny in the community, since its spirit and method of plan (another category) is one of integration and unified decentralization which is what distinguishes it from Communism.

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MORPHOLOGY CHART OF ARCHITECTURE

Character	Its typical manifestation	Its social aspect	Its constant variable	Its material	Its spirit and method of plan	Its construction method	Its life span
Craft	Shelter	Tribalism	Utilitarian	Natural	Improvise	Continuous compression tension	Temporary
			Skeleton and skin, solids		Direct structural		
				Circumjacent	Simplification	Perched	
Art			Super function	Natural	Glorify		
	Temples	Deism			Indirect architectural	Compression and tension	Permanent
			Single materialed blocks	Interjacent	Composition	Rooted	
Applied Art			Shielding function	Natural and artificial	Sensualize	Viscidity	
	Residences	Feudalism	Multi-materialized piecework	Domestic and imported	Figurative		
					Conglomeration	Embedded	
Mechanical Art			Exposing function	Natural and composite	Factualized indirect structural	Compression and	
	Plants	Capitalism	Sheeting, tubing cables	Domestic manufactured	architectural elimination	subterranean	Interim
Science	Community	Communalism	Multi-purpose function	Natural and synthesize	Integrate	Continuous tension	
	Planning		Cast and mould units	Diverse pre-manufactured	Unified decentralization	Anchored superterranean	Time-space continuity

The chart can also be viewed as a progression and a display of a hierarchy, the head of which is occupied by science, in this case the science of Architecture or Biotechnique. Thus one can read the horizontal order of science as describing Biotechnique. Its typical manifestation (that is, not the only one) is community planning, its social aspect Communalism, its constant variable interestingly is multi-purposed function as well as prefabrication or Cast and Mould Units. We can better understand this idea by contrasting it with the constant variable of craft which is utilitarian--specifically, skeleton and skin solids like an Indian teepee or a hut (utilitarian and built as skeleton and skin). On the level of science the utility is a multi-purposed function, and the cast and mould units constitute its variable constants in terms of the pre-fabricated building method involved. Once again it is a convertible method, or open, because the cast and mould units can be put together in multiple forms and for a multiplicity of functions. The materials of Biotechnique are natural and synthetic, diverse and pre-manufactured. This seems to imply and invite creativity and invention. As already pointed out, there is the integrated, unified and decentralized which Kiesler listed as the spirit and method of Biotechnique. Its construction method is continuous tension and the Anchored Superterranean.

It could be useful to compare continuous tension to the construction and method of craft since both are listed. The principle of continuous tension may complement the logic of craft or applied art where viscidity and embeddedness is cited as its characteristic. The anchored

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superterranean was demonstrated by Kiesler in the City in Space which Kiesler saw as suspended from an anchor. This is not so easily understood.

Kiesler's 1925 suspended and cubical City in Space was thus cited by Reyner Banham as an example which confirms his proposition that "Cultures whose members organize their environment by means of massive structures tend to visualize space as they have lived in it, that is, bounded and contained limited by walls, floors and ceilings," that is, limited, not liberated space.[22] He then says that "architects and designers visualize 'free' or 'unlimited' space as retaining the rectangular format of walled rooms,"[23] and he cites Frederick Kiesler's City in Space as an "obvious instance."

Banham did not know that the City in Space, a "Vitalbau" and a Biotechnical model was not a macquette and form was not to be taken literally; it was neo-plastic, after all, but more than that, it was a theoretical model for a dynamic design in space/time, and was not to be seen outside Kisler's own context as Banham has done. At the same time, although intended to suggest a time-space continuity Kiesler may have failed to demonstrate it with his neoplasticist suspended structure in wood.

"Correalism and Biotechnique" (1939)

When Kiesler published Correalism and Biotechnique[24] in 1939 he was already the director of the Laboratory of Design-Correlation at the Columbia University School of Architecture. The laboratory was

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first listed in the Columbia Bulletin for Spring 1937-1938 and for the last time in the winter-spring of 1941-1942.[25] Much of what Kiesler published in the article was obviously related to what he had developed at the laboratory. In fact the whole last part of the article was a report about The Mobile-Home-Library which was "designed and built by the Laboratory of Design-Correlation under Kiesler, in association with four students."

The article, as indicated in a footnote, was based on an earlier manuscript titled "From Architecture to Life" which Kiesler prepared for Brewer, Warren and Putnam in 1930 and then the article was first read on June 6, 1938 to the Alumnae Association of MIT. Kiesler set out "to show that the perennial crisis in architectural history is due to the perennial lack of a science dealing with the fundamental laws which seem to govern man as a nucleus of forces."[26] The latter part, underlined in the original, is important because it stresses that the approach Kiesler suggested, besides being an alternative to a disparate, overspecialized, and unevenly distributed state of architecture, is anthropocentric; man is the measure of all things, biotechnically speaking.

Another principle that governs Kiesler's approach was his attempt to derive his principles from science, or those general laws that were at the foundation of many specialized sciences, not in metaphysical terms but in what Kiesler calls "work energies." He pointed out that electromagnetic forces shift from a state of integration to a state of disintegration. But he also said that: "If this general principle

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of anabolic and catabolic energies were the sole principle of existence, we would have a static, unchanging world." These two forces interchange through chemical reactions, "one for a striving always for a preponderance over the other," which creates a constant flow of variations which assure "continual formation."

It would be presumptuous to evaluate Kiesler's 1939 scientific picture of nature or to update his conception of physics. We are after all still somewhat specialized. Yet it seems that his insight into general scientific laws, which come down to a dynamic (time bound) reading of nature, in a state of continual formation, is still true and consistent with today's sub-atomic particle physics. This branch of physics views the universe as dynamic and incessantly in motion, and therefore also impossible to pin down or locate.[27] In this sense modern partical physics seems to have confirmed and augmented the picture Kiesler saw. He was of course well aware of the theory of relativity, which integrated time and gave it a physical definition.

Some of what Kiesler wrote under the subtitle "Reality and Form" is similar to what he wrote earlier (1930) about crossing the line between matter as the exterior, accessible to the senses, which we commonly call reality, and which is a representation that falls short of seeing the diverse forces of the universe. Forms, even material solids, are slow mutations of integrating and disintegrating forces. Kiesler has here provided a helpful illustration (figure 112). It is a tripartite representation of a cell, represented once as a section, based on seeing. The second representation is in the symbolic language of chemistry. The third is an electrical diagram.

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This illustration demonstrates quite elegantly how a cell, the way we see it, is only a partial representation of how it works and that chemical reactions and electric currents are just as much a part of its reality as are its visible aspects but require other sets of terms in order to make them visible. Kiesler stressed, in his caption for this illustration that the three languages or "terms" as he called them, albeit different, have a basically similar organization. This last remark can be seen as part of the science Kiesler called Correalism since it was defined as dealing with (three) interacting forces.

Kiesler then went on to make an interesting observation. He first pointed to a basic division in Biology between hereditary factors and environmental forces. Accepting and acknowledging scientific challenges to Darwin's idea that "acquired characteristics are inheritable," Kiesler said that technology, which man used to increase his chances of survival, can only be secured by education or "social heredity," as Kiesler poignantly calls it. He also made the observation that the non-hereditarian nature of technology and culture, biologically, is a natural safeguard against the interference of man with the fundamental aims of nature and that any changes made are limited to man's own lifetime but not beyond, and therefore "social heredity " education is the only way by which man can sustain his technology as an active defense mechanism. This, he said, "places deep responsibility upon those who design technological environments," since human heredity is social. Most interesting is his conclusion that this social level has a natural dynamic of its own which is a product of generations. "Thus " he wrote, "a

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contemporary chair, for instance, is the product of many generations of other tools for man to rest his body in fatigue." "This," he concludes, "is heredity in technology." Kiesler looks at culture and technology in "biological" terms, which is part of Bio-technique, or better, Correalism, its general theory.

Next, Kiesler moved in his developing argument to identify man as the center of three environmental realms or circles, as Kiesler's title for the pictographic illustration shows: a biological environment, a human environment and technological environment (figure 113). The discussion concentrates on the latter circle. Generally it is identified with tools; in other words, it is not limited to machines but is defined by Kiesler as "any implement created by man for increased control of nature."[28] Again Kiesler defined that the aim of his dissertation was to develop a branch of science that would investigate, analyze, chart and measure the direct and the indirect, voluntary and involuntary effects of technological environment upon man. This, Kiesler maintained, had not been attempted.

He talked about the study of "need-morphology." In other words Biotechnique is an inevitable critical necessity, considering the dynamics of nature and the role of technology which has to be constantly updated and always seeks to advance. Again, remember that technology as tools includes, in Kiesler's book, everything "from shirts to shelter, from cannons to poetry, from telephone to painting." The inclusion of art is important in order to understand Kiesler's ultimate notion of Correalism. Psychological factors, material matters, as well as

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art, cannot be ignored, both should contribute equally toward human survival, be it as an environmental (exterior) tool as defense mechanism, or psychological necessity. He pointed to the fact that we are deep in this technological reality marked in manufacturing" and quoted a statistic to support it; urban man spends 88 percent of his time indoors. Thus, Biotechnique is an existential natural necessity and not a luxury. This leads to the "qualitative classification of tools," the heading for the next argument.

Biotechnique, the practical design strategy that Kiesler extracted from Correalism, was intended to reform design and bring progress. Thus, Kiesler continued his argument with a qualitative classification of tools. He drew the parallel between natural processes and cultural ones, such as the development and heredity of a species, and the development of technology. Kiesler argued that a tool in the modern industrial era develops along three characteristic lines; the formation of a standard type which comes about to meet an absolute need, the variation which grows out of the standard type for auxiliary purposes, and finally a third characteristic line of development which springs directly or indirectly from one of the two foregoing types. This last group, Kiesler said, was the largest and was characterized by its lack of material efficiency, an insignificant change in design and materials.

The core of Kiesler's argument is moral; it rests on economic frugality and quality control. Therefore, the adjustments to the basic needs of society man require the elimination of the simulated. Although Kiesler did not make any such allusions, it is tempting to see in this

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description a designer's view of what a Marxist would call capitalist over production. Kiesler then moved to describe the evolution of need from deficiency to efficiency. It started with a proposition: "Since nature demonstrates her will toward mutative continuity, man's aim seems also to be: to sustain and prolong life."[29] What follows is a description of technology and tool-making as a necessary adjustment man had to make, in order to extend the powers of his natural equipment to meet the forces of a hostile environment. This last sentence is reminiscent, if not similar to McLuhan's view of all media as "extensions of the body."[30]

The invention of tools, then, created the technological environment which by growing complex and maladjusted required an investigation into the origin of this problem, followed by a redefinition of needs. Kiesler followed with an underlined conclusion which is the basis of his philosophy, namely that the "investigation on this crucial point cannot be based upon the study of architecture but must be based upon the study of man." Assuming that science was at least partially motivated by man's deficiencies Kiesler observed that the direction of man's creation is from the deficient to the efficient, and this he thought constituted a pattern. It is a pattern he divided into twelve stages: a present standard reaches what Kiesler calls absorbtion which results in inefficiency which leads to observation which yields a discovery that allows invention to come about. Here, Kiesler listed as the next stage resistance, which every new invention meets. Thus a projected need is isolated leading to a small scale production which allows for promotion

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followed by a quantity production. A new absolute need is created and once again a new standard is developed, and so on.

The illustration which Kiesler devised made the process and pattern that he described visually accessible (figure 114). The pattern that Kiesler has shown developed in time and has a direction which Kiesler marked with an arrow. The pattern unfolds along a wavy line indicating the general trend and it moves from one side of the vertical time line to the other. The wavy line crosses the vertical time scale at major junctions, each of which marks a point in time, alternating from a point of technological development where a standard is set (present standard) to the following crossing point where a new standard has evolved. Along the undulating line the separate stages are marked detailing the general trend (from deficiency to efficiency).

Kiesler gave some indication as to the length of time it takes a new invention to reach its quantity production stage, which he estimated to be thirty years, a generation. Concerning the periods of time that the pattern takes to develop, its generation, Kiesler explained that there was no abstract technological progress. The development of tools was connected to social development in history, and was a function of it, and suits particular needs. About the nature of needs, Kiesler intimated that they "are not the direct incentive to technological and socio-economic changes, as is commonly assumed. Needs evolve and that evolution is based on the nuclear character of the human structure and its environment."[31]

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The last section with its diagram and argument established a teleological pattern of development. It was therefore logical that Kiesler, as he had done, would define an ultimate need or objective which he asserted was health. At first, health as the ultimate need of man appeared as a strange proposition and trivially true. My native Hebrew, however, helped me to see in it a profound truism, since in Hebrew there is a connection between the word "health" and the word "creation."[32] The English equivalent to this insight could be found in the word recreation which is definitely an aspect of leisure as health in the broad sense and somewhat similar to what Kiesler must have meant. But he was unequivocal and clear: "The fundamental denominator, therefore, to account for the validity of any technological environment, is man's health" and "health appears to be that bodily condition in which the various materials and processes that maintain life-activity are in functional equilibrium."[33]

Fatigue is also a natural factor in human life but there is also a case of fatigue due to imbalance, which Kiesler described as inefficiency, or waste. To correct an environmental imbalance between man and his environment, environmental control is necessary.

Kiesler was not talking about the environment in the modern ecological sense but more in terms of the relationship between man and his machines or better, tools, including or perhaps starting with industrial design and architecture. Indeed a sentence that states plainly that "technological environment has not always been per se beneficial to man's health"[34] is as true today as it was when Kiesler wrote it, and maybe more so today.

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Thus what follows is Kiesler's idea that there is a need for "environmental control." As he suggested at the outset, the environment can be divided to the natural, the human and the technological. Environmental control would be, in his words, "control of the human and natural environment through technological environment." What followed was a discussion where Kiesler applied his analysis specifically to building. Describing the situation in architecture, with irony Kiesler wrote:

> Hitherto architecture has been judged from four viewpoints: (1) beauty, (2) durability, (3) practicability and (4) low cost. But these four factors have never altogether coincided in a single work. If a piece of architecture is not cheap, it is excused as being durable; if not practical it is perhaps beautiful. It would appear then that the only way to resolve these age-old contradictions, is to find one criterion which will do for all. This criterion, in my opinion, can only be health. The rest may be left to personal idiosyncrasies on the part of the consumers and producers, so long as these do not impair the essential criterion.[35]

Kiesler then moved to suggest that "form follows function" as an obsolete design formula.

> In the early twenties, there was again much loose talk about functional design. But when we examine the buildings which were then built, and the drawings which were then presented, we find that no few functions had been invented. All that happened was that, by debunking old <u>decor</u> and adding new gadgets, new forms had been wrapped around conventional ways of living. No one could define what function was. Worse still: no new building principles adequate to a new idea of environmental order had been conceived.[36]

Kiesler illustrated two comparisons offered in MOMA's "Cubism and Abstract Art" (1936, three years before his article was written) to show that modern architecture did not extend beyond art. He interpreted a visual comparison between a painting by Van Doesberg and a ground plan by Mies Van der Rohe and a second comparison between a

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painting by Le Corbusier and one of his villas as examples for the total lack of environmental consideration, and that "functionalism" was primarily a matter of "taste." He then concluded: "To find that bridge between nature and man has become the grand quest of science." "Similarly," Kiesler added, "finding the bridge between man and artificial, man-built, technological environment must become the grand quest of future building design."[37] Following this conclusion a new definition of function is suggested. Its basic assumption is that: "We cannot conceive of function as something static, else growth would cease." He also states that

> Technological environment, being part of the complex of environmental forces, must consciously contribute to the extraction and development of man's inherent possibilities into a higher order. What these possibilities are depends on the designer's ability to envision and realize them.[38]

Kiesler then stated that design has to be redefined since for the most part it is perceived as dealing with objects whereas design in the sense of Biotechnique is the orchestration of forces, not objects or forms. Nature, he said, builds by division, man by joining parts. Kiesler then proceeds with his argument to extract the raison d'etre for his construction method, continuous construction. The reasoning was as follows:

> Man-made joinings are ultimately controlled not by man but by nature. The process of disruption through natural forces becomes imminent from the very moment of joining parts. Building design must, therefore, aim at the reduction of joints, making for higher resistance, higher rigidity, easier maintenance, lower costs.[39]

An important point that Kiesler made at this stage of his discussion was his opinion that man, or the modern designer, has to accept

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the limitation of architecture and recognize as futile the ambition to build for a lifetime. This point is important to stress in studying Kiesler's philosophy and in considering his relatively small body of realized architecture and the great number of impermanent designs he made which served for a limited time.

A few other characterizations of Biotechnique were offered. Under the heading of "minimum biotechnical standards" as the objective of architecture Kiesler listed the following set of contrasts between Biotechnique and functional or traditional modern design:

> On the one hand functional design derives from the traditional behavior of any tool; on the other hand, Biotechnical design derives from the evolutionary potentialities of man. Functional design develops an object. Biotechnical design develops the human being. Functional design is oscillating. Biotechnical design is inventive. A functional object is inert. A biotechnical object is re-active.[40]

The Biotechnical attitude to design was introducted at this point as a Biotechnical minimum standard--a new angle. It was an expression of the social is not outright socialist aspect of Biotechnique, since the alternative which was based on mere architectural derivation tended to house lower-income groups in dwarf reproductions of giant villas.

The insistence on dynamism is what characterized the concluding part of this article. The hidden dynamism of nature on the atomic and subatomic level was taken as proof that much of what appears permanent and solid to the senses is in fact in constant high-speed motion.

An analogy was drawn between nature and architecture, pointing to the difference, that nature includes only animate and inanimate matter, whereas in architecture, the artificial and man-made is part of

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this whole dynamism in which culture is thus also included. Biotechnique was also the discipline or force by which the re-generative entered design, trying to apply self-criticism so as to control the degenerative which also was part of the process. Biotechnique, then, is a force of regeneration. This is important and Kiesler concluded as follows:

> The biotechnical approach has led me to the evolutionary method of design which, instead of taking its departure from prevailing commodities, employs the study of general physio-technics. This enables the biotechnician to avoid giving a mere narrative survey of phenomena, and--on the basis of a genetic account of an unfolding process--to create the necessary need-service.[41]

The Mobile-Home-Library and the Laboratory for Design-Correlation

The modest Mobile-Home-Library (figure 115) presented in the second practical part of this theoretical thesis was a test of the validity of biotechnical design. It was not only a redesign of bookshelves, but an attempt to invent or evolve something new, a new need service. The subject of book storing was chosen, according to Kiesler, because every home needs one. This was an optimistic view of society. The second reason Kiesler cited stems from his attempt to regenerate the most common tool rather than reform it. At the same time he wrote that the Mobile-Home-Library constitutes a documentation for the following statement: "Functionalism shifts the strain from the technological tool to the human being: but, here, biotechnique shifts the strain from the human to the tool."[42] But the Mobile-Home-Library following the abstract article dealing with the most comprehensive and far-reaching ideas is no doubt somewhat surprising in its modesty and its specificity and detail.

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For Kiesler the most specific and practical was just as important as the grand vision and abstract thought. And in spite of his public image as a non-building architect Kiesler never saw himself as deficient or incapable of realizing a project to the last detail. So for Kiesler it was entirely valid to test broad conceptions as Correalism and Bio-technique in a deliberately narrow model and which the Laboratory of Design-Correlation at Columbia University took under his direction.

The Laboratory of Design-Correlation was not interested in teaching architecture as much as it was meant to study industrial or product design. In fact, Columbia University's Bulletin of Information (Winter 1937-1938) listed as part of the curriculum of the School of Architecture the Laboratory of Design Correlation, in which eight units of credit for each session were offered to graduate students. The class was described as follows:

> The aim of this work is to study product-design essential to contemporary living. Designs for furniture and other mobile equipment are correlated to the requirements of the human being and his environment; they are constructed as actual pieces to be tested, measured and charted. Theoretical research is followed by practical study of actual methods of production, and of the causes of evolution and obsolescence of design.
>
> The student is enabled to use established workshops in New York City and the vicinity for investigation, as well as laboratories for technological, sociological, and biochemical research. The general objectives of the combined work of the students in this group are: (a) to define an approach to progressive industrial design; (b) to correlate design to physical and psychological needs of the human being (control of fatigue and regeneration); (c) to develop new standards for small and large scale manufacturing, in accordance with existing and projected industrial equipment in the United States.[43]

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The Laboratory of Design-Correlation, probably named by Kiesler, was described in similar terms in the opening paragraph of the second part of Kiesler's "Correalism and Biotechnique," the part devoted to the Mobile-Home-Library. Here Kiesler credited Leopold Arnaud, then the dean of the School of Architecutre and who must have supported this Laboratory. The Laboratory was practically Kiesler's own department and provided an opportunity to test and practice his ideas. In the short opening paragraph, Arnaud described its purpose: "to develop new methods of approach to building design."[44] Architecture is implied quite naturally, but the emphasis as in the Columbia catalogue was on industrial design, including a cooperative effort with existing industries, which was an important part of it. In the short introduction Kiesler mentioned that the laboratory was open to "those outside the school [of architecture] who wished to coordinate their specific knowledge in other fields of science."[45] The interdisciplinary approach was encouraged, and was part of Correalism.

The Mobile-Home Library was developed according to the biotechnical principles previously presented. Here in practice the idea of man as a nucleus of forces was brought to the fore. A correlation chart of book-storing was an illustration for this section and showed an ecroche type of naked, flayed, muscular figure, in an approaching attitude with extended arms, placed in profile, next to a schematic drawing of a bookcase (figure 116). Attached to this bookcase on its back along its side, was a scale and measurements for the variously leveled and placed shelves. The third column was devoted to terminology and the shelves

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were introduced by their names: "knee shelves," "torso shelves," "head shelves," "overhead shelves," "step shelves" and "top shelves." The names themselves made it clear that the shelves were developed as a response to the human body, its given movements and measurements.

Movement is what brings the circular element into Kiesler's Correalism chart. Kiesler charted those semi-circles (facing one way) to mark access by the hand, eye, torso, or head pivot. All of these had a formative or constitutional role in developing the tool, taking the burden off man, and thus helping to control fatigue and increase efficiency or health.

As its name indicates, the library constructed was mobile and could be easily moved from place to place. It was constructed in units which could be pre-fabricated and put together variously according to changing needs. Dust, the first enemy of books, was controlled by plastic flaps. The construction method was correlated to available manufacturing facilities and the price was competitive.

The materials used were

> chestnut wood for its strength, light weight, and warm color, steel frame for its strength and economy; aluminum end-pieces for light weight and easy stamping; inlay of sponge rubber for gripping reclining books; transparent plastic dust flaps for visibility of titles (price saving by substituting wood or metal flaps); vertical plywood panel through upper two "torso shelves" for privacy in use.[46]

The units could be easily added or removed from the steel frame, which could be expanded or contracted. The frame itself was connected to emergency support weights. These were not required for assemblies larger than two units.

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The entire Mobile-Home-Library was planned as a library-in-the-round, but could also be placed along straight walls. James Marston Fitch who wrote in his American Building about the Laboratory of Design Correlation at Columbia University as one major instance where a comprehensive redesign of tools was undertaken systematically, described the logic leading to the circular solution of the Mobile-Home-Library in the following way:

> The ideal solution would be a hollow spherical bookcase, with the user at the center and the interior radius approximately that of his arm. Other considerations would immediately modify this initial concept. The user would not want his books directly overhead nor immediately underfoot: so the sphere would be truncated top and bottom. The center of the sphere should be somewhere near eye level: so the truncated bottom would be well off the floor. To enter or leave the unit, the user would not want to climb over or crawl under: so the unit would be built in spheroid sections, like the outer surface of the cells of an orange, one of which would be omitted. But only the inner surface of the sphere would be accessible to the user when he was inside it: hence each of the sections would pivot upon its vertical axis, so that both surfaces would be equally accessible. And since capacity would vary with the needs of the individual user, each section should be complete in itself: as his library grew, he could add sections to the sphere.[47]

This straightforward and common-sense description of Correalist considerations behind the Mobile-Home-Library is charming as well as accurate. It is helpful in resisting a tendency to get caught in Kiesler's persuasive prose. Fitch gave it a supportive description, thus helping to confirm its validity outside the world of its creator. The description is interesting for the explanatory picture it draws of a man in the center of a sphere extending himself but not beyond the reach of his extremities.

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The process of design starting with man as a nucleus of forces (from the center out), recalls an earlier suggestion that Kiesler's architecture has its origins in a building tradition, thinking from the interior out. Thus there is consistency between Kiesler's theory and his executed projects, many of which were involved with interior spaces (galleries, stages, theaters). Finally, recall once again Marshall McLuhan's Understanding Media: The Extensions of Man. His emphasis was on the electric age and electronic media and that is where his most outstanding observations apply. But his provocative way of looking at media, as performing or being an extension of our body and its senses or central neverous system, is reminiscent of the way Kiesler approached and examined tools, as extensions of man, notwithstanding the differences between Kiesler's general context and McLuhan's. When McLuhan writes that, "as an extension of man the chair is a specialist ablation of the posterior, a sort of ablative absolute of backside, whereas the couch extends the integral being,"[48] this association may in retrospect illuminate Kiesler's point of view and maybe even augment our appreciation for his originality. It is this general idea and its magnitude that should be stressed over the absolute authority of the Mobile-Home-Library per se.

Kiesler stressed that the executed plan was one of many others developed at the Laboratory for Design Correlation at Columbia University.[49] The "Metabolism Chart of the Mobile Home Library" (figure 117) also looks beyond this particular piece of furniture. It foresees future development of tools to store information such as microfilm or phonetics which we now know as tapes.

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Interesting is a sentence from the caption Kiesler wrote for the "Metabolism Chart of Mobile-Home Library" which says: "The validity of the Mobile-Home-Library and its ultimate obsolescence is anticipated by placing the Mobile-Home-Library relative to the continuous development of tools for thought-communication."[50] The expression thought communication appears strange and clumsy from this vantage point, although Kiesler must have sensed the coming of the age of telecommunication and computer networks. This is what in 1939 he called: "tools for thought communication."

The futuristic vision of the chart and the scope it demonstrates, reaching across three milennia (B.C. and A.D.), is striking to the eye. The word eye is used advisedly because the visual demonstration of the theory has a strong didactic power. Kiesler knew it and used it. He used charts in texts and ventured into super-graphics. In fact, Kiesler enlarged the "Metabolism Chart of the Mobile-Home-Library" probably for a student demonstration in connection with the exhibition of the Mobile-Home-Library at Columbia. A title photograph for the Architectural Forum's 1947 article, featuring Kiesler, under the title "Design's Bad Boy,"[51] shows Kiesler leaning over and across a long stretch of paper, a roll on the floor, writing the details on this wall size chart (figure 118). It is relevant here to comment on another chart that Kiesler included in the article on "Correalism and Biotechnique." This was the "Morphology Chart of the Three Types of Technological Products" (figure 119). Kiesler chose a cutting tool, a knife, as an example. Its development was marked in this chart diagonally from lower left

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to upper right along a dark and thicker line, designating the root of the cutting knife as an expression of a need and knowledge.

The root line had offshoots which entered from the territory of knowledge, over the root line to the neighboring field of variation. These offshoots of the cutting knife into the realm of variation include such household knives as the fruit knife, bread knife, etc. However, as opposed to these two types of knives, which arrows in the chart reconnect to the root-line, other versions of knives are marked, reaching the realm of simulation. These knives are not connected to the root. Another diagonal broken line is the dividing line between the realm of variation and the territory of simulation; it is the line of education. What separates the simulated degenerative production of tools from the generative development is education or better--the lack of it. Thus, the area left of the simulated production is marked with the words: "Lack of knowledge."

The realm of variation did not only originate in the root line but had a reactive function in relation to the growth of a new standard. Kiesler suggested that the development of new standards was enhanced if less is wasted in the realm of the simulated tools.

This "Morphology Chart of the Three Types of Technological Products," demonstrating a biotechnical process, is comparable to a natural process. Kiesler contributed the following lesson:

> If we abandon the scholastic approach, the contemporary designer can learn a valuable lesson from the hen and the egg. In 1912, at the Rockefeller Institute for Medical Research, a hen's egg in process of hatching was opened. The developing chick was removed, and the tiny fleck of its

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> heart was cut out. This bit of living tissue was transferred to a solution in a test. There, protected from germs, poisons, heat and cold, and provided with never-failing supply of oxygen, sugar, and other nutrients, it lived and flourished far better than the heart cells in any living chick ever did.
>
> This experiment confirms the view that, while life comes only from life, it is also dependent on its physical environment. By changing the physical environment, life may be quickened and increased, retarded or destroyed.[52]

Two points are of interest: first the natural ease with which Kiesler drew from a biological experiment to confirm his ideas about the existence of a physical environmental factor conditioning and causing a greater rate of change. Second, is the observation that life depends also on a technological factor or, has to maintain a dialogue with technology for the purpose of survival. Correalism and Biotechnique are the sciences where these connections are studied. The biological models that the chart assumes suggest a certain degenerative tendency.

Thus Kiesler succeeded in plain, rational terms, to alert the designers to the dangers of this degenerative process to which industry (or society) has a strong tendency. From another point of view, it draws in economic considerations in the original sense; it calld for economizing principles. The latter is not unrelated to an idea Kiesler developed in a lecture about the problem of artistic creativity where he suggested that "Art is the teaching of resistance."[53] In order to reach his/her creative resources an artist has to learn "not to resist himself" but has to learn to resist falsehood, presumptuousness, mediocracy, fashions or conformity.[54] It seems that what Kiesler insisted on as necessary for the artist holds true for the designer biotechnician.

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Generally, reference is made to Kiesler's philosophy of resistance to conformity since, in art as well as Biotechnology, it points to the ever creative solution required to make art and is necessary in order to avoid industrial waste and degenerative practices in design.

This point brings George Kubler's book The Shape of Time to mind. His remarks on the history of things conclude as follows: "In place of the idea of style, which embraces too many associations, these pages have outlined the idea of a linked succession of primer works with replications distributed in time as recognizably early and late versions of the same kind of action."[55] This conclusion is similar to Kiesler's morphology chart and its pendulum change from old standard to new standard. Even the method of looking at all forms of culture as tools is similar to Kubler's historical study which can be said to have given an even more elaborate picture since it actually integrated the problems of change with the issue of creativity. Like Kiesler, Kubler was aware of time and duration. Kubler also distinguished between biological time and historical time much the way Kiesler distinguished between man's and nature's way of building. Kubler provided a retrospective confirmation of Kiesler's vision, and validated it. Both of these studies contributed toward a fresh and concrete examination of design and culture.

Another association Kiesler's "morphology chart of the three types of technological products" raises is Adolf Loos' contention that a designed object, a chair, for example, once designed perfectly, i.e., it serves its designated purpose fully, cannot and therefore ought not to be improved.

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A second idea that emerges from Kiesler's "morphology chart" is that what he has charted seems to characterize the degenerative stage of production or of consumerism in a capitalist society, although Kiesler has not made this connection and touches upon it inadvertently only by seeing the "simulated" tool, the one not based on knowledge as uneconomical.

The Laboratory for Design-Correlation did not last longer than five years. It produced basically this one published project and the Mobile-Home-Library. One of the reasons for its short life was probably due to historical circumstances. The Second World War interfered. Thus the laboratory seems to have had some success during the years prior to the war which was the time during which the Mobile-Home-Library was developed and built. But the spirit of the thirties and its industrial optimism was soon swallowed by the industry's war effort and this, it appears, marked the decline of Kiesler's laboratory. Students were drafted and industry was not available for experimentation. These factors, as important and decisive as they were, were not the only reason for the discontinuation of the Laboratory for Design Correlation.

In "Design's Bad Boy," Kiesler was quoted as saying: "Architecture today is where the practice of medicine was 200 years ago" or: "architects are like well meaning country doctors. Neither the possibilities of construction with modern materials and methods, nor the requirements of the human body and its psyche have even begun to be explored." The article described these statements as blasphemous which they were. It also added that such opinions did not help Kiesler's popularity.

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It also reported that Kiesler's charts from the period we have discussed drew raucous laughter from students who were not among the initiated.[56] Furthermore, it intimated, Kiesler's work was done behind locked doors which aroused a certain amount of resentment among his colleagues. The reason for this secretive pursuit of Correalism and Biotechnique may indicate that there was an atmosphere of commitment to a comprehensive and revolutionary method in the making, and maybe even the metaphor of initiation is not farfetched. Do not exclude a purely dramatic consideration on Kiesler's part. He wanted to conceal the laboratory's rehearsal from the public before showing the Mobile-Home-Library, mega-charts, and so on, in order to create the atmosphere of a premier which as a man of the theater he liked and enjoyed.

Kiesler gave his students at Columbia a chance to participate in stage design. He was at that time also the head of scenic design at Juilliard, which was then still located near Columbia. For Kiesler the stage and set design were a part of Biotechnique which he also applied to the theater, and as we have seen, Biotechnique may have been inspired by Russian constructivist bio-mechanical acting methods and stage design.

All of this did not seem to silence the voices of skepticism. A co-instructor in the laboratory is quoted as describing the lab's method as follows:

> If Kiesler wants to hold two pieces of wood together, he pretends he's never heard of nails or screws. He tests the tensile strengths of various metal alloys, experiments with different methods, comes up with a very expensive device that holds the pieces of wood together almost as well as a screw.[57]

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This negative criticism of Kiesler's method and mind is interesting considering the related fact that it was expressed by one identified only as a "co-instructor." It is reasonable to believe that the critic was a colleague rather than part of the laboratory staff where Kiesler was the only instructor. The criticism is harsh since it says that Kiesler creates a problem where there is none (because there is a solution) and then finds his own complicated solution which falls short of the existing one. This piece of devastating criticism seems to imply that even in the eyes of a professional his method and theory looked empty. It would be fair to admit that Kiesler with his language game had the talent to draw one into his circle of ideas and by doing so tended to compromise one's own persuasion or resistance. The truth is that Kiesler's theory requires a certain Utopian bent--idealism in both its senses (epistemological and moral). At the same time the reasoning behind the theory is metaphorical and design and culture are treated as natural phenomena. Furthermore, life is perceived as having a profound and positive purpose moving toward an end. There are, in other words, philosophical assumptions concerning the theory's ultimate purpose. This may account for the secretive attitude on one hand and the image it projected to the outsider, one of misunderstanding. But the spirituality and morality in Kiesler's theory cannot be ignored, and the work he produced in the latter part of his life can serve as a confirmation of this tendency.

In terms of Kiesler's literary craft, it is true that Kiesler drew one into the orbit of his language or terminology and one had to

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decide whether to join his language game or not. Yet words name ideas and ideas exist in nature. Thus, it is no accident that words like generative and degenerative that Kiesler used that designated originally natural processes, can quite naturally be used also as moral metaphors of cultural processes.

The Architect in Search of Design Correlation

A Correalist, Kiesler was also in the business of knowledge and information. Thus he published a series of five comprehensive articles in The Architectural Record about "design-correlation."[58] Actually the first article merely declared in large type: "The Architect in Search of . . . [underneath in small type] Design Correlation" and it promised to be "a column on exhibits, the theater and cinema." But all following issues appeared under "Design Correlation" as their sole title which seems to have evolved out of the first article. The first article, a conglomeration of notes, was mostly art criticism. There is an attempt to postulate principles, but the article is outstanding mostly in its generous and open approach to American provincial art considering Kiesler's cosmopolitan background. As the subtitle promised, there were reviews of an art exhibition, theater and cinema.

The second article was on "Animals and Architecture" where Kiesler analyzed zoo architecture and what it tells about architecture in general. The third article centered on Marcel Duchamp's "Large Glass" where Kiesler wrote that Duchamp's Glass is the first x-ray painting of space." The fourth article was directed towards prefabrication of

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folk spectacles and is basically about sound, sound-technology and its architectural implication. Finally, the last article in this series was subtitled "certain data pertaining to the genesis of design-by-light (photo-graphy)."

These five articles dealt with a variety of subjects and demonstrated an attitude which sought a comprehensive look on the field of design. It also sought to make connections between known bits of information which due to a specialized attitude were overlooked by architects.

What strikes one first when looking at the articles is the variety and kind of visual material that accompanies the texts. Kiesler was consistent in applying his resistance to conformity. This was done in a variety of ways which include stimulating visual juxtapositions, use of every kind of visual material (illustrations, photographs, photo-collages, charts), typographical means (different type-face letters), an unusual proportion between text and illustration, and of course the language itself.

Kiesler's first article was straightforward art criticism centered on a recent exhibition of works sponsored by the WPA, held both at the Museum of Modern Art and the Whitney Museum.[59] It started with a humorous observation that bordered on the sarcastic. It scrutinized a resume of one of the artists, a midwesterner, who studied art in correspondence, who found his recreation in farming, and who studied both art and economics in college, a combination Kiesler recommended to all art aspirants. The provincial biographical sketch that this man wrote was treated by Kiesler with patronizing humor. The economic predicament of the

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artist during the thirties was real and the WPA itself was a response to it.

But Kiesler only started on this almost comical note. In the rest of this section he made some observations about the regional mode of painting that was dominant among the 5300 nationwide participating artists who benefited from the WPA. Kiesler was not violently critical of the regional realism as one would expect from the De Stijl constructivist advanced artist that Kiesler was. His words were straightforward and unbiased. He suggested some criteria by which art, nationally defined, can be measured. First, geographic authenticity which was exactly what regionalism was all about. Second, the locale of the artist's subject, and the authenticity of his subject matter. Third was the method of treatment which Kiesler called "aim" and "composition." Last was technique, which Kiesler regarded as the most important. The latter criterion was important because of its sublimation of the artist's creativeness. "The stronger the artist," wrote Kiesler, "the more definitely will he arrive at his own technique of interpretation." He described a certain "arctic isolation" and interpreted these features as a true test to the creative integrity of the artists involved.

Kiesler reproduced a photograph showing Arshile Gorky working on his cubist style mural for the Newark Airport as an example for one of the three directions that he traced in the exhibition constituting major trends. Here, however, he was expressing some reservation concerning the "glorification of technic," "social romanticism" and "social criticism." If in this section dealing with paintings Kiesler was

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liberal in his critical approach, he took an outright negative position when he discussed murals, which constituted a large part of WPA projects. He seized the opportunity to analyze the relationship between painting and architecture and challenged such governmental standard setters as the supervising architect's office for the decoration of Federal Buildings. Generally, as in an earlier article dedicated only to Gorky's work for the WPA,[60] he saw as ridiculous a widespread practice by the Muralists who painted on canvas frames which then were placed on walls, a phenomenon he described mockingly as "murals without walls." He said that unlike a fresco in which the painting is applied to the freshly plastered wall, thus becoming part of the wall, here the canvas covered murals render the wall superfluous. But Kiesler did not advocate a return to fresco or mosaic but spoke in favor of a new method of mural making, not even photo-murals, but projected murals: walls transformed into pictures by means of light,[61] and it was in such directions that he hoped to see "an entirely new spirit emerging in conjunction with new social and technological intensities."[62] Such "murals" he planned for his 1928 Film Guild Cinema, where they were meant to be projected on the theater's side walls.

The article then tackled the theater and Kiesler wrote a most supportive review of theater productions sponsored by the WPA which he described as progressive, inventive, cheap to produce, and real folk theater. After the theater Kiesler discussed a film. It was a commercial, promotional film for the French auto maker Citroen, a film odyssey as Kiesler described it, called The Yellow Cruise. It promoted a vehicle

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called Auto Chenille (invented by A. Kegresse) by taking it through a torturous trip from Beirut to Peking.

Now, Kiesler from a designer's point of view first criticized this vehicle itself designed to climb mountains and travel through sand, saying it was "unfit for narrow roads and water locomotion." But he recommended the film nonetheless for its documentary value: showing the "old Asiatic building structure" or "century-old technique of theater acting," "tower-enclosed windmills, located on mountain tops and the eternal slums of Turkestan, Kashimir, Mongolia, China as well as the almost eternal sculptures of the Ming tombs."[63]

A few associations come to mind. First was Kiesler's interest in films, including the "commercial," such as "Excelsior-Reifen" by Ruttman, which he had shown in the Vienna Festival of 1924.[64] Then the slums, which were so dominant for Kiesler that he titled this review "Slums Survive." The latter is reminiscent of a story about a trip to Brazil and its newly developed capital city Brazilia that Kiesler made with a group of architects, artists and scholars in 1961. Kiesler was more attracted to the colony of workers living in shacks or slums near the vast and most ambitious construction sites than the mega-architecture of Brazilia, and his fellow travelers had to urge him to come back and join them.[65] So Kiesler's compassion and concern for the world's poor and thus the need for reform and better design was dominant.

The next item Kiesler covered in this series of various reviews was a film made by the photographer Paul Strand. Kiesler described him as an "embarrassingly little known ace cameraman," who made a film

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at the invitation of the Mexican government and who, as Kiesler wrote, "initiated long before our depression, creative work done by artists." Kiesler commented on the low budget and team work that this film successfully managed and regarded the film, titled Redes as occupying a high place in America's film annals. He said also that "its message, light-projected on a canvas screen, will reach many more thousands via the U.S.A. movies than any paint-projected mural possibly could."[66]

Interesting though not entirely surprising was his definition of the film as "light-projected on a canvas screen," a rather literal look at film and no doubt the words of a set designer who used film on stage.[67] Radical was Kiesler's comment about film being superior to the mural since a film could reach many more thousands than a mural possibly could, saying in conclusion that "Mexican and American designers might well consider whether mobile design-symbols are not a better medium for reaching the populace than static mural fixations."[68]

Following another short review of a film Amphitryon Kiesler had a section he titled "News Documents" where he reproduced three photographs. One photograph was of the machine-gunned car of Harry Pierpont with the subtitle "death in the machine age." A second photograph was of two dead people in the car subtitled "design for dying." The third photograph was of an African tribesman titled "primitive death," showing the African wearing a necklace with a skull attached to it (figure 120). These were rather provocative visual evocations, expressing the existential and transitory in life, and a moral semi-Dadaist gesture at the same time.

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To sum it all up, the first article in the series on "design correlation" sets some standards in its range of subjects, the unconventional way they are discussed and the insistence on a stimulating style in writing as well as the choice of illustrations.

The second article on Design-Correlation was subtitled "Animals and Architecture." It was a discussion of zoo design which Kiesler analyzed showing how fashionable design principles were applied to zoos with an almost total disregard for, and misunderstanding of, the animal's own needs. The examples cited and analyzed were cages, designed for elephants, in Whipsnade Zoo near London. Kiesler quite successfully mocked these cages. These cages were illustrated and discussed in an exhibition at the Museum of Modern Art in New York titled "Modern Architecture in England."[69] Organized by Henry-Russell Hitchcock, Jr., these were round cages that were appreciated for their expression of the "English temperament" departing from strict straight-line function realism. At the same time, an elephantine inclination to walk "round and round" was quoted as the reason for choosing round shapes for the cages. Kiesler, who doubted both arguments, which as he noted correctly were more contradictory than complementary, chose to disregard Hitchcock's argument about the English temperament and dispute the argument that elephants tend to walk "round and round." He said: "try to detect elephants walking 'round and round' in their natural surroundings." Generally Kiesler declared that zoos designed at that time were obsolete.

But as interesting and convincing as Kiesler's analysis of the zoo was, it seems that he considered the zoo a metaphor which fostered

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a much broader argument against pseudo-functionalism as Kiesler called it in an article devoted entirely to this problem titled "Pseudo-Funcctionalism in Modern Architecture."[70] Here, Kiesler specifically expressed his reservations about Henry-Russell Hitchcock, author of the catalogue for the show at the Museum of Modern Art, and Philip Johnson who was the museum's curator of architecture at the time, who interpreted modern functionalism as crystalizing in what they propagated as the "International Style."[71] Kiesler criticized this interpretation, saying that "Neither Mies Van der Rohe's nor Van Doesburg's cubic buildings nor the whitewash color of Le Corbusier's stucco walls were designed for sterile style stimulation."[72]

In "Pseudo-Functionalism in Modern Architecture," an article written in 1949, Kiesler attacked "functionalism" as expressed in the International Style, a style which was the opposite of much that Kiesler believed. Even more than the International Style per se, Kiesler pbjected to a formalist approach to architecture, as the following quotation illustrates:

> Modern functionalism in architecture has its roots far more in contemporary abstract painting than in the "functionalism of living." And the curved forms that are now appearing in furniture and buildings did not originate in "psychological" functionalism but in the formal idiom of surrealism. Some architects have confused geometric forms with abstraction, have taken simplicity (or planimetry) for functionalism, and called it "organic architecture." It was a stroke of luck that "abstract" simplicity fitted in with the principles of hygiene, fostered at that time by industry and labour.
>
> In reality the true functionalist will accept no standard as final. He lives through the existing standard, and by this experience becomes independent of the standard as such.[73]

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The terminology Kiesler used here was that of the "morphology of standards" he developed in "Correalism and Biotechnique."

Kiesler added a note to the section quoted. It was a reference to Alfred Barr's Cubism and Abstract Art exhibition and catalogue where in his words "two clear examples of the direct influence of abstract painting on the architecture of Corbusier and Mies Van der Rohe can be found." Kiesler wanted to support his observation that the International Style originated in abstract art and not in what he called "functionalism of living" as architecture, in his opinion, should.[74]

But not only the International Style was guilty of this "functional" fallacy. "Organic architecture," derived from Surrealism, according to Kiesler, was also guilty of the same, however different the forms it adopted were. It appears that Le Corbusier was here a prime target, although it is not clear and was not specified.

In this article Kiesler also illustrated a short schematic version of his ideas about the creative process and its dynamism moving from the old standards which became obsolete to new design standards or needs (figure 98). He called this the "Chart of Creation-mutation," illustrating the ever-changing dynamism necessary for "true functionalism." He described it as flowing from existing facts to new objectives, to a new object endlessly since, as he had indicated, "the true functionalist will accept no standard as final." This is somewhat reminiscent of what the great physicist and Nobel prize winner Niels Bohr told his students: "Every sentence that I utter should be regarded by you not as an assertion but as a question."[75] It is attitude that Kiesler

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advocated and which he shared with the world of science rejecting the static, the formal or dogmatic, in favor of dynamic change. Thus, in his words, once again

> "function" appears not as a finite fact or standard, but as a process of continuous transmutation.
> Form does not follow function.
> Function follows vision.
> Vision follows reality.[76]

Indeed, even the scientist needs the genius or vision to move science ahead, and this too is a component in the morphology of progress and discovery.[77]

One paragraph in particular expresses Kiesler's criticism of contemporary architecture, which is largely still true. It criticizes the professional aspects of architecture, from a moral point of view. It reads:

> Which of us architects dares to assume not the aesthetic but the full moral responsibility for a building? What architect has enjoyed the training that will give him sufficient understanding of the human morphology for which he is building? Architecture today is neither science, craft nor art. Measured by progress in the social sciences and in technical invention we draftsmen are still architectos auruses.[78]

Return now to the article on "Animals and Architecture." Kiesler's opinion was that "the new designs of the London Zoo, exhibited in the Museum of Modern Art in New York, are a direct adaptation of human housing patterns to animal shelter"[79] and he attributes this naive projection to the rather short history of zoos.

Kiesler also took issue with the curators of the exhibition that presented the Penguin Pond designed by Lubetkin, with its curving ramps as a starting point of modern architecture in England, and he quoted

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and illustrated Tatlin's monument for the Third International (1920) and his own plan for the Endless as precedents for the use of ramps and curvatures. Kiesler quoted Alfred H. Barr's Cubism and Abstract Art where the author suggested that Naum Gabo's constructivist sculptures were semi-architectural monuments which his pupil Lubetkin implemented in the penguin pond. Kiesler also illustrated a 1928 project for a theater by Meyerhold and Lissitzky in Moscow as a precedent for the Penguin Pool in London. Following it was a third illustration, a photo-collage of a penguin next to a poor barefoot child for which he attached the following inscription that says about both: "still competitors in sub-standard shelter." This made it clear that the analysis of zoo architecture was also largely symbolic of similar inadequacies in modern architecture and housing. As noted earlier the illustrations used in all articles of this series were provocative and included cut-outs such as the single image of the penguin and the little barefoot child pasted on the page's white background. Also, there was a photo-collage showing elephants photographed in a zoological park near Hamburg, Germany, an example of a good and new conception for sheltering/showing animals, over which a photograph of two large hands was pasted. The hands are drawing a cage around one of the elephants in the photograph (figuare 121). The caption for this collage, which is also a summation, reads: "But it is up to progressive Design-Correlation to choose between encaging or reservation fields, or as an interregnum: the creation of zoological 'parks' like this one of Hagenbeck near Hamburg, or those in Whipsnade, Canada, Africa."[80]

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Kiesler, Philip Johnson and Frank Lloyd Wright (Excursus)

Before turning to the third article in the series on Design Correlation dedicated to Marcel Duchamp's Large Glass, consider another tangent inspired by the article on "Animals and Architecture" since it raised the issue of functionalism and the International Style, as well as Kiesler's criticism of "organic architecture." In his article "Pseudo-functionalism in Modern Architecture" quoted concerning this issue, Kiesler may have referred to the architecture of Frank Lloyd Wright whose work was known under the rubric of organic architecture. This allows a brief look at the relationships between Kiesler, Johnson and Wright. Interestingly enough, in Sheldon Rodman's Conversations with Artists while turning the conversation with Philip Johnson to the relationships between Frank Lloyd Wright and Johnson, Rodman wrote:

> The inimitable qualities of Taliesin West brought us to the essential differences between Wright and Mies, Johnson's master, between the Organic and the International Style, as Johnson and Henry-Russell Hitchcock had dubbed the now-dominant aseptic cubism of the logical structuralists.[81]

In other words, these two attitudes, or styles, were described in terms similar to Kiesler's, although they were seen as disjunctive. Kiesler too saw a difference between Frank Lloyd Wright and Philip Johnson. He had great respect for Frank Lloyd Wright, the creator, the kind of respect he did not have for Johnson.

There was a great difference in character between Johnson, the practical man of action, and Kiesler, the contemplative artist and thinker, between the quick-minded Johnson, who dubbed Kiesler "the greatest non-building architect of our time," and Kiesler who resented the

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left-handed compliment and fought back, calling Johnson the greatest building non-architect. Yet Johnson owned a sculpture by Kiesler. The description of their relative standing is perhaps best described by leaving it to the wit of Philip Johnson who said: "There are about five architects in America who are interested in architecture and not in money, and Kiesler is one of them."[82] I believe that Johnson himself had no qualm to admit where he counted.

Interestingly enough the relationship between Frank Lloyd Wright and Johnson were somewhat similar to that between Johnson and Kiesler. The tension between them, or Wright's certain dislike for Johnson was possibly triggered by Johnson's unbridled tongue which described Frank Lloyd Wright as "the greatest architect of the nineteenth century."[83] This critical evaluation was given by Johnson himself as an excuse for Wright's hostility toward him. Wright, however, mounted an attack against Johnson's curatorial powers--being the curator of architecture at the Museum of Modern Art. According to Johnson, this convinced him to "practice architecture seriously." Wright, however, was not convinced by Johnson's subsequent resignation from his position at the Museum of Modern Art, and thought he had just gotten himself "kicked upstairs to an even more important job where he has more power than he had before."[84] But Wright who ultimately did not sustain his grudge toward Johnson and his charming qualities, definitely did reserve the right to distance himself from Johnson's Glass House and called it "a monkey cage for monkeys."[85]

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Inadvertently we return to the zoo, Kiesler's subject for the second article on Design-Correlation where we started our digression. It is notable that Wright used this "monkey cage" metaphor although what he meant above all was to draw a sarcastic picture. Without trying to over-interpret Wright's remark, it is amusing that architecture and the animal was the metaphor here as it was in Kiesler's analysis of modern zoos.

In 1931 Kiesler won a competition for the Woodstock Community Theater over Frank Lloyd Wright who had also submitted a proposal. Kiesler's was chosen although it was never built.[86] We know little about Wright's opinion of Kiesler. Sidney Janis related in an interview that when he visited Frank Lloyd Wright in the thirties, Wright gave Janis a hard time knowing he was a friend of Kiesler whom he regarded as a Modernist and a practitioner of Bauhaus and Le Corbusier's ideas, which he did not like.[87] We know much more however of what Kiesler thought of Frank Lloyd Wright who was his senior. We have noticed earlier that Kiesler rejected International Style "functionalism" such as Philip Johnson's as well as "organic architecture" by which he must have made some reference to Frank Lloyd Wright's school of thought if not directly to his work.

There was a considerable difference between Kiesler's European background, his Jewish cosmopolitan social liberalism and Frank Lloyd Wright's deeply rooted American midwestern, Unitarian, and democratic roots. It is also true that Wright's style and unequivocal achievement in building and writing is not easily matched. It is possible however

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to draw some parallels relevant in the present context between Kiesler and Wright. These would involve matters such as the conception of the house, the rejection of post and lintel architecture in favor of tensionism and flexibility in construction. Even their humanism and democratic dignity as well as their direct references to the ethical dimension in architecture is comparable. The notion of an organic space and the intrinsic or organic in architecture as "architecture from within outward" is also something shared by the two architects regardless of how much each actually built. Frank Lloyd Wright built his many suburban houses with the same philosophical conviction and obsession that Kiesler repeated and revised in his plans for the Endless House (although it remained only a plan). Thus, it is quite surprising to read Frank Lloyd Wright's words that could have been expressed by Kiesler. In a telecast interview in 1953 on NBC Hugh Downs, the interviewer, asked:

> What is the difference between organic architecture and conventional architecture?
> Wright: You mean structurally I imagine?
> Downs: Yes.
> Wright: You see the old post and beam construction--you can say this is the post and beam--post and beam--was all a kind of superimposition, and if you wanted partitions, they cut, and they would butt--you see--cut, butt and slash--and if you wanted tension, you have to rivet something to something and make a connection. It might give way. Well organic architecture brought these principles together so that a building was more like this--you see--it has tension--you could pull on the structure.[88]

The quotation is somewhat hard to understand since Wright used his hands and fingers to demonstrate the point. In the book from which this was quoted they were photographed and illustrated. The point sounds

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close to Kiesler's ideas about tensionist construction as superseding post and lintel. Kiesler wanted to avoid steel beams altogether and built in continuous tension, while Frank Lloyd Wright just added tension to existing building methods. Regarding the single house Kiesler and Frank Lloyd Wright had similar opinions on issues such as the inner space seen or expanding outward. Space itself was declared by both the stuff of architecture, its ultimate reality. Another answer to the following question in the same interview sums it up.

> Downs: Would you account for us some of the things which are fundamentally your own innovations in architecture?
> Wright: Well, it would be pretty tedious--a long story, too--perhaps too long for this occasion. First of all came this new sense of space, as the reality of building--then came the countenance of that new sense of space which is more or less what I then termed streamlined--that word streamlined got into the language about that time through the nature of my effort. Then there was the open plan--instead of a building being a series of boxes and boxes inside boxes it became more and more open--more and more aware of space--the outside gradually came in more and more and the inside went outside more. That increased until we had practically a new floor plan. It has been referred to always as "the open plan." That was one direct result. Then, of course, there were the structural implications which we hinted at a little while ago--of a building that had tenuity instead of a building without any, which could fall apart.[89]

The two men also had a similar sense of freedom. Wright insisted on his freedom from the academic neo-classical convention or style much the way Kiesler escaped any style or stagnant fashion. Frank Lloyd Wright, who was most prolific, was safe from being called a "non-building" architect, yet in terms of the theory involved Frank Lloyd Wright did not attempted a theory or a school of thought in the way Kiesler did. On the other hand, the abandon of buildings that Wright built

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have become an endless subject of imitation, while the spirit was not totally absorbed. In fact, Wright lamented this. In an answer to a question as to whether or not architecture in America has progressed he said:

> No, I'm afraid it has not. I think that the effects have been sought and multiplied and the "why" of the effect, the real cause at the center of the life of the thing seems to have languished. If honest seekers once mastered the inner principle, infinite variety would result. No one would have to copy anybody else. My great disappointment--it always is--is to find, instead of emulation, what I see as a wave of imitation.[90]

An attempt such as Kiesler's to create a systematic approach to what Wright called "the inner principle" was indeed the work of such an honest seeker like Kiesler who devised Design-Correlation and Biotechnique for that purpose. Furthermore, Frank Lloyd Wright, in spite of his many buildings, did not dwell too much on theory or utopia and never regarded himself as a teacher. He believed that art could not be taught. Kiesler was more inclined to theorize and teach and yet both men saw architecture ultimately as an art inasmuch as it calls for the unexpected stroke of creative genius that leads beyond mere calculation into the realm of intuition. (Intuition, however, ought to be seen as something not entirely outside the realm of reason but as highly accelerated thinking.) Kiesler's mind needed the outlet of manifesti, articles and one book, Contemporary Art Applied to the Store and Its Display. This was nothing like what Frank Lloyd Wright ever attempted and was a statement slightly more to the left politically than Wright's position.

The comparison between Frank Lloyd Wright and Frederick Kiesler reveals that both conceived of architecture along similar intellectual

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and ethical lines. In matters of construction there was no doubt an affinity in the understanding of the power of flux in architectural construction (which incidentally withstood similar tests when Frank Lloyd Wright's Imperial Hotel in Tokyo survivied an earthquake and when Kiesler's festival tent in Ellenville, New York withstood a storm). Kiesler took the more radical stand in matters of construction. He preferred the monolithic structure using cheap means including artificial materials built according to the most elegant and efficient construction methods such as continuous tension, which avoided any discontinuous joints.

Both men's careers culminated with one final architectural "match": Frank Lloyd Wright built the Guggenheim Museum in New York and ten years later in 1965, Kiesler built the Shrine of the Book in Jerusalem. When Frank Lloyd Wright died Kiesler was asked to write about Wright when Wright died, which he did. There was a certain ambiguity in his attitude toward Wright which was not surprising considering that Kiesler's work starting with his spiraling Space Stage and the Endless Theater with its circular ramps and a tensionist shell forcasted Wright's "shell" built at the Guggenheim Museum where much of what Kiesler had developed as early as 1924 was realized. Furthermore, Wright's adaptation of somewhat similar ideas late in his life marks his validation of the ideas long held by Kiesler and may help to understand Kiesler's own complex appreciation of Wright.

It is therefore interesting that Kiesler introduced his elegy for Frank Lloyd Wright as follows:

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> A new American magazine published by painters and sculptors, It Is, invited me to write on the death of Frank Lloyd Wright. I had a slight suspicion that since Wright was so much against modern art, they expected me to make an all-out attack on his Guggenheim Museum. But how much and how often can one be misunderstood by one's closest professional friends?

I think the suspicion Kiesler felt went beyond Frank Lloyd Wright's mere objection to abstract art and had to do with the Guggenheim's design and its relation to Kiesler, but Kiesler rose to the occasion and paid full homage to the great architect. What follows is what was published in It Is.

Frank Lloyd Wright

The Left Cheek

Frank Lloyd Wright, most crafty of all American craftsmen, is dead. The greatest of American craftsmen in architecture is gone to a point of no return.

*

The craftsman of unpredictable surprises in plastic architecture has failed to surprise the old standard: death. Any small talent's work can be predicted; not that of a great one. Death is average.

*

We know what the million-glass and steel boys will do--banks, church or synagogue. It is expected.

The unexpected is the genius' privilege and burden.

*

Who could predict Michelangelo as the architect of the Campidoglio.

Everyone knew what Bramante would do.

*

The Right Cheek

Frank Lloyd Wright, Anti-Christ of Modern Art, has spoken his last word in concrete.

*

Instead of a Museum he erected a Mausoleum. The building is like a warning first risen from the earth. Finger after finger winding their grip line fangs, ramps, closing in on all space.

*

There are only exits, no entries.

*

I have compassion for those who must smuggle their art in as contraband. There is no other way of access.

*

But I also have compassion for the man-of-no-compromise in his rejection of a credo to the extent of denying to a building the very function it is built for, so completely, that it is the ultimate in non-functional architecture.

*

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No one could know what Wright would do. Not even he. But we know what "they" could do to him. And they did.
April 10, 1959, N.Y.

The man who hated abstract art produced the most abstract building of our time.

Frederick J. Kiesler[91]

These commemorative words poetically sum up Kiesler's attitude toward Wright. The two men did maintain a friendship, such as Kiesler maintained with Theo Van Doesburg, for example, whom Kiesler also eulogized in print, although the "left cheek" poem ends with a strong sense of identification with the great man who was "done over" by an inferior multitude, "they." With all the criticism that Kiesler had included the dominant tone in both sides of the poem, echoes the deep sound of respect Kiesler had for this upright and principled man; an acknowledgment of his genius--privilege and burden. It is perhaps revealing to quote on that subject from George Bernard Shaw's The Revolutionist's Handbook:

> The reasonable man adapts himself to the world; the unreasonable one persists in trying to adapt the world to himself; therefore all progress depends on the unreasonable man. The man who listens to reason is lost. Reason enslaves all whose minds which are not strong enough to master her.[92]

In Kiesler's double columned poem, the "left cheek" poem is "naturally" compassionate and merciful while the right cheek is more judgmental and righteous. There is, for instance, criticism involved in the punning of "museum" and "mausoleum," and it is true that the Guggenheim's exterior is austere and even somewhat heavy.[93] Kiesler used the image of a "warning fist risen from the earth, finger after finger winding their grip like fangs, vamps closing in all space." This has ambiguous connotations. The risen fist, hand or finger is an image Kiesler liked

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and used (in his late sculpture) but the gripping fangs and the ramps "closing in on all space" are words negatively charged and run counter to Kiesler's open use of space usurping it rather than closing in on it. Kiesler could not condone an architecture that denies the very function for which a building was raised, and he saw in it a flaw in Wright's professionalism and a serious problem for artists who show in the museum, But he enjoyed the irony that resulted; "the man who hated abstract art produced the most abstract building of our time." He saw in this contradiction, in spite of everything, a sign of greatness!

In comparing the Guggenheim to a raised fist (the image Kiesler used also in his anti-taboo fig (1947) Kiesler must have sensed the expression of protest and defiance with which he also identified, and which Wright must have had in mind building, at last in New York, a city he deeply disliked. Generally Kiesler was in tune with Frank Lloyd Wright's dynamic spirit. Indeed in reply to a question about his most satisfactory achievement Wright said: "Oh my dear boy, the next one, of course. The next building I build."[94]

The double poem Kiesler wrote about Frank Lloyd Wright was an expression of Kiesler's and inventive spirit. It was a twofold construction; the "left cheek"/"right cheek" form charges it with Christian connotations and adds relational (galaxial) dynamism that was always an ideal with Kiesler. Here Frank Lloyd Wright's "image" is split and the reader is invited to view both his sides simultaneously or in sequence. This gives the poem a restless dynamism that was intended, and endows the poem with irony and ambiguity.

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Finally, as indicated earlier, both men's careers and respective philosophies can be viewed through a short comparison between the Guggenheim Museum, New York, and the Shrine of the Book in Jerusalem. Both are monumental buildings and built for the purpose of a display. The Shrine of the Book was primarily designed to display the Dead Sea Scrolls and a few other archeological findings and is well adapted to its purpose. The Guggenheim as a museum for modern art, although expressive of its content and impressive as a form, is rather difficult for its content of art which it tends to overwhelm. Yet the Guggenheim's exterior is a statement and manifests change and the extraordinary, not the ordinary, to which it tends to reduce its neighborhood. Kiesler, who described the Guggenheim as a "Mausoleum" rather than a museum, was called to build a mausoleum for the precious ancient Dead Sea Scrolls. Kiesler, believing in art as resistance, resisted the mausoleum as best he could and sought, in fact, to express rebirth and spiritual resurrection rather than monumentalize the past and death.

In terms of the general architectural strategy, Frank Lloyd Wright, who always sought to connect the exterior and the interior, meets the visitor to the Guggenheim on a heightened note exteriorly, then leads him right into the "grande rotunde" space. Kiesler's Shrine of the Book, also a rotunda, maintains a rather low profile on the outside, then leads the visitor along a subterranean cave-like passage and only then does the visitor step up into the central round space, as a climax. Finally, Kiesler built his shrine as a deliberately symbolic building, yet did not relinquish his commitment to continuous construction and

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function. Wright did not seek a symbol other than what his round, imposing building manifests by itself. His museum is basically a monolith as far as materials were concerned, whereas Kiesler showed in the Shrine that he knew all about advanced construction as well as the richness of materials and textures, and it almost seems that each followed to some extent the other's ideals.

Finally, a marginal comment on the value of the "psychological explanation." It regards Kiesler's shortness in height which has often been offered as an explanation for his philosophy and grand, ambitious vision and which ought to apply to Frank Lloyd Wright as well, since he was not much taller. In fact, the two men may have expressed a similar attitude in many respects due to this fact. At the same time there are enough differences between the two architects to discredit this line of explanation or take it with a grain of salt.

Kiesler on Duchamps and the Large Glass

The third article in the series on Design-Correlation was dedicated to Marchel Duchamp's Large Glass. It was to Kiesler's credit that he used the power of his pen enthusiastically and persuasively to promote the work of others for whom he had particular respect. Thus Kiesler dedicated an entire article to a specific work and by a living artist, Marcel Duchamp. Particularly interesting was the fact that Kiesler elected to do this within his series on Design-Correlation.

It apparently was not an easy project to realize. Thus in a letter dated May 13, 1937 that Kiesler wrote to Katherine Dreier he said:

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> After great difficulties with the editors, the photographs of Marcel Duchamp's paintings were finally printed and appeared today in the Architectural Record. I am very happy about it. I think it is a swell showing within an architectural magazine.[95]

What one may find in this quotation was a confirmation that Kiesler was specific in his way of using illustrations in the particular way he has, and that he had to fight the editors, and we learn about his satisfaction that the article was in the Architectural Record, representing the architectural establishment, offering it a challenge in an article on an artist and an idiosyncratic artist like Duchamp at that.

But it is somewhat curious indeed that Duchamp could serve a didactic purpose in a series of articles on architecture and design. For Kiesler, the Large Glass featured a new relationship between solid and space, and attracted Kiesler, the architect and the designer of the City in Space.

Duchamp's The Bride Stripped Bare by Her Bachelors Even also called the Large Glass because it was made between glass, was introduced in the following way:

> Glass is the only material in the building industry which expresses surface and space at the same time. Neither brick nor stone, nor steel, nor wood can convey both simultaneously. It satisfies what we need as contemporary designers and builders: an inclosure that is space in itself, an inclosure that deviates and at the same time links.
>
> Normally one looks through a translucent plate glass from one area into another, but in painting an opaque picture (like this) one also accentuates the space division optically. The painting then seems suspended in midair negating the actual transparency of the glass. It floats. It is a state of eternal readiness for action, motion and radiation. While dividing the plate glass into areas of transparency and

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> nontransparency, a spatial balance is created between stability and mobility. By way of such apparent contradiction the designer has based his conception on nature's law of simultaneous gravitation and flight.[96]

Kiesler referred to this dynamism in Duchamp's work as the delicate balance between mobility and stability, reminiscent of the dual terms that Duchamp himself was to call the two major types of sculptures made by the sculptor Alexander Calder, the "Mobile" and later the "Stabile."

Although Kiesler emphasized in his article formal/visual aspects of Duchamp's work (his work with glass and transparency as a totally new approach to the art of painting) he definitely did not lose sight of the subtle aspect of Duchamp's unusual art and outlook. It is not accidental, of course, that one of the photographs in the article showing Duchamp shows him lighting a cigarette while a parrot is standing on his shoulder. Kiesler described him as a "superior-sane iconoclast" and knew what he was saying. (The word superior is probably what we would call today "super," super sane, like Superman.) Calling him that Kiesler was avoiding Duchamp's classification as Dada while acknowledging the iconoclastic character of his works and his intellectual boredom with any convention, something with which Kiesler could well identify.

Introducing the work itself Kiesler wrote as follows:

> Duchamp's "Big Glass" created 1912-1923 in New York City's Fourteenth Street, known at that time only to a small group, is in 1937 acclaimed by the progressive professionals throughout the world. It surpasses in creative ingenuity any painting since the great illusion builder Seurat, anticipating as well as continuing the line of development Picasso-Miro-Dali, X.Y.Z. It will fit any description such as abstract, constructivist, real, super-and-surrealist without being affected. It lives on its own eugenics. It is nothing short of being the masterpiece of the first quarter of twentieth

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> century painting. it is architecture, sculpture, and painting in ONE. To create such an X-ray painting of space, material and psychic, one needs as a lens (a) oneself, well focused and dusted off, (b) the subconscious or camera obscura, (c) a super-consciousness as sensitizer and (d) the clash of this trinity to illuminate the scene. The glass plate cracked 1931, cutting strokes across the pane that would have broken any other composition, but not his singular masterpiece of tectonic integration. Strange for the factualist is the magic of subconscious creation with which the outburst of broken glass streaks which now veins the whole picture was anticipated by Marcel Duchamp. A preparatory drawing of 1914 (insert above) already showed radiating lines abstractly superimposed upon the reality of the main theme of the design. But it seems to me that not until the breakage had actually occurred was the cycle of perfect fusion of the subconscious image with its realization completed and the time ripe to give its message to the public.[97]

Kiesler, as early as 1937, sensed the meaning that this breakage had. Indeed, Duchamp himself, in 1956, spoke about it in quite similar terms when he said that the breakage "brought the work back into the world."[98] Kiesler went even farther and quoted Duchamp's "Capillary Tubes" the accidental lines of which were already in existence as precedent.

These "Capillary Tubes" were, of course, not drawn following the artist's whim or an "aesthetic sensibility." We know, they were made following Duchamp's "Three Standard Stoppages" which were created by dropping a thread one meter long from the height of a meter so as to create a line of chance which was marked, and finally even made permanent in the wooden templates or cliches. This is, of course, ironic since it is contradictory to chance, and the accidental nature of the template's pattern.

Kiesler once owned Duchamp's 1914 "Network of Stoppages"[99] and thus must have been familiar with the idea of design by accident.

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Concerning the accident: the glass broke in 1931 after it was first seen in a public exhibition at the Brooklyn Museum called the "International Exhibition of Modern Art" which was organized by Duchamp and his patron-collector, Katherine Dreier, who also (later) owned the Large Glass. Kiesler knew Katherine Dreier soon after he moved to America in 1926 and the Societe Anonyme even asked him "to conceive a model apartment of the future for that show."[100]

A short digression about Katherine Dreier is, in this context, not entirely irrelevant since it was probably in her circle that Kiesler met Duchamp. Thus, among the illustrations in the article there is a photograph showing Duchamp in Dreier's living room as well as a photograph of her Connecticut house seen from the outside (figure 122). The caption reads: "Treasured [the Large Glass] by Miss Katherine S. Dreier in the living room of a colonial house in the U.S.A."[101]

This double photograph figures in Kiesler's entire mode of illustration. An elegant arrow connects a "brush-painted glass picture of the middle ages," (vitrages) with the Large Glass. On its way from one to the other, the arrow crosses the photograph showing Katherine Dreier sitting in her living room, Duchamp leaning on the frame of the Large Glass (which Kiesler has cut out of the picture). Underneath this interior the exterior of Dreier's colonial house is shown and it looks like by showing the interior as well as the colonial exterior Kiesler must have meant to hint at a certain "transparency."[102]

He thus made Dreier's house a step along the arrowed line from the sacred religious image of the "medieval glass" picture "to 1920"

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or the profane where the Bride Stripped Bare by Her Bachelors, Even, marks a definite and ironic break. Dreier's house also tells ambiguously about the supportive patron of the arts who as Kiesler wrote, "treasured" the Large Glass. Considering that Kiesler and his wife Stefi were very friendly with Katherine Dreier practically from the time of their arrival in America, and corresponded with her for years,[103] it is likely that Kiesler thus also paid a small tribute to Dreier, who also helped the Kieslers financially when they first arrived in America.

Kiesler manipulated the way he put the illustrations together. For example, he cut the Large Glass out of the photograph of Dreier's living room. He left the frame but instead of the "Glass" he left a blank and reproduced the entire work separately, larger, and in perspective. A note in the article indicates that the photographs of the Large Glass were taken by Bernice Abbott for the Architectural Record "on a special trip arranged by the Author" (Kiesler).

This was only a year after the work re-emerged, Duchamp having repaired it the previous year. Kiesler must have liked the uncommon perspectival shots which augmented as well as demonstrated the perspectival ambiguity in Duchamp's Large Glass as do some other photographs taken from the other side of this transparent work.

Beyond the formal aspect, although related metaphorically to it, Kiesler's familiarity with Duchamp's profound meanings is evident in the introduction or expose he gave the Large Glass. He was well aware of its multiple levels; thus he has listed as necessary "lenses" to create such an "X-ray painting" in space, "material and psychic," (a)

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"oneself well focused and dusted off," that is, open minded and free of convention; (b) "The subconscious as camera obscura" which is an elegant way to describe the subconscious as is, on the opposite end, the description; (c) "a super consciousness as sensitizer." This mixture of super-consciousness or higher consciousness and the subconscious or unconscious and oneself as an ego-lens or vessel sounds almost Freudian in its mechanistic metaphor of the human inner workings of the mind, with the difference that Kiesler's camera imagery acknowledges with a smile that we are transmitters or sensitizers reminiscent of Duchamp's own view, the "nine malic moulds," showing men as empty vessel or mould and somewhat mechanized.

The mystical clash which Kiesler says enlightens the scene was also reminiscent of Duchamp's illuminating gas, the juice of life.

Also relating to Duchamp is Kiesler's proposal for the "model apartment of the future for an exposition of modern paintings" that he prepared upon the request of the "Societe Anonyme" and Katherine Dreier. Kiesler proposed two ways in which "painting and sculpture will contribute to the decoration of the future interior," first: by using sensitized panels which will act as receiving surfaces for broadcasted pictures; second: through "built-in 'shrines' for original masterpieces that will be concealed behind walls and revealed only occasionally."[104] Kiesler did not realize this project but has realized some of these advanced ideas later in the design for the Art of This Century Gallery (1942) where he included a "peep-show" installation of Duchamp's "Valise" shown behind a wall. This idea anticipated

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Duchamp's installation of the "Etant Donnes" (1946-1966) which also employs such a peep hole viewing method.

Looking at some other points Kiesler made about the Large Glass, two consecutive paragraphs, separated by a line but, which are related to each other, ought to be quoted rather than paraphrased before commenting on these sensible words:

> Nature distinguishes between framework and tensional fillings, both elastic and interdependent, while we build rigidly, inflexibly, lifelessly. The manner of joining parts of similar or different densities in this interdependence is tantamount to nature and to artifice. Contour design is nothing else but joint. A contour is the illusion of a spatial joint of focus. Joints are dangerous links; they tend to dis-joint (everything in nature is jointed and group of joints is form). Hence, all design and construction in the arts and architecture are specific calculation for re-joining into unity, artificially assembled materiae, and the control of its decay.[105]

Within the context of Design-Correlation, it is a clear expression of Kiesler's philosophy of form and construction. The passage was also interesting in its discussion of the "contour" perceived as an illusion of a "spatial joint of forms," or as "nothing else but joint" since it easily reads as an early forecast of the future departure from the painting convention of "figure and ground" such as Jackson Pollock would undertake ten or more years hence. Kisler developed these ideas out of observations on Duchamp's "Glass" and yet, this author's association to Pollock is not as farfetched as it may first appear.

In an article, "Another Side of Jackson Pollock,"[106] Charles Stuckey suggested that Pollock's webbed or veiled surfaces and the occasional print of his palm represent a notion about "sides," the canvas

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being a transparent skeined abstraction, joining two psychological sides. Transparency, according to Stuckey, was an issue at the time and the author quoted Pollock's work on glass as having a meaning beyond the mere technical device that enabled Hans Namuth's 1950 film documenting his painting process, but something deeper, suggesting a transparent two-sided painting or web. Duchamp veiled string stretched all over the exhibition of the "First Papers of Surrealism" is offered as an ideological precedent, as is Kiesler's "photocollage" for the issue of View dedicated to Duchamp where Kiesler inserted a picture of the "nine Malic Moulds," and the Capillary Tubes, over Duchamp's printed palm (figure 123).

In Stuckey's words:

> Kiesler's insert photograph unavoidably includes the criss-cross cracks that appear to entangle the malic moulds and their own comparatively orderly network of stoppages. Undoubtedly Kiesler intended the cracks in the Large Glass to echo the wayward lines of Duchamp's handprint and suggests that the hand and the art that it made were fundamentally the same.[107]

So Kiesler's photocollage-triptych about Duchamp in View, (which I will discussed later), as well as the commentary on the Large Glass in our article represent a notion correlating spatial (formal) and mental aspects. Indeed, Stuckey's article on Pollock follows an analysis somewhat similar to Kiesler's view of Duchamp, where Kiesler himself was featured as one of Duchamp's circle that was involved with ideas said to have inspired Pollock. The second part of Kiesler's argument about Duchamp ought to confirm this line of thought, relating this formal language to a certain content.

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> Duchamp's paintings outstanding (tectonic) achievement is its new joint-design. The ligaments of steel-or-what-not, single or double spaced, wires that are used, instead of paint strokes for contourings make wide and narrower outer and inner contours to create precise form articulation. Those heavier and lighter lines thus divide all shapes and at the same time link them!
>
> Technically they are held fast to the glass-back-surface by mastics or cooled-off white lead. That is unimportant, because you may and will invent your own mastics and the Marcel-imprint should not be omitted; but important is its spirit, guiding lost sheep and collective herd back to juicy roots embedded in nature's creative subconscious instead of encouraging them to take refuge in research statisticking.[108]

The key phrase is where Kiesler stressed as most important the spirit of Duchamp's work: "guiding lost sheep and collective herd back to juicy roots embedded in nature's creative subconscious." The artist has knowledge but is also in touch with the subconscious, as the archetypal (rooted) collective subconscious to which Kiesler makes a passing reference, talking about the "collective herd" and the "juicy" part is the sexual which is at the bottom of it all. And it is this type of connectedness with "nature's creative subconscious" which Kiesler contrasts to the "refuge in re-search and statisticking," the last word being a composite of "stitching" and "statistics." In summation, Kiesler acknowledged and admired the spirit and the intelligence of Duchamp's total endeavor which his various formal innovations served.

Kiesler then showed how Duchamp simplified the antiquated techniques of stain-glass windows with his own type of "structural painting" and by painting only on one side of the glass pane.[109] Finally, in the last page of this article on Duchamp there was a playfully and ironic appendix where Kiesler introduced to his reader architects "certain

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industrial developments to prevent breakage of sheet material and discoloring of plastic sheet materials."[110]

The irony of introducing a new kind of strong plate glass in an article on the Large Glass which broke so fatefully and meaningfully is quite clear. Along the same lines, the new transparent and 8,000 pound resistant Lucite manufactured by DuPont, a material which was also bullet-proof, may also be an ironic reference to the nine shots at the upper part of the Large Class--the section of the bride. In the illustration Kiesler inserted a picture of a young woman looking through the perfectly transparent 9-1/2 inch thick Lucite, right under the mark of the picture of the bullet shots demonstrating the material's strength. Kiesler made an earlier reference to this last section in the article related, as suggested, indirectly and ironically to the article on Duchamp and the Large Glass where Kiesler expressed the idea that:

> Transluscent masterial such as glass being used more and more in contemporary building finds its manufacturing not for commercial but spiritual reasons. [Those who think only in "practical" meanings: dollars and cents, brick and mortar, jobs and publicity--would do well to turn to the very last page of this section]. The best way to understand such painting is to look at it with closed eyes and an open mind: or with eyes wide open and the mind alive like darkness.[111]

So Kiesler contrasted the art and subtle ideas manifested in Duchamp's work, with the raw materials and their practical application such as in the international style. The added comment here, that the best way to look at the Large Glass is with "closed eyes and an open mind" or in just the opposite way, with eyes wide open and the mind

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"alive like darkness," is interesting and once again points to the sub-conscious as well as the super-conscious, mystical, content of the Large Glass.

Duchamp, in his constant effort to break away from the conventions of art, naturally fused elements from science and chronophotographs where such creations of science, as mechanical drawings were used. Golding wrote that Duchamp's

> attitude toward science was ironical and basically inimical but he realized that to create the sort of highly intellectualized art that was his aim it must be informed and enriched by references to other sources.[112]

This is also what Kiesler must have respected in Duchamp's work and it reflects on an attitude he adopted in Correalism.

Another affinity between Kiesler's philosophy and Duchamp's is perhaps best extracted from an article co-authored by Katherine Drier and Matta Echaurren, whose article on "the mathematics of space" I compared to Kiesler's work earlier (Chapter III).

The essence of the analytical reflection offered by the two on Duchamp's Large Glass speaks of the participatory element in Duchamp's art.

> The essential principles of human consciousness cannot be grasped until we abandon the psychological attitude of conceiving the image as a petrified thing or object; the result of emphasizing the external vision, which is rarely related to perception. The image is not a thing. It is an act which must be completed by the spectator. In order to be fully conscious of the phenomenon which the image describes, we ourselves must first of all fulfill the act of dynamic perception.[113]

This view is reminiscent of Kiesler's metaphor about seeing Duchamp's work with "closed eyes and an open mind." It also brings to mind

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Kiesler's "Vision Machine" which I think was meant to demonstrate the observation by Dreier and Matta quoted above.

A month after the article was published (May 1937) Kiesler received a letter from Duchamp dated June 25, 1937, sent from Paris.[114] Duchamp wrote with delight that Kiesler surprised him with his article and that he read it with great pleasure; "first the spirit (l'esprit) of the article," which was Kiesler's interpretation and the way he presented his ideas.

He also wrote Kiesler that he was grateful to him for having the determination to look at the "Glass" with such attention and for ascertaining points which only a few people know. ("Je vous remercie d'avoir bien voulu regarder le verre avec une telle attention et d'avoir fixe des points que peu de gens connaissant.") This is most important since Duchamp makes it quite clear that the spirit, style of presentation, and the very points Kiesler made were right on target. Furthermore, Duchamp then wrote that he was not sure if Kiesler had seen the Green Box, Duchamp's notes for the Large Glass or as he described it, the "manuscript" of the "Glass." He promised to send him a copy hoping that when reading through it, Kiesler would see how much sense he has actually made. Kiesler then was quite naturally in tune not only with the formal conceptions of the Large Glass but also with its spiritual and psychological foundations, or its iconography and was, generally, tuned into Duchamp's attitude. It is enough to recall that at a later time, in 1947, Duchamp entrusted Kiesler with executing a work as "art by proxy," in order to see that the two men understood each other.[115]

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(In 1942 when Duchamp came to New York he stayed with Ernst, then for three weeks with the Kieslers at 56 Seventh Avenue.)[116] Also in his letter Duchamp asked Kiesler to ask Bernice Abbott, who took the photographs for the article, to send him copies of all the photographs she has taken, and said he needed particularly one covering both halves of the "Glass" which would measure 16 inches in total. He also asked if any straight shots had been taken (as opposed to the perspectival diagonal views that Kiesler has used for his article) and summed it up: "In a word everything she could send me by way of documentation (front and back) will be welcome." This last comment is interesting because his reference to photographs taken from both sides of the glass (such as Kiesler has reproduced in his article) confirm that the glass which has one main side can be viewed from both sides although the "verso" is more important than the "recto."

Kiesler illustrated photographs taken from both sides enjoyed this particular feature of the work; transparent, freestanding, and having more than one side, unlike most paintings. Then Duchamp, in 1918, played with this pun of the transparent glass in his work titled A Regarder (L'autre cote du Verre) d'un oeil, de pres pendant presque une heure; or in English: To be looked at (from the other side of the glass) with one eye, close to, for almost an hour. Furthermore, since Duchamp applied the colors and all other materials from the back of the glass he actually worked from the back side of the picture plane which recalls Stuckey's ideas cited previously. In a letter to Kiesler, dating July 9, 1937, Katherine Dreier told the Kieslers about a letter

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she had received from Duchamp in Paris where he reported that he had received "the wonderful article on the Glass" and she added to the quote from Duchamp's letter the following comment: "I have never heard him use such praise and I am so glad--for I wrote you it was an amazing achievement."[117] This letter leaves little doubt that Duchamp more than liked Kiesler's article, and Dreier's letter confirms our own reading of Duchamp's letter to Kiesler.

So Kiesler's analysis of the Large Glass reveals important aspects related to Correalism, as much as it reveals about the relationships between the two men. Also, Kiesler's article on the Large Glass within a series about Design-Correlation is in itself a statement concerning the intellectual ambition and spirit of Kiesler's particular brand of design.

The fourth article is titled or subtitled (since the title was always Design-Correlation): "Towards Prefabrication of Folk Spectacles." Kiesler's motto claims that "scientific development of sound reproduction proves an important influence on architectural design of theaters."

At the same time and in spite of an advanced view of the architectural implications of sound and light, Kiesler was basically still very attached to the early twentieth century machine aesthetics and the large-scale, automated spectacle baptized by the earlier visionaries, particularly Gordon Craig whom Kiesler cited as a forerunner--the prophet of large spectacles, and the "automaton."

Kiesler himself had dealt with the issue, with the Optophon planned in Paris in 1925 and where sight and sound were orchestrated, automated

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and controlled into an actorless theater. Kiesler created for this article another one of his special diagrams; here he connected with lines, photographs of a stage performance (of "The Eternal Road" by Franz Werfel with music by Kurt Weill and sets by Norman Bel Geddes) to photographs of men in a recording studio with its control room captain. He had an idea of enlarging and superseding the actor with some kind of a robot which would be better seen and better suited to a large scale spectacle, and which would perform the audial functions by means of sound reproduction what we now call a tape.

He also surveyed some recent innovations in this field. Although this article is the least inspired among the five articles in the series, and is also the shortest, it still contains much. Kiesler, for example, maintained that the successful reproduction of music would substitute the need for an orchestra and a conductor located in the traditional pit, and this ought to influence the basic plan of the theater and change it. The argument is similar to his reformatory ideas about the plan of the movie theater, which according to Kiesler had to develop independently, that is, away from the theater, its stage and the traditional proscenium arch. It seems however that to this point Kiesler's vision of folk spectacles had not materialized along these lines of automation and his ideas of the total experience of vision, sound and robotica were never applied his way. If at all, it made one think of a tourist extravaganza of historical sites known as a "dans la lumier" or Mass-Rock concerts. So we have to credit Kiesler with having envisioned electronic folk spectacles and connecting these (future) spectacles

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to the new technology of sound reproduction which exploded beyond the confinement of the theater or the concert hall.

As a demonstration for the architect-designer, this article on technology and sound (acoustics included) represents an aspect of planning and design that cannot be solved on the drafting table. Thus, according to Kiesler, the architect had to correlate all aspects of such an event: technology, sociology, sound and form, and bring them together.

The last article on Design-Correlation which was a two-part article subtitled "Certain Data Pertaining to the Genesis of Design by Light (Photo-graphy)." If the previous article was somewhat uninspired, Kiesler made up for it in his last and two-part article on photography.

The articles consisted of two short introductions (one for each part) and chronologically ordered bits of information starting with Aristotle through television, to the future. Kiesler's survey was instructive, informative, and was accompanied by various illustrations of instruments, inventors and images, including some of Kiesler's own work.

The opening paragraph was characteristic:

> For the public at large photography was invented by Daguerre. For the historian, photography was invented by Wedgewood and Davy at the turn of the 18th century. For the morphologist photography is not an invention, but the result of an inevitable chain of chance discoveries.[118]

A significant idea, Kiesler quoted from William Henry Fox Talbot whom he described as "the most gifted of all photographers in transmuting chance discoveries into controlled realities," and who remarked in his

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book The Pencil of Nature (1844) "that beside the visible rays of light there might be invisible rays, he linked photography to principles of Art and Science, namely to investigate and to record permanently the invisible as well as the visible."[119] As Kiesler then remarked, these ideas were achieved ninety years later through the infra-red camera. The significance in the context of Correalism of ideas such as Talbot's, was Talbot's links made between photography, art, and science, and more, his realization that there was an invisible territory, a territory discovered later and accidentally by Wilhelm Konrad Rontgen. Kiesler described the discovery of the x-rays and later in his chronology devoted one of his two drawings to illustrate it. He was attracted to this because it demonstrated his notion of co-reality (thus Correlation), visible and invisible, static and dynamic, mechanical or electromagnetic.

It was also in this introduction that Kiesler's knowledge, interest in and insight into physics is evident. He described the discovery that the binding power of matter is electromagnetic and in motion, and that "the mechanical pattern of this action was finally found to be both wave and corpuscular."[120] That is, it behaved like a wave as well as matter "made" of particles and thus behaved also according to the laws of gravity. These references were quoted to express the contention that it was in science that Kiesler found the inspiration for his conception of Correalism, or "biotechnical reproduction." Indeed in the second part of the article Kiesler followed early reproduction methods. In this sense he looked at photography as a stage in the history of reproduction methods including their social implications. Thus the

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introduction to the first part ends with a reference to television and reads:

> When television will be technically and economically ready to be released for service, it will then reach the profession of architects and industrial designers. They in turn will incorporate in their design for individual and group shelters control of the most efficient optical and phonetical factors of telecasting. Photography will then constitute an integral part of the architectural scheme and not be a mere wall ornament as has been the framed Daguerreotype photo and its up-to-date successors.[121]

It is possible that we have not yet reached this stage, but the past development of the social/spatial role of television toward what McLuhan called the "global village"--still far from complete--supports Kiesler's early vision and his understanding of this medium as a means of reproduction function as well as a tool for learning and planning all as early as 1937. The second part ends with an appendix. It correlates three images into a sort of photograpic triptych (figure 124). On the left is a photograph of a nineteenth century room with photographs on the wall as decoration, according to the caption. In the center is Kiesler's New York 8th Street Film Guild Theater. The caption here explains that "photography in motion" as Kiesler called "the movies" require new architectural designs. On the right half of the image is a room with a television set; the second half of it is just a big question mark; in other words, Kiesler in 1937 saw television as the next mega-medium it has indeed become, but he has also admitted that the full extent of its application was still unknown.

In his last words in the article itself under an illustration of a cartoon character (which is a relative of Felix and/or Fritz the Cat), Kiesler wrote:

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> Industry will gradually adopt the progress made by the avant-garde. By manufacturing on a large scale devices for "light-design-recording" will become available to a more popular public. Still photography is already within the reach of everyone. Cine-machines are now available for amateurs. In not too distant a future tele-senders and receivers will become just as prevalent as radio amateurs. The cycle of technical creation terminates in reaching the masses. Photography is pro-social. Easel-painting remains a-social. Trespassing from one field into the other is forbidden.[122]

These words are not only in harmony with ideas and attitudes such as Walter Benjamin's, but state unequivocally that Correalist Architecture is for the masses and that Design Correlation cannot but include social solutions.

Many of these attitudes to design, including a fascination with television, were an important part of Kiesler's 1930 book Contemporary Art Applied to the Store and Its Display, Kiesler's single most important publication to which we shall turn shortly. Historically Kiesler's work was contemporary with such cardinal efforts in the analysis of film as Rudolf Arnheim's Film as Art or his A Forecast of Television, both published in the thirties,[123] as well as Walter Benjamin's The Work of Art in the Age of Mechanical Reproduction, also published in that very decade.[124]

Contemporary Art Applied to the Store and Its Display

Contemporary Art Applied to the Store and Its Display was as unusual a book in the legnth of its title, its design and typography, as it was pioneering in its attempt to engage modern art in the pursuit of modern commerce and mass marketing. The full extent of this book's

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value and unique place was not established prior to an article which appeared in 1972 in the magazine Werk[125] where this book's theoretical background and precedents were discussed and where, it it was first given the full credit it deserves.

The article exposed pre-World War I efforts particularly in Germany and its Werkbund which supported cooperation between artists, artisans and industry through education and promotion. The Werkbund directly addressed problems of sales promotion and product display. The problem of the display window was tackled in the Werkbund's yearbook of 1913 in articles by F. Naumann and K. E. Osthaus, director of the important Volkwang Museum in Hagen, founded by Henry Van der Velde, and which under the direction of Osthaus devoted much to educational exhibitions of applied arts.

This activity that was brought to a halt during the First World War was picked up with much vigor toward the end of that war when, in 1917, De Stijl was founded in Holland, and in 1919, the Bauhaus in Germany. The new optimism that prevailed among intellectual circles after that most destructive war ended, was reflected in Bauhaus and De Stijl's spirit which like the Wekbund sought to find a new formal language suitable for a modern industrial and free society. Kiesler's Contemporary Art Applied to the Store and Its Display was a follow-up of this new spirit. It was, thus, also designed or packaged in the best of De Stijl/constructivist typography with a clear and minimalist layout, lower case letters, and great linear clarity. Yet typical of Kiesler's attitude, there was no dogmatic commitment to De Stijl or

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any style. Along the various photographs illustrated Kiesler used also some of his own free and sketchy drawings which break the rigid elementist uniformity.

At the time, Kiesler's topography and constructivist layouts were far from commonplace in America. This alone cost him at the time 800 dollars which he paid out of his own pocket. He did this to get the book back into shape he originally designed, after his design was misunderstood and apparently fouled up.[126]

The book's typography and layout was reminiscent of two of Kiesler's earlier typographic efforts, the catalogue for the Music and Theater Festival in Vienna in 1924 and two years later, the more modest version published for that same exhibition which Kiesler brought to New York. It may also be compared to The Isms of Art[127] published in 1925 by El Lissitzky and Hans Arp, who were Kiesler's friends, and was designed by El Lissitzky. Even the book's prose may be compared to Kiesler's.

Recall that in the Vienna Catalogue Kiesler had printed texts in several directions and different size typefaces; this was echoed in the cover of his book where he used repetitions of the title and changes in direction such as the word "applied" which was printed five times and vertically (figure 125). On the whole, this book was a prime example of constructivist/De Stijl typography printed in America and one of the few and early authentic examples of this type of book, designed and printed in this country.

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A motto printed on its second page said: "for a sound cooperation between public, artist and industry" and this is no doubt an echo of the European precedents cited as well as the Paris 1925 exhibition of applied arts in which Kiesler exhibited his City in Space.

Following this basic motto for the book Kiesler stated in further detail and with the repetitive style of a manifesto, a foreword which says:

> This book was written because the country has been flooded with examples of poor and distorted modernism because the sudden influence of contemporary art makes it necessary to control its real value
>
> because the new beauty must be based on EFFICIENCY and not on decorative cosmetics
>
> because the established store is facing the problem of changing its front, its windows, or both, and probably its interior, too. It has no select designs and is not trained in the new art
>
> because the store window is a silent loudspeaker and not a dead storage. Its language appeals to everybody and has proved to be the most successful Esperanto for promoting merchandise
>
> and because good contemporary art will last--just as all good styles in previous periods of history have endured.
>
> Autumn 1929
> F.K.[128]

This reads like a credo written by an active member of the European De Stijl/constructivist circle. It was deeply absorbed with the optimism of the twenties, yet found in America conservatism or "poor and distorted modernism," as he described it, and which he listed as the first reason in his list of reasons for writing this book.

Efficiency, which was the only word printed in bold letters in the foreword-manifesto, was an important objective. There is no mention of functionalism. Indeed, efficiency suits the realm of economics,

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commerce and industry much better than functionalism. Finally there are the changes necessary in the store and its display window, which Kiesler characteristically and provocatively called the "silent loud-speaker," adding that the new language he envisioned was an "Esperanto for promoting merchandise"--drawing, as it were, on the international language invented by a Viennese, L. L. Zamenhof.

There was an assumption on which Kiesler's dissertation was founded that suggests that "the arts"--painting, sculpture and architecture--are the source of the "applied" arts, and it is therefore that Kiesler devoted the opening chapters to a survey of modern art. Kiesler also discussed in his opening chapter the difference between art and nature, one being static, the latter in flux, and suggested that music and film being in motion approach nature more closly because of that quality. Thus, and in spite of no specific reference to Design-Correlation, it is clear that his idea of "organization" for example as an aspect of creation common to art and nature could be viewed as expressing ideas leading to Design-Correlation.

Generally in this book Kiesler expressed his ideas in poetic rather than systematic terms which were aphoristic in character. He wrote:

> Nature has the desire to propagate herself through Man by means of art. And we, her children's children, are seeking to liberate ourselves from the tutelage of our elders and create works which nature herself was prevented from creating: Art. This is the play of the Gods.[129]

These words contain much of Kiesler's outlook, of nature, man and art; thus he can be said to have believed that man and art are the media by which nature propagates herself, or that man performs the task of

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making art for Nature which was prevented from creating art. Following Kiesler's survey of early twentieth century art, painting, sculpture and architecture, Kiesler, dwelling somewhat longer on architecture, stressed the international spirit of the new architecture which had replaced national architecture. He saw "one style for all whether it is in a work of Le Corbusier in France, Frank Lloyd Wright in America, Perret in Tunis, Oud in Holland, Vesnin in Moscow," and he believed that "the modern spirit has, and can only have, the same expression."[130]

Kiesler was as authentic a spokesman for this international modernism Stijl as any, being a member of the De Stijl in its international phase and was its most authentic and outspoken exponent in America. The international spirit of this group explains Kiesler's criticism of Philip Johnson and Henry Russel Hitchcock's notion of the International Style, since for Kiesler it was already in existence during the post-war years, and most important, was not meant to champion an international "aesthetic" or fashion, but was an expression of a certain international idealistic spirit that sought to integrate design with science and technology. In Kiesler's words once again:

> Technical improvements have conquered space and brought together nations, races, lines of longitude and parts of the earth. Physical and spiritual boundaries are disappearing. Architecture announces simplification, understanding and brotherhood.[131]

Kiesler, Wagner, Sullivan, Barlage and Garnier were the pillars of modern architecture.

Kiesler had his own idea of what he called "the style of today" and defined it as "functional horizontalism" that was developed "by

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the international group of artists that went under the name of De Stijl and their friends." His explanation of "functional horizontalism" relates that the invention of steel relieved the walls from the supporting role now given to the steel column. As an example he illustrated and described Mies Van der Rohe's famous German Pavillion for the Barcelona exposition of 1929 and listed its materials such as steel, concrete, marble and glass. Curiously, in this short survey of modern architecture is Kiesler's rather flat rejection of Erich Mendelsohn's work which he regarded as "horizontalism" used as a decoration without functional reason. (It is, incidentally, just as surprising as the high esteem in which he held the work of sculptor Elie Nadelman whom he regarded as "one of the real founders of the Cubist movement.")

Just as curious is the fact that Kiesler did not make any reference to the Bauhaus (except in a caption for an illustration of a chair by Marcel Breuer), although he took pride in the fact that City in Space was announced to be printed by the Bauhaus the year he went to America (1926) but, like a few other announced books in the series, was not published.[132] Kiesler credited Gropius, the school's founder, with having molded De Stijl theories "into an excellent method of teaching" and saw the Bauhaus rightfully as walking in the footsteps of De Stijl; thus, being a member of De Stijl did not see the Bauhaus as making a significant theoretical contribution beyond De Stijl principles. Jimmy Ernst wrote that Kiesler accused his fellow European architects of denying him his rightful place on the American scene and he quoted Kiesler saying "They sailed in on the fame of overblown Geschrei (ado) over

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the Bauhaus."[133] This was in essence what he thought about the Bauhaus and he considered its reputation out of proportion to its importance.

This short history of modern architecture leads to Kiesler's own invention of "tensionism"; in fact he regarded "functional horizontalism" as "the forerunner of the coming tensionism" and Kiesler reprinted his 1925 Manifesto about the City in Space which he first published in De Stijl magazine.

To illustrate his conception of tensionist architecture, Kiesler illustrated his "project for a department store" which he described as follows:

> anchored to the ground only at the central axis, which also contains elevator shafts, heating and cooling systems. Glass encases the entire structure. The floors are circular and built on the spiral principles of a corkscrew, so that passage is continuous from one floor to the other. Here we have the solution of one of the most pressing problems in department stores today: free equal distribution of traffic. At present there is constant congestion at those spots where elevators or escalators are located. In the structure here shown the centralization of elevators makes them much more accessible from all parts of the floor. Furthermore shoppers will often walk down several floors without realizing it because of the slightness of the incline. The store becomes practically one continuous main floor. This type of construction has been made possible by the cantilever properties of steel. Carrying out the tenets of "tensionism" in city planning, it will be joined by spans at every third floor with surrounding buildings. Such a structure is feasible today, if we eliminate this last feature and provide additional support at the periphery.[134]

This lengthy caption for the illustrated project of a department store, one Kiesler developed in Paris in 1925 (figure 44), is useful in the present context in more than one way. It brings together several of Kiesler's ideas: first, that the department store was a center of

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modern urban life and commerce and thus occupies a central place in his argument about the connection between modern art, the store in general, and the department store in particular, being a working conglomeration of commercial, social and artistic factors. Second, its design was here tensionist--anchored on its axis and connected by cables to the surrounding buildings. The design was based on the spiral and Kiesler's 1925 design of a continuous slightly inclined floor is reminiscent of Frank Lloyd Wright's Guggenheim Museum which it anticipates by some twenty years. Recall that the spiral was also the core of his 1924 Space Stage. The spiral was also a subject of another one of Kiesler's theoretical articles titled: "Notes on the Spiral Theme in Recent Architecture"[135] (see below). Indeed, the spiral fits into his dynamic view of design.

Following the survey of modern art Kiesler, in the second part of his book, discusses the bulk of his argument. "America adopts and adapts the new art in industry," it declared and it is rather clear that this book was an American book inasmuch as it set out to introduce the modernist vision to America not for art's sake but for the sake of America's economic/commercial needs. Kiesler wrote that Europe discovered America in 1492 through Christopher Columbus and America discovered Europe in 1918 through the War. In spite of some interaction, first political, then commercial, and finally in the arts, European art was known but only to a small group of an interested few. Finally Kiesler offered the proposition that "contemporary art reached the masses through the store."[136]

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A few other of his observations are elegant and worthy of quotation. He said that "through the War Europe had lost its leadership in practically everything except art. America had gained leadership in everything except art."[137] Another quotation is related to the heading of the section which opened the second part, namely (the year) 1928. It reads:

> In 1928 a new era began in American retail and manufacturing life. The modern art of the Old World started to take possession of the New World. American business discovered in it an art not only new in itself, but also new in its application as an immense selling force. Characteristically, America used it first for one great purpose: increased prosperity through increased sales.[138]

Kiesler later explained why 1928 was that important and revolutionary year for retail and manufacturing life in America. At the center was his own design for the shore windows of Saks Fifth Avenue, although Kiesler also credited R. H. Macy & Co. which "staged the first representative exposition of modern interior decoration in America" in 1927, and Lord & Taylor which staged an impressive exhibition of French decorative art in 1928. It is also relevant perhaps to mention that AUDAC (American Union of Decorative Artists and Craftsmen) was founded in 1928, an organization Kiesler joined in 1930. It included such designers as Paul Frankl, Wolfgang and Paula Hoffmann and Joseph Urban. Kiesler designed AUDAC's furniture show at the Grand Central Palace, New York, in 1930 (figure 89).[139]

The impact of Kiesler's book was probably somewhat distorted due to the unfortunate timing of its publication which almost (practically) coincided with the crash of the stock market in 1929, an event that

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had a devastating effect on commercial life in America and elsewhere. But, it may have had, on the other hand, a positive influence since: "ironically enough it was the economic depression beginning in 1929 that gave progressive design its greatest opportunity" as suggested in a text on the subjects of shops in the United States with the following explanation:

> As long as a product or commodity has sufficient sale, there is no sound reason to change the nature or appearance of that commodity. However, in the early thirties as business slacked off in all fields, a few worried but for seeing firms began to visualize how the restyling of their product might result in eye appeal and more sales.[140]

As indicated earlier, an important purpose of Kiesler's book was to introduce modern art to

> America, which does not concern itself with personal experiments in art so much as Europe does, [and] could not experiment with the new art form as l'art pour l'art. For America's industrial arts are based on mass appeal, and there was no demand from the masses for products designed in the manner.

Generally a view of America as lacking in culture was common among the Europeans in America and is reflected for instance in Marcel Duchamp's remark that America's greatest contribution to art was its plumbing and bridges. But Kiesler's attitude was less ironic and much more optimistic:

> We are gradually approaching the solution of a nation's most profound cultural problem, an art of its own. But we must not be too impatient. The new American style of art is evolving out of the chaos of older styles of other lands.[141]

The new art for the masses, Kiesler maintained, was to be that of the machine. The advocacy of the machine as a medium perfectly legitimate and suitable for the new art is an idea that was expressed

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by J. J. P. Oud in his "Art and the Machine" published in De Stijl magazine in 1917[142] and Kiesler's rather similar ideas owe something to this article. Thus, for example, Oud wrote that

> For the modern artist the future line of development must lead inevitably to the machine, . . . Not only because the machine can give more determinate plastic expression than the hand, but also from the social point of view, from the economic standpoint, the machine is the best means of manufacturing products of the present time, which will be of more benefit to the community than the art products of the present time, which reach only the wealthy individual.[143]

Kiesler expressed in his book a similar idea. Adding the American dimension and talking not of the community but of the masses when he wrote: "The expression of America is the mass, and the expression of the masses, the machine."[144] They also share the opinion that the machine has been misapplied when, according to Oud, it was made to imitate another method of production, or according to Kiesler when it was "condemned to imitate medieval handiwork on a large scale."[145]

In his own particular style Kiesler, in the chapter entitled "the ideology of the show window" asked: "What was the 'invention' of the show window of today?" and answered: "the erection of a plate of glass between the merchandise and the passerby."[146]

As the evolution leading to the modern role of the show window he listed the expanded city through new means of transportation, mass production through the machine and the fact that, contrary to the market or even bazaar, stores became permanent and in need of a design. Interesting and peculiar to Kiesler's attitude to the store was its relation to art and the avant-garde. Thus the store was regarded as a center

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of culture, a living theater of souls, and the display manager was an impressario, a man who "is a beauty specialist in merchandise" and literally "avant-garde" since, as Kiesler says, he "must be ahead of his time." Kiesler sets his imagination free describing the display manager as follows:

> This modern Caglicstro is a product of our century. He is in a constant state of development. He must be young in spirit and agile. A halt brings him under the ruthless wheels of his rivals.
>
> A display manager must always be on the qui vive. He is the first to read dozens of periodicals; he overlooks no important theater opening; he neglects no important film or exhibition. He must be able to absorb information like a sponge. There must be no limit to his capacity for knowledge.[147]

The store manager, in other words, is a sort of a scientist, since "Scientific research is creeping in everywhere in the business world." Kiesler obviously stressed information and research which, he wrote, "assures new ideas."[148]

The store manager as impressario calls for a short digression. It is quite natural that Kiesler would identify with that impressario and fashioned him according to his own attitudes and personal inclinations, which included the role of impressario. According to Lillian Kiesler, he encouraged opera singer Leontyne Price,[149] while head of scenic design at Julliard, as well as the Julliard Quartet. Jimmy Ernst, in his recent autobiography A Not So Still Life contributed substantially to our understanding of that side of Kiesler's personality, since Kiesler played that role for him:

> My initial guide through the endless nuances within that new to me and always surprising little conclave was a man

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> of small physical stature. Acting alternately like an elfish puck or a stern philosopher, he seemed completely self assured in his acknowledged role of father figure. This position could just as easily have gone to the courtly and admired Aaron Copland or Edgard Varese. But the chosen annotator and disciplining seraph was Frederick Kiesler, who took me under his wing and proceeded to fill me in, with a good measure of waspishness, on the unfolding polychronic of characters and situations.[150]

This was Kiesler the philosopher impressario, and it adds psychological information to the reader who delights in such information. He sought to bless young talent and kept interested in the work of younger artists. When he died, Robert Rauschenberg painted a tire yellow as a wreath for Kiesler's funeral and even wrote about him and made a print titled Kiesler in 1966 (figure 126).

In his discussion of the store, a great deal of attention was given to the relation between exterior and interior, just as the door to a store must also be a window to a certain extent, according to Kiesler. Kiesler reproduced some of his own (unrealized) most imaginative store front designs. One is for a "rhythmic" storefront designed not as flat but in various recesses (figure 127). Another store front uses assymmetry to attract the passerby's attention. A third storefront for a radiator company uses opaque glass tubing of neon light; thus there was an example of what it advertised (figure 128), just as his facade of the Film Guild Cinema (also illustrated in the book) was designed in black and white to advertise or sell its content.[151]

The book is rich with practical ideas and illustrations that obviously cannot all be quoted. Generally however Kiesler's experience as a set designer was one of his assets as a storefront designer since

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the use of light, the ability to design for the limited space, and props as well as backdrops all were useful means for stimulating the "audience" or customers.

One impressive design for a department store (figure 129) is an

> Elevated building. Floor free for circulation. Five elevator shafts, the central shaft leading into an open gallery. Each elevator shaft surrounded by show windows. On the tenth floor is an open-air restaurant.

This department store had interior show windows as well as an open air gallery and restaurant and was meant as a multi-purpose cultural/social center. Its construction

> utilizes a system of spanned cables and telescoped pipes that does away with the numerous columns on each floor. Through this arrangement each upper floor receives the importance of a main floor. Double glass walls. No windows. Heating, ventilating cooling; in short, the climate is regulated within the double walls.[152]

The construction that results is every floor has the importance of the main floor and is part of Kiesler's philosophy which seeks ultimate flexibility and convertability.

The building with its double glass walls was reminiscent of the shell for Kiesler's 1923-1925 Universal Theater and an institute for industrial design that Kiesler planned (figure 130) was published in a 1934 article titled "Wanted: An American Bauhaus."[153] It was indicated in the article and also appeared from the illustration that Kiesler planned a similar windowless, opaque glass, insulated building. The photomontaged illustration Kiesler has prepared showed the building inserted into a common New York block and was also striking in the way its glass facade flat and white breaks the rows of windows in the

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neighboring buildings. That way it also meant to advertise its content, much the way Kiesler intended the department store to advertise its business and a school to manifest modern art.

Kiesler's ideas and practical suggestions about show window displays and department store arrangements included a great variety of material aids (or props). These were old and new such as transparent materials, pictorial decorations, lighting equipment, ceiling and floor fixtures; all still within the realm of the expected. Kiesler showed his mercurial mind however in ideas as the "dream of a kinetic window" where the passerby could, with the help of pushbuttons control the window itself, changing its arrangement or bringing to the fore any desired item.[154]

Kiesler, as a man versed in stage design and as a correalist, sought and found the common ground between the stage and its dramatic requirements and the show windows. In the case of the kinetic show window, Kiesler listed Meierhold Tairoff and Reinhardt's ideas about the interaction between actor and audience in the theater as an idea parallel to the kinetic show window.

Finally following the principles of Design-Correlation and thus conscious of future developments of various media, including display window techniques Kiesler talked about "movies as a sales aid." They would be "sales robots," and he meant that short movies would be shown to a customer interested in a certain item, thus relieving the salesperson from this repetitive part of the job, allowing him/her to tend elsewhere. Television, although far from common at the time (1930)

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(since television was not yet mass produced commercially and developed sufficiently) was nonetheless fully envisioned already and acknowledged by Kiesler who recognized it as the medium of the future:

> Television will bring motion pictures and talkies, current events and scenes on other continents, right into your home, and turn it at will into theater, a stadium, into Paris or Peking.[155]

He wrote that television would "enlarge trading areas and permit the presentation of merchandise to an audience over a wide radius."[156] This is no doubt a prophetic expression of the television commercial. But Kiesler concentrated on television application to the store and the entirely new possibilities it would offer. Principally he wrote about the different ways television could function as a show window prop, which would offer an advanced solution to all problems of window decoration.

From the reviews of the book it was clear that Kiesler succeeded at least in his provocative title. This prompted one reviewer to say that "Mr. Kiesler's book is extraordinary in its title: it is not about 'contemporary applied art' but about 'contemporary art applied.'" He also commended Kiesler's typography as an "excellent example" of his views on design or the attempt "to achieve a perfect union between the two things hitherto segregated as 'art' and 'technology.'" This was viewed as "paradoxical yet fascinating" and the reviewer called the book: "a stimulating little book."[157]

A somewhat more imaginative and broader view was expressed in another review of the book which also, inevitably, referred to its

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typography. This reviewer questioned the technique of repetition Kiesler used in the cover of the book (fig. 125) and wrote as follows:

> He is so definitely a purist, so inalterably opposed to non-functionalism, to decoration for its own sake, that the lettering all over the binding is equally surprising. But this is niggling criticism, considering the wealth of ideas and illustrations lavished on the public. Much of what he says is obviously sound advice, much of it a matter of opinion, and a great deal nothing but forecast.[158]

In these words there is some misunderstanding and quite a bit of truth, there is misunderstanding concerning the extremity of Kiesler's advocacy of "simple" functionalism, since it was not one of Kiesler's tenets and indicated, a term he largely avoided. Thus his cover design was not functional, at least according to the view that identifies functionalism with minimalism, yet definitely effectuvem considering the attention it always received from the critics.

As to the reviewer's opinion that a great deal of the book was "nothing but forecast" it should be considered in Kiesler's case, a compliment rather than criticism, since the view of the present as dynamic and a constant subject to change is one of his assumptions. This implies the pursuit of planning which is, after all, the raison d'etre of architecture and design. It only fits, therefore, that the same reviewer would admit that

> anyone interested in the modern decorative movement will gain from a perusal of both text and photographs, though he may be at a variance with the Kiesler dogma

and finally that:

> Mr. Kiesler's own influence [beside the influence that Frank Lloyd Wright, Le Corsuier exerted on him, according to the same reviewer] should prove a debunking factor in the muddled state of modern American decorative art.[159]

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When the book was reprinted in 1938 and re-reviewed, it was said that the book was still of "considerable value for its analysis of merchandising problems and for the excellent illustrative material." But it also related that "The author's City in Space and his horizontal skyscraper designs on the other hand, seem quite as mysterious as they did on their initial appearance." The same reviewer finally expressed the opinion that "as a whole, however, the book has stood up well," and summed it up: "To have produced a pioneering study in the field of store design and to have it still useful as a guide to action is, after all, no small achievement"[160]--indeed.

It is fitting at this point of the discussion to turn briefly to Kiesler's article, mentioned earlier, about the spiral theme in recent architecture[161] since the spiral, which was one of the configurations that Kiesler used more than once in his work, is an archetypal form, common to various cultures, and one of nature's own patterns of growth and dinergetic unfolding motion.[162]

Notes on the Spiral Theme in Recent Architecture

The spiral was also a "natural" subject for Kiesler to tackle since it is a symbol which also has an infinitismal (endless) mathematical rendering and which also can be seen as the symbolic form behind the idea of infinite growth and regeneration. This article is reminiscent of the series on Design Correlation in its mixture of scientific information (such as a short survey of the various mathematical renderings of the spiral), historical fact and speculations about its spiritual meaning and the fascination the spiral possessed for many.

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Kiesler related that the physicist and mathematician, Bernoulli who mathematized the spiral-structure for the first time as the "logarithmic" law requested that the image of the spiral be engraved on his tombstone with the Latin inscription: Eadem mutato resurgo (similar to the [one] who mutated I resurrect) about which Kiesler commented as follows:

> That indeed seems to be the secret to the spiral's irresistable hypnotism continuous rebirth on new planes without losing contact with former ones. An expansion of steps without halt. Continuous motion from within its own force. Power of birth and rebirth.[163]

In addition to the mathematical information and psychological explanation concerning the spiral's uniqueness, Kiesler provided other ideas.

> Nature is manifold in expressions of spiral growth, observe the forming of spiral nebulae clusters prior to the creation of globular nuclei; witness the tendrils of the vine-leaf, the comit screw-winding of the seed-capsule of the Cajophora lateria, the inverted rolling of the leaf of Struthiopteris exactly in the configuration of the fermat-spiral (the spokes of the leaflets in perfect floral array), the Aspidium filix mas whose leaves are formed in the cochleane-shelter design.[164]

Following these examples of natural spirals Kiesler turned to tools listing a variety of them based on the spiral, such as the screw, the spring, etc. He then listed a few examples from the animal world, the fact that animals coil at rest, or the snails; solidified spiral shelter, such as the nautilus, saying

> this animal has a perfect "spiral-house" of an external symmetrical more or less closely involute, helical, chambered shell formed of two layers, the outer porcelaneous, the inner pearly (extensive and interior architects note!).[165]

The call for the architects of interiors and exteriors to note the Nautilus' specific design relates to the Endless House, its efficient

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shell as well as the natural way it accommodates its inhabitant. Kiesler went on to quote the whirlpool of water and the suction of a drain as well as the tornado as additional examples of the spiral principle in nature. He wrote that "the spiral theme has apparently a two-fold origin: the two and from" and he talked about the two forces involved, namely, gravitation and radiation, or the inward drive (centripetal) which he related biotechnically to relaxation, exhaustion, shelter and peace, and the outward drive (centrifugal) corresponding to acceleration distribution, contact and contest.

This observation is interesting since it offers a clue as to the meaning of this form and a confirmation that Kiesler regarded it not only formally but in metaphorical or psychological terms as well. Kiesler also suggested variations of this spiraling configuration such as the one he called a "double-cone-spiral-in-space or continuing the tip of a pyramidal spiral into the tip of another spiral with the result of an hour glass double spiral." He commented that the "combination of both varieties results in an endless column in space," and he adds in parentheses "If I remember correctly, Brancusi once sculpted a wooden column of similar rhythm and called it the endless column."[166]

Kiesler went on to list a few instances where nature was the source of inspiration for the architectural conception of a spiraling ascent, such as "ready made levels of mountain banks leading upward like steps." Finally he reached his titled topic directly and quoted specifically Le Corbusier and Pierre Jeanneret's design for the Musee Mondial and, of course, Taftlin's Monument for the Third Socialist International

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and his own Space Stage and Universal which and the Spiral Department Store, discussed earlier in this chapter.

His unrealized spiral plan for Place de la Concorde in Paris, a project Kiesler envisioned while there in 1925, calls for a close look since it offers a crossroad of considerations, social, structural, iconographical, all fused into a whole, which in this case is not unrelated to the location's own name and its revolutionary significance. Following a sentimental description of Place de la Concorde Kiesler wrote:

> This plaza seemed not a town square. It was a plain formed by the flow of all roads of the world leading toward Paris, open shelter to the never-ending revolt of the contemporary spirit.[167]

Kiesler wrote that the existing obelisk at the location was decorative and added that "its content did not connect" and that "The obelisk could not symbolize the spirit of 'concorde.'" Kiesler considered the symbolic significance of the place and the spiral was chosen as most suitable.

What Kiesler planned were four gigantic arches that would start near the center of the plaza and arch upward reaching out to four distant parts of the city. "Within the center thus formed," wrote Kiesler, "the spiral rests touched tangently."[168] It was a spiral narrow at the bottom and wide on top.

Kiesler wrote about this project in terms similar in ambition and scale to his Universal (1924) and stressed its dynamism. He summed it all up with the following words which can also shed more light on Design-Correlation.

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> Structurally, as can be deduced, the building is indeed "continuous" with contact or further extensions through its parobolic arches. A dynamo of continuous activities, the "endless structure" winds its way in spiral ramps, and in its power of suction and ejection becomes the very expression of a living organism rather than a solid mass of architecture.[169]

What characterizes his design method was the scope of its architectural view, inspired by various aspects of nature and applied on all levels from formal, and constructive aspects to social and spiritual ones. Culture can be said to grow out of nature in a continuum which does not allow a disjunction, a schism; and that is what correalism meant.

At this point a leap is needed toward some future developments in art that could assist in resolving some questions concerning Kiesler's attraction to the spiral. Jack Burnham who in his Great Western Salt Works argued the case vigorously for what he has called "post-formalist art," also named conceptual and/or environmental art, wrote:

> In the emergent "superscientific culture" long range decision making and its implementation became more difficult and more necessary. Judgment demands precise socio-technical models. Earlier the industrial state evolved by filling consumer needs on a piecemeal basis. The kind of product design that once produced "better living" precipitates vast crises in human ecology in the 1960s. A striking parallel exists between the "new" car of the automobile stylist and the syndrome of formalist invention in art, where "discoveries" are made through visual manipulation. Increasingly "products"--either in art or life--become irrelevant and a different set of needs arise. These revolve around such concerns as maintaining the biological livability of Earth, producing more accurate models of social interaction, understanding the growing symbiosis in man-machine relationships, establishing priorities for the usage and conservation of natural resources, and defining alternate patterns of education, productivity, and leisure. In the past our technologically conceived artifacts structured living patterns. We are now in transition from an object-oriented to a system-

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> oriented culture. Here change emanates, not from things, but from the way things are done.[170]

Kiesler is a forerunner of such a "post-formalist" attitude. First, recall that according to Lillian Kiesler, Kiesler as early as the thirties "worked seriously on ecology studies and designed many ecology charts" and "proposed to the Museum of Natural History a design for an ecology hall showing the effect of all elements on the environment."[171]

Correalism was precisely such an early attempt to offer an alternative to formalism. In architecture, what Kiesler called "pseudo-functionalism," and his notion of Design-Correlation offers exactly such "alternate patterns of education, productivity, and leisure" which Burnham cited as the purpose of the new "system oriented culture." Kiesler's "morphology chart of the three types of technological products" of 1939, part of his article "Correalism and Biotechnique," was also precisely such an effort to point to the formalist futility in its industrial manifestation and show another way. It was also relevant and interesting to mention that Marcel Duchamp's work and the Large Glass in particular, featured most significantly in Burnham's argument. Although Kiesler's discussion of this work by Duchamp does not attempt a kabalistic hermetic reading of the "Glass" as Burnham had, Kieser devoted one whole article within the series on Design Correlation to it. In the argument about a post-formalist sensibility Burnham also refers to Michael Fried's "Art and Objecthood"[172] where post-formalism and minimalism was attacked (formalism defended) and where the bulk

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of the argument centered on its inherent theatricality, a "predicate" Burnham viewed as positive, not negative. This is significant since in Kiesler's view the theater, which as Burnham commented correctly "was never a purist medium, but a conglomerate of arts," played an important part.

Finally, it is not accidental that a photograph of Robert Smithson's Spiral Jetty in the northern part of Utah's Great Salt Lake, was chosen as the cover illustration for Burnham's Great Western Salt Works. This in turn leads us back to Kiesler's article on the spiral motive.

Without further scholastic readings of Kiesler's theory, it is appropriate here to move on and take a deuteronomial look at Kiesler's views as he expressed them in his later writings, especially in his journals, published posthumously under the title Inside the Endless House (1966) and which involve the last ten years of his life.

Correalism Inside the Endless House

The late introduction of this important source of Kiesler's theories was grounded in the fact that the journals, written in the artist's last ten years of life, constitute a unit and body of thought which were related to Kiesler's earlier work, but differs from the theoretical "dissertations" followed and quoted thus far. In the journals, Kiesler, apparently for the first time, engaged in such informal writing. Only in the journals has he literally become the "author" he called himself when he first announced Correalism in 1930, as noted in the

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beginning of this chapter. His way of thinking or writing was associative. His tendency to make creative leaps was set free in the journals. On the surface the journals were a mixture of various forms, history, ideas, poems, and so on.

From a literary point of view the early Kiesler is polemical, provocative, and fond of the sound of manifestos. This developed later into comprehensive investigations such as the series on Design-Correlation and the article on Correalism and Biotechnique. In the journals, however, art is rediscoverd on a new profound level and the power of poetry is exploited. Ad Reinhardt, who knew Kiesler, commented that Kiesler "mixed things up." This was in reference to his (own) marathon slide-show lectures where he showed a pull of an associative chain of many slides that were shown in silence. A short comparison between Reinhardt and Kiesler is instructive in the present context due to their moral/spiritual affinity, a righteous anger, and ethical austerity.

Reinhardt also quoted one of Kiesler's Kraussian aphorisms--"the waiting room of art is full of people."[173] It is humorous, but Reinhardt was probably attracted to it because it is also a metaphor of an almost Kafkaesque sound. But Kiesler, who was more generous with words than Reinhardt, was proportionally less hermatic and austere. Yet both were purists, sharing the view that art is unattached by definition, eluding all constriction and positive definition. Reinhardt, however, felt that art reaches purity through its self-imposed reduction whereas Kiesler was thinking correalistically and felt compelled to address

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questions of total design, art and industry, technology and science. This was part of his social concern as an artist, although in his late years there was a certain sense of disillusionment and a return to art as art. Now a look at Kiesler's journals.

This quote is from an "Epilogue I"--one of four epilogues which follow an entry about Giotto and the Church of St. Francis in Assisi that Kiesler visited in 1960. These lengthy epilogues, written in elevated prose, constitute one of Kiesler's clearest and most inspired discourses on Correalism. It starts with a poetic reflection in short lines about the church and its architecture, which, incidentally, adds a dimension to what was said previously about the spiral design for Place de la Concorde. It reads:

> The total bulk of St. Francis' sanctuaries rises like a pyramid,
> upside down, from a toe point spreading its arms wide
> wider
> and
> wider
> ever-ready to embrace
> the promised heaven.
> Or hell.
> A life devoted to charity, poverty and obedience is impervious
> to earthly concepts of suffering.[174]

The poetic speculation on the architectural symbolism and meaning of the the architecture of the church: heaven and hell, above and below, and the name of St. Francis led to the thought that St. Francis' life of devotion and chastity may be impervious "to earthly concepts of suffering." Kiesler rhetorically questioned and challenged the saint's legacy and the relevance of his life and teachings. Following this short poetic introduction, Kiesler switched to a prosaic discussion which opened as follows:

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> What validity, if any, have his [St. Francis'] postulates today? What are the assessments of Francis of Assisi's assets now? Are they old hat, just hates of prosperities of past centuries, relics of mysteries of old religions?"

This challenge, then, is a personal and intellectual question about spiritual relevance and meaning:

> I want to know the motives of my actions, of my forays and retreats, my indifferences. I want to find an alphabet for deciphering the unknown. What is the bread of life if I am the knife?"

Kiesler answered as follows:

> What force is the yeast that makes it grow and give food to the hungry? Everyone has the spark of creativity. Man has to stop being an object. He must become an objective by insisting on his freedom of choice. It is that urge that life has to satisfy, otherwise futility is brutal in its persistence.[175]

In other words, a man, in order to extract a meaning in his life, has to assert his free choice through creativity and thus fight futility's "brutal persistence." The metaphor of bread, the knife, yeast and the growing of food for the hungry represents a Correalist design which as such begins with matters of survival or what Kiesler called health. But survival has to be heightened and given a meaning, through creativity and a personal liberation through the exercise of freedom and choice. The moral dimension is perhaps symbolized by the knife (which was also the object that Kiesler has chosen as the subject of one of his "morphology charts," but, here, the artist identified himself with it ("What is the bread of life if I am the knife") as that tool which, if you wish, makes a clean-cut, a clear moral choice.

In what followed Kiesler related his ideas to St. Francis and his devotion to chastity, poverty, and obedience. Kiesler, then pondered

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on poverty, concluding that it should strike us as an odd ideal for all mankind considering its inherent suffering, explaining, "Not poverty by neglect, for the whole globe would then consist of nothing but beggars, hungry and pestilential." He then went on to offer his own relevant interpretation of St. Francis' teaching about the virtue in poverty, giving it an environmental and economic interpretation as "a way of living in unison with whatever changes occur by environmental forces and without the intent to profiteer beyond the balance of one's own needs."[176]

So the essence of the first epilogue which took St. Francis as its starting point was a relevant interpretation of his teachings. Kiesler summed it up: "Poverty is the wisdom of self-restriction. Yet, to limit our idea of profit is the basis of chastity and obedience."[177] Insofar as Christianity, as a value is invoked it leaves little doubt that there is a clear ethical dimension to Correalism. Humanity's common good is its ultimate purpose and goal.

Kiesler then went on to write about art:

> The phenomenon of art is the inventor of a reality which we don't find in nature. It is the only road to truth with the sensuousness of life. There is no yes or no. It is. Accept the term "art" or not; old-fashioned, debased; nevertheless it grows out of that extrasensory perception now in disgrace with magicians of our daily mechanics. It is the constant link between the known and the unknown. It grows out of an inborn instinct, unites with the intellect, and creates the directives for a man-made world. A marriage of mutations.
>
> The gulps of milk presuppose the hot rod of the steer, the milk nourishes my blood and the blood feeds the energies of my brain. The evolving dream is as practical as excrement of the bread eater and digested. The dynamisms of diverse entities lose their identity when they integrate or

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> disintegrate. They are equal in power to the flow of life and death.
>
> How shallow are terms, words, compared to the instantaneous fourth-dimensionality of instinct, gradually being reduced by our limited sensory perceptions of a three-dimensionality to two dimensions, and finally to a flat calligraphy of writing or the stroke of a brush. To the one-dimensionality which naturally fails the grip of physical reality. It is not the measure of depth that we are seeking, but the stenogram of the surface.[178]

This passage, quoted in its entirety, is one of Kiesler's most authentic expressions not only of art but of his world-view, his outlook on the world and his entire philosophy, or weltanschauung. Art "old-fashioned debased" is here revived, given a broad definition and a new mission, such as to link the known with the unknown, to create a dream reality. Here Kiesler applied his creative mind and reverses the image of art as dream--a cliche, and stated about this dream the following: "The evolving dream is as practical as the excrement of the bread eaten and digested." This line, worthy of the medieval poet Jacques Villon, is a profound idea, not a mere Dada gesture. Art and its dream world is natural, even practical, a matter of survival. It expresses a philosophy that views the natural and cultural as subject to the same universal law, and the artist and scientist are both looking for that law. Kiesler gave some important clues about the law he had in mind when he confessed: "I want to find an alphabet for deciphering the unknown."[175] This comment is most interesting since such a code of letters is at the foundation of the hermetic (occult) sciences.

In the introduction to his excellent translation and interpretation to The Sepher Yetsira (The Book of Creation) Carlo Suares writes as follows:

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> I begin our study by saying that the Qabala is a science and that the Sepher Yetsira is a precise and accurate treatise on the structure of cosmic energy, written in a hidden code. This should not be a surprise; all the physical sciences are nowadays written in cipher codes. If the code referring to the letters E, M, C was unknown, Einstein's equation, $E = MC^2$, could not be understood. The mystery of the Qabala is simply due to the fact that the cabalists are not aware of what its language is, and to their ignorance both of the analogical mode of thought characterizing this language, and of the necessity of connecting this text with modern scientific research, instead of with the archaic stages of a science. In this they are like people who call themselves great physicians because they spent their time studying Archimedes, or mathematicians because they know Euclid by heart.[180]

So Kiesler's desire to find the alphabet to the unknown is exactly what the occult, hermetic sciences are all about, as opposed to religion or even the cabalists who Suares ridiculed and spelled with a C, not the Q, and advisedly so, criticizing their pseudo-scientific posture, and anachronism. Kiesler, who was not involved directly with the occult sciences, and could not be interpreted tightly according to such a model the way Jack Burnham interpreted Duchamp's Large Glass convincingly, was, in my opinion, nontheless close in spirit. His intuition and broad knowledge of various "sciences" led him however to search and research for the science of sciences he called Correalism, and which connects all reality, not only physical (material) reality. Thus in the above quoated section on art Kiesler wrote that: "The dynamisms of diverse entities lose their identity when they integrate or disintegrate. They are equal in power to the flow of life and death."

This quotation which follows immediately after the quotation on the dream (as equals in "practicality" to any body function) shares

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the same Correalist fusion of the so-called material world "incarnated" (an entity) and the rest, or death.

When Kiesler says "It is not the measure of depth that we are seeking but the stenogram of the surface" he is confirming the phenomenological boundaries of his Correalist search for an alphabetical cipher of the unknown. One may wonder, however, how a passage on art ends without any reference to the Endless as infinite. This problem is met by a few lines that read:

> I shall never accept the effigies of a life on the surface, instead of a life born of infinity and sustained by our creative imprint.[181]

In what followed in Kiesler's first Epilogue, there was confirmation of all of these high minded notions, the hermetic picture of a world that science, in the broadest sense, would eventually confirm. "Scientists do not need to assure us of immortality; sooner or later it will be a fact."[182] What followed was somewhat different, lighter in tone:

> The only question we still have to face is: what is the purpose of life? What is its content? Because "that bit" of information is not given to us, we have to invent it.[183]

The necessity or privilege to invent the meaning of life, then, is the other side of the almost deterministic objective picture that Kiesler often painted. Yet he always left an opening a place for action-choice, free will and experience. Thus, the following section is characteristic of the entire epilogue, although it is partly written in plain prose, not elevated prose:

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> Man's greatest invention has been constant since the beginning of time: the idea of immortality. However, no man can evolve an idea which isn't concocted by forces of the universe itself and is put into us as computers of human visions. Because we are made of the same stuff the cosmos is made of. We are only one of those infinitesimal particles of totality unknown to us, but sensed with certainty. Unless we resist wisely, we are only instruments of cosmic will, disguised with the sweet icing of progress. The issue which provided for us as individuals goes only as far as the carpet on which the toys are laid out for us to play with. But beyond the carpet remains the abyss of torment; the eternal "law of uncertainty."[184]

Important is the concept of resistance through which humanity acts with free will to resist the "sweet icing of progress." The interpretation of St. Francis' teachings in ecological terms offers one such idea of resistance.

The epilogue in its entirety is, as I said, powerful and an inspired piece of elevated prose.

The idea of correalist interconnectedness is stressed thoughout.

> Every detail seemed to be bound to a wider world, a world of infinite links.
>
> Bound to links.
>
> Links after links, links and links and links . . .
>
> What are they? How do they hold me and the world together? Magnetic rings?
>
> Or arrows shot through space, piercing everything without pain?
>
> Are they locks whose keys are indivisible to man?
>
> Or waves
>
> Thrown at you by natural forces,
> Whenever they feel like it,
> To embalm you and then go on to other plays in infinite space?
> Now, it seems to me
> We live a life of links.
> A life of infinite links.
> All and everything bound together.
> There is no escape from this prison of cosmic love.[185]

Kiesler looked for a better world, a world of Correalist cooperation.

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> What a hallelujah that will be!
> All notions, the blacks, whites, pinks, and yellows will finally agree to pool their resources, gold and silver and all the ores of their energies to dedicate themselves to the final solution of these miseries and vow to stay with it until it is achieved.
> This is the spirit of St. Francis.[186]

There is no doubt a prophetic spirit of almost Biblical dimensions in Kiesler's vision of a better day.

But Kiesler, like any prophet, was well aware of the dire present:

> Reckless progress reveals one of the incarnations of the devil. It is the devil who should have been crucified--not Christ--without resurrection; and we can still do it before it is too late; that is, before he takes over not only this earth but all outer space. What are we waiting for?[187]

Although he was for technology and progress, Kiesler was violently angered by reckless progress which he saw as an incarnation of the devil himself. ("Progress Is the Devil" he titled one of his late sculptures.)

The first epilogue ended with a sense of frustration, however:

> Confess, you and I, we all are caught in the middle of this squeeze
> between the lilliputs of science and the golems of technology
> we are breathing heavily in the oxygen tent of our civilization.
> What are you, citizens of the world doing about it?
> What am I
> Damn it.[188]

Epilogue II, which followed Kiesler's correalist interpretation of St. Francis is a break in the continuity of the subject. It was written in prose and in praise of Michelangelo's Last Judgment that Kiesler visited on October 17, 1959. In the journals Kiesler described his admiration for this work in the Sistine Chapel which he at over seventy years of age, saw for the first time in his life. There was

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no mention or reference to Michelangelo's earlier work in the same chapel, the ceiling; only the Last Judgment was discussed, and in the journals a sketch Kiesler made with the imposing figure of Christ in judgment was illustrated (figure 131):

> Surprise at the resemblance of the form of its huge fresco wall to the shape of the biblical tablets of the Ten Commandments held up by Moses on Mount Sinai.
>
> Exactly the same double page, an open book, here at the Sistine Chapel. The wrath of Christ admonishing the praying mantises in front. Gestures of deep scorn like those of Moses repeated in the person of Christ. No more is he the forgiver, but the punisher.[189]

It seems that this experience was recalled at this particular point because it complements the curse with which Kiesler has ended Epilogue I, and where he expressed his frustration over the fallen state of human affairs. Thus the old testament wrath of Moses and Christ's last judgment was Kiesler's consolation. Kiesler, of course, identified with Michelangelo who like himself was a sculptor, architect, painter and poet who focused on sculpture, like Kiesler in the latter part of his career. But it was Michelangelo the painter for whom he offered here all praise, though (he) "was only an amateur painter,"[190] a comment Kiesler added with irony. It is relevant to note that among Kiesler's late works there is a Last Judgment.

The following two epilogues, III and IV, had subtitles clarifying that correalism was indeed their specific subject; the first (Epilogue III) subtitled "The Correalism of Nature"; the second (Epilogue IV) "The Correalism of the Plastic Arts." This supports the contention that the first epilogue albeit written in elevated prose was devoted to Correalism and may have even inspired the others.

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From "The Correalism of Nature" we learn first that Correalism was more than a strategy for design and art but was a science that derived its inspiration from nature and the human ambition to understand it. Specific sciences were therefore referred to as limited, and Kiesler wrote that "scientists are segregationists by the absolute character of their methods and tools"[191] and called them also "the Lilliputs of science."[192] But as we have seen, physical nature and the nature of ideas were considered as aspects of the same in the Correalist view. Thus Kiesler began his third Epilogue with the idea that history has to be studied or perceived as "an evolution of intrinsic values" and Kiesler summed it up saying, "We work with myth of facts instead of with facts of myth." I think that this inversion has to be understood as calling for a demythologization of facts of the past, the purpose or result of which would yield the "facts of a myth" which, I think, are the underlying universal principles which have a profound and existential urgency and acknowledge the fleeting present.

> Events and memory of events are continually transformed by the present to procreate the future. This is the correalism of nature, and it is a pluralistic genesis. And it is not a monotheistic configuration but a unity of a constantly changing diversity.[193]

But in the picture of Correalist flow that Kiesler painted, there was always a recognition of the human condition and consciousness which had to fuse into this Correalist flow.

> The purpose is to live a realism which is not only corporeal, matter and energy in exchange, but a realism of the continuous flow of inborn life forces into which we must throw ourselves, swimming along with the tide, against the tide, carried by the buoyancy of merciless waves which we have to conquer.[194]

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Kiesler's vision of nature is realistic, that is: nature appears with its tremendous generative powers and constant creation but there is also a menacing entropical threat, such as the "merciless waves" which man tries to conquer.

This realism of nature and humanity was well expressed in another passage reminiscent of Nietzsche's style and revealed a certain skepticism and irony, which Kiesler, in spite of his utopianism and idealism, never suppressed. Thus wrote Kiesler:

> The very life of a human being seems to depend entirely on the fight of these preponderances of one world force against the other, factual or visionary. Finally the positive resources are overcome by the apocalyptic thrust of the negatives--from our point of view--not so from nature's, whose sole interest and obsession seems to be the search for a permanent balance, which she, agonized by persistent failure, cannot achieve.[195]

There is however a "coda" to this original metaphor of the workings of nature including the term "realism" expressed here as "the apocalyptic thrust of the negatives." An aspect of it is that certain agony which is experienced by human beings who are one of its infinite "nerve" ends, and the agony is the apocalypse, destructive or even self-destructive.

Kiesler works with an ancient Hermetic realization or assumption, namely: that man and the universe correspond. This assumption "legitimizes" logically all metaphor and personification of nature. The "coda" as the following concluding passage is entitled, illustrates this metaphorical assumption and it reads as follows:

> Thus the terrestial creatures, animate and inanimate alike, are the sacrificial victim of her creative impotence. Nature has no responsibility to any God, except her ego.[196]

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These lines are striking and provocative but also leave one with a smile. The ease with which Kiesler talks about nature with "her" ego, is strange considering that nature is also the infinite "all mighty" which naturally has no god, yet she has her ego. This psychoanalytical term sounds out of place in this cosmic context, but not so, if we accept the metaphorical assumption mentioned, that a close correlation between man and the universe facilitates meaning. Then the universe has an ego. But Kiesler's insight is also reminiscent of mystical lore.

> Tradition states that God willed to see God and so God's will, symbolized by light, shone nowhere and everywhere. Thus the "en sof aur," the Endless Light Will, was omniscient throughout Absolute All. From God knowing All, God willed the first separation so that God might behold God. This, we are told, was accomplished by contraction in Absolute All, so as to make a place wherein the mirror of Existence might manifest.[197]

So Kiesler's poetry came close to Hermeticism and Kabalah brushing by modern theory about the universe. I do not know of any deliberate reference to a particular mystical tradition that Kiesler preferred and I tend to think there was none, but he walked on a path that led him toward similar ends.

Kiesler was of course not totally oblivious to the mysticism notwithstanding the realism he talked about. This is also manifested in his taste for the groundedness of the east like the Taoist I Ching which he quoted on occasion. There is in his surprising metaphors something of the sound of a Zen, Koan. Generally, Kiesler had an idiosyncratic style of writing a mixing of reality and fantasy expressed in surprising expressions which always defeats cliches which makes interpretation

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a most challenging task because of it. This also keeps his writing at a distance from all dogmatic thinking, mystical or other, and personal experience, a realization or a thought is often what he described. His style of writing can be compared to his architecture and design which is also a combination of a grand vision and creative imagination and a sense for minute technical detail.

Finally is Epilogue IV, subtitled "The Correalism of the Plastic Arts." It is significant that the last of these epilogues on Correalism ends with a poetic statement on art which, in the last account, occupies a special place within the Correalist scheme.

Important is the opening statement: "Our western world has been overrun by masses of art objects. What we really need is not more and more objects, but an objective."[198]

For Kiesler art had to have a vision and a purpose. The vision is an idea, "a raison d'etre" of the corealist science. Thus, Kiesler wrote "L'art pour l'art of seventy-five years ago and the period L'art pour l'artiste of the last twenty-five years are over."[199]

The second French phrase is Kiesler's own mocking invention and a statement against purposeless, irrelevant individualism, or better super egotism which Kiesler rejected along with a rejection of aestheticism. "Aestheticism as a sole criterion of the validity of a work of art is evaporating."[200]

But Kiesler far from overlooked the place of the individual artist within the structure of things. He suggested the idea that while "civilization" "goes on automatically producing mechanisms in education

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and industry for the physical and mental health of the populace," "art is not based on invention because art is an invention," "art follows the impact of an inner dictate attempting again and again to make the link between the known and the unknown."[201]

The individual creator/inventor was most important in Kiesler's view; he thus quoted Sir Samuel Morland's 1685 report on the power of steam submitted to King Charles II in the beginning of the fourth epilogue. An interesting idea is also that "Once we reach the level of Art it remains constant." Art as Art Reinhardt would say. Art, however, being part of all cultures past and present, is free of progress, beyond time, unlike civilization which according to Kiesler evolves constantly.

But next to the observation as to the place of art in civilization, there is a personal touch, an existential experience of fate or mortality expressed in part with irony which is itself a link between the known and the unknown. Kiesler wrote that art is an invention. The invention serves "To camouflage the inevitable mortality of flora, fauna, man and matter."[202]

Kiesler thus expressed an authentic human, existential predicament, fear of death. At the same time he exalts the endless in life, and could see immortality.

In a clear Correalist pronouncement Kiesler wrote: "The poet, the artist, the architect and the scientist are the four cornerstones of this new rising edifice." This rising edifice marks a "new era." The "new era," is the state of continuous correlation, and Kiesler

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described it on the macro-cosmic level and the micro-cosmic which for him includes our individual personality.

> Now the awareness of the outer space (as the super-gallexies are called) has brought us closer to the universe and close to each other.
>
> Our knowledge is changing from abstractions into realism, of our personality, not as a secluded, isolated entity, but as part of the continuum of a total environment.[203]

In an interesting section (which we ought to remember as an aspect of his last sculpture, Us You Me) Kiesler described a set of very real connections or correlations found in a room; the people, the architecture, the objects, but also "You and I sitting in a chair at the table, are simultaneously aware of the space and dimension of the room." In other words, Correalism was also about relationships between people, not only about people in relation to the environment. This aspect of his philosophy is reminiscent of Buber's (I and Thou). Kiesler also reiterated his ideas about architecture and his criticism of inhuman functionalism.

Significantly, Kiesler ended with architecture, as the ultimate Correalist Gesamtkunstwerk. He did not mention the Endless House by name but described its architecture or better, its art and architecture as a metaphor and a practical solution a link between the known and unknown, as he defined art.

Not everybody who read Kiesler's book was inspired by his style and genuine vision and some reviewed his book negatively. In Art in America Jay Jacobs wrote: "The late Frederick Kiesler was a man of manifold talents, but writing, I am afraid, wasn't one of them." He

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criticized the writing as "labored and pontifical" and even went so far as to say that what he did find was "some of the most platitudinous meandering in print today."[204] What seemed to Jacobs as platitudes were quite the opposite. They were profound and it is not uncharacteristic of the profound to be disguised or veiled and thus inaccessible to the skeptical mind. Thus Kiesler's "style" which appeared senseless and meandering to Jacobs was a sophisticated sort of poetic associative and creative thinking and therefore far from being platitudinous. In short, what Jacobs saw as "pretentious" or "sententious" was deep and had the sound not of a pontif but that of a prophet.

Another review of Inside the Endless House was much more sympathetic. Titled "The Naive Cynic," the reviewer's leading words credited Kiesler as follows:

> It is no exaggeration to say that almost every innovation in theaters built in Western Europe and the United States since the Second World War was proposed at one time or another by Kiesler.[205]

He also wrote that "much of this journal has a charming quality of surprised naivete, though Kiesler was evidently one of the least naive of men."[206] Once again the profound may appear naive.

So the extreme difference in evaluation that Kiesler received reflects the character of his writing and style occupying the territory between a futurist vision and the alert and sober view of the present. The present after all is the source for any visionary projection into the future, and only a profound understanding of it yields in the seer's eye a vision or view of the alternative.

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There is always one truthful review to be found, one which sees the very same material with open eyes. Such a review was written for the Architectural Record by Susan Braybrooke.[207] The merit of her review of Kiesler's book is in the sense of wonder it expresses, and a sensitivity to his creative mind. She wrote:

> Kiesler had many attributes of a genius: magnetism, originality, disrespect for convention, but he lacked that important criterion for worldly success, the ability to translate his ideas into a reality with which the rest of the world could relate. He remains a fanciful Puck in a world of men.[208]

Next to her admiration and fascination with Kiesler's radiance, she expressed a need to explain the limited success Kiesler had in translating his ideas to reality.

The number of projects Kiesler realized does not need to be seen as a problem in need of an explanation. Kiesler was a phenomenon and therefore, the entirety of Kiesler's life work in all media, including his poetry and prose expressed an intense and authentic insight and a genuine inspiration. In this sense, and although I accept the comparison with Puck to some extent (as Puck who can see through human folly) there is more to Kiesler.

There is some merit and truth in Baybrooke's realization that the key may be found in Kiesler's preoccupation with the Endless which is valid considering its importance in Kiesler's theory. She dared an explanation; "it is alternately the expression of a very personal longing for immortality at an emotional and intellectual level" and asks if this accounts for his failure due to the intangibility of that longing. With that idea Braybrooke touches on a real issue and her questions ought to be answered in the affirmative.

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This affirmation however has to diminish the apologetic tone of the review. Its sense of Kiesler's failure since the human longing for immortality is but an evolution of the instinctual will to survive, and Kiesler's entire life work was dedicated to research and experiment in that direction. Everything he did contributed something.

At the same time, we also have to demystify the concept of "immortality" a little. Braybrooke was sensible when writing about two aspects of immortality: emotional and intellectual. Existentially Kiesler's realism, his pessimistic sense of dread and death is the emotional aspect. Intellectually, however, immortality is a rational concept manifesting a view about a common law covering all matter and its temporary dissolution in mankind as well as nature, in culture and the arts. This co-reality transcends life and includes death as a fact, complementing life, and for that matter giving it a meaning.

The reviewer's summation is thus in tune with Kiesler's "endless" pursuit.

> If, ironically enough, mortality escapes the occupant of the endless house Kiesler deserves credit for having spent his life in direct confrontation with ideas which most of us manage to side step, and for having concerned himself with wide implications of art and architecture. The book stands as a record of this process and of an unusual probing mind.[209]

The key phrase is "wide implications of art and architecture" and the key word is "process" which also explains the limitations involved in its realization, and Kiesler was well aware of it.

Kiesler's unique style of writing, and particularly the epilogues on Correalism quoted here, written in elevated prose, recall once again

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R. Buckminster Fuller, a fellow architect and visionary with ideas similar to Kiesler's. Fuller's No More Secondhand God is close to Kiesler's poem in style, as it is close to his scope, vision and spirit. Thus one can read in Fuller's poem the title of which gave the book its name:

> Wherever and whenever men
> have explored with scientific integrity
> they have reported the discovery
> of the exquisite orderliness of patterning
> of dynamically evoluting nature.
>
> Scientific man is then about to discover
> a comprehensive integrity
> manifest of the highest or of intellectual differentiation
> and anticipatory conceptioning.
>
> This comprehensive intellectual integrity
> may be logically symbolized
> by the integral yclept God,
> as the synergetic totality
> of universal chemistry's behavior
> unpredicted by the behaviour of any of its parts
> or sub-assemblies of its posts.
>
> Inasmuch as all men
> are trending to become scientific
> this will mean that all men
> will also trend toward discovery
> of the comprehensive, orderly,
> nonsimultaneously interaccommodative,
> integrity of universe
> in which the energy
> of the physical portion of universe
> is total and integral
> and though infinitely differentiable locally
> can neither be created nor lost
> and in which finitely combined
> physical and metaphysical universe
> a law of conservation of intellection
> will also obtain
> whereby intellect
> as the metaphysical portion of universe
> will also be total and integral--
> and though infinitely differentiable locally
> intellect can neither be created nor lost.
> Thus will emerge
> an entirely new philosophical era
> of man on earth.[210]

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The visionary and the clear sighted creators have indeed a similar sound, and this confirms that knowledge and vision correlate in a certain, not arbitrary way. The great similarity between these two men and minds confirms that there is truth in their vision and that it is much more than a mere creation of their idiosyncratic and fanciful minds. It takes a creative mind to think that way and both writers in their own way had a similar tendency to create and recreate words and manipulate usages in order to stress the magnitude of their ideas and impress them on the rest of us.

Thus, Kiesler's Correalism, although apparent as idiosyncratic in almost every way, was, in my opinion, a genuine and original contribution toward a new era of correlated knowledge.

Kiesler on Mozart

In order to conclude this chapter on a high note I would like to point to an article Kiesler wrote about Mozart. It was for Art News[211] published on the occasion of an exhibition at the Nelson Gallery, Kansas City, of eighteenth century art and Mozart's bicentennial birth year. Kiesler was invited to write an "appraisal."

Although one does not have to be from Austria to appreciate Mozart, Kiesler was both and a music lover. Before turning to the article it is interesting to mention that while he was the head of scenic design at the Juilliard School of Music in New York, Kiesler had a chance to design a set for The Magic Flute. This opera was one of Mozart's most mature and grandest moments and a challenge to any set designer. Also

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consider the history of its previous productions and the philosophical, occultist nature of its libretto.

Kiesler's set for The Magic Flute (December 1940) was as inventive and distinct as ever. He kept a single unit setting for the entire opera; it consisted of two columns supporting a pediment with the all-seeing eye of Providence at its center. Kiesler wanted to stress continuity, wholeness and unity. All action was "housed" in that one, well-proportioned, geometric and harmonious framework which was the set's only constant piece of stage architecture. Within this framework the various painted backdrops appeared. Kiesler devised a special scene-changing machine, that was based, as Roger Held has indicated, on a nineteenth century scene roller. Kiesler painted all the scenes on a single scroll that rolled vertically from the bottom up. This allowed for a quick and efficient way to change the many scenes, and a special device was designed to stretch each "frame" adequately. The paintings seem to have been painted in a manner ranging from a straightforward landscape to more evocative and symbolic "paintings." Backstage Kiesler also used slide projection and on stage he used various transparent screens.

This design in correlation was characteristic of Kiesler, who re-orchestrated different traditional styles and various details with great freedom.

It seems that this set was a success, at least in the eyes of no less an authority than the composer Virgil Thomson who for many years was the music critic for the New York Herald Tribune. Thomson wrote

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about Kiesler's many set designs in a review about an exhibition titled Ten Years of American Opera Designs organized in 1941 in the New York Public Library and with which Kiesler was also personally involved.

Thomson described Kiesler's architectural approach to the stage (as opposed to that of the painter or sculptor) making the observation that the Juilliard sets (under the guidance of Kiesler) were "designed less for the audience to look at than [they are] for the actors to move around in." With the latter Kiesler would only partially agree (saying that both audience and actor have to be correlated). But Thomson then made the following confession:

> Myself, I have long resisted accepting Kiesler's stage work. I have found it heavy-handed, obscure and lacking in both grace and sumptuousness. I had not realized till I saw last year's production of "The Magic Flute" how superbly flexible and clear it could be. Neither had I realized till I saw the present exhibition how penetrating he is and practical. And it has taken me a long time to come around to the voluntary acceptance of his major premise though I have long been aware that real architectural design was more desirable in the theater than the mere evocation of historic architectural detail.[212]

It is interesting and even characteristic of Kiesler's work as a whole that a difficulty or even resistance to the work was first experienced. It is important that Thompson came around because it is a confirmation of the basic originality and validity of Kiesler's work and a typical pattern of his public acceptance, past, present, and hopefully not the future. Just as interesting, however, is the rest of Thomson's revelation. Elaborating on the character of Kiesler's premise he wrote:

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> That premise is that people can do better what they have to do if any given space they are going to do it in is organized for the doing of whatever it is they are going to do than they can if it is designed merely to look well as a static picture. This is the whole premise of modern architecture, its application to arrangements of the stage itself, as well as to the building that houses this cannot fail to amplify the expressive power of whatever takes place on any stage so designed and so ordered. Surface textures and colorings are a minor consideration beside this fundamental concept of the stage as a Lebensraum for authors and actors.[213]

Once again, Virgil Thomson's experience of modern architecture through Kiesler's sets or better, his appreciation of Kiesler's biotechnical treatment of the stage as architecture was a compliment and a confirmation of his achievement which Thomson has described so well in the style of Gertrude Stein. He even went so far as to include and conclude concerning the design of the theater itself, a field in which Kiesler of course was deeply involved, and where he applied exactly what Thomson described.

Return now, to Kiesler's article on Mozart. It may be interesting to relate at the outset that in the first two pages Kiesler illustrated a set for the Magic Flute designed by the great neo-classical architect and set designer Karl-Friedrich Schinkel for the Berlin Opera House in 1816. Also illustrated is a photograph of Kiesler's own set for the opera we have just discussed and an eighteenth-century silhouette of Mozart and a page from a Mozart manuscript. The illustration of a work by Schinkel is interesting since Schinkel was one of the most important architects along the line of architect-set-designers, a line which connects, of course, to Kiesler himself.

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The musical sheet illustrated in the article and the aesthetics of notation bring to mind John Cage, who was a friend of Kiesler and a subject for one of his portraits. Furthermore, Kiesler started his masterful essay on Mozart with a proposal to look not only at Mozart's work "but also his life and death" and he went on to say:

> Perhaps it would be paying greater homage to this human creator to keep his work mute for a short time during this year of loud commemoration, perhaps by dedicating to silence one day for every year of his life—making thirty-five days in all. Our own meditation might resurrect more naturally our memories of his music.[214]

This idea, a conceptual art "piece" was about silence. Silence dedicated to music and meditation is a reminder of John Cage's work and the fact that he was among Kiesler's circle of friends.

Kiesler also called the silence "piece" for Mozart a response to "mass hysteria" or "blindfolded submission" (to the music, I think) and "automatic identification" (with Mozart, the man). Kiesler wanted us to sit for a moment and look at Mozart as a whole. Look at his art, his social circumstances, his genius and vision, his human understanding, the child in him and man, the master of pure form and perfection who, nonetheless, was political. Mozart was the immortal, who suffered in this fallen world. Kiesler identified with "a man who suffered the customary degradation of unusual talent during his lifetime."[215] There is a gamut of ingeniously phrased insights, interesting information, and some art historical observations. A key notion in Kiesler's essay is the distinction between the "concerned" and "unconcerned" type of artists. Raphael is cited as an example of the first type and

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Michelangelo for the latter. Kiesler said that Mozart was both. The distinction is based on the difference between Raphael the successful, and graceful genius, and Michelangelo or Beethoven who unlike Raphael "are concerned with the fate of man." Following this observation an exclamation about the history of architecture was made:

> Oh, architecture, thou who, as it is written and told, expresses the very soul, and structure of a period, where are they, the buildings of Mozart's era that express the "Age of Reason"? I find nothing but the "dancing architecture" of the Rococco, and after that Neo-Classicism.[216]

Kiesler saw no merit in Rococco architecture. He has not ranked neo-classicism much higher than a "safe" solution for those architects who preferred to feed off their wealthy clients and give up adventure. It all got its fullest meaning when Kiesler went on to ask: "Where are the moments equal to the spirit of Mozart's Magic Flute? 'In diesen heil'gen Hallen Kennt man die Rache micht.'"[217]

These last words Kiesler quoted from Sarastro, in Schikaneder's original German, express the spirit of real enlightenment: "In these holy halls vengeance is unknown." Mozart, in his music, revealed the common between the secret brotherhood of initiates and the common dream of all mankind. This Kiesler sought to express in his own work and theory with enchantment and humanism.

He wrote that only now in the twentieth century safe conservative Neo-classicism was declining, allowing Mozart's dreams of a brotherhood of man to rise, so that only in the twentieth century architects have started seriously to deal with housing.

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And this is where biotechnical architecture or Design-Correlation figures. Its spirit is the spirit of correlation and is like the Magic Flute, which Kiesler described, saying:

> There is a Persian prince (later Tamina), a dark-skinned villain (Monostatos), a birdman (Papageno), Grecian ladies, Egyptian priests and a giant snake. Yet that galaxy of parts, individual as they are, form an irrevocable unity.[218]

Kiesler saw in Mozart and The Magic Flute an instance for Correalism which seeks a magic unity and which hallows the spirit of social life and unity of purpose among initiated individuals. It may also explain why Kiesler chose a single-scene-set for his Magic Flute.

Kiesler, who discussed the Magic Flute and Mozart's Requiem in tandem, wanted to stress that for Mozart "Catholicism and Free Masonry were inseparable." In other words, religion and sacred secrets (knowledge) became one for Mozart. Thus as Kiesler wrote, Mozart's music "made the significance of the opera an open secret, still clearer." Finally, of course, Kiesler does not keep his own vision a secret either. His finale sounds as follows:

> The next decade will decide in which category we today stand: with the concerned or the unconcerned. The capacity to correlate the heterogeneous parts of our daily life, of the world of human beings, of beasts, of rocks, rivers and ruins, into a galaxy of unity, will be our test. And it seems to me that every one of us will have to be his own Magic Flute.[219]

As suggested earlier, Kiesler's quest and vision anticipated, participated and possibly induced the art of the sixties and more so the seventies which did turn to a "Post-formalist" total concern for mankind, the environment, breaking away from formalist, unconcerned art.

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Another uncommon idea Kiesler expressed said that the primeval myth of the Magic Flute was related to Primitivism in modern art, since, according to Kiesler, art sought primitivism for the sake of survival, and Kiesler asked whether or not the primitive and the primeval have reconciled; or if the difference between them was "just that major power which Mozart knows how to evoke"?

Kiesler no doubt tried to reconcile the two in his art and believed in the primitive and primeval magic of art, which he expressed beautifully in his summation of the story of the Magic Flute:

> The young hero, put to many excruciating tasks before acceptance into the Masonic brotherhood, is given a flute (the Magic Flute) whose tunes, if well played, will protect him on his dangerous journey. He plays well and succeeds. There is the symbol. The flute calls forth the breath of life which formed in turn into melody, bewitches and dismays resistance.[220]

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Notes

[1]A typewritten text in Archives of American Art, Roll 127, no. 652, henceforth "Correalism," n.p.

[2]Ibid.

[3]Ibid.

[4]Ibid.

[5]James Marston Fitch, American Building: The Forces That Shape It (Boston: Houghton Mifflin Company, 1947), pp. 82-88.

[6]Karel Honzik, "A Note on Biotechnics," in Circle, ed. J. L. Martin, Ben Nicholson et al, 1937 (rpt. New York: Praeger, 1971; second ed., 1978), pp. 256-269.

[7]Frederick J. Kiesler, "On Correalism and Biotechnique: A Definition and Test of a New Approach to Building Design," Architectural Record 86 (September 1939): 60-75.

[8]Frederick Kiesler, "Correalism and Biotechnique," footnote, p. 67. As for "Vital Bau," see F. Kiesler, "Manifest, Vitalbau--Raumstadt--Funkionelle Architecture," pp. 142-146.

[9]Kenneth L. Graham, "Meyerhold and Constructivism in the Russian Theater," Quarterly Journal of a Speech 29 (April 1943): 182-187.

[10]Banham, p. 314.

[11]Ibid., p. 316, fn. 5.

[12]L. Moholy-Nagy, The New Vision, trans. Daphne M. Hoffman (New York: W. W. Norton & Company, 1938), p. 60.

[13]Ibid., p. 61.

[14]Ibid., p. 61.

[15]Creighton, p. 106.

[16]"Correalism."

[17]Frederick Kiesler, "A Festival Shelter, the Space Theater for Woodstock, New York."

[18]F. Kiesler, "Notes on Architecture, the Space House," p. 292.

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[19]Ibid.

[20]Banham, p. 313.

[21]Frederick Kiesler, "Notes on Architecture, the Space House," p. 239.

[22]Banham, pp. 197-198.

[23]Ibid., p. 198.

[24]Frederick J. Kiesler, "Correalism and Biotechnique," Architectural Record 86 (September 1939): 60-75.

[25]Columbia University Bulletin of Information (Spring 1937-1938, Winter-Spring 1941-1942), 37th series, no. 19, pp. 28, 29.

[26]Frederick Kiesler, "On Correalism and Biotechnique," p. 60.

[27]See Fritjof Capra, The Tao of Physics (New York: Bantam Books, 1975).

[28]Frederick Kiesler, "Correalism and Biotechnique," p. 63.

[29]Ibid.

[30]Marshall McLuhan, Understanding Media: The Extensions of Man (New York: McGraw-Hill, 1964), p. 3.

[31]Ibid., p. 64.

[32]The root bara means to create, like "In the beginning God created" and the word "briut," meaning health, derives from the same root.

[33]McLuhan, p. 64.

[34]Ibid., p. 65.

[35]Ibid.

[36]Ibid., p. 66.

[37]Ibid.

[38]Ibid., p. 67.

[39]Ibid.

[40]Ibid., p. 68.

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[41]Ibid., p. 69.

[42]Ibid.

[43]Columbia University Bulletin of Information. Announcement of the School of Architecture (Winter/Spring 1937-1938), 37th series, no. 19, pp. 28-29.

[44]Frederick Kiesler, "Correalism and Biotechnique," p. 70.

[45]Ibid.

[46]Ibid., text for ill. 17, p. 75.

[47]Fitch, p. 277.

[48]McLuhan, p. 5.

[49]Frederick Kiesler, "Correalism and Biotechnique," p. 71.

[50]Ibid., p. 68.

[51]"Design's Bad Boy," p. 88.

[52]Frederick Kiesler, "Correalism and Biotechnique," p. 66.

[53]Frederick Kiesler, "Art in the Teaching of Resistance," College Art Journal 18, no. 3 (Spring 1957): 236-238.

[54]Ibid., p. 237.

[55]George Kubler, The Shape of Time (New Haven: Yale Paperback, 1975), p. 130.

[56]"Design's Bad Boy," p. 140.

[57]Ibid., p. 140.

[58]Frederick J. Kiesler, "The Architect in Search of . . .," The Architectural Record 81 (February 1937): 7-16; Frederick J. Kiesler, "The Architect in Search of Design Correlation," The Architectural Record 81 (April 1937): 87-92; Frederick J. Kiesler, "The Architect in Search of Design Correlation," The Architectural Record 81 (May 1937): 53-60; Frederick J. Kiesler, "The Architect in Search of Design Correlation," The Architectural Record 81 (June 1937): 93-96; Frederick J. Kiesler, "The Architect in Search of Design Correlation, Part I," The Architectural Record 82, no. 1 (July 1937): 89-92; Frederick J. Kiesler, "The Architect in Search of Design Correlation, Part II," The Architecture Record 82, no. 2, pp. 79-84. For simplicity purposes references to

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these articles will be footnoted as "Design Correlation" and the month and year of publication.

[59]New York, The Museum of Modern Art, 1936, New Horizons in American Art, with an introduction by Holgar Cahill.

[60]Frederick J. Kiesler, "Murals Without Walls," Art Front 2 (December 1986): 10-11.

[61]"Design Correlation" (February 1937), p. 12.

[62]Ibid.

[63]Ibid., p. 13.

[64]See Museum of Modern Art, New York, and American Film Institute, Washington, D.C., Attribute to Anthology Film Archives, 19 October 1977, 10 November 1977, p. 24. See Chapter .

[65]Frederick Kiesler, Inside the Endless House, p. 533.

[66]"Design Correlation" (February 1937), p. 14.

[67]Cf. to similar attitudes in Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," in Illuminations (New York: Schocken, 1969).

[68]"Design Correlation" (February 1937), p. 14. In retrospect a transition made by a contemporary artist like Laurie Anderson from "art" to the stage and performance, is an illustration of what Kiesler saw in his mind.

[69]Henry Russell Hitchcock, Modern Architecture in England (New York: The Museum of Modern Art, 1937).

[70]Frederick Kiesler, "Pseudo-Functionalism in Modern Architecture," pp. 733-743.

[71]Henry Russell Hitchcock and Philip Johnson, The International Style Since 1922 (New York: W. W. Norton, 1932).

[72]"Design Correlation" (April 1937), p. 88.

[73]Frederick Kiesler, "Pseudo-Functionalism," p. 737

[74]"Design Correlation" (April 1937), p. 89.

[75]J. Bronowski, The Ascent of Man (Boston: Little, Brown, & Company, 1973), p. 334.

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[76]Frederick Kiesler, "Pseudo-functionalism," p. 738.

[77]Thomas S. Kuhn, The Structure of Scientific Revolutions (Chicago: University of Chicago Press, 1962).

[78]Frederick Kiesler, "Pseudo Functionalism," p. 739.

[79]Design Correlation (April 1937), p. 89.

[80]Ibid., p. 92.

[81]Selden Rodman, Conversations with Artists (New York: Capricorn Books, 1961), p. 53.

[82]Design's Bad Boy, p. 140.

[83]Rodman, p. 53.

[84]Ibid., p. 59.

[85]Ibid., p. 47.

[86]See Archives of Katherine Dreier and the Societe Anonyme at Yale University's Bernecke Library. Kiesler mentions this fact in a letter to Dreier dated 2 November 1931.

[87]Interview with Sidney Janis, April 1980.

[88]Frank Lloyd Wright, The Future of Architecture (New York: Horizon Press, 1953), pp. 19-20.

[89]Wright, The Future of Architecture, p. 21.

[90]Ibid., p. 30.

[91]Frederick Kiesler, Inside the Endless House, p. 198.

[91]Frederick J. Kiesler, "Frank Lloyd Wright," It Is, no. 4 (Autumn 1959): 27.

[92]George Bernard Shaw, Selected Plays, vol. 1 (New York: Dodd, Mead & Company, 1948), p. 739.

[93]Cf. Frederick Kiesler, Inside the Endless House, p. 227, where one reads:

> "Architect Kiesler, it is reported, suggests that they remove all the paintings in the Guggenheim Museum and commission a good sculptor to make a gigantic statue of Wright that would fill the whole interior: his centoph with crowds strolling down past majestic nostrils and shoelaces."

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Kiesler, as it were, was quoting Mina Lederman, "the one-time editor of Modern Music, and commented that her paraphrase of his words was not entirely accurate, but 'nevertheless to the point.'"

[94]Wright, p. 30.

[95]Ibid., p. 246.

[96]Design Correlation (May 1937), p. 55.

[97]Ibid., p. 59.

[98]John Golding, Marcel Duchamp: The Bride Stripped Bare By Her Bachelors, Even, Art in Context (New York: Viking Press, 1973), p. 11.

[99]See Julian Levy, Memoir of an Art Gallery (New York: C. P. Putnam's Sons, 1977), p. 23; on this painting see also Francis M. Naumann, The Mary and William Sisler Collection (New York: The Museum of Modern Art, 1984), pp. 172-173.

[100]Frederick Kiesler, Contemporary Art Applied, p. 121.

[101]Design Correlation (May 1937), p. 53.

[102]Kiesler, we recall, designed for Art of This Century a telescopic device that enabled one to view the street. Also, in his photocollage dedicated to Duchamp in the special issue of View on Duchamp's work one sees Duchamp in his 14th Street studio as well as a photograph attached underneath showing the exterior. Frederick Kiesler, "Les Larves d'Imagie d'Henri Robert Marcel Duchamp," View, the Modern Magazine (ed. Charles Henri Ford), no. 1 (1945): 24-31. (Special Duchamp issue)

[103]The Beinecke Rare Book and Manuscript Library at the Yale University Library has about 100 pieces of correspondence to and from Frederick and Stefi Kiesler, and Katherine Dreier all (except one) in the Societe Anongine collection. The correspondence started in 1926 and ends in 1950 with almost no interruption. Katherine Dreier, so it seems, was instrumental in arranging a loan for Kiesler and his wife Stefi in 1926 of $150. Kiesler, on his part, provided her with letters of introduction to his friends in Europe, writing to Hans Richter, Tzara and Ozenfant and others. The correspondence, the only part of it in German, includes Kiesler's proposal of what he later called the "Telemuseum" for the 1927 International Exhibition of Modern Art (letter to Dreier of November 2, 1926) and in 1927 about plans Kiesler proposed for a building for the Societe Anonyme Collection which was a building convertible to many different forms and spaces, probably from prefabricated

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elements. This project was clouded in misunderstanding between Dreier and Kiesler in matters of money Kiesler spent to have the plans drawn, which Dreier claimed she never asked for and did not want to pay. But somehow it ended without causing a termination of the relations between the Kieslers and Dreier. This I think was also largely due to the independent, friendly and working relations between Dreier and Stefi Kiesler who, being a librarian at the New York Public Library, was most helpful to Dreier in matters of biography and bibliography for Dreier's pioneering work.

[104]Frederick Kiesler, Contemporary Art Applied, p. 121. In a letter to Dreier dated 2 November 1926, Kiesler wrote about this project described here as a "room" not an entire apartment and from the manufacturers that Kiesler wanted to engage we can learn that he wanted linoleum or rubber floors, metal doors, possibly also for the "built in shrines," special illuminations and for the wall surfaces for "broadcasting paintings," Kiesler sought a company that produces automatic advertisement devices. See Archives of the Societe Anonyme at Yale's Beinecke Rare Book and Manuscript Library.

[105]Design Correlation (May 1937), p. 56.

[106]Charles F. Stuckey, "Another Side of Jackson Pollock," Art in America 65 (November-December 1977): 81-91.

[107]Ibid., p. 87.

[108]Design Correlation (May 1937), pp. 56-57.

[109]Ibid., p. 57.

[110]Ibid., p. 60.

[111]Ibid., p. 55.

[112]John Golding, Marcel Duchamp: The Bride Stripped Bare by Her Bachelors Even Art in Context (New York: Viking Press, 1973), p. 24.

[113]Katherine S. Dreier and Matta Echaurren, "Duchamp's Glass, La Mariee mise a nu par ses celibataires, meme, An Analytical Reflection," in Marcel Duchamp in Perspective, ed. Joseph Masheck (Englewood Cliffs, N.J.: Prentice-Hall, 1945), p. 107.

[114]I have obtained a copy of the letter that was sold by Ex Libris, New York, in 1983.

[115]See Marcel Duchamp (New York: The Museum of Modern Art), p. 25.

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[116]Ibid., p. 23. Duchamp's name appears first in Stefi Kiesler's calendar in 1933. Cf. Dieter Bogner, Friederich Kiesler, p. 67.

[117]Societe Anonyme Archives, Yale University.

[118]Design Correlation (July 1937), p. 89.

[119]Ibid.

[120]Ibid.

[121]Ibid.

[122]Ibid., p. 84.

[123]Rudolf Arnheim, Film as Art (Berkeley: University of California, 1957).

[124]Walter Benjamin, Illuminations, p. 227.

[125]Jacques Gubler and Gilles Barbey, "Frederick Kiesler et la problematique du 'Contemporary Art Applied to the Store and Its Display,'" Werk 59 (November 1972): 662-666.

[126]Design's Bad Boy, p. 90.

[127]See El Lissitzky and Hans Arp, Die Kunstismen (Erlenbach-Zurich, Eugen Reutsch, 1925; rpt. New York: Arno Press, 1968).

[128]Frederick Kiesler, Contemporary Art Applied, p. 2.

[129]Ibid., p. 14.

[130]Ibid., p. 39.

[131]Ibid., p. 38.

[132]Creighton, p. 106.

[133]Jimmy Ernst, Not So Still Life, a Memoir by Jimmy Ernst (New York: St. Martin's Marck Book, 1984), p. 177.

[134]Frederick Kiesler, Contemporary Art Applied, p. 49.

[135]Frederick Kiesler, "Notes on the Spiral Theme in Recent Architecture," Partisan Review 13 (Winter 1946): 98-104 and illustration.

[136]Frederick Kiesler, Contemporary Art Applied, p. 66.

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[137]Ibid.

[138]Ibid. Concerning the year 1928, cf. Bogner, Friedrich Kiesler 1890-1965, p. 53.

[139]See Matthais Boeckl, "Kiesler und die Wiener Architekten," in Bogner, Friedrich Kiesler, p. 305.

[140]Emrich Nicholson, Contemporary Shops in the United States, with a foreword by George Nelson (New York: Architectural Book Publishing Company, Inc., 1945), p. 12. This book reproduces photographs of Kiesler's designs for Art of This Century Gallery which it credits as a design "that will influence stores in the future" (p. 185). Yet the book fails to mention Kiesler's book or mention any of his storefront designs such as for Saks Fifth Avenue (1928) or the prize-winning design for Jay's Shoes (1935) in Buffalo.

[141]Frederick Kiesler, Contemporary Art Applied, p. 66.

[142]J. J. P. Oud, "Art and Machine," De Stijl 1, no. 3 (4), pp. 24-27, reprinted in Hans L. C. Jaffe, De Stijl (New York, 1971), pp. 97-99.

[143]J. J. P. Oud, "Art and Mchine," pp. 25-27.

[144]Frederick Kiesler, Contemporary Art Applied, p. 67.

[145]Ibid.

[146]Ibid., p. 68.

[147]Ibid., p. 73.

[148]Ibid., p. 74.

[149]According to Lillian Kiesler. I tried unsuccessfully to confirm this with the singer.

[150]Ernst, p. 177.

[151]Frederick Kiesler, Contemporary Art Applied, p. 87, caption to the illustration of the Film Guild Cinema (facade).

[152]Ibid., p. 97.

[153]E. M. Benson, "Wanted: An American Bauhaus," The American Magazine of Art 27, no. 7 (June 1934): 307-311.

[154]Frederick Kiesler, Contemporary Art Applied, p. 110.

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[155]Ibid., p. 120.

[156]Ibid., p. 121.

[157]Douglas Haskell, "Contemporary Applied to the Store and Its Display," Creative Art 6 (May 1930): 109.

[158]Harry Adsit Bull, "Contemporary Art Applied to the Store and Its Display," International Studio 97 (December 1930): 83-84.

[159]Ibid., p. 84.

[160]"Contemporary Art Applied to Store and Its Display," Architectural Forum 70 (March 1959): 64.

[161]F. Kiesler, "Notes on the Spiral Theme in Recent Architecture, Partisan Review, Winter 1946, pp. 98-104.

[162]See Gyorgy Duczi, The Power of Limits: Proportional Harmonies in Nature, Art and Architecture (London: Shambahala, 1981).

[163]Frederick Kiesler, "Notes on the Spiral Theme, p. 98.

[164]Ibid., pp. 98, 99.

[165]Ibid, p. 99.

[166]Ibid. The reference to Brancusi's Endless Column is interesting, since to the best of my knowledge this is the only place where Kiesler made such a reference to this work by Brancusi, who anticipated Kiesler in the use of the adjective "Endless" for a concept and title of his work. Kiesler, of course, designed the Endless House and its Endlessness and Brancusi's Endless column have little in common other than a nominal equivalence. The Endless Column is rhomboid not spiraling. Thus Kiesler's reference to Brancusi is indeed non-committal, and the Endless House is not even mentioned. For Brancusi's Endless Column see Sidney Geist, Brancusi (New York: Grossman, 1968), pp. 64-65, 71-73.

[167]Frederick Kiesler, "Notes on the Spiral Theme," p. 101.

[168]Ibid.

[169]Ibid., p. 102.

[170]Jack Burnham, Great Western Salt Works: Essays on the Meaning of Post-Formalist Art (New York: George Braziler, 1974), from "System Esthetics," pp. 15-16.

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[171]The Museum of Modern Art, New York, Kiesler Archives, Tape 6, transcription, p. 16.

[172]Burnham, p. 17. Cf. Michael Fried, "Art and Objecthood," Art Forums, Summer 1967, p. 15.

[173]Documents of 20th Century Art, General editor, Robert Motherwell. Art-as-Art: The Selected Writings of Ad Reinhardt, ed. with an introduction by Barbara Rose (New York: Viking Press, 1975), p. 150.

[174]Frederick Kiesler, Inside the Endless House, p. 133.

[175]Ibid., pp. 134-135.

[176]Ibid., p. 138.

[177]Ibid., p. 138.

[178]Ibid., p. 134.

[179]Ibid., p. 133.

[180]Carlo Suares, The Sepher Yetsira, trans. from the French by Micheline Vincent Stuart (Boulder and London: Shambhala, 1976), p. 8.

[181]Frederick Kiesler, Inside the Endless House, p. 134.

[182]Ibid.

[183]Ibid., p. 135.

[184]Ibid.

[185]Ibid., p. 137.

[186]Ibid., p. 141.

[187]Ibid., p. 142.

[188]Ibid., p. 113.

[189]Ibid., p. 120.

[190]Ibid., p. 144.

[191]Ibid., p. 145.

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[192]Ibid., p. 142.

[193]Ibid., p. 144.

[194]Ibid., p. 145.

[195]Ibid., p. 147.

[196]Ibid.

[197]Z'ev ben Shimon Halevi, A Kabbalistic Universe (New York: Samuel Weiser, 1977), p. 8.

[198]Frederick Kiesler, Inside the Endless House, p. 143.

[199]Ibid., p. 144.

[200]Ibid., p. 150.

[201]Ibid., pp. 148-149.

[202]Ibid., p. 148.

[203]Ibid., p. 150.

[204]Jay Jacobs, "Frederick Kiesler, Inside the Endless House, a Review," Art in America 55 (May 1967): 122.

[205]L. K. Eaton, "The Naive Cynic," Progressive Architecture 48 (September 1967): 184.

[206]Ibid.

[207]Susan Baybrook, "Kiesler the Man and His Vision," Architectural Record 141 (April 1967): 340.

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[210]R. Buckminster Fuller, No More Secondhand God and Other Writings (Carbondale: Southern Illinois University Press, 1963, 1969), pp. 33-35.

[211]Frederick Kiesler, "Mozart: 1756-1958," Art News 54 (January 1956): 22.

[212]AAA roll 128, no. 828; Virgil Thompson, "Kiesler's Opera Sets: Ten Years of American Opera Design," New York Herald Tribune, 23 November 1941.

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[213]Ibid.

[214]Frederick Kiesler, "Mozart 1756-1956," p. 23.

[215]Ibid., p. 22.

[216]Ibid., p. 25.

[217]Ibid.

[218]Ibid., p. 58.

[219]Ibid.

[220]Ibid.

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A

FREDERICK KIESLER: ARTIST, ARCHITECT, VISIONARY--

A STUDY OF HIS WORK AND WRITING

by

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CHAPTER VI

GALLAXIES

Introduction

Frederick Kiesler adopted the word Galaxy to name a modality in painting and sculpture, that constituted a category of his works. His earliest efforts were galaxies, which many years later and many galaxies past he described as a new concept of correlation which for him represented "a new concept of art."[1]

The word galaxy has two meanings. The first refers to a cosmic cluster of stars, nebulae, and intersteller matter. The second definition is more terrestrial. It meant any assemblage of brilliant or notable persons or things (Webster). Both meanings applied to Kiesler's galaxies. Using the second definition it corresponded to the formal constitution of a galaxy as an assemblage of several individual units defined by their relationship to each other.

The first definition of a galaxy, its "celestial" meaning as a cluster in a vast interconnected Cosmos Kiesler adopted as a metaphor of cosmic interconnectedness of all and everything and a symbolic evocation of the relational nature of space. The Galaxy, then, expressed a level of consciousness that Kiesler wanted awakened.

It is therefore not surprising that the galaxy after a dormancy of almost two decades (since its earliest inception) had a forceful

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rebirth in Kiesler's work in the forties (and thereafter) when he became associated with the Surrealists who aimed at a similar extension of art.

The principle that assumes a correlation between the macrocosm and microcosm, between generative forces and individual cases allowed for a specific "limited" design of a galaxy, even a portrait, without losing its universal significance.[2]

Along the same lines, the more abstract galaxies, revived in the early fifties when Surrealism in American art turned into formalism, the Galaxy, while occupying the territory between painting, sculpture and architecture, was meant to call attention to the nature of space. Kiesler also wanted to break the division between the arts, so as to point to everybody's relation to the environment and the universe--the ultimate environment. In promoting such environmental art in both its related aspects, the physical and metaphysical, Kiesler was "ahead of the times." He pointed to the connection between the environmental and the mental, implicating the moral and this no doubt was the new concept.

Kiesler's earliest paintings were galaxies as was his last thirty-seven piece sculpture. Thus, the galaxies contribute considerably to understanding his artistic vision.

Early Galaxy Paintings

Kiesler's earliest recorded work was a Galaxy. It dates back to the beginning of his career, pre-World War I, to 1913. Along with

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all his early works, this galaxy portrait of a Russian student has not survived. The information we have about the early works came from Kiesler's recollections and sketchy drawing reconstructions that were assembled by his second wife and surviving widow, Lillian Kiesler. According to her, this early Galaxy was a portrait consisting of "two large panels of paper designed with head on one section, the body on the other, separated by a span of the interval of space which he considered as necessary just as breathing is to our body reality."[3] This early Galaxy was followed after the interval forced by World War II by two other Galaxies completed in 1918, shortly before the war was over and Kiesler, who was a soldier, was released.

Kiesler gave us a somewhat romantic account about the way these two Galaxies evolved:

> As in a dream, almost without any will, I placed twenty irregularly shaped pieces of grey cardboard covered with white tracing paper on my studio wall, and the galaxial portrait of Leopold Liezler secretary to the writer Karl Kraus.[4]

The significance of the galaxy in Kiesler's mind was reflected in his reconstruction of the galaxy's birth as if from a dream, almost without his will. It was a moment of genuine inspiration and a creative impulse which yielded the entire idea, and was a new art form with new content. The future development of galaxies continues the two types of galaxies that Kiesler invented: the galaxy portrait and the looser abstract galaxy paintings and sculptures. The sketchy drawings of the early Galaxies are difficult to read but convey a certain sense of war and destruction. The head in the portrait is placed next to the body

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as if decapitated. The twenty piece irregularly shaped galaxy hung in a more scattered fashion also echoed the war experience—the galaxy as explosion. The portrait of the Russian student was made of two parts, the portrait of Leopold Liezler was made of four pieces,[5] and the big galaxy with its irregularly shaped units of twenty!

The earliest galaxy, that 1913 two-part portrait of a Russian student, may have expressed Kiesler's interest in Russia and its advanced pre-revolution cubo-futurism at that time.[6]

Generally the galaxy as a divided image could have been inspired by Art-Nouveau and its aftermath in such works as Bonnard's 1899 color lithographs consisting of four panels, for example. It has an interrupted image through the separate panels as in a Japanese screen, that exploits the borderline between the representational continuum and the intercepting frames.

Gustav Klimt also exploited similar devices in his Art-Nouveau panels, a sensibility which Kiesler shared but must have stripped of its fin de siecle ornamented decadence. In an answer to a question about early (late teens, early twenties) influences, Kiesler replied:

> The Austrian painter and the teacher Gustav Klimt, artistic father of Kokoschka and Schiele, was still a powerful figure.[7]

Since Klimt died in 1918 the period discussed must have been the period when these early galaxies were conceived. As a parallel example, albeit not a galaxy yet made up of panels all the same, one may quote Erich Heckel's three-part continuous painting "Convalescent Woman" also dates from 1913 and also derives from similar Art-Nouveau Japanese inspired screens.

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Galaxy Portraits

Kiesler's galaxy portraits of the forties have to be examined. They seem to support the contention that Art-Nouveau and the screen were stylistic and formative sources. Even the sensibility of drawing, its linear elegance is Viennese and Art-Nouveau, Klimt and Schlele. The idea of the screen has however come under a new order and a new (galaxial) content. There is little if any relation to Cubism which played a minor role in Kiesler's career.

One galaxial portrait from the "second coming" of this genre is the relatively famous portrait of Marcel Duchamp which dates from 1947 figure 132). It is a pencil drawing of Duchamp in profile standing spread over eight sheets or sections (1-7, 14 3/8" x 10 3/8"; 8, 10 7/8" x 14 3/8") in the collection of the Museum of Modern Art, New York.

This portrait reveals Kiesler's extremely delicate capable and elegant line. The elegance of draftsmanship and economy of line makes a fine flowing image which is set off by the formal idea of the galaxy's framed conglomerate of units. Since there is an adherence to a rectangular, horizontal-vertical grid in hanging, and all the parts border on each other, this galaxy does not have the "breathing" space between units Kiesler was reported to have talked about. There is an active tension between the linear flow of the figurative image and the abstract grid of frames interfering with that linear integrity. One appreciates Kiesler's ability to draw with deliberate freedom and succeefully capture the model. It borders on caricature without ever being one and the drawing maintains its integrity without falling into the realm of illustration. It was a study of nature.

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Kiesler provided us with an invaluable confession concerning his early years. It reads as follows:

> From 1900 I was pursued through the high-school years, the years at the Institute of Technology and the Academy (in Vienna) in the relationship between animate and inanimate matter. The old masters at the museums in Vienna and the hand drawings at the Albertina, did a great deal to deepen that interest. How could a master paint a tree or a jar as if it were alive? What could he do to it that the legendary dead matter becomes living? Was it superimposed on the dead model or was it extracted from its invisible hiding place in that form?[8]

Lillian Kiesler mentioned elsewhere Kiesler's great appreciation for Goethe's studies of nature.[9] This passage as a confession of sorts, could suggest Goethe's influence, his scientific, all-encompassing view of man, art and nature. As a young man Kiesler asked questions about the relationship between representation as an artistic mastery of the mysteries of nature and the artist as the magician who can transform inanimate to animate nature. A Kantian proposition would hold that the artist imposes form on a neutral nature or extracts existing life "from its invisible hiding place in that form."

As Kiesler saw it, the galaxies were his creative solutions to the questions he posed. He wanted to find some way to animate a mere academic representation by following a hidden natural order, a galaxy, which stands for all natural interconnectiveness or what he called Correalism. It is also relevant that Goethe had a view that two principle drivewheels are behind all of nature, one, the concept of polarity, the other, the principle of advancement (ascension). The first relates to matter, the second, to spirit or nature's profound secret purpose

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(intentionality).[10] So Goethe's nourished the young Kiesler who was naturally drawn to arts and sciences. He had a tradition to follow. Thus Kiesler's sources lay in Goethe and Durer's natural studies at the Albertina rather than in post-impressionism and Cubism and he aimed beyond a mere change in convention or style.

The Duchamp Galaxy portrait of 1947 moves from the early galaxies made during the second decade of the century into the 1940s. Then, Kiesler came into close contact with the Surrealists who migrated to America as they fled the War. In 1947, when the Duchamp galaxy portrait was made, Kiesler, upon the invitation of Breton and Duchamp, designed the last official Surrealist show in Paris at the Gallery Maeght.

The contact with the Surrealists was a reunion of sorts with the Europeans whose culture and temperament Kiesler knew well and loved. Kiesler, a European himself, always maintained a certain European flair, a Bohemian spirit that was not too well appreciated or understood in America. So the lively artistic scene that evolved around the Surrealists in America, considering the Surrealists' love for interartistic games and portraits, provided the proper circumstance for Kiesler to revive his interest in portraits. Kiesler was a man who loved and needed the company of artists, had talent for observation and caricature (a literary bent for the prosaic), and the Surrealist milieu provided the predispositions, and encouraged their pursuit.

The list of portrait sitters is long and reveals Kiesler's circle of friends and associates, Surrealists, their American followers and supporters. There seem to be only two other completed galaxy portraits,

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the eight piece galaxy portrait of E. E. Cummings (figure 133) and a three piece galaxy portrait of Tanguy. The list is an instructive galaxy of artists and their associates. It includes Hans Arp, Andre Breton, S. J. Perlman, Julian Levy, Kurt Seligman, Toyen (Marie Cerminova), Wilfredo Lam and his wife, John Erskine, Millicent Rogers, Pierre Matisse, Merce Cunningham, and John Cage.[11]

The portrait studies do not subscribe to any single style and concentrate variously on linear perceptions with attention to detail like the Arp Portrait (figure 134) to more structural studies in phrenology as the portrait study of John Cage which divides the head into sections, trying several points of view on the same sheet, etc.

The Arp portrait calls for a further comment. First, it is striking in its display of Kiesler's grand mastery, drawing from nature. It is meticulous in detail, marked by acute observation and is in the unidealized transalpine tradition. Although this portrait in pencil is on a single sheet of paper (25 5/8" x 19 3/4") it is a galaxy in conception since it consists of two separate parts. The head and neck are one part. They are linearily contained and are separated from the second galaxial unit which is made up of the feet, lower legs and Arp's hands holding a biomorphic sculpture. The two masterfully drawn parts are totally separated and the body is left blank for the viewer to complete, breathe in. Therefore the conception of galaxy is fully applicable to this work.

Kiesler, a man of a distinct literary bent and a keen sense for observation--greatly evident in his Journals--approached portraiture in his investigative manner as he approached all projects.

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Lillian Kiesler related that "often he would write notes, intimate essays, sketches to come closer to their sitter's quality of living."[12]

This attitude could be related to Walter Arensberg's offer to Kiesler to build him a house. Kiesler said he had to meet him. Arensberg was not interested, so Diesler did not go through with it.

The second major galaxy portrait that extended beyond the study stage is the eight-piece galaxy of the poet E. E. Cummings which dates from 1948 (figure 133). This work, along with the Duchamp Galaxy and the portrait study of Arp, is now in the collection of the Museum of Modern Art (New York) and can be viewed as a summation of most of the ideas and practices Kiesler set for his galaxies in general and the portrait galaxy in particular. Like the Duchamp Galaxy portrait, it is made up of eight separately framed, rectangular units. Unlike the Duchamp Galaxy, however, the eight pieces are not hung bordering on each other, but are spaced open and hung separately, leaving a narrow margin between frames which differ in each combination. There is an irregularly spaced cross formed in the middle of each group of four. The rectangular frames are hung variously, horizontally and vertically, which is the extent of irregularity, unlike later galaxies. Generally the eight-piece galaxy portrait is divided into two major parts, each containing four frames. One part is a combined depiction of the sitter's head (wearing a hat), the lower part contains the rest of the body seated on a chair. In this work the polar tension intended is achieved by painting each of the two major four-part sections in a different style. The head in profile is seen from a "worm's eye view" and is painted

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in a resolute abstract articulate line with darker strokes or articulated accents (jaw bone and neck, eye brows, part of the hat), and the lower part of the seated Cummings is painted in a tight, carefully drawn style that is reminiscent of Schiele's Jugendstil expressionism, the body and the chair growing into each other. Thus the relative unimportance of a single style is confirmed.

This section is similar to the drawing style Kiesler employed in the Arp portrait. It is in this kind of draftsmanship Kiesler's academic training can be seen. In the drawing of the hand and the folds of the sleeve, Kiesler, the talented art student who was admitted to the advanced master class of Professor Schmutzler and whose drawings were compared to Durer's famous studies at the Albertina,[13] makes one of his rare appearances. Beside the discrepancy in style and point of view between upper and lower parts a third effective device was employed to achieve the vitalizing polarity, a discrepancy of scale--the head was large and deliberately out of proportion to the body.[14] All these devices are indeed the "breathing" necessary for the work's vitality. The E. E. Cummings portrait, to my mind, is one of Kiesler's most accomplished galaxy portraits and culminates this mode of expression.[15]

Two Large Galaxy Sculptures Made in Wood

In 1947, while in Paris designing the last Surrealist show at the Gallery Maeght, Kiesler was inspired and encouraged to make a sculpture in wood he called Totem of All Religions. (This important work

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will be discussed in Chapter VII.) In the present context it stimulated Kiesler's talent as a sculptor and led to two monumental galaxies that followed.

The first of these two related works is dated 1947-1948 and is part of the Nelson Rockefeller Collection (figure 135). The second work was made in 1951, was part of Philip Johnson's collection but has not survived (figure 136). These two works introduce an entirely new conception of sculpture, expanding the boundaries of sculpture by introducing environmental thinking to the medium of sculpture, thus bringing sculpture closer to architecture.

The first of these two galaxies was originally part of a stage set by Kiesler before undergoing minor changes and assuming its place as "pure sculpture" outliving its original function. It was part of the 1948 production at Juilliard of Darius Milhaud's opera Le Pauvre Matelot (The Poor Sailor) with a libretto by Jean Cocteau. In 1952 it was first shown as sculpture in a Museum of Modern Art exhibition titled "15 Americans."

The surprising origins of this galaxy is better understood recalling Kiesler's early involvement with the stage and particularly his occupation as head of scenic design at the Juilliard School of Music between 1934 and 1956. The Juilliard position was Kiesler's major source of income and it enabled him to design numerous stages and supervise scores of others.[16] The existential, macabre plot of the opera implies Kiesler's design solution. The poor sailor is a husband who returns after fifteen years to his faithful waiting woman. He disguises himself

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as a rich shipmate in order to test his wife and tells about the husband who will return a poor man. She kills the visitor in his sleep, recognizing his likeness to her husband, who she then knows will not return. She realized that the pearls she took, the life she lived and the bar business it buys her, is all she has grown to need and want.

Kiesler has created an open box-galaxy as the woman's "waiting house." The fishbone spine motive with which the beams are decorated symbolize time and decay and are also a reference to the sea. The structure (the box) symbolizes constriction. As part of a functioning stage (which includes symbolic functions) Kiesler has built the galaxy structure on stage right with the woman's neighbor's round house covered with painted canvas (figure 137). The neighbor's house, colorful and comforting, was painted with sea shell patterns, in contrast to the barren harder look of the wife's house (galaxy) which was an architectural sculpture. The Surrealist context of the times, as well as existential philosophy (Kiesler designed a stage for Sartre's No Exit on Broadway in 1946, see below) played a role in bringing this galaxy about. This set also provides an insight into Kiesler's style on stage. He had a steadfast commitment to a "galaxy" of means in order to create a stage as a polarized expression within a total design plot. The woman's house--the galaxy--combined sculpture and architecture. It was an environment that was used to live in on stage. Its function and position on stage as part of a set seen from one side determined its construction as an accelerated perspective which when separated from the stage, makes an irregular structure.

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The borderline between architecture as literal space and sculpture has been deliberately blurred. The result was an environment and concept that Kiesler was one of the first to introduce. In Kiesler's book, Contemporary Art Applied to the Store and Its Display, an important source of Kiesler's opinions on a variety of subjects beyond the specific subject of the book, he stated: "Modern sculpture is abstract architecture."[17] Examples cited were works by Brancusi, Nadelmann, Picasso's open iron constructions, and works by Vantangerloo, Gabo, and Laurens. If these examples illustrate unsatisfactorily the point Kiesler has made, his own work definitely should.

The 1947-1948 Galaxy best exemplifies this particular proposition. For 15 Americans, the 1952 exhibition at the Museum of Modern Art, Kiesler wrote a "Note on Correalism."[18] Correalism is relevant to galaxy painting and sculpture as our stage-galaxy that Kiesler showed in this exhibition and a nineteen piece galaxy painting of it (figure 138). The emphasis was on the sculpture. Kiesler stated unequivocally: "My sculpture is a practical sculpture. It is both to be lived with and within."[19] The sculpture galaxy he showed was indeed an environment.

The change in the galaxy's structure from its original state (figure 137), as used in the opera to Kiesler's later alteration was made to prepare for its new place and Kiesler sought to make it more accessible to an outdoor viewer. In its original state on stage the base was square, whereas later (its present state) the closed square "foundation" was altered into an X-shape base. Now one viewer could enter the sculpture. This agrees with Kiesler's second paragraph in

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the "Note" which reads: "Sculpture should be touched not by the eye alone. It should be enjoyed not only aesthetically but physically as well. This is a sculpture for relaxation."[20] In this state the twelve-foot high sculpture lends itself to an insider's view, even if one is usually not allowed to sit inside the galaxy and relax. The "Note on Correalism" contributes toward a reaffirmation of some of the points raised earlier about the philosophy behind the term galaxy. As an aspect of "Correalism," it stresses inter-connectedness of all with everything, he wrote: "The new flame will be kindled by the reawakening of our primordial awareness of the interrelatedness of man and nature, by a new consciousness of belonging together."[21]

This galaxy is an uninterrupted structure and not a galaxy structure made of physically separated pieces. Kiesler gave the key to the solution of this apparent contradiction. In the "Note on Correalism," we have quoted he also wrote:

> My sculpture I also see as consisting of divergent chunks of matter, held together yet apart, appearing like galactic structures, each part leading to a life of coexistence of correality, with the others. Yet this correlation whether close or far apart, does not necessarily depend on physical links.[22]

These words and future developments showed that the trend was toward an evermore spread-out, disconnected galaxial conception. However, the key enabling to connect this galaxy to the galaxial notion as a whole, is Kiesler's footnote referring to his article in De Stijl on the City in Space. The footnote relates the "galactical structures" in the text to "tensions in free space" discussed in that article (1925)

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and a galaxy such as the one discussed. This galaxy, although connected literally, is however loosely put together so as to suggest an interdependence of parts that hold each other together--somewhat similar to the "tensionism" of the City in Space. Both works are also cubical in design. This aspect will even be better seen in the 1951 galaxy sculpture (figure 136) which depended on tensionism much more than the present sculpture. The beak-like joints--two vertical and one horizontal--that hold the corners together, as well as the spinal, fishbone motive suggest organic (natural) structure tensionist in its flexibility and even the wrapped rope holding one joint offers a reading which negates a construction that contradicts galaxial tensionism.

As related, the operatic galaxy had its premier as sculpture in the Museum of Modern Art exhibition called "15 Americans." The show was one of the periodical shows in which MOMA acts as the official salon of all contemporary directions, a variety of styles, that cannot offer an opportunity for a single critical statement which in 15 Americans was avoided. Kiesler's work did not suffer from the characterless show which incidently included Baziotes, Corbett, Dickinson, Ferber, Glasco, Katzman, Kriesberg, Lippold, Pollock, Rose, Rothko, Still, Tomlin, and Wilfred. His work, not easily categorized, made a strong presentation and its uniqueness was revealed.

Alfred H. Barr, Jr., the Museum of Modern Art director published a poem in Harper's Bazaar[23] devoted to Kiesler's galaxy. The distinguished author wrote the following poignant poem.

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> Galaxy is architecture for skygazers; its plan is a cross with arms raised in amazement; its major axis slopes abruptly toward a vanishing point, like Borromini's false perspective in the Palazzo Spada, its four caryatids are a dolphin's spine, a hippo's cambus, a lobster's claw, and an ichthyosaur caressed by a boomerang, its lintels are driftwood, and a comb-finned gar.
>
> Galaxy is a four-poster in which Sinbad, Jonah, Crusoe and Ahab may sit eternally, back to back, telling each other their stories, slowly, with low voices, and credulous ears. Galaxy is pergola built of jetsam where refugees from the compass and ruler may dry their nets in peace. Galaxy is a drifting raft where common sense watched by the skeletons of the four winds, will die of thirst.
>
> Galaxy is a conspiracy for discrediting cadillacs. Galaxy is the tomb of know-how, the supreme anti-technological gazebo.

Barr's poem is admirable in its pointed yet poetic description of Kiesler's complex work and the Surrealist ideas and images it stirs. The poem responds to the various levels of meaning that the galaxy contains from the formal make-up; its simple elegance through the environmental to the symbolic and the archetypal imagery.

In fact, Barr's poem is so well in tune with Kiesler's thinking at that time, that the existence of a drawing of the galaxy inscribed to him is of little surprise. Barr was a sympathtic observer of Kiesler's art and Kiesler acknowledged the author of the poem and gave him a drawing (figure 139).

The drawing shows the Galaxy as it was used on stage (figure 137) and before the uneven cross was introduced to replace the square as base. It shows a person sitting inside the sculpture which gives one an idea of its scale and is in keeping with Kiesler's ideas of "practical" sculpture or environment. It is inscribed "For Alfred B from K," is dated January 21, 1951, and predates the exhibition and Barr's published poem by more than a year.

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The poem in Harper's Bazaar appeared when 15 Americans was on and this probably was meant this way. The Galaxy was a success. It received serious attention and the 12 x 14 x 13 foot high sculpture--one of the first environmental works in America—was sold to the Nelson Rockefeller collection for $4,500—a high price for art at the time. This was publicized in Life magazine which published a short illustrated article under the title: "Meant to Be Lived In: A Designer-Sculptor Disposes of One of His 'Galaxies' for $4,500."[24] Among the more interesting critical reactions to "15 Americans" was Elaine de Kooning's essay about two of the participating artists: Kiesler and Edwin Dickinson. The key point was that these two artists, each in his own way, resist current trends in art. In her words:

> Standing for totally different values, each of these men, in his work, puts up certain resistance against current trends, in art, and that resistance--in both cases, paradoxically--fits in with a Renaissance state of mind. In a century when the Version is King, when an artist range is usually revealed in the juxtaposition of many of his pictures, Dickinson packs into a single work the time, energy and multiplicity of attitudes that other artists might put into several one man shows. Completely a painter, one painting can express his position completely. And Kiesler recalls Renaissance artists in his rebellion against the prevalent concept of a work of art as the production of a professional whose profession is determined by his medium. Painting, sculpture, architecture, stage-design--creating in all of these fields, Kiesler refuses to have his energies channelized by any one of them--Both of these artists, in the sense that they can compress a broad moral and aesthetic philosophy in a single work, are masters of masterpieces--inimitable and unmistakable standards of high facility and purpose.[25]

Elaine de Kooning's point of view is valuable in its affirmative and non-apologetic presentation of Kiesler's outsider's stance. She rightfully perceived it as a philosophy which as such precedes any

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stylistic and artistic involvement with a single medium and craft. It is a subordination of the professional aspects of making art objects to a broader "correalist" view; the constant effort to make art beyond the current perimeter of style and stylistic consistency.

For de Kooning's article Kiesler provided special drawings, as was his custom in many articles he wrote about his own work using sketchy illustrations to break the conventional division between the printed text and adjacent illustration (figure 140). He considered the magazine page as a medium which required a specific, creative and effective use. Thus, a drawing of this galaxy was supplemented with a collage of torn pieces from a photograph of the same work. The drawing reproduced spread across two pages, is integrated with the printed parts effectively and the freshness demonstrated in the treatment of the page helps convey the character and even the monumental scale of the work. This illustration crossing over the center of the double page also conveys something of the environmental aspect of this sculpture better than any straight photograph of this architectural sculpture. The drawing confirms the existence of a dominant view of this sculpture; a perspectival reading similar to the way it was originally placed on stage, that is, the tall poles in front, and the smaller diminished ones behind. The torn pieces of the photograph show the two frontal and curvy poles--one of which is adorned with the fishbone motive, and another photographic fragment of the cross beam of our skeletal Galaxy.

Elaine de Kooning also quoted Kiesler's idea about the environmental flow of art, from life to art and back again. She then described quite correctly the dynamics leading to Kiesler's art, saying that:

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> Kiesler has been philosophizing a life time before arriving at the physical facts of painting and sculpture. The initial concept for his prodigious Galaxies was decades in the making; the execution a matter of one afternoon for a painting, a couple of weeks for a sculpture. His long experience with architectural principles profoundly influences his treatment of both two and three dimensional space.[26]

Kiesler's art was propelled by many ideas and much thinking; his works were conclusions of such processes, more than a result of prolonged and gradual studio labors and the perfection of style through proliferation. Kiesler had a great sense for and interest in craft and the practical, seeking ever more creative solutions, with the simplest of means. As we have indicated earlier, this Galaxy (as well as the one which followed and the Totem for All Religions) were made with a band-saw that Kiesler "discovered" and effectively employed. Elaine de Kooning, who knew Kiesler and talked with him, described his ways with this tool as follows:

> Here he whips out huge elaborately twisted forms in a day with a band-saw. Devoted to this machine, which he finds "a real discovery" he insists on utilizing it for even the most delicate details. Uncannily anticipating his final forms, he laminates thin, flat pieces of wood together to achieve apparently impossible curves, or fits groups of irregularly shaped segments together to arrive at flat panels. These mechanical ingenuities, evident only on close examination offer another important level on which to experience this work.[27]

Kiesler's assistant of many years, the wood carver-sculptor Ralf Dorazio, told of Kiesler's love affair with the band-saw which he stretched, according to Dorazio, to the limits of its carving potential by bending the band of the saw so as to carve the curvilinear profiles he had in mind.[28]

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Lillian Kiesler also recalled her husband's enthusiasm for this tool: "He loved the idea of making sculpture by layers of wood on a band-saw."[29]

The attraction to explore the uses of tools, often beyond their original purpose, is no doubt part and parcel of the creative process where artists develop their own techniques. Kiesler was fond of such experimentation. Thus he realized a combination of cutting and carving, and through layering the wood, Kiesler reached monumentality, combining the subtleties of the subtractive (carving) technique with an additive process of sculptural construction.

A few years later in September of 1958, in connection with a discussion published in Art News titled "Is Today's Artist with or Against the Past?"[30] Kiesler submitted a reproduction of the second wooden Galaxy, the 1951 Galaxy which was part of the Philip Johnson's collection, and wrote about these two galaxies as follows:

> My two Galaxies--one for Philip Johnson's house at New Canaan, the other in Nelson Rockefeller's collection—embody my belief in what I term "correalism": man's union with the cosmos, with the whole: This union is, and has always been, the very basis of human need.[31]

This passage confirms that the Nelson Rockefeller and Philip Johnson Galaxies (figures 135, 136) were considered by Kiesler as a group of works--Galaxies expressing in quite similar formal terms a single iconography—the "correalist" union of man and cosmos. These Galaxies were made within four years of each other, the Johnson Galaxy being the second and more abstract and devoid of surrealist detail. The Johnson Galaxy, which did not have a previous role on stage and was not

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endowed with surrealist detail, nonetheless was closely related to the earlier sculpture in its adherence to the same open structure. Yet in this second Galaxy construction, Kiesler applied his "correalist" philosophy through the construction principle of tensionism where all parts hold together and depend on each other.

This second sculpture has not survived (destroyed circa 1956). Lillian Kiesler recounted that it was struck by lightening and burned down—this constitutes the "official" version as to this sculpture's fate.

Philip Johnson told his version of the sculpture's misfortune. According to Johnson the sculpture was not constructed properly and gradually fell apart.[32] Both stories are not entirely disinterested. Lillian Kiesler provided a fatalistic explanation whereas Johnson's story expressed his somewhat ambiguous attitude to this fellow architect's renegade theories and achievements for which the disintegration of the tensionist Galaxy provided proof as to its limitation and lasting effect.[33] In this light the first explanation then could be seen as an apologetic explanation.

The examination of the remaining photograph of the Johnson Galaxy indicates that in this work Kiesler used the band saw to carve complete bulks of wood which were assembled in a manner which appears to have applied tensionism by loosely "leaning" the parts against each other; few pegs can be identified, the piece is locked in and jointed within itself but is not constructed as a solid cast. This, as well as some exterior effects of nature which, for all we know, may have included

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lightening, seem to have conspired to bring the tensionist breathing construction that this Galaxy was to its end.

The remainder of Kiesler's entry from the above printed symposium contains a few other relevant points. The caption under the Johnson Galaxy reproduced includes a quote, "The spectator must be drawn into the work of art." This recalls the environmental argument in connection with the earlier Galaxy. He also wrote: "I don't believe in painting or sculpture per se. In both these arts, as in poetry, it is a matter of integrating the spatial concept--whatever it be--with life."[34]

This quotation should extend an understanding of Kiesler's attitude to art which was generally opposed to the notion of art for art's sake and a belief that the bottom line of art (not only painting and sculpture or architecture but other media like poetry he listed, for example) was a form of dynamic integration. In Kiesler's vocabulary it was not a merely formal conception concerned with three dimensional space but an attitude that seeks a high level of consciousness, art seeking to integrate with life into a union that constitutes the profound meaning of space and may imply even a political purpose. After stating this idea Kiesler turned for an example to his 1947 aforementioned sculpture Totem of All Religions which, as related here, was a sculpture "requested" by Kiesler's two fellow organizers of the 1947 Surrealist show at the gallery Maeght, Paris--Andre Breton and Marcel Duchamp. Kiesler designed the show and its "hall of superstitions" but what is important in the present context is that Kiesler associated the Totem of All Religions (figure 130) with the two galaxies that were discussed

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above, and that a sculpture as this Totem madeup of various religions symbols was quoted by Kiesler as an example of spatial integration. The Totem of All Religions, though not named a Galaxy, was a Galaxy of different religious signs, a galaxy of signs and/or symbols of culture. But inasmuch as there was a formal "picture" to a Galaxy in space, only the two later "cubical" Galaxy sculptures qualify, not only because he had named them galaxies but also because their spatial portrayal of interdependence. But from the point of view of style, all three works were executed in a certain manner in one material and with the idiosyncratic use of a particular tool.

What can be learned from this small group of successful works in wood is that Kiesler had a limited commitment to style and that he did not seek a style or strive to become a "professional sculptor"—an expression he once used ironically to describe Herbert Ferber.[35] In fact, it is this restless dynamism of their creator which keeps the two surviving sculptures alive and vital, and therefore in today's perspective they look as fresh as ever.

Galaxy Paintings at Sidney Janis

Let us turn to Galaxy painting, a type of galaxy that Kiesler also showed in "15 Americans" and was a nineteen piece Galaxy (figure 138). This painting was badly hung[36] and was overshadowed by the sculpture Galaxy which received most of the publicity including that of the popular magazines, Harper's Bazaar and Life, and since it entered the Rockefeller collection has been much exposed, published and photographed.

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The nineteen piece galaxy painting, an ambitious painting and one of the largest galaxies Kiesler made, was not reproduced at the time. It has only been reproduced recently. It measures 8'9-3/4" x 13'6-3/4" total, is painted in Chinese ink and oil on paper, mounted on cardboard. Interestingly enough it represents the large wooden Galaxy sculpture (1947-1948, 1951) that Kiesler showed at this same group show of "15 Americans." It is thus a Galaxy painting of a galaxy sculpture.

The upper part is made up of eight rectangular paintings assembled to form a large rectangle and which shows the upper section of the wood sculpture Galaxy. The beaks at the corners holding the horizontal cross beams, as well as the fish-bone motive, can be easily recognized. This part is hung diagonally over a group of seven paintings hung roughly in an X shape formation. They seem to represent the X shaped base of the wooden sculpture Galaxy. The other four parts left are hung vertically "representing" the vertical poles. In terms of the spatial rendering of the three dimensional sculpture in a galaxial painting, it seems that a Japanese isometric perspective is a relevant association. This galaxy painting can be viewed as a turning point which marks Kiesler's involvement with ambitious, more abstract Galaxy paintings and which also led to a show of Galaxy paintings at the Sidney Janis Gallery in 1954.

The nineteen-piece painting Galaxy, which was just as inventive and innovative as the sculpture it represents and which stole the show, was however not entirely overlooked. In fact it was fully appreciated critically and carefully described by Elaine de Kooning, herself a

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painter and wife of a painter, in the article already cited. In this article she first related Kiesler's space to Mondrian's and said that it

> tops Mondrian's up to now irresistable finality with the next logical step in that militantly progressive aesthetic. Once made, it seems an inevitable step, but it took twenty-five years—and Kiesler—to make it. Thus his "clusters" or "galaxies" of paintings and sculptures are completely unexpected as they burst on the art world with the impact of a great formal revelation. In the two dimensional Galaxy nineteen separate, small paintings are arranged in relations as carefully as the forms within any one of them. Each picture is complete in itself, offering a simple, autonomous balance as the eye finds a central focus in any one of them, but they are conceived as inseparable units of one composition. On the back of each unit is a diagram of the master-scheme, indicating the position of all the pictures and the exact measurements between them. They can be displayed on any wall that offers an uninterrupted expanse of 14 x 9 feet. Most of his galaxies are arranged on a strict vertical and horizontal plan, but the one in the Museum of Modern Art's exhibition his largest so far, expands upward and outward on irregularly placed axes.[37]

What is remarkable is the fact that De Kooning has not mentioned at all that this large Galaxy is a free, but nevertheless recognizable, representation of the large wooden sculpture Galaxy that was also shown at the show. It definitely points toher bias which led her to discuss it in purely abstract terms, a strategy which in spite of the Galaxy's representational content is relevant and useful. Indeed, the pictorial galaxial representation of an open sculpture galaxy ties this work to the abstract painting dominant at the time. De Kooning's observation that this particular Galaxy, unlike Kiesler's earlier Galaxy paintings, breaks the horizontal/vertical plan is indeed significant not only as a reference by departure from Mondrian's dominant formula but also as

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a pictorial statement which comes closer to the new pictorial freedom and ambitious expansion of painting undertaken by the Abstract Expressionists. This cannot be totally ignored in discussing Kiesler, in spite of considerable differences between these American artists and a somewhat older European. Still, the tone and style of each individual part of the large Galaxy relates to some of the caligraphic stages of early Kline, Rothko and Reinhardt (of the late forties). They all knew Kiesler. And while during the early fifties they have developed a new imagistic all-over integration, Kiesler spread out, so to speak, by loosening (diagonalizing) his Galaxy painting and abandoning the earlier tighter approach. Specifically, the calligraphic attitude employed by Reinhardt and its evocation of an Oriental meditative minimalism was not altogether alien to Kiesler.

The comparison with Mondrian, whom Kiesler knew well, is relevant and was taken up by a different writer later in an article titled "Kiesler and Mondrian, Art into Life."[38] Since it appeared in a later context, it will be discussed separately.

As Elaine de Kooning, who knew Kiesler, hinted, several painting galaxies existed at the time and the show at Janis' was thus a natural consequence of this burst into the art world. Kiesler had his first one-man exhibition and his New York debut as a full-fledged painter.

Kiesler's relationship with Sidney Janis goes back to the late twenties, shortly after Kiesler's arrival in this country in 1926. Janis recounted the origins of this relationship. It started when Janis and his wife walked down Fifth Avenue and noticed Kiesler's beautiful

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window displays and settings for Saks Fifth Avenue (1929). They inquired who the designer was, approached him and started a fruitful relationship, the high point of which was the show in 1954.

Janis admitted that Kiesler knew much about art and all the latest innovations firsthand because he was European, and had been deeply involved with major artists and movements before he came to provincial America. Janis, who at the time just started to get involved with modern art, was open and willing to listen. He was a perfect match for a man like Kiesler who liked to talk and was delighted to share his knowledge. Even in later years when the Janis Gallery was successfully underway Kiesler would phone Janis and the two would visit other galleries and discuss the latest in art. Thus, it is hardly surprising that Janis, whom Kiesler later described as his "former student, dealer and buddy,"[39] would give Kiesler a show.

There is a calculated risk of distortion in focusing on a single issue for methodological reasons. In the case of Kiesler, who had multiple activities, and considering the concept of galaxial integration and total design, it seems justified to abandon the galaxies for a paragraph and examine the invitation that Kiesler designed for his show at Janis.[40] The invitation was a four-fold, five-part fold-out (9" x 20") printed in one color--brown (black and one color) on a heavy grain yellow paper. The exterior reads in black, big lower-case letters "invitation" and gives the dates of the preview. A number of pointing hands printed in a semi-circle direct the attention inside. Inside, when unfolding the paper, one sees a text printed in black, lower-case

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letters. The text is divided into four "paragraphs."[41] Big brown-lettered words convey the information of the exhibition in five parts (above each section) as follows: (1) Galaxies, (2) by Kiesler (and in slightly smaller letters, (3) 27 September to 19 October 1954, (4) 15 East 57 St. (this is also the lower bottom of the invitation's exterior when folded). Kiesler conveyed simultaneously on the same side two orders of information, the invitation proper integrated with a statement on galaxies—which is the top word common to both orders of information. This method of simultaneous information is reminiscent of Kiesler's catalogue design for the New Theater technique exhibition in Vienna (1924).

The text raises new points that reformulate and reiterate some ideas already discussed. First, Kiesler speaks of breaking out of the single frame, replacing this traditional concept with his new dynamics, groups of units as galaxies. The metaphor of breathing mentioned already is reiterated as a metaphor for the galaxy's dynamism in space expressing life. In another metaphor he says that:

> The structural continuity of the galaxy has both the expense and the limitation of group-living. Each painting represents a definite unit in itself just as in one family each member is of distinct individuality. Yet, their firm cohesion (into one) is inborn no matter how heterogeneous the character of the members might be.

Kiesler's metaphors such as life, breathing, family group-living are a combination of sociology, psychology, anthropology and biology. A fine example of Kiesler's metaphoric shifts is an entry from the Journals titled "How Things Hold Together" and dated from 1959.

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> How things hold together is quite miraculous. It's too strange for us humans to understand the way molecules click, cells divide without losing hold of each other. We build by making joints after joints. Nails for wood. Bolts for iron. Welding for steel. Pearls, rolling all over the ground, we string togther. Friendship has invisible ties as strong as iron. The relationship of family members is a complicated mechanism, yet natural to us. Links between those members are made of instinct, that is right, made of it, triggered by psychological impulses propelled by emotions. They shake hands with each other without touching. You see human bodies, you see intervals between them, but neither our eyes nor ears nor nose nor hands can grip the flow of the power that holds them together or pulls them apart. The intervals between them seem empty spaces, dumb voids.
>
> The physicist tells us, presuming that heavenly bodies, fixed or moving in cosmic space, unattached to one another by any material bond, are held together by a magnetic and gravitational field, it, too, is un-visible, un-heard, untasted, untouchable.[42]

Thus Kiesler derived his language from a wide range of sciences, from chemistry through physics, psychology sociology and astronomy. And this attitude constitutes galaxial correlation and Correalism.

To convince the reader that all of this relates to galaxies, Kiesler concluded a few lines later with the following words:

> My making several units of paintings, galaxies, separated from one another at different intervals, is an attempt to make painting not an illusion of reality, but real. It is anti-art and pro-life.[43]

The motif of resisting art for life is problematic and cannot, nor should it, be taken too literally. Yet it seems that one facet of this attitude is the will to solicit for art an ambitious, directive function, shaping it through a deeper consciousness of nature. In the text of the invitation to the Janis show, one finds further support to the proposition that Kiesler aimed at a modern forceful integration of art into life. This may be interpreted as a move toward a more political metaphor.

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For example, following the now familiar argument about extending painting to sculpture and architecture—or variations on the same motif, Kiesler writes:

> If the reassessment of values in these tense times is of necessity for each and all of us, one is convinced that the artist's work too can no longer be placed in isolation; that art must strive again to become part of daily existence.

The words "in these tense times" could read as an open-ended reference to modern-day "angst" but could imply the cold war which was the political reality under the shadow of nuclear war.

To further the contention that an integration of art with life was more than the modernist call for an environmental approach, regard the 1958 article, "Is Today's Artist with or Against the Past?" Kiesler here quite explicitly continues his argument about "correalism," as expressed in the two wood sculpture-galaxies with the following words:

> Two wars retired the artist into abstraction: from l'Art pour l'art we have passed into L'art pour l'artiste. Now the artist must act. He has gathered strength from confronting the very problem proposed by "Sputnik": the question of a third world war. This question must be answered by him—by the artist. The reality of the human problem is a magnet drawing him surely into his role of responsibility. Into his place in the continuum which till this moment has been lost to our time.[44]

These sentences reveal the political dimension included in the galaxy's iconography at the time, against confrontation and for integration.

The show at Janis consisted of twelve galaxies of various kinds. Some were figurative in their use of depicted, recognizable subjects from the most ambitious work in the show, the Large Horse-Galaxy, through

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titles such as Danae or Blue Hand, and descriptive formal abstract titles: Two in One Corelate or Four in One Frame Correlate. Kiesler used the figurative, such as the traditional subject of the horse, as a visual convention, the unconventional manipulation of which served as a useful tool for evoking new experiences of space.

Yet, there is no intention to hide the psychological content, evoked by the literary meaning of a loaded image such as a fallen horse, gracious in default, humiliated on the ground. There is considerable drama in such a situation. Kiesler mentioned the bullfights as the source of inspiration. This recalls Picasso, whom Kiesler has not mentioned. Picasso, who produced some of the strongest renderings of the fallen horse (such as in the Guernica, still in New ork at the time, and the studies for it) has to be regarded as a background source for Kiesler's horse. Consider now the Horse Galaxy and the Large Horse Galaxy.

The work now titled "Studies for Galaxy (Horse)," 1954, in the collection of the Museum of Modern Art (figure 141), is probably the work numbered 1 in the show at Janis titled there "Horse Galaxy." This three-part painting was painted in oil and enamel on wood panels. (The sizes are left, 23½ x 29"; center, 24 3/8 x 17 3/4"; right, 24½ x 17 5/8"). The three wood panels contain the horse's head and curved neck on one, the torso on another, and the third panel contains an element, the exact reading of it is difficult to determine, but it may be part of the horse's leg. It also reads like a cut-off section and is reminiscent of such usage in Guernica.

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Since according to Kiesler, a galaxy is a balance between the group and each individual unit, each panel displays Kiesler's forceful painting skills: putting down paint, thinking two dimensionally as well as rendering foreshortenings. Kiesler's color scheme is limited. He favors a few colors: white, blue, red, black, brown, an idiosyncratic palette. As to the galactic space, a great deal is achieved by a free relational hanging which basically means preventing the horizontal from playing a dominating role. This yields a virtually floating reference point for the elements in the picture themselves and the viewer's relation to the three rectangular frames of this galaxy.

Thomas B. Hess, editor of Art News, welcomed Kiesler's show of galaxies in his column, "Reviews and Pre-Views." He wrote:

> In this reviewer's opinion, the exhibition demonstrates a new solution to the most crucial problem facing modern art, and thus it is one of the most important to be held in several years. Superlatives have become inexpensive, but Kiesler's contribution merits the lost meaning of all those words ending in "est" that advertisements have devalued.[45]

If a review may be termed a superlativistic review, this is one.

Hess liked the work in every respect. He recognized its sophistication--the investigation into (cubist) multiple viewpoints, including the upside down, and its implied psychological expression, as well as the architectural, environmental and sculptural implication.

The Large Horse Galaxy (figure 142), which was made of six panels and involved floor, wall and ceiling, was an imposing installation was discussed by most reviewers of the exhibition. Hess' description of the Large Horse Galaxy reads:

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> The largest, most impressive Galaxy which fills a whole room, is based on the forms of a horse seen from three views; a painting on the floor is of the animal's back seen from above; one is on the ceiling, the legs and belly seen below, four panels on the wall unite to show the horse sprawing on its back and side.[46]

Hess did not elaborate much in anticipation of a planned discussion of Kiesler's "group of units" by Elaine de Kooning under the title "Kiesler Paints a Galaxy." This was to be part of a series of articles she wrote for Art News, of portraits describing artists in action. "Kiesler Paints a Galaxy" was never published. Instead, de Kooning published her article on Dickinson and Kiesler. Hess' preview was short and succinct and worth quoting for its observations. It continues:

> Each of the six pictures in the horse galaxy is independent in the whole. Perhaps because of the long detailed work of planning that lies behind them, each is centripetal, contained and suggests further gestures, profiles or sectional contours of the motif. United they act with architectural and sculptural forces which dominate all adjacent space. The painting, in other words, orders the space of its architecture and assumes within it much of the projective power of sculpture.[47]

Hess' words were most probably informed by Kiesler's own available texts for the exhibition. His personal experience of the paintings which no doubt corroborated Kiesler's ideas. He points to the tripartite "function" of the Large Horse Galaxy as painting, sculpture and architecture.

In retrospect, with the advent of "environmental art" it becomes clear why Hess would spare no superlatives to express his enthusiasm for the new work. These works offered a new solution to "the most crucial problem facing modern art" but Hess gave no clue as to what this

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problem may have been. Assume that it relates to the growing literal attitude to painting in the form and content of Abstract Expressionism which left little territory to conquer and Kiesler's original direction offered another direction. Significantly enough, the author of the now classical essay "The Big Canvas," E. C. Goossen recognized similar qualities in Kiesler's sculpture galaxies. Goossen was however referring to sculpture only in his article titled "The End of the Object." Reviewing the Museum of Modern Art's show, "Recent Sculpture U.S.A." (1959) where he pointed to Kiesler's 1947-1948 Wood Galaxy as a point of light in the generally dark and fallen state of American sculpture as reflected in the 1959 MOMA show.

Goossen put it as follows:

> The changing environmental conditions within our civilization indicate that if sculpture is to survive at all as an art it must stop conducting itself as if it were a school for good design and, I believe, it must abandon the idea of itself as primarily an object.[48]

Basically Goossen pointed out that the question of scale was tackled by sculptors only a decade after it was seriously addressed by the painters. He listed among the few who did, Smith, Nakian and Kiesler's Galaxy of 1947-1948.

So Goossen found in Kiesler's sculpture Galaxy what Hess has found in Kiesler's paintings—a much needed solution to sculpture which has reached a dead end. Both Hess and Goossen sensed the coming of environmental art for which Kiesler's work and philosophy provided a foundation.

In spite of a potential connection between Kiesler's expressive galaxies, extending beyond the traditional constructions of the frame

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and the Abstract Expressionist's quite similar ideas of expansion, there was little dialogue between the abstract expressionists and Kiesler. Sidney Janis stated that someone like Pollock, for example, showed no interest or understanding in what Kiesler was after, and in turn Kiesler did not use his empathy and intellectual energies to support abstract expressionism about which he said next to nothing. The exception was Franz Kline who, as Janis related, was a friendly person and was Kiesler's friend. But even Kline did not bridge the gap between Kiesler and the Abstract Expressionists which, according to Janis, was mostly a generation gap.

Janis tried to get Kiesler and Gorky together, thinking that Gorky's somewhat European sensibility might contribute to the dialogue between the two painters. This attempt also did little to bring the Abstract Expressionists closer to Kiesler. Gorky, however, was the only painter about whom Kiesler wrote. But it was about Gorky's Newark Airport mural and thus preceded the time Abstract Expressionism came about.[49] It seems that despite of the odd relationship between the Abstract Expressionists and Kiesler, the latter's galaxies shared some of the ideas that this particular American sensibility came to express.

Not all reviews of the exhibition were as supportive as was Hess' preview. Most writers, however, regardless of their individual opinions, acknowledged the originality of the Galaxies for which few parallels could be found.

Robert M. Coates, writing for the New Yorker, recalled the wood Galaxy shown in 15 Americans in 1952 and wrote as follows:

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> Kiesler, an architect by profession, and the creator of a huge rambling piece of constructivist sculpture that caused a good deal of talk when it was shown at the Museum of Modern Art's Fifteen Americans exhibition two years ago, has also gone for painting, and his approach, if not startlingly successful, is at least original.

After crediting Kiesler with originality, Coates confessed that most galaxies "just don't hold together well enough to justify his dispersed arrangement of them and at the same time give meaning to them as a group." The reviewer, like a few others, was somewhat disturbed by the difficult means of cutting into the integrity of the subjects chosen. In conclusion Coates wrote:

> Considering his brief experience as a painter, his use of color is at once bold and sensitive and his technical dexterity is notable. And when he does succeed, as his "Blue Hand" galaxy and flamboyant but attractive "Six Reds," the effect is curiously interesting.[50]

This review that reveals that Kiesler's 1947-1948 Galaxy shown in 1952 "caused a great deal of talk" is a characteristic review of the enthusiasm for Kiesler's work. On one hand the reviewer acknowledged the originality of attitude and result, and on the other hand, a puzzlement with the galaxy paintings was subtly expressed. It seems that the reviewer did not quite like them. Thus, the strategy adopted was to look at the whole affair as an effort of an architect who took up painting and thus got most of the credit merely for living up to the "standards" of painting. For Kiesler an architect is an artist; therefore this way of stating the "case" misses its innermost intention.

Stuart Preston, writing for the New York Times, titled his review of Kiesler's galaxies at Sidney Janis as "And Now Galaxies, Kiesler

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Paintings Form Newest Innovation." The title reflects Kiesler's reputation as an innovator. Preston described him well as being "not only a dynamic innovator but also one willing to pay a high price for originality." Indeed Preston made Kiesler pay the price of innovation in his ambiguous, negative review, saying:

> And the kindest way to judge the pictures as such--for they lack the most rudimentary painterly sensibility—is to remember that Kiesler is an architect-designer and that his scheme is of primary interest as an inspiration for painters.[51]

The critic however was in my opinion wrong to see in Kiesler and the galaxies a clear revelation of "the immense influence that the Bauhaus, the famous German design center of the twenties, had on Kiesler." Kiesler's first galaxy paintings predate the Bauhaus, and later developed in directions that show no influence of Bauhaus practices. Most of all the galaxy differs from Bauhaus attitudes toward more integration of the arts, in the cosmic metaphor intended by Kiesler. The Bauhaus was less metaphysically inclined. The ultimate metaphor for Kiesler was the universe at large, mental and material, whereas the Bauhaus did not aim that high.

Martica Sawin, reviewing the Galaxies at Janis for Art Digest,[52] disapproved of Kiesler's paintings and the idea of correlating the "trinity" of the visual arts (painting, sculpture, architecture) on the grounds that this idea is "somewhat dated after the Bauhaus." She wrote that "Kiesler's application of the concept gives it no added weight, as the enduring virtues of both paintings and sculpture are lacking in the galaxies and are not compensated for by the restless sense of

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imbalance which they generate." She also expressed a reservation concerning the choice of subject matter, said it was irrelevant, and said she would rather see it all expressed as abstract painting--"as the factured image interferes with and disturbs the abstract play of color and form." The figurative disjunction of parts created in her opinion "a constantly dynamic situation in which the eye is forever frustrated in its instinctive attempt to correlate the objects on the visual field." Sawin's preference for the abstract here is irrelevant since Kiesler's particular intention was different. Recall the earlier portrait galaxies where the manipulation of viewpoint was exploited such as in the E. E. Cummings galaxy portrait. The figurative foundation was well calculated and fully intended.

Concerning the Horse Galaxy, the horse as a subject in Kiesler work will have a second coming later in his career when Kiesler will make a big hollowed sculpture titled Bucephalus.

Kiesler provided further information about the experience that led to the image of a horse. Besides the invitation to the exhibition which included a text on Galaxies, two other typewritten texts exist, one titled "Notes on Large Horse Galaxy" and a second titled simply "Notes on Galaxies." In "Notes on the Large Horse Galaxy," Kiesler related his experience of the first bullfight he had seen, in the arena of Frejus in Southern France where he saw "gored animals crying in the sand with their stiffened legs stretched upward" and he went on as follows:

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> Here was a theme to allow plenty of latitude in the resolution of the problem of space. The upturned columns of the four legs helped me give the measures of depth, height and width of the composition, just as an upturned table gives at once the sense and image of cubic space.[53]

Two elements ought to be recognized. One is that Kiesler had a certain compassion for the "gored animals dying in the sand." This is a picture with strong emotional content, the beautiful beast deprived of its natural dignity was forced off its legs and killed. In addition to this compassionate dimension, there was the formal aspect of the horse as a means to dramatize space.

Kiesler also described the Horse Galaxy and it is interesting that he referred to each angle from which the horse was seen as a different horse: the red horse on the floor, the blue horse on the ceiling and the five panels on the wall as a horse seen in a side view. This description reaffirms the environmental objective underlying the whole piece.

Kiesler explained that in the wall panels the cleavage between head and body was introduced to enforce his feeling "that the head and neck of the animal have a distinct spiritual quality as compared with the rest of the body, particularly with earthy and powerful torso."

The Horse Galaxy, with its uncommon view of the beast may be related to a story Kiesler told Lillian of a childhood memory from Vienna. When he was five years old and went with his father to study the Lipizaner horses, he ran under the legs of the horses looking up.[54] Another passage in the text on the Horse Galaxy explains in detail how the galaxies were conceived. From the following is learned: First, in spite

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of the scattered look of the galaxy, the location of each part or unit is "prefixed" just the way "The width and depth of panels of each galaxy are strictly determined before the actual painting is begun." In fact the exact hanging instructions in the form of measurements of the distances between parts and a map was provided for each galaxy.

The "Note on Galaxies" also stresses that in spite of the unity of the Galaxy, its basic idea is one of decentralization which, in terms of Abstract-Expressionism, can be termed "all over" painting Kiesler's way. Kiesler ends the note with the following words: "The spectator has (therefore) the freedom to connect all units into one field of vision or make any of the parts to the focal point of his interest."

The spectator plays an active role in the completion of the galaxy experience. Participation is a part of the environmental condition.

One reviewer sounds like the ideal spectator with a totally sympathetic attitude and his comments read:

> For it would appear here that a galaxy is a painting cut up into several pieces, which together make a fine composition yet separately look just as good, even when they're hung on the walls tipped over at an angle or fastened to the ceiling or set on a pedestal on the floor, coffee table fashion. It all sounds mad. But the fact is that it looks good. Kiesler is so accomplished a painter that each part of each galaxy is a dramatic and subtle composition and the whole is a most impressive sum of its parts.[55]

For a slightly different angle there is the informative reporting of Time magazine (October 11, 1954) which reported about the show in favorable terms, and provided information about Kiesler's "state of reputation" which although somewhat irrelevant to the art, is still interesting in describing the man. The Time article titled "Something New" starts with a loaded paragraph—somewhat vulgar—that reads:

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> Frederick John Kiesler has one of the smallest frames and biggest brains in contemporary art. A gentle Vienna-born egotist he lives in strict simplicity in Manhattan's Greenwich Village and at 58 still steadfastly refuses to limit his ideas to the subtle, the practical and even the altogether sensible. His colleagues have been both damaging and deifying his theories for years. Because he keeps well ahead of his time, Kiesler has little substance to show for his motives and few laymen ever have heard of him.[56]

Time also informed the reader that Kiesler was a distant relative of Vienna-born actress Hedy Lamarr. About the galaxies it said that they were "not startlingly beautiful" but described them as "more original than any art novelty of the past decade—including Picasso's ceramics, Giacometti's stick sculptures, Matisse's chapel at Vence, Jackson Pollock's dribble-pictures and Juan O'Gorman's outdoors music at the University of New Mexico."

In spite of a somewhat pale enthusiasm for the Galaxy the Time article reflected the kind of puzzlement Kiesler's art and personality posed. As Time indicated, Kiesler's reputation fluctuated between admiration and deep doubt. The show at Sidney Janis led to a follow-up exhibition in the Museum of Fine Arts in Houston, Texas, the following year (1955) between January 16 and February 6. This show included mostly the same works shown at Janis' with the addition of a ceramic galaxy that Kiesler had made that year in (Picasso's) Vallauris—"the Vallauris Galaxy" which unfortunately has not survived.

Galaxies at Castelli

The next major exhibition of Galaxies and sculptures was at the Leo Castelli Gallery in 1961 (figure 143). Similar to the earlier

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show at Sidney Janis, this exhibition took place in one of New York's most reputable galleries. It played just as important a role in New York in the late fifties and sixties, as the Janis Gallery did during the two decades earlier.

Castelli spoke about Kiesler with quite the same affection and deep respect as Janis had. Castelli, who came from Trieste but went to high school in Vienna, said that this common background with Kiesler created an immediate rapport between them and they were close friends. Castelli met Kiesler during the the forties and the two remained close friends until Kiesler's death in 1965.[57]

The show at Castelli was a further development of the galaxy painting, and unlike the earlier galaxies, Kiesler moved toward a kind of galaxy that was much less dependent upon representational subject matter or better, moved toward a different use of representation. Here Kiesler used mostly his own created "nature," his architecture and particularly the Endless House (figures 144, 145). By concentrating on the Endless House as the core of the show, Kiesler unified his major preoccupation with painting, sculpture and architecture.

In the galaxy paintings, architecture was invoked by literal fusion of space and the pictorial depiction of the Endless House. Sculpture, however, was made a part, not only through the "scattered" manner in which the units were placed in relation to each other, but also by small wooden parts which served as structural and sculptural elements holding the "paintings" in place, although in some cases the wooden units were independent, suspended from the ceiling and thus acted as sculptural

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free-agents. Such an example is galaxy with interlocking sculptures (a pastel on paper, wood framed in three sections, 67 3/4" x 36" x 15" [deep]) (figure 146). Important is also the way Kiesler placed each of the variously located paintings, tilting them diagonally off the wall so that they also functioned in relation to the wall, adding to the sculptural quality of these painting-sculpture galaxies.

The painting medium was most often pastel or charcoal on paper mounted on wood. It was well suited to Kiesler's rapid drawing-line and spontaneous gesture which contrsts effectively with the solid interlocking wooden geometrical "sculptures" (figure 147). The wooden frames were often made by Kiesler himself (figure 148).

His Journals show an entry with the heading "The Cut" where Kiesler indirectly provided information about his working methods and ideas about the particular kind of galaxies he showed at Castelli. The entry, which dates about three months before the exhibition, described a studio scene with Kiesler working on the galaxies for the coming show.

Kiesler asked his assistant to get a plank of birch since pine would be "too whitish." The wood was for the interlocking pieces of the galaxies referred to earlier, connecting the galaxy's units which Kiesler called "sculptural frames" for which he preferred the "brown and dusky" over the bright white.

Kiesler urged his assistant Ralph (Dorazio) to get the 12" x 6" x 2" plank soon, saying:

> You know that to wait when you are eager to pour ideas into shape and form means to lose the very drive of the idea, its strength and spontaneity; if you have to postpone the

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> execution of an idea for a day or two, it might mean the total loss of it.[56]

Kiesler always created in the spirit of spontaneity and rapid immediacy and his works were a combination of premeditation and the speed of execution.

This entry revealed that Kiesler worked on the galaxies on the wall. First he marked the location of each unit with chalk; then placed papers cut according to the markings on the wall; he worked on the whole galaxy together with the speed and the immediacy of an "action painter" "darting" his hand to and from the wall as he has put it.

On that particular day described in the Journal Kiesler had to repaint a certain section since the colors were "too much absorbed" by the paper and had taken on a stale look; he called the task of repainting "hazardous" which it was for an artist who insisted on freshness in his paintings.

So, the Castelli galaxies were slightly different from the galaxies Kiesler showed at Sidney Janis. The subject matter was different and Kiesler worked on paper and introduced the "sculptural frames."

Castelli admitted that he was not too comfortable with Kiesler's paintings or sculptures and confessed that he mostly admired his friend's architecture. (It was through Castelli that the Endless House almost was built.) A model of the Endless House was shown in that same exhibition in which many of the galaxies centered on this unique type of architecture. The Journals provided yet another angle related to the show, a very personal angle which allowed a better understanding of Kiesler's personal attitudes and deeper feelings.

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This personal dimension is not directly relevant to the subject of galaxies per se, but since it was related to Kiesler's exhibition at Castelli, it could be regarded as a reasonable digression.

The entry was titled "The Exhibitioner," an ironic title. Irony was also expressed in the description of a show as a "Show-Off." The passage is clouded in a heavy emotional gloom, along with sarcasm, irony and humor.

Kiesler described a certain sense of loss an artist feels when seeing his works exhibited publicly, comparing the works of art to children leaving home. Once installed, the artist has no rights over his works. As to the more prosaic aspects, Kiesler described the various reactions as: "Alms dropped into your ears the comments you wait for from friends and frenemies"--a word combining "friend" and "enemy."

The commercial system to which art is subject is viewed with just as much pain. The gallery is called a brothel--"The patron-madame of the art gallery sits in the brothel of art, and waits, waits for customers. The wall flower girls are dressed in gilded nakedness. Eventually the devotee, the bourgeois, or the spectator comes." Kiesler then describes in detail how art is sold to the buyer. An earlier paragraph started with "Behold, a sucker is found, ho-yo-to-ho! He buys and buying is the stuff paintings are made of . . . a red star is the capitalist seal of acception. The decoration is proudly worn on the breast of the picture."[59]

Kiesler also described his restlessness during the exhibition and exclaims with no little pain, "What a hellish life of waiting and wandering is the artist's lot!"

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Kiesler then described the fortunes prescribed for the art-object itself. It moves from collection to collection; if you are lucky a museum will acquire it and even there a change of curators can remove the work from grace to disgrace and into "the deeper catacombs" where it may be rediscovered. All this amounts to a realistic picture, although it obviously also had something to do with an exhibition in a high powered gallery, an exhibition which was not a success and definitely not a commercial kill. Castelli was more committed to Kiesler personally and liked his architecture better than his "art." He also recounted that at the time, the sixties, he had other art on his mind. The period of course was Castelli's greatest, his heyday.

Beyond the purely personal frustrations one must credit Kiesler's candid journal and his ability to see things as they were, notwithstanding self-irony and a sense of proportion. Kiesler's description of the fate and fortune of artist and work of art alike relate to the fortunes and misfortunes of history, indeed art history, and they relate to Ad Reinhardt.

This show was critically acknowledged and seen as a confirmation that Kiesler's life-long involvement with environmental attitudes were still relevant and vital issues. A review by Dore Ashton in Arts and Architecture described the situation quite succinctly. She wrote:

> Our old master unitarian Frederick Kiesler came forward with an exhibition of drawings and sculptures at the Castelli Gallery, reminding us that he, long before anyone thought seriously of art as a "continuum of life" had thought it possible. Kiesler's theory of co-ordination launched more than thirty years ago, has found more and more adherents (some of whom don't even know he exists). It is Kiesler's

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> great credit that he was able to envision an art that transcended conventional categories—an art of involvement—at a time when technology was far from what it is today (there were still horse-streetcars).[60]

The environmental attitude to art emerged in the sixties and picked up momentum in the seventies after Kiesler had passed away. Kiesler was not a factor in shaping the artists' attitude in this direction but was a true forerunner, and as Ashton indicated, he was relatively unknown.

His success with the critics was not whole. He created difficult art always in change and he excelled by never repeating himself, rejecting any effort to secure and solidify an art for the sole purpose of style.

Lawrence Campbell, a veteran critic, summarizes and exemplifies in his review for Art News the kind of reservations Kiesler had to accept. He described the show adequately and sympathetically. His closing remarks characterize the ambiguity to which a reader of reviews about Kiesler's shows grows accustomed.

> (However), it is hard not to question Kiesler's assumptions. Surely, by making continuum in the form of wombs and insisting on organic rather than geometric forms, he is confusing art with life. His liberation seems doctrinaire and Freudian, yet his ideas raise important questions and he questions everything. More important perhaps, they banish taboos and permit him to create with caring freedom.[61]

In retrospect, this show may have paved the road necessary for Kiesler's future endeavors in painting and sculpture, he had a chance to realize in the Guggenheim Museum (see Chapter IX).

Finally, Kiesler's last sculpture—his thirty-seven piece sculpture environment Us, You, Me (see Chapter IX) was a major work and a Galaxy.

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This ambitious environmental work, is definitely a confirmation that Galaxies represent one of Kiesler's most persistent ideas. The Galaxy signified Kiesler's lifelong commitment to a correalist attitude trying to call attention to the breath of life and mankind's inseparable connection to the Universe and space.

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Notes

[1]A note on the exhibition, 10 January 1961, AAA Roll 126, frames 489-490 in connection to Kiesler's one-man show at Leo Castelli's containing galaxies and full sculptures.

[2]This is expressed in a late sculpture titled "The Marriage of Heaven and Earth," 1964.

[3]AAA Roll 128, frame 418, "Text on Kiesler" by Lillian Kiesler.

[4]Lillian Kiesler, Biographical Outline of Frederick Kiesler, Museum of Modern Art Special Collections, Kiesler Archive, p. 166.

[5]Lillian Kiesler, "Text on Kiesler." Recently published drawings by Kiesler from the sixties reconstruct the early Galaxies. For the large 1918 Galaxy see Bogner, Friedrich Kiesler, p. 298. The portrait of Leopold Liezler Kiesler dated in the reconstruction (1919), and he listed another Galaxy from that year which he titled The Jeweler. See ibid., p. 9.

[6]In a recent essay, "Thinking About Kiesler," Robert Pincus-Witten made the suggestion that the early 1913 Galaxy portraits allue to Malevitch's "Allegistic Cubist portraits by association of attributes" which also date from the same year. This is possible, although there is no evidence that the Galaxy portraits were cubist derived or for that matter an association of attributes; furthermore this source would not explain the portrait's real innovation; the fact that the images were literally divided. Cf., Alfred Kren Gallery New York, Cologne, and Jason McCoy, Inc., New York, 1986, Frederick Kiesler (1890-1965) Galaxies, with an essay by Robert Pincus-Witten and a poem by Alfred H. Barr, Jr., n.p.

[7]Creighton, p. 121.

[8]Museum of Modern Art Special Collection, Kiesler Archive, tape transcript no. 6, p. 36.

[9]Lillian Kiesler "Biographical Outline," Museum of Modern Art special collections, p. 165, from Kiesler's essay "Chestnut."

[10]See J. W. Goethe, Samttische Werke Stuttgart 33 (1885). Zur Naturwissenschaft im Algemeinen Die Nature Aphoristisch, pp. 163, 164, and particularly p. 249 about the two principles. See also Nicolai Heinz, "Goethe-Spinoza-Jacobi," in Gratulatio Festschrift fur Christian Wegner," and Benjamin Walter, "Goethe: The Reluctant Bourgeoise," New Left Review, May-June 1982, p. 69.

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[11]Howard Wise, who showed the sketches for Galaxial portrait for the first time in New York (Howard Wise Gallery, 12 April-10 May 1969) listed the following works;

Galaxy Portrait of Tanguy, 1949
103" x 88" oil painted on wood, assembled in accordance with sketches and diagrams left by the artist.

Fifteen studies in pencil on paper for Galaxial portraits as follows:

Galaxial portrait of Tanguy, 1949, three elements each 22½" x 28 3/8".
Andre Breton, 1948, 10" x 13½"
Andre Breton, 1948, 10" x 13½"
Andre Breton, 1945, 15" x 21"
Merce Cunningham, 1949, 17" x 22"
John Cage, 1949, 17" x 22"
E. C. Cummings, 1949, 17" x 22"
E. C. Cummings, 1949, 17" x 22"
Julian Levy, 1949, 15" x 18", Study for Galaxial family portrait
Dolly Haas Hirschfield, 1949, 17" x 22", Study for Galaxial family portrait.
Nina Hirschfield, 1949, 17" x 22"
S. J. Perlman, 1949, 17" x 22"
Kurt Seligman, 1949, 17" x 22"
Toyen, 1949, 20" x 25½" (AAA Roll 188, 41A).

Under Galaxies and Doodles, the following are listed: Arp, Tanguy, Aime Clark, Millicent Rogers, Pierre Matisse family, Toyen, Bolligen Press director and wife, Jacqueline Lam, John Erskine. AAA, Roll 188, frames 489-490.

[12]Lillian Kiesler, "Text on Kiesler," AAA Roll 128, frame 418.

[13]Lillian Kiesler, "Text on Kiesler," AAA Roll 128, frame 418. Lillian Kiesler, Biography, MOMA special collection, Kiesler Archives, p. 165.

[14]It is interesting to mention a well-known observation known to Leonardo, namely that an artist will create any human figure including portraits in his own image. Thus Kiesler, possessing "one of the smallest frames and biggest brains," as Time magazine once introduced him (October 11, 1954) must have projected this psychological phenomenon. He stood 5 feet 1 inch tall. Finally, with due respect to the difference between horse and man, note Kiesler's comment in his 1954 Notes on the Large Horse Galaxy where he writes, "that the head and neck of the animal have a distinct spiritual quality as compared with the rest of the body, particularly with the earthly and powerful torso" (a typewritten text). It is definitely true for the horse but I believe it is not irrelevant here.

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[15]Katsuhiro Yamaguchi reproduced the Cummings portrait upside down, which results from the portrait's abstract qualities which Kiesler's future galaxies will stress.

[16]See Held, Chapter V.

[17]Frederick Kiesler, Contemporary Art Applied, p. 28.

[18]15 Americans, The Museum of Modern Art, New York, 1952, p. 8.

[19]Ibid.

[20]Ibid., "Note on Correalism," p. 8. About alterations, see also Bogner, Friedrich Kiesler, p. 143.

[21]15 Americans, "Note on Correalism," p. 8.

[22]Ibid.

[23]Harper's Bazaar 85, no. 2885, (April 1952): 142-143. Reprinted in Grey Art Gallery Bulletin 4, no. 2 (Summer 1982).

[24]"Meant to Be Lived in: A Designer-Sculptor Disposes of One of His 'Galaxies' for $4,500," Life 32, no. 21 (26 May 1952), pp. 79-80, 82. See also Twentieth Century Art from the Nelson Aldrich Rockefeller Collection (New York: The Museum of Modern Art, 1969), pp. 26, ill., 101.

[25]Elaine de Kooning, "The Modern Museum's Fifteen Americans: Dickinson and Kiesler," Art News 51, no. 2 (April 1952): 20-23, 66-67.

[26]De Kooning, p. 23.

[27]Ibid., p. 66.

[28]Taped conversation with Ralph Dorazio at his home, New York, 5 June 1980.

[29]Lillian Kiesler, Museum of Modern Art Kiesler Archive tape transcript of conversation with Judith Vassalo, Reel 4, p. 57.

[30]"Is Today's Artist with or Against the Past? (Part II)," Art News 57, no. 3 (September 1958): 39, 62, 63.

[31]Ibid., p. 39.

[32]Conversation with Philip Johnson, 27 March 1981.

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[33]This does not exhaust the story of the relations between the two men. See Chapter V, p. 357.

[34]"Is Today's Artist," p. 39.

[35]See Frederick Kiesler, Inside the Endless House, p. 230. Kiesler met Ferber in the Modern Art Foundry. "What are you doing here?" asked the professional sculptor Ferber, picking at a tiny wax sculpture in his hands as I entered the foundry. (Apparently I am supposed to sculpt only in wood.) "Just inspecting," I answered. I think this passage proves my point. The quality of the work in wood created a conventional expectation of consistency and more of that style.

[36]See above, footnote 18.

[37]De Kooning, p. 20.

[38]Kim Levin, "Kiesler and Mondrian, Art into Life," Art News 63 (May 1969): 38-41.

[39]Inside the Endless Hosue, p. 300. In my (taped) conversation with Sidney Janis, I referred to this description. Janis did not necessarily like this formulation so much, but modestly and generously acknowledged his educational debt to Kiesler. Interviews, 23 April 1980, at the Janis Gallery, New York.

[40]In spite of what Sidney Janis told me, I am convinced that this invitation, unlike most of his others, was designed by Kiesler. This is not only reasonable considering the relations between the two (see above), but also logical considering Kiesler's interest in typography and information methods, as applied in this invitation.

[41]The paragraphs are not real since the text runs continuously on purpose from "paragraph" to "paragraph" and this may be said to create a typographical tensionism between those visual, not geometrical, paragraphs helping one to read to completion.

[42]Frederick Kiesler, Inside the Endless House, p. 214.

[43]Ibid., pp. 214-215.

[44]"Is Today's Artist," p. 39.

[45]"Reviews and Previews: Frederick J. Kiesler," Art News 53 (October 1954): 51. (Signed by initials T.B.H.)

[46]Hess, p. 51.

[47]Ibid.

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[48]E. C. Goossen, "End of the Object," AAA Roll 128, frames 117-118, Art International 111/8, 1959, pp. 40-42.

[49]Frederick J. Kiesler, "Murals Without Walls," relating to Gorky's Newark project, Art Front 2 (December 1936): 10-11.

[50]Robert M. Coates, The New Yorker 30 (16 October 1954): 24.

[51]Stuart Preston, "And Now Galaxies, Kiesler's Paintings Form Newest Innovation," New York Times 3 October 1954.

[52]M. Sawin, Arts Digest 29 (15 October 1954): 21.

[53]Frederick Kiesler, "Notes on the Large Horse Galaxy," typewritten text, the Sidney Janis Gallery Archives, New York.

[54]Musem of Modern Art, New York, Kiesler Archives special collections, transcript of taped conversation with Lillian Kiesler and Vivian Reinhold, Frederick Heller, Marguerita Young tape no. 7, 17 July 1970, p. 2.

[55]"Kiesler's Galaxies," New York Herald Tribune, 3 October 1954.

[56]"Something New," Time, 11 October 1954.

[57]From a taped interview with Leo Castelli.

[58]Kiesler, Inside the Endless House, p. 302.

[59]Ibid., p. 370.

[60]Dore Ashton, "Kiesler at Castelli," Arts and Architecture 78 (March 1951): 7.

[61]Lawrence Campbell, Review of Kiesler's Show at Castelli, Art News 59 (February 1961): 10.

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CHAPTER VII

TOTEM OF RELIGIONS: KIESLER AND SURREALISM

Introduction

Kiesler's integrated vision of humanity, its art, and its creative powers allowed him to move freely between Constructivist circles which focused on a new vision of design, form, and functional needs and the Surrealists. The latter sought to express the literature of life, its symbols, and underlying mental workings, dreams and fantasies, now and in their archetypical past, reviewing cultural structures and behavioral formulas. Realize that the textbook division between Cubism and its constructivist/formalist derivations and Dada/Surrealism, largely literary in origin, was never unequivocal, and borderline cases are common. Theo Van Doesburg, Kiesler's friend, for example, was no doubt a De Stijl constructivist artist first, but was just as much a Dadaist and a Social Visionary and critic. So it is not surprising that Kiesler, who focused on architecture and design in the thirties which he made manifest in the theory he named correalism—joined the Surrealists. The Surrealists came from Europe in the forties and introduced Surrealism to America firsthand.

For Kiesler the relations with the Surrealists was a reunion of sorts since he was a European who spoke French and German. He must have encountered this emerging sensibility in Vienna while he organized

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his 1924 international exhibition of New Theater techniques and in 1925, when he was in Paris for almost a year, before coming to America.

In Europe he knew Tristan Tzara,[1] probably through Loos. (Loos was also living in Paris at the time and was much admired by a Dada like Tzara. Loos designed Tzara's house in Paris, 1926.) Kiesler, however, did not make any Surrealist works at the time. His departure from existing architecture was primarily still a part of the Constructivist/Formalist line.

In America, during the late twenties and thirties, Kiesler became acquainted with Katherine Drier and Marcel Duchamp. The early American phase of his career was important to his growing involvement with Surrealism. Kiesler also associated with John Graham or Kurt Seligman. The latter gave Kiesler one of his prints as a present. In 1948 Seligman published a History of Magic, a title which was republished later under Magic, Supernaturalism, and Religion (subtitled: A History of Magic and Its Influence on Western Civilization). Religions in this book were illuminated in their myths and mysticism which also connected them to ancient myth high culture as well as language, the occult and ritual.

Totem of Religions

The Surrealist or mystical attitude to religion was shared by Kiesler who in 1947 designed a wooden sculpture for the International exhibition of surrealism at the Gallery Maeght in Paris, which he titled Totem of Religions (figure 149). It was made for the exhibition.

Kiesler who was of assimilated Jewish-Austrian background, avoided organized religion. Kiesler, in his Totem of Religions, sought to

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salvage those aspects of religion which were still expressive and carry intellectual significance. In an article in Aufban[2] where a paraphrased record of a conversation with Kiesler was reported the "Totem" was described as a visualization of the idea that superstition can survive faith. Kiesler was quoted as saying that "Religion is gone, but the symbols have survived."

The iconology of the Totem of Religions owes something, at least nominally, to Freud's (1913) Totem and Taboo which cannot account specifically for anything in Kiesler's 1947 Galaxy of various religious symbols. It was generally, influential through the psychological and anthropological analysis to which religion was subjected, as was Jung's Zurich school (which Freud inspired). Both encouraged a look at religion which influenced the Surrealists.

Kiesler's Totem of Religions was one expression, however late, of this spirit. It was also Kiesler's contribution to the gamut of modern works inspired by non-Western art; it was a totem. The complete iconographical plan of the Totem of Religions was published in America in 1948, the year following the exhibition at Maeght, Its publication in Partisan Review, a political and literary magazine with a leftist orientation, should attest to the "Totem's" unorthodox nature. Kiesler's drawing of the sculpture was accompanied by writing along the Totem "pole." It identified the various symbols that were interconnected vertically and were the surface structure, form and content of this work (figure 150). From top to bottom, the sculpture was crowned by a round shape which Kiesler described as the "Sun" placed atop a

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"crescent." Inside the round sun, a so-called star-of-David, or "jewish-star," was cut out. Kiesler did not describe it by any of these names but described it simply as a "double Triangle," which it is. As Kiesler indicated it represented "male and female." He elaborated that in India it symbolizes Siva and Sakti. Below the Sun and the crescent moon there is a triangle. Inside it as Kiesler indicated, appeared the key of life, an ancient Egyptian symbol. Its stem was also the vertical part of a "Christian Cross." The triangle framing the key of life which constitutes part of the Christian cross was drilled at several points and a heavy rope was pulled through. Kiesler specified this feature in writing in his explanatory drawing. Further down the Totem is the "Mark of Tammuz," a Babylonian God, as Kiesler explained. Further down was a Buddhist Cross from Tibet, and lower yet a Greek Orthodox double cross, where the pole ends. The wood was carved into a pointed end which rested in a hole, drilled into a piece of wood which rested the floor. Kiesler identified it as a representation of fire, and added in parentheses "sun." A connection existed between the celestial sun, the top part of the "Totem" and its terrestrial manifestation (representation) as fire on the bottom.

The Totem of Religions was not meant to include all religions nor could it. Kiesler was trying to make connections. First, in a manner quite unusual at the time, and less understood, the connection between Totemism and ethical religions, a connection that with the advent of structuralism gained credence beyond its psychoanalytic beginnings. For Kiesler it was a provocative and stimulating way to state the unity

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of spirit, which coincided with his broad humanistic view. Thus Judaism, Christianity, Islam (the crescent), Buddhism and Hinduism, were represented, all along the same vertical "totemic pole." These were also connected with the two great ancient civilizations and religions, Babylonian and Egyptian. The sun above and the fire below constitute a metaphor of a universal connectedness and make the connection between the various religions and their symbols as signs, culture. Nature represented by fire and the sun which are both symbols as well as our major source of energy (98 percent of all energy on our planet depends or comes from the sun). Therefore it is significant that from the ancient religions Kiesler chose the Egyptian "key of life" and the Babylonian (Syrian) god Tammuz (the latter personified life as blood along with the idea of nature's cycles, death and rebirth equivalent to the Greek god Adonis).

The published drawing for the Totem of Religions included a technical detail in which Kiesler showed how the wooden sculpture was put together. Kiesler planned it to consist of several interlocking units tightened with wooden pegs.[3] The sculpture which is now in the collection of the Museum of Modern Art in New York, measures 9'4-1/4" x 34-1/8" x 30-7/8", and has two upper rope extensions (left 34-1/4", right 33-1/4") which are now[4] part of the sculpture's method of installation. The work is a unique floor to wall sculpture. It is a suspended sculpture which also leans on the wall and extends to, and rests on the floor. Kiesler constructed a base piece on the floor which supports the bottom "fire" element, a detail which does not appear in the preparatory drawing

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published in Partisan Review. The rope that Kiesler pulled through one part of the sculpture is an interesting sculptural invention. As part of the work, from a formal point of view, the flexible quality of the rope extends the "texture" of the sculpture. It breaks the material's uniformity and adds an element of chance. Iconographically the rope was also used to suggest the trials and tribulations that the subject of religion has provoked often to unfortunate ends. The loop tied on one end of the rope may support this interpretation. A photograph showing Kiesler looking at his Totem and where the (French) words indicate the rope is a "hanging rope" ("corde de pendu") (figure 151)[5] although the plain meaning explains the function of the rope in the installation of the sculpture. The Totem of Religions was one work, and not the largest part of Kiesler's contribution to the Surrealist show in Paris.

1947 Surrealist Exhibition at the Gallerie Maeght in Paris

As reported by the New York Times,[6] Kiesler was invited by Andre Breton and Marcel Duchamp to design the Surrealists' show in Paris. This was the last International exhibition of Surrealism and was organized by Marcel Duchamp and Andre Breton.

Breton conceived of this last event in the history of (international) Surrealism[7] around a mythical subject. The authoritative words of Marcel Jean, who was a participant, describe the total iconographical scheme as follows:

> A place of initiation was envisaged, in which the visitor would have to traverse the stages necessary to acquire

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> knowledge--or, more exactly would have to follow a kind of "spiritual progression" commencing with the climbing of twenty-one steps "shaped like the spines of books inscribed with twenty-one titles corresponding in significance to the twenty-one major arcana of the Tarot," explained the letter of invitation which was sent out to a select list of future participants.[8]

This led into the "Hall of Superstitions" and then into another room in which it was raining perpetually. It was followed by a labyrinth which, in Jean's words, was "composed of twelve recesses with a cultic atmosphere emanating from objects of an intercessory character and from propitiatory offerings deposited at the foot set up "on the pattern of pagan cults."[9] There was a plan to have a surrealist kitchen where the initiate would be rewarded with dishes of a surrealist cuisine. This however was never realized.

According to Jean, Duchamp, who was in France at the time, suggested the Hall of Superstitions as a white grotto lined with white fabric. He also introduced the idea of a Billiard table for the "Rain Hall," and provided some details for the Labyrinth. Shortly after that time Duchamp, according to Marcel Jean, returned to America. Frederick Kiesler was invited to Paris to supervise the project architecturally.

Kiesler was called to contribute his architectural expertise to a project that was suitable to his particular talent and experience as a designer of exhibitions. Two projects in particular must have convinced Duchamp and Breton to invite Kiesler to Paris--Peggy Guggenheim's Art of This Century Gallery, that Kiesler designed in 1942, and a second exhibition that Kiesler designed earlier in 1947 which was also a surrealist exhibition titled "Bloodflames" and which was organized by Nicolas Calas at the Hugo Gallery in New York.

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In Paris, there is little doubt that Kiesler was involved with all parts of the exhibition. In the publication issued for the show his name appears along with the name of the exhibition's two organizers (Breton and Duchamp) as the designer of the installation ("La mise en oeuvre de l'exposition a ete dirigee par Frederick Kiesler").[10] In his book Jean reproduced a photograph of Kiesler and Matta working together.[11] Generally, the exhibition was erected in the spirit of artistic cooperation. Kiesler's major effort was concentrated on the Hall of Superstitions. In a text published for the special publication issued by the Gallerie Maeght titled Le Surrealism in 1947 Kiesler published a text he titled "The Magic Architecture of the Hall of Superstitions."[12] This text is important because now Kiesler was ready to take the step and name his special brand of architecture as "magic architecture." This adequately marks his expansion from an earlier attachment to De Stijl (however idiosyncratic Kiesler's version of it always was) to his own new territory within the field of modern Surrealist architecture of which he was almost the only exponent. It was nurtured by Kiesler's predominantly interior architecture during his Surrealist forties, and developed later in his monumental Shrine of the Book and the Grotto of Meditation in the early sixties.

As mentioned previously, the theme for the exhibition was Breton's idea. He was the Poet who Kiesler mentioned in his text and credited as "the author of the theme" for the entire exhibition. The "Hall of Superstitions"--whether this particular hall was from the outset Duchamp's idea or Breton's--Duchamp made the suggestion to build it as a white grotto.

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Duchamp "designed" his own Surrealist "environments" which must have registered in Kiesler's memory. This was the coal bags he hung from the ceiling in the main room of the International Surealist Exhibition at the Galerie Beaux-Arts, Paris in 1938 and his twine "installation" for New York's First Papers of Surrealism exhibition of 1942 (figure 152). Both represent a Dadaist notion of architecture transforming an environment playfully. As remote as these ideas were from "design," they definitely were unequivocal in their bold transformation and interference with the innocent exhibition space.[13]

So, Duchamp set a precedent of sorts for the unabashed attitude to the Surrealist exhibition space. Kiesler (who has called architecture "mother of all play"[14]), in those later designs produced for Surrealist exhibitions, gave this characterization of architecture a full expression. The Hall of Superstitions was one such instance, as well as a unique example of surrealist (magic) architecture.

In his text on "Magic Architecture and the Hall of Superstitions" Kiesler made several points. First, he wrote that nineteenth and early twentieth century architecture marked the twilight of "the unity of architecture (painting-sculpture alliance)," which had bloomed during the Renaissance. He then made the unusual link between a present-day (1947) rediscovery of social consciousness and a newly born need for that unity between the arts. He wrote about his notion of Correalism and connected the perceptions of our five senses and the integration of "psychic needs." This was a notion which at this point, ought to sound familiar. Writing in his semi-aphoristic style, he declared:

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> "Modern functionalism" in architecture is dead. Inasmuch as a "function" was vestigial, with not even an examination of the body kingdom of which it rested it failed and was exhausted in the Hygiene and Estheticism mystique (The Bauhaus, Le Corbusier's system, etc.).[15]

Thus, Kiesler in 1947, ahead of his time declared the death of formalist functionism (or at least of its absolute reign). He then sent that: "The Hall of Superstition presents an intial effort towards a continuity of Architecture-Painting-Sculpture, with the means and expression of our time."[16] By describing the Hall of Superstition as the initial effort in that new direction, there may be a justification for tackling this project ahead of the others mentioned (Peggy Guggenheim's Art of This Century Gallery and Bloodflames at the Hugo Gallery) which chronologically predate the Hall of Superstitions.

Kiesler described his particular idea for the Hall of Superstitions as creating a unity in which painting, sculpture and architecture, would be integrated, or: "transformed into each other." He explained that he drew the "spatial configuration" and then invited the artists to execute the plan. Kiesler listed the artists who participated in this venture. They were the painters Duchamp, Max Ernst, Matta, Miro, Tanguy, and the sculptors Hare and Maria.[17] Kiesler was quite particular in defining the roles of all involved. He drew up the spatial configurations (figure 144). The artists he said "collaborated enthusiastically." He went on to say:

> I conceived each part of the whole, form and content, expecially for each artist. There was no misunderstanding. If the ensemble did not work it was my fault alone, for they strictly followed my correlation plans. This collective work created not by artists of a single profession, but by

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> the Architect-Painter-Sculptor alliance plus the poet (author of the theme) represents, even in case of failure, the most stimulating promise of development for our plastic arts.[18]

For Kiesler this collaborative work, applying his conception of a design, correlated and coordinated with the individul artists or their participating works, was a most desirable and natural "modus operandi." It seems to have worked out to everybody's satisfaction.

William Rubin reproduced a group portrait. This was a photograph showing quite a few of the participants including Kiesler. In this photograph the playful atmosphere is evident. Kiesler, who was short, had to be in the front. It so happened that not much posing was involved in the shot and Kiesler facing Matta in the front, turned away at the critical moment and both their faces cannot be seen. (It seems that Herold was placing a die or something of that size on top of Keisler's bald head, ready to shoot it with his finger while Kiesler, his hat in his hand was ready to catch it.)[19]

Kiesler ended his statement on "Magic Architecture and the Hall of Superstitions" with the following words:

> I oppose the mystycism of Hygiene, which is the superstition of "functional Architecture," the realities of a Magic Architecture that takes root in the totality of the human being, and not in the blessed or cursed parts of that creature.[20]

Kiesler saw in Bauhaus functionalism, even in Le Corbusier's "system," a lack of interest in the totality of the human experience beyond functional proportions and the hygienic status it assumed, including a certain aura of mysticism. There was a Kieslerian didactic provocation and irony in blaming functionalism for its "Mysticism of Hygiene" in

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the Surrealist context generally and this exhibition in particular, since it was dedicated to myth and where Kiesler himself designed a Hall of Superstitions. Yet it was in this particular context, while designing architecture for art, that Kiesler had a good chance to completely apply his alternative architecture. Thus it is not surprising that he chose the biomorphic configuration of space, the type of shape and space which characterizes his Endless House, for this Hall of Superstitions (figure 153). Interestingly enough the statement on "Magic Architecture and the Hall of Superstition" does not address the specific connections between this space and the Endless House per se. As we have seen it concentrated on the challenge to Functionalism. Marcel Jean wrote that the "Hall" was designed in the shape of an egg, and Jean Arp's article was about "The Egg of Kiesler and His Hall of Superstition."[21] Still, the limitations that Kiesler dealt with, and the fact that he had to design for and build within given conventional exhibition rooms (with vertical walls and a horizontal ceiling) conditioned somewhat his architectural solutions. He created several devices that transformed the rectangularity of the rooms into rounded surfaces made of stretched dark green cloth, placed slightly off the walls and tightened by means of strings from the ceiling and floor.

As indicated earlier, the exhibition centered on Mythical culture. One of its applications or interpretations was the creation of an environment where the visitor would be guided from entrance to exit through the exhibition (figure 153) simulating religious initiation rites. This idea guided Kiesler's design for his Hall of Superstitions and

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was consistent with his own ideas about an effective and purposeful exhibition method. The art was presented to the viewer through the articulation of space in a strongly motivated architectural design. Thus Kiesler planned the Hall of Superstitions from entrance to exit as an eventful route studded with art objects which could not be overlooked.[22] Marcel Jean, who stated that Kiesler's Hall of Superstition "contained the pictures by those Surrealists still in America" also described the Hall as follows:

> One of Max Ernst's most beautiful paintings, Euclid, appeared—or rather disappeared—behind a window cut out of the great green canvas stretched around the room. Kiesler's Totem of Religions stood next to Duchamp's object-photograph Le Rayon Vert. The visitor passed under a scaffolding by Tanguy—a blue-grey panel, a gently contoured form hanging from the ceiling—and before various symbols and objects, paintings and sculptures: from Miro a Cascade, from Matta a Whist, from Ernst a Black Lake, a Vampire from De Diego, an Anguish-Man from Hare, and from Donati, The Evil Eye.[23]

Arp in his article on the Hall of Superstition also described Max Ernst's Euclid which appeared to the viewer from behind the dark-green (or in some other account turquoise)[24] canvas "walls" Kiesler has devised.

This particular combination must have been impressive and most effective. Only a few photographs remain from the Hall of Superstitions. One most often reproduced (figure 154) shows the canvas walls stretched by strings from ceiling to floor and the lighter colored stretches of fabric stretched over curved stretchers, in crocus-yellow breaking the predominantly dark green (or turquoise) environment. On one of these curved screens Miro's "the waterfall concealed by superstition," which

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was a long scroll-like painting, is clearly identifiable. Two sculptures are also recognizable; one that is in front and within the territory of the yellowish fabric with the Miro on it is by David Hare, his Anguishman.[25] In the right foreground of another photograph (one of the few surviving installation shots), a second sculpture by Kiesler (made for the Hall of Superstitions) is seen. This is a large arm and fist in white plaster over chicken wire, making a "fig-sign" (figure 155). This work has not been identified with Kiesler's "anti-taboo-fig," but was usually presented as another installation shot of the Hall of Superstitions. It illustrates the numerous variety of works and objects from all over Europe and the Americas which were shown. Yamaguchi illustrated it under the title "Arm with Pointing Finger."[26] There is a drawing of this work in several positions (figure 156), which makes it quite clear that this was indeed a single work by Kiesler. It also shows with greater clarity than the sculpture itself, that the "pointing figure" is not the index finger but the thumb which penetrates between the index and the middle finger. Thus the raised arm and fist with its fingers positioned in this particular way make up a gesture which is not meant merely to point the way to the "Hall" but is a well-known ancient obscene gesture known as the fig sign.[27] This explains its title and our identification of this work as that "Anti-taboo-fig" by Kiesler listed beside the "Totem" in the detailed footnote in his article on "Magic Architecture and the Hall of Superstitions."[28] The "Anti-taboo-fig" as can be learned from photographs, was placed near the entrance to the Hall of Superstitions. Time magazine for example

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described the exhibition saying: "Visitors on entering found themselves dodging a whirling lighthouse powered by an old victrola motor. They moved on to a 'Hall of Superstitions' containing a 14-foot hand made of chicken wire, plaster and canvas."[29] So the raised arm and the obscene sexual meaning it carries, was indeed an anti-taboo welcome gesture. Considering the context it was tinted with humor and perhaps irony considering the superstitious meaning of this obscene sign. The particular name under which this ancient gesture is known was probably also meant to exploit the association to the biblical fig leaf, as the fall of man, following his violation of the Taboo of Knowledge, good and evil, which includes the obscene and which culture--the fig leaf--has to guard.

Thus Kiesler introduced to the Hall of Superstitions a "totem" and a "taboo." The viewer may have to wonder forever if he meant anything by this combination made famous by his celebrated fellow townsman. It is remarkable how diffferent the two sculptures Kiesler made for the "Hall" were. The Totem of Religion is of course more complex and was no doubt the superior sculpture among the two. But Kiesler always placed considerations of purpose ahead of any commitment to a style. In this case, with the anti-taboo-fig he intelligently pointed to the deeper meaning of the Hall of Superstitions: Taboo Religion and Superstition Obscenity (anti-taboo). He also served a real sign giving direction to the visitor. Next to the "Arm" on a black surface was the name Hall of Superstitions written in white with a list of the participatory artists.

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Kiesler made several preparatory drawings for the architectural conception of the Hall of Superstitions. The idea was to build a surrealist environment within the existing room. One illustration is of a box, within which two bands interpenetrate around and around the inner space of the square box room (figure 153). Another drawing clearly shows a suspended artificial ceiling underneath the horizontal normal ceiling and curved designed ceilings to get the desired egg-shell effect (figure 157). Beside a clear, clean egg-shell effect which was basically limited to breaking the box, Kiesler wanted to create a complex and cave-like environment. The means Kiesler used were minimal; the post-war situation in Paris did not allow any expensive materials. This limitation was not a major problem for Kiesler. It seems that such limitations confronted Kiesler with the kind of challenge he was eager to meet. Thus, with some cloth, string and a few lighting devices Kiesler completed the project successfully.

"Hommage a Tanguy-Trois-Plan-Plant" (figure 158) in the collection of the Museum of Modern Art (New York) is one of Kiesler's finest installation or demonstration drawings. It dates from April 2, 1947, which means that then Kiesler was already working on the exhibition at Maeght which was to open that summer. This was a conceptual drawing for Tanguy's installation at the Hall of Superstitions, although there is no definite indication of that. The title, besides paying homage to Tanguy, indicates that the drawing has various spatial planes (three) planned for Tanguy's work. "Three Planes Plus One," the drawing's title, may refer to the modified ceilings and floors Kiesler conceived. The

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architect's drawing contains a threefold rendering of the installation: an illusionistic perspective, a ground plan and section. Clearly Kiesler planned three variously shaped layers of artificial walls. The front wall had an opening cut through it—as an irregularly cut window through which the second suspended wall is seen. This second plane also had a window cut in it, somewhat smaller than the first, so the second plane (tinted in the drawing in a darker shade than the first wall) can be seen through it. The second smaller window opens the spectator's line of sight to the last and third plane which was another stretched wall, tightened by strings from a hole on the ceiling and from the floor. Behind these three artificial walls or irregularly shaped planes of tightened cloth was the wall of the room itself. There was a distance between the built walls enough for a spectator to enter. Thus, the first window was cut from the height of the shoulder and up of a standing figure indicated in the drawing, so that only its head would be seen through.

As Kiesler's drawing shows, the surfaces were painted in various ways. One was the bottom of a human body which turned into an abstract configuration in the upper part. Together with the head of a participating spectator standing between the suspended walls there was created a surrealist, comic result. This was reminiscent of a set found in amusement parks where a person could be photographed while standing behind a painted screen with a hole in it through which would show the head. These installations for the artist's works were in effect extensions of the various canvas walls Kiesler conceived.

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One last feat Kiesler introduced to the exhibition was the environmental use of strings. In Cynthia Goodman's words: "Kiesler suspended skeins of string symbolizing 'Ariadne's Thread' throughout the exhibition area to unify visually the disparate displays."[30]

Three additional preparatory drawings and sketches are interesting. One drawing shows a free perspective view of a room (figure 159). In it a curved three-dimensional structure embracing the space against black painted patches of color painted on the room's walls and ceiling. It could be one of the sketches for the Hall of Superstitions as Lillian Kiesler titled it, but some kind of a candle-light placed on top of the embracing installation may indicate that this drawing was possibly a preparatory drawing for the entrance, where not this candle, but some other "whirling lighthouse" (in the words of Time, quoted earlier) was used. Another drawing (figure 160) shows that Kiesler was involved with all rooms including the raining room for which he made plans. His Rain Machine, as Lillian Kiesler titled this drawing, was a wall-to-floor sculpture with a background (set) in constant movement (pouring rain) that was motor driven as Kiesler specified. The total height was 10 feet. There was between "cloud" and ground a central vertical structure, 8 feet 10 inches high. It was suspended or attached to a wall and was reminiscent of the "Totem's" spinal verticality. Here it was a spine. In the drawing Kiesler pointed to its flexible joints. The upper spine is made of thicker parts and is enveloped by a "rib-cage." Kiesler has written next to his architect's section of this upper half the following: "head suspended inside bread-basket." The

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lower part seems to suggest two legs, one possibly crossed over the other continuing the spine to the bottom and in terms of the sculpture's construction, is pivoted. A loop construction may suggest a hip bone. Bones increasingly played a role in Kiesler's sculpture. The background could have been made in hardened cloth; the words "snow banks" are written near the bottom.

On this background installation there are markings, possibly of "arms" for the attachment of paintings (the words "painting here" are indicated near a few of these marks) or possibly sculptural objects since the word "object" is written above a few of these markings as well. This vertical "spine" with "rib-cage" construction was flexible, made of joints, and Kiesler indicated specifically that it all was "swaying," and pivoted at one point.

So this elaborate rain-machine was a sculpture environment, or an environment of paintings and sculpture. In its vertical flexible suspension it was reminiscent of the "Totem," but unlike it was not realized.

Finally there was another fine sketch for a work which also was not built but planned in full[31] (figure 161). The work bears a similar title to one of Max Ernst's paintings in the show, namely Black Lake and the drawing was dedicated to Max Ernst. Kiesler, however, subtitled his Black Lake with the words "feeding--source of fear."

Kiesler's work can be reconstructed since Kiesler being an architect always drew a ground plan, a perspective, a section and a second bird's eye view. The Black Lake was a floor sculpture. It is a round

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"ridge" of mountains, surrounding an oval "lake." It measures 5 feet by 36 inches. The outer contour of the surrounding mountains is of an irregular rhythm of protruding ridges and bays between them, they protrude 12 inches from the inner circular (oval) line of the lake, and are 8 inches wide. The height of this "mountain frame" or its thickness is a foot. The perspective indicates that Kiesler drilled a hole at one end, on the mountain, from which vapor came out, probably steam. The section indicates that the "lake's" bottom or bed was covered with canvas. The canvas was not confounded by the surrounding mountains but as Kiesler has indicated: in short language "canvas overlapping mountain frame reaching floor." The lake itself the inner waters surrounded by mountains, was planned to have a cover of glass 6 inches off the ground. In the middle of the oval lake a sculpture is placed; it was reminiscent of a rearing animal, probably a horse. The second "perspective" indicates as one would expect, that the canvas was meant to be painted black, make it a "black lake." This extraordinary floor sculpture expressed an idea that Kiesler clarified by writing next to the "sculpture" or animal configuration in the middle of the "lake": "growth into the configuration of a superstition"; out of the black lake--"The feeding source of fear"—as Kiesler subtitled it, grows the configuration of superstition in a form of a sculpture of an animal. The surrounding mountains and vapor are a simulation of nature, its dynamics and power which, out of fear we turn into a superstition. With this installation Kiesler wanted to present a proposition about the relationship between art and nature. Nature Nothing is basically

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self-contained and fearless, but man who is anxious and who has received the covenant of culture is fearful, since culture without knowledge turns into superstition.

Thus, art is a dynamic form that grows out of nature, or the product of fear, symbolized by the Black Lake. It is interesting to read some of the crossed-out words Kisler wrote at one point saying: "Sentiments [?] of tue sub-conscious struggle between vision and fear [?]." It is hard to discern precisely or understand the discarded words but Kiesler seems to have dispensed with the term subconscious in favor of plain yet expressive words. So Kiesler made quite a few conceptual sketches for the Hall of Superstitions, for works which, like Black Lake, were fully conceived in detail and ready to be executed.

Kiesler made for this show a work that was not his, The Green Ray. It was executed in Paris by Kiesler after Duchamp left, on behalf of Duchamp as "art by proxy."[32] In a collaboration with Breton Kiesler illustrated and designed that year, the latter's Ode a Charles Fourier.[33] The exhibition as Jean indicated "was in general, greeted with less passion--for or against--than its 1938 predecessor, but still aroused huge curiosity."[34] One American writing for the New Yorker did not express benign neutrality and wrote:

> The Galerie Maeght has just held a show of Surrealist art, the first psychopathic aesthetic exhibition since the war. The de-Lux catalogue was idiotically priced at five thousand francs a copy. The show's japeries were stale dernui cris.[35]

The woman who wrote this may have been offended by the now famous cover by Duchamp who decorated the deluxe limited edition with a woman's breast

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in sponge rubber, and hand colored all of the 999 copies himself. This catalogue-anthology comprising contributions by more than thirty authors included Kiesler's article on Magic Architectue. It appears that another piece in the anthology titled "Plan for a World Exhibition" signed Andre Frederique, was a collaboration between Andre Breton and Frederick Kiesler. The pseudonym was composed of the two men's names, and was probably written by Breton while the idea must have originated in conversations with Kiesler. This piece was followed by Kiesler's piece on "Magic Architecture." This is speculation, however, and needs further investigation.

Blood Flame at the Hugo Gallery, New York

Some of Kiesler's ideas in Paris were forecast by earlier work along similar lines, namely his design for a Surrealist exhibition organized in New York earlier that year (1947) by Nicolas Calas at the Hugo Gallery (at 26 East 55th Street) called Blood Flames.

This much smaller exhibition, which included only eight artists (Arshile Gorky, David Hare, Gerald Kamrowski, Wilfredo Lam, Matta, Isamu Noguchi, Helen Philips, Jeanne Reynal) was to a certain extent a modest version of what Kiesler was to design in Paris (figures 162, 163). The announcement for the show had a motto inside which said: "We the inheritors of chaos, must be the architects of a new unity" signed, Kiesler. On the cover was a drawing of the total design for the show (figure 164). Kiesler's drawing was a perspective seen from a corner and from an elevated point of view. The rectangular floor was indicated

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but the "room" was clear of its walls and ceiling. In their place Kiesler rendered his "walls" for the art gallery with a rounded ceiling, and there were bays along the walls. He interrupted the entire wall length with partitions which were made to increase the hanging areas and create smaller intimate spaces along the wall stretches; the pictures could thus be viewed intimately. This was created according to his long-standing position that the design of an art gallery should transform the totality of space into a different, "magic" environment. This was translated at the Hugo Gallery into a provocative, highly unusual hanging. Paintings were seen on the ceiling, and there were pictures on the floor.

In this exhibition architectural remodeling was not possible. Thus color played a major role. Kiesler wrote about the advantage of color and paint as architectural means, citing it as cheap to use and fast to create an architectural transfiguration.[36] This particular idea was indeed illustrated in the article with a photograph of his painted architecture for the Hugo Gallery where he used paint to break the gallery's dominant cubical character. Kiesler used various colors to form biomorphic spreads of dark areas. These were juxtaposed with the lighter hues, painted in total freedom and flow, disregarding or counterpointing the room's conventional corners and geometry (figures 162, 163). The division between wall, ceiling and floor was also tampered with to create a continuity of design. Within this overwhelming environment then, Kiesler placed the pictures and sculptures, variously on the walls, some on the ceiling, others on the floor leaning against

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the walls. The design rested on the creative use of architectural painting. One detailed description, part of a review of Bloodflames reads:

> Frederick Kiesler, designer of Peggy Guggenheim's Art of This Century has another field day, though much more fleeting, at the Hugo Gallery where he has arranged what amounts to the decor for an exhibition of paintings, sculpture and mosaics by eight members of the avant garde. Walls and floors of the gallery have been repainted by Kiesler in various color patterns to achieve unity between gallery, art and spectator. Paintings have been placed kneeling against the walls on the floor, suspended at various angles in mid-air and in the case of one, hung on the ceiling. Some pictures have Kiesler's "boomerang" frames"; others hang in pristine purity.[37]

The participating artists were regarded as "members of the avant-garde." This kind of distinction has grown to mean less since that time, but then and as the language here suggests, "avant-garde" meant experimentation and non-conformity. Kiesler's work was avant-garde indeed. As a designer of exhibitions Kiesler's work for Peggy Guggenheim's gallery was well known, and was as advanced or even more radical, and of course predated this particular show by half a decade. Besides the architectural/environmental use of paint and Kiesler's display methods, the reviewer mentioned Kiesler's "boomerang frames." These were wooden elements which Kiesler constructed resembling a boomerang. When combined, two vertical and two horizontal units, they accommodated paintings, mostly smaller works. They helped to articulate the paintings placement in space raising them slightly off the wall. At the same time they defined their location on the wall by extending the painting's frame lines in relief, forming a mini-grid. Some of these picture display units were placed over patches of color painted as a flat background on the wall in free-style brush-work.

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In evaluating the total effect, the review quoted earlier gives this detailed description:

> The result of all this, of course, is to make the decor steal the show from the artist-performers. But what is surprising about the novel installation is the proof it offers that many of the pictures look much the same when viewed top-sided or otherwise, which may or may not be considered a triumph for Kiesler.[38]

The artists did not resent Kiesler's unequivocal orchestration of their work into his architectural concert. There is one photograph showing Max Ernst (who did not participate in this show) sitting on one of Kiesler's multi-purpose "chairs" looking up at the ceiling where a painting by Wilfredo Lam hung. In the catalogue Nicolas Calas wrote about the participating artists including Kiesler.

The entry on Kiesler no doubt used Kiesler's own well-articulated ideas. It is interesting to observe how these ideas sounded when expressed by another writer. Thus wrote Calas:

> In its turn interrelationship must be integrated into a whole broad enough to include in one continuum the feeling of painting, sculpture, walls, ceiling, floor and spectators.
>
> An end must be brought to the divorce between architecture and painting. The net result of "pure" architecture was to have ostracized painting--and Le Corbusier's errors were not corrected when Frank Lloyd Wright substituted landscapes for pictures. The artist's response to Le Corbusier's attitude led him to dismiss architecture and transform a room into the greenhouse of nightmares where all the bric-a-brac of the flea-market spread jungle confusion. Nor were the effects of Surrealist extremism counterbalanced by having the objects polished and the plants trimmed when pictures were displayed in the tamed groves of the museums; where sculptures and paintings took on the look of any other expensive object produced for conspicuous consumption.
>
> To the lyricism of nightmares, to the functionalism of factories, to the commercialism of window dressing, Frederick Kiesler opposes the compulsion of fascination. This can only be achieved by organizing the field of vision according

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> to rules of sympathetic magic: everything is everything by way of transformation. What finally counts is the relationship that is to be established between the works of artists and the spectators. Both are nomads in a continuum whose lines have been traced by Kiesler's magic wand. Pictures, statues, spectators are carried by a colorbow into new situations which are to serve as starting point for our own personal metamorphosis.[39]

This passage represents Kiesler's ideas and expresses, above all, his constant and restless search for a type of design that does not allow complacency. Kiesler sought to transverse the routes between Frank Lloyd Wright and Le Corbusier who have both risen to become monuments of modernism, a status that Kiesler managed to avoid by remaining somewhat underground.

So Kiesler took chances, stayed with his ideas which won him the admiration of some as this last and lengthy quotation demonstrates. Others described the exhibition and took a neutral position. Some reviewers such as the following simply hated it:

> If you like your pictures hung on the wall at about eye level, so you can see them easily and under conditions approximately the artist's, when the works were being painted, you're conventional minded, commercial bourgeoise. . . .
> I get the impression at this exhibition that Kiesler just doesn't like pictures and has figured out every possible way to make it difficult for you to enjoy them.[40]

As extreme as this criticism is, the writer's impression should be taken seriously. Although it was an exaggeration (made here for the sake of journalist argument) there is a trace of truth in the writer's impression, one he shared with another critic already quoted, naively stating that the strength and total concept of the environment may have done a disservice to the individual work of art. Recall Kiesler's objection

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to Sidney Janis' offer to hang some paintings in the Space-House he designed in 1934.

Kiesler was a painter and a sculptor himself, and his ideas about showing art were designed to improve and revolutionize viewing conditions. He wanted to involve the viewer but this very intention which required a somewhat unusual strategy may have yielded the opposite results.[41]

Before recognizing the next item in this discussion about Surrealist gallery installation, Kiesler's design for Peggy Guggenheim's Art of This Century Gallery, a brief digression is in order which is however not outside the boundary of our subject in this chapter.

The Set for No Exit

In November 1946 Kiesler designed a set for a Broadway production of Jean Paul Sartre's No Exit, directed by John Huston, at the Biltmore Theater. Before describing the details of Kiesler's set, it is relevant to quote some of Kiesler's paraphrased ideas which express his state of mind and feelings at that period. This quote is from an article entitled "The Poet's Theater" and where the set for No Exit was extensively described.

The author wrote as follows:

> For Mr. Kiesler believes, after a catastrophic event such as the one we recently have seen through [that] the condition of man is in a state chassis--that is in a state of chaos--that is in a state of mobility.[42]

The Second World War with all its atrocities was the catastrophic event to which Kiesler made a reference. Kiesler, who was not a political

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radical, was nontheless politically conscious and was not oblivious to the historical events that shaped the contemporary state of mind.

Turning now to the set for No Exit (figures 165-168), Kiesler as always found a solution which concentrated on the specificity of the particular task at hand. Kiesler described it as a "cell in endless space" or as a "typical room of the tragic moments of our lives." What the play required was basically a design for one room a single set for its cast of three. Kiesler following his inclination to redesign any given space to suit his particular idea did not waver even when designing for the stage. Thus he decided that the stage was too big for an effective presentation of the play and made a design to shrink it, or build (in effect) a stage within a stage.

The purpose was twofold. It was to help the audience concentrate and lose less sound, which, considering the confinement of the play, is a functional solution. To achieve this Kiesler raised the stage 12 inches above the normal stage level, has narrowed it somewhat, painted the inner proscenium (within the regular proscenium arch) black, inclined the ceiling and floor to achieve an effect of an accelerated perspective and painted the room uniformly grey (only the chairs were in red and green) (figures 165, 166). The stage's floor was covered with a "wall-to-wall" carpet to reduce the sound-level and enhance the claustrophobic effect sought (somewhat similar to a recording studio). Windows were blocked off by bricks and the light was intense so as to enhance the uniform grey of the environment, and avoid shadows.[43] Kiesler, in order to achieve the desired effect remodeled the stage but stayed with the

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second Empire decor, specified by the author. He made the architectural modifications not to create one of his flowing/endless spaces but to the contrary, realized the type of architecture he despised but which suited the purpose here. He created the perspectival illusion of a closed and claustrophobic box (figure 167).

The result was effective and most successful. George Freedley reviewing the play wrote about the stage:

> . . . and set precisely right by Frederick Kiesler, with a decor which was hell in itself and to my mind was one of the best pieces of interpretative designing I have ever seen.[44]

For Kiesler, who in America had designed sets mostly for Juilliard's productions of operas, a set on Broadway for a play by Jean Paul Sartre under the direction of John Huston was an important event. Kiesler rose to the occasion and as the number of studies indicate, worked intensively and produced a unique and well-conceived solution. The importance of this set in Kiesler's own mind was made clear in a diary entry written approximately ten years later where, under the title "A Theater for the Poet" and discussing this type of theater, Kiesler described and explained his set for No Exit. Kiesler defined the "Poet's Theater" as "a stage set for the spoken word." Explaining its special requirements he said:

> First of all, the dialogue must be clearly heard in the whole house and secondly, the action must be brought into a most expressive visual plasticity instead of mere haphazard meters of motion. Third, the physical relationship between audience and actors must be established so as to permit direct contact or deifnitely cut such contact off; under no circumstances, I feel, must it left undecided, as on our present stage where the proscenium arch is nothing but a shelter for the curtain.[45]

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Jean Paul Sartre's No Exit was interpreted by Kiesler as a poetic theater that was heavily dependent on the word and very little on dramatic action or decorative background settings. Therefore, his reduction of the set into a room within the bigger stage with its obsolete proscenium arch, the elevation of the set were means devised to realize that poetic stage.

It is worthy to recall Kiesler's designs for Bloodflames, and the criticism directed against Kiesler's overdetermined and possibly theatrical presentation of art. In the last sentence just quoted a deliberate position against any ambiguity concerning the relation between set, actor, and audience, or in designing a gallery between the spectator and the art-object. Kiesler resorted to both extremes; for No Exit he separated actor and audience; in his design for the Surrealist galleries he created interaction.

Kiesler related his designs for No Exit to Sartre directly. He saw the isolated prosaic room and focal stage within a stage as related to what Sartre talked about in a lecture in New York with which Kiesler was familiar.[46] Sartre talked about "a break"--the purpose of which was--"to separate the reality of the play from the reality of the theater, yet"--Kiesler continued--

> as he [Sartre] said, in Paris they were unable to find the stage-means to achieve this division. "What we have not brought about, and what we of the new French theater would like very much to achieve, is a pathos, a new pathos of language, based on everyday discourse but without artificial aggrandizement or surrealistic paraphrasing"

and Kiesler summed it up: "Distance! The poet's distance--the aloofness of the orator--with the least interference and with absolute accuracy."[47]

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Despite Sartre's rejection of what he called "Surrealist paraphrasing" the overall attempt to see a Surrealist design in Kiesler's set for No Exit should persist. This sense of alienation, Sartre's "break" that Kiesler wanted to achieve was also discussed by Sartre elsewhere in a great essay he wrote about Giacometti. Its English title is "Search for the Absolute" and in it he phenomenally analyzed Giacometti's in-built space, that envelope the artist made an inseparable part of his figures which are trimmed (or located) by their impenetrable and inseparable surrounding space. Sartre wrote about Giacometti: "He confers on his planter figures an absolute distance," or a little down the line: "We know now what squeezer Giacometti used to compress space: There is only one: Distance."[48] This is exactly the word that Kiesler used to sum up Sartre's aim in the theater. He was right, since Sartre found it, if not in theater, in Giacometti's art, and he wrote one of the best interpretive essays about the Surrealist sculptor. It was this kind of formalist/existential type of Surrealism, like Giacometti's, that Kiesler sought and found in the isolated, grey, reduced and artificially elevated funnel room he designed for No Exit. As Kiesler wrote about the poet's stage once again: "The architectural concept of a poet's stage would (if the problem were properly solved) then permit any decor without loss of the most important optical, phonetic and dramatic issue at stake."[49] The decor, whatever its style did not change the overall design strategy which focused on meta-stage and space with a sense of alienation, similar to Giacometti's sense of space and his brand of para-visual Surrealism.

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The Design for Peggy Guggenheim's Art of This Century Gallery

There is little doubt that Kiesler's design of Peggy Guggenheim's Art of This Century Gallery (1942) (figures 169-175) marked a high point in his close contact and interaction with the Surrealists, and was an important point in Kiesler's career. He was fifty when Peggy Guggenheim commissioned him to design her museum-gallery, and was at this stage of his career more than ready to design a project that allowed considerable freedom. The terms of the commission were confirmed by an exchange of letters with Peggy Guggenheim which make her expectations from Kiesler clear: to develop some new method "for exhibiting paintings, drawings, sculptures, collages and so-called objects since the gallery was to house her extensive collection as well as changing exhibitions."[50] It was upon a recommendation of Guggenheim's friend-art-dealer-confidant Howard Putzel[51] that she commissioned Kiesler to design her gallery. In her 1946 sensational and sensual autobiography Out of This century, she quoted Putzel as saying: "Why don't you get Kiesler to give you a few little ideas about decorating your Gallery?"[52] At least among the in-crowd, Kiesler was known at that time for his ideas about design and exhibition spaces, ideas he introduced years earlier in Europe and with vigor in his New York International Exhibition of Theatre Techniques in 1926.

In her "Informal Memories" as Peggy Guggenheim subtitled her book, she introduced Kiesler and the reasons for her decision to employ him with the following words:

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> Kiesler was the most advanced architect of the century, so I thought this was a good suggestion, [Putzel] never dreaming that the few ideas would little by little end up in my spending seven thousand dollars for the construction of the gallery. He was a little man about five feet tall with a Napoleon complex. He was an unrecognized genius, and I gave him a chance, after he had been in America fifteen years, to create something really sensational. He told me that I would not be known to posterity for my collection of paintings, but for the way he presented them to the world in his revolutionary setting.[53]

Peggy Guggenheim's spirited, gossipy and uncensored prose provided a valuable picture of Kiesler who, as anyone reading her story understands, did not quite fit her erotically tinted criteria for most male characters who came her way. (So she did not fail to mention his shortness and the Napoleonic psychology with which it is often connected and in the case of Kiesler like that of other short but intelligent characters may indeed have resulted in a certain arrogance that Kiesler no doubt allowed himself at times.) One such time was in fact his historical assessment concerning her collection and his gallery, which was no doubt slightly exaggerated, but not altogether empty as a proposition. Also interesting is the image or reputation that Kiesler had, that of a far advanced genius or "the most advanced architect of the century." This was a result of his wide range of interests and activities and his unconventional attitude within a group of advanced architects and designers. As far as her impression goes, there was some truth in what she saw. She ought to get credit for allowing Kiesler to venture with the project, the high cost of which she reported with certain dismay.

Jimmy Ernst, Max Ernst's son, in his memoir, provided information about this subject. According to him, Howard Putzel and Andre Breton

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recommended Kiesler to Peggy Guggenheim. Jimmy Ernst who was close to Peggy Guggenheim, and was her assistant, wrote that this choice made him very happy "because it meant an opportunity for this extraordinary man to realize just a few of the dreams that had been preempted by men of far lesser talents." He described the plans as breathtaking in their ingenuity and elegant simplicity and went on to say the following concerning the issue of cost:

> The anticipated costs appeared to be extremely modest to everyone except Peggy, who thought them astronomical. . . . But she decided to treat this man's work in the same manner she had treated the many poets and painters who were on a regular generous stipend from her. Had that meant: No interference. I saw this attitude as a source of terrible trouble to come, because I was convinced that Kiesler had kept his cost projection unrealistically low out of fear that the entire project might be shelved. I deliberately immersed myself in my other work so as to stay away from the site, where a crew of carpenters and plasterers were beginning to convert two dingy lofts into what did indeed become a spectacular and innovative showplace. I loved Kiesler and did not want to be a party to the nightmares that were just below the surface of Peggy's "yes, this time, but not a penny more." But it blew up anyway."[54]

Jimmy Ernst in further detail, described an uncomfortable position between Peggy Guggenheim and Kiesler whom he loved and respected. Finally assessing the Gallery and the problem of cost Ernst wrote:

> Admittedly the real success of Art of This Century was its collection of paintings and sculpture and Kiesler's genius at transforming two dilapidated lofts into a magic environment of constant surprises. Unfortunately his warfare with Peggy had reached a near peak when the final construction cost came in. I didn't think they were all that outrageous, considering what he had achieved with a modest amount at a time when most of the materials needed were severely restricted and, as a result, prices inflated.[55]

Following is some detail about how Kiesler spent this money, exceeding his estimate of $4489 by almost $2500. Art of This Century

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Gallery was comprised of four sections: a space for Surrealist art, a gallery for non-objective (abstract) art, a painting library, a sitting area to view and study paintings, and an automatic gallery where art was shown mechanically. Kiesler invented an entirely different method for each gallery. If the basic philosophy can be reduced to the same principles, the style of each gallery was unique for each. The two main galleries, the Surealist and the Gallery for Abstract Art, share Kiesler's consistent discomfort and objection to conventional cubical space here of the given lofts which he set out to change. Furthermore, the space itself was brought alive by avoiding conventional hanging of pictures. Instead, special methods were invented to present the paintings and sculptures in another way. Lighting played an important role. Tensionism was also employed.

For the Surrealist Gallery Kiesler used "Two long curved rectangles of sap-streaked plywood suspended in front of the walls"[56] (figures 169, 170). The curved convex walls were placed short of the ceiling and slightly off the ground. To achieve a levitation effect, the points of contact with the wall were hidden from the spectator's eye. The same kind of prepared plywood was suspended from the ceiling thus lowering it somewhat. The total space was turned into a tunnel space since only the two longer walls of the rectangular space were curved. The curved plywood provided a sense of tension and turned the walls into dynamic surfaces (figure 170). Generally the Surrealist gallery was conceived to simulate Kiesler's architectural idea for the endless house. It was a space of curved continuity, which here he did not actually

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build but only simulated, since the curved walls covered the existing vertical ones. The tensionism Kiesler advocated was applied in the Gallery for Abstract Art, yet through different means. It used canvas which Kiesler spread along the straight walls with a slightly undulating line (figure 171). The canvas ultramarine colored was tightened with cords to the ceiling and floor. So, as different as the respective solutions were Kiesler molded the walls in both galleries by building his own. Kiesler had his own ideas and invented some unusual methods for incorporating the art objects into the space.

In the Surrealist Gallery the idea was to make the paintings reach out and protrude off the curved walls (figure 170). Sawed-off baseball bats were used because they were inexpensive. Kiesler helped a carpenter who worked in the Bronx to make these extended, adjustable arms which were thus relatively inexpensive. Economic considerations were important since it was war time. These arms were connected to the curved plywood walls at various heights and were invisible to the viewer. Their angle could be adjusted to allow the paintings to appear at various angles and be adjusted to the lighting. The result was Surrealist. The arms holding the pictures about 20 inches off the wall resulted in the pictures looking as though they were floating mysteriously against the curved walls.

In the gallery for abstract art the pictures and sculptures were attached to a triad of cords strung from a point on the floor to the ceiling. The tight strings were then forced apart by wood wedges on which sculptures were placed and paintings were attached (figures 171,

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172). The cords were made of cloth tape and rope. Again Kiesler achieved a main objective that was to enliven the space and engage it actively in order to create the "spatial exhibition," an idea he introduced in Vienna in 1924.

In a special pamphlet titled Notes on Designing a Gallery which appeared at the time the Gallery was inaugurated, Kiesler made the connection between the newly designed gallery and the philosophy it represents, a philosophy which at that time was almost two decades old. This connection was also emphasized in an article in The Architectural Forum titled "New Display Technique" where it was stressed (probably following the information provided by Kiesler) "that his method of 'display in space' was not a sudden freak invention, but a technique developed by Kiesler about 20 years ago."[57] It is interesting following the conceptual continuity of Kiesler's approach to notice the change that occurred. It was not one of substance, but one of strategy as "style" since style for its own sake was secondary in Kiesler's view Thus, Kiesler's 1924 exhibition system, his Leger and Trager units (figures 17-19), and his 1925 City in Space (figure 16) were perfectly legitimate within the constructivist/De Stijl language and style. And in a similar way the design for Art of This Century remarkably fused into the Surrealist context which dominated at Art of This Century. The predominant effect in both galleries--the Surrealist and the gallery concentrating on abstract art was surrealist. For example, Kiesler's preparatory drawing for the protruding arm that was used to hold the paintings in the Surealist gallery (figures 176, 177) show a real arm,

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stretched out holding a picture from behind, as if coming out of nowhere. This surrealist, somewhat spooky image was on Kiesler's mind, and can provide insight into the workings of his creative mind, turning a literal surrealist notion into a source for his design. In this very drawing the canvases seen from behind are unframed which is definitely common today. But all the paintings Kiesler installed in both galleries (the Surrealist and the abstract art gallery alike) were unframed. As strange as it may seem today, as late as 1942, exhibitions showing unframed paintings were uncommon. Kiesler objected to frames and planned his display for unframed pictures. Recall that for his 1924 exhibition system, he broke convention by showing unframed sheets of sketches and drawings.

Concerning the unframed pictures, Peggy Guggenheim confirmed that she also wanted the pictures unframed and since this was also Kiesler's desire they easily agreed on this point.[58] Kiesler was interested in the subject of frames; in his "Notes on Designing the Gallery," Kiesler made his favorite and somewhat romantic excursion to "primitive man." He remarked that for primitive man there was no distinction between the worlds of vision and fact, and that in primitive art whether carved on cliffs or painted on the walls of caves no frames existed to cut off "works of art from the space of life."[59]

This integrated view of life and art is what Kiesler sought to achieve. Kiesler had researched the subject of the frame in the history of art and two pages of an essay on the subject exist in Lillian Kiesler's archives.[60]

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Two more interesting ideas were introduced in Kiesler's design. One was a special multi-purpose object Kiesler designed, which had eighteen uses covering the ground between a gallery bench for viewers to sit on and contemplate the art comfortably, to a stand mostly for sculptures but possible also for paintings. Kiesler had in fact designed three different chairs. One was a small portable folding chair, the second a rocker, and the third a unit for seating and display. The two latter units were biomorphic in shape (flat from two opposite sides and curved around). They were made of wood and had leatherette linings. The rocker measured 29-1/2" in height; the seating unit and sculpture pedestal 33-2/3" in height (figure 107).[61] Kiesler made them for only seven dollars apiece and participated in their crafting as was his custom being an heir to Hoffmann and Loos who saw in the craftsman the original designer. These biomorphic objects could stand on all sides, and the two flat sides or the biomorphic silhouettes yielded a great number of variations which Kiesler elaborated upon in a drawing where he listed eighteen such positions and/or uses (figure 178). These uses were of two types, those for people to sit or recline on, and those meant for the placement of art. In the demonstration drawing Kiesler made, he drew the people sitting or reclining, and the sculptures placed on the pedestals in a rather similar manner so as to present an integrated picture of viewer and art object. The diagram indicates that in addition to the various positions and uses that these chairs permitted by their biomorphic yet flat-sided structure there were other possibilities offered. By adding poles stuck into holes on the flat side, these units

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could be used as display objects for paintings and sculptures. Also, several of the similarly shaped units could be used in combinations to form a continuous vertical support (flat side on the floor stacking the units up) or horizontal continuous combinations forming a long bench. But, beside the functional features of these units and Kiesler's ever-ingenious inventiveness and love for simple technical detail that they display, the biomorphic presence of these chairs, scattered mainly in the Surrealist gallery, added to the total Surrealist effect. The chairs were in themselves sculptures, reminiscent of sculptures by Arp and very comfortable as chairs. Thus Kiesler's idea of breaking the gap between psychological effect and function was achieved. Finally, the use of lighting was not left to the electricians, and Kiesler's sophisticated attitude to design did not leave this element to chance. Quite to the contrary Kiesler created a rather complicated lighting method. Generally, as a man who was as much a set designer as he was an architect, Kiesler liked to handle light as a lighting director. He therefore used spot lights which were exposed, an unusual practice at the time and other light fixtures that were concealed.

All-over lighting was played down. To augment the dramatic effect of his lights Kiesler painted the original background walls in a dark color, probably black. Kiesler wanted to go even further. He sought to add an element of time, by lighting the front half and the rear of the gallery at different times so as to guide the viewer inside. Cynthia Goodman in her article on Kiesler's design of Peggy Guggenheim's gallery tackled the dynamic lighting system with caution:

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> The system, which never quite functioned as effectively as it was planned, called for lights to shine on one side of the room for two minutes and then after a three-and-one-half second interval, on the other, alternately highlighting different objects.[62]

Since the lighting method and experience is perhaps the hardest to see in photographs here is another description.

> Originally the main movement, now inoperative, was created by the lights going on and off automatically, singling out various displays for presumably appropriate intervals. The observer was led around by the eye, and shown objects singly, but in no special sequence. The lights used to click off and on with a hollow, loud noise suitable to a Charles Addams spook-house.[63]

This contemporary description was skeptical about the wisdom of Kiesler's lighting system. It appears that Kiesler over-directed his play, confusing the spectators rather than leading or guiding them around the Gallery.

For a final and comprehensive view of Kiesler's design of Art of This Century, review what Peggy Guggenheim described with directness and frankness as any single description can. She wrote:

> Kiesler had really created a wonderful gallery. Nothing like it had ever existed before. The Surrealist Gallery had curved walls made of gum-wood. The unframed paintings, mounted on wooden brackets protruded about a foot from the wall, each with its own spotlight. The lights went on and off, to everybody's dismay, first lighting one half of the gallery and then the other. People complained and said that if they were looking at one painting on their own side of the room, they would suddenly have to stop and look at a different one in another part of the room. Putzel finally made me abandon this lighting system and keep all the lights on at the same time.[64]

Peggy Guggenheim was definitely pleased with Kiesler's design, although the first lighting system was too complicated and intolerable

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for the viewer. Viewing was limited to two-minute periods with two minutes and three-and-a-half second breaks if the viewer wished to stay at the same half of the Surrealist gallery. This, as Gugenheim described, made the visitors complain. So, Putzel, who first recommended Kiesler to Peggy Guggenheim, advised her to abandon the idea, which she did.

Not everything between Peggy Guggenheim and Kiesler was always smooth. She related that for what she called "the Abstract Gallery," the gallery for abstract art, Kiesler worked out one plan that she found too complicated. There is no definite idea what this plan was. There is in the Kiesler estate one drawing (figure 179) which shows a complex lighting system. It includes the use of mirrors on the ceiling and floor integrated with a complicated method of displaying the pictures on strings hanging from bars suspended from the ceiling. The strings would connect to the floor at certain points and the pictures and horizontal bars would be placed in various heights. All this is reminiscent of what Kiesler designed and executed for the Gallery of Abstract Art discussed earlier. The difference between the realized Gallery for Abstract Art and this alternative study is that the dynamic interconnection of several paintings with strings would result in a mobile or movable display. This complex system with an equally complex lighting method was the type of design Kiesler may have had in mind for the Gallery of Abstract Art which Peggy Guggenheim found too complicated.

Goodman was right in relating this study to a sentence from a press release issued by the Gallery at the time of the opening

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exhibition. It specifically discussed the Gallery's design and Kiesler talked about correlating color, intensity and the diffusion of light in all galleries.[65] Be that as it may the second or final version of the Gallery for non-objective art pleased Peggy Guggenheim who wrote:

> In the Abstract and Cubist Gallery, where I had my desk next to the entrance door, I was perpetually flooded in a strong fluorescent light. Two walls consisted of an ultramarine curtain which curved around the room with a wonderful sweep and resembled a circus tent. The paintings hung at right angles to it from strings. In the center of the room the paintings were clustered in triangles, hanging on strings as if they were floating in space. Little wooden platforms holding sculptures were also suspended in this manner. Kiesler had designed a chair that could be adapted for seven different purposes. It was covered in vari-colored linoleum with plywood at the ends, and could serve as a rocking-chair, with support for the back and was restful, or it could be turned over and used as a stand for painting and sculpture; or as a table or a bench. You could combine it with planks of wood and and other furniture out of it. The gallery was supposed to seat ninety people, so there were also little folding chairs with blue canvas to match the wall. The floors were turquoise.[66]

Descriptions of these two galleries is valuable, since the source is the owner and commissioner of this expansive project. She was pleased with the results and most important, she managed to put it all together. She also completed the picture about the color of the galleries which was magnificent. An Abstract-art Gallery with its ultramarine canvas walls, turquoise floor, some small blue canvas folding chairs, and the rocking chairs and stands covered with grey linoleum.[67] She also clarified the fact that in the abstract art gallery the pictures were hung at right angles to the canvas walls. The photographs do not reveal this nor do they give any idea about the colors. The best photographs of "Art of This Century" were taken by Berenice Abbott.[68] In addition

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to the limited photographic information about "Art of This Century," I include the unfinished film Witches Cradle by Maya Derek (1944) which used Kiesler's Surrealist gallery as its location. Although a work of art and therefore not concerned with documentation, this film gives a cinematic moving picture of what it was like inside that space. Besides the two main galleries consituting the core of this gallery Kiesler designed a "painting library" which was a room for visitors or buyers to sit and look at paintings at their convenience (figure 174).

It is interesting to look at the painting library from Peggy Guggenheim's point of view, i.e., looking at it from a practical point of view which for Kiesler was always just as challenging. She wrote:

> Kiesler also designed an ingenious rolling storage-stand, both to store paintings and to exhibit them so that you could bring them in and out when you wished to look at them. This was very ingenious and saved much space which I needed to show my large collection.[69]

Looking at a preparatory drawing that Kiesler has made for the rolling storage-stand as Guggenheim called them one realizes that these stands are somewhat different from the ones actually made. In the sketch Kiesler planned to make these units from one piece of bent laminated plywood with an open top and storage inside between the two opposite sides. The version executed was not made that way but was closed on top. And the more expensive laminated wood was not used. Finally, there was the "automatic gallery"--the gallery "devoted to an automatic method of showing paintings."[70]

Peggy Guggenheim is worth quoting once again since only the outstanding automatic display devices are often described leaving everything else out. She described this gallery as follows:

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> There was a beautiful daylight gallery that skirted the front on Fifty-seventh Street, and was used for current monthly shows. Here pictures could be shown in frames on plain white walls. In order to temper the light, Kiesler had put up all along the window a transparent screen made of mirror. In one corridor he placed a revolving wheel to show seven works of Klee. The wheel automatically went into motion when the public stepped across a beam of light.
>
> In order to view the reproduction of Marcel Duchamp's work, you looked through a hole in the wall and turned by hand a very beautiful spidery wheel. The press named this part of the gallery Coney Island.[71]

Next to the two major rooms, the Surealist gallery and the Gallery for non-objective art, where Kiesler designed an articulated and carefully planned display, and where the art was presented aggressively to a passive viewer (leaving little to his own choice), the two other galleries allowed for just that. In the painting library a viewer could look at the paintings at his own pace. Even in the automatic gallery, the seven paintings by Klee on a conveyor belt were set in motion by the viewer's physical presence, by cutting an electronic beam. Yet the timed movement of this loop could be stopped at any particular picture. More intriguing and appropriately mysterious was the elaborate device Kiesler designed to show Marcel Duchamp's Valise. This was the small collection of reproductions containing a portable museum of Duchamp's work in photographs and contained his key works. It was necessary to show this behind a wall due to limited space available (figure 175).

Kiesler knew Duchamp quite well, and was in tune with his ideas. By showing the Valise, frame by frame, through a peep hole Kiesler achieved the same ironic ambiguity, a distance from the original that

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the Valise introduced and an augmented curiosity. Along the same line Cynthia Goodman noted that Kiesler's "peep show" of Duchamp's Valise is a significant precedent to the manner that Duchamp chose to present his last major work, the Etant Donnes in the Philadelphia Museum of Art. It can only be seen by one person at a time through a hole in a large wooden door. It is art as a peep show with the viewer as voyeur.

Goodman saw among Kiesler's research and notes for the project a pamphlet advertising the Spencer Microfilm reader, and she made the connection between the operating principles of a microfilm reader and Kiesler's designs for the automatic gallery.[72] One other complex installation included in the Automatic Gallery was a device for showing Andre Breton's Portrait of the Actor A.B. which was one of Breton's "Poem-Objects," occupying the territory between word, image and object (figure 181).

Kiesler published this project in VVV and described it as "An instrument to facilitate the co-reality of fact and vision, and specifically to demonstrate the transformation of image into eidetic visions."[73] Goodman thought this title not very helpful and paraphrased Kiesler's description without ever mentioning that Kiesler, in the very issue of VVV she quoted, described his instrument. Kiesler described it as follows:

> A shadow-box with three apertures: An oval frame of wood, a circular opening cut into black glass and an iris diaphragm-shutter. The object to be viewed, in this case a plastic relief, the poem-object 1713 by Andre Breton is placed within the box. One side of the shadow-box extends into the dividing window of two rooms, allowing the vision free access into the adjoining room and through a transparent curtain into

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> the street beyond. The spectator finds himself mirrored in the surface of the black glass as well as in the seven concave mirrors of different diameters cut into this glass. On the iris shutter he views the portrait of Andre Breton topped by his signature. The letter A of this signature conjures the number 17 and [the] letter B evokes the number 13. By lifting the lever of the instrument the portrait disappears, the iris-shutter opens completely and the portrait is replaced by a view of the poem-object 1713, which can be seen inside the shadow-box. This design forms a consummation of personages and events related to the year 13 of the 1700s. Having absorbed this image, the spectator returns the lever to its original static position, and finds himself outside the room he stands in and the space he views through it. A piece of glass-skin invisibly countersunk into the frame, separates the two spaces acoustically. A painting placed in the middle of the glass pane blocks the free travel of vision through it, emphasizing the spatial division the same way as does the diaphragm-shutter of the shadow-box between the exterior and interior of it. The spectator now walks to the left of the shadow-box, entering the room he saw behind the painting. He can then look back into the room he just left through the same window-square. His vision is again partially blocked by the painting in its center which bears another image on its reverse side. Looking back into the room he came from will make the painting disappear as soon as the memory-image completes the view of the room.

What Kiesler seems to have been interested in was a "vision machine." The transformation and demonstration of raw perception or object to its eidetic reality, its reality as idea was its purpose. In order to understand this idea, it is helpful to seek the broader context of Kiesler's researchers. In particular was his series of theoretical articles on Design-Correlation. This was also the general title of his article for VVV and where he described this instrument for Breton's poem-object. In the article on photography subtitled "Certain Data Pertaining to the Genesis of Design by Light (Photo-graphy)"[74] there is a demonstration drawing by Kiesler describing "Natural and artificial means of more permanent recording images" (figure 182). Five

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illustrations demonstrate a process of seeing moving from the eye's perception through the brain to the photographic, artistic picture of an image. The illustration shows the transformation from eidetic reality (eye and brain image) to the art object or photograph whereas the instrument Kiesler designed for Breton's object-poem was centered on the reverse movement. The issue is much the same and the principle was to correlate and demonstrate the ties between vision, object and idea and their inevitable metaphorical connections (co-realities). Kiesler's long description quoted in its entirety is justified because of the difficulty involved in reconstructing this instrument, and because it includes a whole section on a related object. It was an extension of the Breton shadow-box and illustrates the environmental dimension that was part of this piece and the idea for the automatic gallery at large. Finally, Kiesler's description makes it clear that the automatic gallery required an active participation of the viewer.

The shutter that Kiesler has used here complements earlier activities where Kiesler showed a similar interest in vision and its mechanical metaphors and extensions. An example was the set for R.U.R. (1922) where a shutter opened to show a film which extended the spectator's view, and the shutter that Kiesler designed to frame the screen in the (1928) Film Guild Cinema. Both references were promptly cited by Cynthia Goodmann.

Beyond a mere creative consistency and formal precedent that these examples demonstrate that Kiesler pointed to certain symmetries between physical "instrumentation" (the brain, the eye), and our mechanical

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instrumentation, technology and culture. Surrealism was a suitable context. Kiesler wanted to demonstrate the analogies, as he did, incorporating Breton's work. It was an artistic effort bordering on science. This leads to the peep-show motive. It was a way to dramatize the act of looking, isolating this activity from its conventional function which we tend to take for granted.

Goodman reproduced a preparatory drawing Kiesler made for the Automatic Gallery. It is a complicated drawing. A telescopic device would enable a visitor to the Automatic Gallery to view the street outside as far as one mile away. Kiesler must have planned a set of mirrors that would transfer the picture from the street to the telescope. Instead of art, a picture of the street became the target. This work was thus a precedent to environmental art, in which a segment of reality is designated as the art object.

This telescopic device was in effect a primitive closed circuit television in which the camera was placed looking at the street while the monitor was displayed inside. Kiesler talked about television and its various future uses. One unpublished drawing summarizes this participatory aspect of Kiesler's automatic gallery. It shows a man looking through a funnel which cuts through a wall and centers his view into some frame or unspecified object behind the wall (figure 183). This is the essence of Kiesler's ambition: to question the conventions of looking at art, isolating the viewer and the work shown, simulating a peep show with all the intimacy serious concentration and irony it implies.

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It is hardly surprising that a gallery like the one Kiesler designed aroused considerable interest and a gamut of reactions. Peggy Guggenheim wrote:

> Kiesler has done a wonderful job. The publicity we got was overwhelming. Photographs appeared in all the papers and, even if the press didn't unanimsouly approve of Kiesler's ultra-revolutionary method of showing paintings, at least they talked about it sufficiently to bring hundreds of people a day to the gallery.[75]

She also related that Kiesler was totally secret about his plans. No one knew his intentions so that the opening, an event that was similar to a theater gala, was surprising and most festive. Guggenheim, incidentally, tells that Kiesler did not want the First Papers of Surrealism exhibition to open before Art of This Century. Kiesler did not want this Surrealist show to upstage his Surrealist gallery. Guggenheim described Kiesler elsewhere as "keen on publicity" because he wanted his name acknowledged in an interview that she was to give, syndicated all over the United States.[76] From another angle, there is no doubt that Kiesler was media conscious, probably even ahead of his time, because he believed each medium had to be understood, and the press was one. In any event these two exhibitions (Duchamp's and Kiesler's) were shown in New York during the same period of time, late in 1942.

It was a great age of Surrealism in America and Kiesler played a major part in it. The press, as Peggy Guggenheim said, was generous in its coverage of the Gallery. It was a design that could not be ignored or simply written off not even with the trivializing power of journalistic wit. Robert M. Coates, writing for the New Yorker, said

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that it was "a little gadgety"[77] and Newsweek wrote that the Galleries were "a sort of penny arcade peep-show except that you didn't need pennies."[78] This last comment incidentally was not quite true since for the first six months after the opening Peggy Guggenheim charged an entrance fee, which the public resented. Again, at the advice of Putzel, she changed it and let the people in free of charge. This of course is strange to learn, but perhaps not all that strange if we realize that the Art of This Century was conceived as a Gallery as well as a museum for Peggy Guggenheim's collection. In other words Kiesler's ideas and design were meant for a museum as well as an art gallery.

This may give a slightly different perspective on the project. In the issue of L'Architecture d'Aujurdhui[79] in which Kiesler's work was featured, there is one drawing integrating the special seat/stand that Kiesler designed into a Correalist whole with floating objects (figure 184). Kiesler referred to it as a design for a Gallery-museum (Galerie du musee). Newsweek also quoted the answer Kiesler gave to a question concerning his alternating illumination method for the Surrealist gallery. Kiesler explained: "It's dynamic, it pulsates like your blood. Ordinary museum lighting makes a painting dead." Time magazine[80] quoted the motto that Kiesler printed in the catalogue for Bloodflames, "We the inheritors of chaos must be the architects of a new unity." Kiesler came as close as he ever did to demonstrate this new order of a correlated unity in his design for Art of This Century, his Gallery Museum, and a key project in his career as well as in the annals of Surrealism and Surrealist architecture.

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Kiesler and Matta

Art of This Century, Kiesler's designs for Bloodflames at the Hugo Gallery and the 1947 Surrealist exhibition in Paris constitute a triangle and appears to be an unmatched example of Surrealist Architecture, created by a man who was a close associate of the original group. The only possible exception is Matta Echaurren who was trained as an architect and worked with Le Corbusier. Matta published a short illustrated note on the subject in the Surrealist forum Minotaure titled: "Mathematique sensible-Architecture du temps."[81] This plan for an apartment (figure 185) has much in common with Kiesler's architecture although it also differs from it. The two artists share the belief in an architecture which unequivocally and openly addresses psychological matters and emotional experiences. Matta wrote about this type of "mathematics of sensibility" aiming at "well being where power in its supreme degree of conscience is awakened by a command of the spirit" ("par le bien-etre ou la douleur a leur supreme degre de conscience, eveilleranient sur commande l'esprit").[82] The stairs in his multi-leveled apartment are suspended (open) stairs, where construction and aesthetics are not separated and functional/minimal architecture is acknowledged. Matta did not design railings for his more rounded than angular set of stairs in order to evoke some fear and heighten the experience of void and space. The Ionic column which Matta described as "ionique psychologic" was a growing, organic, somewhat bio-morphic column, which at its capital level made a reference to the classical order mainly through its two lateral round elements reminiscent of the volutes adorning the original

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Ionic order. It may be an attempt to re-experience a column which may have originally expressed growth (like in the Corinthian order and its upsurging persistent Acanthus leaves). The column standing erect and thus comparable to the human posture is an idea that also lives since antiquity (its literal rendition being the caryatide). In fact Matta expressedly wrote about the "human vertical" ("La verticale humaine") that his apartment was to render conscious. Matta's drawing illustrated a (single) "Ionic psychological" column, which besides its supporting role doubled as a symbol.

Along the same lines the comfortable armchairs or "fauteuils" were described by Matta as supple and pneumatic, that is, designed to comfort the person at rest physically and mentally by a sensitive consideration of the body, molding around it. One such couch in Matta's drawing shows a resting woman enveloped by the couch which looks like a Henry Moore sculpture of a reclining figure. This is reminiscent of the Kiesler multi-purpose biomorphic chairs designed for Art of This Century (figure 177). So, Matta's apartment was an environment that expressed and served human needs--physical, mental and emotional. Matta shared this ambition in architecture with Kiesler. Matta referred to mathematics in his title suggesting some element of certainty. This architecture is not subjective and arbitrary; on the contrary it should be valid; that is, comforting as well as comfortable.

Matta's apartment as seen in his drawing (figure 185) is no doubt quite eccentric and reminiscent of the Endless House. The traces of Le Corbusier are present in the curved walls and elegantly cast concrete.

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Kiesler, in his Endless House, planned beyond Matta and, unlike Matta, also had a definite idea about construction and mechanical detail. But they share an interest in Surrealist architecture, not as fantasy but as a serious proposition in practical design. Late in his life when he came to Yale's school of architecture for a lecture, as an opening exercise, he asked the students to move in their seats and feel to what extent the seat was actually designed to fit their bottoms. This was in order to demonstrate that most seats were not designed the way he (and for that matter Matta) wanted chairs to fit for comfort.[83] Matta gave up architecture for painting (without necessarily foresaking all architectural subjects) whereas Kiesler never gave it up he planned the Endless House and built such a Surrealist structures as the Shrine of the Book, and planned the Grotto of Meditation.

Kiesler's Contribution to the Surrealist Magazines VVV and View

Another aspect of Kiesler's participation in Surrealist activities was the foundation and publication of the short-lived Surrealist magazine VVV. William Rubin described it as "more specifically Surrealist in tone [than View] and consciously modeled on the defunct Minotaure."[84] Apparently the foundation of VVV was discussed in Kiesler's Greenwich Village penthouse apartment at 56 Seventh Avenue. In a special issue of the Journal of Modern Literature dedicated to the Gotham Book Mart and its founder Frances Steloff who has done much to encourage modern literature in America, Steloff wrote about this event. In her entry about Marcel Duchamp Steloff, after telling the story of Charles Henri Ford's View magazine, wrote the following:

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> Charles had a struggle to keep View going. Toward the end, the printer delivered 200 copies of each issue C.O.D. to GBM for our own needs. Finally, there was a meeting of Nicholas Calas, David Hare, Duchamp and others at the penthouse home of Frederich Keisler. They exchanged ideas about a new magazine to be called Triple V. It lasted for only three issues, one being a double number. I was invited to this founding of VVV because GBM was scheduled to be the distributor and not because I personally contributed to any of the free-wheeling surrealist ideas being advocated. I especially recall the plan for chicken wire in the design of a back cover. It was Duchamp's idea.[85]

Duchamp had indeed designed the back cover using chicken wire but it was related to Kiesler's "Twin-Touch-Test" in the same issue. Kiesler designed the gallery for Peggy Guggenheim that year (1942), the same year VVV was founded. Kiesler was then in the midst of the Surrealists' activities and social life, as the following story illustrates. Peggy Guggenheim and Kiesler had had their fall-out over the Gallery's unexpectedly high costs of construction, or what Peggy described as the "trouble about the gallery bills." This story is also related to Peggy's relationship with Max Ernst which was rather "shaky" at the time. Somehow the social fugue and intrigue involved a party given at the Kieslers' penthouse "for the birth of the second number of VVV magazine."[86] Guggenheim then wrote that Kiesler did not invite her since she would not let him come to her house. But she was determined to go to this party. She dressed up in disguise as a boy, following a friend's advice, and went to the party. This story, and Guggenheim's account about their relationship ended with the following words: "When Kiesler discovered who I was, he was so delighted that we made up then and there and have been friendly ever since. If I ever

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build a house in America Kiesler must design it."[87] She never has, and Kiesler never designed it; she would have made the right patron.

Kiesler definitely acted in style and with a sense of humor and their most productive collaboration had a happy end. One surrealist addendum is due. When Peggy Guggenheim closed her Gallery in the spring of 1947 she sold "all Kiesler's fantastic furniture and inventions." And she went on: "There was terrific bidding for them, and to avoid complications I let them be removed by the cash and carry system. Poor Kiesler never even got one thing as a souvenir; they disappeared so quickly."[88] It was to Kiesler's credit that his work was so well liked and disappeared so rapidly as Guggenheim described. It is regretable that the gallery was not preserved; yet this is consistent with a long line of impermanent works by Kiesler that performed and vanished, and this phenomenon expresses the temporal quality of Kiesler's architecture, its architectural flexibility and demountability, even Surrealist destiny.

The second issue of VVV which the party at Kiesler's house was celebrating was the issue in which Kiesler contributed the "Twin-Touch Test." This rather strange previously mentioned work was a "do-it-yourself" experiment which offered the reader an unusual experience of touch. It was generated through an experiment that was described as follows:

> Place your hands on top of either side of the wire screen, run both hands simultaneously gently down, fingers and palms remaining in close contact. Repeat and repeat until you can answer the following: Is it an unusual feeling of touch?

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These instructions were accompanied by a photographic demonstration of the experiment (figure 186). A young pretty woman, Pegeen Guggenheim, Peggy Guggenheim's daughter, was seen performing the experiment.[89] Her head and eyes looked up while she concentrated on the sensation in her hands. This was stylistically a take-off on the technique in advertisement Kiesler adopted to illustrate the experiment.

The readers who experienced the unusual feeling of Touch were asked to describe it in no more than 100 words, and were also asked to try and give an explanation. Five prizes were offered to the best solutions--a one-year subscription to VVV.

It should be stressed that this unusual cover was not merely a Surrealist's provocation. At the basis of the experiment rests an unusual sensation which this writer experienced as a child and found it quite strange. The hands seem to rub against each other as if there is nothing between them. The chicken wire leaves much bare surface and the hands touch each other almost with no interruption, yet the chicken wire, upon moving the hand over its surface, rolls quite mysteriously between the hands. It thus exists and does not exist at the same time.

This description and explanation would have made this author a contender for a prize. The point here is that the experiment was not a mere Dadaistic joke but a real experiment, manipulating a sensation and then trying to articulate its effect on the imagination. The experiment was also suggested as an exercise between two people and instructions were given to help people actually perform it. (Put the magazine flat on a table; lift back cover into vertical, and so on.)

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The New York Post[90] introduced this second issue of the magazine with the title "Surrealist Magazine Is Chicken Wired but Never Corny." Elizabeth Townsend described the experiment and said "it feels funny." She also quoted Breton about the subject, who said that the sensation created by the experiment was "like a dream in real life." The Twin-Touch-Test was printed on the last page of the magazine and was covered by Duchamp's see-through cut-out section in the shape of a torso. It was covered (figure 187) by ready-made chicken wire over the cut-out, facilitating Kiesler's suggested experiment. It was a collaboration between Duchamp and Kiesler.

The Twin-Touch-Test was not Kiesler's only contribution to the second and third combined issue of VVV. As one of the founding fathers of this publication, Kiesler contributed to all four issues. In the combined issue (nos. 2 and 3) his two other and more substantial contributions were his article on Design-Correlation, and a description of an instrument he invented for showing Andre Breton's 1713 poem-object (figure 181).

The list of participants in VVV was vast and should be noted for its intellectual range crossing the border lines between "poetry, the plastic arts, anthropology, psychology, sociology, the evolution of science, comparative religion, or in what may simply be called "the field of the wonderful" (this list was from the editorial introduction of the first issue).

Kiesler's "Correalism," which I have discussed separately could and should be viewed against this Surrealist background.

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Kiesler's contribution to the first issue was also of scientific nature. He submitted an article entitled "Some Testimonial Drawings of Dream Images."[91] The drawings Kiesler reproduced were from a book titled Dreams by Percy Goldthwait Stiles, which was published by Harvard in 1927.[92]

Kiesler explained that he was interested in these drawings as "documents of design iconography" and he noted the drawings' instinctive, purposeful and functional way of describing a dream. To complete the picture, we ought to mention that these discoveries were related to research Kiesler had conducted since 1937 at Columbia University where he had his own department for Design Correlation. Kiesler related these drawings to the research or "investigations covering the field of vision." He also saw these drawings as authentic expressions which challenge Surrealist "fictitious dream-paintings" that he characterized as "pre-inspirational" and without citing specifics, rejected their affected manner. Kiesler wanted to demonstrate how such authentic images do not have to contain any "chance scribbling" or "deep modeling" and how purposefully clear a dream image can be without resorting to all those "Surrealist" tricks of the trade that Kiesler listed, and of which he obviously disapproved.

Kiesler accepted the lesson of his research and employed in his own drawings (sketches for works, sets, or installations) a functional, accurate and purposeful manner. His drawings bear a certain similarity to the drawings he has illustrated in VVV.

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In the last issue of VVV[93] the Space House was illustrated. Kiesler expounded his ideas about Correalism construction, and talked about prefabrication as well as "continuous mutation of the life force" that is an aspect of his dynamic theory of design, suitable for biomorphic surrealist flow.

Before turning to Kiesler's contribution to the special issue of View magazine dedicated to Marcel Duchamp,[94] one last detail is worthy of mention concerning Kiesler's work for VVV, specifically his design of the article on Design-Correlation in the combined second and third issues. As indicated previously, Kiesler exploited any medium he tackled to the utmost. He did this in VVV which, being a Surrealist magazine, was open to such experimentation. So, to help demonstrate the workings of his instrument designed for Breton's poem-object he used two flaps cut in the shape of the shutter outside; these were attached by means of a grommet (figure 181). A flap was also used for a second illustration in the article demonstrating the various positions and uses of Kiesler's biomorphic seat/stand he designed for Art-of-This-Century. Its photograph was cut to its shape and was also attached by means of a grommet. This enabled one to rotate the flap around in different positions demonstrating its multi-purpose design (figure 184).

This creative manipulation of a magazine page was expanded considerably in Kiesler's contribution to the issue of View dedicated to Marcel Duchamp[95] three years later. Kiesler titled this photocollage (figures 188-189) "Les Larves d'Imagie d'Henri Robert Marcel Duchamp" (The Larvas of the Imagery of Henri Robert Marcel Duchamp), Duchamp's

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full given name. The larva seems to imply the idea of metamorphosis. One of the definitions of the word "larva" describes it as "The early form of any animal that at birth or hatching is fundamentally unlike its parent and must metamorphose before assuming the adult characters" (Webster). This relates to the major theme of this multi-leveled "Space-poem"--as Kiesler termed this particular type of work. It seems that the word "Imagie" is a non-existing French word and one of Kiesler's many invented conjunctions of meaning. It is probably a combination of the French for imagery and imagination. Next to this title Kiesler also used Duchamp's initials M.D. (figure 189). The initials read also as Medical Doctor and Kiesler promoptly subtitled them "emeritus" (probably in reference to Duchamp's famous retirement from art) and cited as the Doctor's field of specialty: "chronic diseases of the arts." Recall that elsewhere, in his article on Duchamp's "Large Glass," Kiesler described Duchamp's role among artists as: "guiding lost sheep and collective herd back to juicy roots . . . ."[96] Kiesler introduced his photocollage with a note that reads:

> NOTE: The following triptych when unfolded represents three walls of Duchamp's Studio on 14th Street in New York. There seems to be a definite although unintentional correlation between the daily utilities of the artist's environment and the inner structure common to all his work. The cut-out flaps, left and right, when bent toward the center, transform the interior wall into a vision of the "Marie Mise a nu . . . . Many more integrations can readily be found in the Triptych, others might be evoked between the lines.[97]

Kiesler has in fact provided a full check list of works by Duchamp that he related to objects in Duchamp's studio.[98]

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Inside the triptych Kiesler inscribed in French: "dedie a H(ieronymus) Duchamp" and it was signed Kiesler. Thus the triptych offers a reference to Hieronymus Bosch, possibly even to his famous Garden of Earthly Delights, which is also a triptych. A second reference was probably made to St. Hieronymous in his cell, like Duchamp in his studio on 14th Street.

Kiesler also referred directly in this work to the French writer and chess-theoretician Raymond Roussel who Duchamp acknowledged as an influence. Kiesler played with the rhyme between Marcel and Roussel, the decade of difference in age between Roussel (born 1877) and Duchamp (born 1887) as well as both artists' interest in chess. He called both artists "artiste inventeur."

On the outside of the triptych's left wing Kiesler painted Duchamp's left hand or palm (figure 123). Superimposed on it is the image of the "nine mallic molds" from Duchamp's Large Glass and the Capillary Tubes over them. In Kiesler's article on Duchamp's Large Glass Kiesler made the connection between the Capillary Tubes which were created as a design by accident, and the Large Glass breakage and wrote the following:

> Strange for the factualist is the magic of subconscious creation with which the outburst of broken glass-streaks which now veins the whole picture was anticipated by Marcel Duchamp. A preparatory drawing of 1914 (insert above) already showed radiating lines abstractly superimposed upon the reality of the main theme of the design. But it seems tome that not only the breakage had actually occurred, was the cycle of perfect fusion of the subconscious image with its realization completed and the time ripe to give its message to the public.[99]

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In the photocollage for View the Capillary Tubes as a design by accident and the palm's line of destiny seem to complement Kiesler's magic theme for the triptych; the inevitable connection between the artist's life circumstances, his destiny and the particular character of his work. Finally, Kiesler called this triptych Poem-Espace (Space Poem) and this is no doubt a reference to Andre Breton's Poem-Object, and may be viewed as its architectural surrogate.

So during the forties, which saw the height of Surrealist activity in America, Kiesler was most active, participated in major affairs, and was an inseparable part of the Surrealist milieu and the communal spirit that had developed in New York. Thus, for example, Kiesler participated also in the chess tournament that took place at the Julian Levy Gallery which was at the center of much Surrealist activity. In this event George Boltanowski played blindfolded against Max Ernst, Dr. Georgy Zilboorg, Alfred Barr, Frederick Kiesler, Dorothea Tanning and Mr. Levy himself.[100] This was connected to an Exhibition dedicated to Chess.

In 1946 Kiesler contributed to a series of films shown under the title "8 x 8 Art of This Century Films" at the Art of This century Gallery. Kiesler contributed to the catalogue about Hans Richter, a short introductory note, where he related Richter's early (1919) interest in continuity, the way Kiesler named it, the use of scrolls for the continuous presentation of pictures, to Richter's films. Kiesler also acted in Richter's 1956 film 8x8. Richter tells that he offered Kiesler the role of the Minotaur, this mystical beast that was the closest he

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could find to the lion. Kiesler was dressed in a tailcoat, feathered in red silk, a cap and a realistic mask of a bull. Kiesler successfully handled his scene, because "this is how he was: Wherever he arrived and whatever he did, he drove through it all with wit and irony in its deepest sense."[101]

Kiesler was associated with the stage from an early age,[102] as a child actor, and had his own ideas about acting. Lillian Kiesler quotes him saying that most important for the actor are his entrances and exits. Richter definitely liked how Kiesler did his role in 8x8. So, he was always a good sport, participated in various Surrealist activities.

To the long list of activities we ought to add Kiesler's collaboration with Gotham Book Mart which published Neon, another short-lived Surrealist magazine (more a pamphlet) and which Kiessler helped to design (figure 190). It was devoted to art and literature and Kiesler has orchestrated the design in a galactical fashion or as it was termed at the time, typoplastique. The second issue, for example (February 1948), which credits Magloire Saint-Aude, Victor Brauner, Jacques Herold, and Toyen as participants, was a "sinuous black serpent form running through all four pages. Sometimes texts are painted over a picture, some printed in negative or a black ground, and frequently texts are printed hand-written."[103]

This activity also generated an opportunity for Kiesler to design a surrealist show window for Gotham Book Mart advertising Neon (figure 191). It was Surrealist, an assemblage made up of primitive masks and

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other Surealist found objects. It is an assemblage depicting a warrior whose head is a helmet and his body made up of masks and mannequins holding Neon, walking through strips of paper displayed nonchalantly advertising this Paris-based magazine. We recall Duchamp's window dedicated to Breton's work "Arcane 17" also for the Gotham Book Mart which was made in 1945, three years prior to Kiesler's window.

Kiesler had a longstanding recognition of the store front show window as a modernist medium. Not only had he designed and executed for Saks Fifth Avenue in 1929,[104] but he also published the following year a pioneering book with the self-explanatory title Contemporary Art Applied to the Store and Its Display.[105] So the "totem" Kiesler installed for Gotham Book Mart was more than an isolated project in this medium. The window for Gotham Book Mart was, however, the most Surrealist window assemblage he ever designed.

In its formal features, standing on legs, and fusing various images, this work was important as leading toward Kiesler's late sculpture. This work consolidated Kiesler's growing interest in myth and symbol. Ths Surrealist forties were also Kiesler's jolliest years. Vogue featured him three times[106] always as an eccentric Viennese with a continental sophistication, the complete designer-architect, and another time printing a photograph showing him as an elegant dandy sometimes smoking a cigarette with a cigarette holder.[107] This was also the decade in which the first comprehensive article about Kiesler was published under the title "Design's Bad Boy" in Architectural Forum.[108] In Dada/Surrealist circles of course, to be a bad boy was to be it.

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Surrealism between Paris and New York was the subject of an exhibition where considerable attention was given to Kiesler, including a limited reconstruction of the Surrealist gallery at Peggy Guggenheim's Art of This Century Gallery.[109]

The Surrealist years made Kiesler integrate literary and mystical elements into his work which up to that time was grounded more in constructivism, neo-plasticism and De Stijl.

One image represents this point and the Surrealist connection, and with it this chapter shall be concluded. In 1947, in Paris, during the same period that Kiesler designed the Surrealist show at Maeght and made the Totem of Religions and the Anti-Taboo-Fig, Kiesler made a drawing he titled The Moon-Eye (figure 181). It showed four circles overlapping. The center circle was colored in a dark black and was contained in the largest circle but slightly off center so as to create a framing crescent as the eye's iris and a dark pupil slightly off center. There was a moon as crescent, with the shadowy part rendered dark and against a light background and it suggests the eye's pupil. The curious image defies an authoritative single interpretation. This same image was used by Kiesler for a small wooden amulet he designed at the same time which ironically he titled ironically "The Private Eye."

In the Art News Annual dedicated to Surrealism, where Kiesler's Hall of Superstition was also featured, the Moon-Eye amulet was related to a gamut of Dada/Surrealist imagery which uses the eye as its subject. Reference was made to the opening scene in Bunnel and Dali's film Un Chien Andalou (1929), or Man Ray's Metronome Eye, 1930.[110] The eye

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however is a symbol of vision and knowledge, and there is little doubt that it expressed the visonary aspect that was characteristic of Kiesler's creative clairvoyance as much as it characterized Surrealism. The moon in the occult sciences, nocturnal as it is, represents reflection, emotion, and imagination. These were qualities that Kiesler possessed and which possessed him, making him a natural participant in the Surrealist experiment and experience.

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Notes

[1]Frederick Kiesler, Inside the Endless House, p. 464.

[2]AAA Roll 127 no. 845, Aufbau, 6 November 1948.

[3]Apparently the sculpture was executed by a certain Etienne Martin. See Lucy R. Lippard, ed., Surrealists on Art (Englewood Cliffs, N.J.: Prentice-Hall, 1970), p. 152. It is possible that this man is identical with a certain man nicknamed "Zigoto" who is mentioned by Marcel Jean (p. 342) as an ingenious craftsman who was not known to him by another name, and who played a key role in constructing the Surrealist show at Maeght. It is clear that Kiesler must have worked with the latter on designing and executing the construction, but this of course is sheer speculation. Cf. Marcel Jean, The History of Surrealist Painting, with the collaboration of Arpad Mezei, trans. from the French by Simon Watson Taylor (New York: Grove Press, 1960), p. 342.

[4]These two auxiliary ropes apparently are a later addition since the photograph of the sculpture's installation in Paris, in 1947, does not show a trace of them. The extended base on the floor is also absent in the 1947 installation.

[5]Illustrated in Yamagachi, p. 105.

[6]AAA 127 no. 896, New York Times, 8 June 1947.

[7]In William Rubin's Dada and Surrealism (New York: H. Abrams, 1968), this international exhibition is listed in the chronology as the last event (p. 472).

[8]Jean, p. 341.

[9]Ibid.

[10]Le Surrealisme en 1947 presente par Andre Breton et Marcel Duchamp (Paris: Editions Pierre a Feu, Maeght Editeur, 1947).

[11]Jean, p. 342.

[12]Frederick Kiesler, "L'Architecture Magique De la Salle de Superstition," in Duchamp, Breton, pp. 131-134. English translation in Lippard, ed., pp. 151-153.

[13]See Rubin, illus D-187, 188, and D-201. Yamaguchi has also made this connection between Kiesler and Duchamp in this context (pp. 118, 119).

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[14]Frederick Kiesler, Inside the Endless House, p. 163.

[15]Lippard, p. 152.

[16]Ibid., p. 152.

[17]After the list of participants, the original French text added a footnote which was also translated in the English text and which lists the artists who showed in the Hall of Superstitions as well as their works as follows:

> "The black lake (spring nourishing anguish), by Max Ernst; the waterfall concealed by superstitions, by Miro; Whist (Owl's luck, Crow's Luck, Bat's Luck, Woman's Luck) by Matta; the green ray, by Marcel Duchamp; the totem of religions (drawing by Kiesler), executed by Etienne Martin; the anguish-man sculpture by David Hare (drawing by Kiesler); the vampire by DeDiego, the evil eye by Donati, the anti-taboo fig, by Kiesler."

It is strange and most unlikely that David Hare would make a sculpture after a drawing by Kiesler, albeit Kiesler said elsewhere he "had given David Hare the job to construct a large sculpture" for this show (Creighton, p. 114). As to Kiesler's "anti-taboo-fig," see below.

[18]Lippard, pp. 152-153.

[19]Rubin, ill D-220, p. 442.

[20]Lippard, p. 153.

[21]Jean Arp, "L'oeuf de Kiesler et La Salle des Superstitions," Cahiers d'Art, Paris, 22° Aune 1947, p. 383; republished in Jean Arp, Onze Peintres (Zurich: Editions Ginsberger, 1949).

[22]Lippard, p. 152.

[23]Jean, p. 343.

[24]Concerning the wall's color see AAA Roll 127, no. 911, Art News in Paris by John Devoluy.

[25]Marcel Jean has written that even the list of eighty seven artists was incomplete and more unlisted artists participated in this first post-World War II Surrealist international show. Jean, p. 343.

[26]Yamaguichi, illustration, p. 442.

[27]See Desmond Morris, Manwatching: A Field Guide to Human Behaviour (New York: Abrams, 1977), p. 292, where in the chapter on "Obscene Signals" the symbolism of sexual insults he writes:

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"Copulation gestures are of two kinds, those that emphasize insertion and and those that represent pelvic thrusting. Phallic insertion is the key to the age old Fig-Sign, in which the 'male' thumb is squeezed between the 'female' fingers. This is done with a closed hand, the thumb protruding from between the first and second fingers like a penis inserted through labia. This gesture popular in Ancient Rome, and surviving on early amulets, is now almost world-wide in distribution in the form of 'lucky charm.'"

[28]Cf., footnote 17.

[29]AAA Roll 127, no. 900, Time, 21 July 1947.

[30]Cynthia Goodman, "The Current of Contemporary History: Frederick Kiesler's Endless Search," Art in America 54 (September 1979): 122.

[31]Also reproduced in Surrealism and American Art 1931-1947 by Jeffrey Wechsler. New Brunswick, N.J., Rutgers University Art Gallery, March 5-April 24, 1977, ill 69, p. 86.

[32]See Marcel Duchamp, The Museum of Modern Art, New York, and Philadelphia Museum of Art, 1973, edited by Anne d'Harmoncourt and Kynaston McShine, p. 25.

[33]Andre Breton, Ode a Charles Fourier (Paris: Editions de la Reveue Fontaine, 1947), dessine a New York, Pan Frederick J. Kiesler, 1 April 1947. Concerning a collaboration with Duchamp Rubin has illustrated Duchamp's piece for the exhibition at Maeght La Rayon Vert as a collaboration with Kiesler but the identity of this collaboration is not entirely clear. Herbert Molderings, in his book on Marcel Duchamp, identified it as a peep hole installation placed next to Kiesler's anti-taboo-fig, and illustrated it. Herbert Molderings, Marcel Duchamp (Qumran, Frankfurt ain Main and Paris, 1983), pp. 85, 86. Molderings challenges Arturo Schwartz's identification of this work as the box and seascape he reproduced. See ARturo Schwartz, The Complete Works of Marcel Duchamp, 2nd rev. ed. (New York: Abrams, 1970), p. 517. However, recently a drawing of the Green Ray by Kiesler, the box discredited by Molderings, was published. This drawing by Kiesler reestablishes the box as part of this work. It seems to me, therefore, that the (now destroyed) box was probably placed behind the stretched canvas where itw as viewed through a hole. See Jennifer Gough-Cooper and Jacques Coumont, "Kiesler und 'Die Braut von ihren Junggesellen nacht entblosst, sogar,'" in Kiesler, 1890-1965, Bogner, pp. 287-296. See particularly illustration no. 15, p. 295.

[34]Jean, p. 344.

[35]Janet Flammer, "Letter from Paris," The New Yorker, 6 September 1947.

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[36]Frederick Kiesler, "Manifeste de Correalisme," Architecture d'Aujourd'hui, Boulogne, 1949, pp. 89-105.

[37]Judith Kay Reed, "Kiesler, the Tent Maker, Does Modern Decor," Art Digest 21 (15 March 1947): 15.

[38]Ibid.

[39]Bloodflames 1947, Hugo Gallery, 26 East 55th Street, New York.

[40]"Pictures on Ceilings," New York World Telegram, 8 March 1947.

[41]See Wechsler, p. 86, illus. no. 68, where a drawing by Kiesler is reproduced (no. 68, p. 86) described as a preparatory drawing for the Hugo Gallery show. This sketch indicates that Kiesler had several plans. The one reproduced, which dates from 1946, the idea was to use strings the spectator would pull to uncover the paintings which were covered variously by a transparent material, put in a box, etc.

[42]Harvey Breit, "The Poet's Theatre," New York Times, 9 February 1947.

[43]See Held, pp. 323-336; and Michael Sgan-Cohen, "Kiesler Onstage and Off," Art in America 69 (Summer 1981): 37.

[44]George Freeley, "The Stage Today," New York Telegram, AAA, Roll 127, no. 976.

[45]Frederick Kiesler, Inside the Endless House, p. 79.

[46]It was probably a March 15, 1946 lecture presented by View magazine which took place at Carnegie Chamber Music Hall in which J. P. Sartre talked about new tendencies in the French theater.

[47]Frederick Kiesler, Inside the Endless House, pp. 81-82.

[48]Alberto Giacometti, Exhibition of Sculptures, Paintings and Drawings, introduction by Jean-Paul Sartre, January 19-February 14, The Pierre Matisse Gallery, New York, 1948, p. 11.

[49]Frederick Kiesler, Inside the Endless House, p. 80. Guggenheim's letter as well as Kiesler's proposal (in part) are also reprinted in a French translation in Paris-New York, Centre National d'Art Moderne, 1 Juin-19 September 1977, pp. 486, 487. Guggenheim's letter dates from 26 February 1942 and Kiesler's reply and proposal date March 9, 1942.

[50]See Cynthia Goodman, "Frederick Kiesler: Designs for Peggy Guggenheim's Art of This Century Gallery," Arts Magazine, June 1977, pp. 90-95.

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[51]About Putzel see Melvin P. Lader, "Howard Putzel: Proponent of Surrealism and Early Abstract Expressionism in America," Arts 56 (March 1982): 85-95.

[52]Peggy Guggenheim, Out of This Century: The Informal Memories of Peggy Guggenheim (New York: Dial Press, 1946), p. 314; about Mr. Putzel, see p. 248.

[53]Ibid., p. 314.

[54]Ernst, pp. 228-229.

[55]Ibid., pp. 234-235.

[56]Edgar Kaufman, Jr., "The Violent Act of Hanging Pictures," Magazine of Art 39 (March 1946): 109.

[57]"New Display Techniques for 'Art of the Century' Designed by Frederich J. Kiesler," The Architectural Record 78 (February 1943).

[58]Guggenheim, p. 320.

[59]Frederick Kiesler, "Notes on Designing the Gallery," unpublished text, Kiesler estate; see Goodman, p. 92, fn. 28.

[60]See Goodman, p. 92, fn. 31. Apparently Goodman saw these two pages which she described as an essay in her text while the information she provided in her footnote seems to me to indicate that what she saw were notes Kiesler had taken from the German art historians Willhelm Von Bode and Hermann Esswein. Unfortunately I have not been able to see these notes myself in spite of my attempts in this direction.

[61]See The Museum of Modern Art (New York) The Design Collection, Selected Objects, n.d., n.p.

[62]Goodman, p. 93.

[63]Kaufman, p. 109.

[64]Guggenheim, p. 319.

[65]Goodman, pp. 92-93 (Figure 4).

[66]Guggenheim, pp. 319-320.

[67]It occurred to me that Peggy Guggenheim's testimony that the Gallery could seat ninety refers to Kiesler's folding chairs, may have been connected to Kiesler's idea of the Art Gallery as some kind of a theatrical show and light show. It may have echoed Kiesler's 1926

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Telemuseum, his idea for Katherine Drier's Brooklyn exhibition of the Societe Anonyme. Also, there is no doubt that Kiesler planned these seats as part of a seating arrangement where the gallery would be used as an auditorium for performances, lectures, or films.

[68]In Guggenheim's own book from which I have quoted above. Caption under these photographs gives Berenice Abbott mistakenly credit for the design of the galleries themselves.

[69]Guggenheim, p. 320.

[70]See Goodman, p. 94, fn. 40.

[71]Guggenheim, p. 320.

[72]Goodman, p. 94.

[73]F. Kiesler, "Design Correlation as an Approach to Architectural Planning," VVV, no. 2-3 (March 1943), p. 76-80.

[74]Frederick Kiesler, "Design-Correlation" (July 1937), p. 89.

[75]Guggenheim, pp. 318, 319.

[76]Ibid., p. 321.

[77]AAA 127 no. 863-864, The New Yorker, Robert M. Coats, 31 October 1942, pp. 72-73.

[78]Newsweek, 2 November 1942.

[79]Frederick Kiesler, "Manifeste de Correalisme."

[80]Time, 2 November 1942.

[81]Matta Echaurren, "Mathematique Sensible-Architecture du temps," Minotaure 11, 3rd series (1938), p. 43.

[82]Ibid.

[83]Linda Nochlin related this story to me.

[84]Rubin, p. 342.

[85]Francis Steloff, "In Touch with Genius," Journal of Modern Literature 4 (April 1975): 839.

[86]Guggenheim, p. 342. (VVV, no. 2-3 came out in May 1943.)

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[87]Guggenheim, p. 342.

[88]Peggy Guggenheim, Confessions of an Art Addict, p. 114. This second book by Guggenheim (with an introduction by Alfred H. Bare, Jr.) repeats most of the other sources I have quoted from Guggenheim's earlier Out of This Century (New York, 1946) which of course could not have included this story.

[89]See Schwartz, p. 517.

[90]New York Post, 30 March 1943.

[91]Frederick Kiesler, "Some Testimonial Drawings of Dream Images," VVV, no. 1 (1942): 27-32.

[92]Percy Goldthwait Stiles, Dreams (Cambridge, Mass.: Harvard University Press, 1927).

[93]Frederick Kiesler, "Endless House-Space House" (photomontage) VVV, no. 4 (February 1944): 60-61.

[94]On View see John Bernard Myers, "Interactions: A View of 'View,'" Art in America 69 (Summer 1981): 81-92.

[95]Frederick Kiesler, "Les Leaves d'Imagie d'Henri Robert Marcel Duchamp," View (special Duchamp issue), Series V, no. 1 (March 1945), pp. 24-30.

[96]Frederick Kiesler, "Design Correlation," (May 1937), p. 57.

[97]F. Kiesler, "Les Leaves d'Imagie," p. 24.

[98]Ibid.

[99]Kiesler, "Design Correlation" (May 1937), p. 53.

[100]See The New Yorker, January 1945; see also Rubin, Dada and Surrealism, pp. 262, 342.

[101]Richter, p. 79. Richter also illustrates a picture from the film where Kiesler is seen as described. The version of 8 x 8 at the Museum of Modern Art (New York) that I have seen does not have the scene with Kiesler for some reason.

[102]See Held, p. 19. Lillian Kiesler in her biographical data that he has organized a children's (theater) stage at twelve and that "for fifteen years he acted in the theater of Austria" which is interesting but has yet to be confirmed.

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[103]Ades Dawn, Dada and Surrealism Revisited (The Arts Council of Great Britain, 1978), p. 429; illustrations p. 431.

[104]"'Shop Window Display,' by F. J. Kiesler, Designer," The Architectural Record 68 (September 1930): 215-219.

[105]Frederick Kiesler, Contemporary Art Applied to the Store and Its Display.

[106]"Art of the Century," Vogue, 1 January 1943, pp. 42-43; "The Space House," Vogue, 1 October 1943, pp. 80-81; "Bloodflames at Autobahn," Vogue, 15 April 1947, pp. 136-137.

[107]"People in the News: Frederick Kiesler, Structural Theories," Vogue, 1 August 1947, p. 100.

[108]"Design's Bad Boy," p. 48.

[109]Paris-New York, Centre National d'Art et de Culture, George Pompidou Musee National d'Art Modern, Paris, 1 Juin-19 September 1977, pp. 486-489.

[110]Cyril Connoly, "Surrealism," Art News Annual 21 (1952): 155.

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CHAPTER VIII

THE SHRINE OF THE BOOK

The "Buildings in the News" section of the Architectural Record of June 1965 reported the following item: "Shrine of the Book is dedicated in Israel." The first paragraph read:

> The "Shrine of the Book" constituting the D. S. and R. H. Gottesman Center for Rare Biblical Manuscripts was dedicated in ceremonies on April 20 and 21. The Shrine which is located on the site of the Israel National Museum, will permanently house four of the seven Dead Sea Scrolls and other rare Biblical manuscripts. The structure was designed by Frederick J. Kiesler and Armand P. Bartos, architects of New York City. General contractor was Hillel Fefferman.[1]

Another article in Architectural Forum was titled "Kiesler by Kiesler," and was devoted mostly to the Shrine of the Book. The "lead" introducing Kiesler was almost predictable in the way it expressed a common sentiment about him. It drew on Philip Johnson's line about Kiesler quoted before and read as follows: "Frederick Kiesler was once called 'the greatest non-building architect of our time'--and not in malice either. It was felt that he had influenced the architecture of today not so much by built examples, but by the sheer force of his ideas."[2]

Indeed Kiesler who had built little, has surprised and almost to add a dramatic dimension to the events, the building was dedicated eight months prior to the architect's death on December 28 of that year, 1965.

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Actually, Kiesler and his associate, Armand Bartos, have received several commissions before and after the Shrine of the Book. Some after. A few have materialized,[3] but the Shrine of the Book was exceptional. It was an outstanding building where Kiesler applied the full range of his ideology that was developed over decades.

Le Corbusier's 1955 Notre Dame de Haut, a church at Ronchamp completed ten years prior to the Shrine of the Book, offered one of the few interesting comparisons. Much in the two buildings derived from shared similar values, humanistic as well as architectural, yet much more may be learned from the differences. First, however, take a closer look at the Shrine in Jerusalem and become familiar with this middle-eastern monument for ancient biblical manuscripts, the Dead Sea Scrolls. To learn about general circumstances of its erection, turn to Kiesler whose account concerning the commission is as follows:

> The Shrine of the Book as originally called for by the faculty and the president of the Jerusalem University in 1957 was one large square room in the new library under construction, seven years ago, to house showcases for the seven Dead Sea Scrolls and some other rare Biblical manuscripts. I, however, immediately rejected this proposal because I was convinced that the text of these 2000 year old scripts could not be studied in an exhibition room, particularly one filled with many visitors. They would just remain curiosa. But the Dead Sea Scrolls are more than curiosa: their contents are the main issue dealing with postulates that shook and are still shaking the world of the theologians. Another architectural approach was necessary to express the transverse space of these documents. My arguments were accepted and the result is today's building of the Shrine of the Book.[4]

The radical transition from the original proposal to the Shrine of the Book in its present form was more complicated than it appears from Kiesler's account. What was expected was most probably very similar

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to what Kiesler himself described ironically as the conventional solution with which he wanted to have nothing to do:

> it would just be a matter of getting enough donations to put in a marble floor and walls, bronze showcases, heavy rubber plants in the corners, Mies Van der Rohe chairs and couches throughout, and air condition the atmosphere--that would be the "modern" way, in the great tradition of the "Bauhaus."[5]

If the Bauhaus itself was not challenged, it was turned into a modernist cliche that Kiesler has openly mocked and rejected. Indeed, Kiesler's own solution was radically different. His solution was galactical, that consisted of:

> sixteen different units, each entirely different in shape, expanse, height and width, darkness, dimness, or light. These sixteen units correlate to one large complex, strongly contrast to each other yet correlate to the ultimate goal which is the awareness of a great past and the awareness of a great future.[6]

Let us interrupt this quotation and look closer at the building itself. The architect, Len Pitkowsky, who at the time worked for Kiesler, drew a bird's-eye view presentation drawing of the entire site (at Kiesler's home) under Kiesler's supervision (figure 193). In the above quoted article, "Kiesler by Kiesler," Kiesler reproduced the bird's-eye drawing accompanied by a text in which he described the building. What follows is the complete description.

> The Shrine consists of these sixteen space units: (1) a lawn gently sloping down a long retaining wall leading into a grove of trees with a circular platter of stone upon which rest four long stone blocks to sit on; (2) the open plateau; (3) the square fountain; (4) the protruding upper part of the vessel-dome covered with 271,000 white tiles upon which at need the fountain sprays water for cooling; (5) a black besalt wall 75 feet away that is almost 60 feet long, 40 feet high (with fire through on top) and 6 feet thick; (6)

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> the open staircase leading down to a large rectangular patio; (7) to the right of the patio, the research library; (8) across from it, the entrance to the Shrine proper. Next (9) is the entrance to a high exhibition hall facing the black basalt wall which has descended 11 stories below the plateau. In it is a square opening with a large tubular bronze gate; then (10) through the bronze gate an underpass of seven platforms each six inches lower than the next. To the left and right of these platforms exhibition showcases for biblical manuscripts; beyond them (11) a 75 foot underpass supported by continuous arches connecting floor, wall and ceiling and slightly inclined in opposite directions. The color of the concrete shades from light blue-gray at the bottom to dark blue-black at the top. (12) Finally a high flat-chiseled stone-wall containing a comparatively small bronze door split in half. It opens on approach and once inside it, a few steps upward, one enters (13) the main vessel-dome, a container for seven Dead Sea Scrolls. A circular shell construction of double parabolic design open at the top in a circle 6 feet 3 inches in diameter through which daylight filters down the corrugated interior of the dome-vessel which has a diameter at the bottom of 80 feet. (14) Two open stone staircases around the center of the dome-vessel lead downward to a rough stone crypt 50 feet in diameter which contains showcases with precious artifacts found in the Dead Sea region. (15) The exit from the dome area passes through one of the bronze doors into a corridor 28 feet long, the walls curved, along an elevated stone footpath leading directly to (16) an almost 200 foot open-air meditation walk flanked by two high stone walls with three cut-outs, openings through which one may view Jerusalem and its Parliament. Continuing the walk one finally reaches a door which returns one to the common plaza of the other museums.[7]

Kiesler's prose is, as always, lucid. It reads like a set designer describing a stage as a sequence of temporal events. The architectural narrative reflects architectural philosophy. Thus Kiesler said that: "the entire Shrine is a matter of continuity. You cannot photograph the spaces, you have to go through them. The architecture takes you by the hand and guides you through."[8]

Elsewhere he referred to this experience inside the Shrine as a "long time wandering"[9] and an "architectural ritual."[10] This could help us understand Kiesler's conclusive summation; he wrote:

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> The Shrine is thus an experience in ideological architecture annihilating the 50 year old pseudo-functional architecture which took its cue from the technological advancement of science, the so-called modern materials such as steel, glass, plastics and mass production, but forgot the human being whose desire is a correlation of known and unknown, a matter of dedication to love and the awareness of inescapable death.[11]

Important is the proposition that the architecture is ideological and as such should correlate to human experience and heighten awareness of senses and mind. In Kiesler's own words, "We must strive from the outset to satisfy the psyche of the dweller"[12] The theater with which Kiesler was intimately involved was where this integration was practiced, albeit temporarily. The Shrine was not theatrical, aesthetically speaking, but more a dialogue between man and his environment which reflects his psyche and corresponds to it in design. The Shrine was thus also architecture as sculpture, set design, and and environmental sculpture.

A Close View and Description of the Shrine of the Book

One enters the premises of the Shrine through nature, a lawn, a grove of trees[13] and then moves on into the realm of culture. The walk through nature leads to an open circular platter of plastered stone with seats on four sides. One may sit and enjoy the surrounding trees and lead the entry preludium to its end, sitting, meditating, on the white dome-vessel and the black basalt wall which are dominant visually and arouse curiosity[14] (figure 194). Even if one chooses not to sit, the benches set a tone of contemplation. Next, the visitor enters the open space extending between the low dome covered with white tile on

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the right and the massive black basalt wall on the left (figure 195). Both were seen earlier but when approached are seen in their "actual" size and proportions, which are not imposing. One senses the tension between the ecme and the wall, and yet in spite of an intuition relating the black and the white, the round and the square, it is impossible to comprehend at the point of the entire building. This is intended in order to maintain a dynamic balance between the known and unknown.[15] Recall one of Kiesler's definitions for architecture as "the art of making the superfluous necessary--in time."[16] The time element is relevant here in the architectural experience. Then Kiesler's definition of art as the bridge between the known and the unknown is also relevant.[17]

The contrast between the black basalt wall and the white dome-vessel is very obvious and dramatic. Generally, contrast as an artistic device hardly needs an excuse; in fact, design of any kind could not take place without it. In one of Kiesler's explanations of the working principle of the Shrine's design he wrote: "The whole Shrine is based on opposites: the open and closed, light and dark, curved and straight. But the contrasts are so calculated that they suddenly become natural."[18] For one, the Shrine's contrasts correlate symbolically with the literary content of one of the Dead Sea Scrolls, that of the apocalyptic text on "the war between the sons of light and sons of darkness."[19] But the contrast between the round dome-vessel designed as a double parabola (a concave circumference and a convex emersion toward the center), and the straight lines of the black basalt wall, can be also related to

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a comment Kiesler once made about the Sphinx and the Pyramid at Giza. "The monumental Sphinx contrasts so violently in its curvilinear form with the hard edged Pyramid that an immediate unification takes place by heavy contrast."[20] This is how he interpreted the ancient sight, dynamically, and that is how one can experience the white round dome and the black straight wall.

Other shades of meaning have been suggested by Kiesler: "The wall and the dome (further) accent the continuity of life emerging from dormancy, the former (the black wall) calling to mind the heavy burden which lay on Israel for centuries."[21] A whole range of related meanings can be extracted from this elementary idea of contrast. The dome-vessel is situated in the center of a square shallow water "pond," the symbol of life contrasting with fire which comes through on top of the black basalt wall. The water is kept in motion. Sprinklers throw it from four accented corners (designed like corners of an altar) onto the dome; expressing vitality and life and this water is at the same time part of the building's cooling system (figure 196). There is also one central jet of water ejaculating from the center inside the dome-vessel which is open at the top. Water was important, and Kiesler went as far as saying that "Water is the vital element of the Shrine. In a sense the architecture is there only to receive the water."[22] After passing between the dome and the black wall a descent begins. The stairs are open; the railings are low, a sculptural element made up of small six-inch square blocks at the end of each tread (figure 197). But this semi-functional railing was introduced for safety reasons and as a

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compromise. Kiesler wanted completely open stairs with no railings at all. Concerning the stairs Kiesler wrote that "Stone architecture of the past did not have railings for a stair along a wall."[23] What is the stone architecture of the past he had in mind?

At least one kind of such architecture and stairs was the architecture of the Jewish ritual bath (the Miqvah), which was designed according to strict specifications that required, for example, that the bath be dug into the ground and its depth required such open stairs along the wall. The suggestion was based on a reference Kiesler made to one of the Dead Sea Scrolls, The Manual of Discipline, and its specific instruction concerning purification and bath. Thus the idea of water as life was extended through an open descending staircase borrowed from the ancient architecture of the purification bath. Kiesler wrote, "The Manual of Discipline," that "now in the Shrine, told exactly how Jews were to bathe. It was not only a cleansing, but a purification, and it led directly into baptism."[24] Indeed, the late Professor Yigael Yadin, the prominent Israeli archeologist also confirmed this conviction in conversation and spoke about this with confidence based on his conversations with Kiesler. After descending the open stairs one may turn right into the library although one is not likely to do that since the main entrance is now visible (figure 198). The library is the only part that is not integrated into the Shrine's "architectural ritual." For the visitor-pilgrim to the Shrine, the dark, tall and single entrance door invites one to turn left after descending the staircase. Tracing the route passed so far one notices that it is a spiral. Walking east

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to west, then, between the black basalt wall and white dome one turns south (left), descends the stairs and then turns around toward the north (left) to the entrance.It is intended that way since the stairs could have been constructed along the near wall of the sunken patio which would also have been the shorter way to go. But only the way it was designed makes the spiral route inevitable. Kiesler was interested in the spiral motif, which is related to his idea of continuity, and, as we have seen, wrote about it.[25] The entrance to the Shrine proper is a rectangular doorway framed by a projecting plain stone structure. The entrance is severe in appearance, vertical, high and narrow. It looks as if it were dug into the plain white wall and gives one the feeling of entering an ancient cave-tomb or a secret temple. Following Professor Yadin's experience, the entrance is reminiscent of the treasure of Atreus, King of Mycenae, and the royal tombs. Even the famous lions' gate of Mycenea or the sunken path leading to it, between tall walls, is reminiscent of the experience Kiesler evoked. These ancient sites could, in turn, have inspired his work. There is no evidence to substantiate this particular association, other than an impression from Yadin who indicated that in his conversations with Kiesler both of them understood and related to these architectural associations, as a matter of fact. The entry is shrouded in serenity and follows Kiesler's idea of keeping the interior a surprise, entering the unknown.

Once inside, the contrast between the Mediterranean's bright sunshine reflected on the white limestone outside and the dark interior is most dramatic. The light in this first exhibition lobby is dim.

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The showcases have their own light. One faces the lower extension of the black basalt wall with its brass tubular gates. Kiesler pointed out that the somber setting of the exhibition lobby was contrasted by the daylight filtering down from above, illuminating the bright floor and the gleaming brass.[26] One ascends three steps into the display corridor only to descend, this time through seven platforms each six inches lower than the other. The corridor-underpass, 75 feet long, is supported by massive arches (belts) connecting floor, wall and ceiling (figure 199). The entire corridor, dark and round, is no doubt a reference to the caves where the Dead Sea Scrolls were found; it does not have any lighting other than the light emanating from the display cases. The supporting belts creating the continuity of floor-wall-ceiling are a reflection of another one of Kiesler's most fundamental building principles, rejecting "post and lintel" in favor of a continuous construction. The round egg-shell construction which is the construction principle of Kiesler's Endless House comes of course to mind, but more relevant associations for the present context are two of his earlier designs, both for art galleries. One is his design made for Peggy Guggenheim's Art of This Century Gallery in New York (1942); the other in association with Bartos, the World House Galleries, also in New York (1957). For Peggy Guggenheim we recall Kiesler designed a Surrealist gallery with curved walls.[27]

In 1942, among the Surrealists and faced with a war which required the search for low-cost materials, Kiesler used the bent wooden panels to curve the walls; here in the Shrine the concrete belts appear solid

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and lasting. The effect, however, is similar, one of an enveloping funnel space. Describing the corridor, Kiesler wrote that it "increases the mystery and heightens the expectation."[28] And truly the corridor was a tunnel searching for its light. Kiesler and Bartos' design for the World House Galleries was a more immediate and closer precedent. Here, too, floor was connected to wall and ceiling in an attempt to do away with the sharp corners that Kiesler always despised, remodeling floor, wall and ceiling into a continuous construction. The display cases were somewhat reminiscent in conception of the Peggy Guggenheim Galleries inasmuch as they placed the objects of display away from the wall, so that they were more accessible to the viewer. This corridor as a continuous space gave a dynamic visual effect created also by the interlock of the belts bending alternatively left and right, inviting the viewer to pass through this interlocking perspective. At the end there was a door that opened automatically upon approach. This technical gadget was of course an integral part of the architectural tour in motion. The automatic door invited one to enter the next "space unit." Kiesler's use of such a technological device was a reminder of his genuine love for technology and gadgets. Although technology was to be "taken for granted and [was] of minor importance."[29] Yet, recall that Kiesler already engaged technology in his early set design for Capek's R.U.R. and O'Neill's The Emperor Jones in Berlin in 1922. It is important to point to this piece of technology inside the Shrine since it is dominated by the subterranean primitive cave experience; thus technology, however secondary to the "human being and his inner

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feeling,"[30] is not rejected to save the primitive effect, but, rather, incorporated into the total conception. Thus, entering the auto-opening double-doors one has yet to ascend a few steps and only then after stepping through a fairly small entrance door the dome, tremendous in its effect, is first seen and experienced (figure 200). One has, then, descended the corridor only to ascend once again into the dome. In spite of one's anticipation and awareness that the dome exists, it is a total surprise and was intended that way.

> The hope was to have something miraculous, in the sense of surprise, like entering a beautiful garden that you have never seen before, and could never have known in advance. The trouble with most architecture is that we know all in advance.[31]

The "sanctuary" as Kiesler referred to it, is the core of the building. In this space the seven Dead Sea Scrolls are on permanent display. In the center is the Isaiah Scroll, which is the oldest existing Biblical manuscript.

The way Kiesler handled the round space is related to one of Kiesler's earliest innovations in Vienna, the Space Stage (figure 2). Then, the space was drawn as a continuity by means of an ascending spiraling platform leading up to a round circle stage. Thus, a multi-leveled articulation of the space was conceived. At the Shrine, the different platforms were not spiraling or diagonal, but variously leveled. There was one outer, lower walking platform running along the dome's outer perimeter where eight display cases for scrolls were placed. Dividing this lower level and the higher, round center "stage" where a display drum containing the Isaiah scroll stands, is a deep crypt.

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Similar to the entrance stairs, another open staircase along a wall leads down to it (figure 201).

Appropriate here while descending open stairs into a subterranean Surrealist crypt, to mention once again that Matta wrote about the railing-less stairs in his "Mathematique Sensitive Architecture du Temps" and these slightly dangerous stairs, causing fear were useful in his Surrealist architecture. Kiesler's stairs were from the same school of architecture. The crypt was a circular display area with objects from the period profane relics. Light emanates only from the lighting of the display boxes themselves and the natural light from the central opening at the upper top of the dome. Three sets of stairs connect the lower platform with the upper central stage. The stairs bridge the two levels over the deep crypt, and were much like Venetian bridges over a canal. The dome-vessel itself was naturally a dominant feature. Its inner surface was corrugated. The corrugations "decrease in five stages toward the top, accentuating the perspective subtly."[32] The eye is therefore led to the top, which is open. This round hole at the top of the dome brings the Pantheon to mind.

Kiesler wrote about the Pantheon in his journals in a semi-enigmatic fashion. The entry reads as follows:

> No man, terrestrial animal, or bird knows how to discover holes in walls, holes in walls, ceilings, or floors better than cats can and do. The sky hole in the dome of Rome's Pantheon seems to have been made for cats. What a sympathetic Pope! A culmination for these four-legged creatures--yet never to be reached. Therefore they stick stubbornly to the basement.[33]

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This quote, amusing as it is, is not easy to understand. In part, it seems that the hole "never to be reached" (even by cats!) may hint at the idea that the hole in a dome is an immaterial feature, a void. Holes, after all, exist and do not exist at the same time. In any event, the Pantheon and its majestic hole was a dome that Kiesler knew and must have thought about. Along the same lines, the Pantheon's coffers, articulating the dome's inner surface, are reduced in size as they go up toward the opening in much the same way as the corrugations of the Shrine decrease in density as they ascend, and for much the same visual considerations. The opening, as an interior light source as well as its exterior shape, was reminiscent of Kiesler's ideas concerning the lighting of his Endless House. With all the differences between the multiplicity of openings going in different directions that the Endless House was to have, the opening of the dome-vessel was the closest any realized building by Kiesler has ever got to the idea of the Endless House's lighting. Here, however, there was another use to the hole since water was to ejaculate forcefully in a jet out of the central interior upright element placed above the central display drum containing the Isaiah scroll (figure 202).

This purely sculptural vertical made in bronze is a free replica of the original elongated vessel where the scroll was found[34] (figure 200). Thus this element constitutes the core of the building, the idea of rebirth. Water, symbolizing life, is sprayed from the 2000 year old scroll found in an old vessel. Reall the exterior. From the center of the white dome water splashes out forcefully. Opposite it, on top

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of the black wall, flames of fire are meant to be seen.[35] It seems relevant to mention if only by name, some of Kiesler's works in sculpture related to the vertical sculpture, and the water and fire motives. A few bear names related to these two elements, like Birth of a Lake (1960, 1964) or the Vessel of Fire, later titled The Cup of Prometheus (1956-1969, 1964), or even indirectly The Last Judgment (1955-1959, 1963). Kiesler made no secret of the reasons for using these two elements. "Water, as well as fire, plays an important part in the origins of man, in the origin of ideas, in the origin of feelings,"[36] he said.

The experience of the dome's space and the crypt alike are part of another category of experience; the experience of sound or silence. Silence plays an important role in much the same way time is an integral part of the architecture. This is the silent sound of architecture. Kiesler talked about silence and meditation. In his article about Mozart he suggested that we pay homage to Mozart by "dedicating to silence one day for every year of his life." In the Endless House, he allocated one room to meditation, making it sound proof. So, it is of little surprise that in the Shrine he attached as much importance to silence as he had to the idea of regeneration and rebirth. He even referred to the Shrine as "a sanctuary of silence, with a flow and return of water suggesting to everyone a second coming to himself."[37] One of the major devices to achieve meditative silence was the sound of water. "From my experience, the sound of water has had the extraordinary effect of carving all people down to silence," Kiesler wrote concerning his Grotto for Meditation.[38]

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It is in the crypt that the cave experience reaches its high point. It was constructed in rustic stone and this heightens the sensuous illusion of robust caves and primitivism. The crypt is also a reference to the caves where the Dead Sea Scrolls were found. But for Kiesler the primitive has always meant much and was a constant source of inspiration. In his article "Pseudo Functionalism in Modern Architecture," for example, one can read: "Under certain circumstances they (people) will ultimately leave the finest window frame (admitting no draft), the best laid (highly polished) floors, and withdraw to a cave in order to be free and happy."[39] The context in which this was said is different and yet, for Kiesler primitivism was not of the past and was called for in the present. The following entry from the journal confirms: "Stepping into Jerusalem, I went immediately below the earth's crust, that is, into our caves of the Shrine of the Book, now under construction."[40] For Kiesler the primitive did not constitute a certain set of forms; rather it was an objective to achieve primeval human experience with nothing romantic about it.[41]

Kiesler was familiar with the architecture of church crypts. In his journal he wrote about the church of St. Francis at Assisi which he visited:

> The church is built twice underground and once above, like the roots of a monumental tree, the Basilica below spreads wide each of its crossed arches, bending its vaults curves low and solid like the shoulders of a kneeling giant.

He continued:

> The basilica is superimposed upon the crypt whose square central tower encases the sarcophagus containing the remains

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> of St. Francis. And above these two sanctuaries, upon the earth, on the level of the people's dwellings, rises the cathedral proper, a magnificent fortification of arches, towers and columns. An inverse building-up of the three shrines, one upon the other, not with a wide base first, but on the contrary, the narrow crypt first, then the wider shoulders of the basilica and finally the big cross in space of the ultimate church of St. Francis.[42]

These words go beyond this immediate subject, but Kiesler gives us an insight into his mind since the way he analyzed a building was certainly a reflection of the manner he looked at architecture and relates to the way he built his own. The Shrine of the Book with its crypt and dome was definitely close in spirit to the metaphors he used to describe the Church of St. Francis and for Kiesler, all architecture was somewhat religious because architecture without a concern for the spiritual was in his eyes not only unethical but unworthy, even non-functional.

The crypt was for Kiesler also a unique experience capable of causing a personal and psychological transformation. In a wonderful section of the journals entitled "Assisi Reborn," Kiesler wrote a masterful poem (part of Epilogue I of the section). Its beginning reads as follows:

> Embraced by the torso of the crypt,
> scanning the ribs of the arches,
> I felt suddenly frozen to a standstill
> as though I had turned into a signpost,
> immobile.
>
> A fascinating inward urge started with
> ultimate determination
> it hypnotized and forced me to look into myself
> I was compelled to seek
> my own star
> sucked into a world which I can only call
> the universe of myself
> I was knotted with fire and hail.[43]

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This description of a personal experience confirms the credibility and depth of Kiesler's belief in the psychological power of architecture.

The exit from the domed space was, like the entrance, again through a relatively small bronze door. It led to another corridor with curved walls. One walked along an elevated foot path leading into a 200 foot long open "meditation walk." It was flanked by two high stone walls with three cat-openings through which one viewed Jerusalem and the Knesset, its modern Parliament building.

Thus, one has gone through and deep into an experience, first descending into the past, then undergoing a re-generation confirmed by the sight of a vital modern reality. It was an experience in time and about time. Kiesler built an architectural sequence, and as Cynthia Goodman pointed out, "For Kiesler, temporal concepts were as equally commonplace building materials as bricks and mortar."[44]

Some Technical Details

But intricate technical and material considerations for the Shrine of the Book were as much part of Kiesler's philosophy and practice as anything described so far. To begin with, the largely subterranean building was not merely a way of connecting thematically to the caves where the Scrolls were found and the past, but also an important factor in environmental control. Since the Shrine was built, in the most part, underground, it showed remarkably little variation in temperature and humidity. No part of the building was heated (other than the library); thus the contrast between day and night temperature customary for a

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heated building was avoided. The only mechanical equipment in the dome was for moving air.[45] But conservation of energy and the utilization of nature was not a common consideration. Kiesler, at the time, had to argue against air conditioning. He described the affair thus:

> An air-conditioned sanctuary for Dead Sea Scrolls sounded embarrassingly contradictory. Functionally speaking, it is simply this: the air of Jerusalem (unlike Tel-Aviv and Haifa) is sparkling dry, like champagne; the sanctuary is half underground partially buried in rock, earth and fill that provides for natural cooling in summer and warming in winter. Furthermore, the dome is open at the top and so shaped that the warm air is pressed upwards by the cool ground. In addition, we have provided a circular spray of fountains over the upper part of the dome: they provide continuous cooling which can be diminished or strengthened as the summer heat demands. To add mechanized dehydration and frigidity to the air would be a sheer waste of equipment and money, and worst of all artificial in this atmosphere of antiquity.

And he concludes:

> Churches, synagogues, mosques, domes of any sort throughout the ages in the East, the West, North and South, these man-built caves have been the very natural refuges from the confinement by summer heat.[46]

This battle was won and no air conditioning was installed, and Kiesler was right.

The dome-vessel itself should be distinguished from a more conventional dome or cupola. Geometrically it is a double parabola, and is unlike a common cupola. In Kiesler's own words: "The difference between this container and the traditional domes is that it consists not of a cupola resting on an understructure (a colonnade or a circular wall) but of a continuous, one-shell construction on a concrete bed which will be one-and-a-half stories underground."[47] The constructive

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principle employed here is Continuous Tension (figures 203, 204). It is the same principle of Design/Construction that took different forms at different stages along Kiesler's career. It started with the shell of the Endless, then the interdependent tension-system in the City in Space and ends with shell constructions such as the dome of the Shrine of the Book and later the shell construction of Kiesler's Grotto for Meditation. Describing this principle in connection with the latter project, Kiesler visualized it as a "continuous tension construction with not a single structural joint."[48] The very choice of this principle of construction was however also an integral part of Kiesler's correlative building strategy. Thus the circular corrugations, for example, covering the dome's inner surface have, in addition to their visual function discussed earlier, an acoustical function, to reduce inner noise and echo. This acoustical problem could not be compromised, considering the great significance Kiesler attached to silence. In an interview devoted to acoustics in architecture, with composer Ann McMillan, Kiesler described the acoustical problem of the Shrine and its solution; touching on other technical aspects. About acoustics in the Shrine, Kiesler said:

> That's another special thing because the concrete was so hard cast that the echoes were manifold. In every round building it is. It goes from one side to another. Every step could be heard and some of the members of the commission were very worried about it and they thought that the round thick walk on the floor should be covered. Well, I said, we better wait until the main scroll the Isaiah scroll is a drum 22' length. I mean the scroll is 22 feet long and the tabernacle is for 10 feet in circular circumference. So on top of it is a replica, a free replica, of the original vessel where the scroll was found. Also, in bronze, reaches

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> very high up. The whole thing is on an octagonal bronze column. This goes a floor and a half below into the ground around a circular opening in the floor which is provided so that in case of bombing or danger the scroll with its circular container will slide automatically down into the sub-basement for protection. But once this thing was erected in the center all echoes disappeared.
> AM: Really?
> FK: Yes.
> AM: And you know that it would?
> FK: That was it. Oh yes I knew. As I think I told you once before, acoustics are like a woman. You can only conquer them by love.[49]

So the central sculptural element (above the Isaiah scroll), in addition to being a free replica of the vessels within which the scrolls were found, and in addition to its function as the source for the jet of water shooting out through the opening, it also played a vital acoustical role. This, along with the safety device related here by Kiesler concerning the protection of the ancient scroll in case of war, provided another good example of the principle of Design Correlation. A variety of elements of a totally different kind fed into each other and resulted in a single solution. Some doubt may be raised concerning the protection of the Isaiah scroll from the water jet shooting out from it, and Kiesler further described its protection as follows:

> The scroll in its standard position is fully protected against the water that shoots up through the central jet--any water falling back inside the Shrine falls into a basin surrounding the scroll, then down into the shaft. The curving scroll is protected from the air by two sheets of plastic. Other scrolls are between two sheets of glass.[50]

As to the materials and methods used, the dome was a concrete shell (hand-chiseled in the interior). The exterior was covered by white ceramic tiles--276,000 of them! As Kiesler has related, "It took

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two men a full year to set the 276,000 tiles."[51] A considerable amount of research was involved. For example, Kiesler reported that 75 samples of tile were made before selecting the right kind.[52] Extensive research was also invested in studying the problems concerning the appropriate display and preservation method of these precious ancient documents. According to Ellen Perry who wrote an appraisal of the project (see below), "The architects worked for four years with the British Museum, Smithsonian Institute, and the Metropolitan Museum studying techniques for preserving rare documents, and have applied them rigorously in the Shrine."[53] So, as fantastic as the project may appear, little was left unstudied and the Shrine was indeed a fully correlated building integrating a multiplicity of different factors.

The dome was cast in concrete and covered with tile, but Kiesler also used a natural material, stone. The basalt of the large vertical wall was an ancient material in Israel; the marble is also native.[54] Both materials, the concrete and the variety of stones used were chosen because of high import duties on all other materials used, and partly because the tradition of concrete and other masonry is well developed in Israel.[55] "Jerusalem stone had to be used as the primary material in accordance with the law, a welcomed condition since it was desirable to use materials expressive of the Israeli."[56] Kiesler has used various stones as well as various types of stone cutting; the black basalt of the vertical wall was machine cut and smoothly polished. The marble used for the floors outside was also machine cut flat and smooth. The exterior's side-walls are partially built in roughly cut and roughly

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layered, so-called "wild building" method, that is, without horizontal straight layering (figure 213). Other walls or lower parts are layered in semi-chiseled stone with straight vertical layering.

Kiesler also used the chisel to treat the concrete of the inner dome (and elsewhere) and his sense for masonry in the broadest sense was quite remarkable and rich.

We traveled through the Shrine of the Book and become familiar with it. Next turn to a short word about the building in relation to the neighboring architecture on the site, the Israel Museum. There were not many inherently relevant observations that could be made concerning the building since the project was not designed for its present location. Yet as it turned out, the Israel Museum sets the Shrine of the Book off visually and conceptually. The Museum's architecture by Al Mansfield was described adequately as "an international style Arab village."[57] The same author also pointed out that the Shrine of the Book in relation to the museum is "from certain angles so low as to effectively be out of the running."[58] The Shrine, however, was meant in all the stages of its planning to conceal its fullest meaning from the outside or at least conceal and display. Ironically, the International Style as an established formal and aesthetic language was the opposite of Kiesler's architectural language, and grew out of a different philosophy. For him, in fact, it was the epitome of much that was wrong with modern architecture.

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The Circumstances of the Commission and the Shrine's Iconography

A commission lies at the foundation of any monumental work. The Shrine of the Book is no exception. Concerning the circumstances of the commission, Kiesler has reported briefly: "Our firm was chosen to design a shrine for them (the Dead Sea Scrolls)."[59] He also added that "The scrolls were bought by the New York philanthropist Gottesman, head of the Gottesman Foundation."[60] The story of the commission started in New York. Kiesler's reputation as an original designer of art galleries pointed to him, particularly if we remember that the project was originally limited to the design of a display room inside the National Library at the Hebrew University campus in Jerusalem. The World House Galleries designed by Kiesler and Armand Bartos, his associate, opened in 1957 and was also a project that must have helped the Gottesman Foundation to make its choice. This must have taken place late in 1957. An entry in Kiesler's journals dated October 28, 1957 mentioned in passing that the office finished the preliminary plans for the Shrine of the Book.[61] This is the first mention of the project in the journals. Nineteen fifty-seven is also given as the beginning of the firm's involvement with the project in "Kiesler by Kiesler," an article devoted mostly to the Shrine.[62] This article was also one of the published accounts of Kiesler's persuasive arguments which led to the change in the commission from a conventional decorative display room to a more ambitious architectural project--first, still inside the National Library, later as a separate building. This source was quoted earlier.

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The fuller account of the same events and Kiesler's personal inspiration and experience is told by the architect in his journals.

The story of the Dead Sea Scrolls is unusual on two counts. First, the reemergence of ancient manuscripts after almost 2000 years is historically fascinating and archeologically unusual. The second reason relates to the extraordinarily strange circumstances surrounding the story of how four of the manuscripts were discovered and acquired in 1947 by an archeologist of the Hebrew University at the same time that Israel was voted into statehood by the United Nations. A few years later four more manuscripts were offered for sale in New York. These were bought by Mr. Gottesman and in 1955 presented by him as a gift to the government of Israel.

The story of both of these acquisitions is dramatic in detail and Kiesler, with his sense for drama and excitement, took to the stories and reported them fully in his journal. The story is told as part of an account of a conversation between Professor B. Mazar, then the President of the Hebrew University, an archeologist, and a biblical scholar, and Kiesler, the New York architect who was asked to design a display room for the ancient scrolls. As noted earlier, Kiesler persuaded the President and the faculty to adopt a different and more adequate project instead of what they had in mind. It was his enthusiasm and inspiration that convinced them and this led to the project as we know it.

Concerning the association of this unusual archeological find with a contemporary meaning, the dialogue reads in part:

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I: Forgive me Mr. President, for interrupting you, but how long did you say the scrolls were buried underground?
He: Slightly less than two thousand years.
I: And how long was Israel, if I may put it that way, dispersed in exile, underground?
He: The question is poignant. The independence of Israel was also entombed for nearly two thousand years. As a matter of fact, the dead Sea Scrolls, although found in a cave at the end of the dry salt coagulations of the Dead Sea in Jordan, were first and ultimately deciphered in Israel and their age determined.[63]

The account by the President is interrupted in the journals and a section entitled "Antidote to Numerologie" is inserted. It lists key historical dates in Jewish history, isolating the number 1881 which represents the number of years separating the Jewish rebellion against the conquering Romans in 66 A.D. and the year 1947 when Israel was voted an independent state by the United Nations. In this section we also read the following insertion:

If mysticism would not be
the halo of reality
we could discount
the interpretation
of the interpretation
of the passing time numeral
1881
made up of 2
18's
the equivalent in Hebrew of
"Hai" implying LIFE.[64]

This numerological speculation in the account about the modern emergence of the ancient scrolls gives insight into Kiesler's mind and speculative disposition touching on the mystical. Stated positively and at the risk of vulgarizing it, Kiesler's comment means that since mysticism is the halo of reality we cannot but interpret the "passing time numeral." This is what he did. Recall another reference to the same

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idea where Kiesler talked about his ambition "to express the transverse space of these documents."[65]

Kiesler continued his speculative account following the word "life" with numbers of a different kind:

> 1,000,000 butchered, crucified
> 500,000 put to the sword
> 6,000,000 gassed, asphixiated, smothered
> 7,500,000 killed, nipped in the bud
> But the spirit remains indestructible.
> It is now 1965, '67, '68 . . . ad infinitum--carnivorous.
>
> Man of any blood and color
> choose between
> greed and creed!

And he concludes this numerological interlude, saying:

> I have. And
> the crest of life blossoms
> continuously the gush
> of white carnations.[66]

This is the profound and universal meaning Kiesler extracted from history and the story of the Dead Sea Scrolls. It is about the human condition, about life and death, about religious and all persecution and it is about the indestructible spirit. This constitutes the ultimate and deepest content of the Shrine of the Book.

The journals then pick up the dialogue with Mazar once again with Kiesler breaking into the President's answer, saying:

> Mr. President, that wondrous coincidence of the reappearance of the Dead Sea Scrolls, coming out of the darkness of their caves, coinciding almost to the day with the emergence of Israel from the darkness of its underground life into the skylight of today, that coincidence is very inspiring to me. It is like a happy writing of the MENE TEKEL on a glowing rainbow of rebirth, spanning from the Middle East across the seas and continents, towards the East River of New York.[67]

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Avoided in discussion so far is the declared subject of the Shrine of the Book, the idea of rebirth. It is too easily made into a cliche. However, when the fuller picture emerges it stands out as the one concept that is at the bottom of Kiesler's inspired and personal interpretation of the commission. His fascination was in his words an "hypnotic inspiration." Rebirth was the universal meaning he sought to express was related in the last section of Kiesler's enthusiastic monologue.

This resulted in the President's suggestion that Kiesler take his idea and try to make it into architecture. Kiesler concluded as follows:

> I wonder if one could find a plastic expression for the idea of "rebirth"--that is, an architectural concept that would make visitors feel the necessity for each person to renew himself while yet on this earth. To give birth to oneself--not to be satisfied with the birth of a mother, but to recreate one's own being in the image of his own life experience. This is not, of course, rebirth after death, but rebirth during one's very own lifetime. Perhaps, a sanctuary of silence, with the flow and return of water suggesting to everyone the second coming of himself. Such an architecture would indeed be worth searching for.[68]

Kiesler found it and built it.

The eloquent and captivating way Kiesler extracted the idea of rebirth from the discovery of the Dead Sea Scrolls, coinciding with Israel's independence, may almost make one think that Kiesler never thought about rebirth before. However, there was earlier references to that very same idea (of rebirth) long before the Shrine of the Book was ever commissioned. In the 1946 article, "Notes on the Spiral-Theme in Recent Architecture," Kiesler wrote about the spiral as follows:

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> That indeed seems to be the secret of the spiral's irresistable hypnotism: continuous rebirth on new planes without losing contact with former ones. An expansion of steps without halt. Continuous motion from within its own force. Power of birth and rebirth.[69]

In his 1939 article "Correalism and Biotechnique," Kiesler's ideas concerning the nature of technological change and development were discussed.

In "Correalism and Biotechnique," charts demonstrate Kiesler's cyclical or spiral notion of human change as rebirth. The model for the demonstration of change in this (1939) article is technology--man as making tools. In the Shrine of the Book the spiral concept of change was applied to a people--as writing a book. Kiesler saw that the theory of continuity and regeneration could be applied to events and to history. This fascinated him and confirmed his belief in what he called co-reality: the spiritual, hidden current of life. He was older now and more openly inclined to such a mystical twist--"the halo of reality" as he described mysticism. Indeed the Shrine, expressed all that; it was spiritually mature and architecturally sound.

There is a philosophical, poetical and practical drive to Kiesler's involvement with this project. Therefore he convinced the faculty and the President of the University to build a separate shrine along Kiesler's line of inspiration, something they had not planned to do. For that, he has assumed the fullest responsibility as an artist.

In this light and spirit one can fully appreciate the weight carried by the simple and sincere opening lines of Kiesler's poem beginning the chapter titled "Dead Sea Scrolls."

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> The Dead Sea Scrolls unfold a new life for me, architecturally speaking--demanding a blunt reality, not a theory.[70]

The Shrine's Moment of Plastic Conception

The theory was ready; the Shrine was yet to be conceived. Once the "go ahead" signal was given, the process of creation began full force. This was late in 1958. Two days after an overstimulating meeting with the faculty and the President of the Hebrew University on the flight back to New York, Kiesler conceived the basic form of a dome for the newly defined commission. The dome was to remain the dominant feature to the end. The birth of this idea was described by Kiesler. He was always interested in the phenomenon of creation and how it evolved, and used himself as a subject for observation. He wrote this: "The idea of 'rebirth' demanded my continuous attention." The moment or process of creation is described as follows:

> I finally fingered the inside pocket of my coat and extracted two or three letters. After reading and re-reading them, I put them back, but kept one out, turned over the envelope so that its back side was shining brightly in the spot light and, with a short pencil found deep down my side pocket, I quickly designed a double parabolic dome. The drafting went rapidly, and when it was finished, it spoke to me with conviction, as a plastic representation of "rebirth."[71]

Later, Kiesler commented: "Strange, how ideas occur. Flashes caught and imprisoned."[72] Still, knowing what we now know about the idea of rebirth and its connection with the spiral, the dome may look more predictable to us than it appeared then to Kiesler himself. Furthermore, even these "flashes caught and imprisoned" were subject to change, sometimes as a result of material considerations like the following one:

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> Troubled by the costly width and height of the cone, the thought suddenly came to me to chop off the cone's peak, letting the daylight filter down into the rotunda below. My pencil went left and right over the cone, like a hand saw cutting through a trunk. When I lifted the pencil off the pad, the body of the vessel, with its guillotined top, seemed correct in spite of many lines engraved into the paper. It looked inevitable and final. I stopped.[73]

The dome was thus conceived, but it should be remembered that at that point this dome was still to be installed inside the building of the National Library. These were the early stages that led to the double parabolic dome.

First Plans

In the opening words of the section in his journals entitled "Dome's First Act," the early proposal was described thus: "the sanctuary's first act of planning: moving inside an existing building cube. Converting prison walls to tight enclosures into freedom space."[74] More specifically, the initial plan called for "a dome with its peak piercing the third, fourth and fifth floors, growing narrower and narrower in circumference and finally emerging on the roof as a circular core, open for light of the sky to filter down."[75] But this idea soon was abandoned. "The Jerusalem architects objected politely and we heard that the parabolas of the Shrine were considered to be guerillas invading the cubicles of the Bauhaus."[76] The idea was to use the Bauhaus-international style exterior of the National Library as a cover for the surprising interior of a round dome. But,

> The Shrine was gently pushed out from the interior of the new library building to the outside in front of it. Exiled.[74]

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This idea also did not last long and the Shrine was moved to a third location only to be followed by a fourth and last location. For the third location Kiesler worked out a plan which resulted

> in part of the Shrine being on the ground, part of it underground, a patio, an underpassage corridor linking the new library with the Shrine. But there were also two open staircases leading up from the Monastery of the Cross directly to the Shrine. I liked the location. It was off-center and had its own environment, monumental and intimate at the same time.[78]

It was at this stage that essential features in the final conception were introduced: underground building, a patio, an underpassage and the open staircase. The idea of connecting the Shrine with the (medieval) Monastery of the Cross was interesting. It was a way of creating an architectural continuity between the past and the present--"digging the future into the present"--as Kiesler once defined architecture.[79]

A few of the small number of drawings for the Shrine show that the dome was buried almost to its neck underground.[80] It appears that these drawings were made for the Shrine in its third location. There, Kiesler seems to have relied on the environment which he described as "monumental and intimate at the same time."

The last major change in the plan was the addition of the black basalt wall. In an entry dating October 11, 1959, written on Yom Kippur (the Jewish Day of Atonement), he described this last major addition to the plan as follows:

> This concept was the result of a new and fourth location, since the plot is entirely open on all sides to the views of the Jerusalem hills; in addition, the white dome demanded a counterbalance in shape and color. The black basalt wall seemed to be the answer to it.[81]

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One drawing Kiesler reproduced in the Journals is showing the exterior of the Shrine, is a demonstration of this contrasting articulation of dome and the wall (figure 205). The function of the wall seems to be stressed since in the drawing it was enlarged beyond its actual size. It is a panoramic view of the complex and demonstrates the relationships between dome wall and their open surroundings. The only recognizable detail is the open staircase leading down into the patio and hinting that more is underground. This is the only drawing related to the Shrine of the Book illustrated in Kiesler's journals. Kiesler reproduced just one of his drawings in his article on the Shrine of the Book (figure 202). The drawing is a section or an x-ray rendering of the Shrine in the final location; the (late) upright wall is included. Water emanating from the inside is shown shooting out with gusto. In this drawing much more of the dome is still shown underground than what was finally built.

The Shrine's Critical Reception

Finally, it is appropriate here to examine how the Shrine of the Book was received by looking at the criticism written about the monument. Some indication about the difficulties that the monuments mounted all along can be found in the torturous road toward its realization as the following incident demonstrates. Before it was completed, an unsympathetic model of the Shrine was exhibited on the campus of the Hebrew University. Kiesler told the following story: "A full-size model of the dome had been built on the campus without our having been asked permission or even notified."[82]

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Upon their arrival in Jerusalem in October 1959 Kiesler and Bartos asked to be taken to the campus where the model was displayed in spite of the late hour. Kiesler's description of it reads:

> It looked like the gigantic skeleton of a crown set upon a rocky skull. The outline of the dome helmet was made of two one-inch black rods, bent vertically and crossing each other at right angles, flat. These contours were partly spanned with chicken-wire mesh and partly with black muslin, most of it in tatters and dangling. A ghostly night! And how ghostly it must have looked in the daytime.[83]

Major parts were omitted, others misrepresented:

> A caricature of a project. Flagrantly ignored was the correlation of all the various parts of the planned buildings, both above and underground, not even the spatial volume of the main vessel, above and below could be imagined. Totally missing were the architectural ritual of one area following the other, the prevailing dusk of the light and the inspiration to enter into the worlds of the past and the future; thus, the heart of the project was cast out of the body.[84]

Early that day on the way to Jerusalem, Kiesler had a discussion with a government official who came to meet him at the airport. He described the conversation in detail. The dome seems to have been the subject of doubt and contention. Kiesler, in his ever-eloquent and determined way, stated to the man who was from the government's Department of Antiquities: "You must understand, my dear Chief Archeologist, that archeology is the art of digging the past out, while architecture is the art of digging the future into the present."[85]

The unsympathetic model reflecting a total misunderstanding of the project left Kiesler with the feeling that the project was doomed, buried alive. Kiesler felt defeated by what he described as "These ghosts and realtors of intrigue, natural in any land east, west, or

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middle east, where architects, authorities authorized and unauthorized contractors and scalpers are involved getting into, or at least under the skin of a project like ticks."[86]

Kiesler was not known in Israel. Thus one article written by Allen Podet, in the Jerusalem Post introduced him. The article was entitled "Architect of the 'Endless House'" and it presented a sympathetic picture of Kiesler and his philosophy.[87] This journalist was mentioned in the journals in the following way:

> Reporter Podet, at a meeting four days ago, was so baffled and upset by a photo of the "Endless House" that he had to leave, literally speechless. Today he read the articles in Time and Harper's Bazaar about the "Endless House" and seemed suddenly intoxicated with curiosity. He came back.[88]

The opening of the Shrine of the Book on April 20, 1965 was of course widely covered by the press. In the weekend issue before the festive, official opening, the Jerusalem Post published an extensive review of the Shrine of the Book, written by its architectural correspondent. The title of the article was "The Shrine of the Book: Accent on Symbolism."[89] The architectural correspondent suggested the tombs and temples of Mycenas as a source for the subterranean building employed in the Shrine, an idea quoted earlier, and saw in it a "true Mediterranean background." He was however most disturbed by Kiesler's use of modern techniques, floodlights, color glass, automatic "magic-eye" doors, water jets and fiery beacons, and defined them as "more reminiscent of the gimmickry of international fairs." He was also bewildered by the wealth and variety of materials, and obviously did not accept Kiesler's talent and feeling for textural richness and the expressive

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power of materials. But when he cites Yad Vashem--a memorial building commemorating the millions of Jews who died in German concentration camps, as his idea of adequate "symbolic ceremonial architecture," one realizes that the author's frame of reference would not allow him to perceive Kiesler's project and its ideology. Yad Vashem is "functional," maybe even decent, but on the whole pedestrian and definitely uninspired or original. This article in the Jerusalem Post became the source of some of the damaging labels and metaphors comparing the vessel-dome to "a woman's breast," or an "onion shape." In this article it was also reported that the dome externally resembles a pagoda, that children refer to it as "Habayit Hasini"--the Chinese house; and that internally it has the atmosphere of an electricity generating turbine station. Finally the journalist asked, "What will happen if some more scrolls are discovered?" Facts taken from this article appeared in Time magazine which ran a story on the Shrine of the Book titled "Endless Cave in Jerusalem" less than a week later.[90] Ellen Perry, in her appraisal of the project also quoted the article in the Jerusalem Post and Kiesler himself seemed to have responded to it, quite specifically rejecting its interpretation as suggested in the title. Kiesler wrote: "It is not a symbolic building at all. It is neither a woman's breast, nor an onion, nor a jar. The Shrine comes from its inner concept, which has grown into a structure."[91]

Four days after this article was published the Jerusalem Post reported about the opening of the Shrine of the Book. Dr. Yadin (who was at the time vice-president of the board of directors of the Museum

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in Jerusalem) responded in his words at the opening addressed to some of the criticisms directed toward the building and was quoted to have said the following:

> We knew in advance that being a unique design it would arouse controversy. Everyone is entitled to his own interpretation of the symbolic features of the design--some see Chinese pagodas, others onions or a woman's breast, but at least, he said, no one is apathetic about it. Many buildings here have won architecture prizes after which no more is heard of them, he added. He also noted that if further scrolls are discovered, there was room for them in the Shrine.[92]

Most negative criticism seems to have faded as time went by. The Jerusalem Post published its review of the Shrine in anticipation of its official opening in mid-April. A little less than a month later, on May 12, 1965, the Israel Museum and the Billy Rose Sculpture Garden designed by Noguchi were ceremoniously opened with great fanfare. Now the whole complex of Museum, Sculpture Garden and the Shrine of the Book were open to the public. It was only then that Israel's respected daily newspaper Ha'Arets published a detailed review of the Shrine of the Book, obviously in recognition that this moment deserved full attention. The article was titled "The Architectural Aspect of the Shrine of the Book" and written by Yoav Barel, then senior art critic for the paper.[93] Barel referred to a statement by Kiesler and Bartos published in the Spring issue of the Israel Museum's publication Ariel. He discounted the prose with a smile as simply promotional, trying to cater to "tourists and others whose sensibility to the findings of the past is in opposite proportion to their sensitivity to architecture." The meanings or content of the Shrine were deliberately ignored by the

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critic. Instead, the building was analyzed formally. At the outset, he questioned the necessity for erecting a separate building for the Dead Sea Scrolls. He did excuse the architects from answering this challenge assuming (wrongly) that they had little to do with this. He did mention that the University architects did not want the structure within the campus' territory on the grounds of style and stylistic uniformity. The building was then adequately described. He complained about excessive noise inside the "sanctuary," contradicting Kiesler's account concerning the solution to acoustical problems. He then asked: "Is it a bad building?" and answered his rhetorical question saying: "The answer is not definite" and proceeded, commending the architects for their high performance and professionalism. He even seems to have researched Kiesler a little, describing him as an "interesting theoretician of architecture" and "the father of the school of endless houses"--a school he described as "one of the most interesting and promising schools" (this, I believe, is the first time that the Endless House has been described as a school of thought). Barel finally confesses almost in spite of himself to have been impressed with the building as an independent and very original creation, but not necessarily in proportion and/or most suitable to the archeological findings, and in spite of all the talk about symbolism. In fact, he concluded: "The effect of the structure is so strong that the objects displayed are totally lost and can practically be removed from it without any loss." The critic's final remark was that the building seems to have been built not to accommodate the archeological findings, but was built using the Dead Sea Scrolls as an excuse.

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The review represents a prevailing local sentiment in Israel, one that reflects a Jewish philosophy, that holy books are "monumental" in their content and meaning and therefore no building could possibly express them, nor is there a need to attempt such a futile match. Nelson Glueck of the American Hebrew Union College in comparison, expressed a more liberal view and is reported to have said: "A book is a shrine in itself, but it is doubly so when housed in a shrine like this. Time has become timeless here."[94] It is this man's American background that enabled him to reconcile the traditional attitude with a liberal or secular position. Barel's review did not represent a rejection on religious grounds and the critic's provincial strategy was merely fashionable formalism. Considering the formalist bias against literary content, it is reasonable how a building which has attempted to express in its very essence an idea is stripped bare and deprived of its ideology. And it seems that the formalist attitude barred that provincial critic from comprehending the structure fully. Yet the critic has not wronged the Shrine by his conclusion, that the building is just as effective without the scrolls. In fact it is ironically close to what Kiesler himself set out to solve: "How to unfurl the scrolls to a wide world which cannot read Hebrew. . . ."[95]

Other reviews were sympathetic, and the boldness of the design, and its uncompromising quality, was commended. One critic admired the building for its success in achieving the impossible, thus challenging what she called the architecture of "good taste"--"functionalism and straight lines, the architecture prevailing in all our public

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buildings." Imagination, humor and surprising innovation were cited, and the critic welcomed it.[96]

The Shrine of the Book and its place in the people's mind has honorably settled since it was inaugurated twenty-four years ago, astonishing Israeli provincialism. It is remarkable that Amos Elon who wrote The Israelis: Founders and Sons, gave an excellent account of the Shrine. He provided an honest, extra-professional appreciation of the building, praising its success in expressing a collective Israeli unconscious. The section is interesting enough to quote at length:

> The seven Dead Sea scrolls that were purchased by the government of Israel prior to 1967 are now enshrined in Jerusalem like the bones of a saint--in a specially built sanctuary appropriately called the Shrine of the Book. The building is part of the larger complex of the Israel National Museum and faces the Knesset building. Together with the Knesset building, the Shrine of the Book serves as a station identification mark of Israeli television. The Shrine has been designed to symbolically dramatize its content. An onion-shaped dome of blazing white sits upon a low base of basalt. White surfaces sharply contrast against sheer black. This, we are told, represents the focus of light contrasting against the Forces of Darkness--the mystic subject of one of the better-known scrolls. Within the dome, the upward phallic thrust of an enormous, clublike structure is said to represent the national will to persist. This, the heart of the shrine, is reached through a dramatically unbalanced, off-center arched tunnel, narrowed by tilted walls of rough stone. At the end of the passageway, which is dark and cavernous and can only remind one of the fallopian tubes leading to the womb, is the domed rotunda on which the scrolls are displayed behind plate glass.
>
> The rotunda evokes a chapel. In the middle, on an elevated pedestal shaped like a round altar, the entire length of the scroll of Isaiah is displayed in a great circular glass case. High above it is an opening to the sky, originally designed to jettison a thin spray of water out from the dome. Upon second thought this idea was abandoned. The shrine was planned by an American architectural firm, headed by the sculptor-architect J. F. Kiesler. Consciously or not, Kiesler absorbed to a remarkable degree local feelings

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> toward the scrolls, in all their complexity. No building in Israel is as clearly based upon the exploitation of anatomical shapes and erotic symbols. In the Shrine of the Book, archeology and nationalism are mated as in an ancient rejuvenation and fertility rite.[97]

In spite of a few inaccuracies, the account is interesting because it registers the Shrine of the Book as a most successful expression of a deep Israeli sentiment. This complements Kiesler's method which deliberately sought to express deep spiritual currents.

The account may have exaggerated somewhat the sexual symbolism although it is far from distorting Kiesler's sensibility including sexual symbolism which complements Kiesler's basic idea.

Kiesler would probably have objected or expressed a reservation only about the national significance of the Shrine as described and would have preferred to see the Shrine more as an expression of a broad human experience with personal significance rather than a nationalistic one.

But as a local commission, the success of the building which has assumed a national significance is indisputable. The building's image has been used (on occasion) as a station identification picture of Israeli television, as Elon mentioned; it has also been "post-carded" widely and has been a major tourist attraction in Jerusalem. Another dimension was added to the significance of the Shrine of the Book after the war of 1967/the six day war when Jerusalem was united, and the Shrine of the Book became West Jerusalem's modern contribution to such important monuments as the Dome of the Rock on the site of the ancient temple (in East Jerusalem) or the Holy Sepulcure. Thus the Shrine of the Book

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has come to represent a link between the past and the present, and a modern Israeli secular but spiritual contribution to the host of religious monuments.

Outside Israel, Kiesler and Bartos were awarded the Gold Award of Merit of the Architectural League of the City of New York. The American Institute of Architects Journal reported it, citing the jury which said:

> The concept of this structure is strong and dramatic, although many forms, patterns and textures were employed. With greater simplicity and unity, notably in the interior, it would have avoided the slight flamboyant quality which is one of its characteristics. Nevertheless, it is a vigorous and imaginative work which clearly states its unique and historic function.[98]

Although the award was given to the architects, one senses a reserved enthusiasm with which this was done and it appears to reflect the position of the architectural establishment that was always uneasy with Kiesler's philosophy and practice. The magazine Progressive Architecture published an article on the Shrine of the Book written by Kiesler himself. As an addendum to this article an appraisal of the building was written by Ellen Perry of the magazine's staff. This essay presents a well-balanced picture composed of other reviews and some of the author's own observations. What disturbed her most was the use of water. "Perhaps it is the idea of water that is disturbing; the Scrolls, after all, were only preserved for 2000 years because they were in the dry climate of the Dead Sea, sealed in jars in caves."[99] It is a strange argument, and yet this was also a prevailing feeling. Fears expressed by archeologists and others resulted in turning the central jet of water

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off and covering the top of the dome with a plastic hub. Her closing remarks express the non-committal spirit in which her appraisal was written. "Whether Kiesler and Bartos have in fact given plastic expression to an idea--the idea of rebirth--will be debated by all who feel strongly about this building."[100]

On a less professional note, Vogue magazine reproduced a double page photograph of the Shrine of the Book and the introductory lines written declared the building "instantly one of the most beautiful buildings in the world."[101] A raving review of the building was part of Sam Hunter's article in The New York Sunday Times dedicated to the recently opened Israel Museum complex in Jerusalem and which came to include the Shrine of the Book. Hunter, writing from Jerusalem, devoted a good part of his article to this monument. The Shrine of the Book is described enthusiastically with superlatives. He saw "beauty and mystery and quietude" experiencing the underground building as "both a Mycenean tomb and a Surrealist gallery." Under the title "Spectacular," Hunter went on to say:

> The total effect is both primitively simple and complex, intimate and monumental, awesome and aesthetically appealing in the play of shape, texture and material.

And he concludes:

> Above all the building expresses an intensely personal idea, and every inch of its surface upholds, articulates and coherently serves that idea. It is sculpture and architecture at once, the summation of Kiesler's considerable plastic genius.[102]

And what did Kiesler himself feel about the building he had built? In a poetic sideline to a text in his journal we find the following words:

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The shrine
was mine
only in design
it actually kept me
prisoner
of my ideas
professionally segregated
I felt in quarantine.[103]

These words, written as poetry, should be respected as such and resist over-interpretation. One may suggest, however, that the words hint at a certain discomfort Kiesler, a Utopian, felt with any materialized ideas and his ideas in particular. Some of the criticism particularly from architects also confirm his feeling. The design of the Shrine was his, but once materialized, it kept its creator prisoner, particularly a creator like Kiesler for whom all art was "transfixing of continuity," and yet it was this very continuity and vitality that he wanted to express.

The Shrine of the Book and Le Corbusier's Church at Ronchamp

A comparison between Kiesler's Shrine of the Book and Le Corbusier's church at Ronchamp offers a better view of Kiesler's philosophy and practice when compared to a relevant work by one of this century's most celebrated architects.

To begin with, there is a certain difference in the circumstances and purpose of these two commissions, one a Catholic church which was built on the site of an earlier venerated church, Notre Dame de Haut, that was destroyed in World War II, the other a shrine for ancient biblical Hebrew manuscripts, which surfaced after almost 2,000 years in

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Israel. Although the manuscripts were religious, the building was to provide the secular architectural setting for their display. But there was no definite iconography that Kiesler could follow and he had to invent it. Le Corbusier, on the other hand, was called to build a church on a site where a church once stood. He had to contend one way or another with a long tradition of religious church architecture, although Le Corbusier was sought after by the commission "Ars Sacra"--part of the diocese of Bascancon. Kiesler, who was also invited to design the Shrine, had to inspire the commissioners and could even form their idea about what ought to be built.

The two men were professional architects, artists and humanists; both wrote eloquently, and tried to transcend and expand or revive the "function" of spiritual architecture with profound human content and experience. Thus Le Corbusier wrote in his Livre de Ronchamp which is his companion for this particular work, what follows:

> La chapelle? Un vase de silence de doucer.
> Un disir: oui, par le langage de l'architecture attendra aux sentiments ici evoques. Oui, de l'architecture suele, car l'architecture est la synthese des arts majeurs. L'architecture est forme, volumes, conteur, acoustique, musique.
> Trois temps a cette aventure:
> 1° Sintegrer dans le site;
> 2° Naissance "spontanee" (apres incubation) de la totalite de l'ouvrage, en une fois, d'un coup;
> 3° La lente execution des deessins, du dessein, des plans et de la construction meme; et
> 4° L'ouvrage acheve, la vie est impliquee dans l'oeuvre, totalement engages dans une synthese des sentiments et des moyens materials de realisation.[104]

The general attitude in that statement advocating an architecture of integration, one that evokes emotional experience, is one shared with

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Kiesler just as the element of spontaneity in the design after a period of incubation is rather similar to the manner Kiesler has described the birth of his creation. Le Corbusier also said:

> Ou me demande quels sont mes secrets pour Ronchamp, il n'ya a rien, qu'une recherche harmonique des problemes poses, L'evangile: une etique, le lieu: le quatre horizonsl Le moyen: la coquille de crabe.[105]

This rather cute answer, charming as it is, does not really say much although it is meant to surprise and is reminiscent of some of Kiesler's aphoristic statements. Even the comparison of the means to the crab's shell seems to remind us of Kiesler's use of continuous tension.

Kiesler would also deny the existence of any secrets and support the notion of an ethical guideline. As to the harmonious solutions to the posed problems, it sounds much like the theory of Correalism, at least on the surface of it although Correalism was a more involved notion than the mere harmonious orchestration of solutions to the multiplicity of problems that each building posed.

Since both men talked about a single moment of inspiration as the basis for their creations and said to have conceived it at once, we ought to look at the buildings as a whole first.

It is immediately clear that both artists created sculptural buildings and the streamlined overall feeling of Ronchamp definitely shows Le Corbusier's attempt to break with the straight lines or cubical grid.

Kiesler wrote about Ronchamp. In the article "Notes on Architecture as Sculpture," he talked with the utmost respect only about Frank Lloyd Wright and Le Corbusier; he said:

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> The outstanding men concerned with architecture as sculpture in our time are two uncompromising, steadfast believers in the destiny of man: Frank Lloyd Wright and Le Corbusier. Thank God for them! I bow to their courage and perseverance and at the same time kick their imitators on Park Avenue and Sixth Avenue, in Rio de Janeiro, Israel and Moscow in their glassparts and in the groins of their concrete or stone blocks.[106]

Turning now more specifically to Le Corbusier and Ronchamp, Kiesler wrote:

> Le Corbusier has really performed a miracle by pulling himself practically up by his own bootstraps out of his low and high rise rectangular buildings of a lifetime into the air of a free-flow building at Ronchamp. And that in spite of the torturous attitude of colleagues, governments and bourgeois isolationists. Even his contradictions of a conglomeration of diverse geometric forms such as a Tibetan roof, combined with a Mondrianesque wall, and two silo-towers cannot impair the religious feeling at Ronchamp.[107]

So Kiesler admired Le Corbusier, particularly after the latter, late in his career, at Rouchamp turned to a direction in architecture that Kiesler long advocated. But with all the admiration he expressed, there is also a touch of irony in Kiesler's description of Ronchamp with its "Tibetan roof" (figure 206), a Mondrianesque wall (figure 207), and two "silo towers" (figure 208) (there are in fact three such towers at Ronchamp, although two are very close to each other, standing back to back).

In the caption for the illustration of Ronchamp Kiesler wrote:

> A single unit building divided by itself in curves and planes. A Tibetan roof, a Mondrianesque wall and abstract vertical towers. A successful departure by Le Corbusier from his lifelong vertical and horizontal block buildings, but for me much too diverse in style to speak the language of continuity in space.[108]

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It is this last comment by Kiesler which is relevant in the present discussion.

The reservation Kiesler expressed concerning Ronchamp had to do with its lack of continuity in space. It is indeed a true description to call Ronchamp a single unit building, but Ronchamp does not really break away from the fundamental elements constituting a traditional church, that is, a main interior space, a few side chapels, and a basically dark interior transformed by a dim light penetrating through stained glass windows. It seems that it was in this sense that Kiesler referred to Ronchamp as a single-unit building, in contrast to the Shrine of the Book which, was conceived as a sixteen unit continuum. It was this continuity of space that Kiesler advocated and did not see in Ronchamp. Verily, the experience, visiting both places is quite different. Although nothing can impair the religious feeling at Ronchamp as Kiesler himself admitted (although to the best of my knowledge he never visited the site) it is more predictable and conservative--indeed, a result of its single unit space. The shrine on the other hand conceals much more and is a continuous experience unfolding like a narrative.

It is interesting that, in spite of the sixteen unit design of the Shrine of the Book, Kiesler expressed a reservation concerning Ronchamp's diversity of styles, too diverse to allow a continuity of space for Kiesler's sense of space and architecture. Kiesler saw these as a conglomeration of decorative means rather than a substantive use of architecture. At the same time, he regarded Le Corbusier's Ronchamp (and Frank Lloyd Wright's Guggenheim Museum) as proof that his organic notion of architecture breaking with the cubical, was inevitable.

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In spite of the similarities between Ronchamp and its application of free-flow architecture and the Shrine of the Book, the difference is a major one, since the curved double-shell of Ronchamp's roof was constructed in reinforced concrete (figure 209) with supporting cross beams, and the entire roof rests on the side walls.[109] In Kiesler's terms it still adheres to the traditional construction technique consisting of a vertical support for a horizontal roof resting on it. Kiesler's dome was built differently following the technique of continuous tension (figure 203). At Ronchamp, Le Corbusier's considerable talent as a designer was heavily resting on the the great flexibility which the method of reinforced concrete allowed and which had yielded an original building of great elegance. Le Corbusier also incorporated his talents as a painter and decorated the entrance doors, covered with tin sheets and painted in enamel. He also painted the crucifix on the altar as well as the stained glass windows. Kiesler, on the other hand, although also a painter and sculptor stayed with architecture.

His use of paint, in the service of architecture was more comprehensive and environmental. He would not use painting in expected places or traditional locations (door, windows).

There are also further similarities which ought to be mentioned. First and foremost is the fact that both buildings were designed to inspire visitors spiritually through (modern) architectural means and against a primarily secular cultural context. Le Corbusier, who built a church had no doubt the more difficult job, and in his Livre de Ronchamp quotes many visitors or pilgrims who came to the church, and

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who expressed favorable experiences. This perhaps provided him with the necessary proof that the challenging task was, successfully accomplished. Both buildings function to a certain extent as a pilgrim's destination. Ronchamp was such due to its late medieval statue of a Madonna and Child which survived two calamities that had reduced the two earlier churches (in World War I and World War II) to rubble. This surviving statue was placed by Le Corbusier inside a fairly high window in the southern wall behind the altar. The sculpture is pivoted and can be turned to "look" outside, and this is done whenever the outdoor church is used. Le Corbusier built a pulpit and altar outside this southern wall open to a wide field where an outdoor pilgrim's church was planned. This conversion is strangely reminiscent of Kiesler's multi-functional theaters.

The Shrine, which did not have to provide a place for a pilgrim's worship, serves nonetheless as a sort of pilgrim as tourist. Being in Jerusalem, a city of pilgrimage and containing the ancient Dead Sea Scrolls, it assumed the role of a secular substitute for a pilgrimage church, containing in its central dome vessel and the crypt underneath precious relics, of uncommon character. The crypt with its subterranean cave-like rusticated uncut stone (figure 201), can help to clarify a difference which is fundamental--Kiesler's bolder commitment to the archetypal in architecture. That is, the depth of human psychology on one hand, and a bolder application of symbolism on the other. This was manifested in the water which was to splash out from the center of the dome and in the dome's own whiteness and the black basalt wall

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with its flames on top. Next to such a conception Ronchamp appears rather tame in spite of its impressive and no doubt beautiful application of a modern architectural language, and its considerable freedom in design. To sum it up, it seems that Ronchamp is more easily perceived as a modernized version of church architecture whereas the Shrine of the Book, as planned, with flames and water jets, is a truly unique monument.

The Grotto for Meditation

As an appendix to this chapter it is worthwhile to examine Kiesler's last architectural commission, one which, like many of his projects was fully planned but never built, the Grotto for Meditation. This will dramatize Kiesler's unique approach to architecture and draw a clearer line of separation between Le Corbusier's Ronchamp and his architecture since it enabled Kiesler to express the essentials in his philosophy. In his own words:

> My concept of functional architecture is strongly emphasized in the Grotto for Meditation, which is one of the culminating points of a credo of mine which goes back more than forty years, to when I first, in Vienna, conceived of the "Endless House" or the "principle of continuity." Although a building may be a complete, protective structure, there are many ways to give the impression that the outer and inner worlds meet there, and that the inhabitant is part of a cosmic world—not only part of a street or a plaza or a community. In this respect, the Grotto was a very welcome project for me, particularly because it was concerned with exploring the inner world rather than the outer space world to which so much time and technology is devoted.[110]

For Kiesler, the commission to design a Grotto for the New Being which was renamed the Grotto for Meditation, was a welcomed project and a

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golden opportunity late in his life to design, without any limitations. It was commissioned by Jane Owen for the town of New Harmony, Indiana, a community which originated in the nineteenth century when a certain George Rapp came from Wurtenberg, Germany, first to Pennsylvania, where Harmonie, Butler County, was established in 1804. The group then purchased 30,000 acres of land in the northwest territory which became New Harmony, Indiana, in 1816.

The original spirit of learning, Christian spirituality with Utopian overtones, was revived in this century and one of the projects in this spirit was Owen's commission for the Grotto which specifically was to commemorate the spirit and teaching of theologian Paul Tillich.

Across the lot from where Kiesler was to build the Grotto, Philip Johnson had built what Kiesler has described as a

> pagoda-dome resting on its buttress points, which link with flowing arches holding the dome-shell up with scalloped curvatures. The wooden skeleton of the chapel rises, twisting its way upward until a ring unifies its elements leaving an eye open to the sky. The apex. Underneath thrones, and in the very center a bronze sculpture by Lipschitz: Maria, the child, guarded by playful animals, tamed by all pervading love.[111]

This description of a pseudo-religious edifice by the "greatest building non-architect" as Kiesler called Johnson, tries to and succeeds in describing Johnson's contribution to New Harmony although it is quite clear that Kiesler did not respect it.

It was Johnson who built his building and Kiesler who did not. But Kiesler's plans and model, which was cast in bronze (figure 210), along with his essay about the Grotto for Meditation, provide adequate information about the project.

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At the outset it is interesting that Kiesler changed the name of the Grotto for the New Being to Grotto for Meditation. It would seem that Kiesler made the change because he felt that it was not a new being that he wanted to express, nor was he seeking to express the old anew; rather he wanted to heighten, through architecture, the ever-existing existential experience of being alive, suggesting that this experience is potentially always present in the new and old being alike, and what was needed in architecture was to accommodate this experience through meditation, providing the architecture for it. The essay about the grotto, an opus posthumous is one of the clearest and finest statements Kiesler ever made about his work or the purpose of building.

The main objective of (his) architecture was to invest it with a psychological dimension. Technology was not the answer (although it is definitely not an obstacle) nor was it the issue and functionalism was to be superseded. Kiesler stated unequivocally that the answer "lies beyond the idea of function" since functional and functionalism itself is in constant evolution.

When Kiesler wrote in the mid-sixties, he foretold the end of functionalism, and was right, as we now see. At the same time, he expanded the definition of functionalism, and redefined it to include a correspondence between the human experience, its inner psychological make-up and building. This he did in the Grotto for Meditation. He wrote:

> Although religion has always investigated the inner meaning of life in relation to outer realities, it has, until recently, paid little attention to the findings of science

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> and, more particularly, the studies of psychology. Some progress, however, has been made in this respect. This is, I hope, reflected in the concept of the Grotto.[112]

He argued for example, that a cathedral, employs architectural means which transcend the functional in order to evoke the spiritual and other worldly, and he added "I don't see any reason why we shouldn't feel the same way in our homes." This of course was the fundamental raison d'etre of the Endless House.

If in the Shrine of the Book Kiesler has adhered to a symbolic yet geometrical morphology, (the double parabola of the dome and the square of the basalt wall), here for the Grotto of Medication he employed an organic bio-morphology. Remember that the geometry of the Shrine was to be softened through the splashing water and fire flames but the geometry differs considerably from the seashell and the dolphin he used as the formal inspiration for the sculptural grotto.

The construction principle was continuous tension no joints. It resulted in a sculptural structure, as if modeled in clay. Kiesler explained that he chose to represent the fish, or build a configuration in fish form since the fish is a symbol of Christ, and he quoted the Encyclopedia Britanica and the Catholica to the effect that up to the fourteenth century the fish symbolizing Christ was often the dolphin or the friendly dolphin as Kiesler wrote.

The central architectural/sculptural element is however a shrine in the form of a seashell which is the core of the of the structure and is surrounded and protected by the large dolphin which was planned as a mound (figure 211). This way Kiesler wanted to stress a cosmic

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connectedness between human beings and nature, animals as well as the inanimate world, vegetation, water and fire, "the whole cosmic array of infinity" in his words. From a formal point of view the shell at the core of the project surrounded by the fish mound is strangely reminiscent of Kiesler's 1938 furniture design for two nested coffee tables (cast in aluminum) which combine into one, the outer embracing the inner like the dolphin surrounding the shell (figure 108). The elements of water and fire which Kiesler described in the article about the Grotto as playing an important part in the origin of man, of ideas, and feelings, play a part in the Grotto for Meditation.

The role of water was particularly important here and Kiesler wrote that his experience taught him that "the sound of water has had the extraordinary effect of carving all people down to silence." I have talked about silence in the Shrine of the Book, but in the Grotto, made in the form of a seashell and a fish surrounding it, all evokes a certain sound of silence and the sound of water is essential for the experience.

The water in the Grotto was to come out from inside the Grotto proper, from the fount of a rock island on which a sculpture was to stand. Kiesler spoke about it as the source of belief. Thus the water which springs from the interior of the cave flows out only to return to its source. Kiesler no doubt meant the visual effect of the water to be striking and specified that the water pool surrounding the dolphin be lined with blue glass mosaic tile.

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Originally the inspiration for the dolphin itself came from Indian mounds that impressed Kiesler. He wanted to make the dolphin out of earth, but this turned out to be difficult to realize (since the earth could not be banged at an angle of 45°), and a more solid solution was sought. The solution was pouring concrete over the dolphin mound, but nothing was ever realized by the time Kiesler died.[113]

But what should strike us as bold and unusual is that a purely environmental, symbolic sculptural element, an earth work, was conceived by Kiesler as an integral part of the architectural complex. In this sense Kiesler ought to be considered a forerunner to the environmental earth works artists. It is also typical for Kiesler to respond in his plan to the local culture, in this case Indian culture, which is an inseparable part of the particular site in Indiana.

The seashell then was the single architectural space, surrounded by an Indian-inspired mound shaped in the form of a dolphin (figure 212). As described earlier, water was to spring out of the core inside the seashell space and flow outside into the water pool surrounding the fish.

As Kiesler indicated in his text, a sculpture was also planned for the inside center. Jane Owen, who commissioned the Grotto, wanted a sculpture of common religious meaning. Kiesler had a different idea and thought about one of his own sculptures, possibly his Cup of Prometheus, which is a sculpture that had a fire flame in it.

The seashell-shrine part itself was to reach 22 feet and was approximately 35 feet in diameter. There were two entrances, southwest

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to northeast, and a smaller entrance or exit to the south. These enabled one to enter at one point circle inside the shell around its core with the sculpture and spring leaving from a second opening. A third opening to the northeast was where the water flowed out into the pool surrounding the dolphin. The interior of the shell was to be of smoothly finished concrete, and the path leading into the Grotto, as well as to a small area opposite the entrance, was all to be of local flagstone in random patterns. The small meditation area outside with a tree at its center was reminiscent of a similar detail in the Shrine of the Book. The Grotto for Meditation epitomized Kiesler's long commitment to a type of architecture that differs considerably from anything that was built in this century.

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Notes

[1]"Buildings in the News," Architectural Record 137 (June 1965): 29.

[2]Frederick Kiesler, "Kiesler by Kiesler," Architectural Forum 123, no. 2 (September 1965): 65.

[3]See Frederick Kiesler, "Design in Continuity," Architectural Forum 107, no. 4 (October 1957): 126-131.

[4]Frederick Kiesler, Inside the Endless House, p. 322.

[5]Ibid., p. 323.

[6]Frederick Kiesler, "Kiesler by Kiesler," p. 65.

[7]Ibid.

[8]"Shrine of the Book," Progressive Architecture 46 (September 1965): 130.

[9]The Museum of Modern Art, New York Library, the Kiesler Archives, the Museum of Modern Art special collections. Transcript of six tapes, with Mrs. Lillian Kiesler, tape 5, p. 71.

[10]Frederick Kiesler, Inside the Endless House, p. 334.

[11]Frederick Kiesler, "Kiesler by Kiesler," pp. 65, 68.

[12]Frederick Kiesler, "Pseudo-Functionalism in Modern Architecture," p. 735.

[13]Frederick Kiesler, "The Grotto of Meditation," Craft Horizons 26 (July/August 1966): 27: "In the beautiful park-like area which is to be its setting, people will be attracted by the extraordinary aspect of the dolphin."

[14]Cf., Kiesler's account of his meditation on architecture in his "Notes on Architecture as Sculpture," Art in America 54 (May-June 1966): 69: "I remained two-and-a-half days in front of the Parthenon trying to decipher that enigma to my satisfaction."

[15]Frederick Kiesler, "Kiesler by Kiesler," p. 68.

[16]"Shrine of the Book," p. 127.

[17]Frederick Kiesler, Inside the Endless House, pp. 148-149.

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[18]Ibid., p. 149.

[19]For the best account of the story of the Dead Sea Scrolls, their history, meaning and archeology, see Yigael Yadin, The Message of the Scrolls (New York: Simon and Schuster, 1957). Yadin, who is also quoted later in the text, is the son of Eleazar Sukenik who bought the first scrolls for the Hebrew University in 1947.

[20]Frederick Kiesler, "Notes on Architecture as Sculpture," p. 65.

[21]"Award of Merit Frederick Kiesler and Armand Bartos," American Institute of Architects Journal, July 1966, p. 40.

[22]"Shrine of the Book," p. 129.

[23]Ibid., p. 132.

[24]Ibid., p. 129.

[25]Frederick Kiesler, "Notes on the Spiral Theme in Recent Architecture."

[26]"Shrine of the Book," p. 132.

[27]See Cynthia Goodman, "Frederick Kiesler Designs for Peggy Guggenheim's Art of This Century Gallery."

[28]"Shrine of the Book," p. 129.

[29]Ibid., p. 130.

[30]Ibid.

[31]Ibid., p. 132.

[32]Ibid., p. 130.

[33]Frederick Kiesler, Inside the Endless House, p. 175.

[34]The Musuem of Modern Art, special collections, Kiesler Archives, transcription of conversations, p. 73.

[35]Unfortunately neither the flames nor the central water jet are ever operated.

[36]Frederick Kiesler, Inside the Endless House, p. 323.

[37]Frederick Kiesler, "Kiesler by Kiesler," p. 69.

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[38]Frederick Kiesler, "The Grotto of Meditation," p. 27.

[39]Frederick Kiesler, "Pseudo Functionalism."

[40]Frederick Kiesler, Inside the Endless House, p. 560.

[41]See Robert Goldwater, Primitivism in Modern Art (New York: Vintage Books, 1967). This book does not deal with architecture but the attitudes discussed can illuminate Kiesler's own position.

[42]Frederick Kiesler, Inside the Endless House, pp. 132-133.

[43]Ibid., p. 136.

[44]Cynthia Goodman, "The Current of Contemporary History: Frederick Kiesler's Endless Search," p. 123.

[45]"Shrine of the Book," p. 130.

[46]Frederick Kiesler, Inside the Endless House, p. 338.

[47]Ibid., p. 325.

[48]Frederick Kiesler, "The Grotto of Meditation," p. 27.

[49]The Musuem of Modern Art, New York, special collections, Kiesler Archives transcripts of conversations, pp. 72-73.

[50]"Shrine of the Book," p. 130.

[51]Ibid., p. 127.

[52]Ibid., p. 129.

[53]Ibid., p. 133.

[54]Ibid., p. 127.

[55]Ibid., p. 129. See also Architecture in Israel, The Tel-Aviv Museum, Dizengoff House, December 1967-January 1968.

[56]"Award of Merit," p. 40.

[57]"Shrine of the Book," p. 133.

[58]Ibid.

[59]Frederick Kiesler, Inside the Endless House, p. 319.

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[60]Ibid.

[61]Ibid., p. 102.

[62]Frederick Kiesler, "Kiesler by Kiesler," p. 65.

[63]Frederick Kiesler, Inside the Endless House, p. 320.

[64]Ibid., p. 322.

[65]Frederick Kiesler, "Kiesler by Kiesler," p. 65.

[66]Ibid., p. 322.

[67]Ibid., p. 323.

[68]Ibid.

[69]Frederick Kiesler, "Notes on the Spiral-Theme in Modern Architecture," p. 98.

[70]Frederick Kiesler, Inside the Endless House, p. 318.

[71]Ibid., p. 324.

[72]Ibid., p. 325.

[73]Ibid.

[74]Ibid., p. 327.

[75]Ibid.

[76]Ibid., pp. 327-328

[77]Ibid.

[78]Ibid.

[79]Ibid., p. 332.

[80]Nine drawings are in the collection of John Shore of Cincinnati, Ohio.

[81]Frederick Kiesler, Inside the Endless House, p. 339.

[82]Ibid., p. 331.

[83]Ibid., p. 333.

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[84]Ibid., p. 334.

[85]Ibid., p. 332.

[86]Ibid., p. 334.

[87]Jerusalem Post, 6 November 1959.

[88]Frederick Kiesler, Inside the Endless House, p. 351.

[89]Jerusalem Post, 16 April 1965.

[90]Time, 30 April 1965.

[91]"Shrine of the Book," p. 127.

[92]Jerusalem Post, 20 April 1965.

[93]Ha'Arets, 14 April 1965. (All translations from Hebrew are mine.)

[94]Time, 30 April 1945.

[95]Frederick Kiesler, Inside the Endless House, p. 318.

[96]Davar, 14 April 1965. (Hebrew)

[97]Amos Elon, The Israelis: Founders and Sons (New York: Holt, Rinehart and Winston, 1971), p. 284.

[98]"Award of Merit."

[99]"Shrine of the Book," p. 134

[100]Ibid.

[101]Vogue, May 1965, pp. 186-187

[102]The New York Times, 23 May 1965.

[103]Frederick Kiesler, Inside the Endless House, p. 355.

[104]Le Corbusier, Le Livre de Ronchamp, ed. Joan Petit (Paris: Les Cahiers Forces Vives/Editee, 1961), p. 17.

[105]Ibid., p. 7.

[106]Frederick Kiesler, "Notes on Architecture as Sculpture," p. 63.

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[107]Ibid.

[108]Ibid., p. 62.

[109]Le Corbusier, pp. 119-121.

[110]Frederick Kiesler, "The Grotto for Meditation," p. 27.

[111]Ibid., p. 26.

[112]Ibid., p. 27.

[113]Conversation with Leonard Pitkowsky, architect, Kiesler's assistant.

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CHAPTER IX

US YOU ME: THE LATE SCULPTURE

Introduction

Kiesler sought to express his ideas boldly as he approached old age. For that purpose art, mostly sculpture, became his primary medium and the clearest carrier of his statement. To a large extent it was also a pragmatic move; a rediscovery of art as that plane where the least extraneous limitations were imposed.

In the deliberate and open style of his journals, Kiesler explained some of the considerations that led him closer to sculpture. First Kiesler related in an August 13, 1959[1] entry some background information about a housing development project in Montreal that was about to fall through. Kiesler considered the project dead. What follows is the section where he wrote about the renewed approach to sculpture.

This new and intensive concentration on sculpture was not that easy for Kiesler emotionally since he always believed that a modern architect's ultimate calling and challenge was to build for the people, serve them and enlighten them in the spirit of Loos and De Stijl. Thus, when a housing development project fell through Kiesler was deeply disappointed, as if it happened for the first time. So he turned to sculpture, working with great intensity and vigor, his efforts culminated with his large Galaxy called Us You Me. Parts of this galaxy were cast

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and exhibited, yet the whole piece was never completed and exists completely only in a (ground) plan.

In the journal entry where Kiesler described his deep disappointment, he was then comforted by his wife Steffi who says: "Be happy. You have more time now to do your sculptures," and Kiesler then writes as follows:

> I thought again about retreating entirely from business-architecture to sculpture and painting, where I can have complete control over the realization of a project, independent of bankers, contractors and salesmen. But of course I would have to plan many exhibitions to put my name on the market and become my own promoter--which I have.
>
> My inner voice was persistent that it was too early for such a change, that I must wait. I am a very obedient listener to the sound of my bones, and even their silence speaks to me at crucial moments, with a most cordial determination.[2]

It is not entirely clear from this last section in what direction the inner voice led. It seems as though Kiesler did not give up on architecture, at least at that point. But exactly what the sound or silence of his bones was is left to the imagination. The bone, interestingly enough, figures in several of Kiesler's sculptures and his use of that metaphor fits well with his imagery and iconography. This correlation of metaphors in word and art is no doubt an iconographer's delight, a luxury for someone studying an artist who respected words.

His wife definitely sensed Kiesler's growing inclination to make art, to free himself from that support system whose lack of morality and deeply rooted materialism he did not respect. This was also likely the essential conflict underlying his relationships with patronage in general. He did not think much of the rich and in particular those

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who did not fully trust the artist, and did not let him do what he knows to do. Kiesler's accumulated experience with patrons and his lifelong involvement with all aspects of art led to the predominant role sculpture played in, roughly, the last nine years of his life.

Recall, however, that Kiesler's earliest recorded efforts during and after the First World War were expressed in art, and a galaxy, as was his last and most ambitious sculpture.

Strangely enough, and in spite of a few frustrating disappointments about a chance to build Kiesler was relatively active as an architect at that time, though no residential architecture was involved. He worked on the Shrine of the Book, dedicated in 1965, and formed during those late years an architectural partnership with Armand Bartos, a practical man who for a person like Kiesler was a blessing. Also, Kiesler's Universal Theater, planned on a Ford Foundation grant, was created during that period of time for which a comprehensive set of drawings and a model were made. This was also following the time that Kiesler and Bartos completed the World House Galleries in New York and finally, the Grotto of Meditation was planned by Kiesler but was not built and was later made into a model which fits well with his sculptures.

All these activities took place during Kiesler's last years which were also the years when he wrote his journals. Kiesler considered himself a novice as a writer, which is interesting in view of his many earlier publications. But the journals were more intimate and tried to leave a few personal secrets untold. So along the same time that Kiesler matured as a sculptor he also entered the realm of literature.

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Kiesler sought to integrate the arts. It is thus of little surprise that his last major Galaxy is an environmental/architectural piece. He was also interested in literary content and integrated it sometimes in a rather literal way by actually inscribing parts of a poem such as in Us You Me on some parts of the sculptures.

But this was an extreme form of literary integration. On the whole, what can be said about Kiesler's late work style or is strategy, that it was neither representational nor abstract nor minimalist. The work can be characterized as consciously and equally concerned with formal ideas, as it was with literary subject matter and/or philosophy.

Beginnings

Kiesler made his debut as a sculptor much earlier than this period. His 1951 galaxy was shown in MOMA's "15 Americans" (1952) and earlier in Europe, he made his Totem of Religions for the 1947 Surrealist exhibition in Paris. These earliest of his sculptures raise one's expectations of Kiesler as a natural, and original sculptor. While these early works were wood constructions (carved with a band saw), most of Kiesler's work from the later years were meant for casting and many were indeed cast mostly in bronze and some in aluminum. This choice of a traditional medium seems to suggest that in this group of late works Kiesler sought to draw on traditional connotations going to Rodin. At the same time, however, and in spite of the traditional sense of monumentality intended, Kiesler also combined bronze with a modern synthetic material such as lucite and even considered in one case the use of electric lights triggered by sound.

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In the journals one finds support for grouping the late sculptures together, as well as other information about their chronology. The first entry in Kiesler's journal--the beginning of his book, is about sculpture. It is marked Saturday afternoon, July 25, 1956.[3] It is preceded only by an introduction written in 1965 and a poem which is not dated so that the journals per se start with a discussion about sculpture. The entry is titled "Towards the Endless Sculpture."[4] It is written as the first dialogue between Kiesler and his wife Steffi, where she asks the questions and Kiesler explains, like the opening and first question, and the most reasonable general question to ask Kiesler. It reads:

> I don't understand what you mean by an endless sculpture. No object exists in nature which is endless. Nor in art whether it's a painting or a sculpture. A tree grows from seed to crown and is finished. A man develops from a nucleus and his genes to his shape and content.
>
> A painting has a frame and that's its border; a fresco has its beginning and end. Everything has its limits, everything ends.
>
> You don't think you can change all these laws, do you?[5]

Kiesler then admits that his answer has turned into an "almost endless" monologue.

In the first part he argues that, in essence, the artist tries to express the unknown with the known, and further: "It is the poet, the artist who senses the inner drive and workings of nature. The poet's feeling is inspired by the force conveniently known as the unknown, and he loves to surrender to it."[6]

One ought to question Kiesler's use of Endlessness and Brancusi's landmark sculpture, the Endless Column (1918). Historically, not much

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associates Brancusi and Kiesler with regard to Endlessness. From the little that we have seen already, Kiesler in his answer about Endlessness, talked about an endless universal connectedness, rather than a countless repetition of a form. Furthermore, if Brancusi's Endless Column was supposed to have been christened under Column Without End at his show in the Brummer Galler in New York in 1926,[7] it is significant that Kiesler, who acknowledged Brancusi's work in his book, Contemporary Art Applied to the Store and Its Display (1930) did not quote his Column Without End. Rather, he has illustrated both versions of Brancusi's 1920 Mlle Pogany, the marble version and the second in polished brass. In the caption he wrote: "The respect for individual character of material is an elementary law to every artist. The inherent beauty of marble and of polished brass is not subordinated to a realistic representation of nature."[8]

The caption is interesting since it mentions the materials as the artist's elementary law and is remarkably close to Brancusi's opinion that "the sculptor must allow himself to be led by the material" and that "the material will tell him what he should do."[9] Kiesler however is more likely to have inherited his approach to materials (an approach he no doubt shared with Brancusi) from Adolf Loos who spoke in similar terms.[10] Endlessness is not what Kiesler saw and sought in Brancusi's work. Furthermore, Kiesler introduced the Endless as a concept in 1924 in Vienna, as we have already seen, applied to architecture as an organic.[11] He spoke from that time on about The Endless as a noun and name for a category of his work and not an adjective as it functions

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in Brancusi's title. Thus the major difference between the two men with regard to The Endless is Brancusi's linear application of it and Kiesler's broader extension of the usage into all forms of integrative connectedness and Correalism.

It is relevant to add, however, that Brancusi himself had gradually extended the meaning of the Endless Column beyond its compelling yet basically formal qualities, since he has erected it in 1937 as a memorial for soldiers fallen in World War I in Tergu Jill, a town in his native Rumania. Here the column as Axio Mundi or Jacob's ladder is connected ideologically to Kiesler's work and his vertical bones such as in his Last Judgement as we shall see.

In this journal entry The Endless did not play an important role as Kiesler proceeded to give a rather detailed account of his galaxies from their earliest inception. He has thus started with his very early work, the galaxy made in Vienna shortly before the end of World War I, comprising approximately twenty pieces of grey cardboard irregularly shaped and sized and placed, each nailed to the wall separately.[12] Kiesler asked his wife if she remembered as if to bear witness, and she promptly replied that she remembered with certainty.

The content of this early galaxy painting may have expressed a certain resurrection of mankind out of a most destructive war. This may therefore be related to the subject matter of the last Galaxy Kiesler made in his life, Us You Me, which still expressed the same hope in mankind.

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The Cup of Prometheus, and the Issue of Environmental Sculpture

Finally he turned to a generative sculpture in the present context, a work he first titled The Vessel of Fire, later called The Cup of Prometheus (figure 214), three-part piece, environment. The most important moment in the story of this work's conception was the moment when Kiesler decided to extend the sculpture, The Vessel of Fire, beyond its primary unit which, as it happened was while in the process of doodling. This extension broke Kiesler's work in sculpture wide open, thus developing the idea of an environment. He added and extended an original sculpture transcending the boundaries of its single physical unity, making it a part within a galaxy of sculptures. Kiesler in his manner described every stage in this process of creation. The final galaxial or environmental stage in the process was one in which association literally and figuratively played a major part. This process could also be viewed as an additive process, adding parts to form a whole.

Thus, an original element in the Vessel of Fire itself (which was, significantly enough, an architectural shell part of one of Kiesler's many models of the Endless House) was developed and extended. A high structure of wooden planks was added underneath the original shell creating the combination of wood and bronze. Kiesler was quite inventive and successful in the use and combination of different materials. Kiesler decided that the wood looked "factory dressed, precision cut, like flooring with lumber-yard smoothness,"[13] did not like this look and added: "It must show the touch of a human hand, in sympathy

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with the texture of the bronze shells."[14] He then confessed that he was not a carver in wood; that carving seemed to him a part-time occupation. He had a full sense of post-cubist and constructivist sculpture.

The smooth wooden cut that lacked the human touch necessitated action. Here, in order to achieve this more natural chopped or rough edge Kiesler and his assistant Ralph (Dorazio) chopped at the wooden planks with the axes. An expressionistic if not abstract expressionistic gesture was thus introduced. In all of Kiesler's late sculpture, the human touch was nursed. Kiesler's sculpture was always sensuous and rich in surface texture.

Next, while accidentally seeing some standard wax sheets in the foundry, Kiesler took some, bent and molded them and had them cast in bronze. He then attached these units to the original bronze piece, which was also basically a shell of bent "walls"--a discarded model, or fragmented model of the Endless House. Following the addition of the molded wax sheets now cast in bronze and therefore rather heavy, Kiesler realized that the sculpture's gravitational point had shifted upwards, a fact which called for an addition of a widespread base; otherwise he added humorously, "the massive bronze above would make the whole sculpture top heavy and it could topple over killing me and my assistants before it crashed down on my critics."[15] Once again the solution was found in some other pieces of wood that Kiesler saw outside the foundry, pieces that were dilapidated, had a natural patina of age, some were even burnt and charred "like a black diamond with many facets, a life lived to the limits of heat," and these pieces were used to construct a flat, informal foundation, not a base or anything like a pedestal.

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It was only at this point that these burnt pieces of wood inspired Kiesler, and reminded him of fire and the idea to incorporate a real vessel with fire. This was after the sculpture stood on its own for the first time. For the live-fire effect, Kiesler sought and found a smudge pot, the kind that were placed at night on the streets of New York to guard the open diggings of street repairmen. (These smudge pots have since been replaced on the streets by electric flickering lights.) Kiesler's interest in fire was discussed before. In the present context he wrote about it as follows:

> Fire and water have always haunted me as sources of life, and I had placed both of them in the floor of my "Endless House." The question now was how to produce the fire self-contained, independent of any outside sources.[16]

The solution was the smudge pot. But what can also be learned from the above is that the iconography and emotional impact intended here was much like the emotional experience created by fire and water inside the Endless House. Indeed, the integration of fire in a house, for symbolic purposes, was just as uncommon in architecture as it is in sculpture and Kiesler's impulse is thus as original in both cases. Finally, I would like to describe one last element added to the whole.

To accommodate the smudge pot Kiesler "cut apart the tall flanks, or wooden planks, to insert into this cut a bronze plate which could carry a vessel of fire."[17]

Kiesler wrote that it was a "violent break in the solidarity of the total sculpture" and, indeed, it was for a reason Kiesler had not fully acknowledged himself. It was the angular/diagonal way the bronze

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plate was inserted. This diagonal bronze is almost violent in the way it breaks the horizontal/vertical solidity that this tall structure of wooden planks projects. It also distorts perspective, figuratively speaking, by raising the table top toward the picture plane (or is it a floor that looks tilted?). Aesthetically this makes the sculpture and gives it a dynamic edge. The total surface of this rectangularly inserted bronze plank has doodle-like engravings scooped out with electric rotary files. This effect, whether already in the plank or added by Kiesler, connotes a picture from modern physics. The lines or trajectories of particles against which the vessel of fire is placed. Thus a primitive as well as a scientific aspect of the natural world are projected from the same image.

In this same entry Kiesler reproduced a drawing, one of his quick doodle-drawings which convey an architectural clarity as well as a great deal of dynamism and grace (figure 215). The title reads: Vessel of Fire, expanded into four-unit sculpture, later entitled The Cup of Prometheus.[18] The original sculpture, the Vessel of Fire, was, as Kiesler has listed in detail, also comprised

> of five different units, each of which is complete in itself, yet none of them lives unless correlated to and feeding upon another. Here are the five sectors: first, the footing there consisting of six logs; second, the bronze plate; third, the Vessel of Fire; fourth the upper structure of the scaffold called "the Guillotine"; and fifth, the bronze crown above.[19]

This completes the creation account of the Vessel of Fire, except for a short recapitulation connecting the galaxial character of the work and Correalism.

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Two postscripts, one a short entry dated March 1960, and a second dated September 1960, make it clear that the two later parts, the wall sculpture called Heloise and the ceiling sculpture which in the entry Kiesler titled Embryo (in the drawing it is titled The Ectoplasm which is also the title for it used at Kiesler's Guggenheim Museum show, see below) were added to the original Vessel of Fire at a later date. The fourth part was an aluminum stool.

The two additional pieces, the wall and ceiling sculptures, were also made in a technique that Kiesler used for the Vessel of Fire. Heloise is made of three pieces which Kiesler formed by heating, bending, cutting and casting wax sheets which was also the plastic language of the bronze crown of the Vessel of Fire, whereas the Ecloplasm is a shell, a sort of suspended model of the Endless House.

In a related entry dated Thursday, December 27, 1959, Kiesler wrote:

> Yesterday I received a gift of a sheet of Muntz metal. It's a never-rusting or skin-changing alloy. Color: Pre-Columbian gold. Matte--yet radiating. It was too seductive in appearance and physical elasticity for me not to immediately try to bend it. The form which evolved looked like a pigeon making a Salto Mortale in mid-air.

And he continued:

> Surely the mother of these wings was my crown constellation of "The Vessel of Fire." It was continuity and it projected itself onto the ceiling where it would hang as an apparently independent unit.[20]

So this is exactly how the Ectoplasm or the former Embryo was born, bending a flat and flexible material. But Kiesler's love for all materials and alloys led him also to gold leaf which he has used

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in several of his sculptures as we shall see; the scientist and the alchemist in him fuse through this choice. In this entry, incidentally, he mentioned professional sculptor (Herbert) Ferber whom he met at the Modern Art foundry. He described Ferber picking at a tiny wax sculpture with some contempt for the carver and in response to Ferber's surprise at meeting Kiesler there. And Kiesler then wrote: "Apparently I am supposed to sculpt only in wood" (in reference to his early well-known Totem of Religions and the 1951 Galaxy, both in wood). But Kiesler would not be typecast and so he cast his sculpture now in heavy bronze.

Let us turn to the iconography of the Cup of Prometheus. First there is of course Prometheus and the myth that he stole fire from the forge of Hephaestus against Zeus' will in order to fire the clay out of which he formed mankind. This makes Prometheus a god-like creator and an artist who was ready to suffer in order to complete and fire his creations. It is not hard to see how a man like Kiesler who was fascinated by fire, would want to make a reference to this giver of fire as life. Heloise, Abellard's loving wife, represents human love and pure individual devotion which is somewhat different from Prometheus who in Kiesler's terms was a sort of concerned artist. The Embryo or Ectoplasm, a biological term describing a cellular ingredient, probably represents the scientific/biological aspect of life, so that we have biological life, love--human life and fire, the divine spark, all integrating into a galaxy. However, concerning Heloise, Kiesler provided an explanation for the name choice. In another entry, earlier than the first, dated December 17, 1959, a few days earlier, Kiesler described

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how he ordered to size three bronze sheets which he then hammered and connected to create the wall sculpture (and he worked on all six sides of our space). Since the result "was slender compared to the mother" (The Vessel of Fire), he named her Heloise. This explains something only if Heloise was known to have been slender, which is doubtful, so that only the humorous erotic little Scherzo which follows, helps and adds essence and/or flavor to our earlier more comprehensive interpretation. It says about Heloise:

> She stands now in my house, threefolded puberty, shyness, anguish, longing. She is wrapped in snow-white cloud tissue, a heavy body of bronze inside. At the foundry we had given her a last bath of acid because her highly glistening body showed finger marks of every hand. Now she leans against the wall like a pony-tailed teenager against a small town drugstore window. We shall undress her as soon as Alice arrives to view her. It will be in half an hour.[21]

So this was also a side of Kiesler--full of love, erotic fantasy, tenderness and irony.

All these elements are parts in a correlated reading of the Cup of Prometheus environment, its making and the various shades of its meaning. The texts quoted here are quite literarily its iconography and personal iconography at that.

As to its physical properties, the Cup of Prometheus is made of wood and bronze, measures 120½" x 78" x 43". It is thus a tall sculpture and along with the Ectoplasm made of bronze (18½" x 25" x 21") and Heloise also cast in bronze (60" x 30" x 19½") combine into a rather large environment. Kiesler wanted to emphasize the environmental quality of this group, and in order to do so sculpted a stool he also called

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Pew-Pew, which dates from a later stage, about 1963. Since it is part of the drawing Kiesler reproduced in his book illustrating the Cup of Prometheus, it is likely that the drawing dates from the same year or later.

To elaborate on the stool, it is time to turn to the second postscript of the entry from the journals, mentioned earlier. In it, Kiesler endorsed the idea of environmental sculptures saying that his 1951 Galaxy (discussed in an earlier chapter) was in fact the first of New York's environmental works. Kiesler reminds us that it was called by Life Magazine: "a sculpture to live in and within" and expressed his enduring delight with this adequate definition commenting: "They were right: to live with and within, that is, directly with art and architecture, is the new concept. Non-objectivity is past history."[22]

The little stool Kiesler made and added to the Cup of Prometheus group was to dramatize the spatial integration of the viewer who is invited to join the architectural/sculptural environment, sit and meditate on it from within, sit on the pew. The word is a word of Latin origin relating to foot, and the name for "a certain bench with back and sometimes doors fixed in rows in a church" (Webster). Then, of course, by repeating the word in the title twice, it connotes a certain vernacular meaning, something far less elevating, in fact, excremental.

It seems to suggest in its side reliefs negative imprints of hind parts reminiscent of Marcel Duchamp's Female Fig Leaf or his Not a Shoe, although this is pure speculation. It seems that this stool, which was cast in aluminum and measures 8½ x 23½ x 18" (figure 216), was meant

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to work on two levels; one was as a seat, allowing a spectator to participate in the sculpture. The second, as the title suggests, was to keep the viewer down to earth, and add to the mythological Cup of Prometheus something of the vernacular. Finally a strong case can be made for the proposition that Kiesler was an early environmental sculptor. Not much truly environmental sculpture existed in 1960 when Kiesler wrote this, although Kiesler, in his reference to this term, said that his colleagues called this type of sculpture environmental sculptures. E. C. Goossen's "End of the Object" criticizing American sculpture, as seen in MOMA's "Recent Sculpture U.S.A."[23] ought to attest to it.

But the term environmental may have assumed some currency at that time. In William C. Seitz's The Art of the Assemblage exhibition in 1961,[24] for instance, there is a chapter titled "The Collage Environment," discussing urban American street-junk architecture. These were billboards and signs, pop architecture as well as Simon Rodia's famous Watts Towers in Los Angeles.

It is true that sculpture in the early sixties in works such as Tony Smith's called for a new object-spectator relationship, following earlier such re-definitions undertaken in painting. Something in the work of Mark de Suvero from that time may be compared loosely to Kiesler's sensibility. On the whole, as a recent show of Sculpture of the New York School at the Whitney[25] has shown, Kiesler was truly the only and earliest environmental artist of this generation of New York School sculptors active in the late forties and fifties. Kiesler's work was outstanding in this exhibition in its truly environmental and

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architectural monumentality. If this show could be taken to represent the state of art-historical consent, it seemed that Kiesler's place was finally recognized. It was of course true as Lisa Phillips indicated that Alberto Giacommetti's Palace at 4 A.M. (1932-1933) which was shown at the Museum of Modern Art in 1936, exerted a certain influence on sculptors such as Seymour Lipton, Ibram Lassaw and David Smith inspiring a more architectural concept of sculpture; in Phillips' words: "Sculptors recognized that an architectural framework presented a promising alternative to figurative representation and a way to combine geometric and biomorphic forms."[26] Kiesler did not need this lesson in architecture nor was he making any sculpture at the time. Phillips followed her comments with a few remarks which credited Kiesler adequately but did not exhaust the subject. She did however mention his designs for Peggy Guggenheim's Art of This Century gallery. It is interesting to notice here that at that time, Kiesler was fully satisfied to address the issues of environmental art by designing only the environment leaving the art to the artists. Phillips later talked in her introduction about other artists who were involved in environmental attitudes such as Nevelson and Bourgeois and works, by Herbert Ferber, who really just enlarged small sculpture, made to fit monumental spaces and fit large architectural interiors. But Kiesler generally was not and had not associated with most of these sculptors, and this was reflected as we saw earlier when Kiesler who met Herbert Ferber in the foundry called him a professional sculptor and obviously did not care much for his work.

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Finally, a few other points should be stressed. First, Kiesler was also a stage designer and it was on stage that he continuously created complete sculptural environments, integrating actor and environment. Indeed, for a limited period of time actor and set interact and the actor lives in a totally designed environment. A specific connection provides the fact that the 1951 wooden Galaxy was part of a set for a Milhaud-Cocteau opera, The Poor Sailor, and that it turned into a separate sculpture after it and served successfully on stage.

So for Kiesler to think in such integrative/environmental terms was second nature and an established article in his artistic credo. And if the happening was a source for environmental sculpture, which it was, then its theoretical character was definitely comparable to Kiesler's own experience as a set designer, and for that matter as a planner of the public spectacles he first realized in the Space-Stage in Vienna in 1924, and in the Universal Theater planned at that same time. Kiesler's associations with the Surrealists who were completely in tune with environmental installations of the kind Kiesler, Breton, and Duchamp envisioned for the Gallerie Maeght in 1947, about which Marcel Duchamp told Pierre Cabanne that Kiesler "As an architect, was far more qualified than I to organize a Surrealist exhibition."[27]

The knowledge of architecture gave Kiesler's environments a certain authority that differs from the professional sculptor's greater attachment to the object per se.

On the subject of environmental sculpture, one of the relevant precedents, for a truly environmental sculpture is no doubt Kurt

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Schwitter's Merzbau which was sculpture and architecture united and which was developed gradually over a period of time without any particular plan. As alien to architecture as this procedure may sound, Kiesler in his design of the World House Galleries proceeded in a similar fashion. This is somewhat of an exaggeration, since Kiesler made plans before clearing the space and building the galleries inside the Carlyle building on Madison Avenue in 1956.[28] But from an entry in the journals we learn that he changed his plans, after experiencing the interior space, once cleared. Indeed the galleries were built (like the Merzbau) inside an existing space, and the entry expressed a true delight and a certain architctural primitivism: "to hell with paper architecture" was the slogan here, claiming that some architecture cannot be planned on paper. From a different direction, we ought to point back to Adolf Loos, who also spoke of planning as Raumformen (Spaceforming), which he considered an act that cannot be exhausted on paper.[29] This will bring us right back to environmental sculpture which is also usually not planned on paper first.

But we want to stay with Schwitters' Merzbau just a little longer, because of its broader relevance for Kiesler's work. It was not only an experiment about process and design. Merzbau also incorporated literary and psychological considerations. Beyond its formal innovations the Merzbau was also known under the acronym "KDEE." It stood for "Kathedrale des Erotischen Elends" or the Cathedral of Erotic Misery. Kate Steinitz, who knew Schwitters, saw the "KDEE" grow over sixteen years wrote however that "The cathedral harbored much more than his

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erotic misery, which perhaps was rather complicated, but not as tragic as his struggle for pure form which finally conquered the chaos of the darkest erotic caves, the entanglements of the historical caves, and the complexities of the caves of friendship."[30]

Thus, the Merzbau was an abstract collage environment which included elements that were charged with psychological detail and geared toward mental integration, so that Schwitters makes an interesting and illuminating comparison with Kiesler, his Endless House and his sculpture alike.

In order to add credence to the view that the Merzbau ought to be considered seriously as environmental art, it is relevant to mention that Schwitters built it three times--the first in Hanover, Germany, the second in Lysaker near Oslo, Norway, the third in a barn in Ambleside, England.[31]

Finally, Schwitters' circle of friends included fine designers and visionaries as Lissitzky, Van Doesberg, Gropius or Gabo, a circle he partially shared with Kiesler prior to the latter's rather early departure for America in 1926. The issue they were involved with was the integration of design with mental and psychological counterparts of human needs. The similarity in attitude between Kiesler and Schwitters is also reflected in the wide range of activities both artists tackled: architecture, sculpture, painting, writing typography, etc. Return to the sculpture with which Kiesler was intensely involved late in life, an effort that led to a comprehensive show of his work at the Guggenheim Museum in 1964. Although Kiesler's Galaxy of 1951 was shown

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at the Museum of Modern Art (15 Americans 1952) and in spite of Kiesler's show in 1961 at Castelli's of Shell sculptures--which were improvisations on the subject of the Endless House--models as sculpture, this exhibition was Kiesler's first show of sculptures, environments and the single sculptures. Castelli, who liked the Endless House, and his architecture, did not care too much for Kiesler's sculpture,[32] which was probably the reason that Kiesler never showed his late sculptures there.

One-Man Exhibition at the Guggenheim Museum

The exhibition at the Guggenheim was fairly modest and occupied the only flat and semi-segregated space within the main spirals. There is, of course, a certain irony in the fact that Kiesler, the inventor of continuous circular spirals, showed his sculpture in Frank Lloyd Wright's continuous space confirming in his way the endless or total space that Kiesler had always advocated. He wrote in a caption for a reproduction of the Guggenheim's interior in his article "Notes on Architecture as Sculpture." Following some reservations he concluded saying: "The endlessness of the total space is so satisfactory that the lack of intimacy with the paintings and sculptures is forgotten and forgiven."[33] So in this conciliatory spirit with Wright and the space, Kiesler built his environmental space installations and showed nine works altogether.

The show at the Guggenheim Museum was the culmination of work that Kiesler made or completed with the help of a Ford Foundation grant of $12,500 which was given in 1963 for "a demonstration by Frederick

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Kiesler of new methods for the integration of the plastic arts." In the narrative account that Kiesler had to submit along with each installment of money we find, after the first installment of $4500, the following account which is dated October 17, 1963, and where he divided his work as follows: "Four large themes of sculpture. These broad categories may be referred to as floor-to-ceiling, landscape galaxies, bone sculpture and environmental constellations."[34]

The Cup of Prometheus, discussed already was, no doubt, a "floor-to-ceiling" sculpture as was the second major work shown at the "high-gallery" of the Guggenheim Museum the Last Judgment, a work not discussed yet.

Kiesler's original proposal, dating January 4, 1963 was slightly different, and in it equal attention was given to sculpture and architecture. Thus Kiesler listed as promised works: Models of the Endless House, large plans mounted on canvas of the Endless Theater of 1924 (The Universal), eight plans of the Endless House models (1960), six plans of the Universal Theater (1961), and four original drawings of the Endless House, and in sculpture, three bronze and wood small sculptures mounted on stone wood and glass, drawing for sculptures, and a large arch-sculpture consisting of fifteen large and small shells.[35]

As indicated, Kiesler finally showed only sculpture, and the original plan to stress the integration between architecture and sculpture was cut back.

The works that were finally shown in the exhibition at the Guggenheim Museum in 1964 fell into the categories that Kiesler listed.

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The category of floor-to-ceiling sculpture consisted of the Last Judgment, the Cup of Prometheus and Birth of a Lake. There were three landscape sculptures, The Prairie, the Earth's Finger, and The Marriage of Heaven and Earth, four "Bone sculptures," Bone I, II, III, and a sculpture called Goya and Kiesler which is a combination of painting and a "bone" in sculpture. The environmental constellation the fourth category of sculpture that Kiesler listed in the proposal was the Last Judgment with its combination of floor to ceiling sculpture and surrounding paintings.

The Guggenheim exhibition must have been in the works since late 1961. In a journal entry from August of 1961 Kiesler reported a meeting with Thomas M. Messer, the director of the Guggenheim. They first met at the museum and then went to the foundry (the Modern Art Foundry in Queens) where they got to see an installation of Kiesler's Last Judgment, already in progress at that time. Kiesler wrote he has been working on it for a year, since 1960 or even late in 1959, although according to the Guggenheim catalogue, Kiesler worked on the Last Judgment even earlier, from 1955-1959 and again in 1963.

In our August 1961 entry where Kiesler told about his meeting with Thomas Messer, the Last Judgment is also described and discussed, although, so it seems, the sculpture did not bear its present title yet. This in itself indicates that Kiesler made his sculptures first and often titled them later. It is also interesting considering the loaded iconography in such subjects as the Cup of Prometheus or the Last Judgment, both titles assigned late in the process of creation.

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The meeting between Kiesler and Thomas Messer, the director of the Guggenheim Museum, at the time was a success because it all ended in agreement on Kiesler's show at the Guggenheim, and Kiesler's personal account of Messer was unusually positive, and Messer seems to have treated him with respect and tried truly and successfully to understand his ideas.

The two men, both of European origin, had certain things in common and they talked about Prague, Messer's native city with which Kiesler, who came from Austria was familiar, and being described Prague's Baroque, "dotted with Gothic and Romanesque spots."[36]

At the foundry Kiesler and Messer saw a piece of what would become the Last Judgment and Kiesler gave the following description of the state of the work at the time.

> That work of mine was obviously a look into the future. It spanned from floor to ceiling and consisted of eleven pieces. It looked better to me than when I had begun it, more than a year ago. An aluminum-cast table locked into the ceiling had its four half-legs hanging down. On the floor stood a similar table, upside down, four full legs up into the air. On the tips of the legs rested a heavy transluscent plate of lucite. From the middle of this plane rose an array of bone sculptures piled one upon the other, up and up, some in bronze, some in aluminum, one leaf-gilded. The same type of units, except not so numerous, hung down from underneath the lucite, as if a mirror image of the one above. But on the inside of the table on the floor, the one with its legs up, was embedded in what perhaps could be called the eye of a vast woman's belly, cast in white bronze, highly polished, the belly button was an actual opening through which, later on, a light would shoot up toward the bronze cluster of the cluster floating above.[37]

This account is as lucid a description as one can expect from a translation of a sculpture into words. Kiesler then added that the sculpture

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"seemed to convey continuity transfixed at different levels. This was the piece, I think, which, without explanation by me, at once conveyed to my guest the glacial concept of my sculpture." He went on to explain that in spite of the many elements this sculpture contained "it had a surprising unity of content and form."[38] The entry reads as though this meeting was dominated by a certain sense of apprehension on Kiesler's part, but which gradually vanished as the meeting went along, much to Kiesler's surprise.

Thus, for instance, after seeing the Last Judgment in the foundry, Messer and Kiesler did not part, but took a cab to Kiesler's studio which, at the time, was on lower Broadway near 13th Street. They walked up four flights. As they ascended, Messer, according to Kiesler, "although pressed for time, kindly let me (him) stop and rest at each level."[39] The old artist respected this. Later reflecting on the studio visit he wrote: "It is always embarrassing to show one's work and not show off with it, no matter how old its vintage" and Kiesler inserted a short poem to express his feelings about the subject without losing self-irony and humor:

> If you convince
> they often wince
> my sculpture's turn
> from north to south
> and east and west
> upsets my guest
>
> But when the curio-seeker
> gets heated up
> in fake embrace
> his pseudo flame
> can burn my guts to blisters
> or cast my intellect
> in packs of ice.[40]

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After the visit to the studio the two went on to Kiesler's penthouse at 56 Seventh Avenue (at 14th Street) and saw another floor to ceiling environment which cannot be identified precisely (it could have been the Cup of Prometheus).

Kiesler wrote that his patient guest understood the implications of the continuum-planning concept that occupied his whole life and that he was quite amazed that he (Messer) grasped the problems so fast, so deeply and humanely, and that he saw beyond the purely formal to include the environmental "living within it and with it" as Kiesler wrote, alluding to his favorite quote from Life we mentioned earlier. And so it all led to the show which at that time was still envisioned as a sort of mini-retrospective. Although the visit was a success, the entry ends in a strange and even melancholic tone: "I walked him to the elevator, the door swung open, and he disappeared into the car, back to his world of commitments. And I to mine. A day of many dates continued."[41]

Kiesler's life experience and skepticism had good reasons; curators are cautious, indeed. Thus, for example, William Sandberg, director of the Stedelujk Museum in Amsterdam, wrote to Thomas M. Messer of the Guggenheim, probably in reply to an inquiry by the latter, about Kiesler whom Sandberg knew and met, and with whose work he was familiar. "But between you and me I prefer his (Kiesler's) architectural work and perhaps some of his sculpture to the drawings I have seen in his studio, shown from different angles."[42] This evaluation is interesting as off the record art criticism.

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The preference of Sandberg or Castelli for Kiesler's architecture over his sculpture and art also reveals that at that time, his place as a visionary architect was gradually acknowledged by those who were familiar with it, but his sculpture was much less admired and generally not too well known. Messer understood this and by giving Kiesler a show hoped to make a contribution to change that. This is clearly stated in a letter Messer wrote to Kiesler in 1963.

> If it succeeds [the project of the exhibition at the Guggenheim] it should be important for you since your plastic ideas are still merely the intellectual property of a tiny circle of friends. I need add that it would be important for us, for in presenting what amounts to a summary of your life's thoughts, we would fulfill a most important institutional function.[43]

It was also in this letter that the Last Judgment was mentioned as the central piece of the exhibition, and, finally, we ought to take a closer look at the various dimensions of this complex work. The Last Judgment (figure 217) was made in bronze, aluminum, pewter, lucite and gold leaf (chains in stainless steel) and measures 82 x 36 x 37"; height to top of table 82". It was a floor to ceiling sculpture as Kiesler described it himself.

In the Guggenheim show, the dates given for this work are 1955-1959 and 1963. Indeed the parts Kiesler discussed in the entry quoted were almost completed by 1959, and what Kiesler added later (1963) for the show at the Guggenheim were painted background panels, slightly curved and painted in earth colors and blues. What Kiesler painted on the three rectangular background panels creating a triptych of sorts (painted on both sides), were geometric configurations, hard-edged in

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straight and curved lines. These linear geometrical projections created a pseudo-perspectival background which formed a strong illusion of a pictorial space.

In theater terminology these background panels recall backdrops, as stage props which Kiesler used to expand his environmental sculpture placing the three dimensional sculpture against an illusionistic picture of space. The panels, being hard-edge and geometrical in style function quite well as an immaculate immaterial contrast to the sensuous rich textures of the standing sculpture: the ground "table" with its lucite top, the suspended "table" hanging from the ceiling, and the central "bone" column fastened to the ground "table," or precisely its lucite top.

The awkwardness of this theatrical device was typical of Kiesler's eccentric and inventive artistic strategy. He employed whatever he deemed necessary to achieve his environmental end including this odd combination of a molded and expressionistic sculpture and a minimalistic hard edge painting as background.

One does not have to be a sculptor, an architect and a man of letters to admire Michelangelo. Kiesler was all these and admired Michelangelo. In Us You Me, as we shall see, he literally quoted and used fragments cast from (copies of) Michelangelo's David in his galaxial David. But in an entry titled "First Clash with the Last Judgment of Michelangelo" Kiesler, approaching seventy, clashed with Michelangelo's works in Rome for the first time in his life. The entry is inscribed "Sistine Chapel, the Vatican, October 17, 1959" and it seems to convey

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in brief Kiesler's experience of Michelangelo's paintings which he expressed in sketches and notes. One such quick sketch he made at the chapel is reproduced in the Journals (figure 131). In a simple perspective the wall of the Last Judgment with its double arched top is seen and a rough representation of the image of Christ alone, fills its entire center, a departure from the original. The inscription, however, provides the drawing's punch line and explains: "The wrath of Christ on the Tablets of Moses." In the drawing the location is indicated and Kiesler dated and signed it with his initial K, as he often did. This was his primary experience of the Last Judgment fresco; in his words:

> Surprise at the resemblance of the form of its huge fresco wall to the shape of the biblical tablets of the Ten Commandments held up by Moses on Mount Sinai.
>
> Exactly the same double page, an open book, here at the Sistine Chapel.
>
> The wrath of Christ admonishing the praying mantises in front. Gestures of deep scorn like those of Moses repeated in the person of Christ. No more is He the forgiver, but the punisher.[44]

He seems to have found in Michelangelo's work a certain unusually well correlated Judeo-Christianity, one which does indeed render Christ's physical appearance in muscular terms similar to that of the Moses—his physical power symbolizing moral fortitude as well as righteousness and wrath. Kiesler also reversed the conventional direction of Judeo-Christianity, moving from the ancient jealous God to his ultimate role as a merciful father who sacrificed his son. He recognized in Michelangelo's Christ a wrath of Moses' old testament anger expressed in a future last judgment. Although there is just as much tenderness in Michelangelo's Christ as there is wrath, there is insight in what Kiesler

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saw.[45] But it definitely also reveals much about Kiesler's own mind. He also wrote: "Against all rules of the religious game, to conquer the flock by timidity and nonresistance Christ appears as an athlete, a physical giant with the striking power of lightning. There will be no recourse. A verdict without trial. No hit and miss, only blow after blow."[46]

To the extent that Kiesler may have exaggerated Christ's wrath and the Mosaic connection, it definitely reveals Kiesler's own interpretation and understanding of the Last Judgment and some of it is bound to be found in his own sculpture on that theme. He saw it as a universal powerful inevitable moment of truth, an eschatological, moral showdown. Other of Kiesler's observations about Michelangelo, incidental as they were to the matter at hand are interesting:

> Michelangelo--all content and all form. Content: anecdotes of folklore given universal meaning concretized. Every stroke a blow on the cheek of heaven or the jaws of the earth, and under the belt of hell.[47]

The lines are inspired and poetic, typical of Kiesler's intelligence and imagination. Thus the visit to Rome and the experience of the Last Judgment must have inspired Kiesler in his work possibly even the very choice of this subject matter. Something of the artistic merit he observed in Michelangelo such as "folklore given universal meaning concretized" is something Kiesler attempted in his own Last Judgment but more so in Us You Me, reaching for heights without losing touch with the vernacular.

Kiesler also spoke about Michelangelo's Last Judgment, saying "it is still the last word in composition and abstraction of color"

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and he wrote about its abstract dynamics--the Last Judgment's turbulence which he compared to Pollock's art, but added that "no one has yet appeared to challenge Michelangelo's unification of realism and abstraction."[48] Once again, we may accept or reject Kiesler's observations, but they express his own preference, such as the very appreciation of a successful unification of realism and abstraction. Kiesler also calls Michelangelo: "space man, even on a flat wall" and "space computor" as opposed to Raphael whom he termed a "decorator" and wrote that his stanze at the Vatican prove that he was "a designer who colored." He spoke of Michelangelo also as modeleur in gray and brown, indifferent to "maquillage" in color. This is interesting and may explain Kiesler's brown/blue background colors in the backdrop panels of his own Last Judgment; colors as well as texture equally indifferent to "maquillage" (grease paint, textured, a technical term from stage craft), i.e., smooth.

As much as Kiesler admired Michelangelo's Last Judgment, he did not like the ceiling and considered it an unsuccessful integration of painting and architecture and criticized the size of some figures, he was by no means an indiscriminating and blind follower of great talent. Kiesler treated the theme of the Last Judgment not as theological subject matter, but as a moment in time, when an ultimate cosmic connection is finally made. We have noticed how Kiesler, by seeing Michelangelo's interpretation of Christ in Old Testament eyes made an unorthodox connection. It is therefore reasonable to assume that something of this circular connectedness was naturally the idea for his own Last Judgment.

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Thus, returning to the sculpture, the upside-down "table" and the suspended "table" connected with chains to the ceiling, mirror each other since the plate on the bottom "table" is transparent and therefore does not interfere in this closed circuit. The two "tables" or ends are spatially tied by means of the column of vertical "bones" which signify this surge for a total connectedness and correalism. Even the chains used to suspend the upper "table" connote connectedness. Other elements which contribute to a cosmological or naturalist reading of Kiesler's Last Judgment are two other features, first the rather similar, almost mirror, image rendition of the top or suspended upside down "table," and the ground "table" on the opposite side which suggests the relativity of space, the fact that space is symmetrical is reversible and that is an important element in Kiesler's conception of space. Both "tables" are molded so as to recall unformed lava-like matter which at the center becomes smooth and has a small hole--"the eye of a vast woman's belly" as Kiesler described it which conveys the idea of genesis and formation out of the chaotic primeval flouring broth. This "naval" was in fact a hole and Kiesler planned to have a beam of electric light shining through, expressing the physics and metaphysics of creation. Now top and bottom parts being similar, mirroring each other suggests that the Last Judgment, in Kiesler's view, correlates genesis and termination unifying opposites.

The column of "bones" suggests the essential connectedness of all and everything--the bones being symbols of essence. As a chain of connected units, the bones may connote the great chain of being,

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tying creation and destiny in an endless continuity in time. Lillian Kiesler has also indicated that Kiesler used to point up and down expressing the idea of correspondence between the high heavens and earth. It is the hermetic (alchemical) principle found in the most famous text attributed to Hermes Tresmagistus, namely the Emerald Tablet which reads: "Tis true, without falsehood, and most real: that which is above is like that which is below." But form and meaning, materials and ideas should also correlate; one of the interesting and unusual features of Kiesler's Last Judgment was the lucite plate sitting square on the bottom, upside down table unit. This lucite plate, which also reads as a transparent "modern" synthetic lucite table top turns the bottom upside down table right side up again and into a regular table stand. The lucite, besides its machine age connotations, is an attractive material due to its strength matched with the immaterial sense of space that its transparency creates. Its usage here matches Kiesler's ideas about Duchamp's Large Glass. In the description of the sculpture we have quoted, Kiesler mentioned that the column of bones above the plate is matched in its mirror image underneath the plate. Furthermore, the lucite being smooth and a faint mirror is here only an illusion of a mirror since in using the material's transparency an actual mirror image is attached underneath. In addition to this complex use of the transparent smooth lucite, Kiesler also made a series of sculptures which specifically explored the table and the lucite plate.

Before going into these works which date from around 1964, one should mention that between 1929-1935 Kiesler designed an office table,

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placed against the wall or a window sill on one side and supported on the other end by "suspenders" which were metal tubes, attached to the ceiling (figure The point is that this ceiling-to-ground-type sculpture such as Prometheus and the Last Judgment existed in Kiesler's work as industrial designs or formal invention much earlier.

The table as furniture or as environmental sculpture invites or implies involvement on the part of the spectator. Thus a certain spatial proximity, art at the reach of a hand, is established along a definite human reference of scale. The table as a motive in sculpture exists in works from Giacometti through David Hare to purely formalistic renderings in some of Anthony Caro's work. Generally it has a Surrealist origin. Kiesler and Hare knew each other and even once made a work together. So Hare's "tables" may have inspired Kiesler to a certain extent but Kiesler's tables are larger, heavier and much more monumental than anything Hare has ever made.

Let us look somewhat closer at two of four such table sculptures.[49] One is titled Arise Man; the second Rebirth. These works are the sculptures Kiesler listed in the proposal for the Ford Foundation grant leading to the Guggenheim Museum exhibition, describing them as "small sculptures mounted on stone, wood, and glass."[50] In these sculptures Kiesler used several materials: bronze, glass-plates, lucite, stone, wood, using them as an inner scale or hierarchy of weight and texture.

Arise Man (33" x 24½" x 43") (figure 219) and Rebirth (37½" x 25½" x 49½") (figure 220) are of the same general formula; They have a granite stone base and lucite (plexiglass) vertical, supports inserted

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into the heavy rectangularly shaped granite base. Two facing lucite vertical plates support a horizontal black carrara glass plate (the table top), on which small pebble-like elements are placed, cast in golden bronze, silver and small pieces of white bronze exposing the various materials following Loos and Brancusi;[51] the latter's work may have inspired Kiesler also in the role given to the pedestal or better the equal attention directed at all the elements in the sculpture, that is, the functional or supportive elements along the sculptural configurations. The base cut in the hard granite stone has the shape of a standing suitcase, albeit hard-edged with its angles cut somewhat irregularly. Along the same lines, the top plate is also not a rectangular, but a trapezoid and the supportive vertical lucite planes are not exactly parallel. But the sculpture is complete in orchestrating these various geometric elements and the informally hand molded pieces on the table like in Arise Man, where four small elements are placed on top of the "table" and one little piece is placed informally on the edge of the granite base below. These small, ephemeral, hand molded pieces made first in wax and clay, then cast, are organic reminiscent of small, sand-stone coagulations. Others appear like small Giacometti-like figurines; one is just a bent and elongated strip of matter, another a round tubular part, etc. These natural looking pieces are placed on the top glass like the rocks in a Zen garden.

Both these works, Arise Man (figure 219) and Rebirth (figure 220), deal with related subject matter: resurrection and rebirth, and convey a strong sense of generation, or for that matter, regeneration. I

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believe that it is not possible to identify any of the four different organic elements in Arise Man or the three pieces on the top of Rebirth specifically. In descriptive terms they include a vertical element, a horizontal wall and another small rock.

Generally, however, it is possible to point out that the vertical pole persists in these two works, and is also the core of the bone series (as we shall see) as well as the Last Judgment and another work called Birth of a Lake. Even in the Shrine of the Book, which like one of our two table sculptures was built around the idea of regeneration and rebirth; the core is a vertical; in other words, the rising vertical stands for the phallic, and for that matter regeneration. So the two "table" sculptures are examples of Kiesler's explorations of various materials, of a certain sculptural constructions and certain motive characteristic of much of his work.

One other sculpture in this series is in the collection of the Whitney Museum of American Art in New York. It also dates from 1964 and was part of the same series of works and is titled The Saviour Has Risen. It is made of granite bases (two), lucite (or plexiglass), black carrara glass and bronze and measures 57½" x 49" x 35½". Here only one vertical element of bronze is placed on top of the glass plate.

The surface connotation is, no doubt, Christian, although as I have suggested, for Kiesler it was not simply a religious subject and Kiesler's views on nature are correlated with this tenet of Christian ideology which lends itself to a cyclical interpretation of nature: life/death/life or life, death and resurrection. But it relates just

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as much to Goethe and his Metamorphosis of Plants that Kiesler quoted as a cardinal influence.[52]

So these works represent Kiesler's attempt to fuse the expression of natural processes with standard Christian metaphors. This is how he grew to experience his knowledge, vision, and moral sense, all augmented by his growing physical fragility and its influence on the psychology or the urgency of a man expressing faith facing the end.

These table works contribute also to the understanding of Kiesler's sense for the accidental aspects that are also a part of his sensibility. This element gives a certain informal quality to his works. The parts molded by hand in clay or wax and then cast convey this quality. The smashed, molded, pressed and dented express the limits of human control.

At this point of our exposition of Kiesler's late sculptures, Birth of a Lake can figure usefully since it sums up many of the elements essential to Kiesler's sculptures discussed so far, and which also connects to another set of works that we have not discussed yet.

The Birth of a Lake (1960, 1964) (figure 221) is made in bronze, pewter and aluminum, but also includes a wooden frame covered with a white plastic armour. This setting for the cast sculpture makes it an environment, and indeed, in the Guggenheim Museum show, The Last Judgment, the Cup of Prometheus and Birth of a Lake are listed in the catalogue first, being large environments. This particular environment is, however, different since Kiesler has created here a wooden core covered with white plastic armour, which serves as the architectural or stage setting for the sculpture, including a back open door made

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in augmented perspective, a distortion used in stage architecture with which Kiesler, the set designer, was familiar. It is, then, a cove or niche, housing and lighting a sculpture where the back part has another smaller niche within where the electric light was placed and where another small separate part of the sculpture is attached to the top. The main part of the sculpture itself is, again, one of the bone vertical chains made up of five parts, placed on a rounded, rather heavy base. Thus the sculpture or this part of it appears somewhat like a standing figure by Giacommetti with its rather heavy feet, here probably the lake considering its round flowing shape, and of course the work's title. The second sculptural element attached to the niche from the top echoes the main unit, but is on a different, smaller scale.

As reported in an earlier chapter, Kiesler once made plans for an environmental floor installation for the Paris 1947 Surrealist Exhibition he has titled Black Lake. There, considering the context, the psychological-archetypal deep waters of the mind were emphasized—a subconscious pool. Here something of that may be present although it seems that what is dominant in Birth of a Lake is, as the title suggests, once again the idea of generation or natural conception in the sense of birth, a unique moment, a natural drama. Once again he has used the bone motive, the chain of connectedness, as I have called it earlier.

As was his practice, Keisler has produced drawings which describe the conception as well as some ideas he developed at a later point, including some interesting options which were rejected and did not make

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it to the final version. One is an early conceptual drawing (pen and ink on paper, 13 3/8" x 10 3/8") which dates from 1959 (figure 222). It is a drawing done in rapid lines that form the circular base of our sculpture which grows into a vertical upright jet. The second part attached from above is also suggested, and in short broken lines Kiesler drew the environment or the wooden structure within which the sculpture is set. Kiesler inscribed the drawing as follows: "2 piece sculpture called Birth of a Lake, bronze-pewter and aluminum."

I do not want to indulge in the romantic search for the moment of inspiration and considering the written information the drawing could have been merely a quick reference sketch. It does not bear Kiesler's signature which strengthens the feeling it was just a reference drawing. But even if this is the case, the rhythm and rapidity of the drawing does indeed visualize the water whirl at bottom which yields the rising vertical jet in its center. The second element looks like a counter or complementary unit. A few drawings date from a time close to the completion of this sculpture, late in 1963 or early 1964.

One small drawing, ink on paper (8 5/8 x 5") (figure 223) shows the sculpture with its complete canopy. There is however a hint about a lateral part of the "set" which was never made. The niche in the background wall of this structure looks as if it were an open window. The second sculptural element attached from the top looks here as if it belongs to another world or space. A door is seen rendered in stage perspective. Another drawing (ink on paper, 8 5/8" x 5") (figure 224) is rather similar to the former except for the lateral part of the set

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which is not seen at all and the perspectival illusion of window and background view is here prominent. This drawing also suggests that Kiesler contemplated attaching three small sculptural elements to the awning. One other drawing, unlike the later, signed drawing, is an architect's diagram--ground plan, section profile and inner construction of the base, lake or leg of the main piece. This pen and ink drawing (11 3/8" x 9 1/2") also contains a profile of the entire sculpture and illustrates the lateral way Kiesler has attached the bones to each other. The base, drawn as architecture, incidentally, looks much like Kiesler's sketches for the Shrine of the Book which, although accidental, points to a certain morphological consistency in the artist's production.

At this point another category of works ought to be discussed, namely, the bone series mentioned so often.

I should clarify at this point that in grouping Kiesler's sculptures I have followed the groups, not the order, offered in the catalogue for the Guggenheim exhibition, which is supported also by a second source--a typewritten text by Kiesler titled "Sculptures by Kiesler" which describes "four groups of different types of sculptures." The first is categorized as wooden sculpture in which Kiesler listed the 1951 Galaxy but also includes the "bone" series.

This text, which was part of the Kiesler material found in the archives of the now defunct Martha Jackson Gallery,[53] is not particularly inspired, but a rather straightforward description of sculptures divided into categories and was possibly dictated by Kiesler for the gallery's use. Indeed, an exhibition, albeit posthumously, was held at Martha

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Jackson's which shall be discussed later. Second to the bone sculptures the text lists "landscapes—tables," a group we have partially discussed already. The third group is Us You Me, which we shall discuss last, and a fourth type which is constituted of Kiesler's large shell sculpture--Bucephalus and other, smaller horses.

This document, written or dictated, is nonetheless moving. Since it was probably completed a few months before Kiesler's death (December 27, 1965) which can be learned from a reference to a show of American sculpture held at the Musee Rodin in Paris, as an event in the recent past. The show ended in October 1965 so the text dates from the period between October and December 1965. Indeed it has the sound of an ailing Kiesler still talking about work he wants to complete when he is well again. Yet I sense a certain need the document displays to sum it all up by grouping his works in ideological families of works.

In the first group, then, the bone sculptures are listed. It was quite surprising to discover that these "bones" have little to do with real bones although they definitely appear that way, they were not cast from real bones. Len Pitkowsky, who was close to Kiesler, was his assistant and observant student, told me that these bones were made quite differently and rather simply. First, using two straight pieces of flat wood a long flat and rectangular strip of clay was made. This long rectangular piece was then cut on both sides and then squeezed from both ends toward the center, and it was this application of force on both ends that formed the clay into the bone shape. Once this part has been completed it was made into a mold and then cast in bronze.

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Pitkowsky also told from that period how he learned from Kiesler to apply gold leaf, a traditional method that Kiesler has revived. This technique of making these units which turned out to look like bones is interesting. It is hard to tell whether the idea to create bone-like configurations preceded the technique that brought them about or not. Indeed, a few literary usages or metaphors that I have found point to the existence of this image in Kiesler's mind, yet it is entirely possible that the process I described following Pitkowsky, by which these bones came about yielded the meaning these bones later assumed. Kiesler may only have recognized these images after he has made them and named them accordingly realizing, as it were, their expressive potential. Philosophically we ought to add that the key word is "recognizing." It assumes the existence of the bone idea in Kiesler, and the proof is that he "recognized" it as such. There is no straight way out of this philosophical circle. But considering once again Kiesler's reference to his bones speaking to him silently, as we have quoted in the opening of this chapter, it should serve as a sufficient proof that bones as symbols figured in his mind.

As to the meaning of the bones, Charlotte Willard, who wrote a review of the show at the Guggenheim, where three Bones--I, II, III, were shown (not counting Goya and Kiesler, Birth of a Lake and the Last Judgment, in which bones also played an important part) reported that she asked Kiesler about their meaning in what amounted to a leading question suggesting a connection to the Old Testament and the prophet Ezekiel's vision of dry bones resurrecting (Ezekiel, 37, 1-14).

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Kiesler's answer was in the affirmative saying that the bones were symbols of resurrection, not in the physical sense but in a human way, in the way we are always renewing ourselves, continually giving birth to ourselves.[54] But Kiesler also said to her that one does not have to understand his pieces, but feel them, which we ought to take as a warning against overinterpretation. Willard, incidentally, also quoted Kiesler on the subject of form and content, a subject Kiesler himself once addressed, asking artists: "If you have learned to paint and sculpt, what are you going to do about content? Without falling into the pitfalls of social realism, or anecdotal expressions, how are you taking an active part through your work to make a new world image?"[55] Kiesler raised a problem which today is more relevant than ever, in view of the resurgence of representational art, a trend which Kiesler's work at the time can be said to have anticipated. Yet he challenged artists on the ground of content, well aware of the pitfalls of figuration. In other words the challenge as he saw it was to maintain freedom and creativity--and an idea resisting although not necessarily rejecting, the seductive power of the expressive anecdote. How not to lose sight of the broader social and human perspectives. This was the challenge, but let us return to one typical bone sculpture like Bone III (1963, wood, bronze and brown stone, 78" x 15½" x 27¼") (figure 225). It is a wall sculpture; a few planks of rough, textured wood are attached to the wall making a vertical rectangle from which another piece of wood projects upward in an approximately 30° angle. On top of this arm sits a small piece of brown stone and above the stone (not quite

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touching it, but attached with two spikes) is a single vertical bone cast in bronze.

It would be futile and even silly to try and attach a specific meaning to this, or for that matter, any of the bone sculptures which, of course, does not discount all the suggested connotations we have discussed earlier. Here, however, this being a smaller work, the single bone elevated and held vertically, points to the bone as essence, the core and symbol of structure presented singularly, not as part of a chain but as an isolated object to contemplate the workings of nature.

Another rather unusual sculpture, related to the bone series is called Goya and Kiesler (1963, 4, bronze, wood, gold leaf, pastel and charcoal on masohite, 105" x 65" x 50½" total) (figure 226). This is the description of this sculpture in Kiesler's own words from the text on the four groups of sculptures for Martha Jackson, I have mentioned above, where it is listed in the first group of wood and bone sculptures.

> There is a specific sculpture called Goya which is a curved relief on which is drawn and painted a famous painting by Goya from which protrudes a wooden beam of about three and a half feet and supports a vertical plank of about seven feet; carrying on top a gilded bronze bone and above it the piece of wood, the underside of which is burned by an eternal flame which burns below.[56]

The famous painting by Goya is the Burial of the Sardine (1793, oil on wood, 32 5/8 x 24 3/8") Academia de San Fernando, Madrid. Kiesler has drawn a pastel-colored simplified and enlarged version of this grotesque picture but on a concave surface. The choice of Goya for this unusual environment is not hard to understand. If Kiesler made, as we have seen in an earlier chapter, a distinction between concerned

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and unconcerned artists, Goya was certainly one of history's greatest concerned artists, and Kiesler, of course, viewed his own art of the kind which seeks a better lot for humanity.

Kiesler's reasons for choosing this particular image are hard to explain. He must have liked the odd display of people in a rather morbid funerary ritual with dance and death masks, the sinister quality of which he must have desired. Interestingly enough, Kiesler has changed the wide, teeth-shining grin of the face on the banner, replacing it with a rather grim expression. On the whole, a great deal of detail was left out and only a few human expressions are visible. The colors used are grey, white, black, brown, red, yellow and light blue. This usage of a painting from the past was well described as relating "more to Pop than to Mona Lisa's mustache [adding] it leaves both behind."[57]

A typewritten text about this sculpture by Kiesler or inspired by his explanations describes this work as an environment which "destroys the single solid aspect of a plastic work" and says that "it constitutes only the very beginning of the growth of an artificial slant made by man." It is phrases like this, incidentally, that seem to have originated with Kiesler and are the reason for my attribution of the text to him.

The idea of connecting a master from the past to the present and to Kiesler's own work is explained as follows:

> Here too is a sample of where a work of an old master inspires the extension in a new time, and, this new time once created, as it is here, should inspire new creations starting with this work. Thus, time and space become unlimited by the will of the creative mind.

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Kiesler extended similar explanations to the development of new colors, textures, lighting and concluded: "Thus the object which has lost its solitudinal identity, has transformed itself into an endless, everchanging environment."[58]

The idea of quoting from the history of art is not new. In fact, the discipline of art history is founded on the pursuit of this practice of tracing references and quotations which, after all, is one of the ways a culture makes progress, maybe even one of the definitions of culture, and most definitely of high culture. What is different is Kiesler's straightforward juxtaposition of a semi-literal image appropriated from Goya, with his own "style." Kiesler has attached a bone sculpture to an image from the past, recycling it and creating a stimulating clash between a well known painting and his own unknown contemporary and maybe more abstract "bone." It is this odd combination which accounts in my opinion for this work's provocative success in expressing Kiesler's notion of the creative spirit expanding beyond a limited reference point in time and space. This work experiments with continuity and galactial correlation, not only within architecture and design but even in the realm of history and culture.

It is thus of little surprise that an uncommon work like Goya and Kiesler combining a self-made, simplified copy of a painting by an old master and his own sculpture, was featured in the 1966 Art News Annual dedicated to "The Grand Eccentrics."[59]

Another group of the semi-monumental "table" sculptures were also part of the Guggenheim show and listed as Three Landscapes in Bronze.

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These works were actually made somewhat earlier than the lucite and glass table sculpture already discussed and Kiesler listed them in his short account for Martha Jackson's "Sculpture by Kiesler," as earlier works than the new array of landscape tables. These landscapes, cast in bronze differ, considerably from the group of "tables" discussed earlier since in the former group various materials were used, and this played there an important part in the sculptural conception whereas this group explores other directions and the works were cast in bronze.

The three landscapes are The Prairie (bronze, tin, 44½" x 28 3/4" x 21", 1961-1964) (figure 227), The Earth's Finger, 1962-1963 (bronze, 46½" x 34 3/4" x 26") (figure 228) and The Marriage of Heaven and Earth, 1961, 1964 (bronze, 73¼" x 63½" x 25¼") (figure 229). In these works Kiesler has used the hand molded flat plates or sheets reminiscent of such earlier works as Heloise or parts of the Cup of Prometheus.[60] All consist of a base or legs, the "table," and a few scattered pieces on top of the "table." The bases are constructed by folding a flat, long sheet along its axis, opening the fold to approximately 80°--a simple construction idea which stands the way one would make a sheet of paper stand on its edge, by folding it. Thus the leg conveys a certain lightness because of the paper construction method it involves, although those legs, like the entire sculptures are of course cast in bronze and heavily textured. This and the heavy material contrasts effectively with the paper derived construction method. The Prairie rests on one leg; The Earth's Finger also rests on one leg; the Marriage of Heaven and Earth rests on two such folded legs.

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When these works were shown in 1966 at the Martha Jackson Gallery, Jane Collins writing for Art News described them as follows:

> "Landscapes"--moderate size but overwhelmingly monumental, horizontal plains resting on single vertical supports. Their depressions and mounds suggest extra-terrestrial environments--predictions of the moon.[61]

Although I agree with the description I tend to think that the terrestrial ought not to be completely discounted. The titles definitely point also to the earth--the terrestrial. Yet it is true that Kiesler created on purpose an extraterrestrial surface induced probably to remind one or make one experience the earth as an ancient cluster of hot crust traveling in space. But the terrestrial, earth, is the subject of these works.

There is a drawing Kiesler made probably as a practical instruction sheet for the gallery. It is a small drawing (13½" x 10 7/16") in ink on paper and is titled Three Landscapes (figure 230). In it, our table landscapes are featured although bearing different names; more precisely, The Prairie was named The Sower's Hand, The Marriage of Heaven and Earth was titled Ritual Landscape, and The Earth's Finger was already named that way. These early titles help to understand Kiesler's underlying experience.

In The Prairie the shape growing out of the earth of the prairie is identified specifically by Kiesler in the drawing as a hand, and when its title was still The Sower this hand (cast in tin, not bronze like the rest of the sculpture) expressed quite likely labor and manual effort. I also suspect that Van Gogh's famous painting by the same

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title is meant as a distant echo viewing the prairie as an extension of the vast fields in Van Gogh's painting. But in his new title Kiesler has chosen to leave the meaning open ended, opting for an American-sounding title with more of Whitman in it than Van Gogh. Whitman was one of Kiesler's most admired poets, according to Lillian Kiesler, keeping in mind that either Van Gogh or Whitman are proposed associations only and cannot be substantiated. But the raised arm as a motive exists, we recall, in Kiesler's work from earlier years his anti-taboo figure (1947) (figure 155) is one such example I have already discussed as was the shape of his Universal Theater designed in 1964.[62]

Turning to The Marriage of Heaven and Earth which was titled Ritual Landscape first which may also help somewhat to understand this work. In one of the recorded conversations about Kiesler after his death in which Lillian Kiesler talked about him with close friends, she said about the subject of ritual the following:

> I think that it was true that Kiesler, without any doubt, was a man of ceremony and of ritual, the mark, let's say, to mark the times of our living and mark the time of our death too.[63]

Lillian Kiesler talked about ceremony and ritual, while Kiesler, shifting his titles, replaced the early title ritual with a ceremony—marriage.

Here, to nature's own heaven and earth--which according to Genesis were created "in the beginning," Kiesler added elements from the realm of culture--ritual and/or ceremony and he thus invested and interpreted natural events through social/cultural metaphors, which is a form of correalism.

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Once again, it seems that no greater specificity of interpretation can be offered to this work with its three verticals (one possibly alluding to a cross) rising from the lunar surface or a primordial state of the earth toward heaven. The possible allusion to a crucifixion may point to the universal even cosmic meaning that this moment is signifying in addition to its human redemptive significance—when heaven and earth reconciled.

Finally the Earth's Finger rises from the bubbling surface of earth. The finger generally, and the index in particular, point to a developmental early aspect of intelligent behavior and communication because it is the human tool for ostentation—it gives direction and symbolizes will, purpose or the future, such as the index finger of John the Baptist in Christian iconography who points to the coming of Christ. Once again Kiesler has attempted to correlate aspects of anthropology and culture with nature-earth and its finger which, I believe, also indicates Kiesler's underlying belief that there is a metaphysical purpose to the earth, that it points somewhere.

This idea is supported by the titles of two other landscape sculptures, one titled Arise Man, the second, The Savior Has Risen. Although the immediate connotation is Christian, Kiesler has not illustrated a theology; rather he has used the echo of Christian ideas to express his secular attitude toward a future redemption. Art and the artist can thus no doubt help humanity see its true destiny, which, of course, in a profound sense is what is underlying the true vision of Christianity albeit all too often obscured.

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Kiesler's sculptures discussed so far comprise most of the works that he has shown in his exhibition at the Solomon R. Guggenheim Museum in New York. The exhibition which opened in May 1964 was called Frederick Kiesler Environmental Sculpture. Strange as it may be, this was Kiesler's first and last one-man exhibition in a major New York museum. Only sculpture was shown and Kiesler was presented as an environmental artist--one of the first who after a long and diversified artistic career made significant sculpture worthy of a separate exhibition. Thomas Messer, the director of the Guggenheim wrote an introduction for the exhibition catalogue which indeed is very sensitive and interesting. In it Messer likened Kiesler to Faust "consumed by infinite yearnings" as well as to Mephisto--"the forever negating spirit: Ich bin der Geist der stets verneint."[64]

Indeed, Kiesler partook of these two characteristics which may even suggest contradiction. Thus, Messer wrote about the environmental sculptures which manifest a defeat as well as victory; defeat since for one who seeks to express change and continuity-design correlation--a realized sculpture means rest, motion arrested, and Messer concluded, "Kiesler's victory is not the attainment of endlessness but its evocation through the tangible."[65]

Thomas Messer also understood the cultivation, taste and the sense for the profound that Kiesler possessed. He responded to it with suitable words:

> a mastery over materials and a capacity to embody in them the intentions of a striving mind—a craftsman's control that will force technique, method, execution to its ultimate limits--

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> an ability to recognize what is real and to distinguish it from what has lost its meaning to become a relic—a pathfinder's instinct for hidden routes that lead forward—
> the power to create material embodiments of an ever extending awareness whether of the human psyche, of cosmic constellations, of earth crusts and of ocean surfaces—and, upon those forms that give ultimate expression to one and all of these.[66]

Other than this essay by Messer the catalogue included the text on sculpture and the Cup of Prometheus that we have analyzed in the beginning of the present chapter and which, as I have indicated, opens Kiesler's journals which at that time were not published yet.

Another less literary and psychological view of Kiesler's work was attempted in an interesting article about "Kiesler and Mondrian" written for Art News by Kim Levin. The occasion was the Guggenheim show of Kiesler's environmental sculpture and a show of Mondrian's work at Marlborough-Gerson Gallery. Kiesler, the lesser known among the two artists discussed, was rightfully listed among "the most original and committed creators of the century."[67] What these two artists, who knew each other, have in common, was explained as follows:

> Kiesler shares with his friend Mondrian an overwhelming interest in space as the real substance of the world, and the belief that art must become life, as well as the belief that reality is abstract. Mondrian as well as Kiesler invoked vitality and flexibility and opposed any limits to form. And Mondrian's "continuous opposition" and "dynamic equilibrium" are not far from Kiesler's "continuous tension."[68]

I agree with Levine's observation which, as she also hints, gets additional support from the fact that Kiesler knew Mondrian and respected his art a great deal. Levine says that Mondrian remained within form whereas Kiesler, who agreed with Mondrian in principle, varied in spirit

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which translated to a break out of the form dissolving the barriers between art forms and life, and this she wrote, envisioned the happening. This may also be described as Kiesler's dynamic handling of space, as the stuff or place of the world, which must include change and the viewer, as a factor in an ever-changing life/art. Levine spoke to Kiesler who gave her an intellectual portrait of Mondrian, telling her a parable, namely, that "Mondrian has tried the oval and searched every morning in the Paris market for the one perfect egg for breakfast."[69]

There is possibly a subtle reference to Mondrian's life and style, his immaculate studio and furniture, his search for perfection and simple life art seen in the modesty of his breakfast. Kiesler had great respect for Mondrian, his idealist neo-plasticist vision. At the same time one may want to detect a slight irony in Kiesler's parable of the bourgeoise egg and breakfast. Kiesler may have wanted to say that he has followed and extended Mondrian, trying to reach out to society--apply the ideal by means of design and architecture along a spiritual avenue. Besides its comparative idea, the article is valuable in that it quotes Kiesler, who was interviewed, and there is an extensive discussion of his philosophy.

Already stressed was the morality in art that Mondrian represented a position that Kiesler considered of lasting value. But in addition Kiesler has explained his own ideas saying that "it's not that I'm interested in my art; I am interested in life."[70] What that means, as Levine has also indicated, is that art has to give a new content a belief for the world. In other words: art needs a positive purpose. Kiesler

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is quoted saying that art is a means to explore man's role in the cosmos and that its tool is poetry, the artist's poetry.

The artist's poetry is what Kiesler expressed in his late sculpture. Levine stressed Kiesler's mysticism the artist's magic role, and there is no doubt that Kiesler enjoyed this role, feeding the interviewer his Zen Koans such as "space, is something that cannot be looked at through a keyhole."[71]

He reiterated his idealism saying, "art doesn't need more objects but objectives."[72] Levine acknowledged the importance of dynamism and continuity that Kiesler advocated. She compared Kiesler's actual role to Moebius' loop "with a strange delineation between concept and product" which is an elegant way to describe Kiesler. Describing some of Kiesler's activities she finally turned to Kiesler's Guggenheim Museum environment. Some of her descriptions of the environments are helpful to draw their picture and also get an insight in preparation for his last environment, Us You Me:

> The Environmental Sculpture combines improvisation (the primitive rawness of axe-chopped wood) and trouve material with mechanization and the polish of industrial materials and techniques. A charred plank or a chunk of sidewalk is used along with shiny gold bronze and aluminum. The sculptures extend to the spectator, enveloping him in their space.[73]

Indeed, the multiplicity of means Kiesler used were important--the use of both; the expressionistically laden primitive image and the texture of the industrial look, the machine-made and hand made, constitute a polarity that is at the basis of Kiesler's artistic language. Levine was in tune with to Kiesler's vision when she wrote that Kiesler's

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ideas and work "bridge the gap between Mondrian and us," adding that he is an advocate of newness and belongs to the never arriving future.[74]

Horse Sculptures

A group of works from the late period is a series of Horse sculptures. Concerning the horse sculptures, I confess that my personal resistance to the subject originated with my feeling that the futurist and scientific spirit of Correalism does not call for the horse—yesterday's hero, yesterday's technology. Yet a contemporary, Susan Rothenberg, for example, demonstrates that the horse still means on several levels, a "common" sign of form and content. In the annals of modern art Raymond Duchamp-Villon addressed the issue of horse power and its relation to the new machine aesthetics.[75] His Great Horse of 1914 manifests this issue and expresses a truly ambiguous and therefore dynamic idea. So the horse as a deep rooted image still carries. Kiesler himself has earlier tackled the horse in the fifties, but in painting not sculpture his Horse Galaxies.

I have, then, offered an explanation based on some early childhood memories that Kiesler confessed to have had of horses, namely the child's worm's-eye view of the Lipizaner horses which may have also led to an early experience of a galaxial space.

Three small horse sculptures shall be discussed. First, the titles of them are Spring Horse and Springing Horse. The third one is titled Little Bucephalus. All were cast in bronze; the first two look as though they were cast from clay modeling. For the Little Bucephalus Kiesler

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may have used plaster "shrouds." All were made in 1965, the last year of Kiesler's life and while he was also working on the last grand galaxy, Us You Me. Spring Horse, 1965, bronze, 10½" x 6" x 10" (figure 231), represents a horse on its hind legs, the third "leg" being the horse's neck, on the ground as if scratching itself using the hind legs and tail as the forwarding force. The horse's forelegs are not upright but spread on the ground; the horse has its mouth open.

Spring Horse (figure 232), which measures the same as the first (10½" x 6" x 10") is also cast in bronze. Here the horse is seen standing, its neck arched down, the head touching the ground as if grazing or playing. One front leg is touching the ground. The other is raised as if in a Matisse-like dance.

As was his manner Kiesler punned with his titles the noun spring and the related verb occupying the territory between jump and haste, elasticity, or a coming into being. Kiesler wanted to convey all these ideas in his dynamic sculpture which no doubt ought to be read metaphorically as well. On the purely formal level, these works have the quickness of sketches, or bozetti. Another facet is the manipulation of the image of the horse which counts first of all on the more common and known type, namely, the equestrian sculpture. Kiesler however evokes the spirit of Franz Marc who has represented in his paintings horses in a similar spirit of natural freedom and joy, much like Springing Horse. Somewhat different, however, is Spring Horse which is seen as standing, yet appears to be lying on the ground. It has in it something of the indignity that a horse off its feet or on its back evokes--

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reminiscent also of Picasso's depictions of lanced horses, an image from the bullfights. So these horses are anti-heroic and playful rather than regimented technology.[76] This is how Spring Horse relates to tradition, much closer to Giacommetti's 1932 Woman with Her Throat Cut than to Gottamelata.

The third small horse sculpture is Little Bucephalus. It is cast in bronze and although small, is not monumental, and measures only 23" x 14" x 11" (figure 233). It is a model of the large Bucephalus Kiesler has also made.

Here the horse is actually on its back, all four legs up against the sky, a stretched neck and a head expressing pain and reminds one of a turtle's stretched neck when it falls on its back helpless.[77]

This Bucephalus, bearing the name of the famous horse of Alexander the Great, is definitely deprived of its classical dignity and rank. It is defeated, hurt, exposed. This was Kiesler's anti-classical point of view turning the horse into a galaxial environment better visible in that upside down fall. All the small horses were placed on top of a black glass table plate over a plexiglass stand cut in a geometric irregular shape. The immaculate industrial materials of the table contrast effectively with the rough touch of the clay projected by the figures.

Turn now to the large Bucephalus which was made of cement over wire mesh and measures approximately 27' x 9' x 14½' over all (figure 234). It was made up of six separate units, all shells, and was meant to be cast. Considering the size of this shell sculpture and the fact

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it is the closest Kiesler's sculpture has ever come to the Endless House (other than its sculptural models), its name, Bucephalus, deserves a second look.

I have already suggested that by representing Bucephalus lying on its back, Kiesler has attacked the expected image of Alexander's royal horse. But this desecration aside, there may be an interesting idea hidden, which I wish to offer as an interpretation.

Bucephalus was, at least according to Plutarch, an enlightened companion that was instrumental in obtaining Alexander his father's blessings for his grand ambition: According to Plutarch, then Bucephalus

> when first offered to Philip of Macedon for sale, [it] was so wild and unmanageable that Philip ordered it to be sent back. But Alexander, observing that it shied at its own shadow, turned its head to the sun, then carressed and soothed it, and finally mounted and mastered it. When he dismounted his father said, kissing him, "O son, thou must needs have a realm that is meet for thee, for Macedon will not hold thee."[78]

The story is attractive for its archetypal mythic power to extract an idea; Alexander was quick to spot the horse his father rejected, realized it was locked in a dark fear from its own shadow; therefore by enlightening the beast, turning its head to the sun, the shadow's source, the thinking horse that must have understood cause and effect, calmed down. The blinding light must have also helped to calm it down of course merely by using the old shock treatment. But this moment, metaphorically or mythically read, is what started the horse thinking. It became Alexander's horse and triggered Philip's delight in his son and led to his premonitions and blessings for his heir's eastbound campaigns.

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Bucephalus reciprocated indeed and carried Alexander faithfully to India to meet the East and that is where both died. It may all well be just a farfetched attempt to understand Kiesler's choice of Bucephalus as a subject. The etymology of the name itself, Bucephalus, the bull headed, does not add much other than the possible power associated with Bucephalus and its bull-headed determination.

Although it all may sound remote, we have to respect Kiesler's choice of titles. Bucephalus died in India at thirty years of age and his first teacher and friend Alexander called the town Bucephala in northern India after him. Thus the same horse ended as a name of a city, indeed architecture, a place to dwell, and Kiesler made his Bucephalus as close to architecture or the endless house as he could.

One telling photograph and an anecdote testify to that comfortable and comforting curved architecture into which Kiesler has turned the belly of that special beast. The photograph (figure 235) shows Kiesler, working inside the sculpture before the mesh wire was covered with cement and he is therefore visible, as if inside a thin transparent cell, a bubble.[79] Another confirmation concerning the architectural character of Bucephalus is the story about a certain Mr. Shuster who was in the studio and whom Kiesler sent to sleep inside the horse after a disagreement, so he would come back better disposed.[80]

Alas, the house even as horse is the ultimate enlightening environment and ought to help improve one's disposition. Furthermore, living inside a shell, like in the womb, a comforting, sheltered existence is another applicable image that Bucephalus represents--a deep

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psychological frontier. Indeed this was noticed by the psychologically oriented author Marguerita Young who made the valid connection: horse-mer-water-mother. And this earlier discussion of this idea can also be related specifically to Kiesler's motherless childhood, his search for what would make an architecture of motherly comfort.[81]

Yet there are also centaurs facing each other, inscribed inside the belly of the beast and this points to the cave, the primitive, representing our deepest (human) conflict: human and beast, which may be also connected once again to Bucephalus, the tamed animal; culture within nature. This interpretation in which we may have fallen into overinterpretation should only offer a possible dimension.

Not only a name, no matter how loaded, should attract our attention however. No less significant is the fact that Bucephalus was made at the same time Kiesler was working on the galaxy environment Us You Me. Little Bucephalus, a model, was not enough. Kiesler wanted to experience that sculpture as architecture (as sculpture it was destined for casting in aluminum). Another monumental environment was Kiesler's work The Arch: A Sculpture Rainbow to Walk Through, 1959-1965 (118" x 134" x 36", aluminum and bronze) (figure 236).

The Arch

Kiesler called, in the title, the viewer to walk through. When one approaches it, the title instructions feel more like a challenge. This, of course, is understandable because the sculpture appears to be a delicately balanced arch of cast shells (hollow though not light-

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weight looking). The rainbow which is a visual phenomenon and light, is made here into heavy architecture—a learning arch.

Iconographically, the rainbow, the biblical sign for peace and a covenant between heaven and mankind, has been materialized into an environment, a structure the viewer is invited to walk through or under. The arch expresses in a different way Kiesler's idea of continuous tension. The thirteen shells that make up the arch are actually bracketed together but they appear as if leaning continuously, one after the other and finally against the wall.

There is a beautiful instruction drawing (distinguished from a conception drawing, usually more rapid in lines) that Kiesler made probably to help in installation and/or casting, specifying materials, sizes, and order (figure 237).

Kiesler used two metals, bronze and aluminum. The first five shells (A_1, A_2, B_1, B_2, C), two of them double shells (A, B) and the last two shells leaning against the wall (I, J) were cast in bronze. The other center group in the arch was cast in aluminum: six shells (D, E, F, G_1, G_2, H). As Kiesler has instructed in writing in the drawing: "All in all there are thirteen shells." This makes the total number of shells in profile ten (A through J). The first two in the arch are double shells, and function as the foundation of the arch, its legs and the seventh part (G) is the other set of double shells (G_1, G_2) and the only double cast in aluminum. Kiesler also indicated in writing that all of the shells "have not a deeper depth of shell than from 3 inches to about 6 inches." He wanted to maintain thinness

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and lightness in an arch which was cast in heavy metal. The texture is rich, like that of seashells, and the rainbow, as architecture, maintains a close connection to the earthy and solid, to pebble, shell and rock.

Kiesler wrote about the arch in his journals. The entry dating June 2, 1960 finds Kiesler in a taxi cab going to his studio at Ninth Street and Broadway, daydreaming about the arch. He enters a busy studio with his assistants working on various projects and Kiesler went on to write:

> My eye fell on the pattern for the first shell of a gigantic new sculpture which was to be like an arch of rocks rising from the floor and bending over to the wall. A sculpted rainbow to walk through. Its first support was a shell cut out in cardboard. It struck me as not correct in its outline and proposition. I went to get from among the desk debris my first sketch of the arch which I had made a week ago at Howard Johnson's on a paper doily, and found that my feeling was correct: the cutout deviated too much from the original sketch. I called a halt to the other activities and together we all decided to redo it. We couldn't find a single piece of cardboard large enough. There was not enough brown wrapping paper either. I finally tore off two long strips of the paper wrapper that covered my galaxy paintings of several years ago and asked Pauline and Beverly and Ralph to help tape the two strips together and hang them from the ceiling, making a curtain-wall. It was ten o'clock. By midnight I had outlined the fifteen shells of the arch. It was difficult to draw, but I was obsessed by the idea of finishing the sketch. With one hand holding a piece of charcoal on a long stick and in the other a second stick with a small bag of powder eraser. I drew the arch.[82]

The entry, which does not contribute to the interpretation of the arch, is nonetheless very interesting on several counts, first because Kiesler described the arch as if made of rocks, which adds to the definite weight-effect Kiesler sought for his rainbow arch, as architecture.

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Most interesting is the information we obtain, a record of the process of creation which started with an inspiration from the sketch (most likely a small and rapidly drawn sketch) that Kiesler made sitting at Howard Johnson's. Later in his studio he made cutouts of cardboard and in scale, which would be the model drawing for the work. But here Kiesler was obsessed with correcting his model which seemed to him to deviate from his original inspiration. Then came the improvised solution and Kiesler corrected his work and made a large drawing using his full arm, and even extended it by attaching the charcoal to a long stick--like the old Matisse. This pointed to a certain loose connection between drawing and Kiesler's sculpture.[83] Here the sculpture's right size and form were worked out on a large drawing in scale.

One who is inclined to hidden symbolism may be delighted by the fact that Kiesler's last exhibited works while still alive were in the Musee Rodin in Paris where the Museum of Modern Art with Rene d'Harnoncourt as curator launched an ambitious show of "Modern Sculpture U.S.A." (Paris, June 22 to October 10, 1965).

Rene d'Harnoncourt, who knew Kiesler and respected his work,[84] included him in the show with Birth of a Lake and the large Last Judgment. And if twentieth century sculpture is said to have been inspired or initiated with Rodin, there is no doubt that by casting his late work in bronze, Kiesler meant to evoke something of Rodin's monumental power, even thought.

Kiesler, who was little known in France, was a discovery for the critic of Le Monde. After listing some of the pop art sculptures (Chamberlain, George Segal and Oldenburg), Michel Conil Lacoste wrote:

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> It is here too that a kind of revelation awaits the visitor in the works of Kiesler, who is of Viennese origin--works which are little known in France. His Birth of a Lake, his choice accessories, his altars and cenotaphs compose the elements of a very strange architecture-sculpture dedicated to a cult devoted either to veneration of the Bible or the exorcism of the God of "pop."[85]

There is much to this continental observation responding to Kiesler's form and iconography occupying the territory of a ritual between the religious and "pop" and, at the same time, very sophisticated in its handling of space. The Figaro Litteraire described the Last Judgement as "an irregular cascade."[86] Last, in the Lettres Francais Guy Wheeler wrote quite elaborately concluding his review:

> Finally, the work of Frederick Kiesler is a happy discovery. In response to a general tendency to place forms in an open space, it seemed preferable to him to place them within a precise circumscribed frame. Sculpture and architecture amalgamated; two surprising machines for theatre, profane altars, a tabernacle for a lost cruel religion in which geometric and imaginary forms are engaged in a very curious dialogue.[87]

Elsewhere Kiesler's sculptures (probably the Last Judgement in particular being as complex as it is) were described as "constructions of the architect Frederick Kiesler, a great producer of surrealistic spectacles of remarkable quality, in bronze."[88] So Kiesler's work got some attention at the Musee Rodin in Paris.

Thus next to Kiesler's credentials as an environmental artist and the political involvement it implies, the French responded with ease to Kiesler's iconography, his pseudo religious references which is a well established Surrealist genre, to which Kiesler contributed earlier in his career and in Paris (1947). Kiesler acknowledged Paris

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in his Us You Me galaxy, in the form and title of one of its sculptures, the Arch as Triumph for Man, recalling the Arc de Triumphe. In this triumphant spirit let us finally turn to the last and largest galaxy sculpture Us You Me.

Us You Me

Us You Me is an unfinished work. There are unfinished works, of course, that were left that way due to the artist's death. But there were also unfinished works that were completed in plan but only partially realized because of an all too grandiose and ambitious or vision or any other circumstances that made them difficult to complete. Michelangelo's plan for the tomb of Pope Julius the Second is a case in point.

Us You Me was also an ambitious work, fully planned but never completed, although here Kiesler's death undermined any chance it may have had to be completed. Fortunately, Kiesler's plan, an architect's ground-plan, existed and it will be our guide to Kiesler's design; he called it the "schematic plan of Us You Me environmental sculpture" and it measures 71" x 35" (figure 238). There is also a text Kiesler wrote describing his plans.

Us You Me is a single environment of thirty-one sculptures planned for a territory measuring 41'-6" x 17' x 6". Interpreting the work mostly on the basis of its title Peter Schjeldahl read Us You Me's intention as "indicating a mystic notion of one-ness through love" which he has written off as "neither new nor especially profound."[89] But Kiesler himself wrote about his environment as follows:

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> The root of the composition is a deep feeling of mine that most people in the Western world are immensely active, primarily with the purpose of accumulating tangible wealth, and see in possessions the varied securities of life. This large composition of sculptures shows people rushing about, singly or in groups, most of them without torso and head, only with their feet dashing about. They go to offices, they rush to lunch, they hurry back, and in the rush hour you can see the scramble and tumble of the masses on the streets, in the subways, in the buses, jammed into their cars, only to repeat, day after day, year after year, life after life, the same mad hustle and bustle to earn money, property, houses, cars, investments, to secure their survival in case of economic crashes. Nothing is done in depth because they cannot catch depth like a billfold and deposit it in their bank accounts. They don't realize that every human being is an island born to himself and is its sole keeper. He is both the creator and the gardener of what ever-blooming flower island, glowing in the darkness of his inside.[90]

So there was much more to Us You Me than the message "all you need is love," as the Beatles said it, and I make the reference advisedly since Schjeldahl compared Kiesler's content to their's somewhat ironically, whereas Kiesler expressed a critical view of the Western world's rat race, modern urban life, maybe even New York itself being the epitome of it. In a letter from Kiesler to Howard Wise dating June 6, 1964, the artist informed the gallery owner (who, after Kiesler's death, showed parts of the work) about a large piece he referred to as The City in U.S.A.[91]

Let us turn to a detailed description. Kiesler divided the entire territory into two parts, slightly elevating each part or "island" as he called it, onto a three-inch thick painted wood platform. Each platform was a convex polygon of a roughly trapezoid shape. A path dividing the polygons runs diagonally between the two elevated platforms dividing the elevated island. The path is straight, formed by the two bases

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of the polygons which thus have one longer side in common and the two trapezoids "mirror" each other with some distortion (since they are not identical).

Along the various corners of the polygons Kiesler planned to place blinking lights. These blinking lights surrounding the two slightly elevated islands (fifteen in number) are demarcations which enclose the environment. But Kiesler was subtle and sophisticated enough not to enclose the entire environment by the blinking lights. Thus the David (figure 239) which happens to be the last element or sculpture listed in the ground plan (number 31), falls outside the territory enclosed by the blinking lights. Generally, the environment which covers an elongated rectangular space (41'6" x 17'6"--as we have indicated) has a certain direction, and grows along the full length of the territory of the environment reaching toward the David and thus reads, on the ground plan, from left to right. Two vertical wood panels mark the beginning and the end of the rectangular territory, the last one being part of the David which extends somewhat beyond the platformed area. The wood panels measure the same: four feet by eight feet. Both are seated on their long side facing inside toward the islands, each to its own, and both panels thus also face each other over and across the entire length of the environment. The eight by four feet panels are curved from top to bottom, similar to the way Kiesler curved the panels in several of his other works combining painting and sculpture such as his Last Judgment or Goya and Kiesler. Here the first panel was to be painted in the manner of a barricade or road block. This probably

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would have meant painting it in alternating strips of black and white, but this panel was never made. It is interesting that Kiesler has chosen this as the subject or design for the first panel. It points to the importance of the urban landscape in the iconography of Us You Me although it is, of course, not the only urban element in the environment (which is a Galaxy), but is important enough to set the scene, and constitute one of its two ends. This is also consistent with the way Kiesler described the essence of Us You Me, a primarily urban image--"The City in U.S.A."

From a more formal and stylistic point of view the panel with its black and white stripes of a road block is definitely relatable to Pop Art which was also concerned with such city signs and icons. If we look at the other end, the second identically shaped panel part of the David sculpture galaxy, although in existence it was never covered with its intended painting which in the legend to the ground plan of the environmental sculpture Kiesler described as "a picture of an airplane exploding and burning in mid-air," and he adds, "attached to the picture so they look as if they are falling out of the wreckage are a few of the last efforts in competition." The "last efforts in competition" is, in fact, a group of sculptures which actually constitutes one complete element in the galaxy environment. It is made up of several pieces some of which Kiesler planned to attach to the burning airplane panel depicting people flat on their faces, stretched on all four extremities, fallen on the ground, trying their "last efforts in competition." Some were upright but running as if fleeing. This group was

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to be cast in bronze and Kiesler planned five variations of these types of figures which basically were made from a flat sheet of material (wax) which was molded, curved and bent but did not have any volume, a technique that Kiesler used before. This group of relatively small figures or figurines included one bigger figure of a person flat on all fours which in the legend to our plan has its own identifying number and title--Exhausted but Still Driving Forward. It is cast in bronze and measures 30" x 16" x 10", and is slightly larger than the other figures (figure 240). As its title indicates, it points to the senseless race and purposeless drive. It is also made from a flat piece, molded in such a way that a single bent piece is at once the convex belly and chest of the figure on all four as well as the upper surface of its concave back. The thinness of the figures couples with the meaning assigned to them, the ever-thinning values of life they represent, reduced to material gains and endless human competition above all else.

Some of the figures were walking people without heads, which is also the essence of this senseless drive forward, headless, lacking any deeper purpose and a good reason. This group of figures (approximately twenty) was placed under a dominant sculpture in the environment--Gong. The Gong measures 8' 6" x 9' x 2' (figure 241) and is cast in bronze and aluminum. It is not only a dominant feature within the entire environment but rises far above the small figures in their "last efforts in competition," "exhausted but still driving forward" or the "walking people without heads." It is as though the people in their desperate senseless state are overshadowed by the towering monument that is The

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Gong--a suspended bronze round plate, with heavy texture inside a standing aluminum ring set on two massive supports. The Gong, which is placed in the center of the environment, was meant to be supported by two long lateral arms 12' 9" long, attached to the aluminum ring supporting the The Gong. They cross each other and are attached on the other end to the so-called "rear piece" which was planned as a massive half-shell placed on the central axis of the environment, its open part facing the "road block." Above this planned shell, which was never made, there was a suspended sculpture, Man Escaping into Space (8' x 5' x 2'6") (figure 242) which was to be hung from the ceiling. This sculpture, like The Gong itself, was cast posthumously in nickel, bronze and aluminum, following Kiesler's specification.

Between this sculpture and The Gong, which are placed along the longitudinal axis of the Us You Me environment, or more accurately, its first "island" or elevated platform, Kiesler has placed a third major sculpture he titled Progress Is the Devil, granite and bronze (gold plated plus various coins) measuring 4 x 5 x 25" (figure 243).

On the two sides of this axis Kiesler has placed a Rushing businessman with briefcase (bronze and gold plated briefcase) 37" x 22 x 30½" (figure 244) on the left. Opposite it on the right side is a sculpture of two figures entitled Man and Woman Entangled in Business (bronze, 27½ x 24 x 47") (figure 245). The word business connected these two rear guard sculptures nominally. Out in front of this island Kiesler placed a sculpture he titled The Wonder of Being Alive (bronze, wood, 31" x 28") (figure 246) which, like Man and Woman Entangled in Business

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on the same side is also a representation of a couple, but a couple of pigeons. They were picked as that fowl that has made its home in cities among men. As for the remaining elements in this first island-platform there are small building blocks which represent existing architecture, and as far as I know were never cast (and for the most part never executed even as models). These small playing blocks planned for aluminum casting represent housing developments. Kiesler planned to place two rows left of the axis diagonally, next to the businessman with briefcase in the rows, twenty units altogether measuring about two inches square each.

These housing developments, as Kiesler called them, were placed along both sides of highways spreading in three directions, which Kiesler planned to cast in bronze and which were slightly concave stripes he has placed flat on the ground between The Gong and Progress Is the Devil. The highways were not hard edged but of irregular contour and made of three parts. They have the total length of close to 10'. On the right side of the central axis toward the center of the galaxy is an abstract semi-random pile of cubicals covering an area of about 3' x 3' which represent destroyed cities and which was also meant to be cast in aluminum.

The second and smaller of the two platforms of the Us You Me environment is made up of five elements, and connects through a painting to a sixth larger work which is called David.

Here, Arch as a Triumph of Man, which was also cast posthumously in bronze, aluminum and gold plate (1969), measures 6'6" x 8'6" x 4"

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(figure 247), is the largest of the five pieces occupying this second platform. Others are a sculpture entitled Regular Success (bronze, 35" x 24½ x 36½") (figure 248) , one called Irregular Success (bronze, 30" x 11" x 26") (figure 249), a third entitled Savior Automobile--Help Me Climb, bronze (27" x 20" x 23½") (figure 250) and a mountain range never executed (planned to be cast in bronze, approximately 4'9" in length). This then is the general plan for Us You Me, but we ought to take a closer look at each of the executed and planned works and then review the entire environment and what it offers as a proposition.

As he so often did, Kiesler wrote about this environment galaxy sculpture and its content, articulating, elaborating and sharing some of his personal experiences connected with the work, such as its starting impulse and other important information concerning his method of work and materials.

Already mentioned was a section where Kiesler talked about the people of the Western world, "who are all too active" pursuing, as it were, a "trivial pursuit." This section (which is not the text's beginning) Howard Wise quoted, in his wisdom for a "Press Release," he issued for the spring of 1969 exhibit in his gallery where he showed a selection from Kiesler's works, including three postumously cast sculptures from Us You Me. He showed Man Escaping into Outer Space, The Gong and Arch as Triumph for Man. Wise's choice for his press release was important due to its relevance to an aspect of this environmental workm namely the poignant look it took into the "values of the Western people." This is also where Kiesler's scale of values was unequivocally manifest,

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in the language that was bathed in ridicule or the often sarcastic titles he chose for the various works. But there was an alternative offered. Another sound was present which was represented by The Gong which also transcended its sculptural function by being the source of real sound, by being a sound sculpture.

Judged by size alone, The Gong is an imposing presence. Kiesler wrote about it as follows:

> In the middle of this forty-eight foot length is a seven-foot aluminum ring, one foot wide, inside which hangs a bronze gong, three feet in diameter.[92]

So not only did The Gong stand seven feet tall, it was placed in the middle of the environment's total length which accented its presence and significance.

As sculpture The Gong, is large and monumental, as it is in its function as a musical instrument and the potential human user of the (existing) mallet, who has to strike it. Indeed, even among gongs used in Buddhist rituals (figure 251) Kiesler's gong would figure as very large and massive. The Gong itself is cast in bronze, which recalls large bells. Sculpturally this heavy alloy is made to appear somewhat lighter, however, owing to the aluminum ring framing and supporting it and Kiesler's keen sense for materials stood by him when orchestrating this large sculpture. Thus, by its heavy materials and large scale The Gong asserts its own literal scale and presence like a New York school painting. In terms of sculptural invention the two heavy chains that Kiesler used to suspend The Gong inside its rings (or the chains from the ceiling used now to hold the ring, since the two lateral poles

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intended originally as support were never made) add a certain concrete practicality that contributes to its formal language or at least plays a certain role in it. In this sense it is somewhat reminiscent of works such as Mark di Suvero's sculptures. But with Kiesler it comes from the architect's mind, who has to make the piece work, because the gong was to be used. The work's potential reading as a colossal monument is also suggested by the small sculptures or figurines Kiesler placed under it. Thus The Gong as a feature of Kiesler's multi-scaled environment in the city landscape environment may be read as a high-rise monument like a work by Oldenburg. But as I mentioned, the gong was also meant to be used to produce sound.

For that purpose, albeit not for that purpose alone, Kiesler divided the entire elevated platform in two with a straight dividing path two feet wide. It cuts diagonally in the middle like a strait between the two slightly elevated islands. Thus in Kiesler's words: "Whoever crosses the three-inch high platform on which the thirty-seven sculptures are mounted, along a part which bypasses the ring and The Gong, can extract a mallet from the base of the ring and strike The Gong."[93]

Thus Us You Me which can also be viewed as a set on a stage, Kiesler calls for the viewer's participation inviting him to strike The Gong. He was an old timer when it came to such participatory practices. Here, if and when a viewer was drawn into the sculpture and dared to strike The Gong the sculpture involved an acoustic dimension. But the sound of this gong did not fade away. In Kiesler's plan the sound was

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"immediately electronically reinforced to vast volumes" and this augmented sound set a sequence of actions in motion engaging another sculpture, namely, Progress Is the Devil. The amplification of The Gong's sound through electronic means and the use of sound as an automated trigger is where Kiesler's sculpture added a whole new dimension. Kiesler often used electronic devices in his various projects from his earliest stage sets in Berlin in 1922 to the 1925 Optophon through Peggy Guggenheim's Art of This Century gallery with its lighting method triggered by the spectator crossing a beam of light, to the Shrine of the Book with the automatic door that opens upon approach.

Us You Me, then, is one of the major stations along this trail. Here, as we have seen, it is also involved with sound, not only light. In terms of Kiesler's "style," this involvement with electronic technology is important to acknowledge. It is often forgotten since these devices are often inoperative due to involved maintenance problems or incompletion. Thus, any traditionalism or conservatism one may want to see in Kiesler's use of bronze or aluminum has to be qualified considering Kiesler's orchestration of various media, including electronic devices. The use of electronic devices is an aesthetic challenge to complacency, and here also a method to involve the viewer, make her cause a happening, which ultimately has political implications.

Thinking back to the gong, the sound of which comes from the Far East, it ought to be observed that in essence the gong with its long and fading sound, is an object of meditation, not only in its round, whole shape, but in the fading sound that one follows till that subtle

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moment where it is no longer clear whether it is the gong's sound that one is hearing or its mental residue within oneself.

This is a subtle point on which the whole of idealism in philosophy rests. Thus, The Gong also represents a subtle meditative alternative to "Western people" in their ever anxious hurried business. This point is visually expressed by placing the human figurines rushing under the towering gong as described earlier. Kiesler's gong, however, differs from a traditional gong in that Kiesler tuned into the gong's vibrating sounds, amplifying them electronically to vast volumes. This sets in motion the lower part of Progress Is the Devil, i.e., the Crater of Money Making. This sculpture was meant to have inside its large bronze crater (a little more than 2' in diameter) "turbine like blades in rotation [that] outcries into the world the hallelujahs of success." This part was never completed; the upper part that was completed, Kiesler described as follows:

> From the summit opening of the crater emerges a seven-inch circular relief in bronze which on one side shows a scramble of deeply engraved numbers and on the other side a devilish face with eye cavities covered with two international silver coins. Embedded in the tongue is the third coin. The relief turns back and forth, back and forth, while clusters of coins hanging from the rim of the disc and masses of metal pieces inside the crater jangle hellishly.[94]

This is how this sculpture was to work and sound. Recall that the action was triggered by the sound of the gong. By connecting the two works Kiesler pointed to a tension between them. On one hand was the sound of the gong and the peaceful meditative air it elicits. Opposite it (and you only have to cross a "highway" to reach it) was the Crater

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of Money Making and Success Is the Devil, with its repetitive materialistic counter sound of money or coins. It all was meant to operate only a minute. "After one minute, the noise stops, but the sound of the gong continues to reveberate within a deeper and deeper voice until, after three minutes it fades away."[95] In maintaining this order of events Kiesler no doubt expressed his opinion concerning the one sound that he thought should be heard last.

Kiesler was no stranger to music. He wrote about Mozart, but did not stay with classical music only. He understood abstract, systematic (serial) and concrete music like Schoenberg, Webern and Berg, whose music he must have known as a youth, as well as the music of his friends Edgar Varese[96] and John Cage. Thus it is also not surprising that Kiesler introduced a discussion at The Club on contemporary music with Cage, Philip Padula and L. Livingston (March 14, 1952).[97] Thus Kiesler's short three-minute musical piece with gong, crater rattle, electronic amplification, and other noise creating means is not surprising. Here in passing, add the name of Rauschenberg who comes to mind because he teamed with Cage and Cunningham (whom Kiesler also portrayed). This reminds us by way of a digression that Kiesler always played an active role in the New York scene. Describing Kiesler's role in the development and formation of the New York School, Dore Ashton has written:

> his constant theorizing and energetic proposals, as well as his writings (often devoted to the young artists he encountered in avant-garde circles), kept him very near the center of esthetic life in New York. Diminutive and very gregarious, he had the strength of personality that is so important to

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> the formation of a community. Moreover, like Graham and a few other resident Europeans, Kiesler was always alert to the latest news from advanced circles all over Europe, and he lost no time in spreading it. The preoccupations characterizing the art world just before the definitive cataclysm (which occurred only as the results of the 1929 crash became unavoidable two or three years later) are described in Kiesler's book. Although informed by the activities of the Bauhaus and respectful to older modernist traditions, Kiesler's text seems to reach out in multiple directions, committing the reader to no single theory or style, but always enlisting him in the struggle against provincialism and philistinism.[98]

So Kiesler played, a longstanding and important part as a leader of the emerging of the New York school. He seems to have stayed, however, with the spirit of the early Russian constructivists and avoided the Russian ideological tribulations that strained intellectuals and Marxist circles during that period.[99] Early in the forties, we recall, when the European artists were forced to escape the continent and came to New York, Kiesler fit right into their Surrealist spirit and activities which culminated in his most advanced and unconventional design of Peggy Guggenheim's Art of This Century Gallery. Dore Ashton wrote about it, commenting that "the milieu Kiesler provided by inventing a unique gallery was to attract enough attention to encourage the coalescence of various artistic interests."[100]

Thus considering the important role this gallery played in the annals of Abstract Expressionism it is somewhat surprising that little of any consequence transpired between Kiesler, who was always open to all art. Sidney Janis, who was involved in the scene and a close friend of Kiesler, confirmed in unequivocal terms the lack of communication between Kiesler and this particular generation of American painters.[101]

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However, all this has changed radically with the following generation of Pop artists, which gets our discussion back to the sixties and As-You-Me, our its point of departure.

For one, Pop Art, which was called at one point Neo-Dada, was in tune with Kiesler's provocative spirit. The Happening, which was an environmental theatrical sculpture-painting event had much in common with Kiesler's feeling for the environmental theater and multi-media events. Even the subject of urban landscape of man-made signs was closer to Kiesler than abstraction or art-for-art's sake. Thus, when Kiesler died, Rauschenberg, who once made a lithograph called Kiesler (figure 126) paid his tribute in the Dada funerary rites for Kiesler when he painted a yellow tire leaning this Pop Art laurel on the casket, and even wrote a review about Kiesler's journals. In it Kiesler was described as "a man for whom Utopia was in the next block" as well as a "moral sensualist," a most insightful description of Kiesler. Robert Rauschenberg also wrote about Kiesler's mixed-media writing technique describing him as "at once objective as a priest and indulgent as a balloon," and he went on to say about Kiesler's philosophy and practice the following:

> There is little evidence to support any thought that nature is concerned with starting and stopping, or continuity. But Kiesler treats her as an old girlfriend with whom he has slept on both sides of the bed. One is not sure whether the endless house is her idea or his. One suspects it is his. His, a poet's attempt to ward off the Saran Wrap muggings in a medium as powerfully persuasive as architecture.

And Rauschenberg concluded, saying:

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> He is trying to convince the human being that it can make honey. A little less of a mystic would have proved it, but proof is not Kiesler's concern. His role is a maitre d in an aesthetic society and his fear is that you may be cheated or starve.[102]

So this review, an artist's portrait of Kiesler, speaks for itself and definitely demonstrates respect given to a forerunner and the sort of spiritual grandfather Kiesler became for that generation of artists.

Returning once again to Us You Me, Kiesler's last environment/ galaxy or sculptural multi-media happening, it is important that we see this work in this light, and as affectionate relations go both ways, Kiesler was encouraged, if not outrightly influenced, by what was being done at the time.

Describing Progress Is the Devil (figure 243), Kiesler indicated that from one side the devilish face has pointed cat-ears and silver coins in the eyes and inside the mouth--it sees money and talks money. The round, mask-like face evokes the notion of a primitive sculpture, an icon, due to its flat frontality simplified and articulated features and its reduced, cross-like body. Thus this slightly blasphemous idol within a capitalist context expresses its content most effectively. The back side of this primitive sculpture is covered with numbers signifying (high) finance. The front is also ornamented with incised lines, which adds to the primitive effect of the sculpture. This effect is augmented in the sculpture's present state, since the Crater for Money-Making has never been made. The devilish face on its small body as a cross with two short outstretched arms, which was supposed to crown it, is placed now on top of a black granite rectangular stand that Kiesler designed himself.

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We have just mentioned the inscribed numbers and ornaments. This takes us back once again to The Gong, which was not only rich in sound and texture, but was also inscribed with words. The round center gong itself has "circular bulges in several diameters";[103] in fact there are three of them, the two smaller ones concave, the largest convex (or the opposite when seen from the other side which reverses bulge to crater). Kiesler gave a functional reason for these features of The Gong, an acoustic reason, saying it differentiates "the outcry of the sound," and it is true that every traditional gong has a bulge at the center. Kiesler placed three on his, and placed them variously on The Gong but not in the center. It is on the aluminum frame and on one side only that Kiesler inscribed the words of his poem from which the environment derives its title:

> So swift
> to roar from rift to rift
> a prey of
> nature's gift
> to man
> for self-destruction
>
> resist, sweet madman
> the drive to wound and kill
> have the guts
> to live your depth
> security is
> you, me, us.[104]

So with these poetic words Kiesler expressed his ideas or Utopian vision and The Gong is indeed a sound for peace. Kiesler, however, did not preach a new heart or mind; he preferred to see it as the ability to resist, which is a heroic act that requires courage or "guts" as Kiesler wrote, turning to the vernacular. But "guts" are needed not only to

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resist nature's given gift for self-destruction (and in Kiesler's native German "gift" means "poison") but just as much "to live your depth," or as he has said it already elsewhere, pointing to the alternative to over-activity and the pursuit of material goals of "Western man": "They don't realize that every human being is an island born to himself and is its sole keeper."[105] The gut needed by everybody in order to respect themselves, body and soul, will lead to society's only security, you me us, as he has inscribed on the gong's ring or frame, inverting the environment's name, invoking the U.S. also as an acronym for the United States in order not to ignore the relevant political dimension of the urgent issue at hand.

Kiesler opened his essay "Us, You, Me" stating that he would try to describe the environment. It started with a report of how the idea for the work descended upon him. As we have noticed on several occasions, he was always keen to follow the unpredictable nature of inspiration, and therefore, considering this predicament, turned to a description of the process first. The work he described in the making was what he summed up by saying: "I have given birth to a sculpture in hollow shell construction, with a positive and negative side."[106]

In the creation process he described, Kiesler cut wire mesh with scissors, bent and molded it, covered it with strips of newspaper and then with concrete. It was a "heavily striding man." The shells became one of Kiesler's favorite sculptural means.

What attracted Kiesler in these curved sheets was the spatial ambiguity and the visual "punning" about thin and solid they invite.

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On one piece Kiesler inscribed: "the inside of the hollow / is the outside / of the post / full-filled depth charges / breathing/ flexing walls / tightened thighs / burst open."[107] This helps to see the importance he attached to this device. But in his description he related how his first figurative hollow sculpture came about as a result of totally uncalculated procedures and in following a spontaneous impulse.

Kiesler even wrote how after he had "given birth" to this sculpture, he was extremely hungry, and went across his studio and devoured a pastrami sandwich and two cups of coffee. As prosaic or trivial this may may appear, it was important enough for Kiesler to remember and report, and it is indeed well known that spiritual activity, much like physical efforts, consumes considerable energy. And Kiesler considered his inspiration a generative event, leading to the large environment--a statement. I say "statement" advisedly since Kiesler, in his text on Us You Me, went on to confer some additional background information, such as the state of art as seen in the galleries at the time.

Kiesler worked and lived downtown. His studio at 9th Street and Broadway was in the same building where his friend De Kooning had his studio and this area was a center of activity at the time. But if among the first generation of Abstract Expressionists Kiesler had close friends, such as Willem DeKooning and Franz Kline, what the mid-sixties were promoting however was pictorial derivatives of Greenberg's language and critical thought. "In the evenings," Kiesler wrote in his Journals,

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> I went to see some shows at the galleries. Gradually, the imagery of abstract expressionist paintings and sculpture appeared to be crooked derivatives of nature, with no meaning or message. They were only eye-catchers. Oh, they were well painted of course, with brooms and hairbrushes, fingers and elbows, pictorially fine, but they had nothing to say to me. Estheticism has become self-sufficient, self-perpetrating and frazzled out with a thousand endings into nothing.[108]

After expressing this criticism, Kiesler turned its criteria to his own art and has indeed discovered some aesthetic indulgences and therefore resorted once again to his old concern with space, "not as a void but as a link between every object both of nature and man-made"[109] and recalled his Space Stage and Endless Theater in Vienna, 1924.

Kiesler spoke in semi-mystical terms about his notion of space: "There was a continuity held together by visually nothing, but this 'nothing' was nothing else but the breath of the cosmos."[110] It sounds almost like an image from Blake, an artist he deeply respected. But immediately following comes Kiesler's most significant conclusion, namely, "that the most important development in the arts would be to give it a meaning."[111] So whether we like the content or meaning of Us You Me or not, it ought to be regarded in that context as a stand for an art that wants to make a statement. He realized at that time the need to make a meaningful statement with a literary post-abstract-expressionist content.

And this is what gradually led to Us You Me, the largest of his galaxies, or the thirty-seven sculptures he preferred to describe in this text as being "in one coordinate" (figure 254). The two tallest sculptures are both at the ends of the entire territory of the

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environment--the image of young David (figure 239), and on the other side A Man Escaping into Outer Space (figure 242), David standing 7' high x 8" x 6' and Man Escaping into Outer Space 8' high x 5' x 2'6". Between these two are the Crater for Money Making topped by Progress Is the Devil (figure 43) and The Gong (figure 241), with the possible addition of Arch as a Triumph for Man (figure 247) (6'6" high x 8'6" x 3'4"). These works, which are placed along the environment's longitudinal axis, are the ideological backbone of this environment.

Man Escaping into Outer Space, which is the only suspended sculpture in the environment, represents a man leaping forward, his arms raised holding or holding on to a cloud. This sculpture was also made in wire mesh and cement and later cast. Instead of a head Kiesler placed one of his two pigeon sculptures; the second is sitting on the man's forward stretching lap.

Kiesler described this sculpture in the following way:

> Of course, the avant-gardiste of our industrial society must break the rules and he flies off over the panel, an escapist into outer space. His two arms are locked inside a mushroom cloud which he hopes will carry him to a no-man's land. He has no head. Its place is taken by a male pigeon while the female pigeon crouches on his forward-bent knee.[112]

The panel that the escaping man is crossing is the road block painting, but the man escapes into outer space. The suspension of this piece and the notion of outer space remind one of Kiesler's suspended City in Space of 1925. But if then the idea expressed was futuristic and abstract, here space is an escape. The tone is skeptical, even sarcastic, since the cloud is described by Kiesler as a mushroom cloud into

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which the man's two arms are locked, while the man as Kiesler described hopes it will carry him to no man's land. It seems to me that the atom bomb is implicated, as the cloud locking our arms, hanging over our lives. This was not so in 1925. Thus the space motive has been altered in Man Escaping into Outer Space; the optimism of 1925 was dampened somewhat by reality although it calls man to triumph and resist his urge for self-destruction—hope is not lost.

One of the larger sculptures is Arch as Triumph for Man (figure 247). It is a structure made of ten flat (wire mesh and cement) pieces made into a combination shantytown type shelter and a monument at the same time. One side is a low, closed shelter, open on one side, the rear of the sculpture. On top of this garage-looking unit is another flat sheet resting on one of its sides vertically. It supports another flat, horizontal, curved sheet that connects to yet another part, the arch, which looks like a house of cards. On top of this "arch," there is a hollow, flat figure of a man marching on toward the edge. The evocation by name and form of the Roman triumphal arch and its equally famous French derivation is ambiguous since Kiesler does not commemorate any military victory parade through it. Rather, he placed man on top of it, and as the title suggests, it is man or mankind who has to triumph. Man, as Kiesler saw him and whom he called to live his depth, the man who ought to see that "Every human being is an island born to himself and is its sole keeper."[113] But there is another less heroic side to this work. The figure on top of the arch is described by Kiesler as "the simple figure of a proud man who has arrived, in an honest way, at wealth and social appreciation."[114]

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This, of course, is a triumph of a lesser degree or, possibly, not a triumph at all. Furthermore, the fact that the sculpture, in spite of the molded flat sheets used, was principally post and lintel architecture, an architecture Kiesler regarded as obsolete, one his continuous construction shells came to challenge and replace, is also contradictory and ironic. But since Kiesler expressed a disregard for the man's material and social success, it is only appropriate that he raises him atop the conventional architecture of the past, a combination of a shantytown slum and arc de triomphe militarism. Kiesler has described the rest of the sculpture as follows: "His house, which is attached to the Arc de Triomphe, has wings [the horizontal and vertical structure or the roof I described above] and, from its entrance drive, peers out the head of a lamb, symbolic of home and peace."[115]

This is one of the few places where Kiesler has explicitly referred to an image as symbolic. It is important in the support it offers for a symbolic reading of Kiesler's images. Thus it is perhaps also relevant to be reminded that the lamb has at least one other dominant connotation--innocence. So the man who stands towering high above his home and house with its garage where a lamb's head is parked peacefully is a harmless innocent fool. But underlying this peaceful image, symbolic of home and harmless innocence, there is an element of violence since the lamb is in fact a lamb's head only and has the connotation of slaughter and sacrifice, which I have not mentioned so far and which adds an expressionsitic flavor to this part. There is, however, yet another deconstruction. The lamb's head cast in blond and polished bronze (8"

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x 15" x 7½") (figure 252) has the raw quality of a nugget of precious metal, nature's own object d'art; this is where the lamb represents purchase and wealth. Yet as a sacrifice evoking blood it may also attach a price tag to it all--blood money. Sculpturally this lamb's head is one of the few instances where Kiesler worked as a modeler of clay, and he showed that he can create volume and form and maintain a vital surface at the same time.

By evoking several levels of meaning, often polarities or apparent contradictions, Kiesler asserts himself as a master over complexity and subtle coordinates. Physically the sculpture was cast in bronze, aluminum and covered in some sections with gold plate. It was carefully polished in certain areas, and in one of his preparatory drawings for it, Kiesler mentioned clearing or scraping, melding, coating, finish, modeling of joints. The human figure is the part that was gold plated, starting from the head down, and Kiesler's instructions to model the joints indicates that he wanted the flat sheets also to suggest, if not represent, his ideal of continuous, jointless construction of shells.

Let us take a leap over to the other end-sculpture--The David (figure 239). Recall that part of this sculpture is the 4' x 8' wooden, curved panel which was planned to have a realistically painted airplane burning in mid-air on it. Kiesler, as mentioned earlier, planned to attach two small figures, tumbling amidst the flying wreckage, the rest of it would have about twenty-five dashing men without torso or head escape as if under the painting and out of the island, and he added: "Several are crouching or crawling, particularly the children who look

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like crabs. They are doomed and they know it." He wrote it as a warning for humanity as well as an appeal to avoid self-destruction. It was also a call to humanity to realize its positive potential and to learn to seek security within itself. The David, as a warning post, is placed therefore outside the island's territories proper. Starting with the panel Kiesler described The David with the following words:

> The panel itself now looks like a shield to protect whatever life remains on the island. Over the edge of the panel lean, from behind, the arm and hand of young David who is stunned by the life he sees. A foot further away, unconnected with the arm, rises his hollow torso and hollow head. A stainless steel pipe holds them up and raises this new constellation to almost nine or ten feet. Untouched, but visually connected with the torso is one leg, casually bent. About two and a half feet away, the other leg has a similar position, but definitely more vertical. His second arm is bent and rests on the pelvis. In other words, David is in a position of repose. As it appears, the unified form of this human figure is broken up into several sections. David makes a natural relaxed impression where the totality of the parts together are not as strikingly apart as when one walks around and sees them from the back. In his head, which is more abstractly formed, as are the arms, torso and legs, is a triangular shape, partly rounded. When walking past an electric eye which is placed further away on the floor, the passerby interrupts its beam and releases one big electric spark inside the head, three rapid sparks inside torso, and one, below, in the left arm that is resting on the hip. All three develop according to the speed at which one passes by.[116]

Kiesler added a humorous remark, saying, "I beg you to forgive my omission of the fact that in the hollow palm of the hand which rests, so to say, on the hip-torso, reposes a tiny revolver, ever ready to shoot when the passerby is of ill humor."[117] I do not think the revolver exists and in the present state of David the curved panel is white and blank, empty of the crashing plane painting and the electronic devices planned are absent.

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But a few details can be added. The two hands and a foot were cast from nature unlike the two legs, torso, body and hand which are hollow, curved molded sheets, textured, like shrouds, or if seen as bundled, dressed in bandages. This, of course, expressed the young David who is stunned from what he sees on the island as the world or earth. This is also expressed through the eye which is cast after Michelangelo's David. It is the left eye and a single eye only that Kiesler has used for the head, which in its size and lone appearance looks bewildered. Kiesler has cast it using plaster copies of Michelangelo's David which one can find in Little Italy. It is large in comparison to the hands and foot. This eye is also only one piece in the sculpture (other than the name) that connects Kiesler's David to Michelangelo's. Considering what we know about Kiesler and Michelangelo already, the David is not a complete surprise. Kiesler's David is a galaxy portrait made of several fragments scattered and is different from any of the other sculptures in the environment, none of which is a galaxy.

Finally there is one other detail that Kiesler has not described, namely an oxen's head he has hidden inside the hollow back part of the body or torso of David (figure 253). To make it Kiesler used a head a butcher let him use (as Lillian Kiesler related to me) from which he cast the beast's nose and mouth. The horns it seems, were cast from a rack of horns sold as mementoes. The eyes, I suspect, were hand carved. This hidden head of an oxen bull or even cow was also put together like a small galaxy of parts set inside the concave inner surface

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of David's torso: horns, two eyes and a snout. Since Kiesler had not accounted for the oxen's hidden head in his description, there is no clue concerning its meaning although it may well be taken quite literally to represent the animal that dwells in us, even inside "young David." But The David which, as I indicated already, is placed at the outer edge of the second island or platform, represents the observant outsider. Kiesler described him in the closing words of his essay: "All together, young David, like the piegeons, just cannot overcome his bafflement watching the life of constant confusion led by the population of this island."[118]

This then was the role "young David" was meant to play within the entire environment. He is the only larger than life (size) human figure in the entire composition which contains representations of human beings but much smaller in size. There is the obvious connection between Kiesler's David and Michelangelo's, and beyond this art-historical connection there is the possibility that Kiesler may have intended to make the connection to the biblical story and even the same biblical moment that Michelangelo chose to represent, young David, staring at his philistine enemy before striking him to death. Thus, if this moment was somewhere in Kiesler's mind, and considering what he wrote about young David's "bafflement watching the life of constant confusion," Western man in his rat race after endless material gains—the connection can be made to see this as the Goliath that David is watching and a modern form of philistinism which it represents. The alternative, however, is available on this global island, Us You Me—the spiritual sound of The Gong—its universal sound of peace.

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In his description of young David watching the life led by the population of the island, Kiesler compared him to the equally baffled pigeons. Indeed, pigeons are represented twice in the environment. Once we have already met them as part of Man Escaping into Outer Space where a pigeon takes the place of the man's head; another on his leg. Kiesler made a separate sculpture of the same cast of pigeons, cast in bronze and titled The Wonder of Being Alive (31" x 28"). They constitute the only living animals represented in the environment, and were no doubt chosen because they were, indeed, part of the cityand its life. Pigeons or doves beside their association with the city, such as Kiesler's New York, are also a symbol of peace, and here by representing two, Kiesler added the idea of love and harmony. The artist's widow related that Kiesler told her it was those ideas he was representing; "he" being the taller and prouder of the two pigeons with its two folded wings projecting like a woman's chest. There is possibly something of that tenderness attached expressed in a photograph reproduced in Howard Wise's 1969 exhibition catalogue for Kiesler's show of works from Us You Me, where Kiesler is seen sitting on a stool in the studio in front of The Gong with one of the pigeons held gently in his hand and on his lap. This work is one of Kiesler's more tender representations and somehow, in a way that words can only ruin, conveys the content of its title well. Kiesler also identified this taller pigeon as the male and it was this one pigeon which he has also placed instead of the head of the Man Escaping into Space.[119] Kiesler also described the two pigeons as "baffled by the goings on of society,"[120]

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an emotion and/or function he also ascribed to young David. This work was placed on a round base and located on the first "island" on the right side of the environment's axis, looking toward The David which may be considered a terminal point. The round disc on which the two pigeons are placed fits rather well with this work's harmonious content.

On the same platform and the same side but near the environment's lead-off panel, there is another sculpture representing not an animal couple but a Man and Woman Entangled in Business (figure 245) cast in bronze. This sculpture Kiesler described as follows:

> An office-high metal stool has been cast in bronze and trapped in the open bars of the framework of the stool, is the tortured figure of the man in love, trying to escape the prison, but unable to. A disc atop the seat of the stool supports the two forward-bent arms of the woman who jumps casually over him with gymnasium-trained dexterity, widespread legs up in the air, her two breasts falling down in full sensuosity.[121]

Kiesler has also dubbed this sculpture as the "standard-bearer of the relationship between the people, that is between man and woman."[122]

The sculpture, as well as its description, make it quite clear that the sexual relations between man and woman are here complicated and different from the harmonious pigeon couple, The Wonder of Being Alive. Here, as the title indicates, the man and the woman have a complex relationship. The one in love is the man, while the woman, sexual and sensuous, is jumping over him in the manner one jumps over a horse in a gymnasium. There is a touch of irony and possibly a touch of tragedy as well, since the entanglement reminds one of some of Kiesler's own entanglements echoed variously in his journals.[123]

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Kiesler used small flat pieces under the stool's legs in order to set it higher. These pieces were probably pieces of wood picked up around the studio that were also cast. This way a certain informal quality was added to the sculpture's ready-made stool. Thus improvised devices, traces of the process of creation, were cast in bronze, solidified and given the full legitimacy of a finished work.

Finally, four more works representing a single figure ought to be discussed in order to complete our interpretive description of this large environment/galaxy.

On the opposite side to Man and Woman Entangled in Business stands a sculpture Kiesler entitled Rushing Businessman with Briefcase (figure 244). This is Kiesler's description of this work first.

> Not far away [from the work "Progress Is the Devil"] is the commonplace hero, the big businessman rushing down an inclined platform, carrying a massive golden briefcase in one of his hands. The other arm swings swiftly backward and seen from behind, the hollow modeling of the figure throws deep light and shadows. Almost at his feet are two destroyed cities. . . .[124]

The work measures 37 x 22 x 30½" and is cast in bronze and has a gold-plated briefcase. The businessman and the business entanglement of the man and the woman on the opposite side are related. The word "business" is what these two titles share. As I mentioned earlier, I believe that Kiesler intended to draw a certain ironic parallel between these two forms of business. The entangled business of human passion and love on one hand, and the passion for business or money on the other. Lust and greed are represented in the sculpture by the gold-plated briefcase the businessman is holding. There is a meaning attached to the

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fact that the rushing businessman is descending into the destroyed cities which are, obviously, lower than the heights from where he descends and are meant to contrast with his golden briefcase. The briefcase is not shaped like a briefcase but approaches a geometrically cut, irregular sack, a hard-edged sack, which suggests theft, the hard cash, the hard precious metal which Kiesler in his text described as massive.

The businessman's rush, not to say gold rush, is conveyed by the rather big step that he is taking. At the front there is another single-figure sculpture reminiscent of the businessman with briefcase; it is a sculpture titled Savior Automobile: Help Me Climb (figure 250) (27 x 20 x 23½", bronze) representing another rushing man. It is a man walking with a large stride, one arm resting or holding on to a tire of a car, the second stretched as if in the act of balancing, while the forward leg is climbing something which cannot be precisely identified. Kiesler himself described this work saying it "is the daredevil of speed and leans on a heavy automobile tire. He knows he is unable to keep pace with the rest of the world unless he uses a motorized vehicle to overcome everybody else."[125]

This work, which was planned to be placed in the front near The David, was meant to be set on a slightly inclined platform, like the Rushing Businessman with Briefcase but here the inclination of the platform was in the opposite direction, not down. As the title suggests, the car, the automobile or speed is here the subject, referred to ironically as is Savior—a word which carries connotations quite distinct from cars. The climb or ascent is a reference to competition, as well

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as a reference to technology which, as Kiesler wants to suggest, is often carrying weight far greater than what it deserves. This is also consistent with Kiesler's theory of design correlation.

Two other small single figure-sculptures are Regular Success (35" x 24½ x 36½", bronze) (figure 248) and Irregular Success (30 x 11 x 26", bronze) (figure 249). The first, Regular Success, is a figure striding without any unusual qualities--a man without qualities that Kiesler described as "the self-assured citizen." This figure was planned to be placed on a raised wood pedestal which would be part of the whole platform. Irregular Success is the person Kiesler described as a "type of man with three faces, a hypocrite who does not see that in front of his feet is a heavy bar of stone, and that he will sooner or later trip over it and fall."[126] The message is clear--hypocrisy and triple faces lead to a fall, and this is the element of warning that constitutes an important undercurrent in the galaxy and its massage.

Last, there is a sculpture in the plan that is titled in the key as Mountain Range which was to be cast in bronze. Kiesler's description of this sculpture/unit reads as follows:

> Along the edge of the platform is a miniature mountain range about 4½ feet in length 8" in width. On the platform of this mountain range are two striding men, walking in opposite directions, and between them is a snake which also tries to escape this disaster area."[127]

The figures must have been of the kind Kiesler made in Regular Success. These two man walking away from each other described disagreement. The snake ought to be read first, in the biblical, common sense, as temptation and evil—the urge toward knowledge but also, alas, self-

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destruction. In a typical Kieslerian twist the snake itself is trying to escape "the disaster area," and explained that this group is counter-balanced by the two pigeons (The Wonder of Being Alive).

We have described Us You Me following the existing parts, the ground plan and Kiesler's article on the galaxy. The work was never completed, the mountain range was never executed, not even in a model, and is thus a good place to exit and bring the description to an end. There is incidentally one discrepancy between the number of elements cited in the key for the ground plan or "schematic plan," as Kiesler called it, and which lists thirty-one pieces and the text on the environment where Kiesler mentioned the number thirty-seven. I think that the "schematic plan" is complete, however, and the discrepancy can be resolved just by reading some of the sculptures which fall under one title, in terms of the actual parts that constitute them. Thus, the Destroyed Cities, for example, which are listed in the key as one, but in fact are plural as the title indicates and the ground plan shows, are indeed made up of two sculptures. The same is true for the pigeons which make up The Wonder of Being Alive. In Arch as Triumph for Man where Kiesler has in fact listed the "lambs head" separately one can, following the same logic, separate the "Arch" from the triumphant man on top of it. Then, the Mountain Range which as we have seen was to have two figures on top and a snake, would add three more elements and we have managed, through some recounting, to reach the count of thirty-seven pieces of sculpture in all.

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Mathias Goeritz, who introduced Us You Me with a brief note in Howard Wise's 1969 catalogue for the show, a catalogue which also contains Kiesler's article on this environment, wrote as follows:

> The poetic nonconformism of Kiesler's endless visions has a strange metaphysical undertone which doesn't fit well into the fashion of one time. There is a constant fight for love in everything he said or did. Searching for the breath of the cosmos, for the secret world of the invisible, for evident physiological and psychological relationships of emptiness and holiness, Kiesler found--us, you, me.
>
> Living with and within his work, I feel it is the most profound effort in contemporary art to correlate and integrate all parts of our environment into a unity, into a new dimension in which color, volume and space are one with good and evil, where poetry is the deep sound of a gong, where sculpture, painting and even architecture are becoming galaxies of life and death and truth.[128]

Goeritz, however, although undoubtedly an admirer of Kiesler's art and vision, was somewhat apologetic about Kiesler's metaphysical undertone. Indeed Kiesler, in retrospect, has been vindicated by latter day relaxation of formalist abstraction and the emergence of new figurative art. He also anticipated Conceptual Art, environmental and metaphysical and of a literary dimension.

Finally we ought to let Kiesler have the last word. There is a statement in the text "Us You Me" where Kiesler declared:

> No more sculptures on pedestals in niches decorating empty spots of interiors, be they home pallazzos or churches. These periods are definitely over. They are the many centuries' result of traditional fears of punishment after death, with no guarantees of happiness, lust or play. There loomed the gloom of emptiness, and they tried to fill it with paintings and sculptures, symbols of holiness or of strength and brutality; the painters and sculptors and architects had to follow suit.[129]

This is how Kiesler viewed the art of the past, and it explains in part how he viewed his own contribution. The points can be extracted

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as follows. Taking art off the pedestal or away from the niche, pallazzo or church is an agenda for a new art with a new place to occupy. There is the new content offered to replace the religious function that art had had--"holiness," or "fear of punishment" as Kiesler called it, as well as the expression of political authority and power, what he called "strength and brutality."

Here we recall Kiesler's reforms in subject matter such as his own Correalist Last Judgment, for example, as his alternative to the "religious" functions of past art, and his challenge to its traditional role expressing the oppressive rather than the progressive. He sought to replace the past with a humane universal, and yet intimate proposition, Us, You, Me, as the title says. Kiesler concluded with the following words:

> That childhood of civilization seems to me now definitely over and, no matter how young the population of this earth might appear, it now could not dare to stand on its own feet.[130]

Us, You, Me was Kiesler's last statement. He did not live to complete the work. Therefore in the spirit of continuity and utopia, Kiesler also passed his unfinished work on to us that way so that we may add to it by seeing its message done.

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Notes

[1]Frederick Kiesler, Inside the Endless House, p. 212.

[2]Ibid., p. 213.

[3]Ibid., p. 18.

[4]Ibid., p. 18.

[5]Ibid., p. 19.

[6]Ibid., p. 19.

[7]See Francis M. Naumann, The Mary and William Sisler Collection (New York: The Museum of Modern Art, 1987), p. 50. Entry about the Endless Column.

[8]Contemporary Art Applied, p. 28, illustration p. 29.

[9]Naumann, p. 53.

[10]See Nicholas Bullock, "The Looshaus on the Michaelerplatz: Craftsmanship and Tradition," 9H, no. 6 (1983), 17.

[11]See Chapter IV.

[12]Frederick Kiesler, Inside the Endless House, p. 20.

[13]Ibid., p. 22.

[14]Ibid.

[15]Ibid., p. 23.

[16]Ibid., p. 25.

[17]Ibid.

[18]Ibid., pp. 28-29.

[19]Ibid., p. 27.

[20]Ibid., p. 230.

[21]Ibid., pp. 231-232.

[22]Ibid., p. 29.

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[23]Goossen, p. 40.

[24]William C. Seitz, The Art of the Assemblage (New York: The Museum of Modern Art, 1961).

[25]Lise Phillips, The Third Dimension, Sculpture of the New York School (New York: The Whitney Museum of American Art, 1984).

[26]Ibid., p. 31.

[27]Pierre Cabanne, Dialogue with Marcel Duchamp: The Documents of 20th Century Art (New York, 1971), p. 86.

[28]See Frederick Kiesler, "Design in Continuity," pp. 126-130.

[29]See Dietrich Worbs, "Loos—Classical and Modern: An Evolution," 9H, no. 6 (1983), particularly p. 27 where Loos is quoted as follows: "I design no plans, no facades, sections; I am designing space . . . ."

[30]Kate Trauman Steinitz, Kurt Schwitters: A Portrait from Life (Berkeley and Los Angeles, Calif.: University of California Press, 1968), p. 93.

[31]Seitz, p. 50.

[32]Taped conversation, New York, 25 June 1980. Castelli, however, also told me that in retrospect, Kiesler's sculptures were much more important than he realized at the time.

[33]Frederick Kiesler, "Notes on Architecture as Sculpture," pp. 57, 62.

[34]The Solomon R. Guggenheim Museum Archives, New York, Kiesler File.

[35]Ibid.

[36]Frederick Kiesler, Inside the Endless House, p. 482.

[37]Ibid., pp. 482-483.

[38]Ibid., pp. 483-484.

[39]Ibid., p. 484.

[40]Ibid.

[41]Ibid., p. 485.

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[42]Guggenheim Museum Archives, Kiesler file, letter dating 26 February 1962.

[43]Guggenheim Museum Archives, letter dating 23 September 1963.

[44]Frederick Kiesler, Inside the Endless House, p. 120.

[45]See Leo Steinberg, Michelangelo's Last Paintings (New York: Oxford University Press, 1975).

[46]Frederick Kiesler, Inside the Endless House, p. 121.

[47]Ibid.

[48]Ibid., p. 122.

[48]MOMA, Special collection, Kiesler Archive, tape 7 (transcript).

[49]In Kiesler's posthumous exhibition catalogue for the Martha Jackson Gallery four such "tables" were listed all together.

1. The Savior Has Risen, 1964, granite, black glass, bronze, 49 x 36 x 58".
2. Arise Man, 1964, graphite, black glass, bronze, 33 x 24½ x 43½".
3. Bridging Gaps, 1965, granite, polished black marble, polished white marble, bronze, 25½ x 37½ x 56".
4. Rebirth, 1964, granite, plastic, black glass, bronze, 37½ x 25½ x 56".
5. Sweet Madmen, 1964-1965, marble, granite, bronze, 37 x 23½ x 56".

This last and fifth work is a "table" although it is a figurative work and can be considered a "transitional" work which includes some motives that figure in Us You Me as we shall see.

Arise Man was later made part of the Whitney Museum collection and shown in Art of the United States, 1670-1966, which was the opening show of the Whitney's new building. See catalogue entry no. 325 and the Whitney Review, 1965-1966.

[50]Guggenheim Museum Archives, proposal dated 4 January 1963.

[51]See above, footnote 29.

[52]In a typewritten document describing his sculpture, written I believe in 1965, close to his death Kiesler mentioned four existing table sculptures from the multi-material series (see footnote 48). But Kiesler had planned according to this document three other such table works which he had not realized. Since he mentioned in the document the Paris exhibition at Musee Rodin--"Modern Sculpture U.S.A.," held between June 22-October 10, 1965 in which the Last Judgment was

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shown, it must have been written between the end of the show and his death late in December of that year. I believe the document was produced by Kiesler for his show at Martha Jackson which took place posthmously in May-June 1966 (the Martha Jackson Gallaery Archives, the David Anderson Gallery, New York).

[53]See Levy, p. 253. It also tells that it was Kiesler who introduced Julien Levy to Rene D'Harmoncourt.

[54]Charlotte Willard, review in the New York Post, 21 June 1964, AAA, roll 158.

[55]Frederick Kiesler, Inside the Endless House, p. 502.

[56]Martha Jackson Gallery Archives.

[57]Kim Levine, "Kiesler and Mondrian: Art into Life," Art News 63 (May 1964): 49.

[58]Goya and Kiesler, "A sculpture by Kiesler", typewritten text, Martha Jackson Galleries, archives.

[59]Thomas B. Hess, "Eccentric Propositions," Art New Annual 32 (1966).

[60]To this list one may want to add a "shell sculpture" for wall mounting, 1958, 7'8" high x 3'4" x 3', bronze and "shell sculpture" floor to ceiling, 1958; 10' 6" high x 3'6" x 2', bronze, both of which were assembled posthumously in 1969. They are, in my opinion, authentic and technically led to the group under discussion.

[61]Jane Collin, "Review of Frederick Kiesler Show at Martha Jackson Gallery, 4 May-4 June 1966," Art News 65 (18 May 1966): 18.

[62]See also similarly shaped fist in Frederick Kiesler, "Manifest de Correalisme," p. 88. Here the fist represents the correalist unity of sculpture, architecture, painting, etc.

[63]Museum of Modern Art, special collection, the Kiesler Archives, tape 1, interview with Lillian Kiesler, transcript, p. 37.

[64]Both texts were also published in "Art in Orbit," The Nation 108 (11 May 1964): 529.

[65]Frederick Kiesler Environmental Sculpture, The Solomon R. Guggenheim, New York, 1964.

[66]Frederick Kiesler Environmental Sculpture.

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[67]Levine, p. 39.

[68]Ibid.

[69]Ibid., p. 40.

[70]Ibid.

[71]Ibid., p. 41.

[72]Ibid.

[73]Ibid., p. 58.

[74]Ibid., p. 50.

[75]Burnham, p. 208.

[76]He has drawn the latter kind in Rome; cf., Frederick Kiesler, Inside the Endless House, p. 119.

[77]See such a drawing of a turtle in ibid., p. 15.

[78]The Oxford Companion to Classical Literature, comp. and ed. Sir Paul Harvey (Oxford: Oxford University Press, 1937, 1966), p. 82.

[79]Herbert Ferber claims to have discovered the idea of environmental sculpture by working inside his And the Bush Was Not Consumed for a synagogue. See E. C. Goosen, Herbert Ferber.

[80]Conversation with Len Pitkowsky, 7 September 1981.

[81]Museum of Modern Art, New York, Kiesler Archives, conversation transcripts, tape 7, 17 July 1970, Vivian Reinhold, Frederick Heller, Marguerite Young, p. 9.

[82]Frederick Kiesler, Inside the Endless House, pp. 294-295.

[83]See in this context, E. C. Goossen, "The Big Canvas," in The New York, ed. Gregory Battcock (New York: Dutton, 1966), p. 48.

[84]Museum of Modern Art, Kiesler Archives, Tape 7, 17 July 1970, p. 7.

[85]Michael Conil Lacoste, Le Monde (Paris), 2 July 1965.

[86]Frederick Meguet, Figaro Litteraire (Paris), 8-14 July 1965.

[87]Guy Wheelen, in Letters Francais (Paris), July 1965.

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[88]Figaro Litteraire (Paris), 8-14 July 1965; also published in Tribune de Lausanne (Lausanne), 27 June 1965.

[89]Peter Schjeldahl, "When the Divine Fit Was On," New York Times, 20 April 1969.

[90]Frederick Kiesler exhibition catalogue, Howard Wise Gallery, in AAA roll 128, no. 464, April 12-May 10, 1969, pp. 2-3; also in press release.

[91]AAA Roll 128, no. 464.

[92]Frederick Kiesler, "Us You Me"; Howard Wise Gallery Catalogue, p. 6.

[93]Ibid., pp. 8-10.

[94]Ibid., p. 6.

[95]Ibid., p. 10.

[96]Frederick J. Kiesler, "Breaking the Strait Jacket." The avant-garde works over an unread play--"Mr. Kiesler, Meet Mr. Varese, Meet Mr. Meredith: The Blue Sky Beckons," Show 4 (January-March 1964): 77, 90-92. Sidney Janis, in an interview, also told me about Kiesler's subtle understanding of all music. Not only was he an admirer of Mozart, but Kiesler responded just as passionately to Berlioz that Janis mentioned more than once Stravinsky et al.

[97]Although I have found little detailed information about the content of the various discussions in the club, Kiesler's extensive participation in its discussion ought to locate him in the midst of action from 1950 to 1961. The earliest was a discussion at the Sidney Janis gallery, a panel that took place on November 10, 1950 on the subject of "Parallel Trends in Vanguard Art in the U.S. and France." The panelists were Castelli (who organized the show on that subject at Janis'), C. Greenberg, H. Rosenberg, Kiesler, Calas, Ritchie, Theodore and Brenson. In this discussion the directness and physical honesty of New York's work was opposed invidiously to Paris' slickness and dishonesty. See Friedman, Jackson Pollock, p. 159. This discussion took place at the exhibition's closing and was part of the club's activity.

Other panels were October 19, 1951 on "Art and Architecture" with Calas, Reinhardt, Kiesler, de Kooning, Gottlieb and Motherwell; on March 14, 1952 on Contemporary Music with John Cage, Philip Padula, J. Livingston, introduced by Kiesler; April 18, 1952 a discussion on Kiesler, introduced by Greenberg, arranged by Alcopley; March 20, 1953, "Sculpture II," with Calvin Hubert, Kiesler(?), Hale Woodruff; April 1, 1955, "Germinal Sculpture III," Greenberg, Geist, Lassaw, Noguchi, Stankiewicz, Kiesler; November 30, 1956, An Evening for Jackson Pollock, Rosenberg

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(wood), Brooks, de Kooning, Greenberg, Kadish, Kiesler, Kline, Macca-Relli; March 1, 1957, Art and the Architectural Setting: Sybil Moholy-Nagy, P. Johnson, Kiesler, Holtzman (moderator); February 19, 1960, "Emotional Architecture," Mathias Goenitz, Kiesler; January 20, 1961, "Environmental Sculpture," Kiesler (moderator), George Brecht, diSuvero, Ferber, Oldenburg.

[98]Dore Ashton, The New York School: A Cultural Reckoning (New York: Viking Press, 1973, 1972), pp. 27-28.

[99]See Serge Guilbant, How New york Stole the Idea of Modern Art (Chicago: University of Chicago Press, 1983).

[100]Ashton, p. 121.

[101]Sidney Janis, in conversation, April 1983.

[102]Robert Raushenberg, "Inside the Endless House: An Invitation to Be Lovable," Vogue, 1 March 1967.

[103]Howard Wise Gallery Catalogue, p. 8.

[104]Ibid., p. 8.

[105]Ibid., p. 5.

[106]Ibid., p. 8.

[107]Signed Frederick Kiesler, May 12, 1960.

[108]Howard Wise Gallery Catalogue, p. 5.

[109]Ibid.

[110]Ibid., p. 6.

[111]Ibid., p. 4.

[112]Ibid., p. 8.

[113]Ibid.

[114]Ibid., p. 13.

[115]Ibid.

[116]Ibid., p. 15.

[117]Ibid.

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[118]Ibid.

[119]Ibid., p. 11.

[120]Ibid.

[121]Ibid.

[122]Ibid., p. 111.

[123]Castelli, in a conversation, also hinted at such an entangled love affair, Kiesler, then an old man, had with a younger Oriental woman. He suffered like a young romantic, while she, according to Castelli, treated Kiesler somewhat similar to the woman in our sculpture.

[124]Ibid., p. 10.

[125]Ibid., p. 13.

[126]Ibid.

[127]Ibid.

[128]Ibid., p. 2.

[129]Ibid., p. 6.

[130]Ibid.

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CONCLUSION

Kiesler, who once made a distinction between the concerned and the unconcerned artist, was a concerned artist himself, i.e., politically and socially conscious. Indeed, he was one among a group of early twentieth century avant-garde artists in Europe, who shared the conviction in the social role that the art and the artist can and should play. The artist challenges society and and offers it an alternative design. From a present day perspective anyone who now reads early twentieth century De Stijl Futurist or Constructivist manifesti (Kiesler's reference groups) cannot but notice its declarative and idealistic sound. This impression, I think, is augmented when compared to the present situation where artists have all but abandoned this kind of voice. Kiesler stayed with it throughout his life.

He had the temperament, background, and education to assume, naturally, the role of an avant-garde artist. He made, within this context, his unique and radical contribution.

Kiesler's Spacestage or the City in Space were provocative, challenging, and unmatched projects and, in my opinion, masterpieces of elegant and simple planning and construction. They were challenging social and architectural statements with ambitious implications.

When in the thirties Phillip Johnson and Henry Russell Hitchcock introduced the International Style, Kiesler soon singled it out as the

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counter position to his radical ideas, and implicated the Bauhaus, where it originated. With regard to the latter, he shared the attitude of his De Stijl friends and the more radical Constructivists, who also felt somewhat apprehensive toward the Bauhaus and its formalist, somewhat simplistic, application of avant-garde attitudes. Indeed, from the thirties on, the International Style dominated architecture and shaped the public's perception of modern architecture. It looked efficient, technological, functional, international or multi-national, clean, powerful, and authoritative. It served the power structure well. Kiesler, in a way, went underground. Indeed, following Van Doesburg's death, Kiesler's own theory of Correalism, which he developed in the thirties, makes it quite clear that he was heading in a different direction. His theory of Correalism, or "design correlation" was truly interdisciplinary and his subtheory of biotechnique was ethnocentric in its approach to design. It was, above all, an approach, not a school or a style. It was technologically sophisticated, environmentally conscious, and all-inclusive, i.e., it sought to integrate scientific, spiritual and psychological considerations into the science of design. This theory, to my mind, comes ultimately closer to Buckminster Fuller than to Moholy-Nagy's American continuation of the German Bauhaus.

Significant in assessing Kiesler's art historical position and his unique approach and contribution are two points, one his genuine interest in Marcel Duchamp and his particular point of view, as well as Kiesler's extrapolation of architecture approaching Surrealism. He insisted on incorporating into architecture elements which were

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considered alien to formalist conventional architecture, such as philosophy, meditation, mythology, and psychology. Kiesler could cross the aisle from De Stijl formalism to surrealism since he sought an integrative approach and not a style or school. This afforded him to attain and maintain an issue oriented art and design as opposed to an æsthetic which, all too often, tends to turn into social platitude and irrelevant convention. His outstanding design of Peggy Guggenheim's gallery was an application of this approach, as was the Shrine of the Book, a unique semi-Surrealist combination of functionalism and symbolism in architecture.

An aspect of this attitude was Kiesler's realization that in all matters of design and theory, the temporal component has to be counted. This yielded Kiesler's life-long involvement with what he called "design in continuity," contending with time, not only space. In matters of construction and function, it advocated tensionism, flexibility and convertibility. Duchamp, an eccentric artist and Kiesler "the greatest non-building architect" had something in common and the men collaborated more than once. The two men's views could agree in matters concerning the end product of art, its kind and character, and the number of objects the artist chooses to make. Other matters are the role of humor, as well as a shared philosophical orientation expressed in a cautious sense for the occult. The two men also saw eye to eye in matters concerning their almost manipulative awareness of the viewer and the very act of looking and shared an interest in the psycho-mechanics of perception. Within a more limited, historical context, Kiesler's contribution to

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American post-war art was mostly in sculpture. His sculptures of the late forties and fifties must be regarded now as a unique, early, and authentic example of truly environmental sculpture. It was also during those years that Kiesler further developed his Endless House as the ultimate architectural application of his theory and the epitome of his unique approach to design. Here, architecturally, he was however definitely out of line. The fifties and early sixties, albeit dominated by Pop Art, also saw the formation of a circle of artists, such as the group around John Cage, that included artists like Merce Cunningham and Robert Rauschenberg and others who were interested in a philosophical approach to art, Oriental philosophy and were strongly attracted to Duchamp. Kiesler quite naturally was befriended by this circle which respected him and his point of view. This attitude evolved in the early sixties into an intellectual interest in the occult sciences that was coupled with a spiritual approach to the environment and ecology as conceptual extensions of art and sculptures.

It was during those years, the last years of Kiesler's life, that he designed his Grotto of Meditation. These conceptual and spiritual tendencies, if nothing else, were indicators that directions and ideas that Kiesler had entertained for years were gradually reaching the surface. Kiesler's ideas assumed a position that was reaching beyond the idiosyncracy of an individual and which are relevant to broad matters of design, including humanity's destiny and even physical survival, as an aspect of its spiritual viability and consciousness.

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In his last years, Kiesler devoted much energy to sculpture. In it he rediscovered the kind of freedom that only art could offer.

His unfinished environment Us You Me was an ambitious audio-visual, electro-mechanical galaxy of cast sculpture, painting, electric lights and sound, touching on matters of mythology, technology, psychology, and ecology. Us You Me was, at the same time, a humble personal voice; in fact, it was a poem by that title, inscribed on the outer frame of The Gong (one of the Galaxy's parts) that gave the work its name. It expresses the sentiments of a concerned artist, a humanist, albeit one who, in spite of his deep social concern, did not lose his sense of humor.

The poem's title, Us You Me, summons Kiesler's consistent involvement with society--us; the second person or the present viewer--you; and the artist himself as the creative individual who offers society his vision. In this galaxy Kiesler has quite deliberately depleted the commanding role of style for the sake of a content and a humanist objective.

Finally, I have little doubt that, not withstanding the role psychological, compensatory and idiosyncratic factors may have played in shaping the character of Kiesler's work, they did not outweigh his originality and the viable nature of his proposition. It is, of course, difficult to assess the place Kiesler's all-inclusive position will take in history. The question, however, is not whether Kiesler will ever become a household name, but rather, if Kiesler's alternative directions and particular efforts can or should be reconsidered and integrated

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more vigorously into our culture and our picture of this century's art and architecture. My own perception and faith in Kiesler's genuine motivation and true vision obliges me to answer this question in the affirmative.

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Figure 1

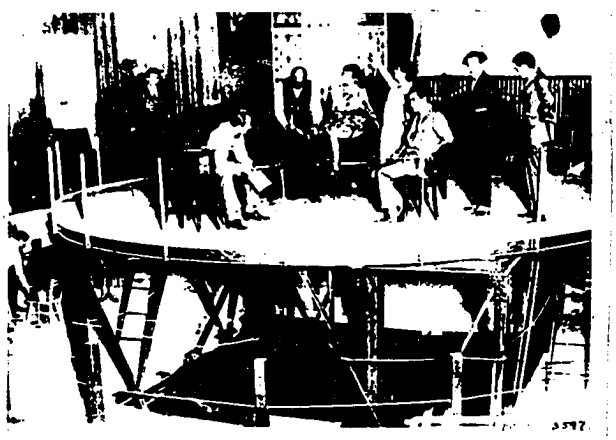


Figure 2

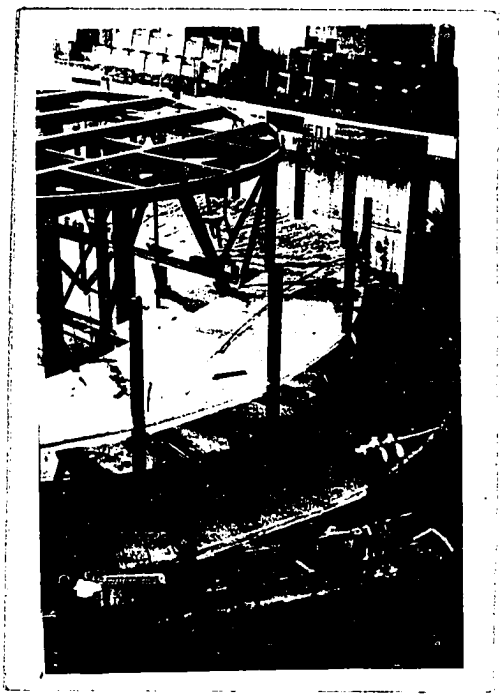


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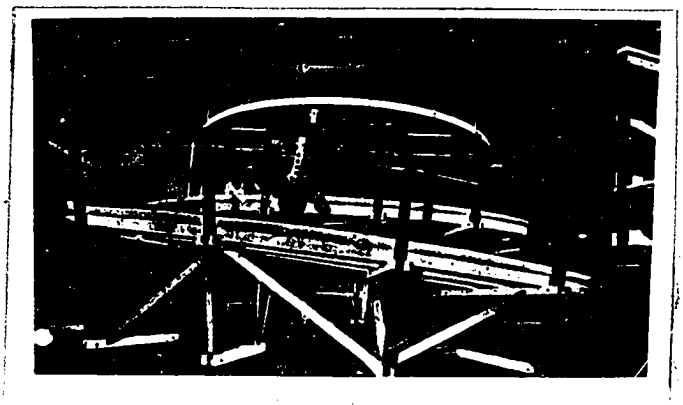


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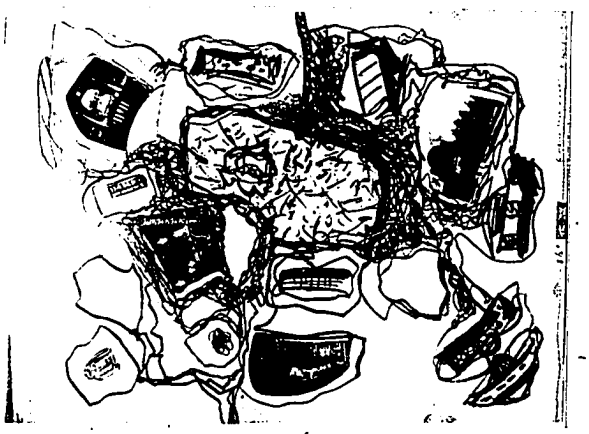


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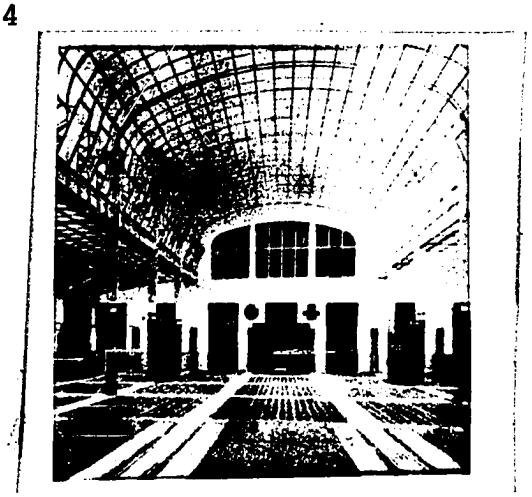


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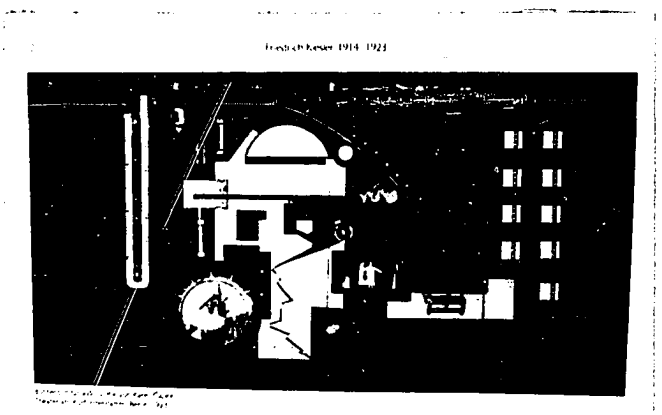


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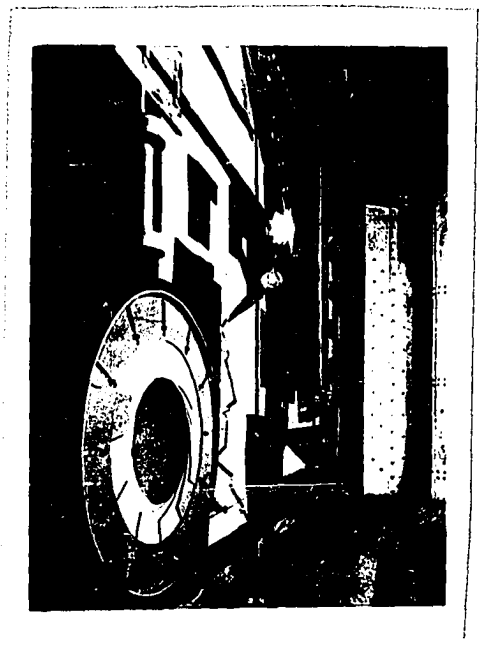


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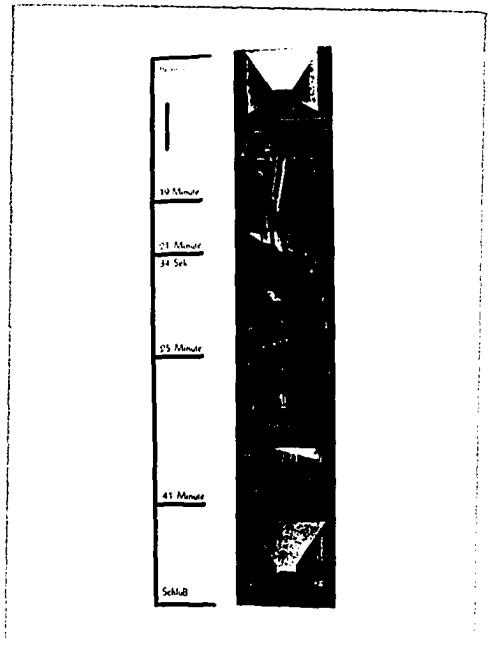


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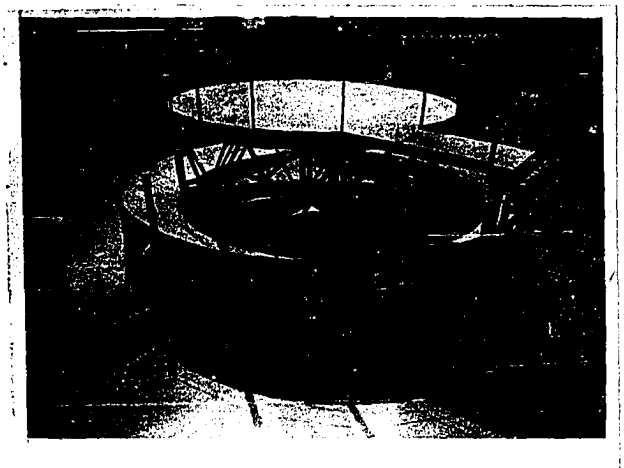


Figure 10



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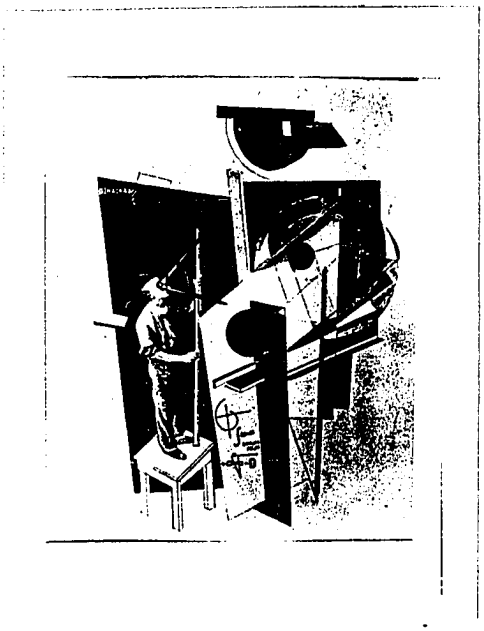


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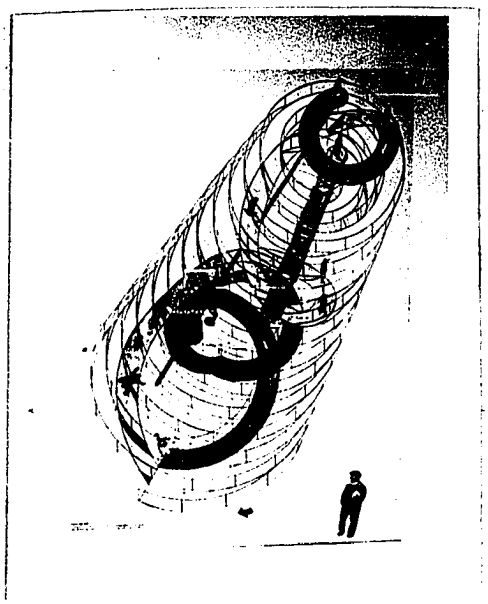


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Figure 14



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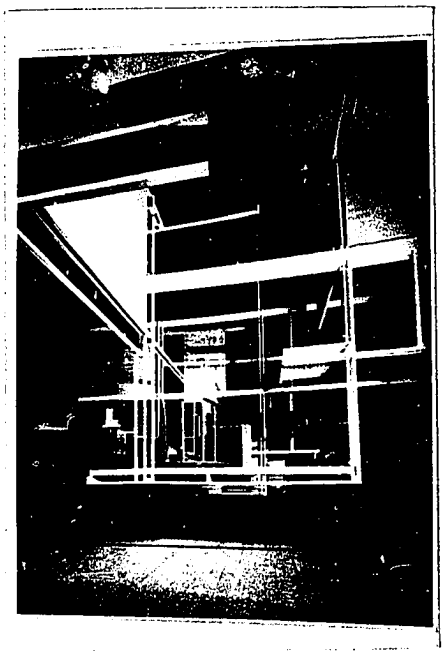


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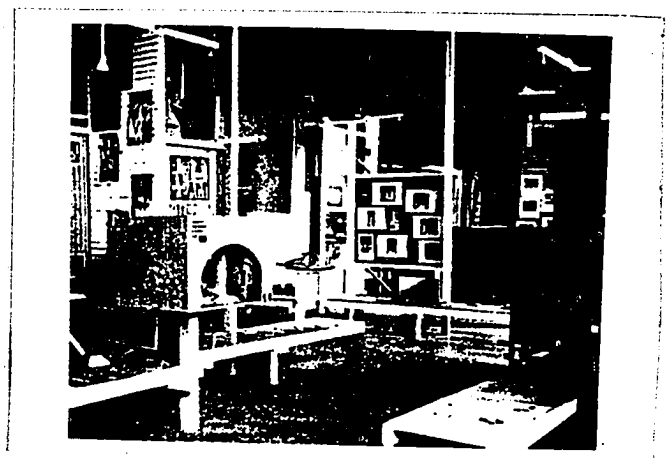


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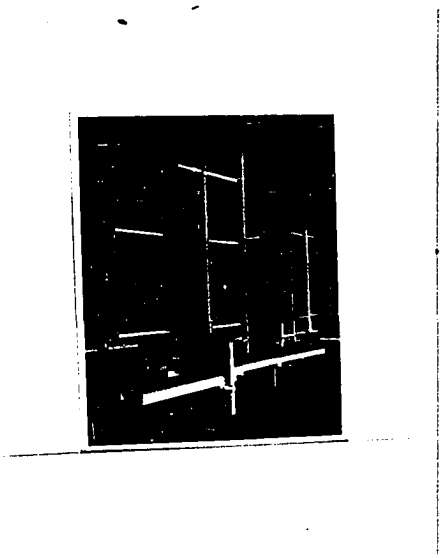


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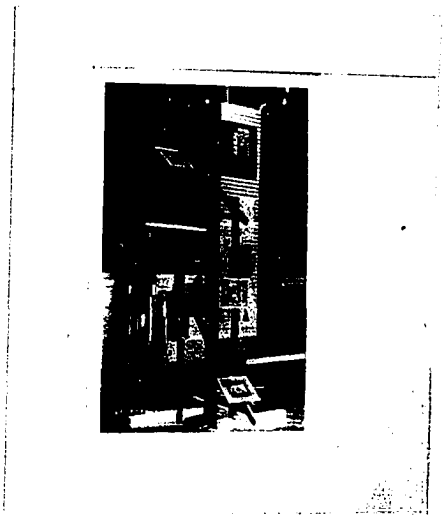


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Figure 20

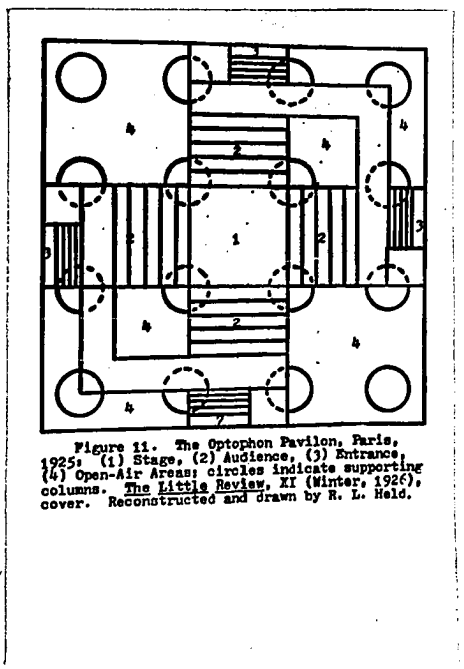


Figure 11. The Optophon Pavilon, Paris, 1925: (1) Stage, (2) Audience, (3) Entrance, (4) Open-Air Areas; circles indicate supporting columns. The Little Review, XI (Winter, 1926), cover. Reconstructed and drawn by R. L. Held.

Figure 21

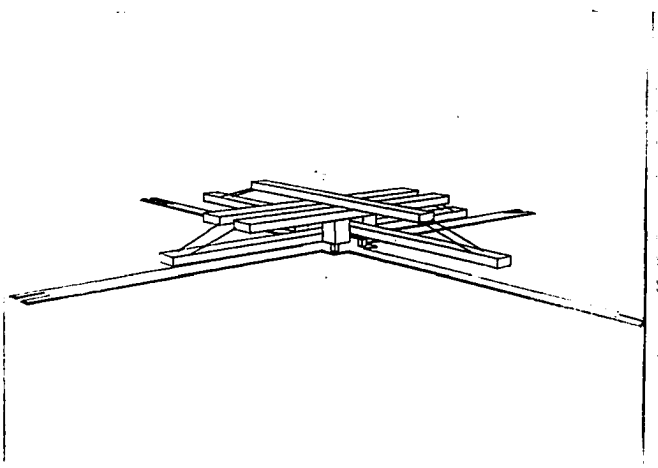


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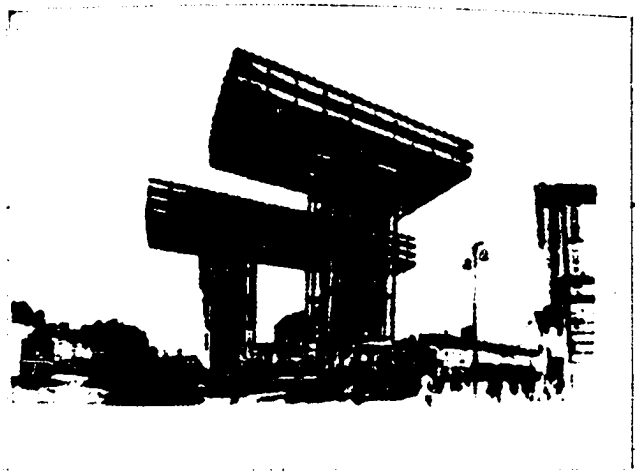


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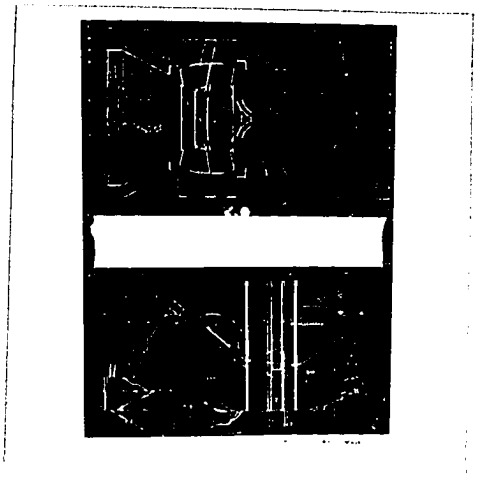


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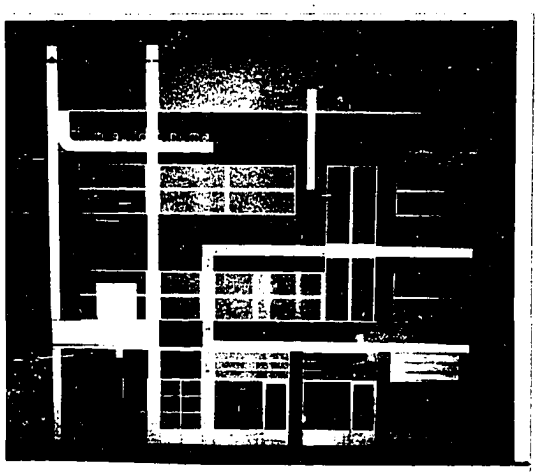


Figure 25



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Figure 27



Figure 28



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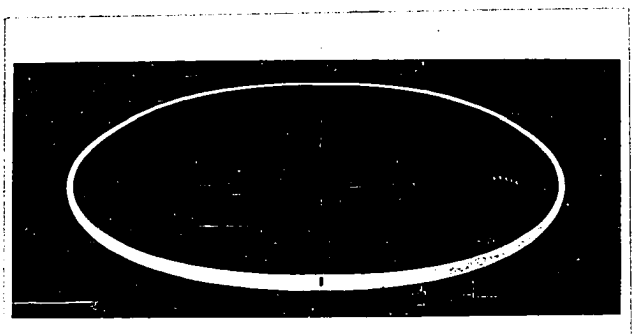


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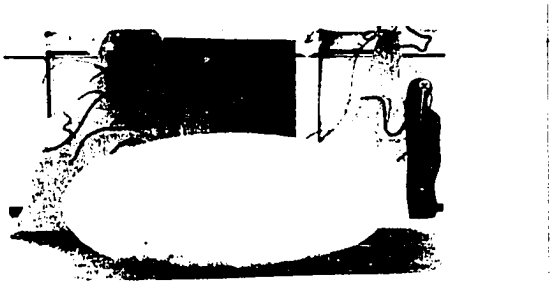
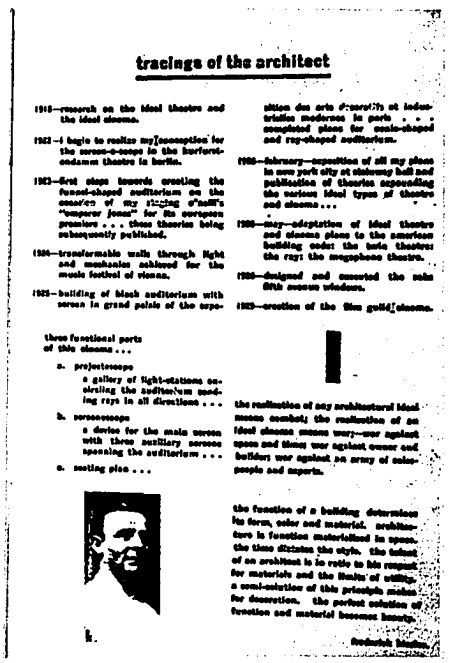


Figure 31



tracings of the architect

1918—research on the ideal theatre and the ideal cinema.

1922—I begin to realize my[conception for the screen-a-scope in the barfüssele-andenem theatre in berlin.

1923—first plans towards creating the funnel-shaped auditorium on the occasion of my staging d'annunzio's "emperor jones" for its european premiere . . . these theories being subsequently published.

1926—transformable walls through light and mechanics achieved for the music festival of vienna.

1925—building of black auditorium with screen in grand palais of the exposition des arts d[illegible] at industrielles modernes in paris . . . completed plans for conic-shaped and ray-shaped auditorium.

1928—february—exposition of all my plans in new york city at roxhamy hall and publication of theories expounding the various ideal types of theatre and cinema . . .

1928—may—adaptation of ideal theatre and cinema plans to the american building under the term theatre the ray: the megaphone theatre.

1928—designed and executed the sole fifth avenue windows.

1929—creation of the film guild cinema.

three functional parts of this cinema . . .

a. projectoscope
a gallery of light-stations encircling the auditorium sending rays in all directions . . .

b. screenscope
a device for the main screen with three auxiliary screens spanning the auditorium . . .

c. seating plan . . .

the realization of any architectural ideal means combat; the realization of an ideal cinema means war—war against space and time; war against owner and builder; war against an army of exploiters and experts.

the function of a building determines its form, color and material. architecture is function materialized in space. the time dictates the style. the talent of an architect is in ratio to his respect for materials and the limits of utility. a semi-solution of this principle makes for decoration. the perfect solution of function and material becomes beauty.

frederick kiesler

Figure 32

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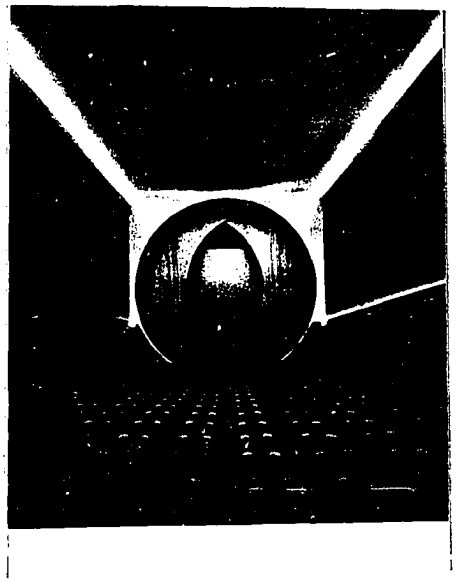


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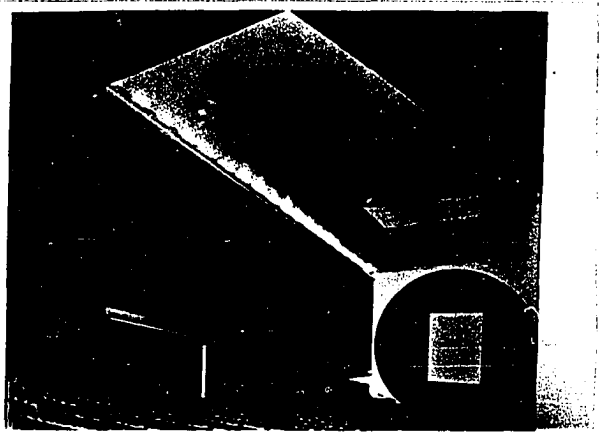


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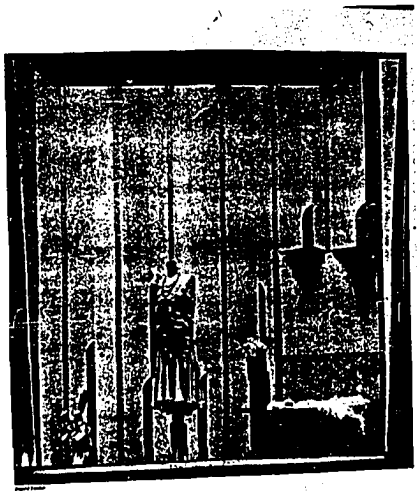


Figure 35



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Figure 37

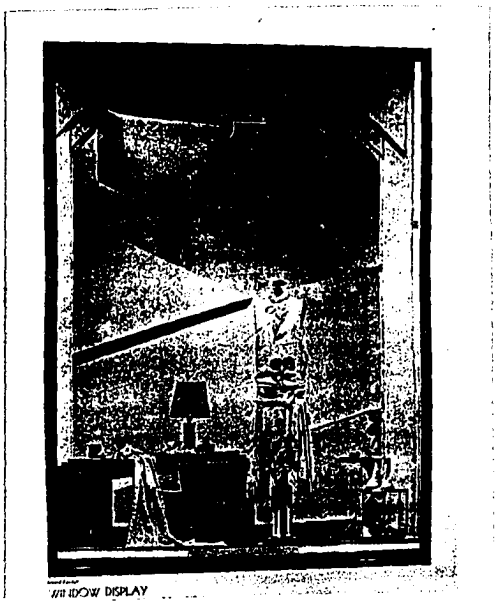


Figure 38



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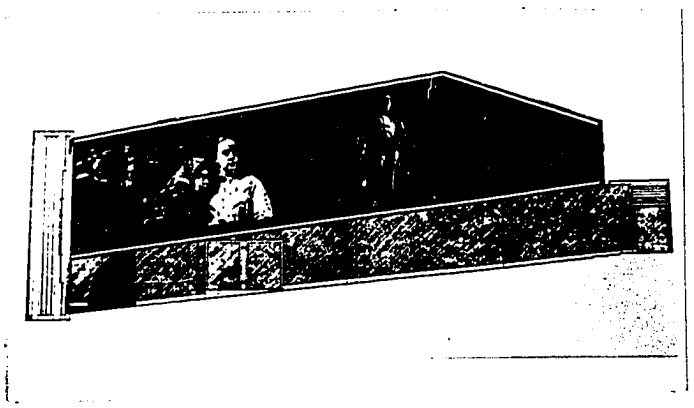


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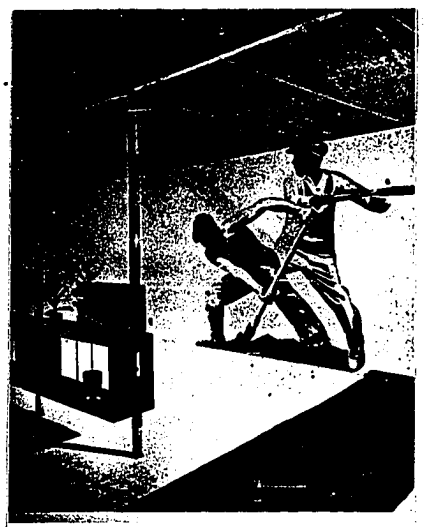


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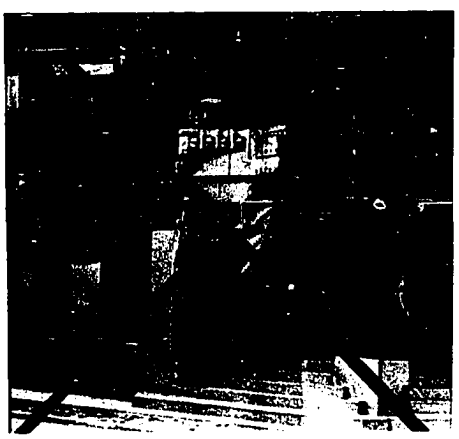


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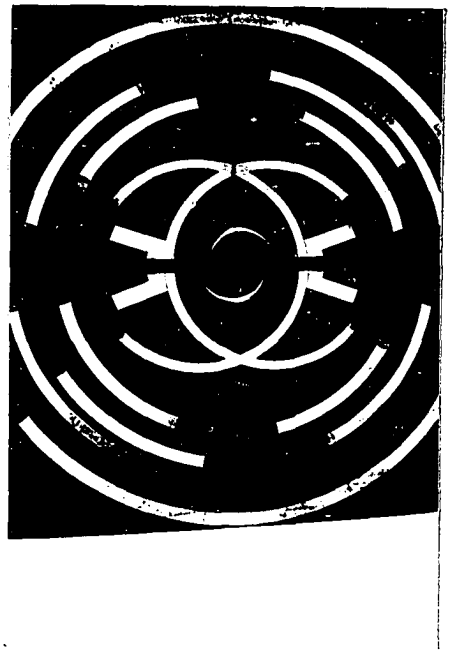


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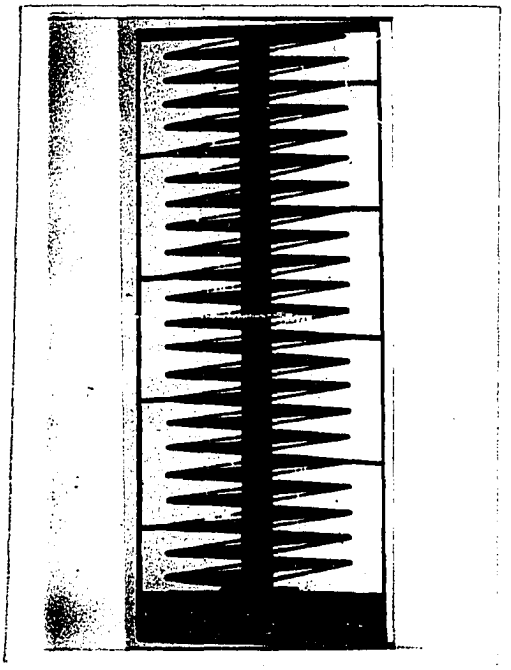


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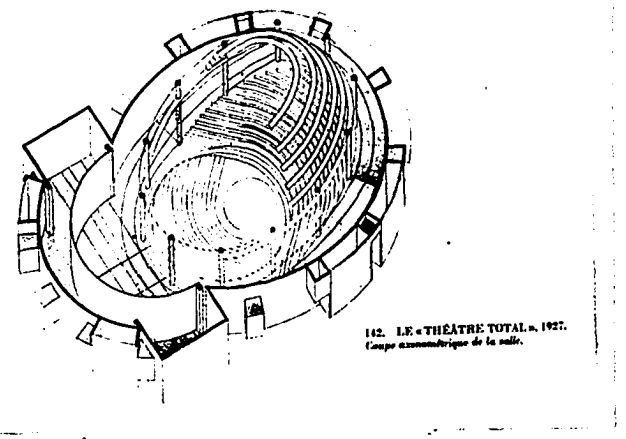


Figure 45

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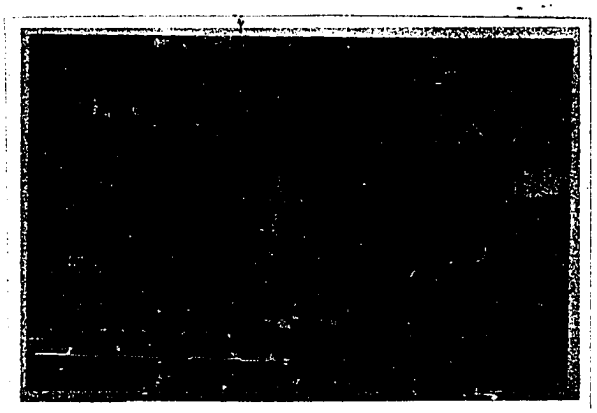


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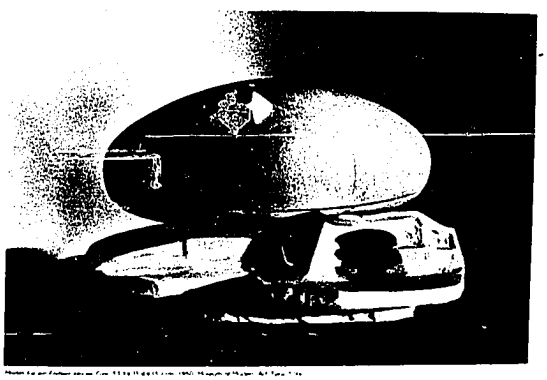


Figure 47

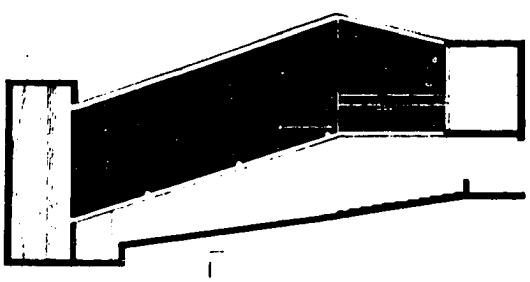


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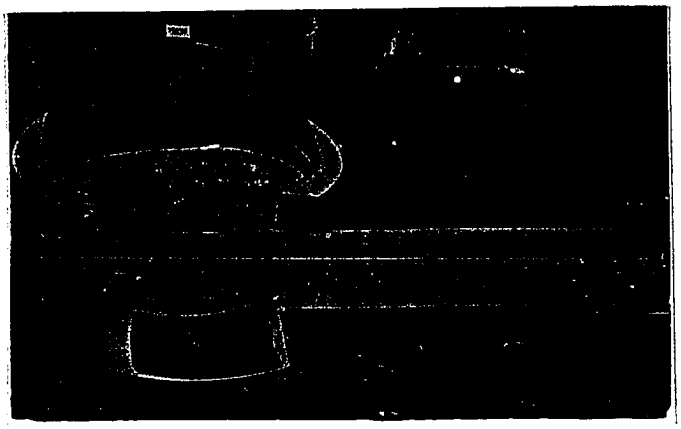


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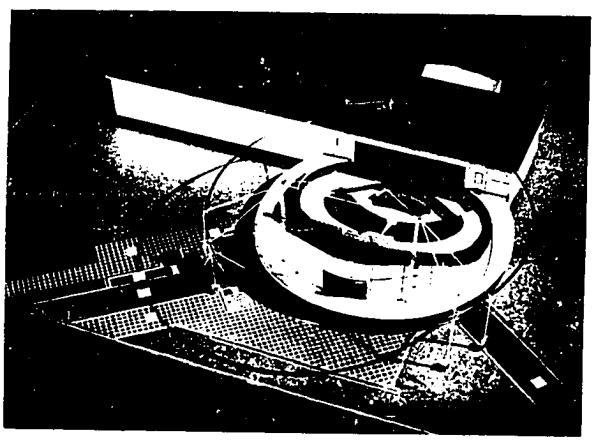


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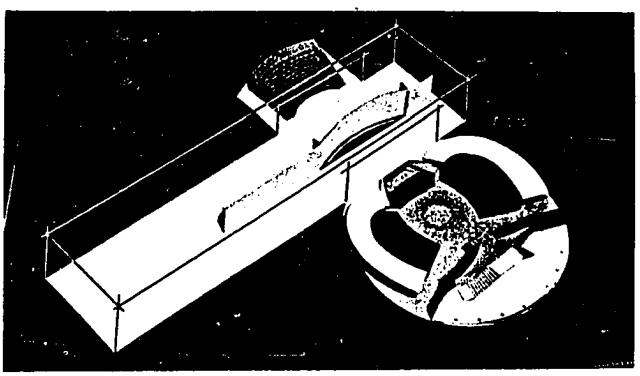


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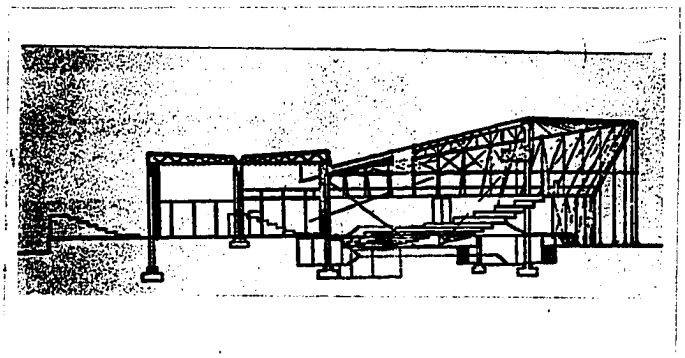


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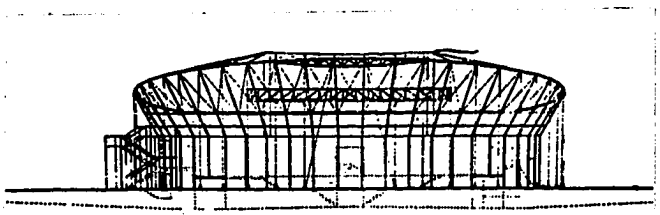
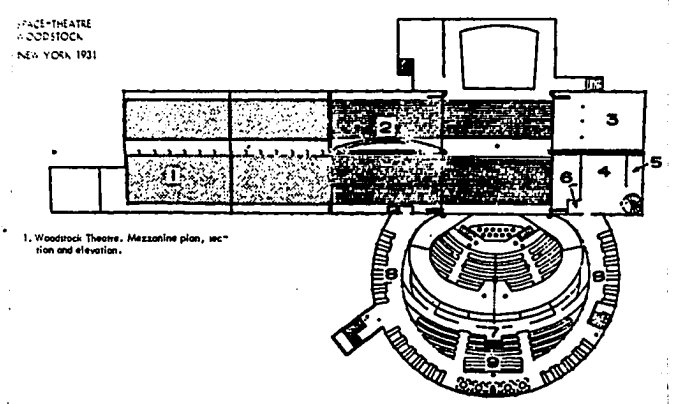


Figure 53



1. Woodstock Theatre. Mezzanine plan, section and elevation.

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Figure 55

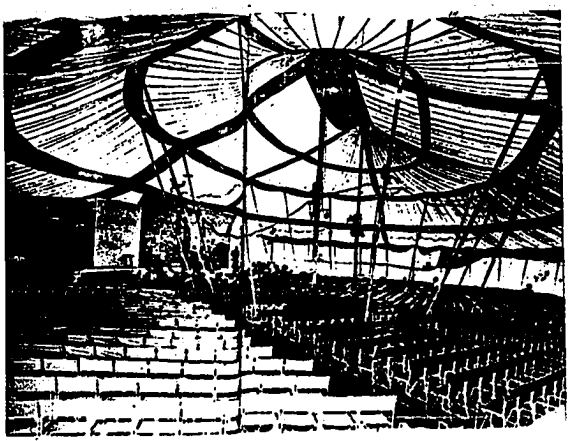


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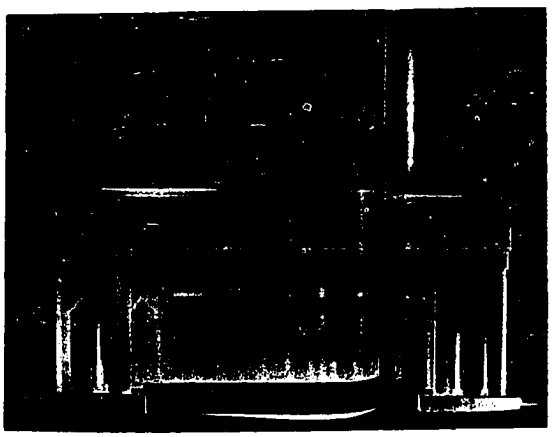


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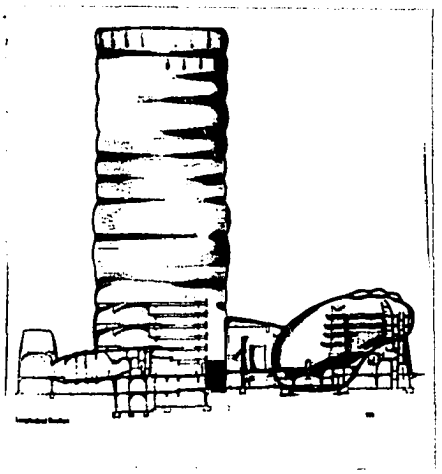


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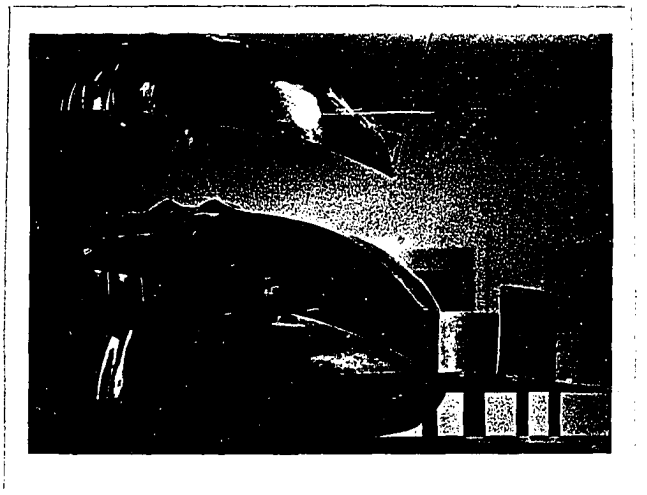


Figure 59



Figure 60

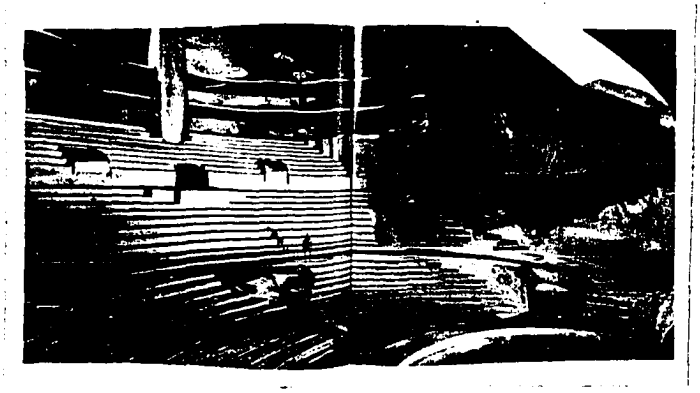


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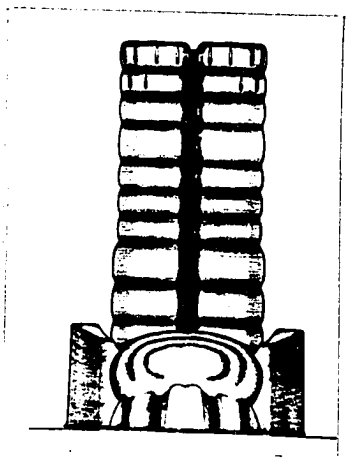


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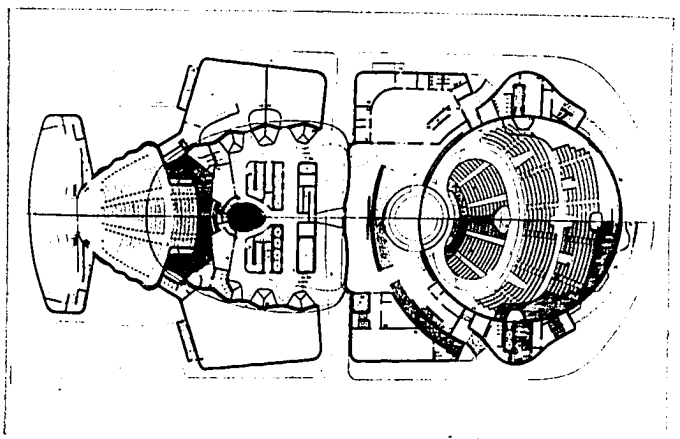


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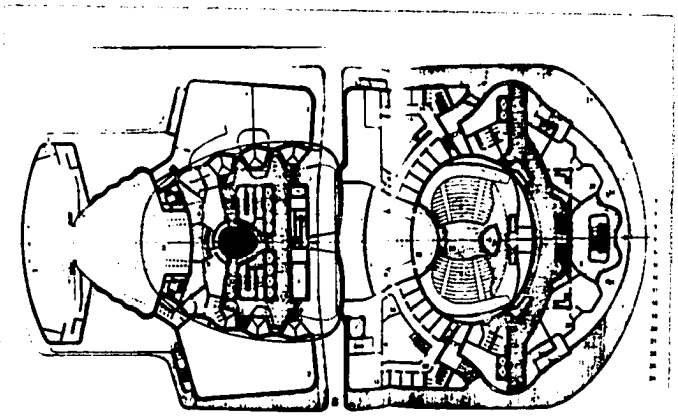


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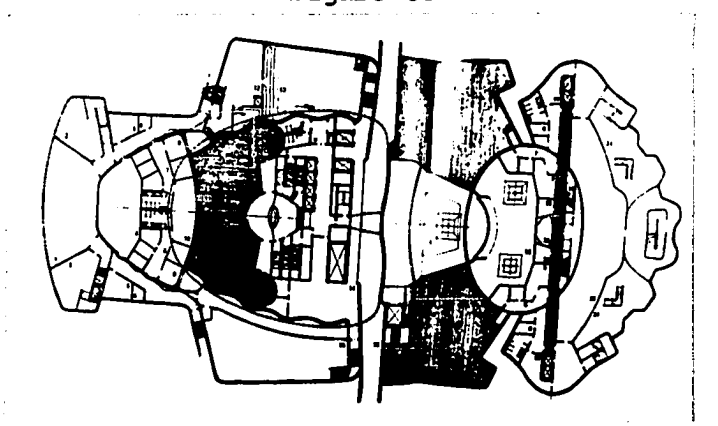


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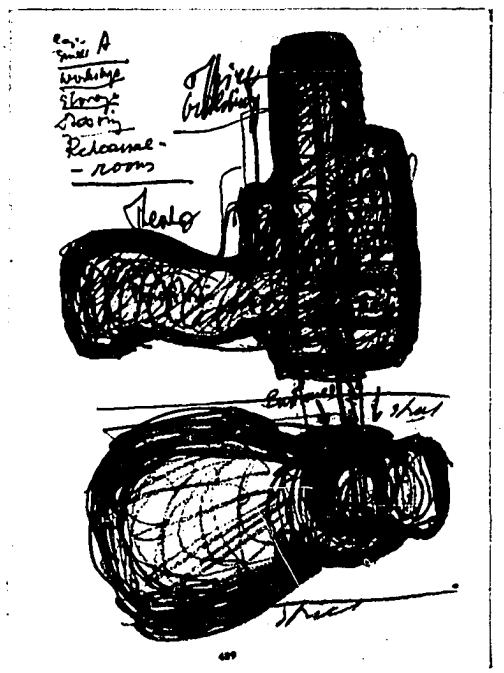


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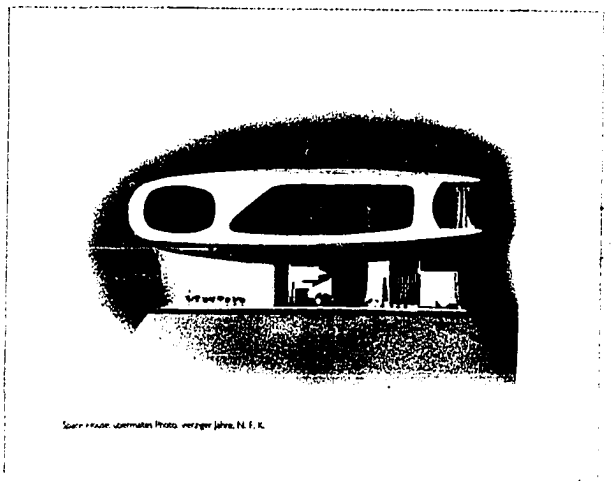


Figure 67



Figure 68

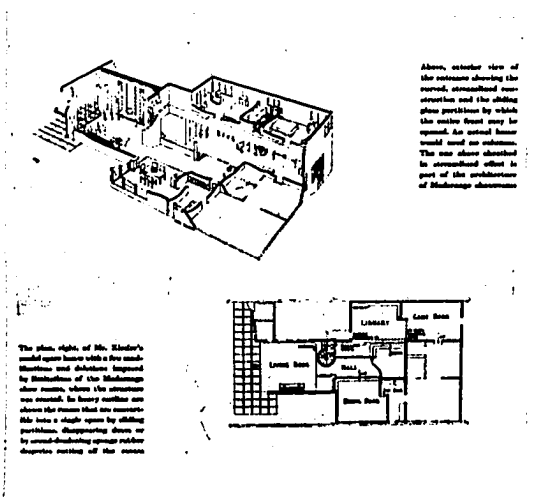


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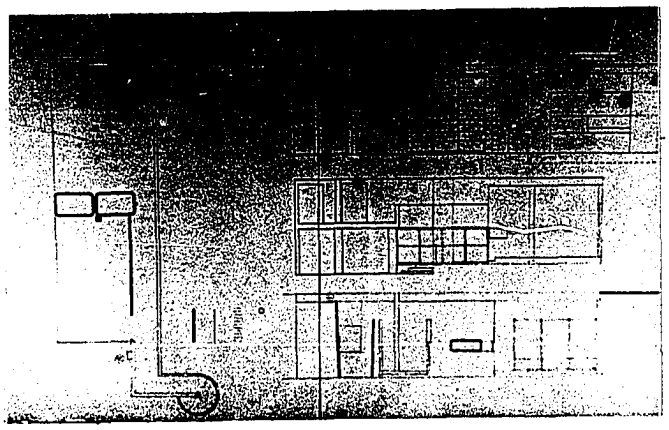


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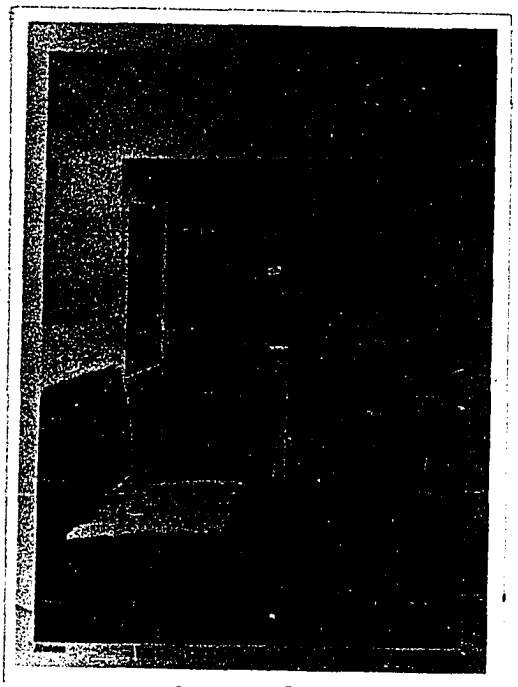


Figure 71



Figure 72

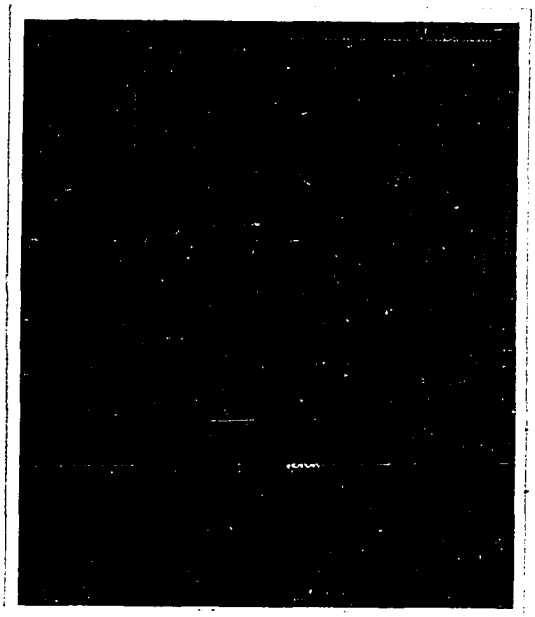


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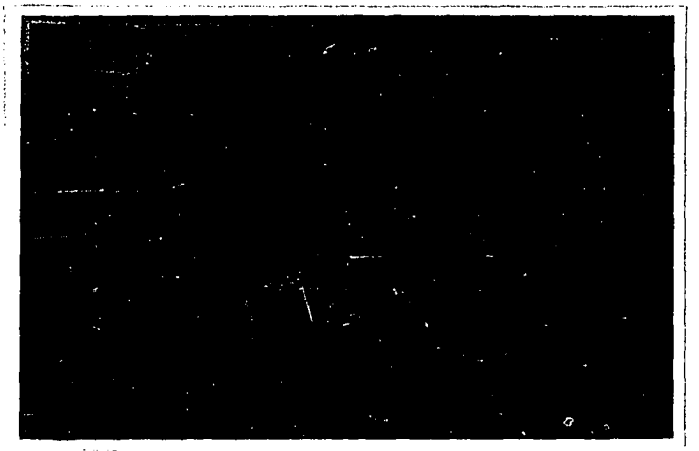


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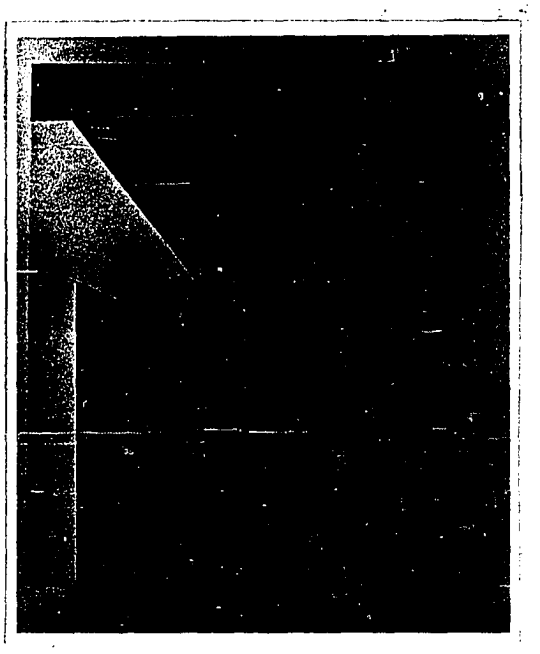


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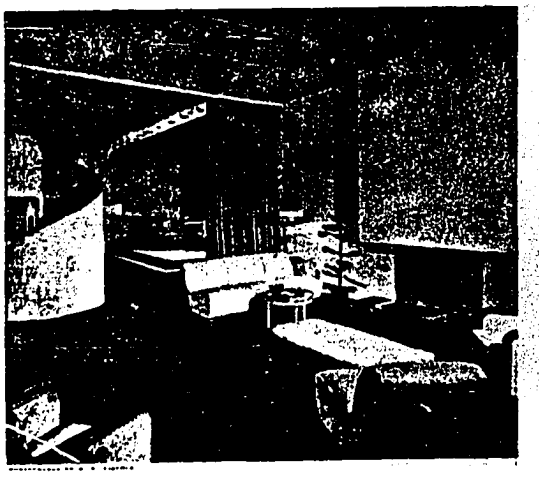


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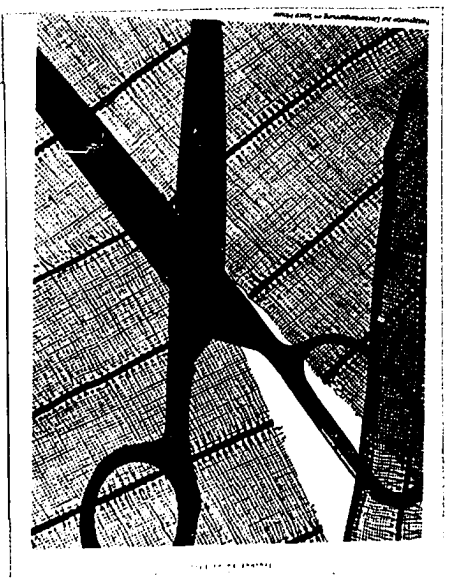


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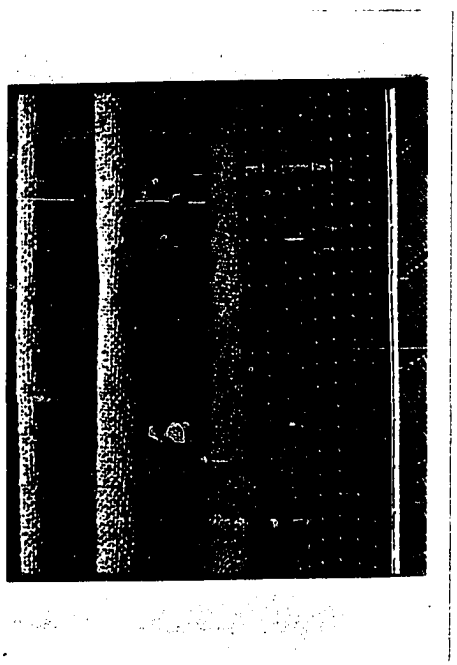


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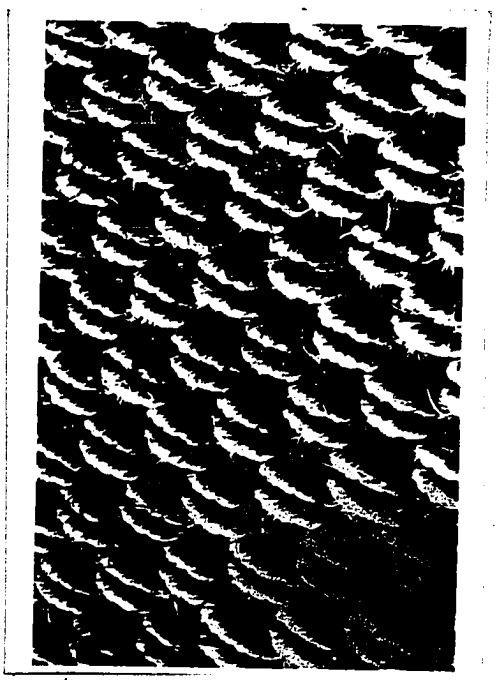


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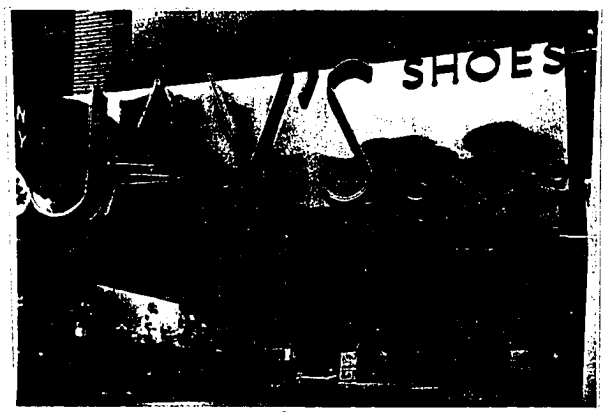


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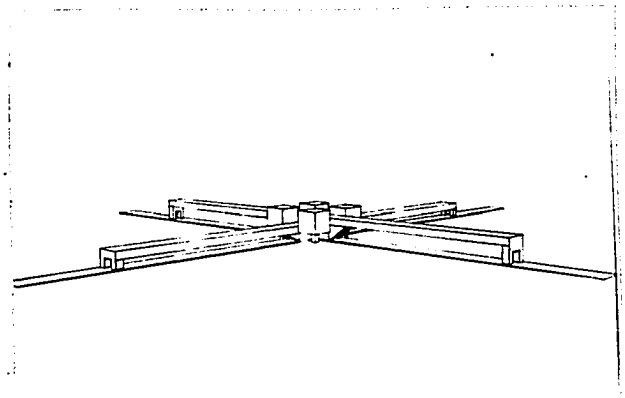


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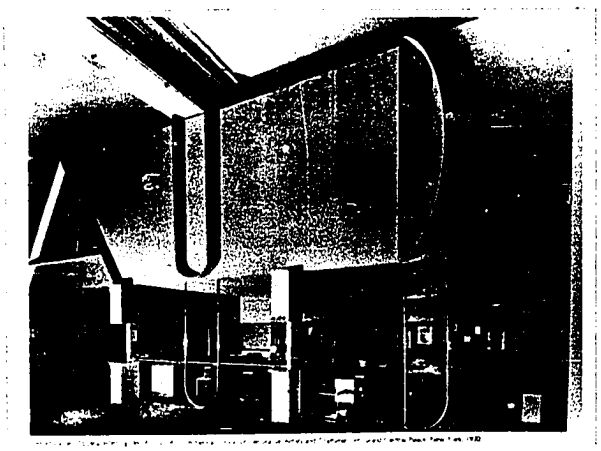


Figure 89



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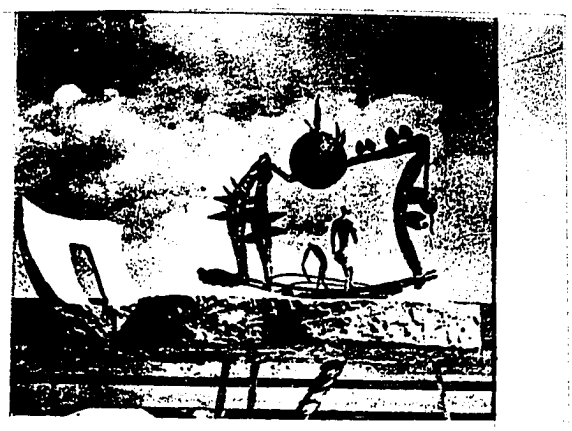


Figure 91



Figure 92



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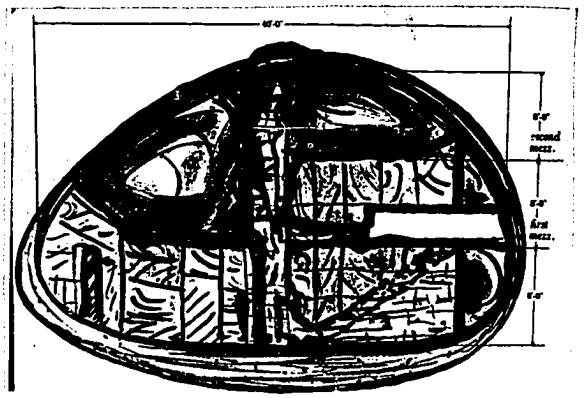


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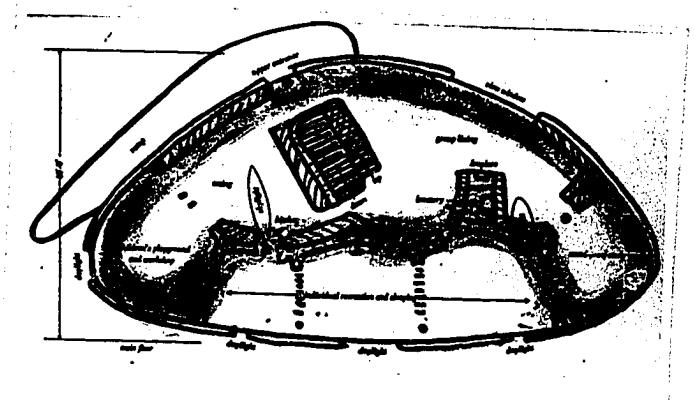


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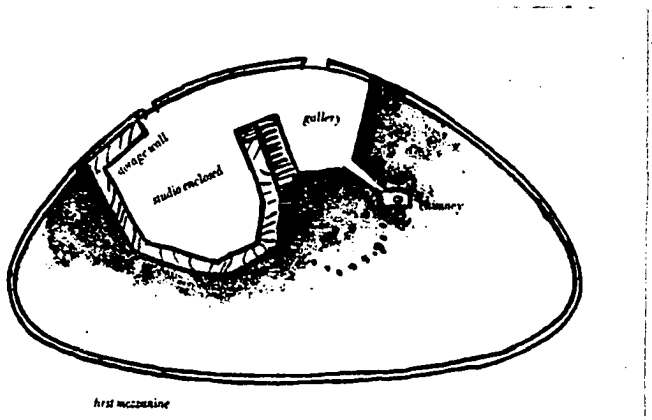


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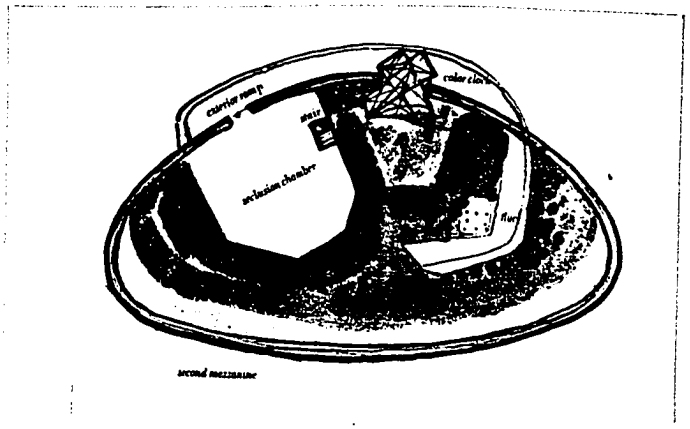


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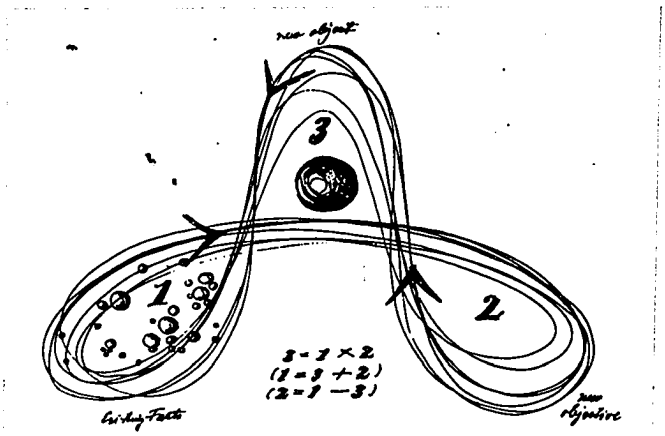


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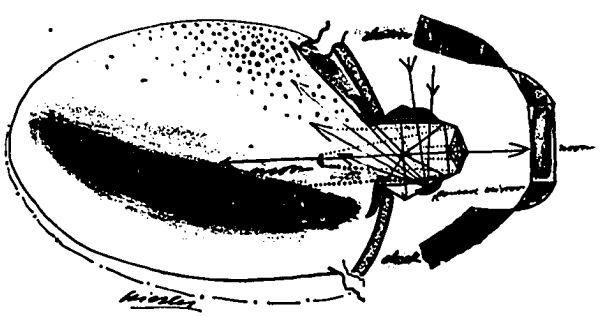


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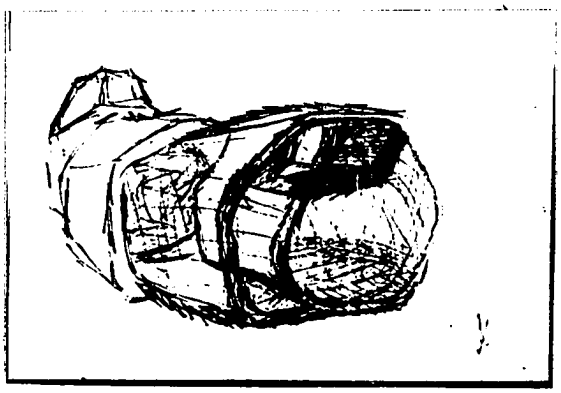


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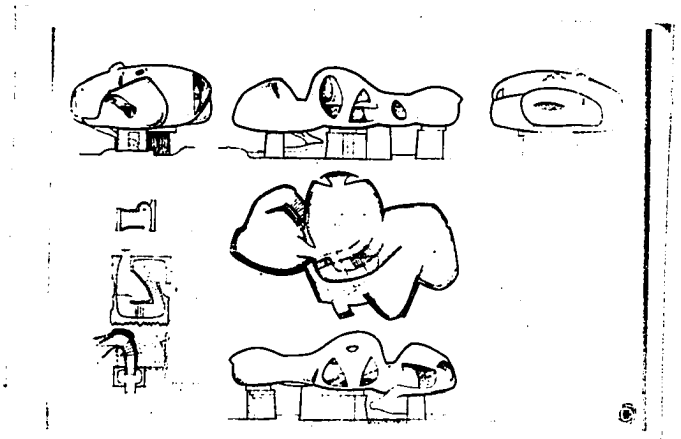


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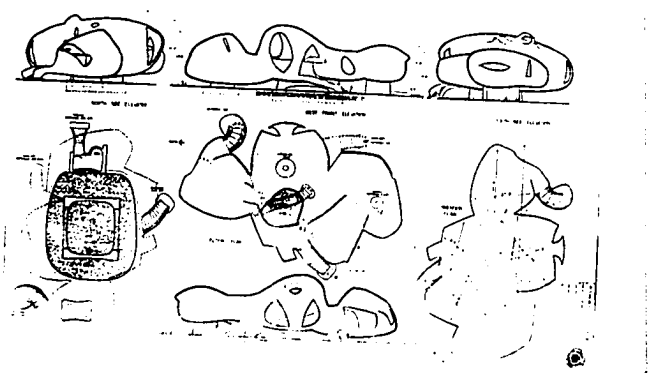


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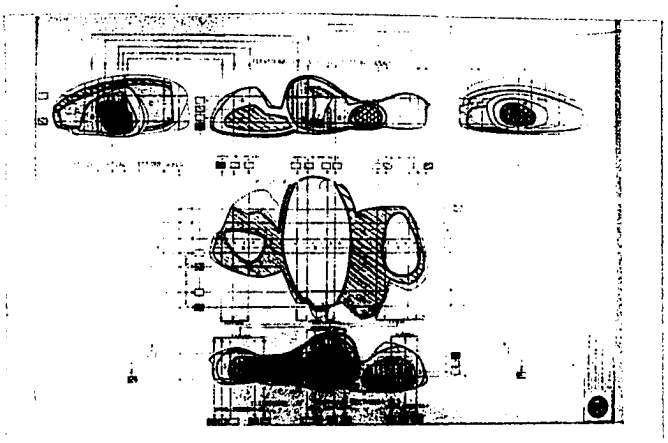


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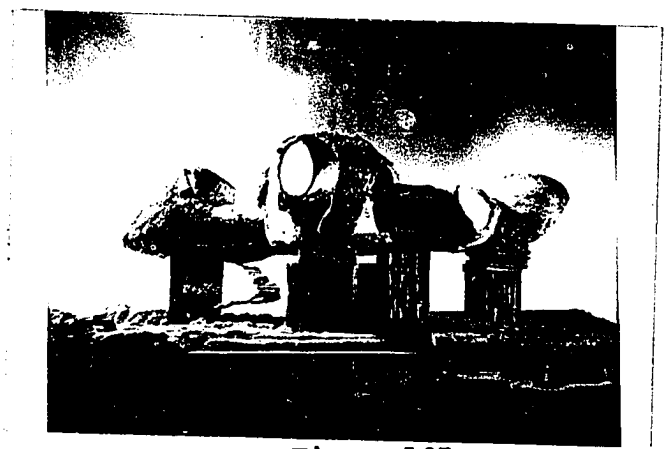


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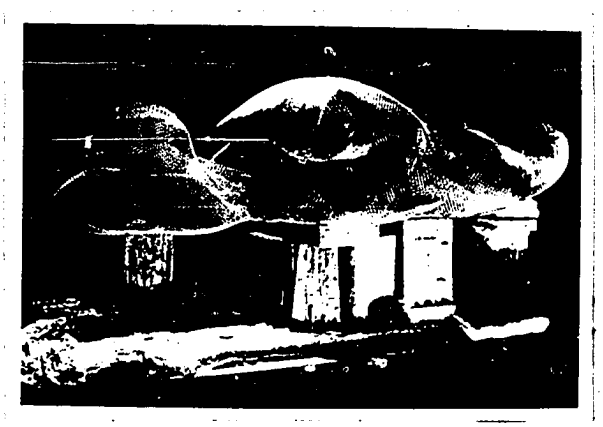


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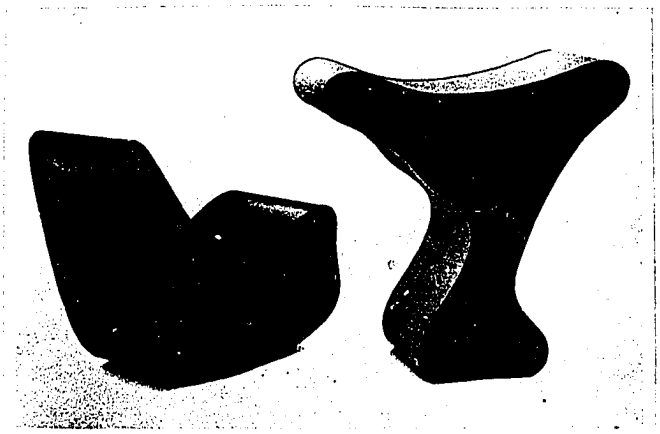


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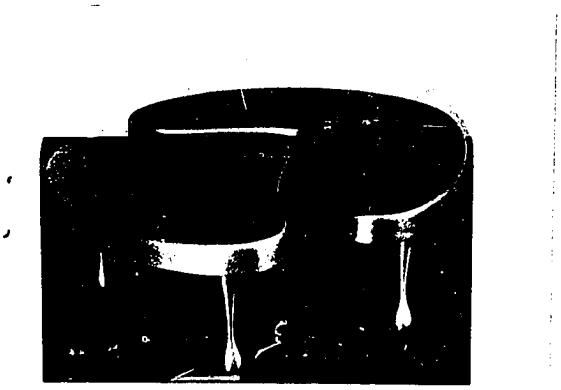


Figure 108



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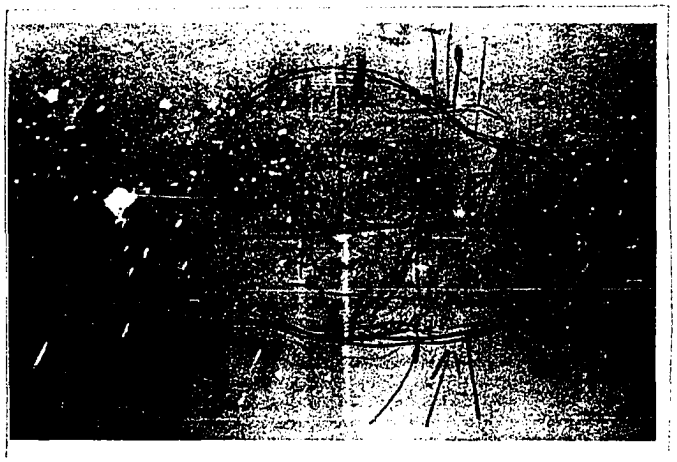


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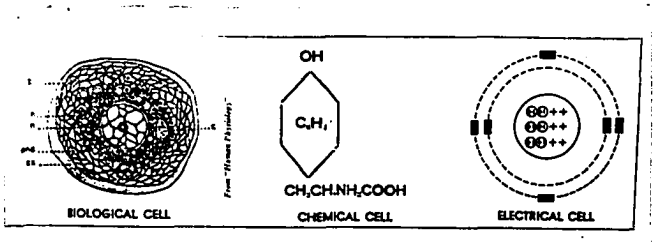


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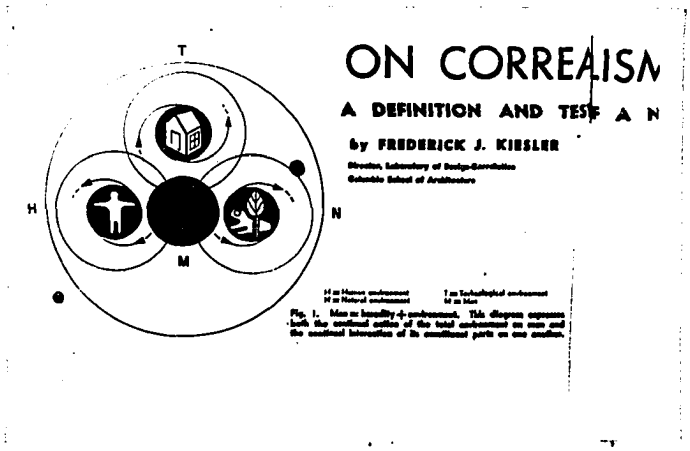


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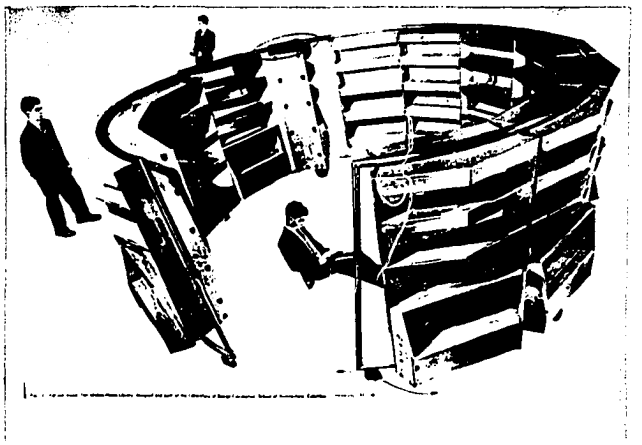


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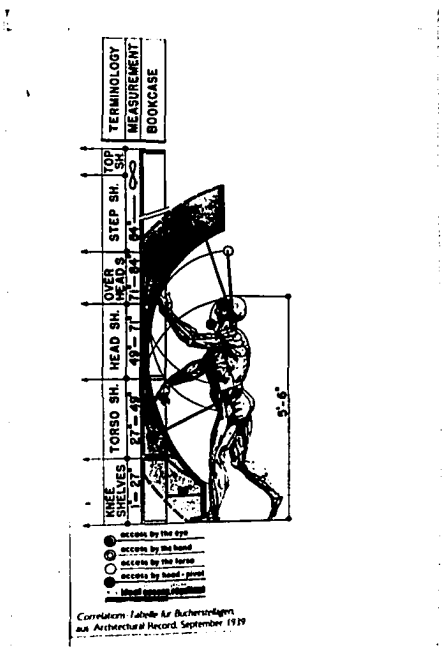


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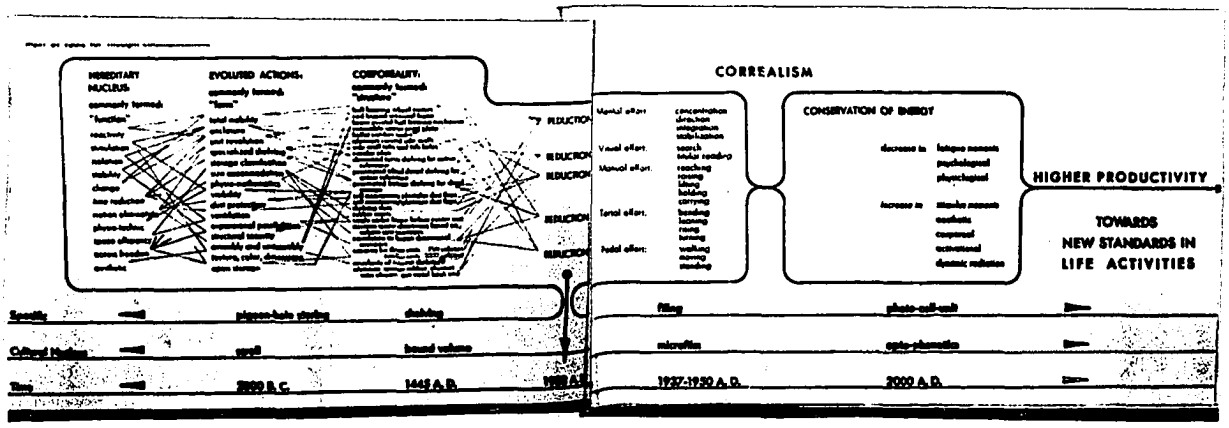


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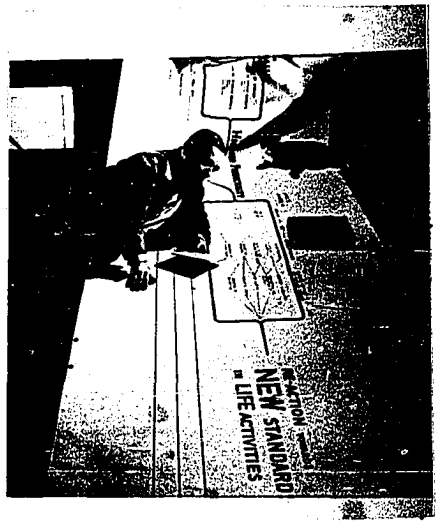


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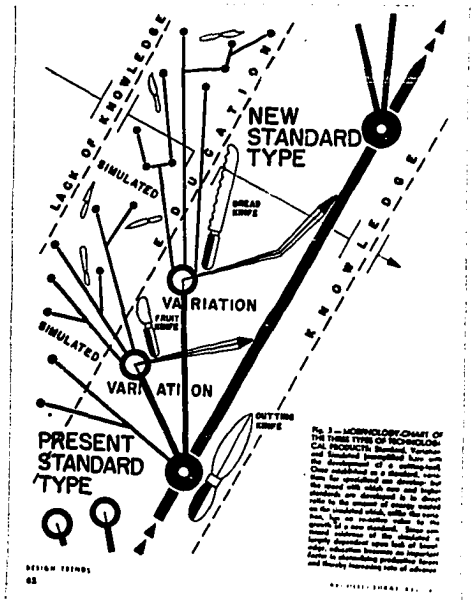


Figure 119

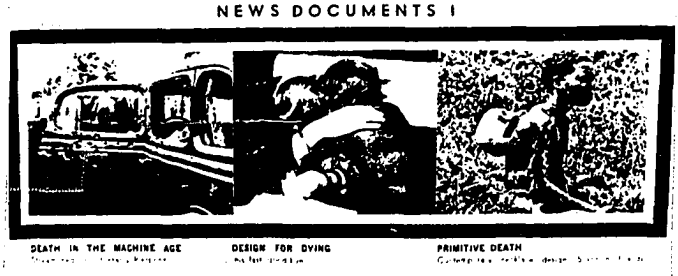


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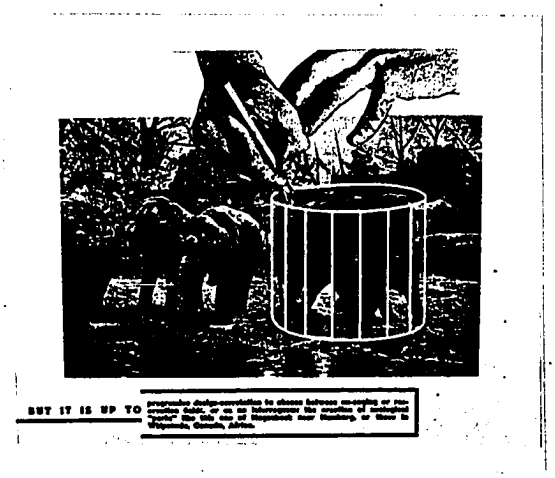


Figure 121



Figure 122

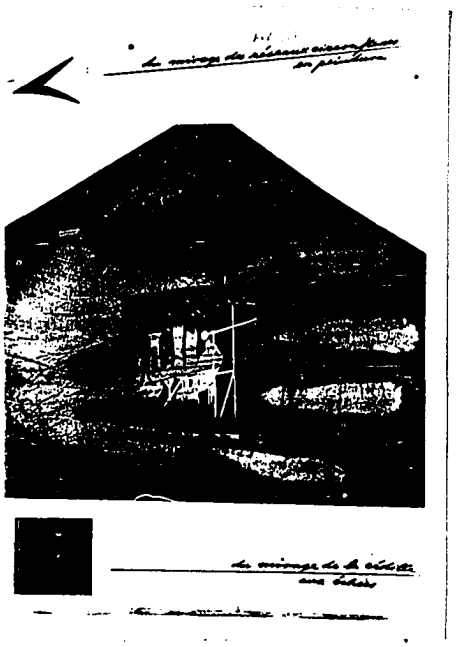


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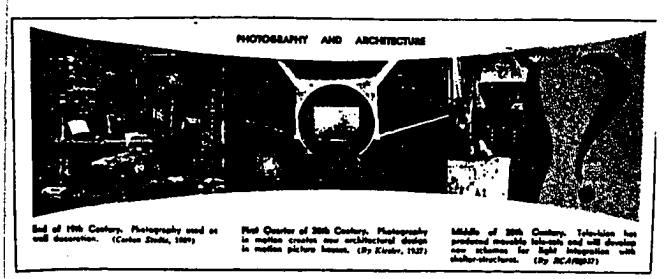


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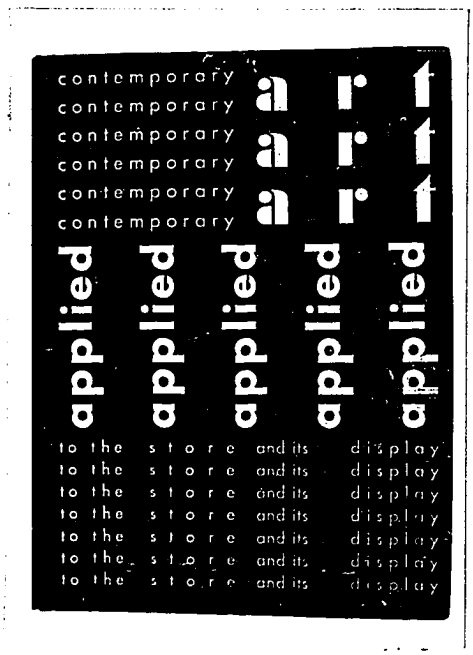


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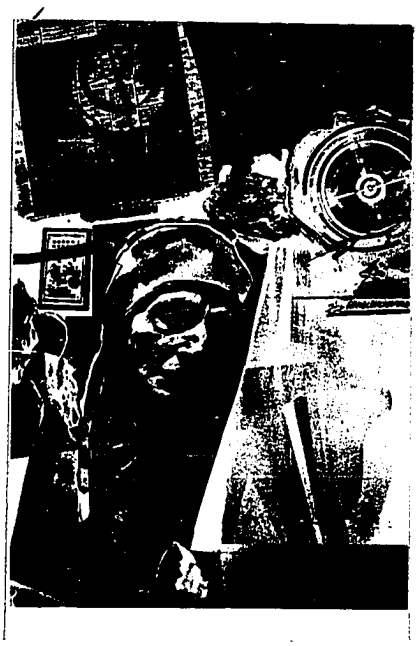


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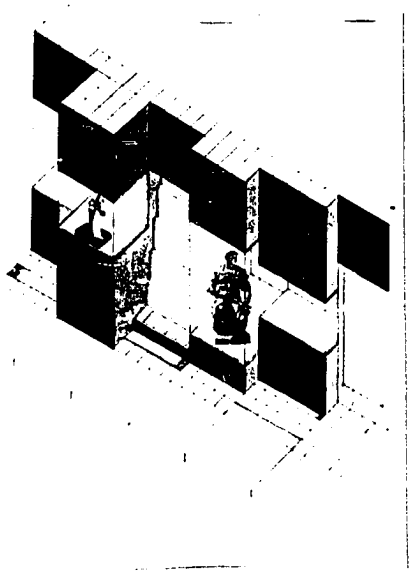


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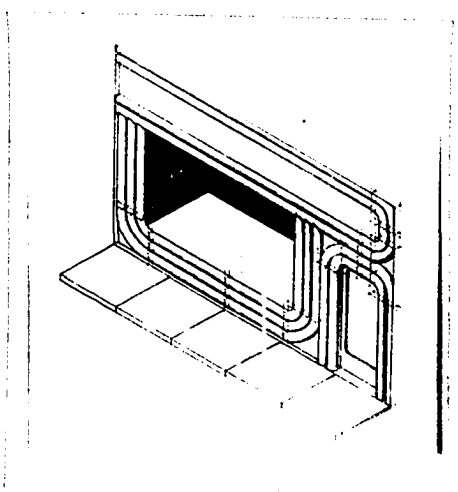


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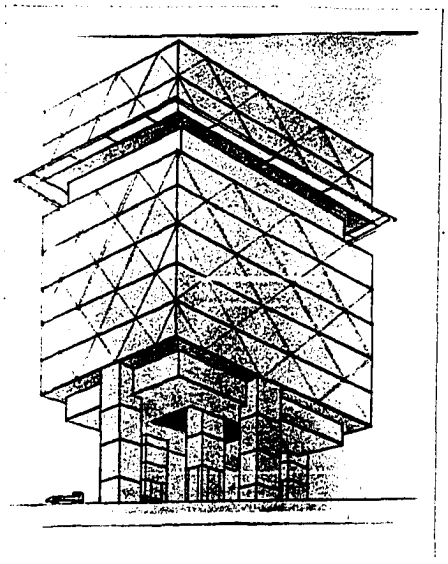


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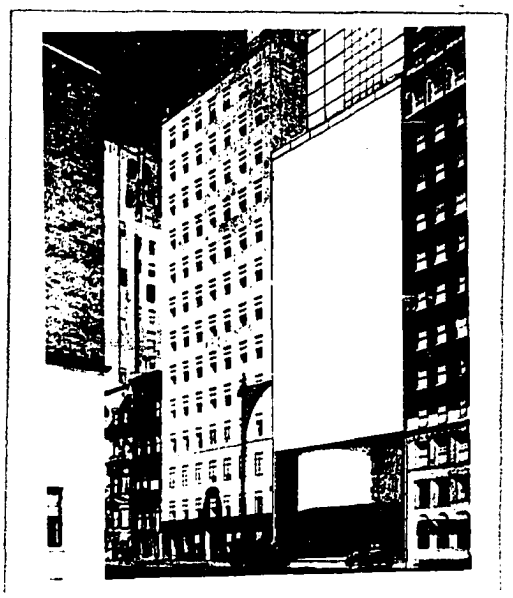


Figure 130



Figure 131

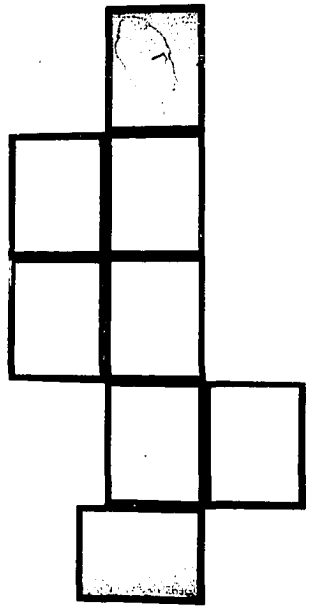


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Figure 134



Figure 135



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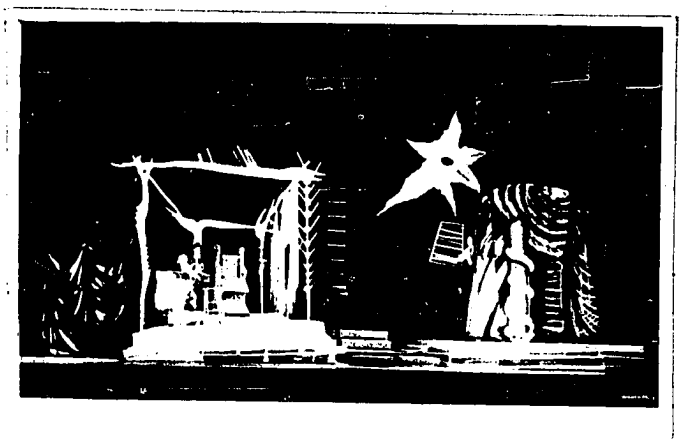


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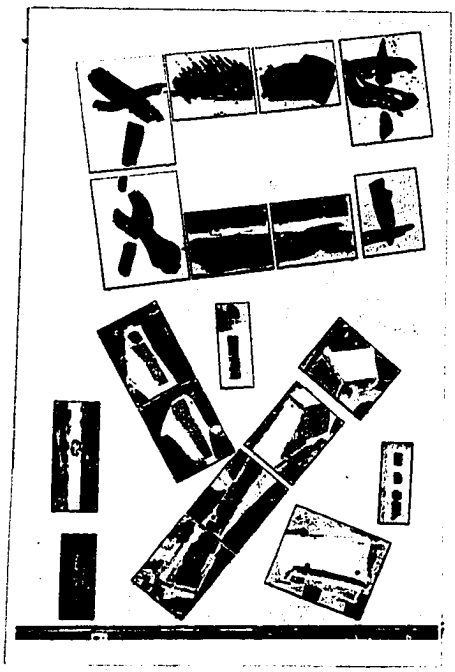


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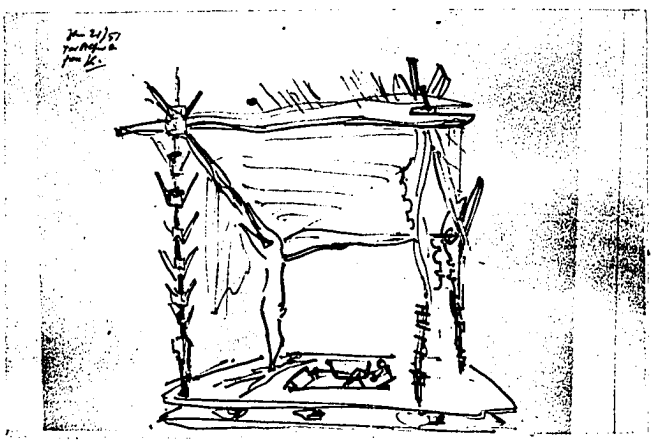


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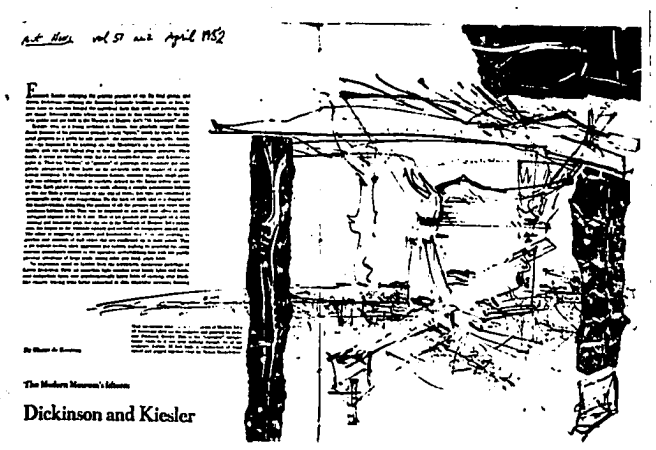


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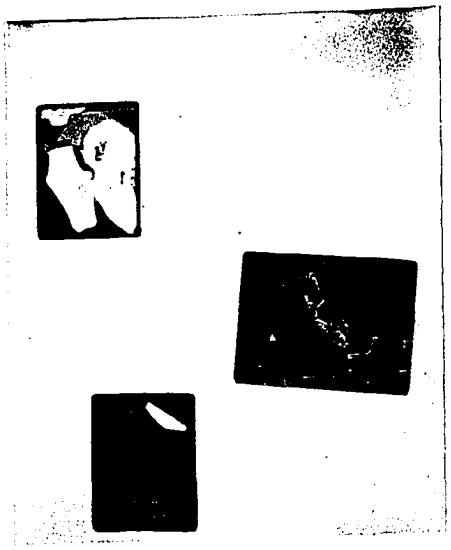


Figure 141



Figure 142



Figure 143

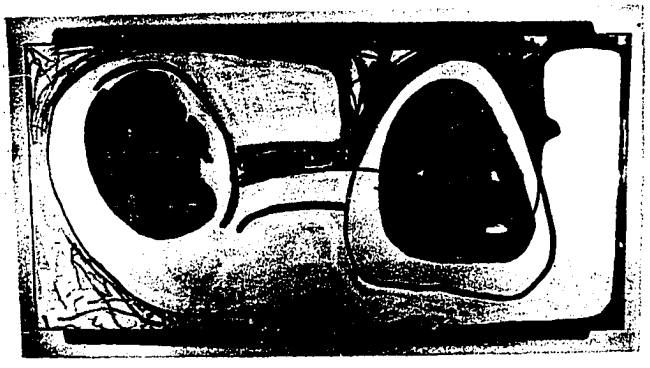


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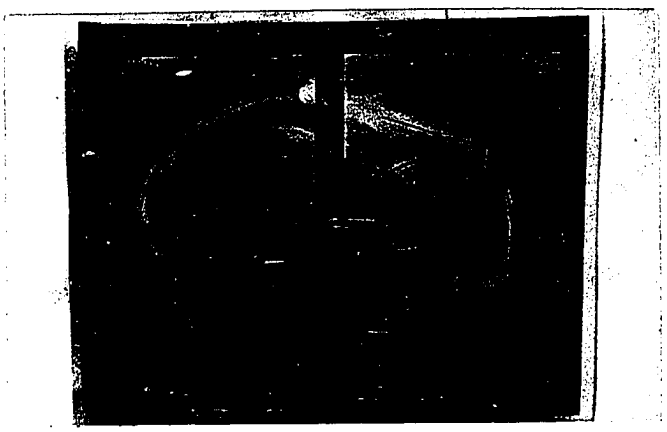


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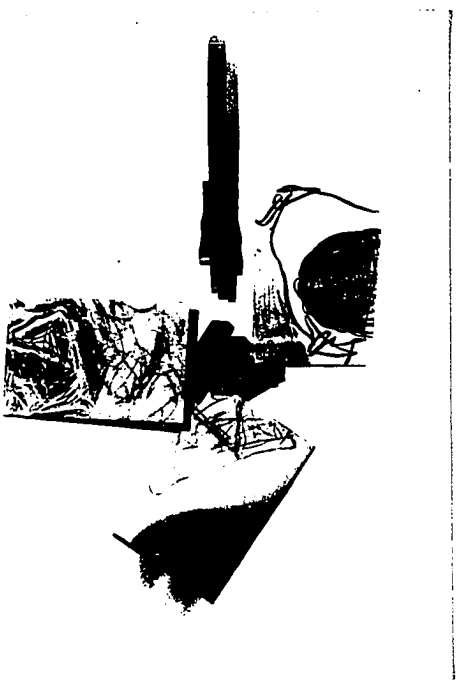


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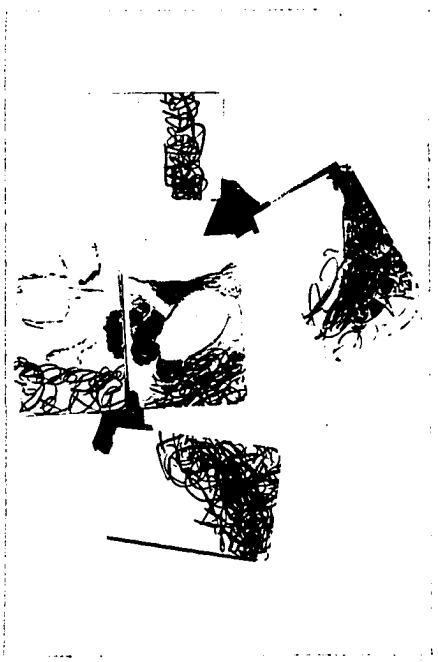


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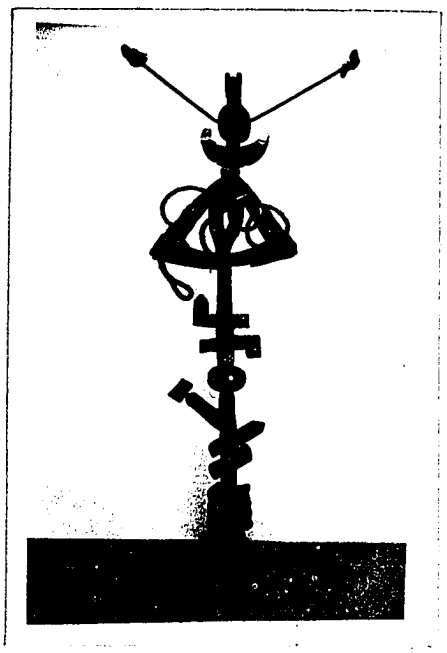


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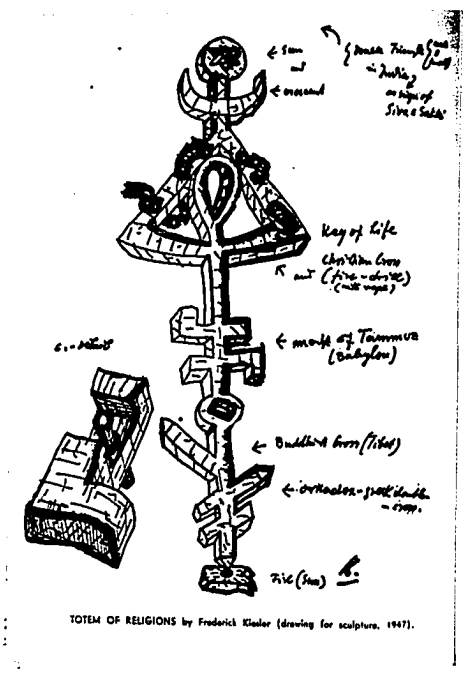


Figure 150



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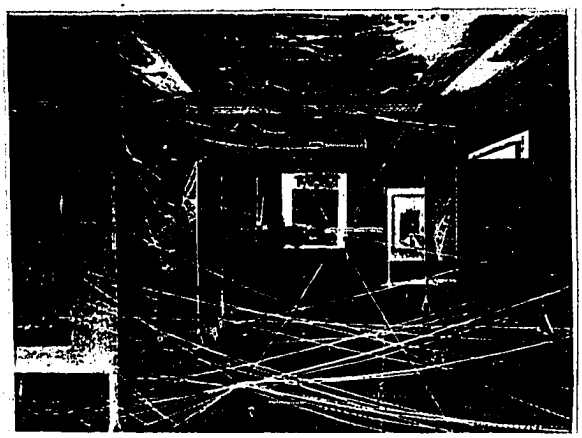


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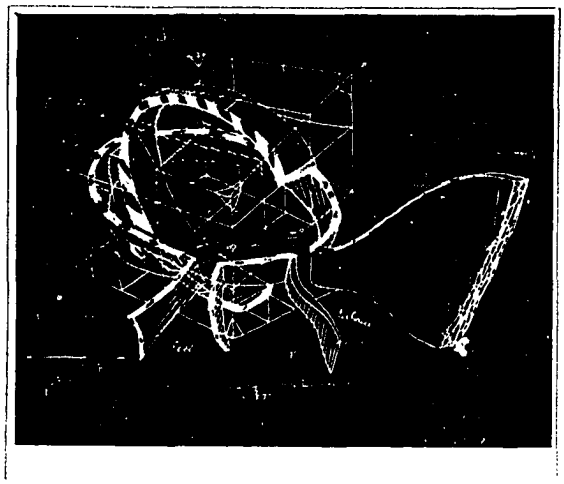


Figure 153



Figure 154



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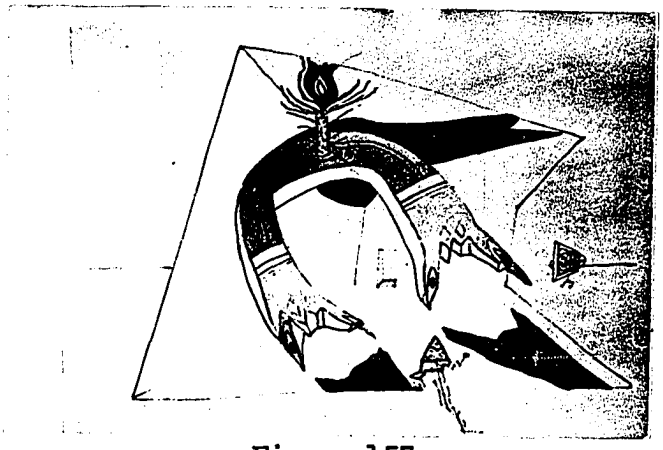


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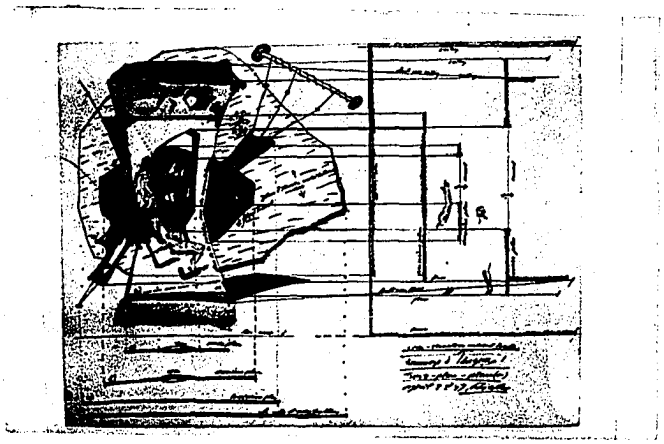


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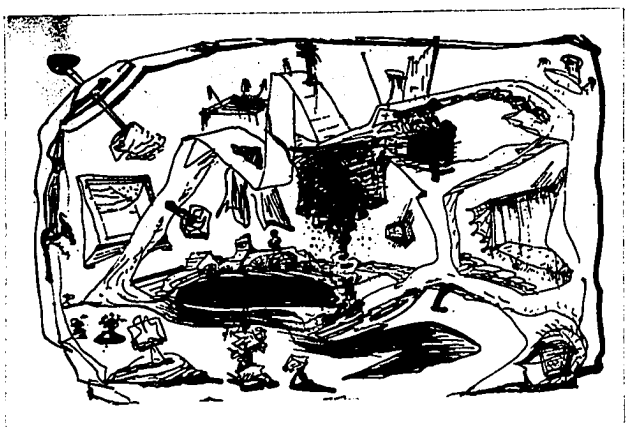


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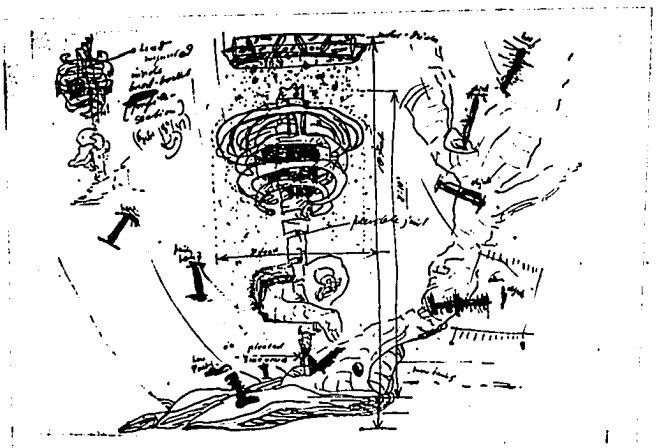


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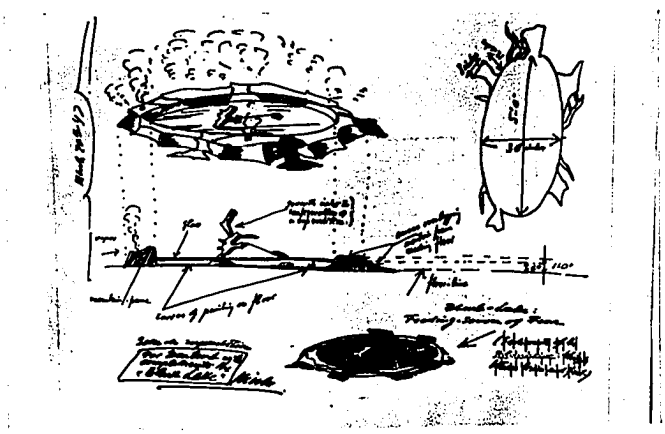


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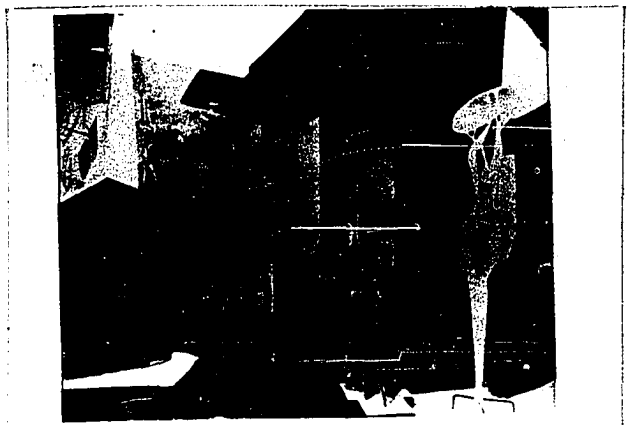


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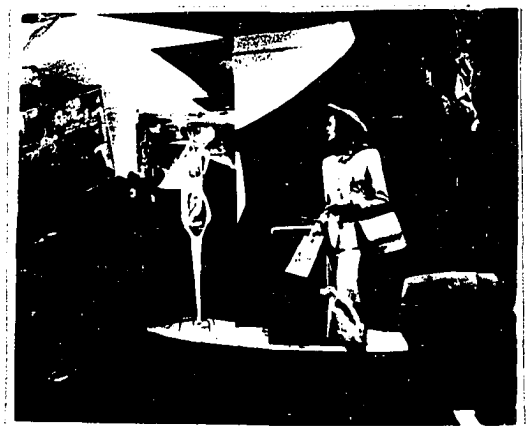


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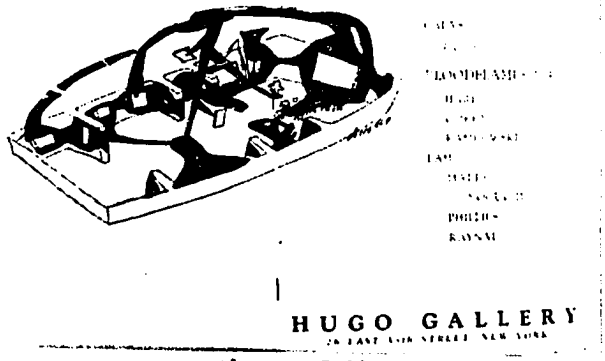


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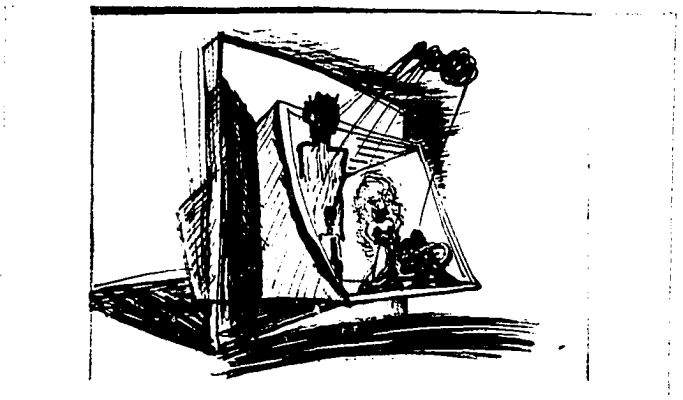


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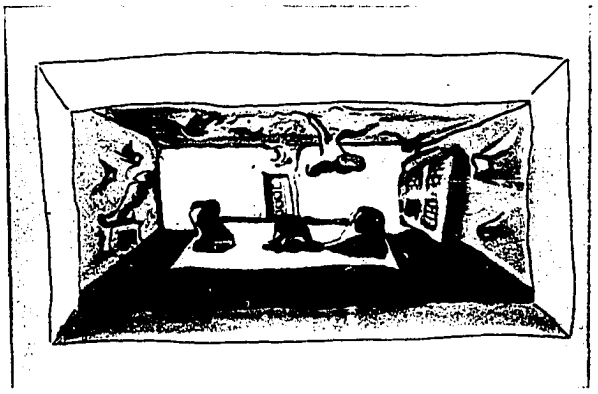


Figure 166



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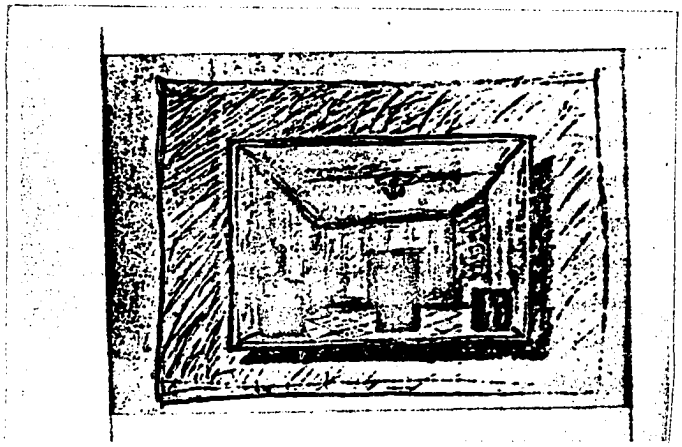


Figure 168



Figure 169



Figure 170

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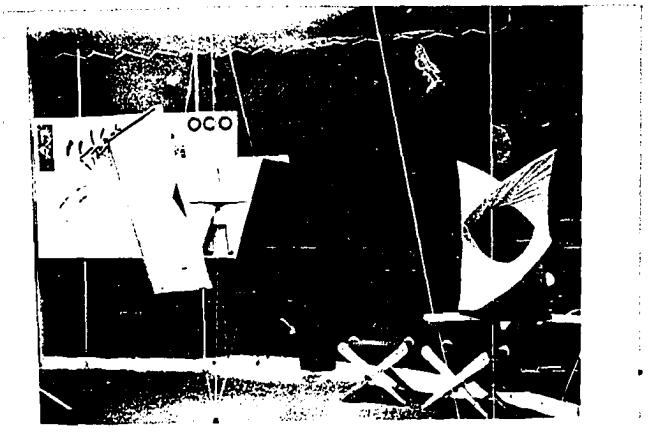


Figure 171



Figure 172

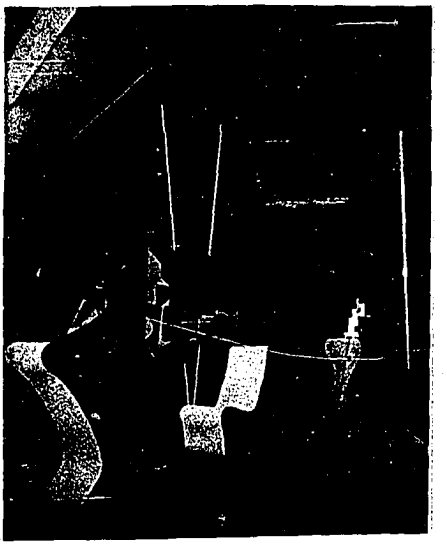


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Figure 174



Figure 175

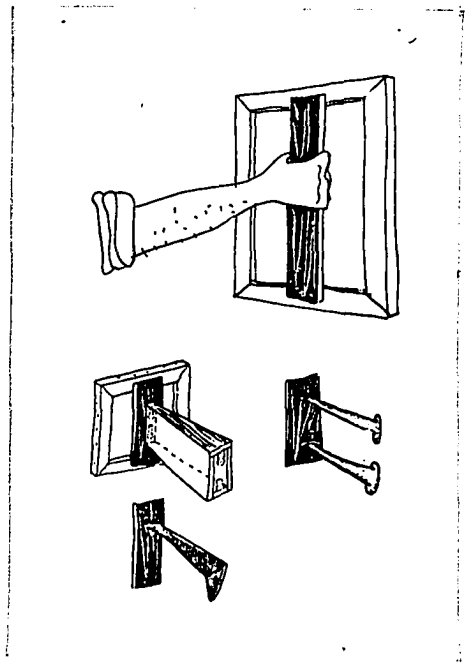


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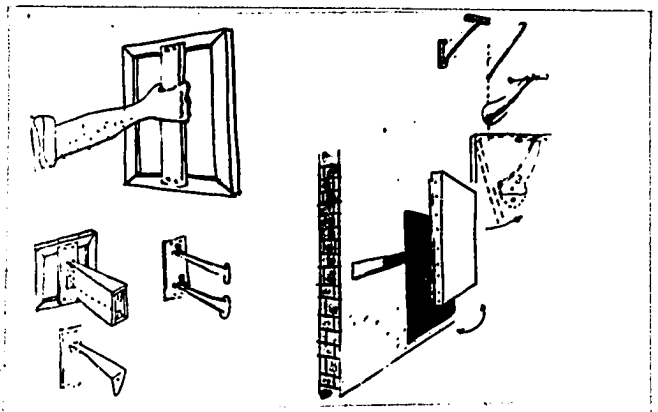


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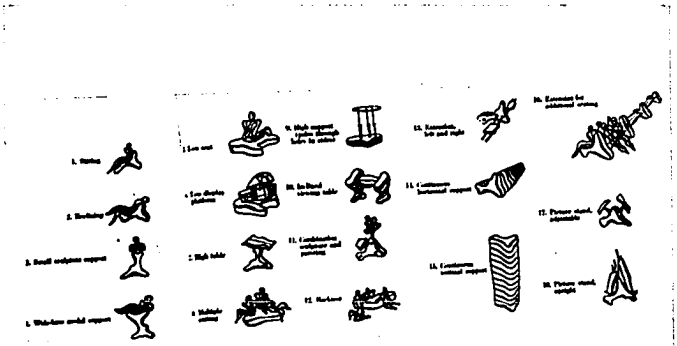


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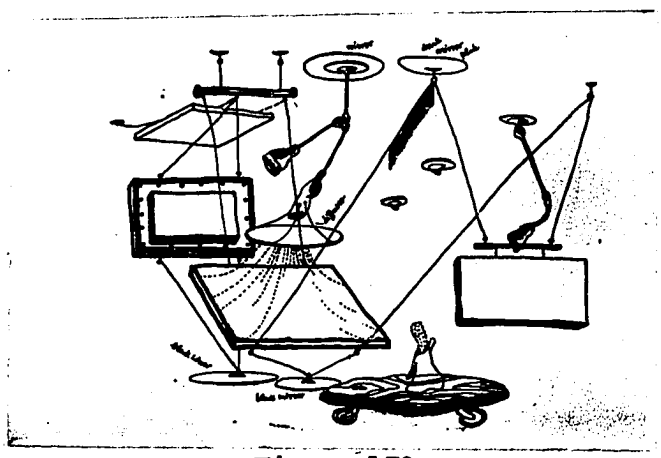


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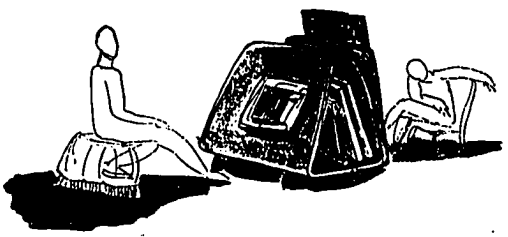


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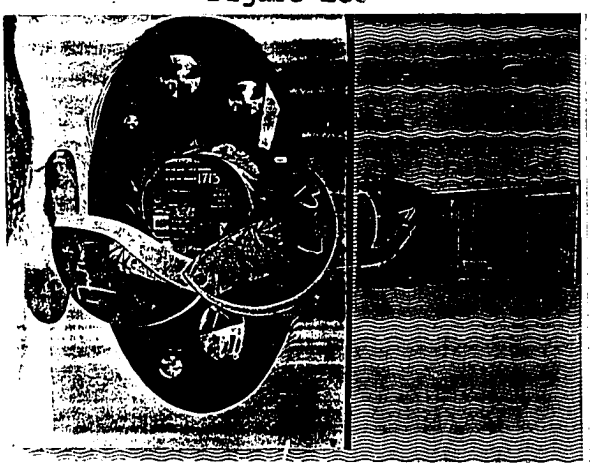


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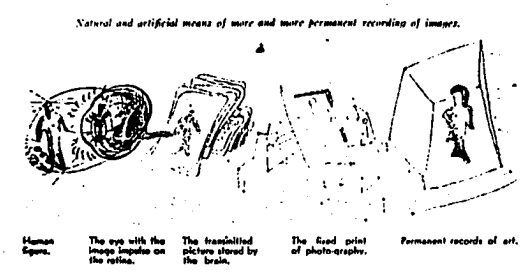


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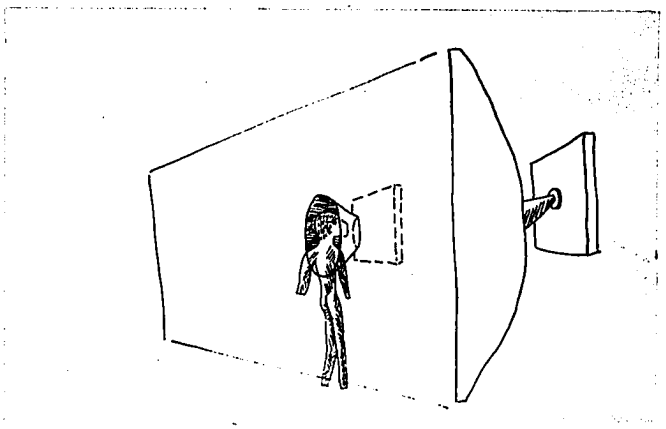


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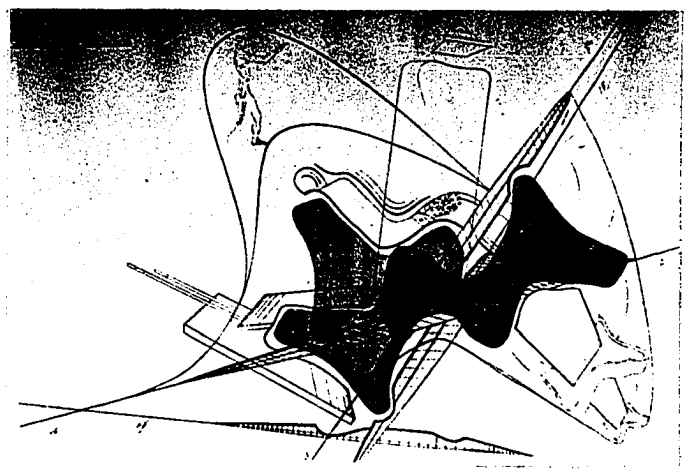


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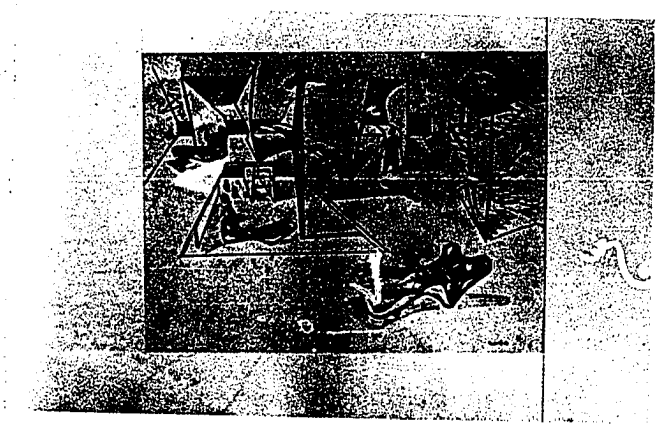


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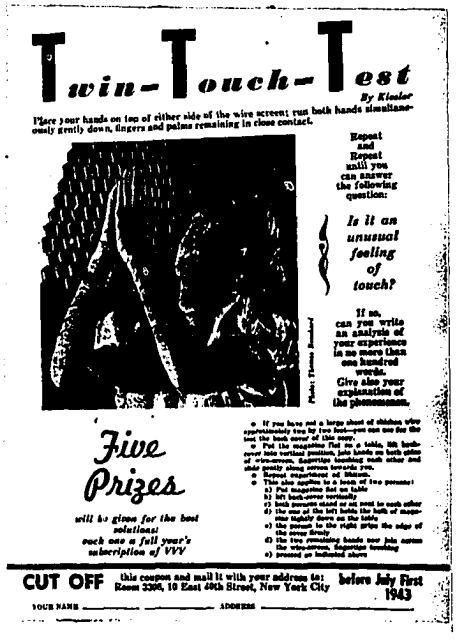


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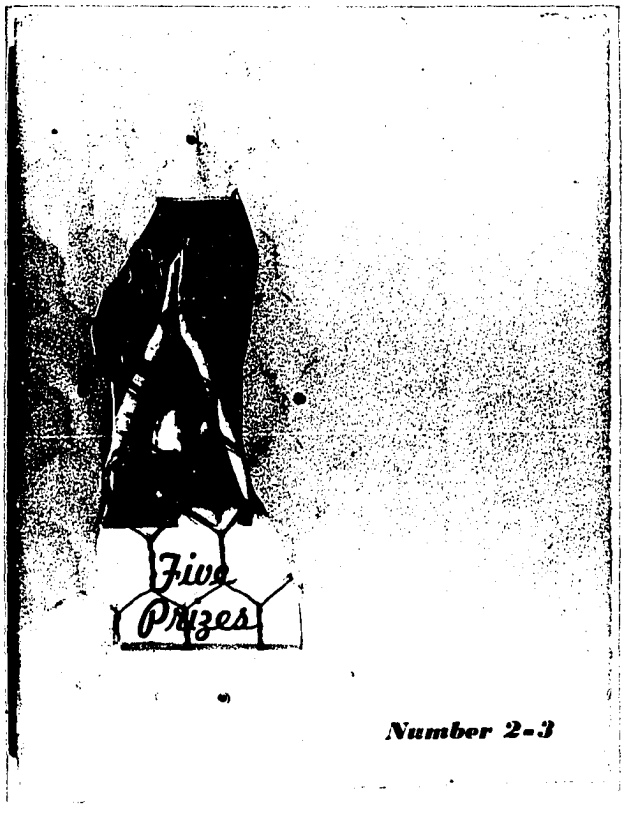


Figure 187



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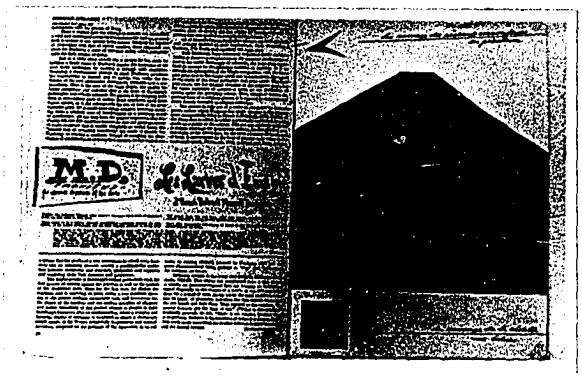


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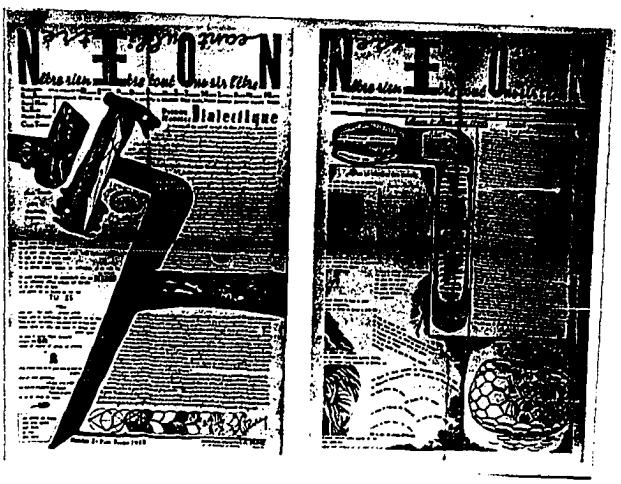


Figure 190



Figure 191



Figure 192

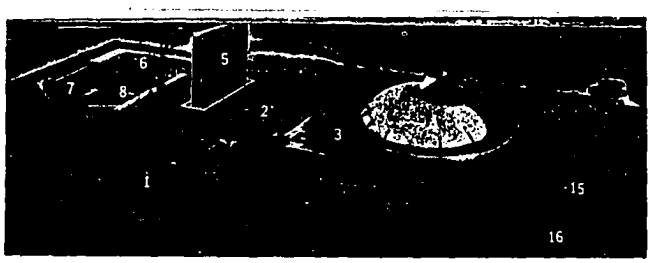


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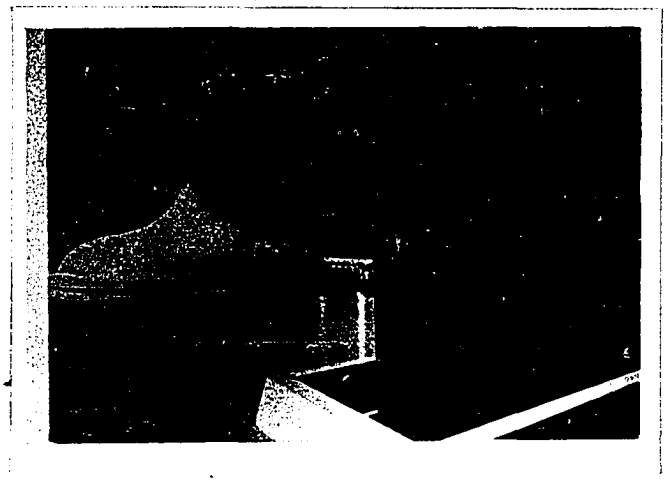


Figure 194



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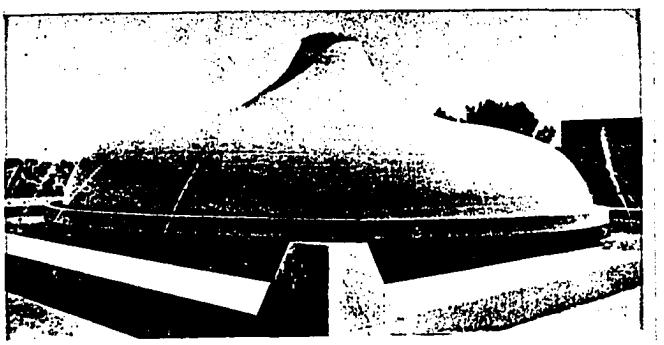


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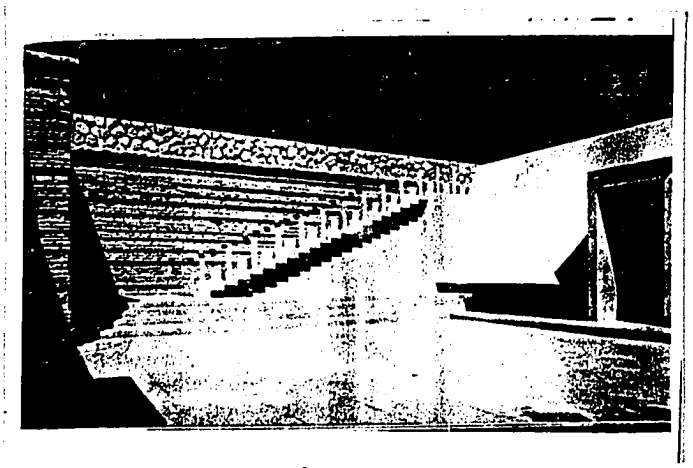


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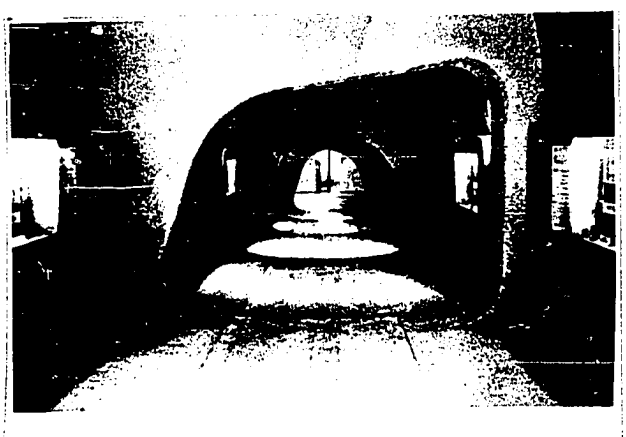


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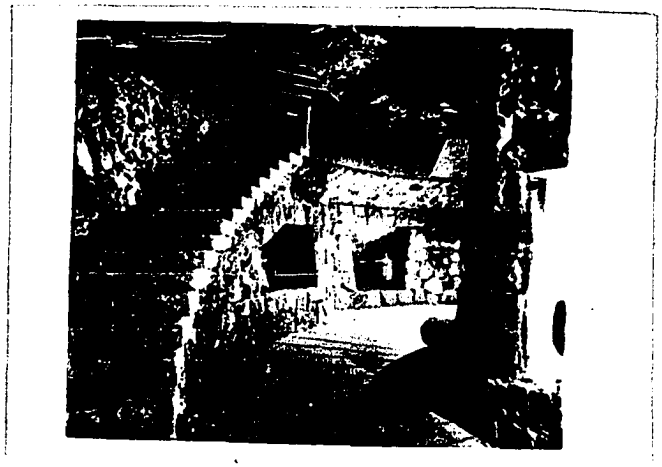


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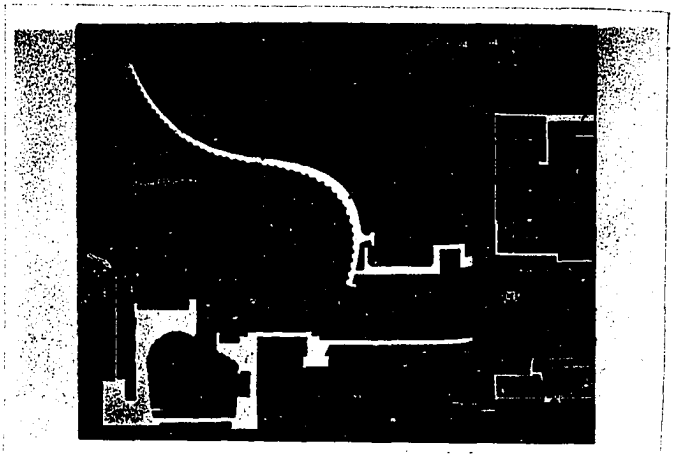


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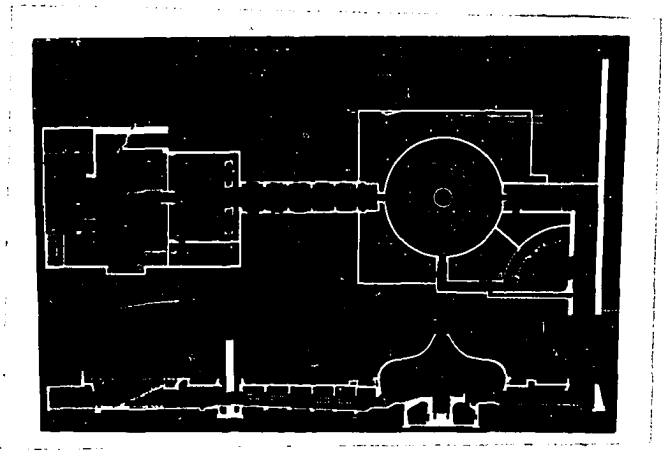


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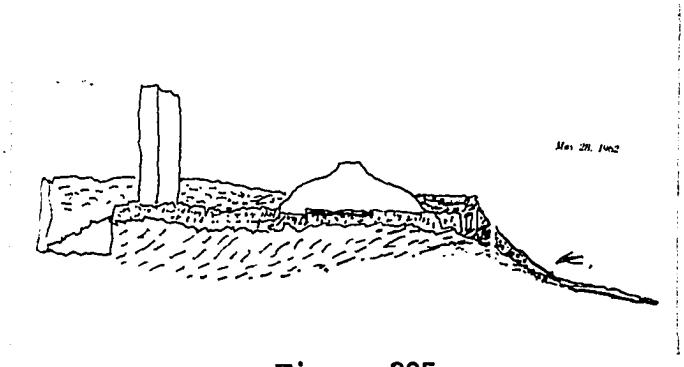


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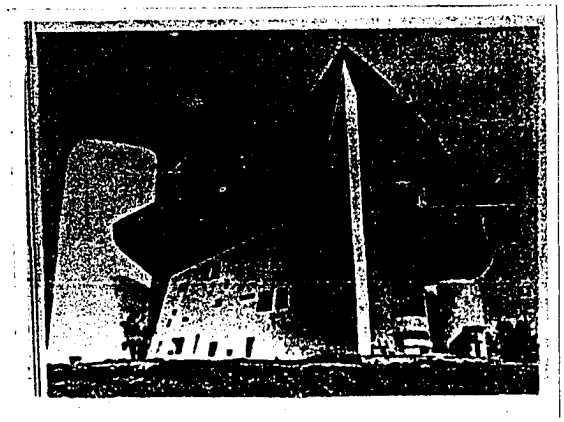


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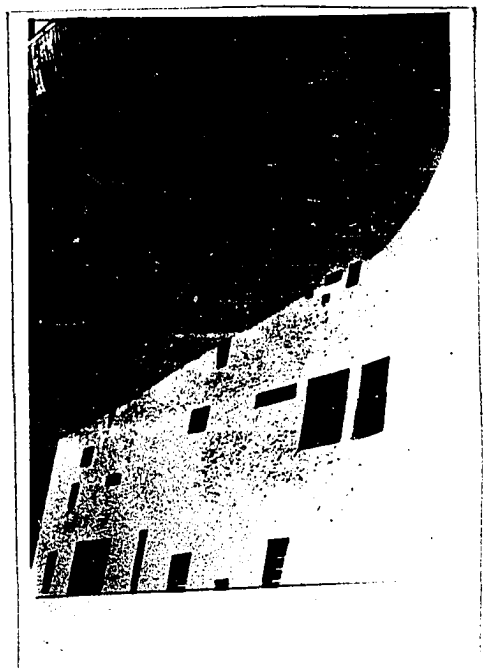


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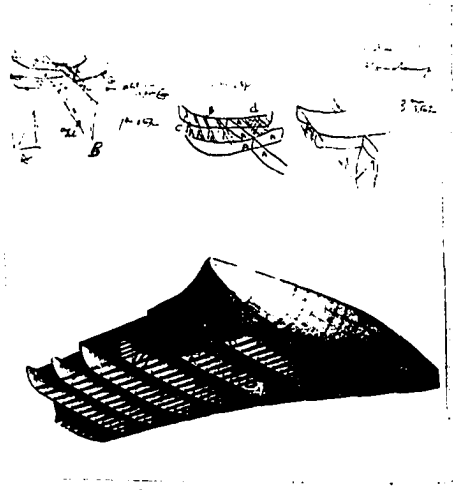


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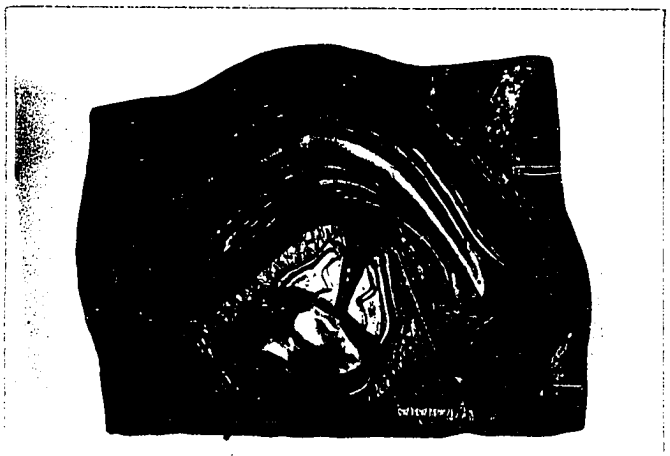


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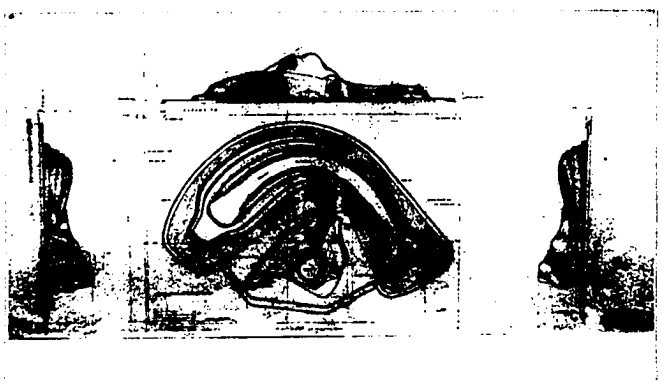


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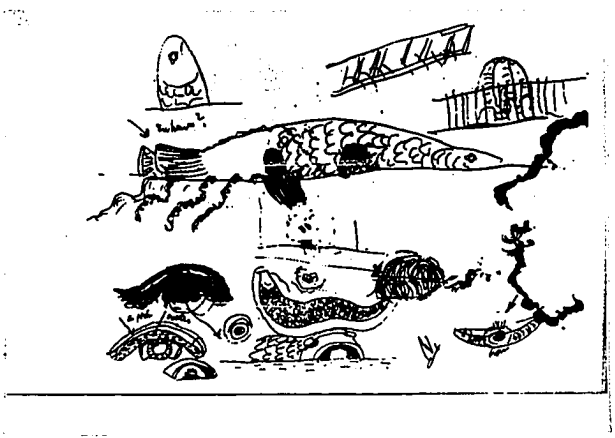


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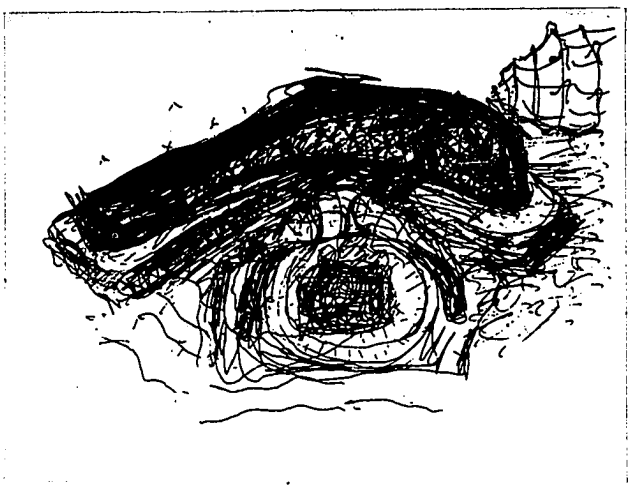


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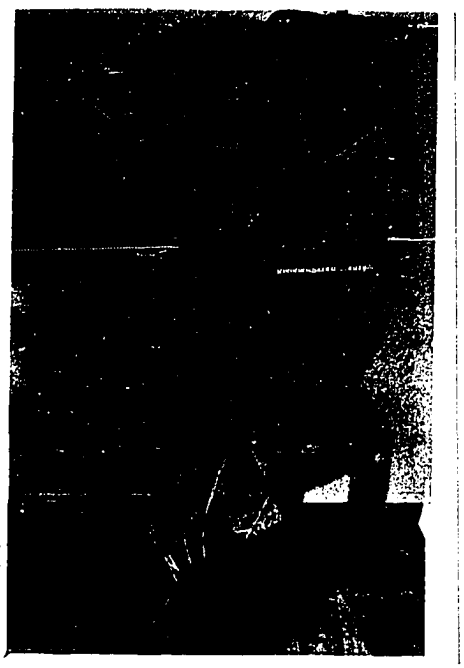


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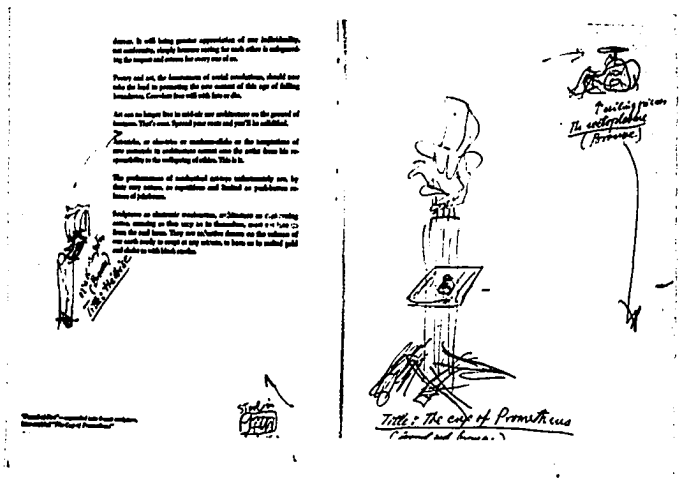


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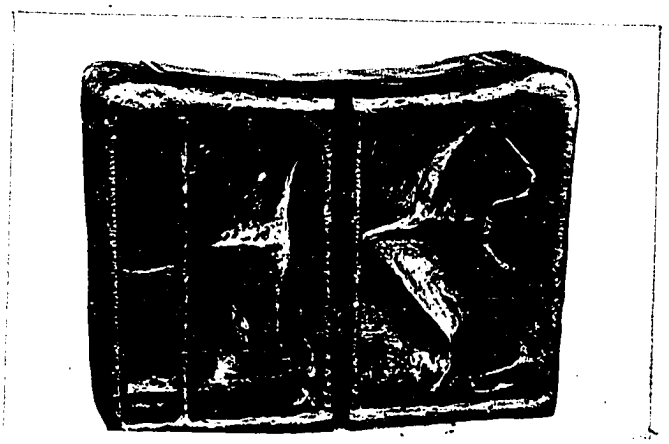


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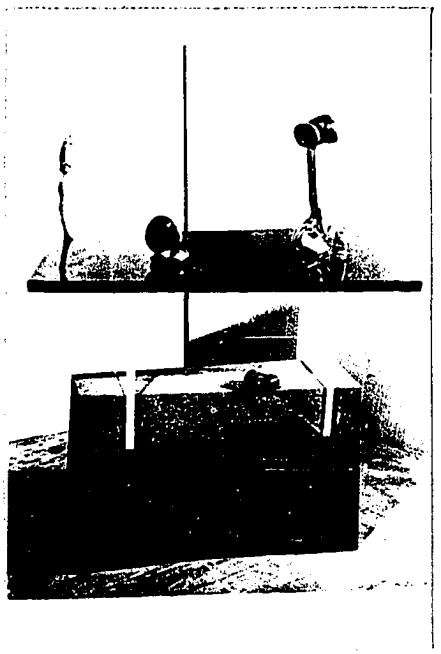


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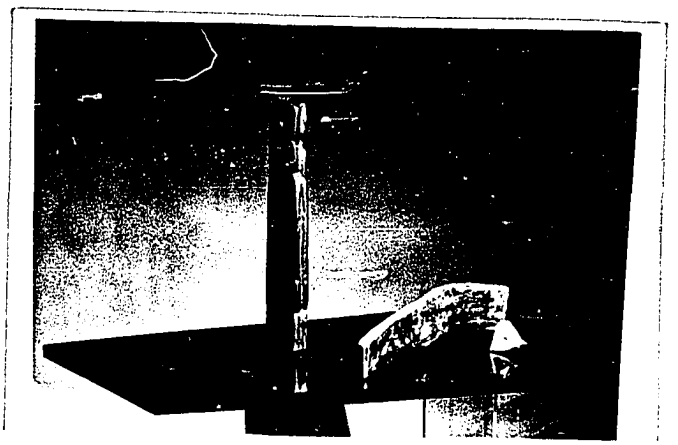


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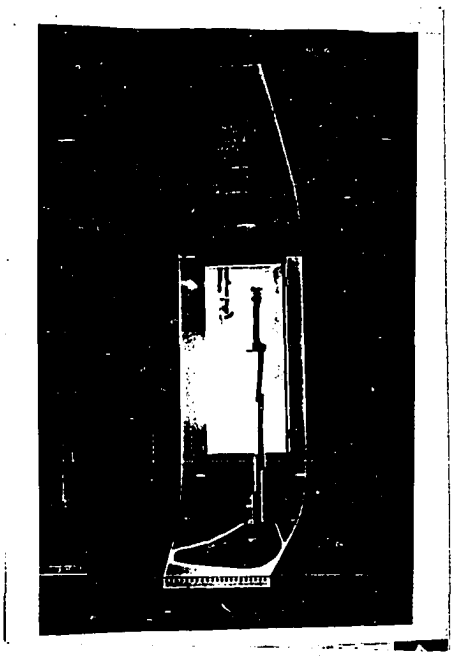


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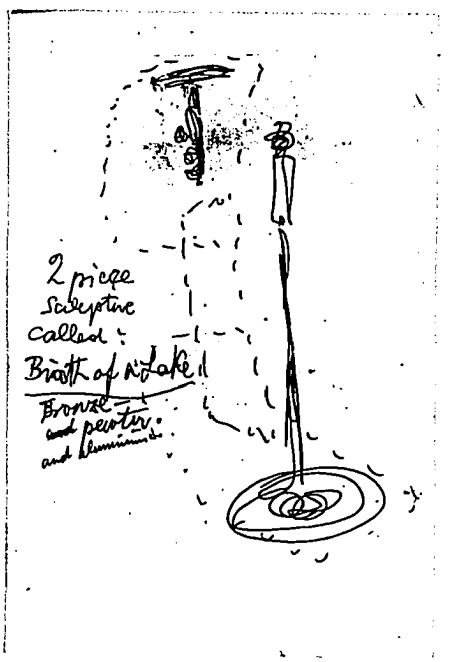


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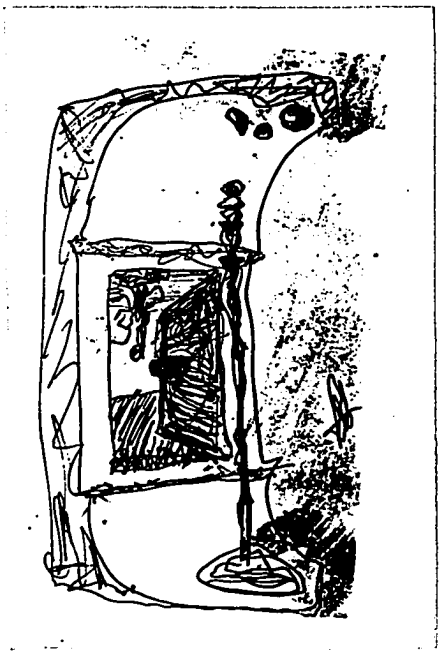


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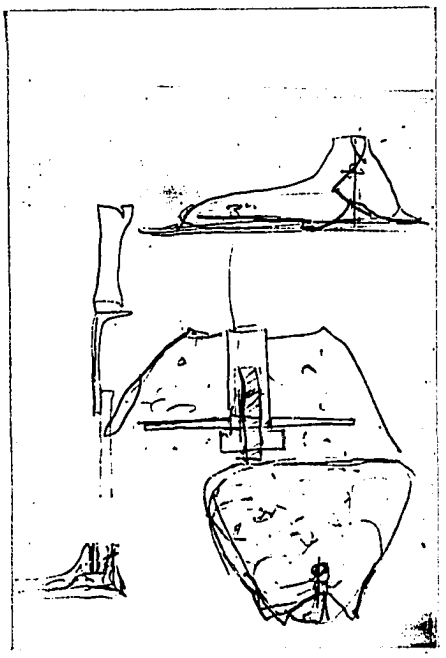


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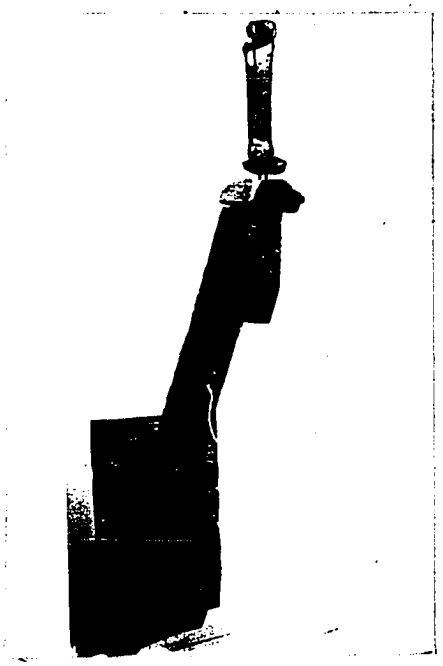


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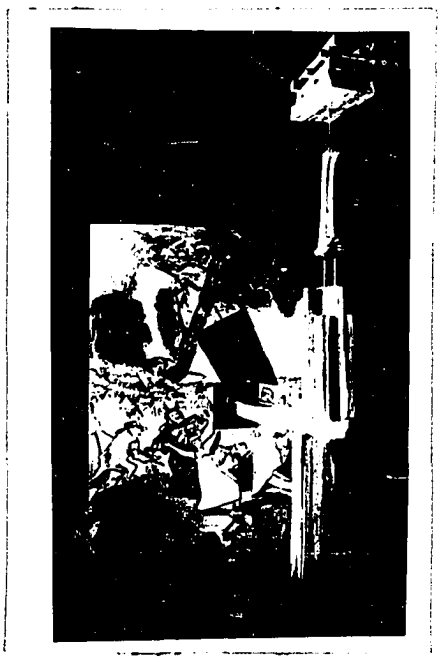


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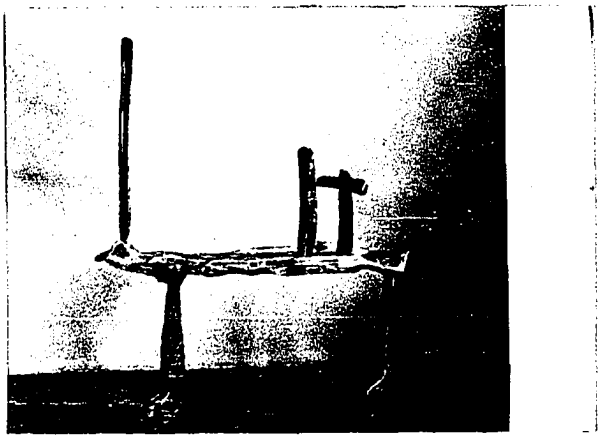


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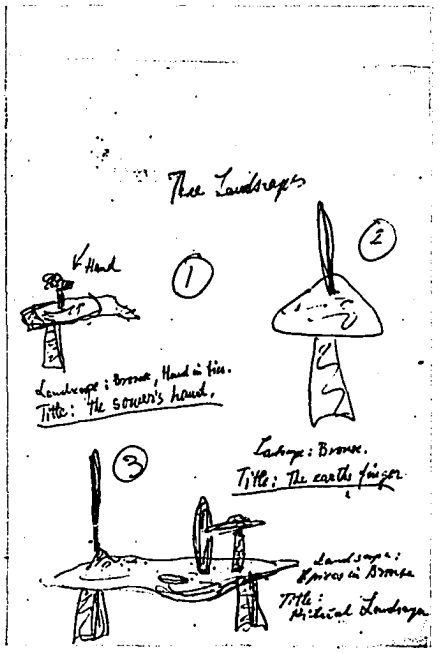


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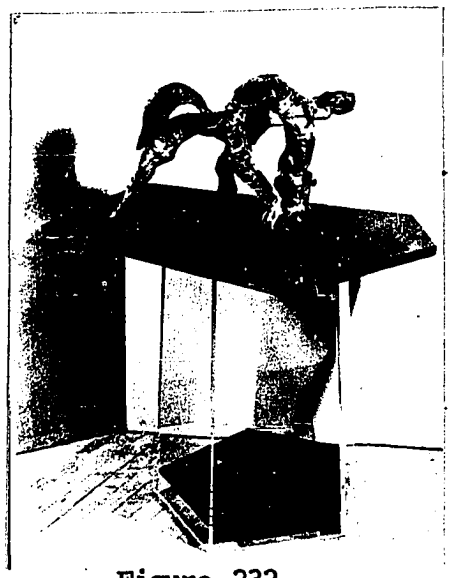


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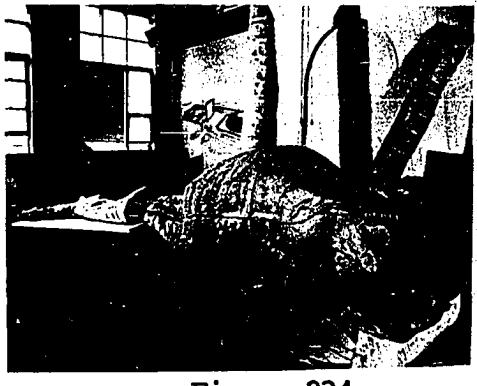


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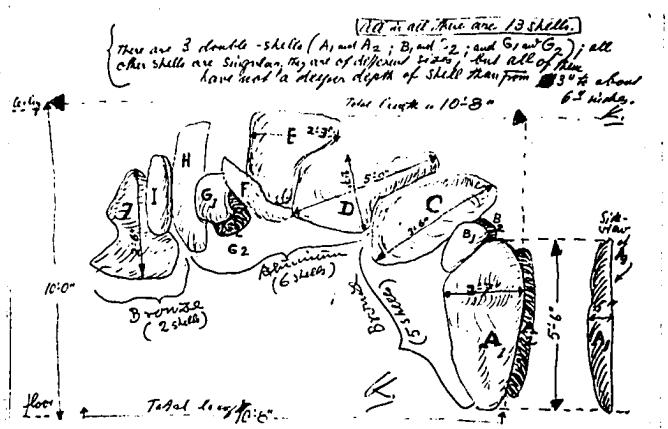


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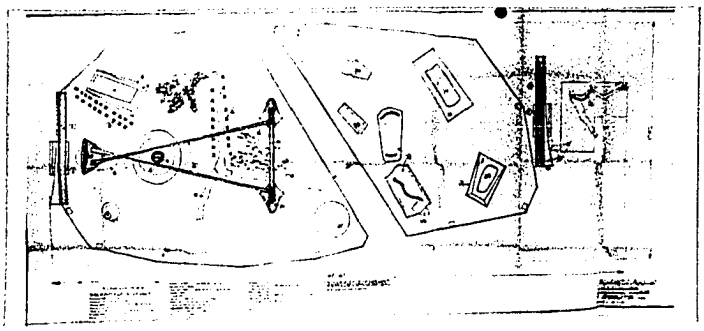


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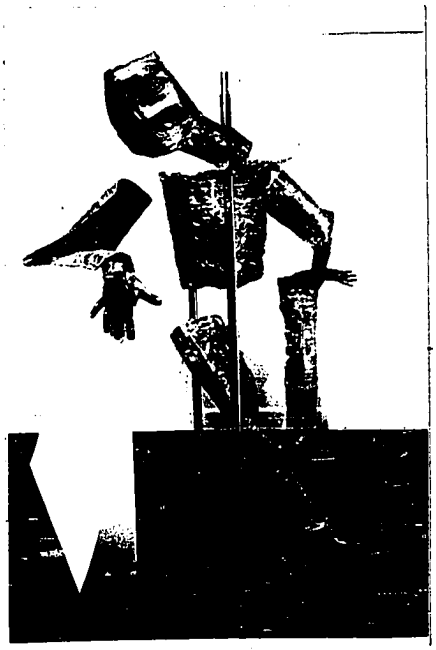


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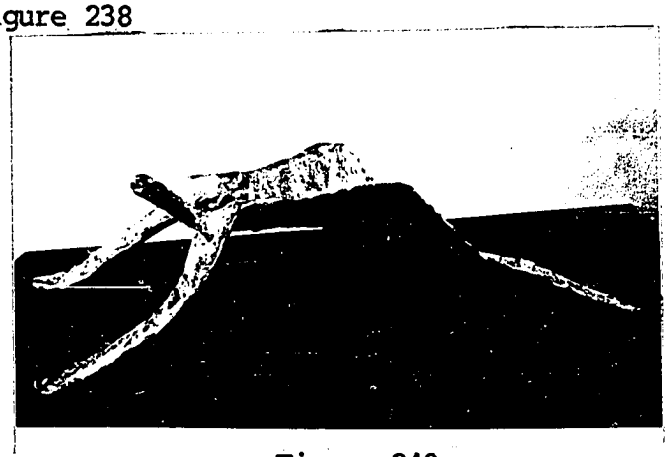


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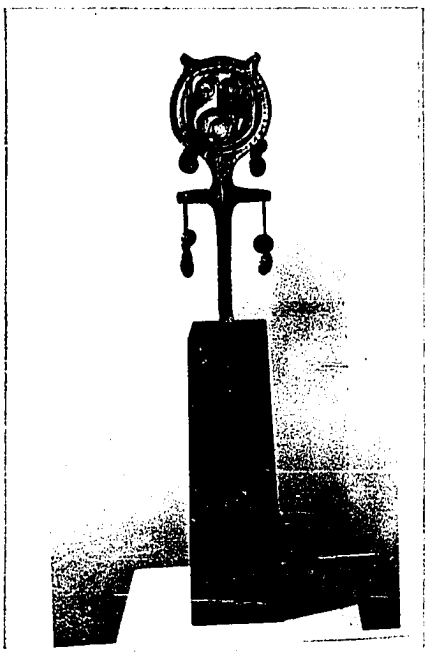


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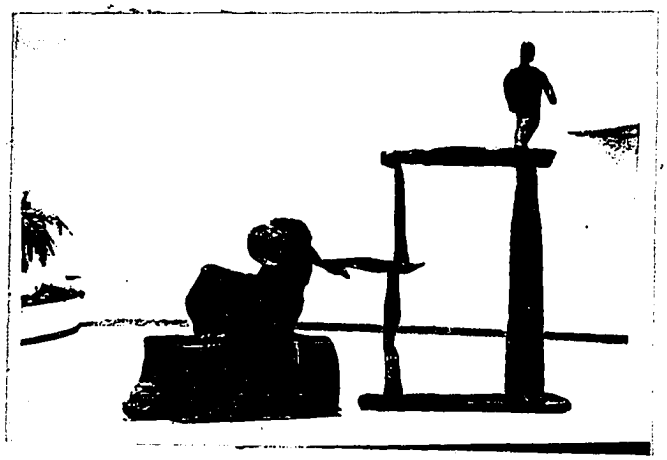


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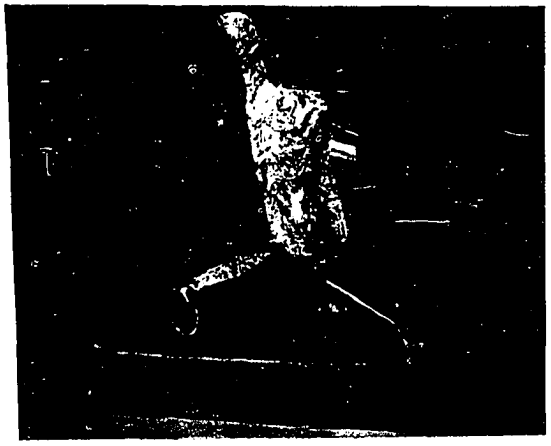


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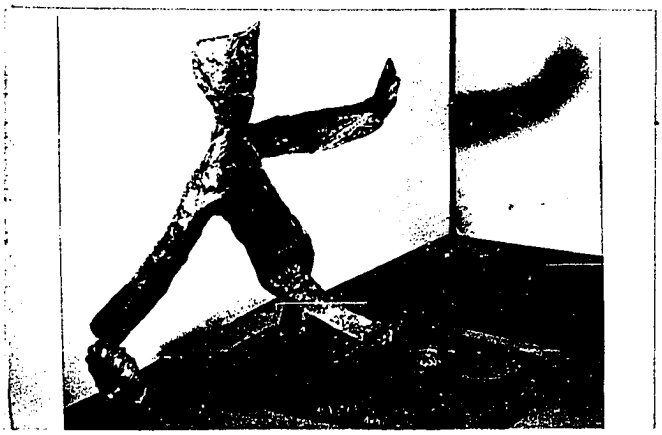


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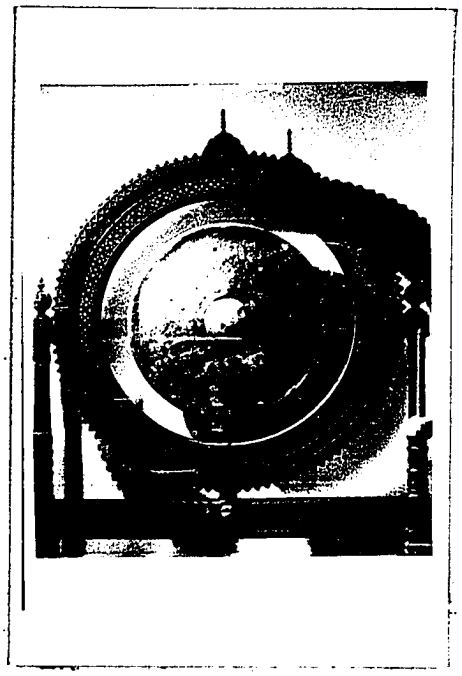


Figure 251



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