Order Number 9325131

Precisionism in perspective: Form and philosophy in twentieth century art

Mille, Diana Dimodica, Ph.D.

City University of New York, 1993

U·M·I
300 N. Zeeb Rd.
Ann Arbor, MI 48106

PRECISIONISM IN PERSPECTIVE:

FORM AND PHILOSOPHY IN TWENTIETH CENTURY ART

by

DIANA DIMODICA MILLE

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

1993

This manuscript has been read and accepted for the Graduate faculty in Art History in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

2/18/93
Date

Marlene Park
Chair of Examining Committee

2-19-93
Date

Rosemarie Bletter
Executive Officer

Dr. Milton W. Brown

Dr. Eugene Santomasso

Dr. Matthew Baigell

Supervisory Committee

THE CITY UNIVERSITY OF NEW YORK

ACKNOWLEDGEMENTS

The literature on Precisionism has become more extensive in recent years. I am grateful to all the individuals who have directed themselves towards this topic and have established a fundamental understanding of an important twentieth century American artistic phenomenon which might have otherwise gone unnoticed. Special thanks go to the early 1940's scholars such as my second reader Milton W. Brown, who gave Precisionism its first name -- "Cubist Realism" -- and paved the way for others to follow.

I should like to express my sincerest thanks to my long-term adviser and first reader Marlene Park, and to my other readers Eugene Santomasso and Matthew Baigell for their assistance, support and refusal to give up on me.

My thanks also go to my dear friend and research assistant Andrew Strelzoff who -- in his position as senior page at the New York Public Library -- made the locating and accessing of some of my research materials a less painful process.

Finally, to my husband Philippe, my total gratitude for his constant support and encouragement in helping me pick up the pieces and continue through a long and sometimes difficult journey.

This dissertation has taught me that although the research on Precisionism had accumulated over the years, there was still much to be accomplished in the way of clarifying the specific

issues within Precisionism and to relate these long-lasting issues to the broader forms and philosophies of twentieth century art.

In its revisionist approach, I hope this book will establish the broader significance -- for western culture -- of previously regarded singular American art topics such as Precisionism and pave the way for further research on other American topics still perceived as singular and unique American moments inferior to European phenomenon.

Table of Contents

	Page
Acknowledgements	iv
Table of Contents	vi
List of Illustrations	vii
Introduction	1
Chapter One: The Machine Age and the Vernacular Tradition	6
Chapter Two: Precisionism: Charles Sheeler, Ralston Crawford and Niles Spencer	63
Chapter Three: Precisionism: A Survey of Literature	118
Plates	149
Bibliography	210

List of Illustrations

Plate 1. Doorway, Wash House in a Lebanon Church, 1806, (illustrated in John Atlee Kouwenhoven Half A Truth is Better Than None, Chicago, University of Chicago Press, 1982, p. 103, photograph).

Plate 2. Iron Store Front, Standard Company, Chicago, 1906, (illustrated in John Atlee Kouwenhoven Half A Truth is Better Than None, p. 104, photograph).

Plate 3. Charles Sheeler, Bucks County Barn, 1918, gouache and conte crayon on paper, 16 1/8" x 22 1/8", Columbus Museum of Art.

Plate 4. Charles Sheeler, Americana, 1931, o/c, 48" x 36", (illustrated in Frederick Wight "Charles Sheeler," Art in America, October 1954, p. 191).

Plate 5. Charles Sheeler, Home Sweet Home, 1931, o/c, 36" x 29", Detroit Institute of the Arts.

Plate 6. Charles Sheeler, Classic Landscape, 1931, o/c, 25" x 32 1/2", (illustrated in Frederick Wight "Charles Sheeler," Art in America, October 1954, p. 192).

Plate 7. Charles Sheeler, Shaker Detail, 1941, oil and tempera, 9" x 10", The Newark Museum.

Plate 8. Charles Sheeler, Suspended Power, 1939, o/c, 30" x 26", (illustrated in Frederick Wight, "Charles Sheeler," Art in America, October 1954, p. 201).

Plate 9. Charles Sheeler, Family Group, 1950, o/c, 15 1/4" x 29", (illustrated in Federick Wight, "Charles Sheeler," Art in America, October 1954, p. 210).

Plate 10. Charles Sheeler, Western Industrial, 1955, o/c, 22 1/2" x 28 3/4", (illustrated in "Sheeler Paints Power," The Art Digest, December 1940, n. p.).

Plate 11. Charles Sheeler, Ore into Iron, 1953, o/c, 24 1/8" x 18 1/8", The Lane Collection.

Plate 12. Louis Lozowick, Above the City, 1932, lithograph, 17" x 7 3/8", National Museum of American Art, Smithsonian.

Plate 13. Niles Spencer, The Red Table, 1927, o/c, 22" x 35", The Lane Collection.

Plate 14. Piero della Francesco, Constantine's Victory Over

Maxentius, San Francesco Chapel, Arezzo, fresco, c. 1453, (illustrated in Art News, (December 1941), cover).

Plate 15. Niles Spencer, Camp Chair, 1934, o/c, 40" x 30", (illustrated in Ernest W. Watson, "Interview with Niles Spencer," American Artist, October 1944, p. 17).

Plate 16. Amedée Ozenfant, Still Life, 1922, o/c, 31 7/8 " x 39 3/8", Guggenheim Museum.

Plate 17. Charles Sheeler, Interior, 1940, tempera and gouache, 9 1/4" x 11 1/2", Mrs. Herbert A. Goldstone.

Plate 18. Ralston Crawford, Buffalo Grain Elevators, 1937, o/c, 40 1/4" x 50 1/4", National Museum of American Art, Smithsonian.

Plate 19. Ralston Crawford, White Barn, 1936, o/c, 30" x 36 1/4", Albright-Knox Art Gallery, Buffalo.

Plate 20. Gerald Murphy, Razor, 1924, o/c, 32 5/8" x 36 1/2" Dallas Museum of Fine Arts.

Plate 21. Gerald Murphy, Watch, 1925, o/c, 78 1/2" x 78 1/8", Dallas Museum of Fine Arts.

Plate 22. Oskar Schlemmer, Concentric Group, 1925, o/c, 38 3/8" x 24 3/8", Staatsgalerie, Stuttgart.

Plate 23. Charles Sheeler, Interior with Stove, 1932, conte crayon, 28 1/2" x 20 1/2", Joanna T. Steichen.

Plate 24. Oskar Schlemmer, Bauhaus Stairway, 1932, o/c, 63 3/8" x 44 1/2, Museum of Modern Art.

Plate 25. Oskar Schlemmer, Window Picture XII, 1942, o/c, 12" x 8 1/8", Schlemmer family estate, Basel.

Plate 26. Charles Sheeler, Winter Window, 1941, o/b, 30" x 24", James Maroney.

Plate 27. Oskar Schlemmer, Man in the Sphere of Ideas, 1928, Ink and pencil, 20 7/8" x 16 1/8", Schlemmer family estate, Basel.

Plate 28. Charles Sheeler, Upper Deck, 1929, o/c, 29 1/8 x 22 1/8", Fogg Art Museum, Harvard University.

Plate 29. Charles Sheeler, Barn Abstraction, 1946, tempera on paperboard, 22" x 29 1/2", (illustrated in Edward and Faith Andrews "Sheeler and the Shakers," Art in America, February 1965, p. 92).

Plate 30. Charles Sheeler, Church Street El, 1920, o/c, 16 1/8" x 19 1/8", Cleveland Museum of Art.

Plate 31. Charles Sheeler, Golden Gate, 1955, o/c, 25 1/8" x 34 1/8", The Metropolitan Museum of Art.

Plate 32. Charles Sheeler, Incantation, 1946, o/c, 24" x 20", The Brooklyn Museum of Art.

Plate 33. Ralston Crawford, Verticle Building, 1934, o/c, 40 1/8" X 34 1/8", San Francisco Museum of Art.

Plate 34. Ralston Crawford, Overseas Highway, 1939, o/c, 28" x 45", The Regis Collection, Minneapolis.

Plate 35. Niles Spencer, The City Walls, 1921, o/c, 39 1/2" x 28 3/4", Museum of Modern Art.

Plate 36. Niles Spencer, Two Bridges, 1947, o/c, 16" x 20", Neuberger Collection, New York.

Plate 37. Niles Spencer, Erie Underpass, 1949, o/c, 28" x 36", The Metropolitan Museum of Art.

Plate 38. Charles Sheeler, Offices, 1922, o/c, 20" x 13", Phillips Collection.

Plate 39. Charles Sheeler, New York, 1920, Pencil, 19 7/8 x 13", Art Institute of Chicago.

Plate 40. Charles Sheeler, Power House No. 1 - Ford Plant, 1927, photograph, 7 5/8" x 6 1/4", (illustrated in Samuel Kootz "Ford Plant Photograhs of Charles Sheeler," Creative Art, April 1931, p. 267).

Plate 41. Charles Sheeler, New England Irrelevancies, 1953, o/c, 29 " x 23", The Lane Collection.

Plate 42. Charles Sheeler, American Landscape, o/c, 23" x 31" Museum of Modern Art.

Plate 43. Edward Weston, Connecticut, 1941, gelatin-silver print, Museum of Fine Arts, Houston.

Plate 44. Charles Sheeler, Barn in Connecticut, 1940, gelatin-silver print, The Lane Collection.

Plate 45. Charles Sheeler, Cactus, 1931, o/c, 45 1/8 x 30", Philadelphia Museum of Art.

Plate 46. Edward Weston, Old Adobe, 1934, photograph, (illustrated in Merle Armitage, The Art of Edward Weston, Weyhe

Press, New York, 1932, p. 79).

Plate 47. Albert Renger-Patzch, Chain of Insulators, 1925, photograph, (illustrated in Fritz Kempe, "The World is Beautiful," Camera, vol.52, August, 1978).

Plate 48. Albert Renger-Patzsch, Hamburg, 1926, photograph, (illustrated in Fritz Kempe, "The World is Beautiful," Camera, vol.52, August, 1978).

Plate 49. Albert Renger-Patzsch, Main gas line in the Ilseder plant, 1927, photograph, (illustrated in Fritz Kempe, "The World is Beautiful," Camera, vol.52, August, 1978).

Plate 50. Le Corbusier (Charles-Edouard Jeanneret) Still Life, 1920, o/c, 31 7/8" x 39 1/4", Museum of Modern Art.

Plate 51. Charles Sheeler, Bucks County Barn, 1932, o/c, 23 7/8" x 29 7/8", Museum of Modern Art.

Plate 52. Max Burchartz, Coking Plant, 1930, photograph, (illustrated in W. Schmied and Ute Eskilden, Neue Sachlichkeit and German Realism of the 1920's, London, Arts Council, 1978, p. 106).

Plate 53. Heinrich Hoerle, Factory Scene, 1926, o/c, (illustrated in W. Schmied and Ute Eskilden, Neue Sachlichkeit and German Realism of the 1920's, London, Arts Council, 1978, p. 63.

Plate 54. George Ault, Factory Chimney, 1924, o/c, 30" x 16", Philadelphia Museum of Art.

Plate 55. Stefan Hirsch, Milltown, 1925, o/c, 30" x 40", Phillips Collection.

Plate 56. Parson Capen House, 1683, (illustrated in G.E. Kiddler A Pictorial History of Architecture in America, New York, American Heritage, 1976).

Plate 57. Thomas Jefferson, University of Virginia, 1817-26, (illustrated in Desmond Guinness and Jules Trousdale Sadler, Mr. Jefferson Architect, New York, Viking Press, 1973).

Plate 58. Skidmore, Owings and Merrill, Manufactures Hanover Trust Company Bank, 1954, (illustrated in Henry Russell Hitchcock Architektur von Skidmore Owings and Merrill, Stuttgart, Verlagerd Hatje, 1962.

Plate 59. Charles Sheeler, The Artist Looks At Nature, 1943, o/c, 21" x 18", Art Institute of Chicago.

Plate 60. Charles Sheeler, Self-Portrait, 1923, pencil, conte crayon and water color, 19 3/8" x 25 1/2", Museum of Modern Art.

Plate 61. Charles Sheeler, Staircase, Doylestown, 1925, o/c, 25 1/8" x 21 1/8", Hirshhorn Museum and Sculpture Garden, Smithsonian.

Introduction

The purpose of this dissertation is to establish the broader significance of Precisionist form and philosophy in twentieth century art. Existing scholarship has notably codified Precisionism as primarily an artistic phenomenon of the 1920's. The significance of Precisionism in twentieth century art, however, -- as this dissertation will demonstrate -- lies in its extension beyond the 1920's, into the 1930's and 1940's. While scholars, for instance, have already demonstrated that the early works by artists such as Charles Sheeler, Ralston Crawford and Niles Spencer unquestionably belonged to a well-defined Precisionist context, they seldom focused on the continuance of this hard edge industrial style in these artists' more realistic and abstract/realist works of the 1930's and 1940's.

More importantly, in an effort to establish the broader significance of Precisionism in twentieth century art, this dissertation will also demonstrate successfully how Precisionist ideas consistently paralleled those of European Bauhaus, Purist and Neue Sachlichkeit artists who were involved with similar machine-age aesthetics from the 1920's through the 1940's. Furthermore, it will establish that form, content, and a positive vision of the new machine age were not only shared integral components of Precisionism and these other machine-age

phenomena but also of the broader literary world of the 1920's, 1930's and 1940's.

The first chapter focuses on a widespread artistic and literary attempt to relate the simple, linear, and well-designed forms of the earlier nineteenth century craft or vernacular tradition to forms produced by twentieth century industrial means. In linking aesthetic and utilitarian qualities, the Precisionists, the European machine-age artists, and the literary community codified a positive attitude toward twentieth century industrialism and its objects that was further articulated in the realm of museum programming. Twentieth century curators such as Joseph Cotton Dana and Richard F. Bach, for instance, organized exhibits that featured craft and industrial objects side by side.

Having established the significance of the broader role of Precisionist form and philosophy and its widely manifested forms, the next chapter focuses specifically on the works of Precisionists Charles Sheeler, Ralston Crawford and Niles Spencer. These artists have been selected for an in-depth study because they carry forward into their later works -- unlike many other artists who have been given the Precisionist label for only a handful of early works -- most of the universal components derived from their initial 1920's Precisionist vision. This chapter further demonstrates that while there is a shift in focus in the later works of Sheeler, Crawford and Spencer from the original constructs of Precisionism -- tied to Cubism -- toward a greater Realism, this Realism is also paralleled by a continuance

of Precisionism's original hard edge, simplifed, and abstract industrial style. More importantly, this chapter will address the dichotomy surrounding these concepts of "Realism" and "Abstraction" as it relates to precisionist form and philosophy through the 1940's and early 50's as well as how it relates to other more traditional forms of Realism in the 1930's. Finally, this chapter will explore how these abstract/realist tendencies parallel similar abstract/realist developments in photography and "Modernism" in the United States and in Europe. In conclusion, then, this chapter will locate the presence of an abstract/realist nexus in Precisionism which continues throughout the 40's and parallels a similar combination found in the general American and European art world.

The third chapter surveys the existing literature on Precisionism, beginning with periodicals of the 1920's and 1930's, when writers used terms like precision, precise, ordered and well-structured to characterize works that would later be labelled as Precisionist. Attention will be then given to the subsequent scholars who have further defined Precisionism -- not necessarily using the contemporary term -- as an important movement in American art. In the 1940's, Wolfgang Born and Milton W. Brown, for instance, defined Precisionism as an abstract/cubist phenomenon depicting industrial content in a positive tone. In the wake of Pop Art in the 1960's, scholars such as Milton Friedman and Hilton Kramer reconsidered Precisionism and explored its formal relationship with other

twentieth century movements. In the 1980's, Karen Tsujimoto started to explore the broader connections between Precisionist paintings and other art forms such as photography. Two important dissertations in the 1980's -- Charles Sheeler and the Machine Age, 1981, by Susan Fillin Yeh, and Charles Sheeler, William Carlos Williams and the Development of the Precisionist Aesthetic, 1917-1931, 1983, by Patrick Leonard Stewart -- focused on a major Precisionist figure, Charles Sheeler. Both dissertations thoroughly examine Sheeler's early imagery and its subsequent ideological meaning. For instance, Yeh's dissertation concentrates on the iconographic choices in Sheeler's paintings and photographs and how they relate to the positive industrial culture of the 1920's. Stewart's thesis establishes Sheeler, more importantly part of a circle of 1920's writers and poets searching for and identifying with a nativist culture in America that clearly identified objects as distinctly American in their paintings and prose.

As we will see, an examination of the existing body of general literature on Precisionism is critical for providing both a historical framework for the movement as well as for offering a point of comparison for our study of the later Precisionist form and philosophy of Sheeler, Crawford and Spencer. By focusing, however, on these artists who remained consistently devoted to precisionist components -- rather than the multitude of artists who have only been considered occasional Precisionists' -- this dissertation can more successfully synthesize broader art

historical relationships such as those between craft and industry, American and European machine-age artists and abstract and realist Precisionist forms. As a result, this dissertation will establish the significance of precisionist form and philosophy -- through the example of Precisionists' Sheeler, Crawford and Spencer who took the movement out of its original context to give it new, yet consistent meaning -- beyond a singular artistic moment of 1920's and demonstrate the continuance of a significant ideology that dominated several decades of the twentieth century.

Chapter One: The Machine Age and the Vernacular Tradition

Beginning in the 1920's many artists and writers attempted to relate machine-age forms and ideas to an earlier nineteenth century vernacular/agrarian tradition. In linking aesthetic and utilitarian qualities, many writers, the Precisionists, and the European machine-age artists, codified a positive attitude toward twentieth century industrial objects that was articulated through the 1940's.

Reconciling the Vernacular and Industry

American trade journals such as American Machinist, of the 1920's and 1930's were instrumental in bringing to light the relationship between machine-age objects and earlier nineteenth century crafts. Guy Hubbard, one of the journal's frequent contributors, establishes a relationship between the designers of the earlier craft forms and the machine-age objects when he states:

> "It is frequently assumed, probably because of the prevalence of architectural details in the early machine tools, that the designers themselves must have been architects who had shifted to the less artistic profession of machine design, carrying into their new field their structural ideas. Old fashioned machinery usually had cast iron frames of the most fanciful design, being embellished with such details as scroll work, claw feet, delicately carved legs and fluted

columns, sometimes Ionic and sometimes Corinthian."[1] Hubbard's conclusion that the design of early machine tools reflects that of earlier craft forms -- under which he places what he considers to be the craft of architecture -- is based on the fact that machines were originally built of wood as were the early architectural structures.

Hubbard also links the designs found on machine tools with the earlier tradition of cabinet making. According to Hubbard the cabinet makers were "Accustomed to building furniture of highly decorative carved designs and were acquainted with the design of architectural details, through the making of columns and other fancy trim." It is not surprising," continues Hubbard, "that when these skillful and artistic craftsmen undertook the rather prosaic task of building a set of machine patterns they produced machinery which might have been a compliment to Chippendale and Sir Christopher Wren."[2] Hubbard's comments, then, not only suggest the influence of architectural details in the designing of early machine tools but also suggest that these details were translated into a more modern idiom by the early cabinet makers.

In the 1940's, cultural historian John A. Kouwenhoven goes back to the Philadelphia Centennial of 1876 in order to establish a connection between modern machinery and the earlier craft

---

[1]Guy Hubbard, "Development of Machine Tools in New England," American Machinist, XXXIII (August 30, 1923), p. 311. Other journals of importance include: Broom, Cornhill Magazine and The Soil, (for the teens and 1920's) and Atlantic Monthly for the 1930's and 1940's.

[2]Ibid., p. 311.

forms. In his 1941 article "Arts in America," for example, Kouwenhoven pays tribute to American technical ingenuity and artistic sensibility found at the Centennial when he describes the balloon-frame construction in the following vernacular terms: "Here are the qualities of our technological democratic folk art: simplicity, lightness, strength of construction and maximum availability."[3] Kouwenhoven then repeats this language in his praise of a later industrial, yet equally skeletal structure. "The George Washington Bridge," states Kouwenhoven, "is a contemporary development of a characteristic economy of materials and fitness to purpose."[4] Kouwenhoven's sentiments clearly establish a characteristic link between the nineteenth century vernacular balloon frame construction and the later machine-age forms of the George Washington Bridge.

Furthermore, Kouwenhoven believes that the ability to create such machine-age symbols of human dignity stems from a free, democratic, and mechanized environment that developed during the

---

[3]John A. Kouwenhoven, "Arts in America," Atlantic Monthly, vol. CVXVIII, No. 2. (August 1941), p. 176. For a discussion of other examples of American ingenuity such as the steamship and locomotive see John Kouwenhoven, Made in America, (New York: Doubleday & Company, 1948), p. 36-40.

[4]Ibid., p. 179-180. According to the First Progress report on the bridge, issued by the Port Authority of New York January 1, 1928 and cited by Kouwenhoven in his text, the guiding motives of the design, from the engineering point of view, were purity of type, simplicity of structural arrangement, and ease and expediency of construction -- motives which came out of the vernacular tradition, p. 247-8.

formative years of a far-removed frontier society.[5] He suggests that, "It is this unique factor of a democratic-technological vernacular which has been overlooked in our estimates of art in the United States."[6] Eli Whitney's system of machine-made, standardized and interchangeable parts, for instance, is of primary importance to Kouwenhoven in bridging the gap between a folk culture and a modern machine civilization epitomized by the power-driven assembly-line manufacturing process.[7]

For cultural historians like Kouwenhoven, then, the free and democratic environment which insprired the creation of machine-age forms clearly derived much of its impetus from an earlier -- yet equally free and democratic -- vernacular environment.

The shared simplicity of the design of industrial and vernacular objects was highly valued by critics of the non-trade journals as well. For instance, Helen Appeleton Read, prominent writer and critic for periodicals such as International Studio, comments:

> "The universal tendency towards simplicity of outline should be of the greatest interest to the American designer. All design in this country is governed by the

---

[5]John A. Kouwenhoven, Made in America, (New York:Doubleday and Company, 1948), p. 5-6.

[6]Ibid., p. 15. Kouwenhoven defines vernacular art as "an art resulting from the efforts of ordinary people to make satisfying patterns and designs out of the novel elements introduced into their environment by democracy and the machine." Half a Truth is Better Than None, (Chicago: University of Chicago Press, 1982), p. 81.

[7]Ibid., p. 44. Kouwenhoven also suggests that the meat packers assembly-line system of the late 1870's and 1880's is another possible influence for Ford. Ibid., p. 50.

> factor of whether or not it can be reproduced in mass production. For the first time there is revealed to the public the spirit and achievement of the whole modern decorative art movement, in the form of architecture, interior decoration, furniture, the arts of the silversmith, the jeweler, the worker in metals and the designer of textiles and wallpapers. Gone is all carving and superimposed decoration; interest and variety must depend upon the application of color and flat design, or the quality of beauty existing in unadorned material."[8]

Like Kouwenhoven, Appleton establishes that simplicity of design was the underlying characteristic of and necessary for both craft and machine-age forms.

Throughout the 1930's and 1940's, writers continued to draw parallels between craft and machine cultures and their creators. In Design This Day: The Technical Order in the Machine Age, for instance, Walter Dorwin Teague notes of William Morris, the leader of the nineteenth-century English Arts and Crafts movement that, "He made utility respectable and demonstrated the compatibility of utility and beauty." Teague then goes on to compare Morris with twentieth-century architect Frank Lloyd Wright concluding, "Wright preached the same gospel of functional fitness, with an added insistence on materials and processes as factors that also influence form."[9] In Art and the Machine, cultural historian Sheldon Cheney summarizes the common ground on

---

[8]Helen Appleton Read, "Exposition in Paris: Part II," International Studio, XXCII (November 1925), p. 161, Part I, p. 93-95.

[9]Walter Dorwin Teague, Design This Day: The Technique of Order in the Machine Age, (New York: Harcourt, Brace and Co., 1949), p. 51-52.

which we find craft and machine: "A certain honesty of approach and a development of fine expression are common to both handicraftsman and worker for the machine. It is fundamental that each type of art work must be true to its material and its processes."[10]

Cheney's and Teague's sentiments celebrating the co-existence of craftsmanship and utility were also felt by critics of Precisionism such as Constance Rourke. In her 1942 book The Roots of American Culture, for example, Rourke -- biographer and long-time friend of Precisionist artist Charles Sheeler -- not only supports the link drawn between aesthetics and industry by her contemporaries, but also traces its origin back to the revolutionary past of the United States when she cites Benjamin Franklin as a craftsman who believed "nothing is good or beautiful but in the measure that it is useful...there can be no arbitrary division between the practical arts and the fine arts."[11] Like Kouwenhoven and Teague, Rourke cites historical precedents when arguing for the continuing existence of craftsmanship in contemporary utilitarian form.

For Rourke and many other writers, the Shaker craftsmen of the nineteenth century were not only the prime exemplars of a vernacular culture but also provided a stylistic link to twentieth century forms. According to Rourke, the Shakers

---

[10]Sheldon and Mather Chandler Cheney, Art and the Machine, (New York: McGraw Hill, 1936), p. 42.

[11]Constance Rourke, The Roots of American Culture, New York: Hartcourt Brace and Co., 1942), p. 9.

"established the most richly integrated culture and they were the most enduring."[12] In The Roots of American Culture, Rourke re-illustrates Kouwenhoven's earlier visual connection of the Doorway, Wash House in a Lebanon Church Family, 1806, (Plate 1) and the Iron Store Front, Standard Company, Chicago, 1906, (Plate 2).

The visual similarities between these structures are enhanced by Rourke's comparison of the Shaker doorway and the twentieth century iron structure. "Natural forms," states Rourke, "are never even vaguely suggested. Pure line, exquisite balances, severe masses, finely finished surfaces make the whole aesthetic of their work."[13] As we can see, the language that Rourke uses to describe both the Shaker and machine-age forms -- which parallels the language used earlier by Kouwenhoven and Teague to compare the vernacular and machine-age forms -- demonstrates the widespread literary effort to relate the simple, linear and well-designed forms of the 19th century vernacular tradition of the Shakers to twentieth century industrial forms.

Charles Sheeler

Precisionist painter and photographer Charles Sheeler shared his biographer's appreciation for the Shaker community, its

---

[12] Ibid., p. 198.

[13] Ibid., p. 236, Rourke also supports Kouwenhoven's theory that democracy allowed for such creative powers, p. 237. Also see John Atlee Kouwenhoven, Half a Truth is Better Than None, (Chicago: University of Chicago Press, 1982), p. 103, 104.

objects, and their relationship to modern design. "These Shaker communities, in the period of their greatest creative activity," stated Sheeler, "gave us abundant evidence of their professional understanding of utilitarian designing in their architecture and crafts."[14] For Sheeler, the Shakers possessed skilled craftsmanship and an acute sense of mathematical proportion. They displayed a sense of light and spaciousness in their architecture that anticipated the tendencies of contemporary designers.[15]

Moreover, Sheeler acknowledges his particular debt to the Shaker aesthetic when he states:

> "Observation of the principles underlying Bucks County Barn, 1918 (Plate 3) and the Shaker architecture and crafts has been important to my direction and it is anticipated will be basically applicable to anything I may do in the future. The way in which a building or a table is planned and put together is interesting to me.... For I would arrive at the picture, which I hope ultimately to paint, through a conception of form, architectural in its structure, whether flowers or a building are the theme, set forth with the utmost clarity by means of craftsmanship so adequate as to be unobtrusive and appropriate to folk art."[16]

For Sheeler, then, it is the Shaker communities' affinity for

---

[14]Charles Sheeler, Autobiography, Charles Sheeler Papers, (New York: Archives of American Art, 1937), Nshl, frame 116.

[15]Ibid., frame 119-120.

[16]Ibid., frame 122. Sheeler collected early furniture and pottery while living in Doylestown, Pennsylvania-- an area with an active interest in the Arts and Crafts tradition. In her book Charles Sheeler in American Tradition, p. 25, Constance Rourke permits Sheeler to elaborate on this theme. "Now we began to realize that forms could be placed with consideration for their relationship to all other forms in a picture; not merely to those adjacent. We understand that a picture could be assembled arbitrarily with a concern for design and that the result could be outside time, place or momentary considerations."

clear architectural structures, balance, and precise line that influence the composition of his own Precisionist paintings.

Some writers, however, did not perceive the Shaker imagery in Sheeler's painting as a logical influence for the development of the artist's twentieth-century forms. For example, in "Charles Sheeler in Doylestown and the Image of Rural Architecture," Karen Davies maintains:

> "Sheeler's vision emphasized the remnants of the past as remnants. Constructing an imagery based on historical fragments was a personal act for Sheeler, existing in a realm of art somewhat divorced from life. The isolated, highly manipulated image was Sheeler's means of perpetuating the past. Individual vision, not contextual reconstruction, perceived the essence of history for the artist. The cyclical resurrection of Doylestown imagery became a life-time pattern for Sheeler and tended to occur during times of personal loss or stylistic transformation."[17]

Davies's statement implies a nostalgic appropriation of the past in Sheeler's work and seems at variance with Sheeler's and Rourke's philosophical intention to promote a logical contextual and formal relationship between the artist's Shaker imagery and his industrial forms.

The fact that Sheeler's interior scenes do integrate fragments of craft and industry have been the subject of other scholarly studies. The recent exhibit "Charles Sheeler: American Interiors," organized by Susan Fillin Yeh, for example, illustrates the manner in which Sheeler connected the artifacts of the past -- vernacular American furniture, glass, and ceramics

---

[17]Karen Davies, "Charles Sheeler in Doylestown and the Image of Rural Architecture," Arts, vol. VXIX, No. 5, (March 1985), p. 135-139.

that he owned -- with the present by removing their specific historical associations to make history contemporary. While Yeh clearly recognizes Sheeler's participation in what Rourke and other "nativist" American writers like Van Wyck Brooks termed a "search for a usable past in America," she still implies, as does Davies, that for Sheeler the past is inconsequential for the present. According to Yeh, "Sheeler mined the past to energize the present."[18] Her synthesis, therefore, continues to neglect Sheeler's and Rourke's philosophy that the present, with its machine age objects, can be understood as a logical outgrowth -- or at the very least -- as paralleling earlier vernacular trends.

Sheeler's personal collection of objects further demonstrates his desire to relate modern objects to the past. Two prominent pieces are an English side chair (1790-1850) and a tubular steel chair designed by Marcel Breuer (1927). While one shows an indebtedness to the Arts and Crafts tradition, the other exemplifies his appreciation for the more 'modern' Bauhaus aesthetic. The stylistic similarities of these pieces -- simple geometric form, precise line, and clear relationship of parts to the whole -- reflect Sheeler's interest in a transcultural functionalist aesthetic where past and present overlap on the basis of shared components. For instance, it is in 1927 -- at the time that Sheeler first visits the mechanical plant at River Rouge -- that he simultaneously becomes particularly interested

---

[18]Yale University Art Gallery, Charles Sheeler: American Interiors, 1987, (catalogue, text by Susan Fillin Yeh), p. 9.

in Shaker architecture and furniture.

There are many other pictorial examples -- presented by numerous scholars -- which feature in the same painting the co-existence of past and present in Sheeler's oeuvre. The simultaneous placement of old and new objects is apparent in paintings such as Americana, 1931, (Plate 4) and Home Sweet Home, 1931, (Plate 5). Furthermore, the shift in motif between craft and industry within the span of a few years is clear in paintings such as (Classic Landscape, 1931, Plate 6,), (Shaker Buildings, 1941, Plate 7), (Suspended Power, 1939, Plate 8), (Family Group, 1950, Plate 9), (and Western Industrial, 1955, Plate 10). While Shaker Buildings and Family Group present the architectural beauty of a Shaker past, Classic Landscape, Suspended Power, and Western Industrial, convey the newness of a modern urban landscape and a new technology.

These works demonstrate, however, Sheeler's love of earlier utilitarian forms, planned and executed with the whole of the design kept strictly in mind and his preference for carrying this aesthetic of austere and functional forms into his reductive and contemporary industrial forms. Moreover, Sheeler believed that one could locate in the past equivalent symbols for the present. Sheeler maintained, for instance, that "the streamlined car may prove to be our winged victory and the grain elevator our equivalent for the Gothic."[19] For Sheeler, then, the streamlined

---

[19]Charles Sheeler Papers, (New York: Archives of American Art), Roll 1811, frame 755-756, 1968. See following pages for in-depth discussion of classical influence in Sheeler's work.

car and the elevator are the powerful symbols of our age and are comparable to those found in the Classical and Gothic past.

Sheeler continued to favor industrial form and content in his paintings throughout the 1940's and 1950's. He painted the blast furnaces around Pittsburgh, such as Ore into Iron, 1953, (Plate 11), for instance, and made several field trips to the Milwaukee Pabst Brewing site in Wisconsin. While he was there, Sheeler was commissioned by the nearby Meta-Mold aluminum company to paint a portrait of the company's operations for their new, clean and functional office building. The purpose of this project was to create an art work which would increase industrial public relations. It was intended, then, that Sheeler's work bring the museum world to the people of a town with little visual artistic outlet.

The statements appearing in an article by art critic and Meta-Mold supporter Ben Barkin are consistent with Sheeler's ideology in that they illustrate the mutual benefit which can be derived from the fusing of art and industry. "The over-all conclusion to be drawn from the Meta-Mold experiment," notes Barkin, "is simply this: art and industry can work together well and to great mutual advantage. At any stage fine art carries a prestige status that industry often wants. Industry on the one hand, can serve art by bringing to it ever widening audiences by supporting it as patron and publicist."[20]

---

[20] Ben Barkin, "Art at Meta-Mold," Art in America, XVIV (April, 1956), p. 37,66. Meta-Mold Aluminum Company of Cedarburg, Wisconsin, was a small firm engaged in making permanent mold and

Other artists shared Sheeler's enthusiasm for industrial content and form. Louis Lozowick's writings from the 20's which appeared in the The Little Review, for example, reflect Sheeler's general positive feeling for industrial forms:

> "The dominant trend in America of today, beneath all the apparent chaos and confusion," writes Lozowick, "is towards order and organization which find their outward sign and symbol in the rigid geometry of the American city: in the verticles of the smoke stacks, in the parallels of its car tracks, the squares of its streets, the cubes of its factories, the arc of its bridges, the cylinders of its gas tanks. The intrinsic importance of the contemporary theme may be thus immensely enhanced by the formal significance of the treatment."[21]

Lozowick also painted pictures in the 1930's that depict the hard-edged industrial form and content of 1920's Precisionism. Lozowick's Above the City, 1932, (Plate 12), for instance, visually enhances the artist's sometimes Precisionist ideology which maintains that the artist is someone who "will define with precision the space around the objects and between them; he will organize line, plane, volume into a well-knit design, arrange color and light into a pattern of contrast and harmony and weave organically into every composition an all pervading rhythm and equilibrium. A composition is most effective," continues Lozowick, "when its elements are used in a double function: associative, establishing contact with concrete objects of the

---

semi-permanent mold castings of aluminum and magnesium. These mold castings were used in everything from aircraft to artificial limbs in the 1950's.

[21] Louis Lozowick, "The Americanization of Art," The Little Review, (Spring 1927), p.18.

real world and aesthetic, serving to create plastic values."[22] As we can see, Lozowick's Above the City celebrates industry while paying homage to the semi-abstract vocabulary which he describes.

Contemporary critics of Sheeler also recognized his ability to enhance the contemporary theme by a translation of natural forms into a more abstract arrangement. For instance, in 1923, Forbes Watson -- significant critic for The Arts -- noted of Sheeler, "From a consciously arbitrary treatment of natural forms for the purposes of enhancing the design it was a natural step for Sheeler to advance further into the field of abstract experimentation and to attempt to express in abstract terms, the natural forms...."[23] These statements, then, establish another similarity between Sheeler and Lozowick -- barely recognized by scholars -- that of a shared appreciation for a more modern abstract compositional structure to celebrate industrial forms.

The literary and artistic method of integrating past and present and craft and modernism led to the re-evaluation of other

---

[22] Ibid., p. 19-20. Also see Louis Lozowick, Modern Russian Art, (New York: Société Anonyme, 1925) which demonstrates the availability in America of material relating to machine-age movements including: The Bauhaus, Constructivism and De Stijl. Lozowick is given here as one example of a sometimes Precisionist painter who sometimes espoused the hard edged industrial style of 1920's Precisionism. Other artists include: Georgia O'Keeffe, Charles Demuth, Elsie Driggs, George Ault and Stefan Hirsch. These artists, however, like Lozowick, did not devote themselves consistently -- from the 20's through the 40's -- to the tenets of Precisionism as did Sheeler, Crawford and Spencer, and therefore are not significant to this dissertation.

[23] Forbes Watson, "Charles Sheeler," The Arts, III (May, 1923), p. 335-344.

even further removed historical phenomena that incorporated the contemporary goals of precision, purity and universality in their formal program. The "Greek Ideal," for instance, was the subject of literary and art historical studies from the 1920's through the 1940's. In International Studio, Robert Allerton Parker describes Sheeler's modern synthesis of the "Greek Ideal" as an ability to: "create something timeless, to sacrifice as beside the point all those changes of light, those differences of atmosphere, all those idiosyncracies which connote a particular time, a particular place, or any possible sentimental association." "Sheeler's subjects," continues Parker, "acquire a timelessness, a certain quality just perhaps as the axioms of geometry are timeless. They suggest Plato's world of ideas. They are beautiful, not because they remind us of the loveliness of objects or of scenes of the externalized world, but because as Plato said, they remind our soul of 'beauty of itself' or of the 'idea of the beautiful.'"[24]

Parker seems to be suggesting for Sheeler a generalized appreciation and transcription of what was considered to be the "Greek Ideal" in the 1920's rather than any attempt to copy specific Classical forms. It would, therefore, be misleading to suggest that the specific geometric forms which appear in Sheeler's paintings are based on the same geometrical principles or employ the same mathematical tools that motivated the Greeks.

---

[24]Robert Allerton Parker, "The Classical Vision of Charles Sheeler," International Studio, LXXXIV (May, 1926), p. 68-72.

Instead, we should regard Sheeler's forms as sharing with the Greeks a timelessness, a sense of order and geometrical proportion.

More importantly, the transcriptions of the "Greek Ideal" that critics recognized in Sheeler's work were equally valued by the artist. In "Notes on an Exhibition of Greek Art," -- an exhibition of Greek sculpture from the 4th through the 6th century B.C. held at the Whitney Studio Galleries in 1925 -- for instance, Sheeler comments: "The Greek miracle was accomplished by the perfect adjustment of concrete form to abstract thought. The knowledge of form was gained and verified by exact observation and correct thinking. The geometric basis was the internal structure, skillfully concealed, around which was built the objective aspect of nature with all its sensorial attributes."[25] Sheeler's synthesis of Greek sculpture brings to light not only his reverence for the fusion of abstract and concrete ideas but also an appreciation of internal structure built around the concept of geometry and proportion.

Critics continued this line of thinking regarding the "Greek Ideal" into the 1940's. Teague, for example, asserted that the Greeks achieved "machine-like quality simplified by their intense appreciation of the beauty of exact relationships. Their incomparable precision originated in mathematics; our precision has had its origin in mechanics and will flower in an art of

---

[25]Charles Sheeler, "Notes on an Exhibition of Greek Art," Arts Magazine, VII (March, 1925), p. 153-158.

idealized mathematics. We are also discovering the Greek's power to appreciate the pure beauty of our materialized Euclidean theorems."[26] While Teague's statements recognize that the Greeks and moderns shared a passion for purity, mathematical order -- which he might have better labeled as geometrical order -- and universal and timeless forms, his statement equally reflects his awareness that the Greeks and moderns used different means to achieve such ends. Thus, it is clear from Teague's statements that while the moderns appreciated the "Classical Greek Ideal" they did so in the context of a modern, mechanistic ideology.

The modern lunchroom is for cultural historian Lewis Mumford a good example of how the moderns translated the Greek aesthetic -- according to Euclid -- into contemporary terms. According to Mumford, for instance, the lunchroom, "exhibits the accuracy, the fine finish, and unerring fidelity to design which makes machine work delightful to everyone who knows how to take pleasure in geometrical perfection. The whole structure is as neat, as chaste, and as inevitable as a demonstration in Euclid."[27]

Niles Spencer

The precepts of the "Greek Ideal" -- discipline, order and universality -- and their application to modern industrial forms are also explored by critics who focus on the works of Spencer

---

[26]Walter Dorwin Teague, The Technique of Order in the Machine Age, p. 89, 91.

[27]Lewis Mumford, "Machinery and the Modern Style," The New Republic, (August 3, 1921), p. 263-265.

and Crawford. The New Yorker critic, Robert Coates, for instance, notes that "Spencer's field was confined almost wholly to the steel-and-concrete constructions of industrial America, and he approached it in an unusual fashion, for his attitude was neither reverent nor disapproving but completely and gravely impersonal."[28] Coates's sentiments convey a sense of the timelessness and objectivity in Spencer's work that can be linked to Sheeler's.

Furthermore, In The Story of American Painting, Cheney supports Coates when he writes that, "Niles Spencer has been equally consistent in the rich, architectonic quality of his painting. Each of these works has a balanced geometrical discipline and inevitable spatial organization. His disposition of these forms in space have a fine exactitude, an uncompromising rightness that satisfies the spectator's demand for order."[29] Spencer's color sense is also in line with the general classical restraint described by Cheney. Spencer, for example, employs a fairly restricted palette favoring muted tans, grays, rusts, blues and greens.

It is important to realize that what Coates and Cheney describe here in Spencer's work as "classical" -- timelessness, order and geometrical proportion -- are the mimesis of the words used by critics to describe the "Greek Ideal." Thus, the critics

---

[28]Robert M. Coates, "Niles Spencer," The New Yorker, (November 15, 1952), n.p.

[29]Sheldon Cheney, The Story of American Painting, p. 32.

are using both of these terms not in the strict traditional sense but rather as a reference to ideas of simplicity, geometry, abstraction and universality which were shared by the so-called "classical" artists and the moderns.

Spencer's own classical approach is best realized in compositions such as The Red Table, 1927, (Plate 13). In this work Spencer imposes order on what could otherwise have been a chaotic array of still-life elements. Spencer's use of geometric forms and preference for organizational structure in paintings such as The Red Table was also inspired by frequent visits to Arezzo where he studied the classically-arranged murals by Piero della Francesca. A formal comparison of Spencer's The Red Table and Piero's Constantine's Victory Over Maxentius, San Francesco Chapel, Arezzo, (Plate 14), demonstrates that both artists' favored an almost cubist simplification of mass divided into proportionally related geometrical shapes as well as a palette which was severely limited to a few simple tones. The light which is used by both artists in their compositions is without a recognizable source, thus it lends the classical qualities of motionless and timelessness to its subjects.[30]

It is also important for our discussion of the "classical" in Spencer's works to realize that Spencer was in Paris in the

---

[30]Piero's classically-arranged compositions were popular with many artists in America and especially with Precisionists Spencer, Crawford and Sheeler. General biographies on these artists indicate that they travelled to Italy and were drawn to Piero's great murals. Piero's paintings were also reproduced in many art journals such as Art News, which featured Piero's Constantine's Victory Over Maxentius, on their December 1941 cover.

early 1920's. It was there that he became acquainted with the classical order and geometry found in the examples of Cézanne and the Puteaux group -- Albert Gleizes and Jean Metzinger -- forerunners of Purism who simplified and structured the chaotic compositional structures of cubism. In her 1930 article on Spencer, Marya Mannes describes Spencer's process of simplifying Cubism. "Cubism," states Mannes, "is a complex way of arriving at exactly what Spencer does by nature, i.e., the reducing of visible life to its simplest, most structured form, stripped of all false associations and appendages."[31] Mannes's comments, then, suggest an affinity between the purity of form found in the works of Spencer and those of the Puteaux group.

In 1944, Watson further conveys Spencer's appreciation for pure content and pure form when he comments, "He (Spencer) loves 'ugly' industrial structures, groups with their severe forms on his canvases to conform to his design sense rather than to plausibility.... The stacks belch no smoke, not a wheel turns inside or out, neither man nor beast inhabits the somber, geometric scenes.... This very nearly adds up to - or subtracts down to - abstractionism." Of Camp Chair, 1934, (Plate 15) Watson continues, "it illustrates the artist's rare ability to compose a few simple lines, planes and volumes in quiet and pleasurable arrangement."[32] Watson's comments not only establish

---

[31]Marya Mannes, "Niles Spencer, A Painter of Simplicities," Creative Art, VII 7(July, 1930), p. 59-60.

[32]Ernest W. Watson, "Niles Spencer," American Artist, VIII (October, 1944), p. 15-17.

Spencer's, like Sheeler's, consistency regarding a classical approach in painting through the 40's, but also reveals Spencer's use, like Sheeler's, of a semi-abstract methodology -- within the classical approach -- to construct a painting.

Purists and Precisionists

Other artists of the machine-age adopted a "classical" approach toward their new content. Purists, for instance, demonstrated a sensibility similar to other machine-age artists for creating precise, ordered, geometrical and timeless subjects. In 1918, Purist spokesman Amédée Ozenfant published "Après Le Cubisme," the first of two manifesto's on Purism. In his essay, Ozenfant attacked the complexities and ornamentation found in Cubism and advocated in their place, order and permanency. Ozenfant created a classical form of cubism in his own art -- a celebration of the plastic entity of form by removing all accidentals -- a process begun by the Puteaux group Gleizes and Juan Gris. In Foundations of Modern Art -- a summary of Purism's program -- Ozenfant addressed the significance of the machine in the creation of geometric form:

> "In Après Le Cubisme, we attach especially importance to the lessons inherent in the precision of machinery. The necessity for order, the only efficiency, has brought about a beginning of that geometricization of spirit. A mechanical object can in certain cases affect us, because manufactured forms are geometrical and we respond to geometry. What matters is the harmony known to the Greeks, Piero della Francesca, Uccello, da

Vinci, Poussin, Cézanne, Seurat and us today."[33]

Ozenfant's Purist sentiments demonstrate an appreciation for the classical nature found in works by the Greeks, Piero and Cézanne as well as in machine-age forms. Ozenfant defines both in terms of order, harmony, precision, geometry and universality. As we have seen earlier in this chapter, Precisionists' Sheeler and Spencer shared a similar appreciation for classically-arranged compositions by earlier artists as well as machine-age forms.

In paintings such as Still Life, 1922, (Plate 16) and Interior, 1940, (Plate 17), for instance, Ozenfant and Sheeler respectively demonstrate their appreciation for the classical ideals of harmony, balance, order and proportion through the pure form of the Greek vase. As we have seen, the concept of Platonic beauty associated with measure, symmetry and abstract beauty -- was part of many artistic programs.[34]

In addition, Purism shared with Precisionism a similar

---

[33]Amédée Ozenfant, Foundations of Modern Art, (London: John Rodker, 1931), p. 117, 120, 152, 247. It is important to note that there were many other machine-age phenomena that might be compared with Precisionism such as Futurism and Constructivism. However, for the purposes of this dissertation we omit those movements with deliberate political overtones such as Futurism which confuse the more important goal of reconciling the past -- the vernacular -- with machine-age content. We also omit those European movements such as Constructivism which have had more relevance for Lozowick -- a sometimes Precisionist (see p. 17-18.) than for Sheeler, Spencer or Crawford.

[34] See Philip McMahon, "Would Plato Find Artistic Beauty in Machines," Parnassus, (February, 1935), p. 6-8 for a discussion of the controversy over the appreciation of abstract and geometric principles and whether they exist in the realm of machine art.

vision of universality. In her 1981 dissertation on Ozenfant, Susan Ball, for example, demonstrates that Ozenfant specifically selects forms and colors in order to create a key board of expressive means which are the key to well defined and universal reactions.[35]

Le Corbusier's Towards a New Architecture, parallels Ozenfant's essay on Purism entitled "L'Esprit Nouveau" in its efforts to merge certain utilitarian and aesthetic concerns. As does Ozenfant, Le Corbusier recognizes the need to integrate engineering and architectural aesthetics:

> "Working by calculation, engineers employ geometric forms, satisfying our eyes by their geometry and our understanding by their mathematics; their work is on the direct line of good art. The American grain elevator is the magnificent fruit of the new age. The architecture is the masterly, correct and magnificent play of masses brought together in light; light and shade reveal these forms: cubes, cones, spheres, and cylinders."[36]

For Le Corbusier, the steamship, the automobile and the airplane were particularly good examples of the successful intergration of engineering and architectural aesthetics. Like Ozenfant's Greek vase, Le Corbusier's steamship and airplane originated from the same spirit and standard as the Parthenon, the quintessential example of classical architecture. Le Corbusier maintained that "The American engineers overwhelm with

---

[35]Susan Ball, "Amédée Ozenfant and Purism The Evolution of a Style 1915-30," Unpublished Ph.D. dissertation, University of Delaware, (1981), p. 90.

[36]Le Corbusier, Towards a New Architecture, (New York: Fred Etchelle, Payson and Clarke, LTD., 1927), p. 12, 24, 27-29.

their calculations our expiring architects." The engineering and architectural plans that proceed from within to without and the unit of measurement they provided the whole were for Le Corbusier necessary for setting up his standards of perfection. Regarding the automobile, for instance, Le Corbusier maintains that "Specialization ties man to his machine; an absolute precision is demanded of every work. It must be exact in order that it may play by that very reason, its part as a detailed unit which will be required to fit automatically into the assembling of the whole."[37] For Le Corbusier, then, -- as was the case for Ozenfant and the Precisionists -- the "classical" principles of harmony, order, balance, and precision once again take precedence over all other concerns.

H.H. Arnason, however, provides a particularly intelligent sythesis of the "classical" in a catalogue accompanying the 1953 exhibition "Classic Tradition in Contemporary Art" held at the Walker Art Center. Arnason summarizes the definitions of the "classical" presented earlier in this dissertation as they apply to modernism and their exemplars. "Classic," states Arnason, "in our usage, pertains to the phase of contemporary art which is based on a sound system of structural and generally geometric drawing; the classic artist has a primary concern for the organization of the two and three-dimensional space of the

---

[37] Ibid, p. 71, 72, 109, 133, 147-148, 275.

picture."[38] In other words, Arnason, perceived the "classic artists" to be those who practice in the geometric tradition and follow its natural laws of precise drawing, proportion and coherent spatial organization. According to Arnason these artists included Ozenfant, Mondrian, and the Precisionists Crawford, Sheeler and Spencer.[39]

Although the writings of Ozenfant and Le Corbusier were readily translated in America soon after their publication, it was more likely the writings of Fernand Léger that enabled the Purist movement to become familiar to as well as to gain popularity with American artists and critics. In a 1923 article in Little Review, for example, Léger's language approximates that of other Purists:

> "All human industrial and mechanical creation is dependent upon geometrical laws. Because the machine belongs to the architectural order it may hold a legitimate place in the world of the beautiful. For all architecture, ancient and modern, proceeds alike from geometrical law. Machine beauty, without artistic intention, is important because of its strictly geometrical and agricultural organization."[40]

In a 1935 article in the Museum of Modern Art Bulletin, American Abstract Artist George L.K. Morris -- employing a language that recalls Léger's -- describes Léger's ability to merge art and industry in his art, "He (Léger) has reduced his art of late

---

[38]Minneapolis: Walker Art Center, The Classic Tradition in Contemporary Art, (catalogue, text by H. H. Arnason), 1953, p. 7.

[39]Ibid., p. 8.

[40]Fernand Léger, "The Esthetics of the Machine," Little Review, XI (Spring, 1923), p. 45-46.

to an ever-tightening rendition of objects. He will recount how in this mechanical age a painting must stand comparison with the other things sold in the cities. He has sought to paint them all with such freshness and precision that they can compete with the modern craftsman's product."[41] Morris clearly recognizes Lèger's artistic ability to merge art and industry and his ability to follow the tenets of order and precision associated with Purism.

A 1943 review of two exhibitions -- an exhibition of Spencer's work at the Downtown Gallery and an exhibition of Fernand Lèger's work at the Perls Gallery -- links Spencer with other European artists who derived inspiration from a universal geometry and simplicity. New York Times reviewer Howard Devree, for instance, notes of Spencer: "He saw the city and its industrial development in big simple forms and planes. An incisive ordered simplicity, an undeviating neatness characterize his work. ...(B)ecause of constant emphasis on form, he might as well be termed classic.... In any event what he was after was a presentation as he saw it of the essentials of our industrial civilization through reducing some of the more picturesque aspects to terms of extreme simplification." Of Lèger, Devree continues, "His work is curiously comparable to Spencer's in some ways. Lèger's too is highly disciplined and deliminated art."[42] According to Devree, Lèger -- though only for a brief period --

---

[41]George L.K. Morris, "Fernand Lèger vs. Cubism," Museum of Modern Art Bulletin, III (October, 1935), n.p.

[42]Howard Devree, "Disciplined Art," The New York Times, (November 2, 1952), n.p.

created classically-arranged compositions similar to those of Spencer.

Like Spencer, Crawford, too, traveled extensively in Europe, particularly in France, in the 1930's. And like Spencer's statements, Crawford's acknowledge the presence of European influences. "No painter of today, American or otherwise can ignore the vast contact of European artists of the last fifty years."[43] Crawford, for example, admired Cézanne's process of reducing forms to planes and volumes as well as Cézanne's process of creating a unity of form on the canvas surface through balance and repetition.[44] Buffalo Grain Elevators, 1937, (Plate 18) reveals both Crawford's sensitivity to Cézanne's process of simplification as well as a sensitivity to geometric forms reflecting machine-age selection.

In the catalogue accompanying the 1946 Crawford exhibit at the Santa Barbara Museum of Art, Donald Bear further reflects on this painting, "Crawford," states Bear, constructs a vision of this world of modern technology wherein space and speed are disciplined and controlled and structure measured by the mind and man."[45] More importantly, in a 1943 letter written to Richard

---

[43]Ralston Crawford, "A Modern Artist Explains the Relationship Between his Photography and Painting," Modern Photography, XIII (September, 1949), p. 110. It is also important to realize that, beginning in the 1940's, Crawford and Spencer shared a studio.

[44]Ibid., p. 110.

[45]Santa Barbara Museum of Art, Ralston Crawford: Paintings, (brochure, with text by Donald Bear), 1946, n.p.

Freeman -- Crawford's lifelong friend and biographer -- regarding an upcoming show of Crawford's work at the artists' gallery in Philadelphia, Crawford praises Freeman's decision to repeat a text which Freeman used for the brochure of a Crawford exhibit held at the Flint Institute of Art in June of that year. In this text, Freeman wrote, "The artist strikes a note of soaring faith in the industrial age."[46] Freeman's statement, but more importantly, Crawford's support of Freeman's statement, reveals his positive attitude towards industry in addition to a classical compositional approach that equals that of Sheeler and Spencer. Freeman further alludes to the broader positive machine-age philosophy that Crawford shares with Sheeler and Spencer when he recognizes Crawford's ability to "see the industrial age...as the age when man will free himself by the intelligent use of the machine."[47]

In paintings such as In White Barn, 1936 (Plate 19), on the other hand, Crawford chooses a particular Sheeleresque vernacular subject -- the barn -- to express the classical goals of architectonic simplicity, craftsmanship and continuity. Like Sheeler, Crawford also relies on the images from a personalized past when selecting images for many of his paintings. In Buffalo

---

[46]Flint Institute of Arts, Michigan, "The Work of Ralston Crawford," June 10 - July, 1942, (brochure, with text by Richard B. Freeman), n.p. Also see a January 1943 letter to Freeman from Crawford found in the Ralston Crawford, Richard Freeman Papers, (New York: Archives of American Art), Roll 3667, frame 315.

[47]Flint Institute of Arts, Michigan, The Work of Ralston Crawford, June 10-July, 1942 (brochure, with text by Richard B. Freeman, n.p.

Grain Elevators, 1937, for example, Crawford draws his material from ealier experiences as captain of several cargo vessels that transported coal along the Great Lakes. More importantly, however, no matter what subject they choose, Crawford and Sheeler reconcile these vernacular and machine-age subjects by applying "classical" compositional principles to them.

Critics have also established a link between Crawford and Spencer and have related their work to other European machine-age artists. One critic for The Art Digest attributes the geometry, sharp line, and color found in Crawford's work to the artists familiarity during the 30's with Léger and Abstraction Création artist Jean Hélion.[48] In a 1965 catalogue essay that accompanied an exhibit of Spencer's work at the University of Kentucky, for instance, Freeman establishes an indisputable connection between Spencer and Crawford on the basis of a shared timelessness, precision, clarity and love of shape in their works.[49]

Later in an article in Artforum, Jerrold Lanes establishes a link between Crawford and Léger: "but basically Crawford's thoughts have been elsewhere: Léger, Hélion and Le Corbusier are what he is about; they have been principal influences on him

---

[48]"Crawford's Abstractions," The Art Digest, XIII (March 1, 1939), p. 23. Jean Hélion is a particularly significant figure for this study not only because of Crawford's familarity with Hélion's abstract works but also because of Crawford's equal familarity with the American Abstract Artists, who along with the Precisionists, were considered the third wave of American Abstract artists. See Chapter 2 for further discussion.

[49]Richard Freeman, Niles Spencer, University of Kentucky, 1965, pp.20-21.

through his career. Crawford alone was able to assimilate into a pictorially coherent design and a consistent space the loose forms of Léger."[50] Art historian Susan Platt associates Crawford, Spencer, and Sheeler and their quest for order, planar form, and pure color, with a utopian group of European artists -- Léger, Piet Mondrian and Laszlo Moholy-Nagy -- all displaying classical qualities in their works.[51] Again, like the other critics, Platt is once again using the term "classical," not in the strict traditional sense but rather as a reference to ideas of simplicity, geometry, abstraction -- and above all universality -- which were shared by the so-called "classical" artists and the moderns.

Sometimes Precisionist painter Lozowick, was also indebted to Léger's brand of Purism. In an article appearing in The Nation in 1925, for instance, Lozowick explains:

> "Léger himself is of the opinion that the utility of anything does not necessarily detract from its beauty. In fact, he unhesitatingly affirms that the proportion of beauty among machine-made things manufactured with the aid of anonymous artisans is greater by far than it is among pretentious pictures turned out by titled academicians. The economy in the use of materials, the logic of their coordination, the precision of their functioning, the abstract geometric contour of their mass fill our environment, affect our vision, enter our consciousness, fashion our tastes. Léger is one of the very few whose work pleads with American artists for an American orientation, a closer contact with their industrial civilization so rich in plastic possibilities, and a consequent florescence of an

---

[50]Jerrold Lanes, "New York:Ralston Crawford," Artforum, IX (June, 1971), p. 88-89.

[51]Susan Platt, "Precisionism: America's Immaculates," Images and Issues, III (March-April, 1983), p. 22-23.

original indigenous art."[52]

Furthermore, in the following year a critic for The Nation describes the work of Lozowick using a vocabulary similar to that which Lozowick used to describe Lèger a year earlier: "No one who has looked at this exhibition can thereafter fail to see new meaning in the gorgeous and intricate delicacy of machines or in the smooth majesty of skyscrapers. The plastic qualities, with the single exception of color, were admirable--each formed a balanced and almost geometrical design with subtle and harmonious overtones and variations affording extraordinary interest and depth."[53] The preceeding statements attempt to codify the existence of a formal relationship between Purism -- of which some of Lèger's work belong to -- and Precisionism.

It is interesting to note that as a result of the overlapping classical formal tendencies found in Purism and Precisionism, many American artist's were labelled both "Purist" and "Precisionist." Cheney, for example, assigns the label of Purist to Precisionist painter Sheeler. "In America," notes Cheney, "Charles Sheeler, a painter long known as a Purist, capable of creating almost unearthly beauty in the ordering of a few simple forms in space, has been turning his hand recently to experience coffee pot form and soup spoon form."[54] Cheney

---

[52]Louis Lozowick, "Art Fernand Lèger," The Nation, CXXI (December, 1925), p. 712.

[53] Robert Wolf, "Art Louis Lozowick," The Nation, CXXII (February, 1926), p. 186,

[54]Sheldon Cheney, Art and the Machine Age, p. 38.

continues to use a purist language when describing Sheeler in his 1941 book The Story of Modern Art: "Charles Sheeler especially succeeded in geometricizing with classical restraint and elegance, factory motifs, combining a seeming realism of craftsmanship with an austere sense of formal design."[55]

In an essay accompanying the recent "Charles Sheeler: American Interiors," Yeh takes Cheney's arguments a step further and locates specific classical object references in Sheeler's paintings such as the oinochoe vase - which continues to appear in the artist's work though the 1950's, thus contemporizing the link between the choice of and purity of subjects selected by the Purists and the Precisionists.[56]

It is also important to realize that other American artists, while not necessarily Precisionists -- though many attempts have been made to describe them as such -- demonstrated Purist sensibilities in their work. Gerald Murphy, for example, was one such artist. An expatriate painter living in France in the 1920's, Murphy was familiar with the works of Léger, Picasso, and the Dadaists. He searched the shops outside of Paris along with Léger in an attempt to absorb the principles of geometry and order found in the art of window display. In his 1974 catalogue essay on Gerald Murphy, William Rubin summarizes the artist's synthesis of European influences: "He conceived of his

---

[55]Sheldon Cheney, The Story of Modern Art, (New York: Viking Press, 1941), p. 612.

[56]Yale University Art Gallery, "Charles Sheeler: American Interiors," (catalogue, text by Susan Fillin Yeh), 1987.

compositions as abstract arrangements, to which he accomplished his motifs influenced by Cubism and Purism. The centralized, almost iconic still life objects are seen against a structure of abstract forms which establish shallow relief space, no modelling." At the same time, however, Rubin also demonstrates that the frontality, geometry and precise execution of form in Murphy's paintings relate the artist more to the American folk art tradition while the layout of his composition and the collage - like discontinuities relate him to Cubism and Pop Art.[57]

The New York Times critic John Russell further elaborates on the ambiguous Purist labelling of Murphy's work: "It has a specifically American delight in plain fact and exact measurement that is quite lacking from the stylized manipulation of objects of everyday use that was mandatory of the Purists."[58] Furthermore, in Murphy's paintings such as the Razor, 1924, (Plate 27) we find instead the cubist device of representing elements from varying angles while in the Watch, 1924-25, (Plate 21) as contemporary critic H. Herrera discovers, "Murphy goes beyond Cubist displacement. The painting is full of devices to keep the spectator baffled--silhouette doublings, discontinuities, incongruities, playful scrambling of solid and void, hide-and-seek overlappings and disappearances and minute, subtle color variations which turn the regular and repetitive parts of a

---

[57]Museum of Modern Art, The Paintings of Gerald Murphy, (catalogue, text by William Rubin), 1974, p. 9, 16-17, 34.

[58]John Russell, "Surviving Murphy Art is at the Modern," The New York Times, (April 11, 1974), p. 28

machine-manufactured object into a contradictory Dada maze."[59] In sum, we realize from these statements, that although Murphy was momentarily labelled Purist, his works demonstrate an important fascination with a more cubist complexity of form and content which precludes him from the doctrines of true Purism.

Moreover, it is important to our understanding of Purism and of Murphy's works, to realize from these statements and from Murphy's subject choice that the artist has less to do with Purism's machine efficiency and selection and more to do with the sentiment he held for an array of objects designed by his father: pen, cocktail tray, razor etc., and painted in styles ranging from Cubism to Dadism.

The Bauhaus: American and European Connections

As we have seen, the integration of craft and industry, the merging of aesthetic and utilitarian concerns into a positive aesthetic, the intelligent structuring of forms and universality were prime issues for the Precisionists and the Purists.[60] These were also the concerns of many Bauhaus artists who often advocated a similar need to integrate the simple, linear, and well-designed qualities of earlier nineteenth century craft and handmade products with the new industrial forms.

---

[59]Hayden Herrera, "Gerald Murphy, An Amurikin in Paris," Art in America, LXII (September/October, 1974), p. 77. Particularly good discussion of Murphy's Cubist/Dadaist approach to painting.

[60]See Cincinnati Modern Art Society, A New Realism Realism: Crawford, Demuth, Sheeler and Spencer, 1941.

The remainder of this chapter will establish the broader significance of Bauhaus ideology in Europe and America and its similarity to American machine-age and Precisionist philosophy even before the arrival of specific Bauhaus documentation, exhibitions and individuals in the 1930's. More importantly, then, it will be demonstrated how two important figures, one Precisionist and one Bauhaus, projected -- through their writings and works -- a similar artistic philosophy without having any contact with one another.

In a pre-Bauhaus manuscript sent to the Grand-Ducal Saxon State Ministry in Weinmar on January 25, 1916, Walter Gropius, Gropius codifies the goals which will become the core of Bauhaus thinking: "The manufacturer must see to it that he adds the noble qualities of handmade products to the advantages of mechanical production...Only then will the original idea of industry -- a substitute for handwork by mechanical means -- find its complete realization. For the artist possesses the ability to breathe soul into the lifeless product of the machine."[61]

---

[61]Nikolaus Pevsner, Pioneers of Modern Design. From William Morris to Walter Gropius, (London: Faber, 1936), p. 30. See preceeding pages in this text for background inspiration for Gropius's statement. For instance, The Deutsche Werkbund, founded in 1907 by architects Hermann Muthesius and Theodor Fischer -- and modelled after the earlier Austrian Wiener Werkstatte -- described the aim of their association as "the refinement of production work in a unified effort of art, industry and the crafts through education." Since Gropius was one of the leaders of the Werkbund, the association provided him with many of his later aesthetics even though the Werkbund directed most of it efforts to the concern of architecture. Also see text for the historical progression of these ideas from the Arts & Crafts movement of the 19th century to the Bauhaus of the twentieth century.

Although Gropius's philosophy was not documented by scholars until much later, it is important to remind the reader that his philosophy was put into practice as early as 1919 when he merged the old Weimar Academy of Fine Arts with a School of Applied Arts -- the Bauhaus -- in the hopes of creating an architecture synonymous with the machine-age. The core of Gropius's philosophy at the Bauhaus was built on the belief that the elegance, design and simplified nature of objects found in the Arts and Crafts tradition lent themselves to machine standardization. In turn, according to Gropius, standardization opened the possibility of spiritual renewal through the achievement of a "universal archetype:" a design whose function, form and color are intelligible to all and could liberate the artist from all subjectivity.[62] Gropius's ideas, then, immediately demonstrate an affinity between the Bauhaus precepts and those of Precisionism -- presented earlier in this chapter -- where artists and critics argued for the intergration of aesthetic and utilitarian qualities in a framework characterized by simplicity, order and universality.

More importantly, Gropius's enthusiasm for merging aesthetic and utilitarian concerns was reinforced by his appreciation of American technology. For example, Gropius travelled to America in the 1920's and observed the Ford automobile factory. "The most

---

[62]For further information See Walter Gropius, The New Architecture and the Bauhaus. (London: Faber and Faber Ltd., 1935), p. 37-40. and Institute for Foreign Cultural Relations, The Bauhaus, 1975.

important modern pieces of architecture I saw here," comments Gropius, "are the River Rouge plant of Ford and the grain elevators of Chicago."[63] In a recent assessment of Gropius's work, Winfried Nerdinger more specifically points out Gropius's ability to incorporate into his own program "Americanism," progress, the miracle of technology and invention, and the big city. "Gropius, too, " notes Nerdinger, "begins in 1923/24 to raise Ford's assembly-line production and America to a magic formula for the rationalization of the construction business, factory-made houses and the housing industry."[64]

As we can see, not only did Gropius's attempt to integrate craft and machine ideas in a context of simplicity, order and universality parallel that of the Precisionists, but Gropius himself also shared with the Precisionists a positive feeling toward American industry.

Although many publications on the Bauhaus, and Gropius in particular, were not available in America until the 1930's when Bauhaus-type schools, exhibitions and individuals appeared here, a knowledge of German and Austrian design and a relationship between these artists and American artists and designers had already been firmly established. As we will see, these associations laid the foundations for a general awareness here of

---

[63]Busch-Reisinger Museum Gropius, 1985, (catalogue, text by Winfried W. Nerdinger), p. 12.

[64]Ibid, p. 12-16. See this entry for detailed account of appreciation and adaptation by Gropius of the American economic system as well. Also see Matthew Josephson, "Henry Ford," Broom, (October, 1923), p. 137-142, for an american view of "Fordism."

pre-Bauhaus and Bauhaus thinking before as well as after the actual arrival of Bauhaus documentation, exhibitions and individuals.

In 1923, for example, one artistic group, The New York Galleries of the Wiener Werkstatte of America -- a short-lived group of Austrian artists and craftsmen -- modelled themselves after the slightly earlier German Wiener Werkstatte -- precursor to the Deutsche Werkbund. In 1923, they organized the exhibition "The Viennese Method of Artistic Display." In his discussion of the exhibition, Leon W. Solon establishes the link between the New York Galleries and their earlier namesake. "The specific problem," states Solon, "was to make a homogeneous effect with a heterogeneous assortment of objects extremely varied in material, quality of effect, and artistic interest. These included painting, sculpture, furniture, faience, glass, jewelry, textiles, etc."[65] Solon's statements summarize the Galleries' attempt -- like its predessesor the Weiner Werkstatte -- to integrate the goals of painter and designer and craftsman and industrialist under the auspices of a homogenous program.

There were also many American writers who recommended that artists and designers should work closely together, thus complementary to the Bauhaus approach. In the August 1928 issue of Creative Art, for example, C.G.H. notes, "We look forward to and

---

[65]Leon V. Solon. "The Viennese Method of Artistic Display," The Architectural Record, LIII (March, 1923), p. 266. Also see D.H. "Art and Industry - Contempora," Creative Art, IV (June, 1929), p. xviii-xix.

would encourage the drafting of more and more designers and craftsman into industry." "The Studio," he continues, "hopes to show from America, England, France and Germany, an increasing number of works of beauty and interest that properly belong to the 20th century -- and to link the work of architect and engineer, of painter and designer, of handiworker and industrialist into that harmonious whole which they should ideally form."[66]

More importantly, there were certain organizations in America which were modeled on programs whose principles contributed to the formation of the Bauhaus. The American Union of Decorative Artists and Craftsmen of the 1920's, for instance, based their philosophy and structure on the Deutsche Werkbund proposing: "The purpose of this society is to give direction to contemporary design in America, particularly as it applies to industry. It was organized to do in America what the Deutsche Werkbund has accomplished in Europe."[67]

The similarities between American and European artistic programs, however, were more concretely realized by the general public only after the arrival of several Bauhaus spokesmen in the United States and Europe after the school's demise in 1933. In 1938, for example, Bayer and W. Ise Gropius created significant

---

[66]C.G.H. "Art in the Machine Age," Creative Art, III (August, 1928), p. 79-80. Austria, however, should have been added to his list.

[67]"Decorative Artists Form Union," The Architectural Record, 64 (August, 1928), p. 164.

public awareness when they organized "Bauhaus 1919-1928" at the Museum of Modern Art in New York. While the exhibit featured a wide range of objects from Bauhaus history, the accompanying text, edited by the organizers, traced the origins of the Bauhaus from the Arts and Crafts movement of the 1880's to the writings of Henry van de Velde, who "proclaimed the engineer as the true architect of our times," to Hermann Muthesius who founded the Deutsche Werkbund in 1907.

"The Bauhaus" Bayer explains, "strives to coordinate all creative effort, to achieve in a new architecture, the unification of all art training in art and design. The teaching of a craft is meant to prepare for designing for mass production starting with the simplest tools and least complicated jobs, he gradually acquires an ability to master more intricate problems and to work with machinery."[68]

For Bayer, the Bauhaus artists achieved unity by repetition of elements -- elements which constitute the grammar of creation, its rules of rhythm, of proportion, of light values and full or empty space. Spatial design was perceived by Bayer as an interweaving of shapes ordered into certain, well-defined, if invisible spatial relationships with the fluctuating play of tensions and forces.[69] As we have already seen earlier in this chapter and will see again in the following chapter, these were

---

[68]Museum of Modern Art, Bauhaus 1919-1928, 1938, (catalogue, text by Herbert Bayer), p. 12-27.

[69]Ibid., p. 29, 124.

also important formal concerns for the Precisionists' Sheeler, Spencer and Crawford in the teens and the 1920's.

It is also important to this dissertation to focus on the significant individual promoters of Bauhaus ideology in America. Even before his arrival in the United States, for example, Moholy-Nagy -- one of the primary instructors of the "Vorkurs" program at the Bauhaus from 1923 to 1928 -- influenced Bauhaus ideology in America through his writings. One such publication by Moholy-Nagy, Von Material zu Architektur, translated into English as The New Vision in 1930, conveyed Bauhaus principles to a wide audience.

Functionalism was an important concern for all machine-age phenomena such as Precisionism, Purism and the Bauhaus. For Moholy-Nagy, it was equally important. "Where a complete fulfillment of the functional need has been found," wrote Moholy-Nagy, "there is nothing left for ornamentation." In The New Vision, Moholy-Nagy used the example of the Ford Factory at Detroit -- as did Charles Sheeler -- as a prime example of a machine-age construct expressing functionalism.

Moholy-Nagy believed that the production of machines, and in particular the automobiles of the Ford Factory, was founded on several formal factors relating to its functions: the relationship of measurements, position and movement (which translated into speed, direction and penetration), material values (structure, texture and massing of form), and light

(color).[70]

In 1937, shortly after his arrival in the United States, Moholy-Nagy created the "New Bauhaus" in Chicago, where he put into practice the ideas of the older institution. In 1939, the "New Bauhaus" -- which closed in 1938 due to lack of financial support -- reopened as part of the Chicago Institute of Design. For Moholy-Nagy, the Institute of Design became yet another laboratory for acquainting artists, industrial designers, architects and photographers with the principles of the Bauhaus, modified to meet the requirements of America. Precise knowledge of material and machine played an integral part in the understanding of an object's contemporary function. For Moholy-Nagy, the artists were also part of community in need of new and useful ideas.[71]

In Painting, Photography and Film, a translation of Malerei, Fotographie, Film, -- which first appeared in 1925 and was recapitulated and translated into English in 1936 -- Moholy-Nagy specifically recognized the importance of individual movement and stasis within the creative act of painting: "The essence of the individual painting," states Moholy-Nagy "is the production of

---

[70]Laszlo Moholy-Nagy, The New Vision, translated by Daphne E. Hoffmann, (New York: Brewer, Warren and Putnam Inc., 1930), p. 58, 153.

[71] For further awareness of the impact of Moholy-Nagy in America see Joan Marter's "Constructivism in America: The 1930's," Arts Magazine, LVI (June, 1982), p. 73-80 -- an intelligent synthesis of the resurgence of Moholy-Nagy's machine-age and Constructivist principles in the works by sculptors of the 1930"s.

tensions and (or) formal relations on the picture plane, the production of new, coloured harmonies in a state of equilibrium."[72] Like Moholy-Nagy, the Precisionists, too, were convinced that the deeper, essential meanings in nature could only be demonstrated through the interplay of individual forms and design. While they were interested in utilitarian forms, the Precisionists were fascinated with the juxtaposition and equilibrium of these forms on the flat, two-dimensional painting surface.[73]

Furthermore, Moholy-Nagy proposed that the new machine-age images found in painting required an equally new form.[74] In his discussions regarding painting and the brushwork in particular, Moholy-Nagy employs a language which approximates that of the Precisionist painters and their critics. "The subjective manipulation of a tool is last," notes Moholy-Nagy, "but the clarity of formal relationship is increased to an extent almost transcending the limitations of matter, an extent in which the objective content becomes transparently clear. Maximum precision, the law of the norm, replaces the misinterpreted significance of

---

[72]Laszlo Moholy-Nagy, Malerei, Fotographie, Film, 1925. Recapitulated in Telehor, #1-2, (translated by f.d. Klimgender), (Checoslvakia, fr. Kalivoda, 1936), p. 42.

[73]Cincinnati Modern Art Society, A New Realism, Crawford, Demuth, Sheeler, Spencer, 1941.

[74]Laszlo Moholy-Nagy, Telhor, #1-2, (translated by F.D. Klimgender), (Checoslavakia: fr. Kalivoda, 1936), p. 34. Many of these ideas which appeared in the original Malerei, Fotographie, Film, 1925 were recapitulated in this 1936 article by the artist in Telhor, which was translated into English.

manual skill." [75]

The Public Realm of Machine-Age Art in America

By recognizing the compatibility of aesthetic and utilitarian ideals and by integrating the broader goals of art and industry, Purists, Bauhaus artists, Precisionists and their literary contemporaries codified a positive attitude towards the twentieth century machine-age that was articulated in the private realm of art. Other equally important and more public arenas such as American museum programming and advertising, however, also recognized the compatibility of craft and industry in the machine-age goals of the Bauhaus and Precisionism.

Museum directors such as Joseph Cotton Dana of the Newark Museum, Richard F. Bach of the Metropolitan Museum of Art and Alfred H. Barr of the Museum of Modern Art, for instance, organized industrial art programs during the teens and the 1920's that featured exhibits of machine-related objects created both in the United States and abroad.

Industrial art played an important role in museum programing as early as 1912. Under Dana's direction, the Newark Museum was the first to exhibit objects from the Deutsche Werkbund. Dana had been following the work of the Deutsche Werkbund in German periodicals and conceived of the idea of an applied arts show after corresponding with Karl Ernst Osthaus, director of the German Museum of Art in Commerce and Industry at Hagen in

---

[75]Ibid, p. 34.

Westphalia. The exhibit at the Newark Museum featured the works of architects Josef Hoffman, Otto Wagner and Adolph Loos as well as examples of German applied and graphic arts.[76]

Throughout the 1920's, Dana continued to articulate the unified relationship of production and design that was part of all his industrial policies at the Museum. In "Modern Design A Survey" -- a later forty year history of the Newark Museum -- historian Dean Freiday recapitulates Dana's philosophy in the director's own words, "The Industrialist and the artist," stated Dana, "are, both of them, craftsmen, producing from the best obtainable materials, by the most efficient means, products that are at their best perfection adapted to the demand of modern men and women for beauty and comfort and convenience."[77]

Other Museum directors followed Dana's lead in creating industrial art programs. Richard F. Bach, for instance, formed an industrial art program at the Metropolitan Museum of Art in 1918. In his program, Bach called on the craftsman to "turn from the creation of unique luxury items to the design of objects for mass production."[78] Bach continued his support of industrial art programs through the 1930's. Of the 1934 exhibition "Contemporary

---

[76]Dean Freiday, Modern Design A Survey, A Brief History of Design Exhibits over the last 40 Years." The Museum, (Winter/Spring 1952), #4, p. 1-18.

[77]Ibid., p. 16.

[78]Richard F. Bach, Museums and the Industrial World, (New York: Metropolitan Museum of Art, 1926), p. 1-2. Also see Jeffrey L. Meikle, Twentieth Century Limited: Industrial Design in America 1925-39, (Philadelphia: Temple University Press, 1979), for overall view of museum's industrial policies.

American Industrial Art," held at the Metropolitan Museum of Art, Bach comments, "Our exhibit shows all the elements of modern craftsmanship.... quantity production signifies a new point of view and an economic procedure based on a general acceptance of identical designs, with the advantages of course of speed of delivery, of lower price, uniformity, precision and availability."[79] Bach's statements, then, summarize the 1930's continued quest to integrate art and craftsmanship with the repetition and speed afforded only by industrial means.

Contemporary writers, too, recognized the value of these industrial art programs. In Industrial Art and the Museum, for instance, cultural historian Charles Russell Richards defines industrial art as the "product of things primarily of use in which the effort has been made to introduce the element of beauty."[80] Like Dana and Bach, Richards credits the Germans with the successful merging of fine and applied arts in their museums, and calls for more exhibits of industrial art in the United States that bring together artistic craftsmanship and technological ideas at a moderate cost. The idea of a travelling museum which would circulate contemporary quality products was appealing to Richards.[81]

---

[79]Richard F. Bach, "Contemporary American Industrial Art: 1934," Bulletin of the Metropolitan Museum of Art, XXIX (November, 1934), p. 182-183

[80]Charles Richards, Industrial Art and the Museum, (New York: Macmillan, 1927), p.v.

[81]Ibid.,p. 51, 63, 66, 98-99.

Other significant machine-age exhibits in the United States during this time include the "Machine Age Exposition" held in 1927 at Steinway Hall, New York and "Machine Age" held in 1934 at the Museum of Modern Art. The "Machine Age Exposition" featured creative works by painters, sculptors, architects, photographers, and engineers which were executed in both the United States and in Europe. Objects such as turbines, automatic telephone switchboards, grain elevators, garages, factories, and warehouses prominently figured in the exhibition.

The purpose of the 1927 exhibit was forecast by organizers of the exhibition two years earlier by critic Jean Heap in the 1925 spring edition of Little Review: "The machine-age exposition," notes Heap, "will show actual machines, parts, apparatuses, photographs and drawings of machines, plants, constructions, etc., in juxtaposition with architecture, paintings, drawings, sculpture, constructions and inventions by the most vital of the modern artists."[82]

In reviewing the exhibition, Herbert Lippmann further recognized that beauty could be a part of this machine imagery as well: "Germany, Russia and the United States," notes Lippmann, "were the leading exhibitors quantitatively, and, of these, the Germans showed the most consideration in design." According to Lippmann, "The designers of mechanical contrivances have studied and experimented with contemporaneous materials and are the best

---

[82]Jean Heap, "Machine Age Exposition," The Little Review, XI (Spring, 1925), p. 22.

possible teachers for architects who would bring the engineer's thoughts into cultural traditions."[83] It is obvious from these statements that both promoters and reviewers of the 1927 exhibition believed in utilitarian and aesthetic compatibility.

The "Machine Art" exhibit held at the Museum of Modern Art in 1934 enjoyed even greater popularity with the public than did the 1927 exposition. This resulted in part from a intelligent catalogue essay by Philip Johnson who describes "machine art:"

> "The beauty of machine art is in part the abstract beauty of straight lines and circles, made into actual tangible surfaces and solids by means of tools. In Plato's day the tools were simple handiworkers implements, but today, as a result of the perfection of modern material the modern machine objects approaches far more closely and more frequently those pure shapes the contemplation of which Plato calls the first pure pleasure. A knowledge of function may be of considerable importance in the visual enjoyment of machine art. The role of the artist is to choose from a variety of possible forms each of which may be functionally adequate, that one form which is aesthetically most satisfactory. Beauty of surface is an important aesthetic quality of machine art at its best. Perfection of surface is made possible by the refinement of modern materials and the precision of machine manufacture. He does not embellish or elaborate, he refines, simplifies and perfects."[84]

Johnson's obvious reverence for the functional/aesthetic nexus -- like that of other celebrant writers we have examined before -- enables him to once again trace industrialism's handicraft lineage back to the English Arts and Crafts movement.

Other attempts to bring art into the realm of industry were

---

[83]Herbert Lippmann, "The Machine-Age Exposition," The Arts, XI (June, 1927), p. 324-326.

[84]Museum of Modern Art, Machine Art, (catalogue, text by Philip Johnson), 1934.

made in the arena of advertising and design. For instance, the Art Director's Club in New York published an Annual of Advertising Art in the United States (1921-47) which contains illustrations clearly demonstrating that aesthetics were a significant part of the advertising industry as well. The 1921 Annual of Advertising Art in the United States reviews its new purpose as having, "To show that good art and good advertising are consistent and that successful advertizers are using as high a standard of art as that used in illustration or shown in the average exhibition of studio painting."[85] One of the Art Director's Club's founders further elaborates:

> "Commerce needs Art, and Art needs Commerce... and the business of today needs the artist with these qualifications: One who has craftsmanship.... He understands the principles of visual expression in form, arrangement, color and texture as applied to the expression of a commercial idea. He thinks functionally. In this way advertising illustration helps materially to bring art into industry and through it into the greatest number of homes."[86]

The 1941 issue of the Club's Annual also contains ideas regarding form and content that parallel Bauhaus ideology. According to one of its frequent writers, Nathaniel Pousette-Dart, the Club's ambition, in short, was "to exert an influence for the unification of the creative workers in all industrial

---

[85]Art Director's Club, Annual of Advertizing Art in the United States, (New York: Publishing Printing Co., 1921), p. iv.

[86]Art Director's Club, Annual of Advertizing Art in the United States, (New York: Publishing Printing Co.,), 1926, n.p.

arts."[87] Pousette-Dart also summarized the Annual's directional change in the 1940's regarding its formal preferences from:

> "the old concept that art is merely a copy or mirror of nature, we have progressed to a position where we can accept art as a creative element in itself. Words like abstractionism, distortion, surrealism, non-objective art, organization, functionalism, and streamlining, are words which have a common usage and acceptance today. We see that the theory of functionalism has been taken over by the advertizing profession and has given new life to headlines, copy and art."[88]

In conclusion, one realizes the significance of Bauhaus ideology in America and sees its paralleling trends with Precisionism in the reconciliation of the vernacular and industry. We also realize that these connections were so strong that similar trends developed in museums and in advertising.

Oskar Schlemmer and Charles Sheeler

In view of the established broader significance of Bauhaus ideology in America in both the private and public realm and its similarity to, and at times, paralleling developments with contemporary American machine-age phenomenon such as Precisionism, it is fascinating to comprehend how one Precisionist, Charles Sheeler and one Bauhaus artist, Oskar Schlemmer, -- completely independent of one another -- could have projected, through their art and ideas, a similar artistic philosophy.

---

[87]Art Director's Club, "The Evolution of American Advertising Art," 1941, n.p.

[88]Ibid ., n.p.

Oskar Schlemmer, who never left Germany for the United States like his colleagues Gropius and Moholy-Nagy, remained one of the Bauhaus's primary theoreticians from 1920 to 1929. There he directed theater, dance, painting, and sculpture workshops.

Although Schlemmer concentrated on the human figure, unlike Sheeler, Schlemmer used the human figure as a measure of the new technological age much in the same way as Sheeler used his objects as a measure of the new age. Thus, Schlemmer united his human form with art and industry as Sheeler united his architectural structures with art and industry. As Schlemmer explains: "Man, the measure of all things, provides so many possibilities for variation and for relationships to architecture and craftsmanship that one would merely have to extract the essentials."[89] In other words, Schlemmer's mechanized stage productions explore man and his placement in the surrounding mechanized world, -- its architecture and objects.

In a recent book entitled World War I and the Weimar Artists, Matthias Eberle comes close to describing the similiarity between Schlemmer's and Sheeler's ideology. Eberle, for instance, describes Schlemmer as being able to "heal the rift between intellect and instinct, mind and matter, by creating images of almost mathematical harmony."[90] As we have seen earlier in this chapter, Sheeler also shared a similar concern.

---

[89]Oskar Schlemmer, The Letters and Diaries of Oskar Schlemmer, (Connecticut: Wesleyan University Press, 1972), p. 133.

[90]Matthias Eberle, World War I and the Weimar Artists, (New Haven and London: Yale University Press, 1985), p. 106.

In addition, although both artists began their artistic pursuits with the study of Cubism, both were always much more interested in arriving at a fundamental, universal order which did not exist within the complexities of Cubism.

Moreover, for Schlemmer, man was a spatial marker -- an organizing unit or module -- that defined his spatial environment. Similarly, Sheeler used his industrial forms as a marker to determine the arrangement and proportions of the surrounding space. Contemporary art historian Karin Von Maur better explains Schlemmer's view of the figure amd enables us to realize his connection with Sheeler:

> "he (Schlemmer) refined it to essential geometric elements that could serve as modules for pictorial composition. In its schematic abstraction, however, there is retained sufficient figural reference to relate to the forms as living human beings. Coordination of complete or partial motifs, the alternation between points of concentration and empty spaces, of structured and unstructured surfaces, of volume and line, give rise to a fugue-like rhythm...."[91]

As we have seen earlier in this chapter, Sheeler's own writings indicate that he arrived at the total picture through an accurate conception and placement of architectural forms and their relationship to the peripheral picture surface.

Both artists also experimented with the juxtaposition of contrasts in their paintings -- closed and open spaces, light and dark, imaginary and real objects, and the temporary and timeless.

---

[91]The Baltimore Museum of Art, The Art of Oskar Schlemmer, February 9 - April 6, 1986, (catalogue, text by Karin Von Maur), p. 45-46.

Both conflated these contradictory images into one unified and universal realm. We can see Von Maur's description of Schlemmer's Concentric Group 1925, (Plate 22) for instance, as foreshadowing a similar elemental conflation that will occur in Sheeler's Interior with Stove, 1932, (Plate 23). In her discusion of Schlemmer's Concentric Group Von Maur notes, "Here the attempt to integrate volumetric figuration with constructivist planar organization resulted in concentrated mass. From the juxtaposition of deep space at the center of the composition, and planimetric integration toward the edges of the picture there emerges a columnar statuary effect."[92]

In Interior with Stove, Sheeler achieves a similar conflation of elements by integrating the stove with its surrounding planar space. The deep space at the center, for example, is juxtaposed with the planimetric space at the edges of the picture.

Schlemmer's The Bauhaus Stairway, 1932, (Plate 24), on the other hand, suggests to Maur "how intent Schlemmer was on bringing out the imaginary inner structure of the nude." "The architecture of the human body," continues Maur, "is beginning to supplant the 'architecture' of constructed pictorial space."[93] Similarly, Sheeler's analysis of the Greek Ideal demonstrates that he delighted in the internal structure of Greek sculpture built around the planar geometry and the proportion of the

---

[92]Ibid., p. 57.

[93]Ibid., p. 68.

surrounding space.

Both Schlemmer and Sheeler, then, struggled to create order out of equally confusing environment -- one in political turmoil, the other consumed by industrial growth. In Bauhaus Stairway, Schlemmer creates order through a compositional structure which organizes space according to the rules of Euclidean geometry, thus providing a solution for the rendering of figures in real space. The forms at the edge of the planimetric space lead our vision toward the center or stereometric space. The center group organizes the depth of space, while the figures at extreme left and right establish a balance of parts to the whole. The use of industrial materials such as steel, glass and poured concrete in Bauhaus Stairway reinforces the idea that industrial form can be integrated with human form as well as with modernist architecture.

In Classic Landscape, 1931 Sheeler uses a similar methodology regarding content and structure. Although Sheeler chooses an industrial site rather than a human figure for his central focus, the main architectural structures organize the depth of space, while the forms at the edge of the planimetric space establish a balance of the parts to the whole.

Moreover, the structures painted in both Bauhaus Stairway and Classic Landscape pay homage to craftsmanship in the highest order. Careful attention is given in both paintings to integrating interdependent forms into a variety of patterns seen from varying angles and space is maintained as regular,

measurable and rectilinear. Both artists utilize spaces which are at once functional, ordered and proportional.

The so-called "window pictures" by Sheeler and Schlemmer ofer another interesting point of comparison. Schlemmer's window pictures such as Window Picture XII, 1942, (Plate 25) were painted from his room in Wuppertal, where he took a position at a nearby paint factory in the early 1940's. They represent a nostalgia for his family: the artist stands outside, no longer part of anyone's life. Schlemmer uses the window as an interesting yet dichotomous compositional structure. It demonstrates the capacity of space beyond, yet at the same time creates an obstruction for the viewer.

Schlemmer's ambiguous use of space and his placement outside that space are paralleled in Sheeler's painting, Winter Window, 1941, (Plate 26). As Erica E. Hirchler points out in Charles Sheeler: Paintings and Drawings, the window in Sheeler's painting is a traditional romantic motif which functions "as both threshold and barrier between familiar domestic surroundings and wilder nature or another form of the unknown, and by extension between the secure present and the uncertain future."[94]

More specifically, both artists delighted in the opposition of abstract form, color, and movement and in the shaping of this opposition into a unifying whole. According to Schlemmer, this dichotomy of arrangement was a significant part of Bauhaus

---

[94]Carol Troyen and Erica E. Hirschler, Charles Sheeler: Paintings and Drawings, (Boston: Little, Brown and Company, 1987), p. 64.

theory. "The alternation between abstract and non-abstract techniques," states Schlemmer, "has become the sign of the times here at the Bauhaus as well. Objective: a felicitous synthesis of nature and abstraction which still seems to be the criterion of true art."[95] It is likely that it was Schlemmer's knowledge of film and photography that provided him with the formal logic to reconcile abstraction and reality just as Sheeler's film and photography experiences provided him with a similar logic.

Furthermore, Sheeler's ability to create a sense of the non-particular and the timeless in his industrial paintings is paralleled by Schlemmer's attempts to create images of man that were equally timeless, fundamental, and, therefore, transcendental. Schlemmer's Man in the Sphere of Ideas, (1928), (Plate 27), for instance, is one example where the human form is a vehicle for defining structure rather than individual expression. More specifically, the image in Man in the Sphere of Ideas embraces the natural or corporeal, the inner mind or timelessness, and the soul, which Schlemmer defines as the connecting agent for the natural and the corporeal.[96]

We can conclude from these statements, then, that for Schlemmer, the human form exists as a timeless entity which has the capacity to transcend its being and function as a higher reality -- an abstract module which defines the totality of its

---

[95] Ibid., p. 140, 156.

[96] Ibid., p. 145.

compositional structure. For Sheeler, it is the architectural structure which stands, instead, as the timeless entity and serves as the module for creating equally powerful compositions expressing a sense of order and simplicity.

In sum, we can conclude from this chapter that not only did Sheeler and Schlemmer independently share a similar positive artistic vision, but that this vision was shared simultaneously by the larger, machine-age communities to which they belonged -- Precisionism and the Bauhaus -- as well as by other European and American machine-age movements and their literary counterparts.

The next chapter will examine in greater depth the formal aspects of Precisionism. A study of Precisionists Sheeler, Crawford, and Spencer beyond the 1920's through the early 1950's -- in light of the developments taking place in photography and modernism -- will demonstrate other, yet equally significant aspects of Precisionism, its consistency and its formal relationship to the broader abstract/realist nexus in twentieth century art.

Chapter Two: Precisionism -- Sheeler, Crawford and Spencer

In an attempt to continue to demonstrate the broader significance of Precisionist form and philosophy in twentieth century art, this chapter will show for the first time how the Precisionists Sheeler, Crawford and Spencer shifted their focus from the original constructs of Precisionism -- then referred to as Cubist-Realism, and the Immaculate movement -- and continued to simplify their hard edge industrial and universal forms, consistently creating infinite gradations of abstract/realism throughout several decades of the twentieth century. This chapter will also explore how the abstract/realist tendencies of Sheeler, Crawford and Spencer paralleled similar trends in photography and "Modernism" in the United States and in Europe, thus, further solidifying this dissertation's argument for recognizing Precisionism's broader role in twentieth century art.

Beginning with a general American artistic trend to synthesize modernism in Paris and Germany in the opening decades of the twentieth century, and culminating in the display of these American and European works at the Armory Show held in New York in 1913, abstract tendencies paralleled, and at times, took precedence over the United States' long standing tradition of realism. From that point on, -- as will be demonstrated in this chapter -- American art was an abstract/realist nexus characterized by alternating periods of abstraction and realism as well as by movements that simultaneously embraced both

abstract and realist ideas.

In his examination of the Precisionists, art historian Milton Brown codifies this nexus in his 1943/45 ground-breaking essay "Cubist-Realism." In focusing on the Precisionists' works from the teens and the 1920's, Brown locates a trend which registers both the abstract components of Cubism as well as the meticulously rendered components of Realism.[97]

Less than a decade later, John Baur also recognized the existence of an abstract/realist nexus in American art. For Baur, however, this nexus was not limited to Precisionism. Instead, Baur located the more general origins of this nexus and traced their development throughout the 1950's. In Revolution and Tradition in Modern American Art, for example, Baur notes:

> "We no longer have, as in the past, a single, homogeneous style easily understood by all; since the middle of the nineteenth century new movement has followed new movement with bewildering diversity and speed. At the moment abstract and semi-abstract art has been in the ascendancy, but it would be a brave critic who would dare predict what the future balance between these and the representational modes of painting will be. Perhaps the question is not so important as it would seem to be, for there are many degrees of abstraction between extreme realism and the totally abstract; most of our painters work somewhere in this middle ground."[98]

---

[97]Milton Brown, "Cubist-Realism," Marsayas, III/V (1943/45) and see chapter III of this dissertation for further discussion of Brown's seminal study. Although Brown includes many artists in his Cubist-Realism study, this dissertation only focuses on those artists such as Sheeler, Crawford and Spencer who are consistently Precisionist rather than examining the multitude of artists who only sometimes exhibit these qualities in their work.

[98]John Baur, Revolution and Tradition in Modern American Art, (Cambridge: Harvard University Press), 1951 p. 140-141, 145.

The Precisionists -- Sheeler, Crawford, and Spencer -- translate the positive aesthetic of the machine age into a formal language that reflects Baur's more contemporary and broader use of abstract/realism in twentieth century art. Thus, -- as this thesis will show -- the importance of Precisionist painting lies beyond its ties in the 1920's to Cubism, and in its continued simplification of form and perpetuation of universal and abstract ideas through the early 1950's -- even within its more realistic phases of Realism in the 1930's. The concept of "Realism" as it relates to Precisionism and other "realisms" of the 1930's will be examined later in this chapter in order to better understand the abstract/realist nexus within Precisionism which dominated several decades of twentieth century American and European art.

Abstract/Realist Nexus

As early as 1917, American artists like Thomas Hart Benton -- briefly an abstract artist turned realist -- validated the abstract/realist nexus. "In conclusion," writes Benton, "I wish to say that I make no distinctions as to the value of subject matter. I believe that the representation of objective forms and the presentation of abstract ideas to be of equal artistic value."[99]

Many writers of the 1920's also recognized the value of the

---

[99]Lorinda Munson Bryant, American Pictures and their Painters, (London: John Lane Company, 1917), p. 297-8.

formal abstract/realist nexus in twentieth century art. Contact editor Robert McAlmon, in his introductory statements for the magazine, for instance, stated that the magazine was:

> "issued in the conviction that art which attains is indigenous of experience and relations. By form is meant everything in a work which relates to structural unity rather than to meanings dragged over former associations....(A)ll in the work must tend to relate to an intrinsic unity and not to anything outside itself...a kind of mixing of reality, pure form and abstract which is also objective form."[100]

McAlmon's statements reflect the general consensus of writers at the time who believed that although art should reflect indigenous aspects of reality, its forms should derive significance from their abstract nature and from their ability to enhance pictorial unity.

More importantly, catalogue statements by the Precisionists accompanying an exhibition of their works held at the Cincinnati Modern Art Society in 1941 establishes them as key participants in this abstract/realist nexus into the 30's and 40's.[101] The exhibit at the Society, for instance, features works by Sheeler, Crawford and Spencer which explore an abstract formal language in the American industrial landscape. While each of the catalogue entries by the Precisionists conveys an admiration of indigenous

---

[100]Robert McAlmon and William Carlos Williams, "Constitution," Contact (1920), p. 1, and (June, 1923), p. 1-5.

[101]Cincinnati Modern Art Society, A New Realism, Crawford, Demuth, Sheeler, Spencer, 1941. Although the works of Charles Demuth were included in this exhibition, they are not relevant to this study which deals only with the consistent Precisionists Sheeler, Crawford and Spencer.

utilitarian forms, they also suggest a particular fascination in juxtaposing such forms on a flat, two-dimensional painting surface. Although some basic remnants of reality remain in their compositions, Sheeler, Crawford and Spencer were convinced that the deeper meanings in nature could only be demonstrated through the interplay of form and design.[102]

Art historians such as Baur would later support the consistency of the abstract/realist trend found in these Precisionist paintings. As Baur notes, for instance, "The group of artists, who fashioned the principle compromise between abstract principles and American realism are sometimes called the precisionists, sometimes the Immaculates. They found in the mechanical and industrial forms of our civilization a theme which was naturally adapted to abstract treatment and which was also representative of modern America." According to Baur, the Precisionists/Immaculates emulate this abstract or "semi-abstract" style from 1914-1918, then develope a tendency toward greater realism in the 1920's -- which is still strongly influenced by abstract design -- and finally return to this semi-abstract style in the 1940's.[103]

Critics also recognized a contiguous reconciliation of abstract and realist concerns in the works of specific Precisionist painters. The New York Times art critic Edward Alden

---

[102]Ibid., p. 3, 5, 9, 11.

[103]John Baur, Revolution and Tradition in Modern American Art, 1951, p. 7-8, 59-60, 103.

Jewell, for instance, chose to address in particular Sheeler's consistency of vision. "In his (Sheeler's) work," states Jewell, "...from beginning to end, obtrudes no mystery. Everything proceeds, so to speak, in a direct line. Sheeler concerned himself with an underlying architectural structure...and through contact with the European modern movement, came to feel that even realistically conceived pictures might have underlying abstract structures -- a belief that he says has endured with him as a working principle up to the present time."[104]

Jewell's sentiments, -- like those of other writers and the Precisionists themselves, -- then, support one of the major precepts of this dissertation. Namely, that while many of the Precisionist paintings from the 1930's display a sense of greater realism than their earlier Cubist/Realist works, that realism is still governed by an underlying abstract structure -- thus supporting our abstract/realist nexus.

Furthermore, 1950's writers like Frederick S. Wight continue to focus on this nexus throughout the Precisionist's career. Of Sheeler, for example, Wight states, "One of his first earlier successes was an abstract drawing of a barn. A barn revealed in its essentials without background of any sort. Sheeler is also at his rightest in dealing more or less abstractly with the factory, the industrial plant, the mill. And it is here that the word 'immaculate' begins to intrude upon us. For what is gritty in

---

[104]Edward Alden Jewell, "Sheeler in Retrospect," The New York Times (October 8, 1939), sec. ix, p. 9.

reality becomes crystalline under Sheeler's hand." In his comparison of Sheeler's mature works -- Upper Deck, 1929 (Plate 28) and Suspended Power, 1939 -- Wight further demonstrates a consistency in his linguistic approach: "In the spirit of Upper Deck, it (Suspended Power) shows machinery as sort of an abstraction in itself, the implementation of an idea. The change is profound, yet based on his earliest experiences and therefore in character." "The late paintings," concludes Wight, "are a fulfillment of a first promise and a lifework given to an insistence on fact comes round again to form as the most basic fact of all."[105]

Wight's concluding remarks on Sheeler establish the artist's consistency of vision regarding his appreciation for an abstract dialogue even when depicting more realistic subjects. Wight's concept of an abstract/realist nexus, then, -- as well as that of other critics writing during the 1930's, 40's and 50's -- is extremely important for this dissertation since many contemporary scholars of Precisionism view Realism and Abstraction as two separate phenomena and tend to disregard the artist's later realistic works -- which are actually more abstract/realist -- as not being particularly Precisionist.

For the moment, however, Robert Coates -- in a 1956 review of a Sheeler retrospective -- continues to trace the artist's formal abstract/realist tendencies in later works: "Sheeler has

---

[105]University of California Art Gallery, Los Angeles, Charles Sheeler: A Retrospective Exhibition, 1954, (catalogue, with text by Bartlett Hayes and Frederick Wight, p. 7, 28, 35-36.

trod the thin line between abstraction and strict realism," notes Coates, "and it's largely this line that binds the show together. I like him most when he balances skillfully right on the line, as in Barn Abstraction, 1946, (Plate 29) and the remarkable Ore into Iron, a study of caldrons and other structures making up a smelter, a picture so complex in its mingling of factual suggestion and abstract distortion that it's practically dazzling."[106]

In "Charles Sheeler Purist Brush and Camera Eye," A. L. Chanin also traces Sheeler's process of abstracting and intellectualizing form throughout the artist's career. Of Church Street El, 1922, (Plate 30) Chanin comments, "Abstraction and Realism dovetail as pattern and light form a starkly dramatic image of the city." Of Upper Deck, 1929, Chanin continues, "This is an amazing blend of carefully selected visual facts and sensitively seen abstract arrangement in the incorporation of machine-made forms -- dynamos, vents and blowers -- into objective, factual but engrossing design." More importantly, Chanin's synthesis of Sheeler's repertoire comes full circle when he notes, "In his most recent picture, Golden Gate, 1955, (Plate 31) a lyric spirit is heightened and the composition becomes even more daring, recalling the unorthodox angle of vision of Church Street El. By making the forms more simplified, Sheeler comes

---

[106]Robert M. Coates. "Review of Charles Sheeler Show at the Downtown Gallery," The New Yorker, XXXII (April 14, 1956), p. 112.

closer to stressing structure."[107]

In other words, what Chanin and the others have successfully demonstrated, is that Precisionist exemplar Charles Sheeler has remained loyal to an abstract sense of designing throughout his career from his early works such as Church Street El -- considered by most scholars as Precisionist -- to more realist works such as Upper Deck and continuing in later abstract works such as Golden Gate, considered by most scholars as not being particularly Precisionist.

Chanin, is also keenly perceptive in his discovery that color plays an extremely important role in Sheeler's abstract/realist process. Of Incantation, 1946, (Plate 32), for instance, Chanin notes: "It charts another turning point, for here he steps color up to a single brightness, organized into a brilliant array of forms. In this painting Sheeler's color is applied totally unrelated to fact but enhancing the maze of forms."[108] Sheeler himself saw color as an important element in designing the composition. Sheeler's entire artistic process, for example, involved a search for an abstract underlying order and an effort to rearrange this order in accordance with the design and choice of colors.[109]

---

[107]A.L. Chanin, "Charles Sheeler Purist Brush and Camera Eye," Art News, LIV (June, 1955), p. 72.

[108]A.L. Chanin, "Charles Sheeler Purist Brush and Camera Eye," Art News, 54(June 1955), p.72.

[109]Charles Sheeler Papers, (New York: Archives of American Art), Nsh2, frame 8-9 and Roll 1811, frame 787.

The abstract/realist process -- discussed in relation to Sheeler -- was equally important for Crawford. In a description of Crawford's abstract/realist process, one critic for The Art Digest employs a language similar to that used to describe Sheeler's process:

> "Like the modern architects, he thinks in terms of simple shapes well proportioned to a given space. His colors are expressed with equal simplicity. How building forms may be reduced to abstract shapes and still hold to the suggestion of the original, is indicated in Verticle Building, 1934, (Plate 33) a startling composition in terms of solid geometry blocks of white cut by repetitions of black smokestack verticals and building squares."[110]

An examination of the language used here is important for our understanding of Crawford's participation in the abstract/realist nexus. For instance, while The Art Digest critic clearly recognizes Crawford's use of simple, universal and abstract shapes and colors in a painting like Verticle Building, the critic maintains that Crawford never lets go of the "original" -- the real object in nature.

A visual comparison of Sheeler's Suspended Power, 1939, and Crawford's Buffalo Grain Elevators, 1936, however, best illustrates the artists' similar methodologies. While sharp and geometric patterns of simplified forms, for instance, are found in both paintings, these forms are also similarly interlocked in a shallow space parallel to the picture plane. Furthermore, Crawford, like Sheeler, treats each side of his subject as a

---

[110]"Crawford Simplicity," The Art Digest, XI (April, 1937), p. 11.

separate entity of color, selecting one color of a single brightness to further his underlying abstract order. The abstract processes, then, regarding selection, elimination, simplification and color along with maintaining a sense for "the original," are equally important for Sheeler and Crawford.[111]

As we continue to build upon the abstract/realist nexus in twentieth century art and its meaning for Precisionism, we find Stuart Preston's statements regarding Precisionist painter Crawford particularly enlightening: "The real difference between abstract and realistic art," states Preston, "is one of degree and not of kind.... Here formal considerations crept up on content but they never succeed nor do they wish to in ousting it. A balance is maintained."[112] Preston's statements are perhaps best visualized in Crawford's Overseas Highway, 1939, (Plate 34) where the artists'formal considerations -- the abstract interlocking shapes and patterns of the highway -- are not displaced by the realism inherent in his subject. As we can see, Crawford's intellectual, rational and reductive process -- initially inspired by his appreciation of Cézanne -- continued throughout his career within an objective framework.

Holger Cahill locates a similar consistency in Spencer's artistic processes of selection, elimination and simplification. Cahill recognizes in Spencer's works, for instance, a "feeling

---

[111]"Artist Finds California Still," Santa Barbara News (March, 1946), p. 56.

[112]Stuart Preston, "Abstract in Varying Degrees," The New York Times, November 14, 1954, sec.2, p.14.

for objects" -- thus a pervading realism. In his discussion of Spencer's City Walls, 1921, (Plate 35) and The Two Bridges, 1947, (Plate 36), for instance, Cahill notes:

> "The precision is not merely in the handling of edges, the definition and separation of forms - though this is done with great clarity - so much as in the articulation and movement of planes and the composition of the picture as a whole. What is defined is a time and a space, the date and place of the urban industrial society which has written its character upon the face of contemporary America. Spencer read the urban industrial space of our time as abstract, as particular, but through an act of awareness and selection he confers upon the particularity of its moment the eternal now of art."[113]

According to Cahill, Spencer's Precisionism is not measured simply through the artist's particularization of industrial forms, but rather by Spencer's ability to create -- through personal selection -- an abstract compositional structure. More importantly, by choosing to discuss both an early and late work by Spencer, Cahill establishes the artist's consistency of vision.

Spencer's catalogue statements appearing in A New Realism: Crawford, Demuth, Sheeler and Spencer, however, suggest a direct link between his abstract/realist preferences and those of the other Precisionists: "The deeper meanings of nature," writes Spencer, "can only be captured in painting through disciplined form and design. The visual recognizability is actually irrelevant. It may be there or not. Realism, is a pretty much

---

[113]Holger Cahill, "Niles Spencer," Magazine of Art, XLV (November, 1952), p. 313.

battered around word, but its true meaning has always been a part of the modern artist's' concern."[114]

Thomas Hess also links Spencer -- and his ability to combine abstract and real forms under the umbrella of a positive approach towards industrial forms -- to Sheeler. In his description of Spencer's City Walls, 1921 and Erie Underpass, 1949, (Plate 37), for instance, Hess comments, "Spencer, ... and as Sheeler had done with him, chose to fuse abstract with nature by painting those abstractions which exist as real objects -- machine forms, architecture, railroads, cranes, etc. The process of abstraction was reinforced by generalizing the forms, by stripping a gas tank or a pipe-line of its individual surface details, transmuting it into a geometric element fitted into the pictorial architecture."[115]

In conclusion, we realize that Hess and other critics are defining the realism found in Spencer's work as a feeling for "real objects" such as the hard-edged machine forms. On the other hand, these critics define the abstract component found in Spencer's work as an ability to simplify and translate into geometrical form those hard-edged machine forms.

Photography

As we have seen discussed in this chapter, the Precisionists

---

[114]Cincinnati Modern Art Society. A New Realism: Crawford, Demuth, Sheeler and Spencer, p. 11.

[115]Thomas B. Hess, "Downtown Gallery," Art News, XLVI (November, 1947), p. 37.

were deeply committed to the use of an abstract/realist language in their paintings. The reconciliation of this abstract/realist language, however, becomes even more significant and is perpetuated in light of contemporary developments in film and photography. In the case of Sheeler, for instance, the nature and relationship of Sheeler's photographs and paintings such as Offices, 1922, (Plate 38) and Church Street El, 1920, where imagery and form evolve from the artist's experiences in making the 1920 film Manahatta, is particularly enlightening.[116] In this film -- a collection of still shots which ran six minutes and was released in New York as "New York the Magnificent" in July of 1921 -- Sheeler and photographer Paul Strand used the movie camera to capture the teaming crowds which pour daily into the city streets and its transportation systems. These subjects, along with the skyscraper and other twentieth century phenomena, were part of the ordered formality of everyday life but were captured by artist and photographer at unusual angles demonstrating their accidental and precarious nature.

Contemporary critic Robert Allerton Parker was quick to recognize the abstract qualities of the Sheeler/Strand filming process in 1921. Parker viewed the Manahatta project as reflecting Sheeler's and Strand's ability "to register through the conscious selection and space-filling those elements which are expressive of the spirit of New York, of its power and beauty

---

[116]Susan Fillin Yeh, "Charles Sheeler: Industry, Fashion and the Vanguard," Arts, LIV (February, 1980), p. 154-158.

and movement." "The city they discovered," continues Parker, "reveals itself most eloquently in the terms of line, mass, volume, movement. The language is plastic. At last the artist can register those strange accidental moments when light, lines, form and movement seen by chance to combine into an unearthly divine beauty, transmuting every-day objects into plastic poetry."[117] In many ways Parker is legitimizing the abstract possibilities inherent in the art of photography as critics -- discussed earlier in this chapter -- were simultaneously legitimizing the abstract nature of painting.

Strand, himself, also regarded photography as a new kind of abstract vision related to plastic arts. When discussing the works of photographer/friend Alfred Stieglitz, Strand conveys a an attitude toward photography that is similar to Parker's:

> "We become aware in these photographs of his, of a new factor which the machine has added to plastic expression, the element of differentiated time. The camera can hold in a unique way, a moment. If the moment be a living one for the photographer, that is, if it be significantly related to other moments in his experience, and he knows how to put that relativity into form, he may do with a machine what the human brain and hand, through the act of memory cannot do. So perceived, the concept of the portrait takes on a new meaning, that of a record of innumerable elusive and constantly changing states of being, manifested physically. With the eye of the machine, Stieglitz has recorded just that, has shown that the portrait of an individual is really the sum of a hundred or more photographs. He has looked with three eyes and has been able to hold, by purely photographic means, space, filling, tonality and tactility, line and form, that moment when the forces at work in a human being become

---

[117]Robert Allerton Parker, "The Art of the Camera," Arts and Decoration, XV (October, 1921), p. 369.

most intensely physical and objective."[118]

For Parker and Strand, then, only photography -- through its technical achievements -- could provide an artist with the means to capture what the eye could not hold, a variety of states of being effected by constantly changing lights and movements. The camera also provided Parker, Strand and Sheeler with the means to register such selective accidental events in an equally accidental, generalized, yet plastic language. Sheeler himself recognized the abstract dimension which photography could add to a painters skills. "The camera," noted Sheeler, "is an art medium. Photography, painting and drawing were linked by a common vision related, but not synonymous. Photographic exposure time flattens surfaces and hides detail in sooty blackness."[119]

Eugene Jolas's comments on Manahatta in the 1929 issue of Transition continue to recapitulate the abstract potential of the photographic process described above by Sheeler. "His (Sheeler) camera," states Jolas, "gives us the finest imaginative possibilities through light and dark arrangements which approach the abstract and crystal purity of poetry."[120]

Thus, we can conclude that Sheeler's experience with Manahatta accounts in part for the dichotomy of vision -- an

---

[118]Paul Strand, "Photography and the New God," Broom, (1921), p. 252, 255-256.

[119]A.L.Chanin, "Charles Sheeler: Purist Brush and Camera Eye," Art News, (June 1955), p.72.

[120]Eugene Jolas, "Individual Mythos," Transition, No. 18 (November, 1929), p. 123.

abstract/realism -- that characterizes both his paintings and photographs of the period. In the still shots from the film, for instance, as well as in Sheeler's photographs and paintings of the period such as Church Street El, 1920, and New York, 1920, (Plate 39) we often locate an isolated image -- as can only be located by selective photographic means. Furthermore, the arbitrary edges of these isolated images enhance their abstract significance and create patterns, which are equally accidental, with the surrounding play of light.

It is important to realize, however, that we find Sheeler's semi-abstract style beginning to take shape as early as 1915 in paintings and photographs of Bucks County such as Bucks County, 1915. Sheeler's sympathy for the abstract -- which would be further developed during his work on Manahatta and with Strand -- had certainly been inspired in 1913 when he photographed Marius de Zayas's more abstract African sculpture and pre-Columbian collection.

Furthermore, critics like Samuel Kootz continued to engage in an abstract/realist synthesis of Sheeler's paintings and photographs beyond the artist's experiences with Manahatta. Of Sheeler's 1930's image of the Ford Plant (Plate 40), Kootz notes:

> "All his lucid comprehension of composition and design; the subtlety, the variety of an intellectual arrangement of forms; his marvelously paced spacing; his feelings for depths for balance; his interesting and completely personal use of color and texture; all these, his painting language he brings to a different art and in so doing elevates photography to a new beauty. There is no personal interference with the object shown. The objective attitude assumed by Sheeler

makes for a calm detached expression."[121]

According to Kootz, it is Sheeler's objective attitude toward the Ford Plant which allows him to focus on the more interesting arrangement of forms, colors and textures, thus enhancing the pictorial structures of his paintings. Furthermore, it is Sheeler's abstract painting language which he then applies to his photographs of the Ford Plant, that for Kootz, "elevates photography to a new beauty." The photographs of the Ford Plant still signal to Kootz, however, Sheeler's level of objectivity. "Designed by engineers interested primarily in function," comments Kootz, "the steel is pure, unornamented, faithful to its utilitarian purposes."[122]

Rourke also recognized a similar abstract/realist approach in Sheeler's later paintings and photographs. According to Rourke, for example, Sheeler "uses cropping decisively, skillfully for the enhancement of design or fact. The broad direction of his painting was established before he had used the camera, his photography has inevitably gained from his development as a painter, in choice of theme, in structural elements, in the rendering of textures and surfaces."[123] Like Kootz, Rourke seems to suggest that Sheeler takes the abstract language gained from painting and applies it to photography.

---

[121]Samuel Kootz, "Ford Plant Photo's of Charles Sheeler," Creative Art, VIII (April, 1931), p. 265.

[122]Ibid, p. 266.

[123]Constance Rourke, Charles Sheeler in American Tradition, p. 122.

Other critics like George M. Craven even recognized the continuance of this overlapping abstract vision in Sheeler's paintings and photographs of the 1950's. Of New England Irrelevancies, 1953, (Plate 41), for instance, Craven states: "The photographic devices of transparency and double exposure were applied to the canvas permitting still more freedom of interpretation in the painting yet not perjuring the artist's straight forward approach to the photographic medium. As has been his usual custom color was used arbitrarily to enhance the design."[124] It is important to note, however, that unlike Rourke who maintained that it was Sheeler's abstract painting style that provided inspiration for his abstract photographs, Craven is suggesting that it is the abstract lessons learned from Sheeler's photographic experiences which inspired the more daring nature found in his paintings. In any case, we can conclude from the combination of Rourke's, Craven's and Sheeler's own statements that the relationship between photography and painting was perhaps entirely complementary. From the late 1930's until his stroke in 1959, for instance, Sheeler's paintings were increasingly influenced by his color photographs and their multiple images. As Jewell pointed out, even Sheeler's earlier paintings, such as American Landscape, 1930, (Plate 42) and Classic Landscape, 1931 were influenced by color photography.[125]

---

[124]Ibid,. p. 140.

[125]Edward Alden Jewell, "Sheeler in Retrospect," The New York Times (October 8, 1939), sec. ix, p. 9.

In his article on Sheeler's photographs, Charles Millard contemporizes this contiguous and complementary abstract/realist relationship between the artist's paintings and photographs:

> "The photography-painting relationship is not one of cause and effect, but rather one of community of vision. Sheeler was an extremely precise person in every aspect of his being, and one with tremendously acute vision. This precision and acuity expressed themselves in the way he painted and in the way he took photographs, and while the intensity of vision required by the latter undoubtedly helped him focus more intensely on the former, his paintings do not take the form they do because he was a photographer. Photography undoubtedly contributed some devices to his painting, such as the cropped image and the use of light and shade effects abstractly in conjunction with elements of the subject to spread a non-objective pattern across the surface of the canvas, but it was not the basic determinant of the sharpness of his vision. Indeed Sheeler's photography probably has more affinities with Cubism than with that of any other major figure. Its space is inevitably shallow, with the elements of the composition spread out parallel to the picture plane, or with light-dark accents so distributed that they themselves form a pattern across the surface."[126]

Millard's sentiments reflect the opinion that, while Sheeler's paintings and photographs are closely related, this relationship is not one based on cause and effect. For Millard, there are aspects of the painting and photography process which are gained from each other, and these aspects are based on an exploration of similar phenomena within each process. Moreover, according to Millard, Sheeler is governed by precision and acuity which is not strictly derived solely from either his painting or photography experiences but rather from Sheeler's generalized vision.

The complementary nature found in Sheeler's paintings and

---

[126]Charles Millard, "Charles Sheeler, American Photographer," Contemporary Photography, VI (1967), n.p.

photographs is one which can also be easily located in the paintings and photographs of Crawford. In an article explaining the relationship between his photography and painting, for example, Crawford defines photography as, "the creation of a form based on the selective organization of shapes for the purpose of providing spiritual, intellectual and sensuous satisfaction. I firmly believe," continues Crawford,

> "that a prolonged study and shooting of a subject from various angles and distances under several lighting conditions is highly rewarding. My photography follows my painting in a great measure. Now many painters recognize photographs as an informative, stimulating source to be incorporated with other experience. I use the camera as a sketch pad. They are sometimes used in relation to my drawings and color studies as sources of specific information concerning the movement of light patterns in relation to the possible effect on the picture plane."[127]

If we examine Crawford's words carefully, we see that like Sheeler, he did not regard the relationship between his paintings and photographs to be one of cause and effect. For instance, while he maintains that "My photography follows my painting in great measure," Crawford also uses the camera as a sketch pad for his drawings and color studies. Thus the relationship between Crawford's paintings and photographs is a symbiotic one, comparable to that of Sheeler's paintings and photographs.

The impact of Precisionist photography -- and its emphasis on an abstract formal language -- on other contemporary

---

[127]Ralston Crawford, "A modern artist explains the relationship between his painting and photography," Modern Photography, XIII (September, 1949), p. 76, 78, 110.

photographers further establishes the broader significance of Precisionism in twentieth century art. Sheeler's New York photographs, for instance, were particularly inspirational for photographer Edward Weston who came to New York in 1922. Their brief meeting during that year initiated a longstanding friendship. In 1941 Weston returned to the east coast and spent a month photographing Connecticut and Pennsylvania with Sheeler.[128] As a result of their working together, Weston's and Sheeler's photographs Connecticut, 1941 (Plate 43) and Barn in Connecticut, 1941, (Plate 44) respectively, share similar formal concerns such as cropped forms, abstract juxtapositions of light and dark, interesting patterns of tonality and a rhythmic interweaving of simple, yet somewhat abstract shapes. As we can see, Sheeler and Weston choose to describe their subject not in strict literal terms but in terms of interesting line, mass, volume and movement in order to enhance the design of the subject rather than its reality.

Weston's photographs also project a similar philosophy to Sheeler's regarding direct or "straight" photography. Weston notes, for instance, that "The camera, does not reproduce nature, not exactly as seen with our eyes, which are but a means to see through as impersonal as the lens and must be directed by the

---

[128]Charles Millard, "Charles Sheeler, American Photographer," Contemporary Photography, n.p.

same intelligence that in turn guides the camera."[129] As was demonstrated earlier in this chapter, Sheeler's use of the camera was also directed toward capturing the accidental and the interesting often missed by the more personal lens of the human eye.

In his "Daybook" entry of January 28, 1932, Weston's language regarding the camera's function continues to approximate that of Sheeler: "Our vision is a binocular, it is in a continuous state of flux, while the camera captures and fixes forever a single, isolated condition of the moment. Let the eyes work from inside out, do not imitate photographic painting in a desire to be photographic."[130] In "Photography - Not Pictorial," an article in the 1930 issue of Camera Craft, Weston expands upon this idea. "And the camera," continues Weston, - "the lens - can do that very thing that enables one to see through the eye, augmenting the eye, seeing more than the eye sees, exaggerating details, recording surfaces, textures that the human hand could

---

[129]Merle Armitage, The Art of Edward Weston, (New York: Weyhe, 1932), p. 8. For further information regarding the influence of Sheeler on Weston see Daybooks, edited by Nancy Newhall, (New York: The George Eastman House, 1962).

[130]Edward Weston, Flame of Recognition, edited by Nancy Newhall, (New York: Museum of Modern Art, 1975), p. 44. Also see Weston's August 21, 1931 entry in "From the Day Book of Edward Weston," Art in America, XLVI (Summer, 1958), n.p. "A 'seer'," states Weston, "is one who sees with the inner eye and is able to give concrete expression to his knowledge of facts, things- conveying this intelligent perception without a personal bias, in a direct, clarified form, so that the spectator can participate in the revelation."

not render with the most skill and labor."[131] We can conclude from Weston's statements, then, that he, like Sheeler, avoided preconceived ideas about his subject and instead allowed the camera lens to lead him to discover objectively the interesting and unusual textures and movements of his objects measured from different angles and within various moments of time.

It is also interesting to note that when Weston discusses the role of the photographer, he uses the Purist label -- which we have already seen applied to Sheeler's paintings by critics and the artist himself. "A Purist," reflects Weston, "works out selection, emphasis, and exaggeration before making an exposure."[132] Furthermore, photography critics like Nicolas Haz also described Weston as a "Purist." "His edge definition," comments Haz, "is emphatically and unalterably sharp, and with as great depth of focus as he can get it. The sharper, crisper, and clearer the objects in his picture are, the more he likes them."[133]

Finally, the invention of the light bulb and its perfection in the 1930's as a form of artificial light in photography was important for both Sheeler's and Weston's abstract/realist

---

[131]Edward Weston, "Photography-Not Pictorial," Camera Craft, XXXVII (July, 1930), p. 314.

[132]Edward Weston, "What is A Purist?" Camera Craft, XLIV (January, 1939), p. 3.

[133]Nicholas Haz, "Edward Weston, Purist," American Photography, XXXII (February, 1938), p. 77-78, 80.

photographic process.[134] In Sheeler's Cactus, 1931 (Plate 45) and Weston's Old Adobe, 1934, (Plate 46) for instance, we realize that the objects are lighted by artificial means and that the light emanates randomly from the subject in order to form abstract patterns across the canvas surface.

The abstract/realist tendencies located in Precisionist photography are significant not only in light of developments in contemporary American photography but also in light of contemporary European photographic trends. Sheeler, for instance, -- obviously considered as someone having a common goal with European photographers -- was invited to send ten photographs in the Deutsche Werkbund's 1929 "Film und Foto" show in Stuttgart. The exhibit featured a range of new photographic technology. The purpose of the exhibition was to show the relationship between photographs in art, advertising and journalism through the examples of Moholy-Nagy, Herbert Bayer, and Renger-Patzsch.[135]

Even though Sheeler himself did not attend the exhibition, the fact that he was included not only indicates to us that he was respected by the organizers of the German photography exhibit, but that the organizers must have also felt that Sheeler shared a basic approach to photography with Moholy-Nagy, Herbert Bayer and Renger-Patzsch. From Sheeler's point of view, we also know that Sheeler was not a man who easily identified himself

---

[134]Edward Weston, "Light vs. Lighting," Camera Craft, XLVI (May, 1939), p. 197-205.

[135]Internationale Ausstellung Des Deutschen Werbunds, Film und Foto, (Stuttgart: 1929), p. 68, 74, 75, 98.

with the styles of other artists. Thus, it seems likely that he must have had some familarity with these German photographers -- and was comfortable having his work displays with theirs -- in order to participate in the exhibit.

As we have seen in the first chapter, Moholy-Nagy was a key figure in the Bauhaus philosophy which influenced Germany and the United States. In this chapter, however, we will see how Moholy-Nagy's formal approach to photography and his philosophy on the medium relates to Sheeler's film and photography experiences discussed earlier.

Moholy-Nagy's photographs for the "Film und Foto" exhibition demonstrate, for example, Cubism's disorientation of space measured by looking down from the airplanes. As did Sheeler in Manahatta, Moholy-Nagy used this Cubist diagonal direction to inspire a constant flux of movement and the possibilities of artificial illumination through the contrasts of light and shade.

In his discussion of Moholy-Nagy's methods, art historian Klimgender calls to mind the artist's philosophy which offers further comparison with Sheeler, "From the first," notes Klimgender, "he saw that photography offered the possibility of expanding the existing limits of natural production...the camera was a means of increasing the range and precision of visual perception. He ignored the usual perspective and took all his snapshots upwards or downwards."[136] Thus, Klimgender's comments

---

[136]Laszlo Moholy-Nagy, Malerie, Fotographie, film, 1925, translated with comments by f.d. Klimgender, Telehor, #1-2, (Checoslavakia, fr. Kalivoda, 1936), p. 29.

make us aware that Moholy-Nagy realized, as did Sheeler, that photography could do what the artist could not by making the invisible "visible" from a wide range of unusual perspectives.

In her 1925 Studio International article Caroline Fawkes summarizes how this aspect of Moholy-Nagy's philosophy is translated into formal terms offering yet further comparison with Sheeler's approach in Manahatta: "The structure of Moholy-Nagy's photographic composition," states Fawkes, "usually derives from his perception of the dynamic function of the framing rectangle. He was fascinated by how much a print could reveal that the eye might have missed."[137]

In addition, in Malerie, fotographie, film, Moholy-Nagy elaborates on the popular use of an abstract language in photography:

> "Thus in the photographic camera we have the most reliable aid to a beginning of objective vision. This will abolish that pictorial and imaginative association pattern which has remained unsuperseded for centuries and which has been stamped upon our vision by great individual painters. Creative use of this knowledge and these principles will silence those who contend that photography is not an 'art.'"[138]

Moholy-Nagy's statements, then, like Klimgender's, Fawkes and Sheeler's, not only constitute a positive case for the abstract possibilities derived from the camera but also equate them with

---

[137]Caroline Fawkes, "Photography and Moholy-Nagy's Do-it-Yourself Aesthetic," Studio International, CXC (July-August, 1975), p. 24. For a discussion of photograms see p. 21.

[138]Laszlo Moholy-Nagy, Malerie, fotographie, film, 1925. Telehor, #1-2, (translated by f.d. Klimgender, 1936), p.40.

an abstract language found in modern painting.[139]

By deriving his inspiration from the collective philosophy of the Bauhaus and combining varied media in his abstract photography, however, Moholy-Nagy went beyond Sheeler's abstract efforts. Of the process of super-imposed photographic imagery, for instance, Moholy-Nagy notes, "The cutting out, juxtaposing, careful arranging of photographic prints as it is done today is a more advanced form than the early glued photographic compositions of the dadaists. What was once thought to be distortion is now an amazing experience, a challenge to re-evaluate the way we see. It can be viewed from an angle. It always presents a different view."[140] For Moholy-Nagy, then, the abstract processes of double exposures and printing photographs over photographs -- transposing further insignificant singularities into meaningful complexities -- push beyond the Sheeler process.

Like Sheeler, however, Moholy-Nagy gave equal legitimicy to the art of painting and photography. "The battle between brush and camera," noted Moholy-Nagy, for instance, "becomes ridiculous if one realizes, through constant photographic practice, that all representation is interpreted - that the choice of object,

---

[139]See Charles Millard's comments in "Charles Sheeler, American Photographer," Contemporary Photography, VI (1967), n.p. and discussion of Millard's comments on page 81 of this dissertation.

[140]Laszlo Moholy-Nagy, Painting, Photography,Film, (note by Hans Wingler), 1967, translation of Malerie, fotographie, film, p. 28, 33, 37, 59.

segment, light shadow are highly creative artistic decisions."[141] "The task of the modern photographer," Moholy-Nagy continues, "was a full understanding of this new medium -- not as nature imitation, not as art imitation, but as modern man's most ingenious use of the fundamental power of light. Photography has to be integrated with design through study of textures, light patterns, positive and negative values."[142] We can conclude from these statements that like Sheeler, Moholy-Nagy practiced painting and photography with the same creativity which included similar abstract devices in the rendering of light, space, time and color -- that special quality of the play of light with objects.[143]

Furthermore, Sheeler and Moholy-Nagy attempted to free painting and photography from its representational function and call upon both art forms to fulfill their purposes for pure color and form relationships.[144] Although Sheeler, unlike Moholy-Nagy, is never entirely non-objective is his efforts, artistic statements and criticism successfully demonstrates the presence of shared basic theories -- between the two artists -- regarding their painting and photography. Moreover, the variations between the abstract approach taken by Sheeler in his paintings and

---

[141]Laszlo Moholy-Nagy, Painting, Photography,Film, p. 8.

[142]Sibyl Moholy-Nagy, "Moholy-Nagy: Photographer," American Photography, XLV (January, 1951), p. 43-44.

[143]Theobald, Paul, Laszlo Moholy-Nagy Vision in Motion, (Chicago: Sibly Moholy-Nagy, 1947), p. 147-149.

[144]Laszlo Moholy-Nagy, Painting,Photography,Film, p. 8-9.

photography and that taken by Moholy-Nagy in his photography are one of degree rather than one of opposition.

Albert Renger-Patzsch -- whose photography was also on view at the "Film und Foto" exhibit in 1929 -- also shared a similar approach with Sheeler and Moholy-Nagy. Like Sheeler's industrial photographs, Renger-Patszch's photographs such as Chain of Insulators, 1925 (Plate 47) display both an objectivity toward the industrial machine as well as an affinity for the machine's abstract formal beauty. More importantly, Renger-Patzsch's book Die Welt ist schön was published in 1928 and became one of the most inspiring books in Germany on photography of the period. In his introduction to the 1928 publication which was reproduced and translated as "The World is Beautiful" in the August 1978 issue of Camera -- celebrating the 50th anniversary of 25 photographs found in Renger-Patzsch's book -- Dr. Carl Georg Heise describes Renger-Patzsch's industrial scenes using an abstract/realist language that we have seen applied in the celebration of Sheeler's industrial photographs. For instance, Heise comments:

> "Renger-Patzsch's industrial photographs clearly show that it is possible to regard a machine or an industrial plant as no less beautiful than nature or a work of art. When a grabhook of a crane emphasizes its function, then it is beautiful. But Renger-Patzsch's pictures portray more than the formal beauty of an object. The Chain of Insulators, 1925 (Plate 47) hang radiant and lively before an endless sky, symbolic of its function. Three cranes are shown in such a way that the divergence of line conjures up the sequence of their motion. The wire of the cableway speaks of the

tempo of its fabrication."[145]

In Avante-Garde Photography in Germany 1919-1939, contemporary historian Van Deren Coke relates Renger-Patzsche's objective yet abstract approach to photography to the "Germanic love of accuracy and categorization." At the same time, however, Coke hints at the presence of an abstract formal language in Patzsche's photographs:

> "The camera Renger-Patzsch felt was the ideal instrument to acquaint everyone with the pure object and extend human vision so that forms too small to see with the unaided eye could be examined and appreciated. The precise interrelatedness of parts became a symbol of the order many people felt would come to German society through advanced technology. Renger-Patzsch used very sparingly the classic dark/light of chiaroscuro to enliven his pictures. It was his usual practice to give equal emphasis to all elements."[146]

Finally, in photographs such as (Hamburg, 1926, Plate 48), (Main gas line in the Ilseder plant, 1927, Plate 49) and (Chain of Insulators, 1925), Renger-Patzsch demonstrates a love of the industrial object and an affinity for cropping the image in order to direct one's eye to the essential elements. This approach is at once abstract and contemporary with the approach that we have seen taken by Sheeler and Moholy-Nagy.

---

[145]Dr. Carl Georg Heise, "The World is Beautiful," reproduced in Fritz Kempe, essay on "The World is Beautiful," Camera, LII (August, 1978), p. 33.

[146]San Francisco Museum of Art, Avant-Garde Photography in Germany 1919-1939, December 19, 1980-February 8, 1981, (catalogue, text by Van Deren Coke), p. 19.

American and European Abstraction

As we have seen, the Precisionists developed a form and philosophy comparable to other American and European abstract/realist painters and photographers. In addition, the Precisionists consistently simplified form -- paring down the subject to its essential components -- and thus perpetuated this abstract/realist language into the 1950's. This aspect of Precisionism was paralleled and influenced by the works and ideas of another group of contemporary modernists, the American Abstract Artists.

The original members of the American Abstract Artists -- Josef Albers, Ilya Bolotowsky, Ibram Lassaw, George L.K. Morris, Burgoyne Diller, Rosalind Bengelsdorf and Byron Browne -- first met as an informal group in Lassaw's studio in 1935 to discuss the issues surrounding abstract and non-objective art. These artists, along with many others, formed a society in 1937 to exhibit and promote abstract art.

More importantly, many scholars have noted a widespread international effort in the late 1930's and 1940's on the part of the Precisionists and the American Abstract Artists to synthesize machine-age ideas and abstract form. According to Baur, for instance, the American Abstract Artists derive their formal language from varied styles, including those of the Cubists, Bauhaus instructors such as Moholy-Nagy and Albers, and other European modernists arriving in America at the outbreak of the

war in 1939 such as Amédée Ozenfant, Piet Mondrian and Léger.[147] At the same time, Baur considers the "Immaculates" -- now known as the Precisionists -- as another wave of these abstract artists in America. "They (the Immaculates)," notes Baur, "found in the mechanical and industrial forms of our civilization, a theme which was naturally adapted to abstract treatment and which was also representative of modern America. They felt that a close affinity existed between mechanical functionalism and abstract art."[148]

Furthermore, Baur cites the work of Spencer, Sheeler and Crawford to demonstrate that this "close affinity (which) existed between mechanical functionalism and abstract art" pervaded the works of the Immaculates from the early 1920's through the 1940's. As Baur comments, "Niles Spencer has continued to work in this manner and Sheeler has returned to it in such recent pictures as Incantation (1946), which is more abstract in its organization than anything he has done since the early 1920's. Another Immaculate," continues Baur "Ralston Crawford, has transformed it into a more completely abstract style while retaining its characteristic precision and something of its

---

[147]Joan Marter, "Constructivism in America," Arts Magazine, LVI (June, 1982) provides an enlightening discussion of the contextual and formal relationship between American sculptors of the 1930's and former machine-age movements such as the Bauhaus and Constructivism. This strengthens the argument that American artists of the 1930's, 1940's and 1950's continued to develop ideas relating to earlier abstract/realist styles.

[148]John Baur, Revolution and Tradition in Modern American Art, p. 65.

feeling for the object."[149] Baur, then, not only establishes a link between the Immaculates and the American Abstract Artists -- based on a shared effort to unite industrial forms and an abstract dialogue -- but also argues for their consistency and the presence of European influences in their approach.

Although the American Abstract Artists did not come together as a group until 1935, many of its individual members understood the value which the earlier abstract efforts had on their works. Morris -- an original member of the American Abstract Artists --, for example, recognized the significance of earlier abstract styles such as Cubism for the group. According to Morris, "Cubism was the first decisive step away from the old vision. For Cubism the breaking down of the absolute perspective, the illusionistic window-concept of the picture had to go and once again the canvas became a primarily plastic organization of line and color on a flat surface."[150]

Brown and fellow art historian H.H. Arnason recognized a similar indebtedness on the part of Precisionists to Cubism. In his essay "Cubist-Realism," Brown discussed at length -- as seen earlier in this chapter -- Cubism's important role in the early works of the Precisionists. Similarly, in his 1960's article "The New Geometry," Arnason carries this Cubist indebtedness into 1940's Precisionism when he states: "Crawford and Spencer

---

[149] Ibid, p. 67-68.

[150] George L.K. Morris, "On America and a Living Art," Museum of Living Art, (New York University: 1936), p. 8-9, 13.

particularly moved toward Cubism in the 1940's, and Crawford after the war achieved a high degree of non-objectivity in paintings which still had their source in nature."[151]

In addition, as was the case with Precisionism, the American Abstract Artists shared ideas and similar styles with abstract European machine-age phenomena -- in addition to Cubism -- such as the Bauhaus. For instance, Morris states:

> "There are two discernible main currents that might be claimed as a starting point for many individual artists. Foremost is that French tradition which became grounded upon Cubism. It recurs in the geometric forms that predominate on the one hand, and in the curved, self-contained shapes that have grown through Braque, Arp and Miro on the other. A second current might be said to stem from German abstraction as typified by the Bauhaus and its teaching heritage .... a movement toward closed integration that has influenced the art of today. This has taught America much with their emphasis upon exactness in the absorption of form by color and tone."[152]

It was Albers in particular -- a Bauhaus instructor from 1923 to 1933 -- who more specifically provided the main link between the Bauhaus and the American Abstract Artists discussed by Morris. At Black Mountain College in North Carolina, for instance, Albers fostered an educational philosophy equivalent to the original Bauhaus. Teaching there from 1933 to 1949, Albers

---

[151]H.H. Arnason, "The New Geometry," Art in America, XLVIII (Fall, 1960), p. 55.

[152]George L.K. Morris, The Abstract American Artists, (New York: 1939), p. 12. Also see Walker Art Center, The Classical Tradition in Contemporary Art, 1953 for a discussion of the works of numerous "classic" artists of the twentieth century including: American Abstract Artists Morris, Albers, Getrude Greene, Ilya Bolotowsky; Precisionists Sheeler, Spencer and Crawford; and the Europeans Mondrian, Moholy-Nagy and Picasso.

fostered an experimental atmosphere regarding the nature of material, form, and process. One critic writing for Black Mountain College Bulletin states the school's Bauhaus-type purposes: "The main function of the Black Mountain College is to provide a fruitful environment for education in academic, creative, practical and social pursuits. Today the area of exploration, the premise underlying systematic thinking, is that of function, process, change; of interaction and communication."[153]

It was this democratic atmosphere prevailing at Black Mountain College which -- according to some critics such as John Graham -- ultimately led to the formal experiments in abstract ideas and color theories that were found in the works of the American Abstract Artists of the 1930's and 1940's. Graham's essay accompanying a 1938 exhibition of Albers' works at the Artist Gallery, for instance, captures the artist's philosophy on abstraction: "Painting is the creative exploitation of the plastic values of a plain surface. Every art manifestation is essentially an abstraction; even photography is abstract three dimensional events on the two dimensional surface. The art of Albers shows profound understanding of the problem of creating abstract painting and its two dimensional destiny."[154]

The abstract language used above to describe the works of

---

[153]Black Mountain College Bulletin, VII (March, 1949), p. 6-9.

[154]John Graham, "Joseph Albers," Artist Gallery, December 6-31, 1938, New York.

Alber's -- who, according to Graham, directly influenced the American Abstract Artists -- was also used in the discussions of works by the Precisionist's dating from the same period. Thomas B. Hess, for instance, reminds us of Spencer: "In his late works which emphasize flat, abstract space, there are symptoms of Spencer's poetic qualities failing. The balance between object and subject, the fragile roots which imagination has in reality seem endangered... abstraction becomes convention."[155] Although Hess seems somewhat disapproving of Spencer's later abstract style, his commentary is important in that it confirms -- at least -- an abstract style within Spencer's Precisionist works.

Donald Bear's description of Crawford's paintings of the 1940's as abstract is equally significant when arguing for the existence of a similar abstract trend found in both European and American paintings of the 30's and 40's. "Ralston Crawford," notes Bear, "constructs a vision of this world of modern technology wherein space and speed are displayed, controlled and structured, measured by the mind of man. He achieves a note of clarity through his use of lucid color and near-abstract design."[156]

As we can see, then, the language used by Graham, Hess and Bear to describe the abstract art of Albers, Spencer and

---

[155]Thomas B. Hess, "Spencer," Art News, XLVI (November, 1947), p. 37.

[156]M.H. DeYoung Memorial Museum of San Francisco, Ralston Crawford, May 4 - June 4, 1946, (catalogue, text by Donald Bear), p. 2-3.

Crawford, respectively, conveys a general understanding and appreciation of the abstract art for the American Abstract Artists, the Precisionists and their European counterparts in the 1930's and 1940's.

Albers, however, was not the only link between the American Abstract Artists and Bauhaus ideology. Moholy-Nagy's space-time theory was so pertinent for the American Abstract Artists' program that Morris reprinted it in the group's 1946 annual:

> "Experiencing the fact that speed can be arrested, rendered, articulated, stretched or compressed we can state that we have taken possession of it. In binding unequal space and time levels together we shall find that reflections and transparent mirrorings of passing traffic in the windows of motor-cars or shops belong in the same category. In photographic rendering they usually appear as superimpositions. In this instance both inside and outside are fused."[157]

Interestingly enough, Spencer's paintings were viewed by critics like Cahill, as experiments in the kind of complex spatial situations noted by Moholy-Nagy and appreciated by the American Abstract Artists. Of Erie Underpass, 1949, for instance, Cahill comments, "The painting is the result of a confrontation between two worlds, what appears without and what is given within. The world outside is no more real to him than the world inside. There is always movement back and forth."[158] Cahill's comments, then,

---

[157]American Abstract Artists, (New York: Ram Press, 1946), n.p.

[158]Holger Cahill, "Niles Spencer," Magazine of Art, XLV (November, 1952), p. 315.

demonstrate the shared vision of Moholy-Nagy and Spencer to fuse aspects of an inner or abstract reality with an outer or more realistic objectivity.

Although Spencer's works were never entirely non-objective -- as were those of Moholy-Nagy and the American Abstract Artists -- it is clear from Cahill's comments that Spencer was working within an abstract framework regarding the movement and superimposition of simple and universal forms.

Furthermore, the remarks made by American Abstract Artist Glarner -- who even though at this point had moved further from abstraction in order to get closer to the non-objectivity of Mondrian -- in the catalogue accompanying the "Twelve Americans" exhibit held at the Museum of Modern Art in 1956 re-iterate those expressed by Moholy-Nagy and Cahill. "My concern in painting," writes Glarner, "has been to bring about a purer and closer inter-relation between form and space."[159] In "What Abstract Art Means to Me," Glarner elaborates on this complex relationship of form and space: "To liberate form," states Glarner, "it is necessary for the form symbol to lose its particularity and become similar to space. The difference between form and space has to be established by color, proportion, opposition, etc...."[160] For Glarner, as was the case for Moholy-Nagy, space and form, then, shared a similar liberation from particularity

---

[159]Museum of American Art, Twelve Americans, (New York: 1956), p. 28.

[160]George L.K. Morris, "What Abstract Means to Me," Museum of Modern Art, XVIII (Spring, 1951), p. 10.

but must be distinguished from one another on the basis of their individual components -- color, proportion and opposition.

The American Abstract Artists, like the Precisionists, also demonstrated ideas and styles that consistently paralleled similar machine-age aesthetics other than those of Cubism, the European Bauhaus and Moholy-Nagy. Art historians such as Barr, for instance, locate other European sources for the abstract pictorial concerns of the American Abstract Artists. For example, according to Barr, European machine-age phenomena such as Purism provided an equally significant abstract logic for the American Abstract Artists practicing in the 1930's. "The French Purists after the war," states Barr, "used the silhouettes of deliberately chosen familiar objects with which to make near-abstract compositions." In particular, Barr designates Le Corbusier's Still Life, 1920 (Plate 50) as having an abstract character due to its "elimination of depth, the free use of overlapping transparent planes and the use of arbitrary color."[161] In other words, Baur re-discovers the Purists' use of familar objects within a pictorial structure that eliminates depth and employes arbitrary colors and overlapping planes, which, as we have seen, is also apparent in the works of the American Abstract Artists.

In addition, Barr also viewed the De Stijl -- and its logical relationship to Bauhaus thought and universality -- as

---

[161] Museum of Modern Art, Cubism and Abstract Art, (New York: 1936), (catalogue, with essay by Alfred H. Barr, Jr.), p. 15, 124-140, 163-166.

another important inspiration for the abstract artists of the 1930's.[162] It is important to realize that it was largely through the example of Mondrian, however, that De Stijl ideology became popular with the American Abstract Artists. Members of the group such as Holtzman and Glarner were in Paris in the 1930's and were well acquainted with Mondrian's works there. Furthermore, other group members remaining in America could have seen Mondrian's works in 1926 at the Brooklyn Museum in an exhibit organized by the Société Anonyme and in 1927 at Gallatin's Museum of Living Art.

More importantly, Mondrian's abstract/realist philosophy was also succinctly articulated in his last completed essay "A New Realism." This essay was read at a meeting of the American Abstract Artists at the Nierendorf Gallery, (New York) on January 23, 1942. The paper was then revised by Mondrian in 1943 and then published in a collection of his essays: Plastic Art and Pure Plastic Art, 1945.[163] In their significant essay, Holzman and James codified Mondrian's philosophy for all the world to read:

> "Abstract," stated Mondrian, "means reducing particularities to their essential aspect. Reality here is understood to be the plastic manifestation of forms and not of events from life." Of abstract art in general, Mondrian elaborates: "It is conscious of the fact that reality reveals itself by substantial, palpable forms, articulated or dispersed in empty space. It is conscious that these forms are part of that space and that the space between them appears as

---

[162]Ibid, p.156.

[163]Harry Holzman and Martin S. James, The New Art - The New Life, The Collected Writings of Mondrian, (Boston: G.K. Hall & Co., 1978), p. 345.

> form, a fact that evidences the unity of form and space. Abstract Art attempts to destroy the corporeal expression of volume: to be a reflection of the universal aspect of reality."[164]

While Mondrian's essay demonstrates that reality and the abstract -- at least in theory -- were equally important phenomena for him, it is important to understand, however, how Mondrian is defining these terms. For example, while "Reality," for Mondrian, is measured by a pure feeling for form, the "abstract," on the other hand, is a simplification of this reality to a universal essence wherein form and space become one. In the end, however, abstract art for Mondrian became more real than realistic art because of its purity. As Mondrian notes, for instance, "Although abstract art has developed through the abstract of the natural aspect, nevertheless in its present evolution it is more concrete because it makes use of pure form and pure color. Plastic art has always aimed at the universal expression of reality."[165] In sum, "plastic art" is more real for Mondrian because of its ability to transcend the confusion of the particular in favor of conveying -- through its pure abstract nature -- a wider and more universally understood reality.

Holzman's philosophy on painting re-capitulates Mondrian's theoretical preference for universality in art:

"Pure abstract painting and sculpture are expressed by

---

[164]Piet Mondrian, Plastic Art and Pure Plastic Art, (New York: Wittenborn, Schultz, Inc., 1945), p. 17-19, 26.

[165]Margerite Guggenheim, Art of This Century, (New York: Art Aid Corp, 1942), p. 32-33.

> the same essential plastic means: the dynamic opposition of pure colors, planes and straight lines in horizontal and vertical relationship. Pure abstract art is expressed by the aesthetic integration of form and space. It is intrinsic equilibrium, equivalent with organic unity but differentiated from it. Abstract plastic art is the pure expression of the aesthetic perception of spatial unity: equilibrium. The personal must find its true expression by the elimination of the subjective faculty because art is the expression of the universal."[166]

Like Mondrian, Holzman recommends the removal of the "subjective faculty," -- the particulars -- in art. In their place, Holzman favors a simpler and more universal language derived from the equilibrium of pure space, color and line.

As we have seen, Mondrian and the American Abstract Artists sought to create archetypes of reality in their abstract art which best expressed concepts of timelessness and universality. As has been demonstrated -- particularly in the first chapter of this dissertation -- the Precisionists, too, strived to attain the timeless and universal in their painting and photography. Wight, for instance, emphasizes this aspect of Sheeler's approach by realizing not only the similarities between Mondrian's and Sheeler's philosophies, but also the differences. "If one goes from Bucks County Barn of 1932, (Plate 51), comments Wight, "through all the barn paintings to Family Group, 1950, one sees the artist beginning with a portrait and emerging with an archetype; and it is this shift in interest from the individual to the type (with its deeper than personal aspects) which is so

---

[166]Helena Rubensteins New Art Center. Masters of Abstract Art, April 1 - May 15, 1942, p. 19-20.

characteristic of an artist of our time. In this last chapter Sheeler has reached a logical conclusion in a research in abstract form just as Mondrian reached a logical conclusion. The difference is that Sheeler's work is based on a pragmatic rather than on a conceptual philosophy -- on the optimistic belief that the significant fact lies out there, that man can put significance outside himself, and does not have to turn inward forever."[167] Wight's comments suggest, then, that while Sheeler, like Mondrian, demonstrates a genuine feeling for creating objective and archetypal forms that carry more universal meaning, Sheeler's forms, unlike those of Mondrian, still derive significance from their associations with a more external reality which the artist celebrates in a positive manner.

Realism

As we have seen, the abstract tendencies in the abstract/realist nexus that characterize the works of the Precisionists consistently from the 1920's through the 1950's parallel similar developments in Photography and Modernism in both the United States and Europe. The final section of this chapter will focus on the concept of "Realism" and how it relates to Precisionist form and philosophy. We will examine how this "Realism" -- which parallels the continuance of Precisionism's original hard-edged, simplified abstract industrial style --

---

[167]Frederick S. Wight, "Charles Sheeler," Art in America, XLII (October, 1954), p. 206, 208.

relates to the other "so called" traditional forms of Realism of the 1930's.

Crucial to our understanding of the realist aspects of Precisionism and other realisms of the 1930's, however, is an examination of the general scholarly definitions of realism as well as those which were applied to the Precisionists and the other realists of the 1930's. While some scholars, for instance, define and establish realism and abstraction as two separate phenomenon, other scholars, instead, have successfully located -- as seen earlier in this chapter -- a general abstract/realist trend in art.

Alfred H.Barr, Jr., for example, recognizes the existence of such a abstract/realist trend in the art of the 1930's: "Abstract painting is really a most positively concrete painting since it confines the attention to its immediate, sensuous, physical surface...."[168] It is significant to recognize that this awareness of an abstract/realist nexus in American art -- which began in the 1930's -- was also accepted by contemporary art historians like Alvin Martin who, like Barr, consider the general headings of realism and abstraction to be part of the same artistic process. As Martin notes:

> "Realism is at one end of a sliding scale of artistic choices, abstraction at the other. Between the two extremes are infinite gradations that include aspects of both and reflect the values and standards of various artists and periods of time. When an artist selects from all the random possibilities afforded by his

---

[168] Museum of Modern Art, Cubism and Abstract Art, 1936, (essay by Alfred H. Barr, Jr.), p. 85.

> perception of reality, be it external or internal, and creates an object that expresses those perceptions in the concrete form of an object of art, the result is no longer absolute reality but an abstracted product of it. Once formed, however, the art work enters the world of facts and objects with a reality of its own. Thus any work of art is an abstraction, and simultaneously all works of art are possessed of reality as symbolic objects."[169]

According to Martin, there are many combinations of abstract/realism inbetween the strict tenets of pure realism and pure abstraction. Martin further explains that realism comes into play when the artist selects from reality an object, thus demonstrating a strong personal feeling for a reality. However, once this object has been selected, according to Martin, each artist creates and expresses the object in accordance with various perceptions, thus abstracting from reality.

It is important to point out, however, that other scholars, interpreted realism and abstraction as two distinctly different artistic phenomena of the twentieth century abstract/realist nexus. Clement Greenberg -- a prolific art critic who wrote from the 1930's through the 1960's -- for instance, viewed the abstract process characterizing modern art as separate from contemporary realism:

> "Realistic, illusionistic art had dissembled the medium, using art to conceal art. Modernism used art to call attention to art. Flatness alone was unique and exclusive to that art. Flatness, two-dimensionality, was the only condition painting shared with no other art, and so Modernist painting oriented itself to

---

[169]San Antonio Museum of Art, "Modern Realism is Really Real Modernism: Contemporary Realism in Context," Real, Really Real, Super Real, March 1 - April 26, 1981, (catalogue, essay by Alvin Martin), p. 15.

> flatness as it did to nothing else. Analogously, Modernist painting asks that a theme be translated into strictly optical, two-dimensional terms before becoming the subject of pictorial art -- which means its being translated in such a way that it entirely loses its character."[170]

Greenberg -- a formalist -- is clearly arguing that Modernist or abstract painting is completely at odds with and perhaps superior to realistic painting. Greenberg's argument, however, is based on realism's and abstraction's formal variances.

Contemporary art historian Linda Nochlin, on the other hand, focuses on the differences of content found in the categories of realism and abstraction. For example, Nochlin views the "realisms" of the 1930's, including Precisionism, as both populist and objective and as reactionary against the "eliticism" and "exclusivity of modernism."[171] Like Greenberg, however, Nochlin in her effort to maintain a distinction between realism -- under which she includes Precisionism -- and modernism, continues to ignore the possibility of an abstract/realist combination which is part of the origins of Precisionism and, as we have seen, is perpetuated through their Precisionist works of the 1950's.

In his essay on "The State of American Art," Greenberg continues to focus specifically on the distinction between abstract and realist art of the first half of the twentieth

---

[170]Clement Greenberg, "Modernist Painting," Art and Literature, IV (Spring, 1965), p. 194-195, 199-200.

[171]San Antonio Museum of Art, "The Flowering of American Realism," Real, Really Real, Super Real, March 1 - April 26, 1981, (catalogue, essay by Linda Nochlin), p. 25.

century. "On the one side," states Greenberg, "we have cubism, cubist derived abstract art and expression; on the other we have Surrealism, even Futurism, Neue Sachlichkeit, Magic Realism etc. The first is advanced, creative, evolving, since it corresponds to the truth of contemporary life; the second has simply found new pretexts, all of them literary or journalistic, to reintroduce what is essentially academic naturalism."[172] We can conclude from Greenberg's statements as well as from those made by Nochlin, that a value judgement has been rendered regarding realism and abstraction. While Greenberg and Nochlin regard the latter as positive and contemporary, they consider the former to be repetative and thus, passé.

While many scholars writing in the 1930's regarded realism and abstraction as two separate artistic phenomenon, they did not perceive realism as being a negative art form as did Greenberg and Nochlin. In his discussion of German Painting and Sculpture, for instance, Barr focuses on the positive aspects within what he considers the "new realisms" -- Neue Sachlichkeit, Magic Realism and Precisionism -- of the 1930's. Furthermore, Barr sets up a positive relationship between the German New Objective/Neue Sachlichkeit artists and Precisionists Sheeler and Hirsch which he bases on their common need to "concentrate upon the objective,

---

[172]Clement Greenberg, "The State of American Art," The Collected Essays and Criticism, Volume II, 1945-1949. (Chicago: The University of Chicago Press, 1986), p. 287-8.

material world."[173]

In order to better understand the positive and similar relationship which Barr suggests between the "new realisms," however, it is necessary to define these "new realisms." The term Neue Sachlichkeit or "New Objective", for instance, originated as a title for an exhibition organized by G.F. Hartlaub in Mannheim, Germany in 1923. In his introductory statements in the catalogue accompanying the exhibition, Hartlaub asserts: "I wish to extend those artists who have remained unswervingly faithful to posit palpable reality."[174]

Furthermore, in a review of Von Franz Roh's Nach Expressionismus, Lozowick realized that Roh considered Magic Realism to be the right and often more idyllic wing of the Neue Sachlichkeit artists who "posit palpable reality." For instance, Lozowick describes the Neue Sachlichkeit/Magic Realists artists in Nach Expressionismus as "creating an equality between foreground and background space" and acknowledges their "emphasis on clarity and precision."[175]

---

[173]Museum of Modern Art, German Painting and Sculpture, 1931, (catalogue, with essay by Alfred H. Barr, Jr), p. 13. This was the first exhibit of contemporary German Neue Sachlichkeit/Magic Realists in America.

[174]Fritz Schmalenbach, "The Term Neue Sachlichkeit," Art Bulletin, XXII (September, 1940), p. 161.

[175]Louis Lozowick, "Books -- Nach-Expressionismus," The Arts, X (August, 1927), p. 115-116. Although the term Magic Realism did not yet exist in America until the 1940's, recent scholars have used the 1940's definition to apply to works in 1930's America. See, for example, Arnold Lehman's comments in American Magic Realists, Metropolitan Museum, February 18 - March 27, 1977, p.2: "Magic Realism, a style loosely applied to a small

In addition, Barr's description in Americans 1942 of the American strain of Magic Realism as "precise representation and sharp focus" approximates that of Lozowick's description of the Neue Sachlichkeit/Magic Realist artists of the Nach Expressionismus. According to Barr, both groups of Magic Realists use "a realistic technique to make plausible and convincing his improbable or fantastic vision."[176]

It is interesting to note that even contemporary German scholars like Wieland Schmied considered the Neue Sachlichkeit and Magischer Realismus to "denote one and the same thing." For Schmied, Giorgio de Chirico's paintings, which "proclaim the collapse of the old 'metaphysical' order that held phenomena together," had the most influence on the Neue Sachlichkeit/Magic Realist artists. They responded by "an often desparate endeavor to patch together fragments of a disintergrating fabric, and to recall the image of the whole harmonious world." According to Schmied, the Neue Sachlichkeit/Magic Realist artists committed themselves to the modern environment, isolating its objects and eradicating any traces of the painting process.[177]

As we can see, the definitions which have been given thus

---

group of American painters who worked primarily from the depression years through the second World War, focuses our attention on the axieties, psychological tensions and patterns of isolation that surfaced for these artists during these years."

[176]Museum of Modern Art, Americans 1942, (catalogue, text by Alfred Barr, Jr., and edited by Dorothy C. Miller), p. 27.

[177]W.Schmied and Ute Eskilden, Neue Sachlichkeit and German Realism of the 1920's, (London: Arts Council, 1978), p. 9-10.

far to Realism, Magic Realism and the Neue Sachlichkeit -- precise, sharp focus, objective -- all fall within the traditional boundaries of Realism. In the early 1940's -- when Precisionism was not yet the established name for the movement -- Milton Brown created the label of Cubist-Realists for the group and employed a language to describe them which was similar to that used by Barr, Lozowick and Schmied to describe the Neue Sachlichkeit/Magic Realist artists. For instance, Brown notes, "In it, (Cubist-Realism) an attempt was made to impart to all matter a sense of fundamental mass, clarity and precision."[178] Brown's comments, then, establish similarities among the Neue Sachlichkeit, Magic Realism and Precisionist artists as early as when Precisionism was still referred to as Cubist Realism.

The formal similarities between the Neue Sachlichkeit/Magic Realism and Precisionism -- sharp focus forms, precise linear arrangements and strong local color -- are perhaps best realized through the visual comparisons of Neue Sachlichkeit artist Max Burchartz's Coking Plant, 1910 (Plate 52) and Heinrich Hoerle's Factory Scene, 1926, (Plate 53) and Magic Realists George Ault, Factory Chimney 1924, (Plate 54) and Stefan Hirsch, Milltown, 1925, (Plate 55). All these works clearly display an objective, sharp focus and precise rendering of palapable reality discussed by Roh, Barr and Schmied.

---

[178]Milton W. Brown, "Cubist-Realism: An American Style," Marsayas, III/V (1943/45), p. 146.

As a result of some basic similarities which were established between the realisms: Neue Sachlichkeit, Magic Realism and Cubist-Realism, some artists such as Ault and Hirsch -- more correctly recognized as Magic Realists -- were not only considered to be proponents of Cubist-Realism/Precisionism but were also often equated with more specifically Precisionist artists like Niles Spencer. For instance, Brown states, "In the work of Niles Spencer, Stefan Hirsch and George Ault, we have the simplest expression of Cubist-Realism -- a picture of the world reduced to blocks and cylinders. Here the world is so cleansed of accidental encumbrances that it becomes a deserted geometric land without life or atmosphere."[179] As we can see, Brown links Precisionist Spencer to Magic Realist's Hirsch and Ault on the basis of a shared simplicity, reduction of form and geometric purity found in their work.

In a 1988 monograph on George Ault, however, Susan Lubowsky separates the artist's abstract/realist Precisionist tendencies from those that connect him more closely to Magic Realism: "Like Ralston Crawford and Charles Sheeler, Ault focused on the abstract geometry of city buildings and factories, reducing their forms to basic shapes defined by sharp-edged areas of flat color. But his viewpoint," continues Lubowsky, "was often perverse -- colored by the dark pathos that dominated his artistic and personal life." Although a work like Factory Chimney, 1924, (Plate 54) has the urban character and precise nature of

---

[179] Ibid., p. 153.

Precisionist works, Lubowsky interprets it as the artist's personal brand of Surrealism, namely Magic Realism. "In Factory Chimney," notes Lubowsky, for example, "Ault realistically renders the industrial structure that appears throughout the Precisionist genre. Yet its haunting conception, looming in the night sky above a deserted residential street, is again rooted in de Chirico's interpretation of Surrealism."[180] Although Lubowsky's phrase "rooted in de Chirico's interpretation of Surrealism" is misleading since de Chirico's did not "interpret Surrealism," we still grasp Lubowsky's point: Ault -- a Magic Realist -- exhibits more of a mysterious and haunting approach toward his subject than the Precisionists.

In addition, a more careful comparison of Ault's Factory Chimney and German Magic Realist Hoerle's Factory Scene, 1926, further demonstrates Ault's closer connection to his German counterpart's method of embracing the fragmented object in a perplexing and often mysterious space. Thus, it is through the visual example of Ault, -- primarily viewed by scholars as a Magic Realist -- that the link established between the Precisionists and the Magic Realists/Neue Sachlichkeit artists begins to break apart.

Stephen Bourgeoise's 1971 catalogue statements on Stefan Hirsch continue to break this link by establishing Hirsch as a Magic Realist rather than as a Precisionist: "Hirsch," states

---

[180]Whitney Museum of American Art, George Ault, April 8 - June 8, 1988, (catalogue, essay by Susan Lubowsky), p. 7, 17.

Bourgeoise, "is one of the first in modern art who gives us an undistinguished statement of psychological facts from which the process of conscious observation has been carried to the point where it fuses again with imagination and becomes creative art."[181] Hirsch was certainly not "the first in modern art to give an undistinguished statement of psychological facts." However, the more important point made here by Bourgeoise is that Hirsch is concerned with the psychological impact of a subject like Milltown, 1925 (Plate 55). This is an aspect which the Precisionists -- as has been demonstrated earlier in this chapter -- never gave credence to in their paintings.

As we have seen, scholars used words like precise, sharp focus and objective to qualify three of the "realisms" of the 1930's and 1940's -- namely, Neue Sachlichkeit, Magic Realism and Precisionism. Thus, Magic Realist artists' like Ault and Hirsch were often mistakingly labeled Precisionist. Some scholars, however, like Lubowsky and Bourgeoise correctly realized that although both the Precisionists and the Magic Realists explored the real and objective in their works, they were two completely separate phenomena of the 1930's.[182]

---

[181]Bard College, Stefan Hirsch, February 26 - March 19, 1971, (catalogue, text by Stephen Bourgeoise), n.p.

[182]See Arnold Lehman, American Magic Realists, February 18 - March 27, 1977, Metropolitan Museum of Art, (catalogue with essay, Arnold Lehman), p. 2, Lehman states: "In a true sense, Magic Realism could have grown out of a collision between the worldly imagery of American scene painting and the emotional sensibility of emergent European Surrealism. With the appearance of reality, there is a highly developed tendency to distort perspective, color and even images themselves."

More importantly, Precisionism and the Neue Sachlichkeit -- frequently considered by scholars as expressing similar tenets of Realism -- were derived from entirely different impulses and served entirely different artistic purposes. For instance, as contemporary German art historian Wieland Schmied notes:

> "The Neue Sachlichkeit was an endeavor in a moment of historical uncertainty, after a destructive war and in the midst of political, economic and social crises, to get a grip on things once more to bring them back under control. This is the viewpoint of the little man who finds himself at the mercy of the phenomena of the modern technological world which he did not create, does not control and cannot understand."[183]

Schmied's sentiments demonstrate that the climate which influenced the Neue Sachlichkeit artists and is a part of their works is certainly the antithesis of the Precisionists' positive industrial aesthetic and works discussed in the first chapter.

This chapter, then, has demonstrated that although Realism, -- which we have seen described as an overriding feeling for objects -- was an important aspect of Magic Realism, Neue Sachlichkeit and even some Precisionist works dating from the 1930's, Precisionism remained, from its beginnings as "Cubist/Realism," devoid of powerful psychological content and instead a significant blend of abstract/realism which was perpetuated into the 1950's and paralleled other similar trends in American and European art.

---

[183]Wieland Schmied, Neue Sachlichkeit and the German Realism of the Twenties, p. 14-15.

Chapter Three: Literature Survey: 1920's - 1960's

This chapter surveys the literature on Precisionism since the 1920's. A chronological examination of this body of literature is necessary for providing a general, yet intelligible historical framework for the movement against which we can measure the contribution of the broader and more significant issues surrounding Precisionism presented in this dissertation.

Beginning in the 1920's and 1930's, many writers focused on the formal aspects of an artistic trend that would later be assigned labels such as Immaculate, Cubist-Realism, and finally, Precisionism. These writers employed adjectives like precision, precise, ordered and well-structured to characterize the works of many different artists who exhibited together at the Downtown and Daniel Galleries during these years. In his 1926 seminal article, Robert Allerton Parker, for example, describes Sheeler in the following terms:

> "Charles Sheeler seeks to disengage with a precision that at times seems almost surgical, the essential forms of his objects from all the mere vicissitudes through which it has been lived, to sacrifice as beside the point all those changes of light, those differences of atmosphere, all those idiosyncracies which connote a particular time, a particular place, or any possible sentimental associations. The relationship between the objects is given more primacy than the objects themselves."[184]

Parker is obviously focused on the formal qualities in Sheeler's

---

[184]Robert Allerton Parker, "The Classical Vision of Charles Sheeler," International Studio, LXXXIV (May, 1926), p. 68.

work -- the precise, ordered, well-structured and timeless. These aspects of Sheeler's paintings take precedence, according to Parker, over any attempt by the artist to capture the sentimental or particular associations of his subjects. Parker's formal analysis of Sheeler's work, however, becomes all the more important when we realize that it was later recapitulated by scholars who created the label of Precisionism.

In the next review of Sheeler's work in 1928, the "Immaculate School Seen at Daniel's," Art News critic Deoch Fulton locates in Sheeler's paintings a particular industrial content -- in addition to the precise formality established by Parker -- which was also qualified by later scholars as an important component of Precisionism. "Factories, sheds, bridges and smokestacks," notes Fulton, "loom large in the current Daniel showing, all rendered in precise line, flat color and clearly defined pattern that have become trademarks of the immaculate school."[185] Fulton's labelling of these artists exhibiting at Daniel's Gallery, as the "immaculate school," is significant in that it represents the first attempt to recognize an artistic movement depicting industrial content as well as precise forms.

In her 1930 article on Spencer, Marya Mannes, however, directs our attention back once again only to the formal aspects of Precisionism -- without, of course, like Parker, actually using the term. "Spencer's simplicity," comments Mannes, "is not

---

[185]Deoch Fulton, "Immaculate School Seen At Daniel's," Art News, XXVII (November 3, 1928), p.9.

the spontaneous reach of a child to its simple world, but the effort of a mature mind to instill order from surrounding chaos and relate things hitherto unrelated."[186] We can conclude from these early statements, then, that while Mannes and Parker focus on the simplicity and order found in Sheeler's and Spencer's compositions, Fulton is the first to consider Sheeler's fascination with both a specific industrial content as well as precise forms.

In the 1930's, however, reviewers like Weldon Bailey give equal weight to both the industrial content and formal qualities found in precisionist paintings. In his 1939 review of Crawford's work at Boyer Galleries, for instance, Bailey notes, "Crawford's paintings of grain elevators, mills, smokestacks and lonely highways, represent material forms but they are severly simplified and composed into designs as exact and calculated as geometrical abstraction."[187] By recognizing both an industrial content as well as the simplified and ordered forms in Crawford's works Bailey then, like Fulton, comes closest to defining Precisionism as we know it today.

The attention of other critics of the 1930's, on the other hand, would continue to waver back and forth between precisionist form and content. Two months later, -- in a second review of

---

[186]Marya Mannes, "Niles Spencer, A Painter of Simplicities," Creative Art, VII (July, 1930), p. 59-60.

[187]Boyer Galleries, New York. "Ralston Crawford: Paintings," February 23 - March 11, 1939 (brochure, with text by Weldon Bailey), n.p.

Crawford's work at the Boyer Galleries -- critic Bryan Holme, for instance, repeats only Bailey's formal analysis of artist's work stating: "The clear, carefully chosen colours and the precision of line contribute to the satisfaction evoked by his work."[188] We can conclude from Holme's statements, as well as from the others presented thus far, then, that many of the early critics of so-called Precisionism chose to favor the formal rather than the industrial aspects of Precisionism without actually assigning a label to this phenomenon.

We first encounter the term changing in the art literature from "precision" to "Precisionist" -- with many of its current implications regarding both a specific content and form -- in a 1935 review of a joint Sheeler and Charles Burchfield exibition held at the Detroit Society of Arts and Crafts. In this 1935 review, Detroit News critic Florence Davies perceptively recognizes Sheeler's ability to realistically and precisely depict the factories and industrial scenes of America's machine-age. As Davies notes:

> "Sheeler is the precisionist par excellence. He loves smokestacks and factories and railroad tracks and other factors in the typical American landscape, and he presents them with an exactitude of a cameo. His painting of the Ford factory, called an American landscape, owned by Edsel Ford and which is as well known as anything he has done, has been rid of all its non-essentials. No atmospheric haze obscures the machine-like exactness of the scene. It is as precise as a map but much simpler, and more beautiful. It is

---

[188]Holme, Bryan, "New York: Ralston Crawford," The Studio, CXVII (May, 1939), p. 229.

the triumph of the machine age, beautifully seen."[189]

As we can see, Davies applies the term precisionist equally to both Sheeler's choice of subject -- the machine-age forms of the American landscape -- and to his formal approach towards simplicity and precision. More importantly, Davies' usage of the term "precisionist" to describe Sheeler implies that he belongs to some kind of movement categorized as "precisionist."

Subsequent studies on Precisionism in the 1940's continued to build upon the earlier definitions. While these studies continued to address the formal aspects of Precisionism, they also explored the influence of other modernist currents on these formal aspects and investigated Precisionist content as it related to broader machine-age aesthetics. In his 1943/45 ground-breaking essay "Cubist-Realism," -- another alternate term for Precisionism -- for instance, Milton Brown brilliantly summarizes:

> "Cubist-Realism was not a school. It was without manifesto, or even conscious program. But, in spite of the lack of formal organization among its exponents, it was a recognizable and influential American style. In it, an attempt was made to impart to all matter a sense of fundamental mass, clarity and precision. Ornament as such was eliminated, as were the peculiarities and accidents of light, texture and atmosphere. Although most of the artists who finally evolved toward Cubist-Realism began as Cubists, none of them lingered long over experiments with abstractions, instead, they almost immediately applied Cubist principles in their simpliest forms to reality. The general development of Cubist-Realism was, as we have seen, from Cubism to Realism, from the use of simple abstract surfaces to

---

[189]Florence Davies,"Charles Sheeler," The Art Digest, IX (January 15, 1935), p. 9.

the meticulous rendering of nature."[190]

By recognizing the formal cubist approach within Cubist-Realism, Brown begins to uncover the broader significance of Precisionism -- its relationship to other European machine-age phenomenon. It is important to our understanding of Precisionism, however, to realize that Brown's statements do not consider Precisionism of the 1930's, when, -- as it has already been demonstrated in this dissertation -- the original constructs of Precisionism tied to Cubism were altered towards a greater Realism though still expressed within the confines of Precisionism's initial hard-edged, simplified and semi-abstract industrial vision.

Brown, however, was instrumental in recognizing the importance of America's machine age-culture for the Cubist-Realists, which he attributes to their familiarity with the work of Marcel Duchamp and the French Purists. As Brown notes:

> "The machine which is both a part of our lives and a symbol of modern civilization, to them (the Cubist/Realists) was not an object for aesthetic juggling, but had an integrity of its own. They allowed the machine to dictate, in a sense, the form that its artistic realization should take."[191]

At the same time, though, Brown states that:

> "Theoretically, Cubist-Realism could have developed without the influence of the machine, but actually mechanical forms and the industrial scene were inextricably a part of the style. For some Cubist-Realists, the machine was a motivating factor; for others, the search for simplified, geometric forms

---

[190]Milton Brown, "Cubist-Realism," Marsayas, 1943/45, p. 157-158.

[191]Op.cit., p. 149.

> eventually led to the machine as a logical subject matter. In the works of some artists, however, the style became divorced from mechanical forms, and its principles were applied to natural and non-mechanical subjects, so that two general tendencies developed within Cubist-Realism -- the representation of the mechanical on the one hand, and the organic on the other."[192]

As we can see, Brown's definition of Cubist-Realism -- while it acknowledges the significance of a machine-age culture for Precisionism -- also realizes that "Cubist-Realism could have developed without the influence of the machine...." and that "....its principles were applied to natural and non-mechanical subjects...." The result of this opinion is Brown's inclusion of artists such as Georgia O'Keeffe and Charles Demuth whose works mainly illustrate a more organic choice of subject matter within their Cubist-Realist approach.[193] Furthermore, Brown includes within Cubist-Realism artists with diverse content and attitude such as more Futurist-oriented Joseph Stella, Magic Realists Blume, Hirsch and Ault and other only occassional Precisionist artists like Lozowick and Dickinson.

It is interesting to note, however, that while Brown recognizes the existence of an organic as well as mechanical strain within the simplified, geometrical framework of Cubist-Realism, he maintains that both of these strains are based on the knowledge of Cubism and inspired, to some degree, by the new

---

[192] Op.cit., p. 149,151.

[193] Op.cit., p. 149-157. See Whitney Museum of American Art, George Ault, April 8 - June 8, 1988, (catalogue, essay by Susan Lubowsky) and Bord College, Stefan Hirsch, February 26 - March 19, 1971, (catalogue, text by Stephen Borurgeoise), n.p.

machine-age aesthetic. "It (Cubist-Realism) established the machine and the industrial scene," concludes Brown "as legitimate and even central concepts in American art, and, in its insistence on the clean and unencumbered surface, it helped to influence not only a considerable group of artists, but also American taste as a whole."[194]

In sum, while Brown successfully acknowledges the importance of Cubist-Realism/Precisionism in American art, he specifically pinpoints its formal ordering of subject matter as the overriding concern. As a result, Brown is free to include artists whose works demonstrate both an organic and a mechanical content under the larger umbrella of Cubist-Realism.

In his 1948 book American Landscape Painting, Wolfgang Born reinforces Brown's definition of Cubist-Realism under the new heading of "Precisionism." Born defines Precisionism as "an art that was to combine the exactitude of photography with geometrical interpretation of space introduced by Cubism."[195] Like Brown, however, Born includes as Precisionist's, artists like Demuth and Dickinson, who clearly favor more organic subjects. On the other hand, Born realizes that there is a distinction to be made between these artists and the general tenor of the Precisionist movement. For example, Born comments, "Demuth did not go all the way toward a geometric interpretation

---

[194]Ibid., p. 157-158.

[195]Wolfgang Born, American Landscape Painting, (New Haven: Yale University Press, 1948), p. 206.

of the American Scene, his love of organic nature deterred him from the abstract. The world of Dickinson," continues Born, "is filled with spiritual dynamic."[196]

Furthermore, Born is able to realize that only Sheeler "led Precisionism to its ultimate realization." Born comments, for instance, that "Out of an integration of the photographic attitude with the requirements of a cubism that was, in the last analysis, more influenced by Shaker design, than by French art, Sheeler developed a new art form appropriate to what I should like to call the 'technocratic landscape.' The picture space became a stage for the display of geometric forms manifested in either industrial or rural architecture."[197]

Born's statements are significant for this dissertation for two reasons. They convey to the reader -- on the one hand -- that Sheeler is, in fact, the most consistent of the Precisionists and -- on the other hand -- begin to explore the possibility of the broader existence of an abstract/ -- (not necessarily Cubist) -- realist nexus within Precisionist machine-age forms.

The combination of this abstract/realist formalism regarding the Precisionists' approach to machine-age forms from 1914 through the 1940's, however, is perhaps best recognized by John Baur in his 1953 book Revolution and Tradition in Modern American Art. According to Baur, "They (Immaculates -- another name given to the Precisionists) felt that a close affinity existed between

---

[196]Ibid., p. 207.

[197]Ibid., p. 211.

mechanical functionalism and abstract art. All of these artists had worked in an abstract or semi-abstract manner in the period 1914-1918; all returned about 1920, to a realism still strongly modified by abstract design....and back to semi-abstraction in the 1940's. The Immaculate movement has never entirely died out."[198] As early as 1951, then, Baur constructs a abstract/realist consistency for Precisionism which -- as we will see in this chapter -- is discounted by many contemporary scholars.

In addition, Baur casts a wider net around Precisionism by relating this abstract component to the mechanical abstraction which he locates in the European International Style. For example, Baur suggests that:

> "The preeminently orderly and rational character of the International Style, as it was developed in Europe by Le Corbusier, Oud, Gropius, Mies Van der Rohe, and others, had a growing influence on American building since early in the 1930's. Perhaps one reason that it transplanted so well is that its precise and simple forms were in close accord with the same native spirit that produced the Immaculates; if Le Corbusier's houses were 'machines for living,' their pictures, as someone has remarked, were machines to live with. Moreover the functional aspects of the International Style have accorded well with our popular admiration of science and engineering, our widespread delight in speed and efficiency, and our complacent belief in the virtues and rewards of an industrial civilization."[199]

Although Baur's comparison between the Immaculates and the practioners of the International Style of the 1920's is somewhat

---

[198]John Baur, Revolution and Tradition in Modern American Art, 1951, p. 59-60, 62, 103.

[199]Ibid., p. 68.

cursory since the practicioners of the International Style did not arrive in this country until the 1930's, Baur's comparison is, however, insightful given the parallels established earlier in this chapter between the ideas of the Precisionists and those of the Bauhaus artists even before the arrival of the latter in the United States.

A few years later, contemporary architectural historian Vincent Scully continues to explore the broader issues surrounding Precisionism by demonstrating specific Precisionist trends in American architecture. In his 1960 essay "The Precisionist Strain in American Architecture," for example, Scully defines Precisionism in architecture -- across the board -- as "purity of shape, linearity of detail, and at times, compulsive repetition of elements."[200] Scully then traces these general Precisionist qualities to some of the earliest vernacular buildings constructed in America such as the Parson Capen House, 1683 (Plate 56) and to Thomas Jefferson's University of Virginia, (Plate 57) which he regards as examples of "precisionism of mass" and "such isolation of precisely perfect, static forms in an unformed landscape."[201]

Scully's comments relating the purity, linearity and repetition of elements -- all aspects of Precisionist architecture -- to a earlier vernacular American architectural

---

[200]Vincent J. Scully, "The Precisionist Strain in American Architecture," Art in America, XLVIII (Fall, 1960), p. 46.

[201]Ibid., p. 46-48.

tradition become all the more interesting given the affinity which Sheeler demonstrated -- as was shown earlier in this dissertation -- for creating contemporary works which favor a historical and vernacular past.

More importantly, Scully recognizes Precisionism's continued existence in the architecture of the 1950's. He cites, for instance, Skidmore, Owings & Merrill's Manufacturers Trust Company Bank, 1954, (Plate 58) as an example of contemporary Precisionist architecture which formally repeats the logic of the earlier structures. "In these designs," states Scully, "the screen wall of metal, glass, plastic or marble, is essentially carried around the building, so that the exterior mass becomes an icy, taut cube with linear details and a skinny skin."[202]

According to Scully, then, it is the repetition of well-crafted, pure and linear architectural elements creating a unified whole, that defines a Precisionist architectural style found in both contemporary structures as well as those belonging to an earlier vernacular tradition. By recognizing a Precisionist strain in vernacular and contemporary architecture and by acknowledging that this trend continues into the 1950's, Scully is supporting -- if only through the example of architecture -- the purpose of this dissertation which is to demonstrate the broader significance of Precisionist form and philosophy in twentieth century art.

In the next major essay on Precisionism -- The Precisionist

---

[202]Ibid., p. 50.

View in America, 1960 -- Martin Friedman returns to the more formal, and less broader issues of Precisionist painting. For example, according to Friedman, the Precisionists: "reflect an idealized state of absolute order. Time and space are not particularized. Neither impulse or spontaneity plays a part in the developing of elements of Precisionist paintings. Yet both the deliberate unconscious retention of partial events generates both the most literal and abstract of images." Of Sheeler in particular, Friedman continues, "Light quality is brilliant, never vague or atmospheric and forms on the horizon as sharply as elements in the foreground."[203]

While Friedman's statements focus on the shared formal aspects of Precisionism, -- particularly the registering of light with exactitude, the quest for order and timeless space -- Friedman also realizes a recognizable difference between the content found in Sheeler's paintings and that found in the paintings of O'Keeffe. He chooses, however, to ignore this difference and instead considers Sheeler's and O'Keeffe's work on the basis of a shared "simplicity of form, unwavering sharp delineation and careful reasoned abstract organization."[204] It is obvious, then, that Friedman -- like most early writers -- considered form, the primary and shared integral component of Precisionism. As we have seen demonstrated in the first and

---

[203] Martin Friedman, The Precisionist View in American Art, 1960, p. 12-13.

[204] Ibid., p. 14.

second chapters, however, a positive industrial or pre-industrial content was a crucial ingredient for Precisionism.

The 1960's art critic Hilton Kramer, however, -- who supports Friedman's formal reading -- successfully locates the discrepancies caused by Friedman's inclusion of too many artists who choose a variety of subjects. For instance, Kramer notes, "In short Mr. Friedman has had some difficulty in getting all his artists and every one of his pictures to fit a neat pattern of style and history and one has the right to ask if this difficulty doesn't cast some doubt on the premise of the exhibition."[205]

Friedman's essay, nonetheless, derives its significance from its limited attempt to link Precisionism with both broader machine age ideas as well as with an earlier American vernacular tradition. For instance, Friedman notes:

> "The Precisionist movement is an extension of an objective and literal American style. The homage it pays to utilitarian objects and the surroundings of daily life relates to the sober humility of American primitive painters. The Precisionist direction must also be considered as a conscious if often elemental attempt to harmonize the earlier American visual tradition with random elements for the exploding nebulae of modern American Art."[206]

In the final analysis, Friedman's sentiments become important for this dissertation because they convey his awareness -- at least -- that Precisionism and its machine-age ideas was not only a

---

[205]Hilton Kramer, "The American Precisionists," Arts Magazine, XXXV (March, 1961), p. 37.

[206]Martin Friedman, "The Precisionist View in American Art," 1960, p. 22.

formal style, but also part of a larger American aesthetic to contemporize an earlier American craft tradition.

Literature Survey: 1970's - Present

In the late 1970's, numerous studies began to examine both Precisionism in greater depth as well as individual Precisionist painters at greater length. These studies, provided then, an initial investigation of ideas that -- as we have seen in the first and second chapters of this thesis -- were developed in-depth and taken to their logical and significant conclusion.

In a 1979 article on Sheeler, Yeh begins the trend of focusing specifically on the artist's iconographic and stylistic choices. She characterizes Upper Deck, for example, as the artist's first painting "in a machinist style with an industrial theme." Yeh also analyzes Sheeler's reverence in Upper Deck for "the geometric form of manufactured objects," -- in particular two electrical motors that control an ocean liner's air supply system -- as well as Sheeler's involvement with a "platonic vision of ideal beauty" which she relates to Le Corbusier. As Yeh suggests, "Le Corbusier's use of the Ocean linear as an example to educate the public to the beauty of functionalism as well as of classicism is of particular importance for Upper Deck."[207] In other words, as did Friedman before her, Yeh perceptively links Precisionism and Purism on the basis of Sheeler's and Le

---

[207]Susan Fillin Yeh, " Upper Deck," Arts, LIII (January, 1979), p. 90-94.

Corbusier's shared reverence for contemporary functionalism as well as for further removed art historical styles such as the classical.

Furthermore, it is Yeh's in-depth analysis of Sheeler's specific iconographic choices for Upper Deck, which leads her to uncover the relationship between Sheeler's painting and photography of that period. Upper Deck, for example, represents for Yeh the artist's most acute phase of realism and dedication to photography. "In applying paint as a uniform and smooth surface," notes Yeh, "Sheeler standardized the action of his hand. Then in utilizing a photographic source, camera vision substitutes for the human eye. Sheeler eventually utilized the opaque projector as a translation device, perhaps one of the most mechanical links between hand and eye."[208] According to Yeh, then, Sheeler's painting and photographic developments regarding realism are simultaneous, complementary and culminate in the artists joint realistic paintings and photographic studies of Upper Deck, an idea developed -- in the present dissertation -- in regard to not one, but many of Sheeler's works.

Finally, Yeh's study of Sheeler's Upper Deck recognizes an important and conscious abstract/realist aesthetic at work. She suggests that the picture is "realistically conceived while it maintains underlying abstract structure." Yeh further denies Sheeler's interest in "artistic spontaneity." It is interesting to point out, however, that at the same time, Yeh considers as

---

[208] Ibid., p. 91.

Precisionist, artists such as Ault, Demuth, Hirsch, and Stella -- all advocates of artistic spontaneity.[209]

In a 1980 article "Charles Sheeler: Industry, Fashion and the Vanguard," Yeh continues to establish -- largely through Sheeler's paintings and photographs of the River Rouge Plant -- the artist's ties to the Precisionist industrial vision.

Yeh suggests, however, that Sheeler is removed from other Precisionists of the 1930's because he abandons a complex cubist-realist approach to form in favor of realism, a result that Yeh attributes to Sheeler's involvement with commercial photography and fashion of the 1920's. Yeh develops this further by bringing to light Sheeler's concern for the integration of fine and applied art through the example of the artist's photographs of the Ford Model A automobile which, she concludes "emphasized the car as a designed object." In her analysis, Yeh maintains:

> "Throughout the 1930's, his (Sheeler's) reliance on motifs draw from the techniques of commercial and advertising work, work done for the mass media, was the expression of these sentiments. The photographic look of the 1930's paintings -- their details, more stressed than what one might expect from sharp-focus photography, and their composition showing adjacent angles which puts the subject matter on display -- were Sheeler's tools in creating a new painting style with a popular base, and all have the sources in the pages of Vogue and Vanity Fair magazines."[210]

Although Yeh's statements reflect her belief that Sheeler's works of the 1930's display greater realism and are less Cubist-

---

[209] Ibid., p. 93.

[210] Susan Fillin Yeh, "Charles Sheeler: Industry, Fashion and the Vanguard," Arts, (February, 1980), p. 156, 158.

Realist, thus, less Precisionist -- and idea which has been challenged in the preceeding chapters of this dissertation -- Yeh does a superb job in exploring the more important relationship between Sheeler's paintings and the broader field of advertizing -- opening up the possibilities for further study of the general relationship between Precisionist painting and contemporary advertizing and applied design. More importantly, Yeh's studies in general have opened up a path for this dissertation to explore -- in greater depth -- significant issues surrounding Sheeler such as the effect of the machine-age culture on Sheeler's and other Precisionist's abstract/realist paintings and photographs from the 1920's through 1950's and their relationship to other European machine-age phenomena.

Interestingly enough, the next study devoted to Precisionism after Yeh's very specific type is a one-time only return to the more general aspects of Precisionism. Karen Tsujimoto's 1982 essay in Images of America: Precisionist Painting and Modern Photography, reiterates and expands upon Friedman's formal efforts. Like Friedman, Tsujimoto thoughtfully surveys the previous literature on Precisionism. While it is clear that she supports Brown's basic Cubist-Realism theory, Tsujimoto is also concerned with Yeh's line of industrial positivism regarding Precisionism arguing that, "Moreover, the Precisionists "turned to the country's flourishing industrial and architectural

landscape for subject matter."[211]

Although Tsujimoto's statements support the widely accepted concept that the Precisionist's embraced an industrial subject, Tsujimoto does not, however, regard the Precisionists as participants in a cohesive movement. Instead, she views as equally Precisionist, styles ranging from the cool and realistic to the expressive and romantic. For example, Tsujimoto views Stella's futuristic adaptation of form as equally Precisionist as Sheeler's.

In addition to her inclusion of non-Precisionists, there are other slight inconsistencies within Tsujimoto's thesis. For example, while her consideration of Lozowick's relationship to other European machine-age ideas such as Constructivism is particularly enlightening, Tsujimoto's connection as well as other attempts to connect Precisionism with European phenomena such as Bauhaus, De Stijl and Purism are never fully developed. Similarly, Tsujimoto could have better realized the cursory parallels she establishes between the sharp realism of Sheeler's Precisionist painting and the straight photography of Strand -- which we have seen developed in the second chapter of this dissertation.

Finally, Tsujimoto concludes that by the 1940's the Precisionists as a group were weakened by the more abstract considerations that appeared in their works. Unlike this

---

[211]Karen Tsujimoto, Images of America: Precisionist Painting and Modern Photography, (Washington: University of Washington Press, 1982), p. 20.

dissertation, then, Tsujimoto does not recognize these abstract developments as consistent with the Precisionist's earlier works or as a bridge to later American abstraction.[212]

The next in-depth study devoted to Sheeler's iconographic choices after Yeh's is "Charles Sheeler in Doylestown and the Image of Rural Architecture." In this study, Karen Lucic Davies renews our awareness of Sheeler's important interest in examples of traditional architecture and artifacts around Doylestown, Pennsylvania, an interest which Davies concludes resulted from the artist's leasing of Worthington House around 1910 as well as from his friendship with Henry Chapman Mercer, an advocate of the Arts and Crafts tradition.[213]

In her discussion of Sheeler's The Artist Looks at Nature, 1943, (Plate 59), for example, Davies hints at the artist's preoccupation with fusing craft and machine forms:

> "Sheeler envisioned the coexistence of past and present architectural forms. The synthesis of rural architecture with machine age design was by no means unique to Sheeler. In fact, it had become commonplace in writings on American design and architecture by the late 1930's. Shaker buildings were characterized as foreshadowing modernism, and Bucks County barns seemed to anticipate the functionalism of contemporary Bauhaus-inspired architecture."[214]

---

[212] Ibid., See chapter 2 of this dissertation for a complete discussion of the consistency of Precisionist's Sheeler, Crawford and Spencer from their early Cubist-Realist origins to their abstract/realist works of the 1940's and 1950's.

[213] Karen Davies, "Charles Sheeler in Doylestown and the Image of Rural Architecture," Arts, LIX (March, 1985), p. 135-136.

[214] Ibid., p. 137. It is important here to pay attention to Davies' language. She states, for instance, that, "Shaker buildings were characterized as foreshadowing modernism," and

In as much as Davies' statements recognize the coexistence of past and present in the architectural forms found in Sheeler's paintings, Davies does not recognize the past in Sheeler's painting -- as does the present dissertation -- as logical and necessary for the development of his twentieth century forms. According to Davies, remnants of the past were just that, remnants that the artist sought to nostalgically preserve.[215]

Two Recent Dissertations

Charles Sheeler and the Machine Age, 1981, by Susan Fillin Yeh, and Charles Sheeler, William Carlos Williams and the Development of the Precisionist Aesthetic, 1917-1931, 1981, by Patrick Leonard Stewart -- demonstrate the more recent continuance of scholarly debate over the specifics of Precisionist philosophy, thus highlighting the opportunity for further study of Precisionism.

Yeh's thesis, for instance, focuses on Sheeler's iconography and its relationship to a machine-age culture defined by 1920's industrialists, writers and artists. Thus, Yeh views Sheeler's cubist phase as inspired by his familiarity with Stieglitz's

---

that "Bucks County barns seemed to anticipate the functionalism of contemporary Bauhaus-inspired architecture." They key words here are "were characterized" -- obviously not by Davies' herself -- and "seemed to anticipate." Davies' language, then, implies that she herself was not fully convinced of the connections between past and present.

[215]See Chapter One for complete discussion of the integration of past and present in Sheeler's works.

exhibitions at 291 as well as familiarity with the Arensberg Circle artist Picabia who explored the scientific principles and materials of the machine age. Yeh explores this idea at great length by focusing on the iconographic choices in Sheeler's individual works and their relationship to this machine-age culture. She begins her dissertation, for instance, with a discussion of Sheeler's Self-Portrait, 1923, (Plate 60) which she regards as one of the artist's early manifestations of machine-age content -interpreting the telephone as an image of progress which takes precedent over the artist's physical self. According to Yeh, the artistic process is one which takes place without the artist -- evident in the style of the painting which reflects the sharp qualities of an art produced by the machine. Yeh further demonstrates that the substitution of these machine parts for human anatomy in Self-Portrait results from Sheeler's contact with dadaists Picabia and Duchamp.[216]

Another significant contribution of Yeh's dissertation is her ability to locate nineteenth century Americana as the pre-industrial machine-age aesthetic for Sheeler's paintings of the 1930's. She establishes this connection by recognizing that the beauty found in both Sheeler's nineteenth and twentieth century forms stems from their utility.[217] Even a painting like Cactus, 1931, then, represents for Yeh a machine-like ordering of tough,

---

[216]Susan Fillin Yeh, "Charles Sheeler and the Machine Age," Unpublished Ph.D. dissertation, City University of New York, (1981), p. 92.

[217]Ibid., p. 238-240.

stream-lined forms which are beautiful, not because they reflect nature but because they possess utilitarian-like qualities.[218]

As significant as Yeh's iconographic interpretation of Sheeler's machine age subjects is, it remains limited in that it addresses only the artist's earlier works. Sheeler's all-important painting's of the late 1930's, 1940's and early 1950's require, then, the further attention given by the present dissertation.

In the next dissertation -- Charles Sheeler, William Carlos Williams and the Development of the Precisionist Aesthetic 1917-1931, -- however, Patrick Leonard Stewart takes a different approach towards Precisionism than Yeh. Instead of maintaining a positive industrial approach for Sheeler as did Yeh, Stewart takes and re-defines the movement by comparing the works of Sheeler and the poet, critic, and essayist William Carlos Williams. For instance, Stewart investigates Sheeler's and Williams's works against a wide cultural context, concluding that they participate in a larger artistic program which objectifies reality with indigenous materials and universal expression. As a result of this investigation, Stewart suggests that Sheeler appreciated at once an indigenous and local imagery -- the skyscraper and the barn -- extracted from an urban and rural landscape.[219]

---

[218]Ibid., pp. 232-236.

[219]Patrick Leonard Stewart, "Charles Sheeler, William Carlos Williams and the Development of the Precisionist Aesthetic," Unpublished Ph.D. dissertation, University of Delaware, (1981),

The next step in Stewart's methodological process is to explore, as did Yeh, the formal aspects of Sheeler's paintings. He measures these aspects, however, against the context of the artists' indigenous rather than industrial loyalties. For example, Stewart comments, "Sheeler was interested in purity of form and the ability of the unity of those forms to convey an inner sense of place."[220] As we can see, this statement is especially at odds with Yeh's theory that Sheeler's forms celebrate industry.

For Stewart, then, Upper Deck becomes a painting about place, aesthetic order, play of forms and precision of construction rather than a painting celebrating industrial positivism as it was for Yeh.[221] At the same time, however, Stewart does support Yeh's theory that Sheeler's concern for pure and plastic forms in a painting like Upper Deck comes out of the artist's familarity with and admiration of the works of Léger and the Puteaux group.[222]

Finally, as did many of the early writers of Precisionism, Stewart, unlike Yeh, explores Sheeler's faith in the tangible, the clear and the precise and links the artist's approach with similar concerns practiced by the Neue Sachlichkeit artists. "Like the Precisionist works that Sheeler would execute shortly

---

p. 19.

[220] Ibid., p. 59.

[221] Ibid., p. 115-116.

[222] Ibid.

after his return from Europe," notes Stewart, "some of the more objective Neue Sachlichkeit works depicted the real world within a seemingly emotionless visual acuity, where objects were frozen within an airless and static pictorial structure."[223] Stewart's comments seem to contemporize the earlier attempts -- as described in the second chapter of this dissertation -- of Barr, Lozowick and Brown to relate Neue Sachlichkeit and Precisionism on the basis of a rather generalized affinity for clarity, precision and an ordered and timeless space.

In sum, then, the most important difference between Stewart's and Yeh's study is that the latter maintains for Sheeler a disinterested nature regarding any specific American industrial object and a greater fascination for a "dominant set of beliefs and ideas," which happen to be universal and are conveyed more successfully through their forms than through their content. As Stewart concludes, for example, "Williams and Sheeler both felt that the unadorned, direct objectivity of everyday things was particularly indigenous, yet universal in expression."[224] While Stewart's sentiments -- which reflect the secondary placement of Sheeler's industrial interests to the artists need to objectify the forms around him -- seem somewhat narrow in the opinion of Yeh and the present dissertation, his perception of Sheeler's interest in the universality of indigenous Shaker and objective Bauhaus forms is, however,

---

[223] Ibid., p. 124-131.

[224] Ibid., p. 144-154.

extremely noteworthy.

The Final Word

In his more recent article, "Charles Sheeler, William Carlos Williams, and Precisionism: A Redefinition," Stewart pursues his earlier thesis that both poet and painter developed a strong nativist expression -- rather than an obsession with industrialism -- in the works of the 1920's.[225] Stewart notes, for example, that:

> "A key idea here, was Williams' belief that the artist no longer needed to pursue abstraction in the quest for pure form; instead pure form would manifest itself in the reality of subject matter drawn from the artist's own locality. This was a concept to be fully adopted by Charles Sheeler as a Precisionist. It is crucial to note that Williams, at the juncture of his meeting with Sheeler, was attempting to turn artists away from too great a dependence on the burgeoning machine aesthetic."[226]

As we reflect on these comments, it is easy to understand why a Sheeler painting like Classic Landscape, 1931, in particular, conveys for Stewart, "a clear sense of the grandiose achievements of modern America not so much through the associative nature of the elements in the scene but by their transformation into formal integers which create a new reality of natural planes and forms in a controlled, static space."[227]

---

[225]Patrick Leonard Stewart, "Charles Sheeler, William Carlos Williams, and Precisionism: A Redefinition, Arts, LXIII (November, 1983), p. 102.

[226]Ibid., p. 102-103.

[227]Ibid., p. 109.

Stewart, then, continues to limit his study on Sheeler -- as he did in his earlier dissertation -- by focusing only on the artists' earlier works of the 1920's and early 1930's, and by insisting on Sheeler's need to objectify rather than to participate in the broader abstract/realist nexus which has been demonstrated in the present dissertation.

In 1987, in her more recent article "Charles Sheeler: American Interiors," Yeh directs her attention once again to yet another of the Sheeler-specific subjects -- his Cubist/Realist barn and staircase interiors. "At Doylestown," according to Yeh, "he (Sheeler) found ready-made Cubist forms in the American countryside." Sheeler's Staircase, Doylestown, 1925 (Plate 61) continues Yeh, "offers an excellent example of Cubist-like reorganization of entrances and exits, staircase landings, floors and windows to give the impression of upstairs and downstairs room spaces."[228] Yeh's comments not only successfully locate -- in Sheeler's early barn and staircase scenes of the late 1910's and 1920's -- the artists interest in the vernacular, but also recognize Sheeler's ability to find an association between such vernacular subjects and contemporary European trends such as Cubism.

More importantly, Yeh examines Sheeler's ability to make the past contemporary in his Cubist/Realist photographs of the period as well. Of Interior with Stove, 1915, -- an early work depicting

---

[228]Yale University Art Gallery, "Charles Sheeler: American Interiors," 1987, (catalogue, text by Susan Fillin Yeh), p. 8-9.

Americana -- Yeh comments, "These photographs, represent Sheeler's radical departure from past art and mark his real entry into the twentieth century. They are severly reductive images that reveal his concern for exact proportions and his ability to order his composition in the mind's eye."[229] Yeh's comments seem to suggest that even when Sheeler chooses an Americana subject, he strives to make it contemporary by selecting an abstract formal language.

Furthermore, in her quest to demonstrate Sheeler's ability to make the past contemporary, Yeh recognizes that Sheeler's interest in Shaker artifacts and their regard for light, line, proportion and excellent craftsmanship were also qualities valued by twentieth century artists.[230] For Yeh, then, Home Sweet Home, 1931, -- with its juxtaposition of a Shaker table and benches and modern objects such as a modern oil burner -- represents a domestic, yet integrated design of past and present forms.

At the same time, however, Yeh brings to light the notion that the staircase in Home Sweet Home is incomplete. "He reworks motifs such as stairs," notes Yeh, "which at their most elemental level of meaning conventionally signify transition, treating them instead as sliced, blocked-off configurations interlocking space and time."[231] Yeh's comments suggest that Sheeler is not entirely successful in connecting these elements from the past

---

[229] Ibid., p.13.

[230] Ibid., p. 16.

[231] Ibid., p. 18.

with those from the present even though the artist has a strong desire to make the past contemporary.[232]

As has already been demonstrated in the first chapter of the present dissertation, however, it is more likely that Sheeler accepted a transcultural functionalist aesthetic where past and present overlap on the basis of shared components. Sheeler, for instance, admired Shaker objects for the same reason he admired twentieth century industrial forms -- for their austerity, precise lines, balance and utilitarian forms. It is only logical, then, for Sheeler to carry this earlier appreciation for Shaker objects into his paintings of twentieth century industry without, as Yeh suggests, consciously needing to justify/contemporize the past. The treatment of the staircase in Home Sweet Home as a "sliced, blocked-off configuration" might be, instead, simply part of Sheeler's formal Cubist approach.[233]

---

[232]See pages 13-14 of this dissertation for a discussion of Karen Davies counterpoint to Yeh's hypothesis. Karen Davies, "Charles Sheeler in Doylestown and the Image of Rural Architecture," Arts, vol. VXIX, No.5, (March 1985), p. 135-139. Also see Karen Lucic Davies, "Charles Sheeler: American Interiors," Arts, LXI (May, 1987), p. 44-45.

[233]It is important to note here that one contemporary art historian -- Karen Lucic -- would argue further that Sheeler's vision of twentieth century industrial forms was not even as positive as Yeh or this dissertation demonstrates it to be. See Karen Lucic, Charles Sheeler and the Cult of the Machine, (Cambridge: Harvard University Press, 1991) for a somewhat limited formal discussion of what Lucic perceives to be the negative industrial implications in Sheeler's paintings.

Conclusion

While this chronological survey of Precisionist literature since the 1920's is critical to our fundamental understanding of Precisionism, there remain, as we have seen, certain limitations in these studies which highlight the need not only for a new consideration of these artists, but more importantly for recognizing the broader significance of Precisionism in twentieth century art.

In contrast to the other studies of Precisionism examined in Chapter Three, this dissertation demonstrates -- through the example of Sheeler, Spencer and Crawford -- a consistency in Precisionism and an abstract/realist nexus which goes beyond the already established Cubist-Realism of the 1920's and 30's into the 1940's and 50's. More importantly, this dissertation shows how this abstract/realist nexus in Precisionism was paralleled by other similar and significant developments in the United States and Europe.

This paper also demonstrates a widespread conscious and deliberate attempt on the part of these American and European artists, their critics and contemporary writers to link the simple, linear, and well-designed forms of the earlier nineteenth century craft or vernacular tradition with forms produced by twentieth century industrial means. By linking these aesthetic and utilitarian qualities, the Precisionists, the European artists and the literary community codified, then, a positive

attitude toward twentieth century industrialism that -- as this dissertation has shown for the first time -- went beyond the 1920's and continued through the 1950's.

As a result, this dissertation establishes that Precisionism was a significant artistic and ideological manifestation which existed for several decades of the twentieth century rather than a singular artistic moment in 1920's America.

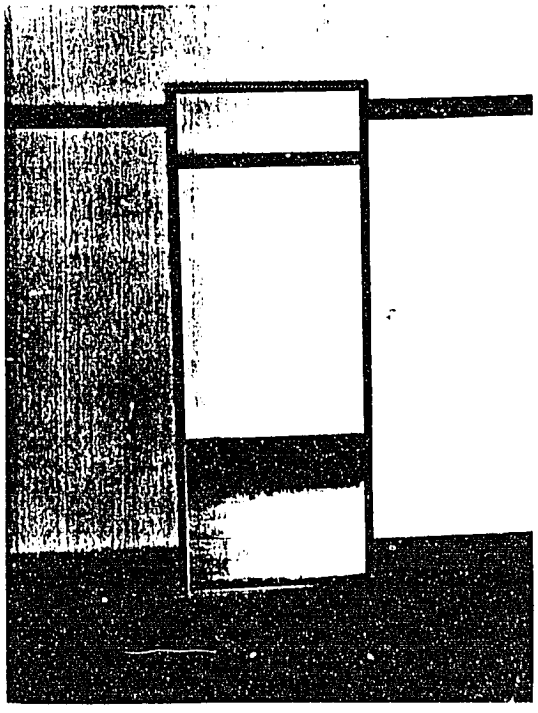

Plate 1. Doorway, Wash House in a Lebanon Church, 1806.

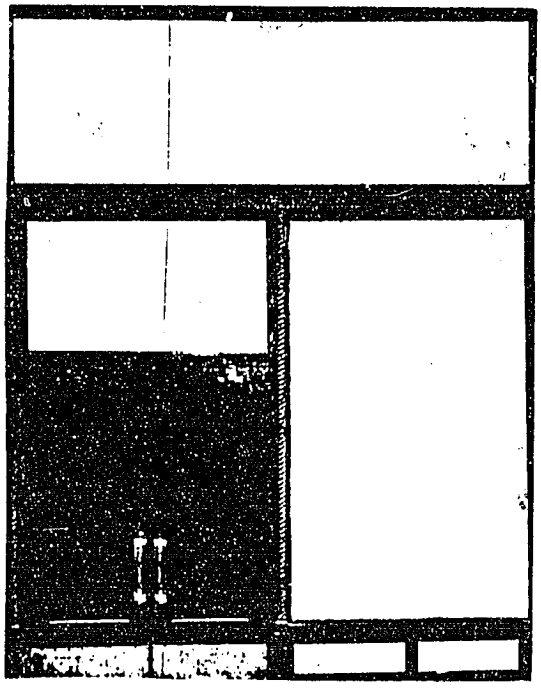

Plate 2. Iron Store Front, Standard Company, Chicago, 1906.

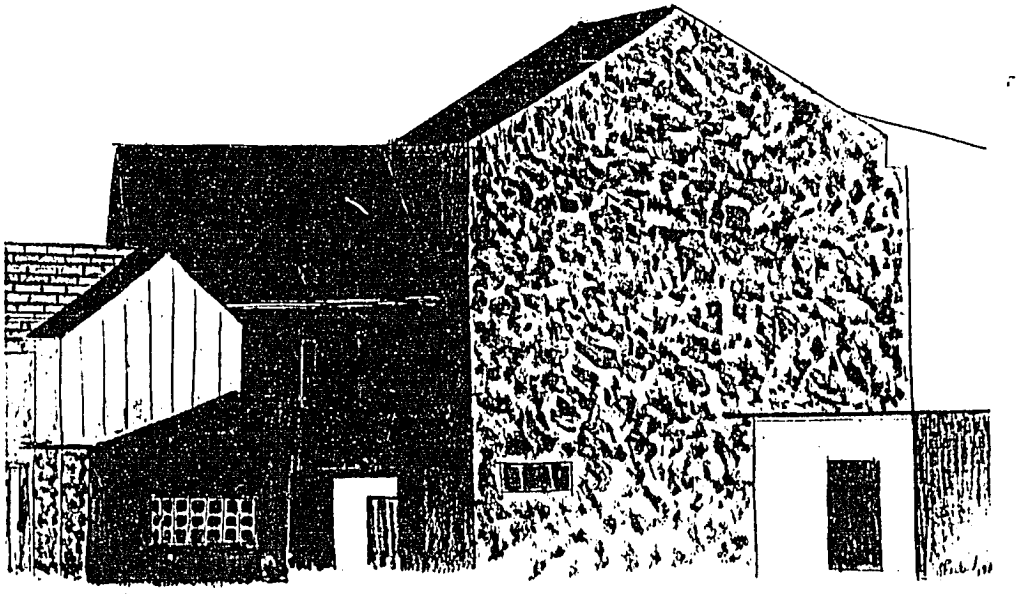

Plate 3. Charles Sheeler, Bucks County Barn, 1918, gouache and conte crayon on paper, 16 1/8" x 22 1/8".

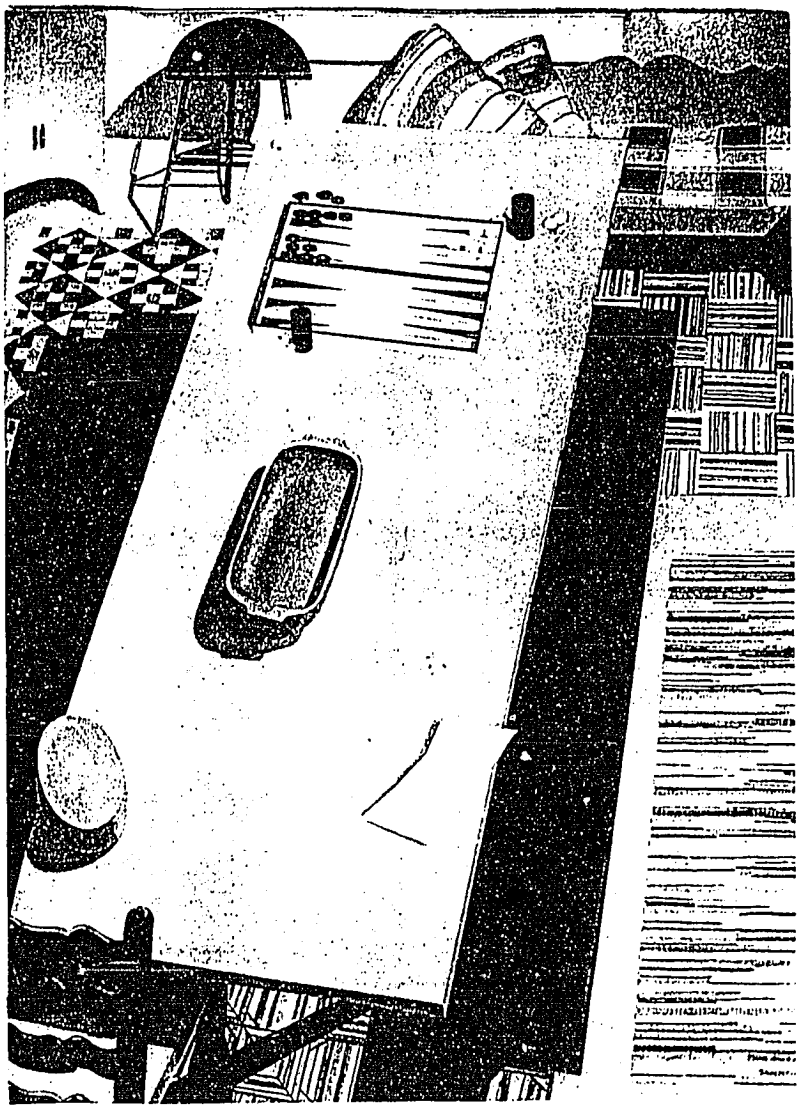

Plate 4. Charles Sheeler, Americana, 1931, o/c, 48" x 36".

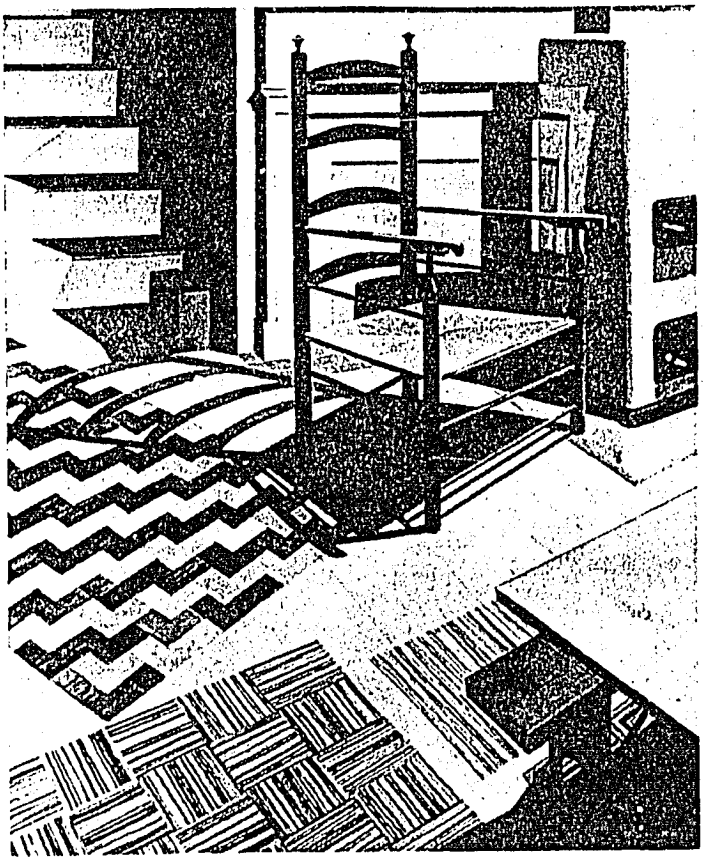

Plate 5. Charles Sheeler, Home Sweet Home, 1931, o/c, 36" x 29".

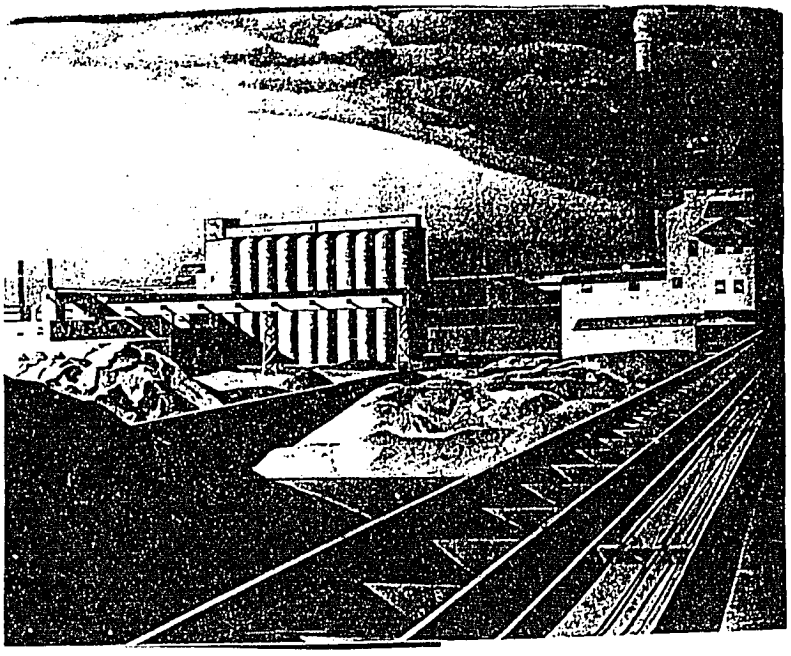

Plate 6. Charles Sheeler, Classic Landscape, 1931, o/c, 25" x 32 1/2".

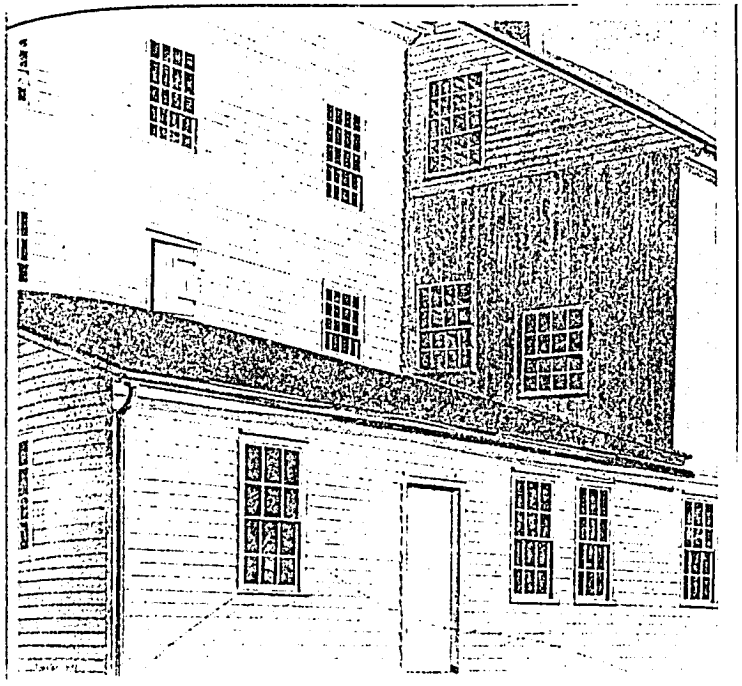

Plate 7. Charles Sheeler, Shaker Buildings, 1941, oil and tempera, 9" x 10".

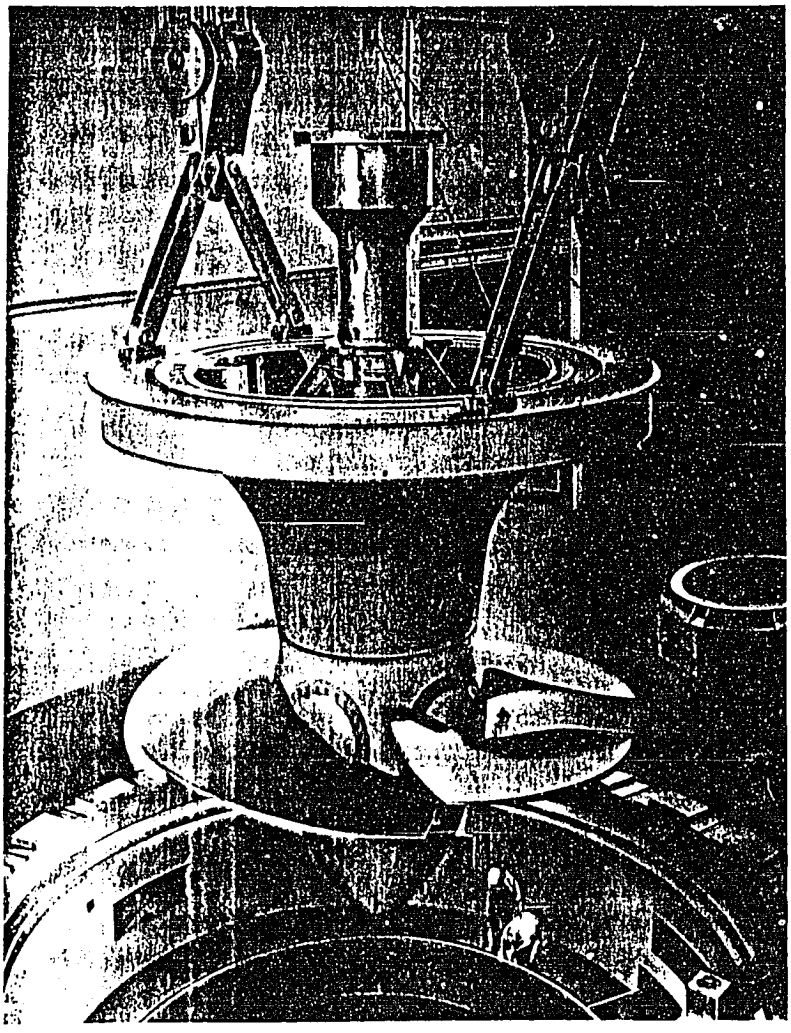

Plate 8. Charles Sheeler, Suspended Power, 1939, o/c, 30" x 26".

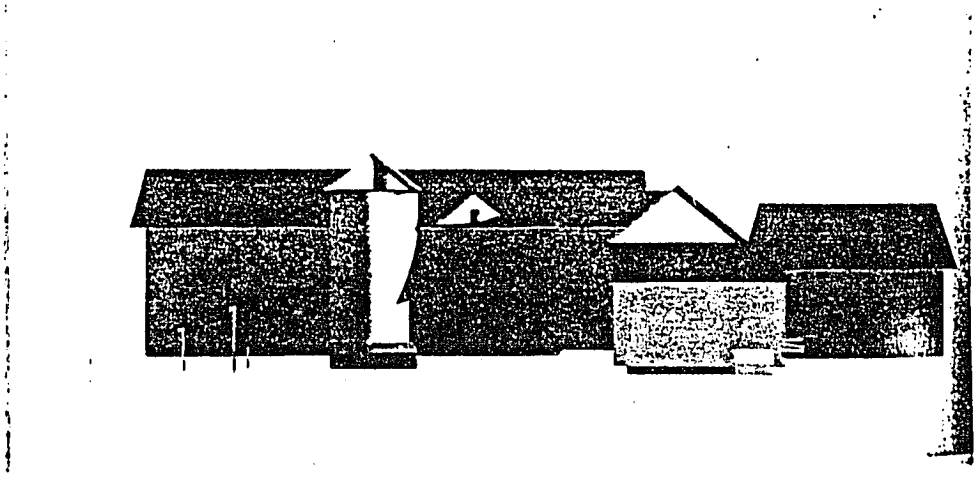

Plate 9. Charles Sheeler, Family Group, 1950, o/c, 15 1/4" x 29".

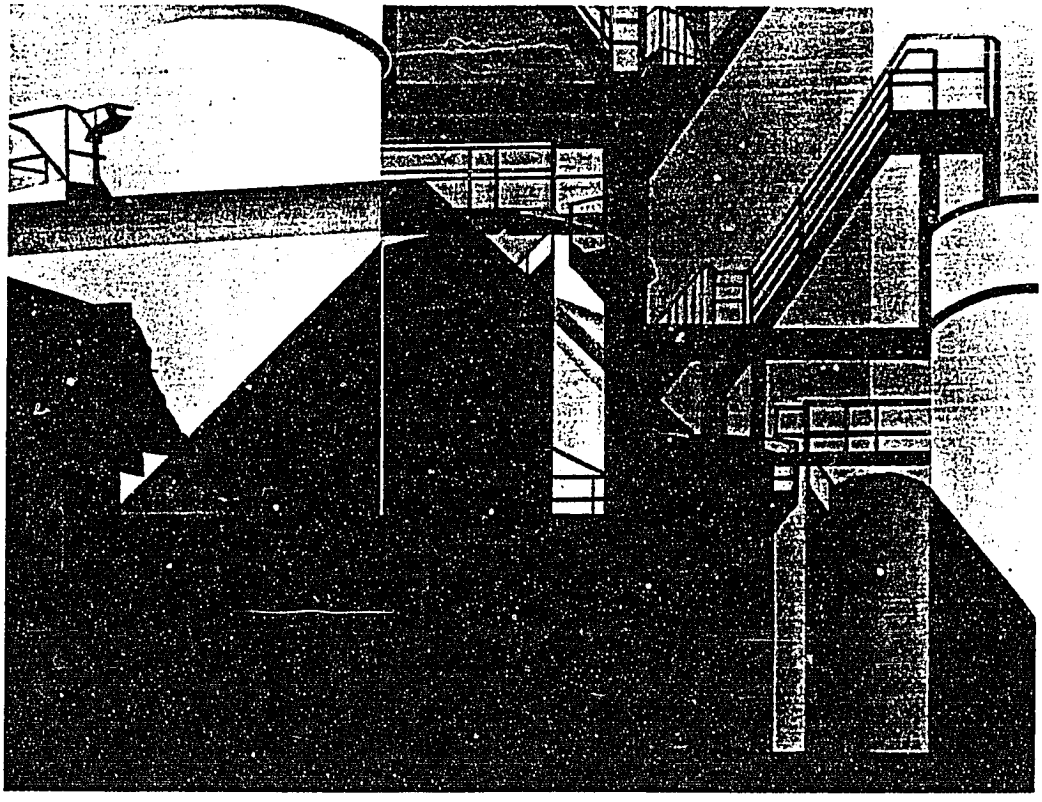

Plate 10. Charles Sheeler, Western Industrial, 1955, o/c, 22 1/2" x 28 3/4".

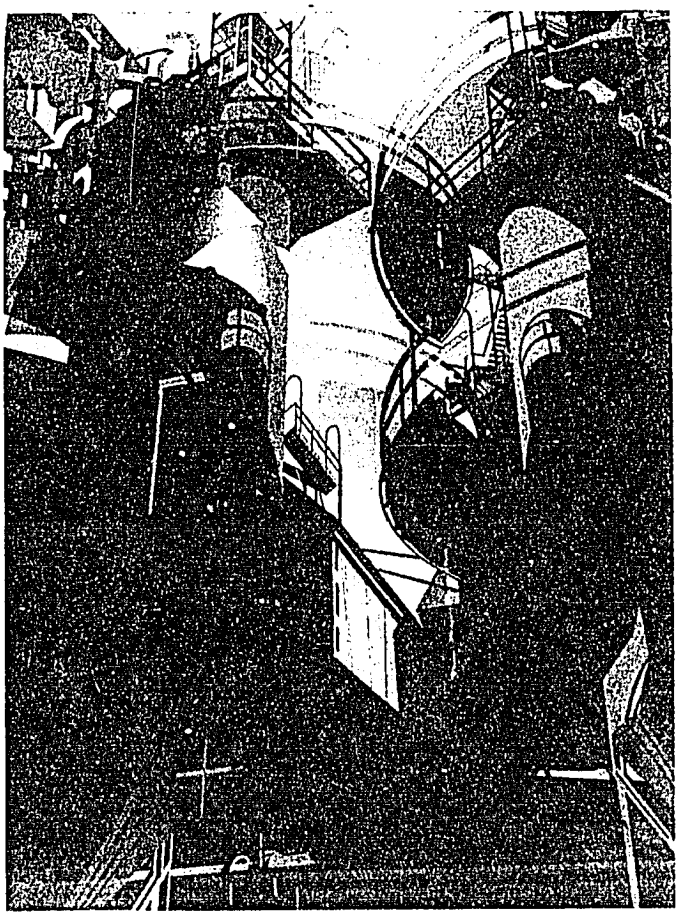

Plate 11. Charles Sheeler, Ore into Iron, 1953, o/c, 24 1/8" x 18 1/8".

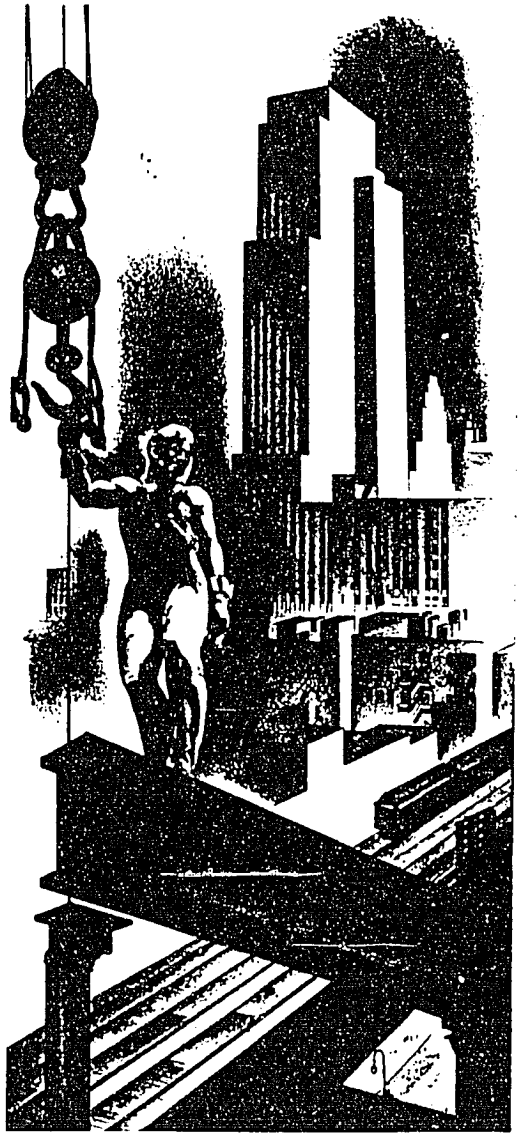

Plate 12. Louis Lozowick, Above the City, 1932, lithograph, 17" x 7 3/8".

Plate 13. Niles Spencer, The Red Table, 1927, o/c, 22" x 35".

Plate 14. Piero della Francesco, Constantine's Victory Over Maxentius, San Francesco Chapel, Arezzo, c.1453, fresco.

Plate 15. Niles Spencer, Camp Chair, 1934, o/c, 40" x 30".

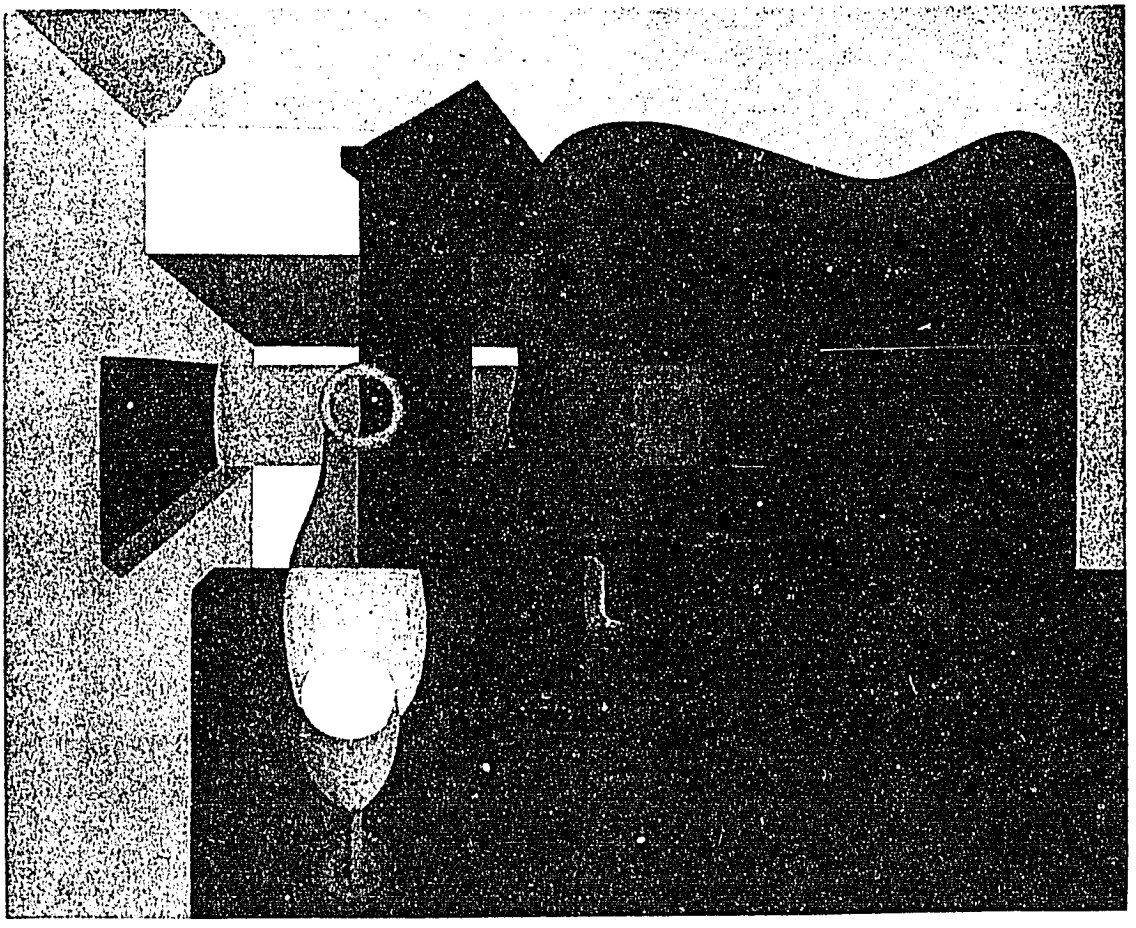

Plate 16. Amédée Ozenfant, Still Life, 1922, o/c, 31 7/8 " x 39 3/8".

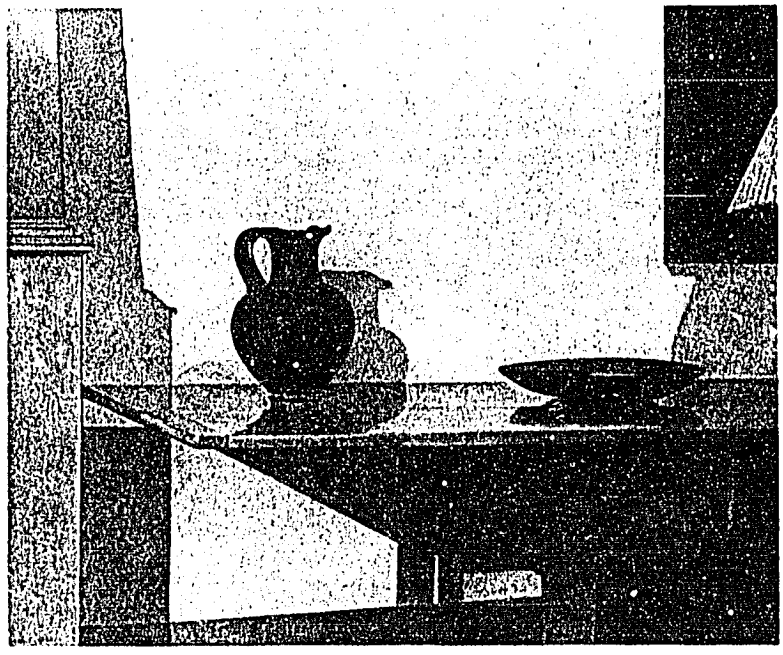

Plate 17. Charles Sheeler, Interior, 1940, tempera and gouache, 9 1/4" x 11 1/2".

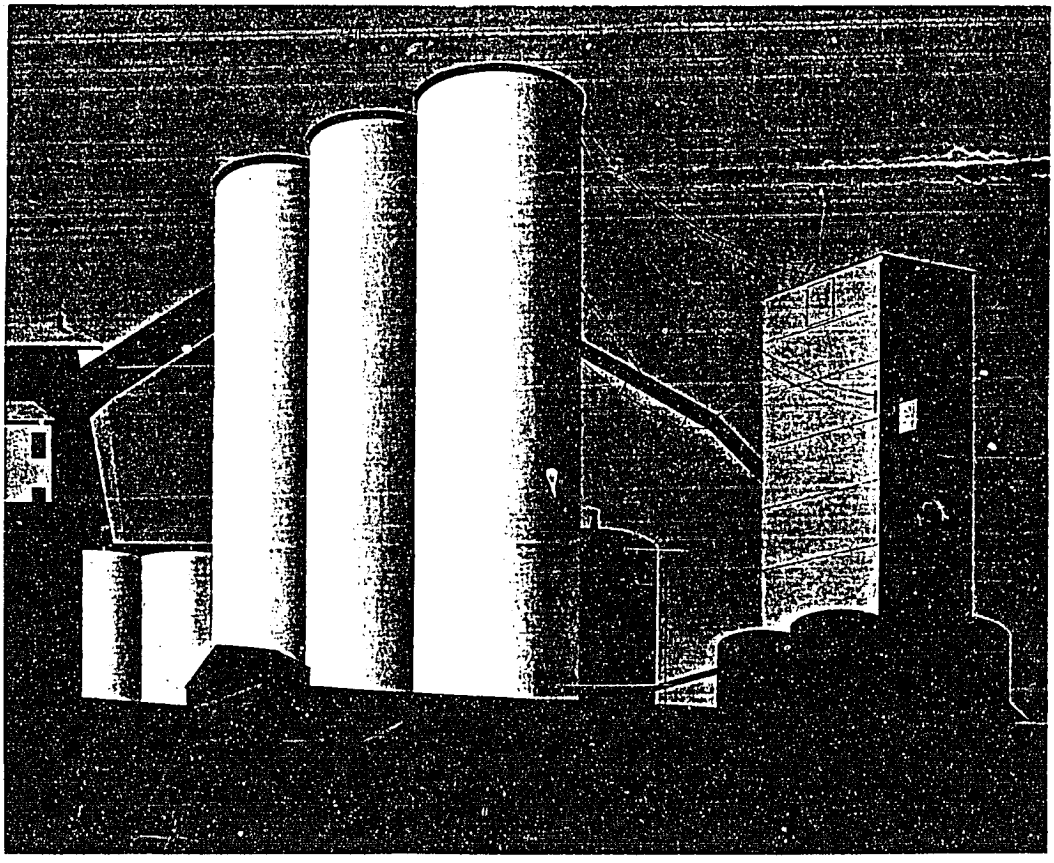

Plate 18. Ralston Crawford, Buffalo Grain Elevators, 1937, o/c, 40 1/4" x 50 1/4".

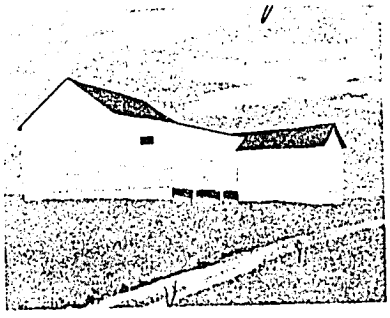

Plate 19. Ralston Crawford, White Barn, 1936, o/c, 30" x 36 1/4".

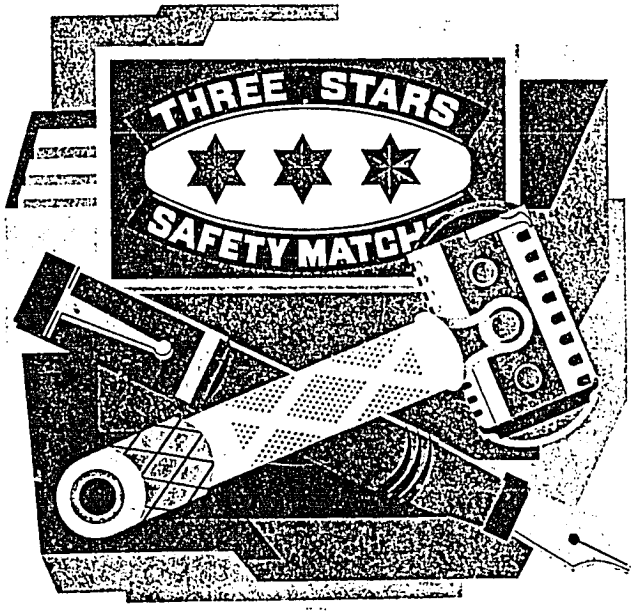

Plate 20. Gerald Murphy, Razor, 1924, o/c, 32 5/8" x 36 1/2".

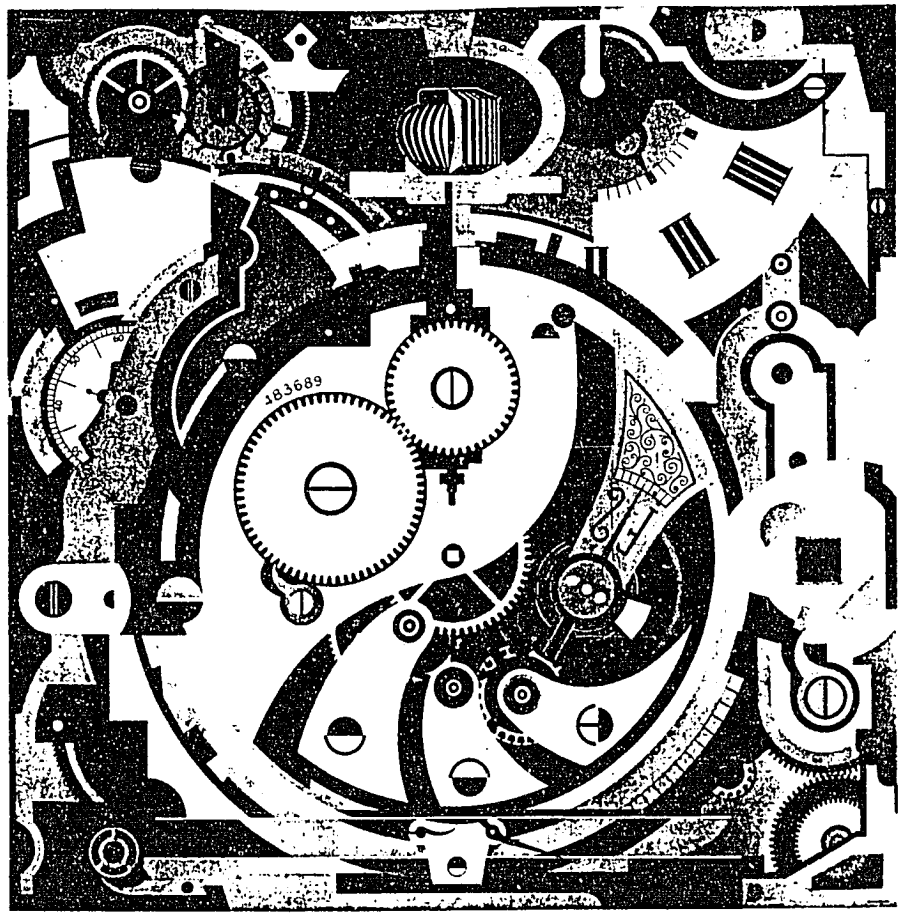

Plate 21. Gerald Murphy, Watch, 1925, o/c, 78 1/2" x 78 1/8".

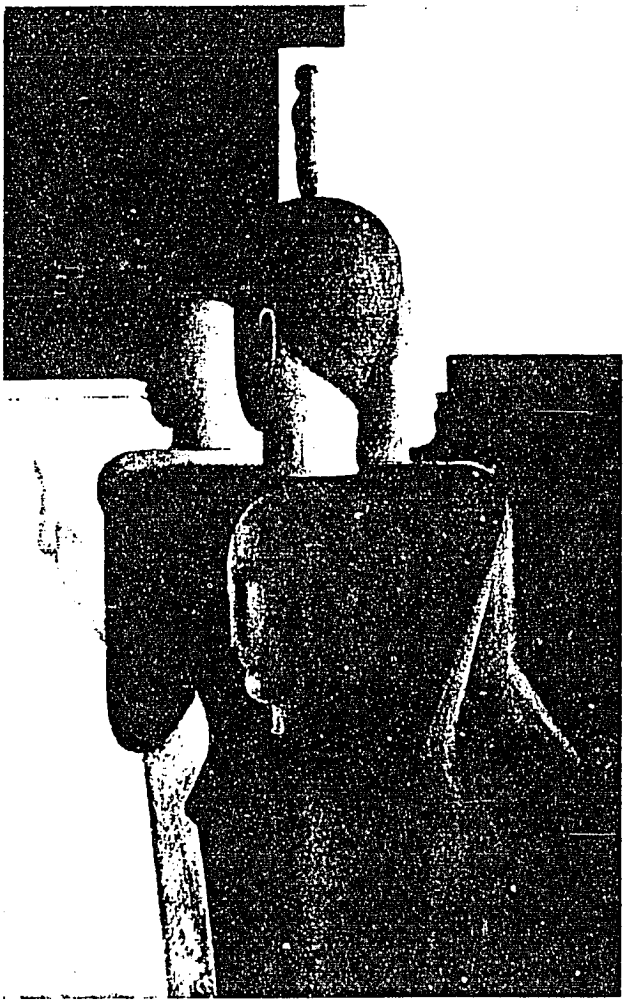

Plate 22. Oskar Schlemmer, Concentric Group, 1925, o/c, 38 3/8" x 24 3/8".

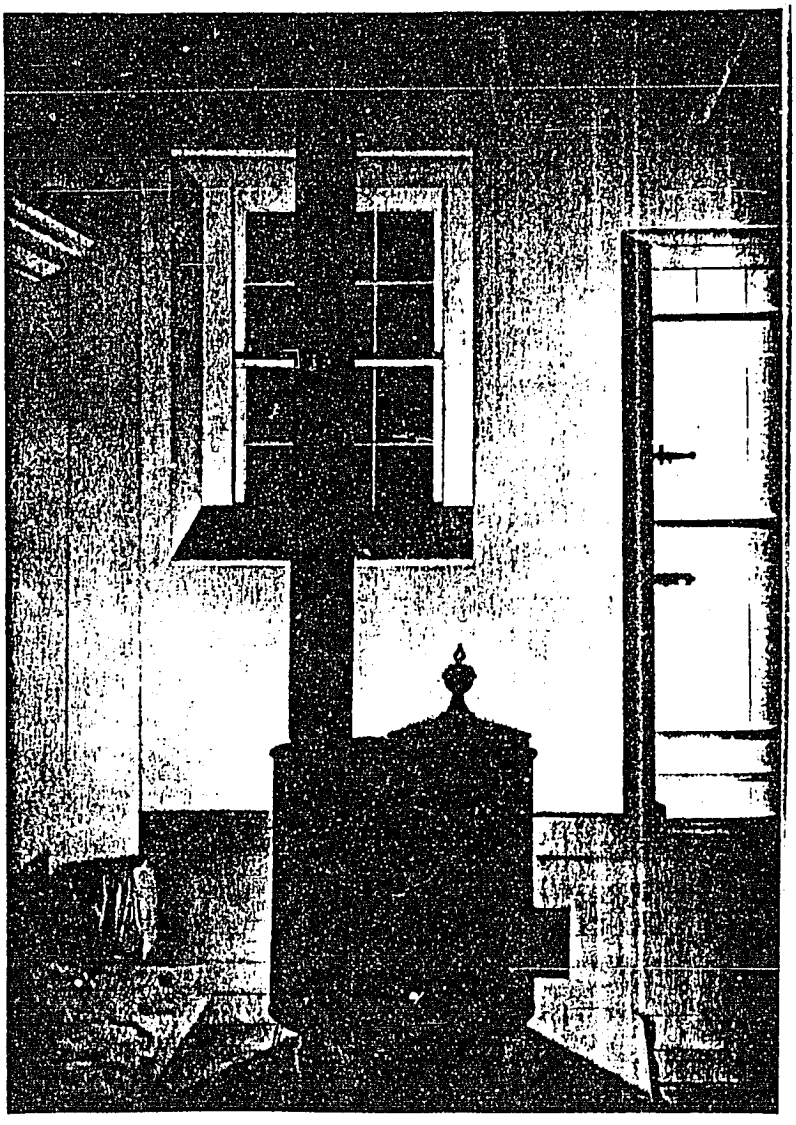

Plate 23. Charles Sheeler, Interior with Stove, 1932, conte crayon, 28 1/2" x 20 1/2".

Plate 24. Oskar Schlemmer, Bauhaus Stairway, 1932, o/c, 63 3/8" x 44 1/2.

Plate 25. Oskar Schlemmer, Window Picture XII, 1942, o/c, 12" x 8 1/8".

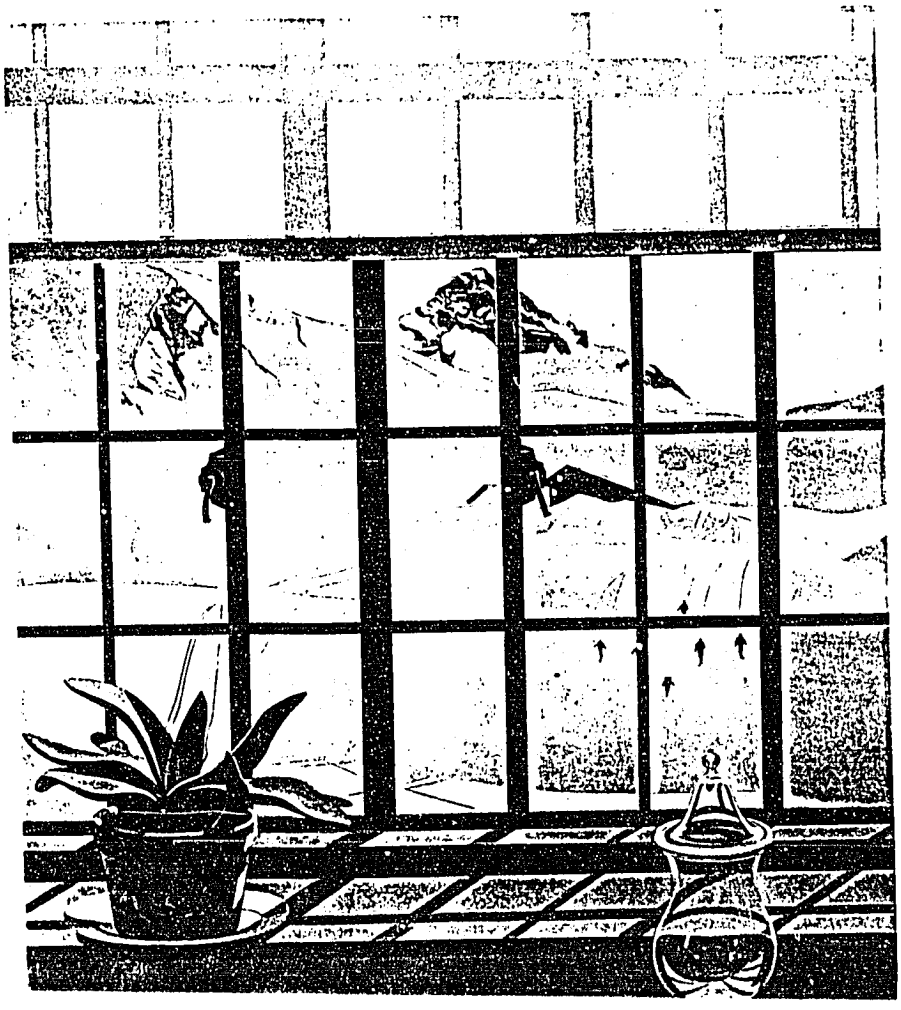

Plate 26. Charles Sheeler, Winter Window, 1941, o/b, 30" x 24".

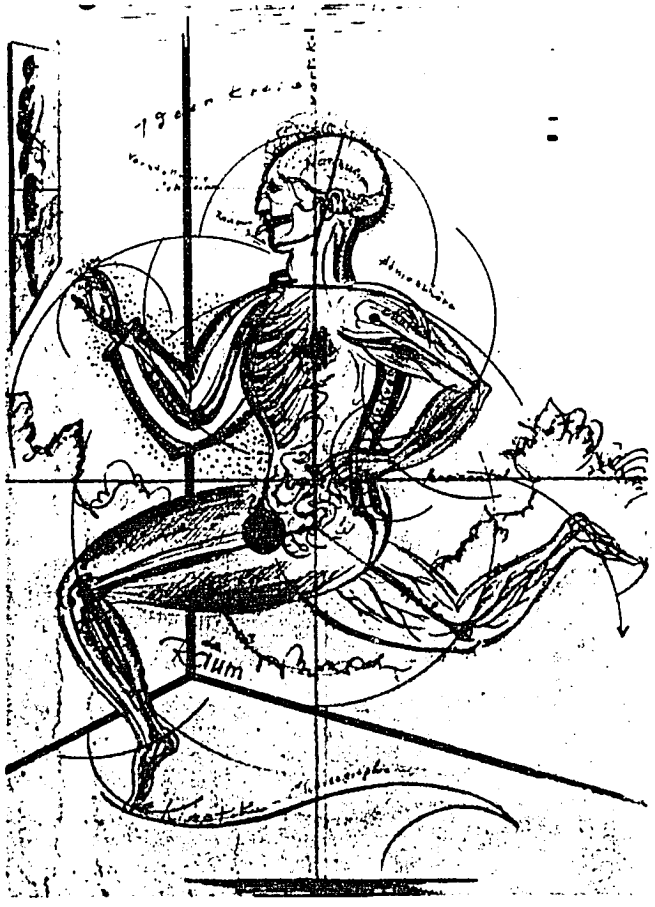

Plate 27. Oskar Schlemmer, Man in the Sphere of Ideas, 1928, ink and pencil, 20 7/8" x 16 1/8".

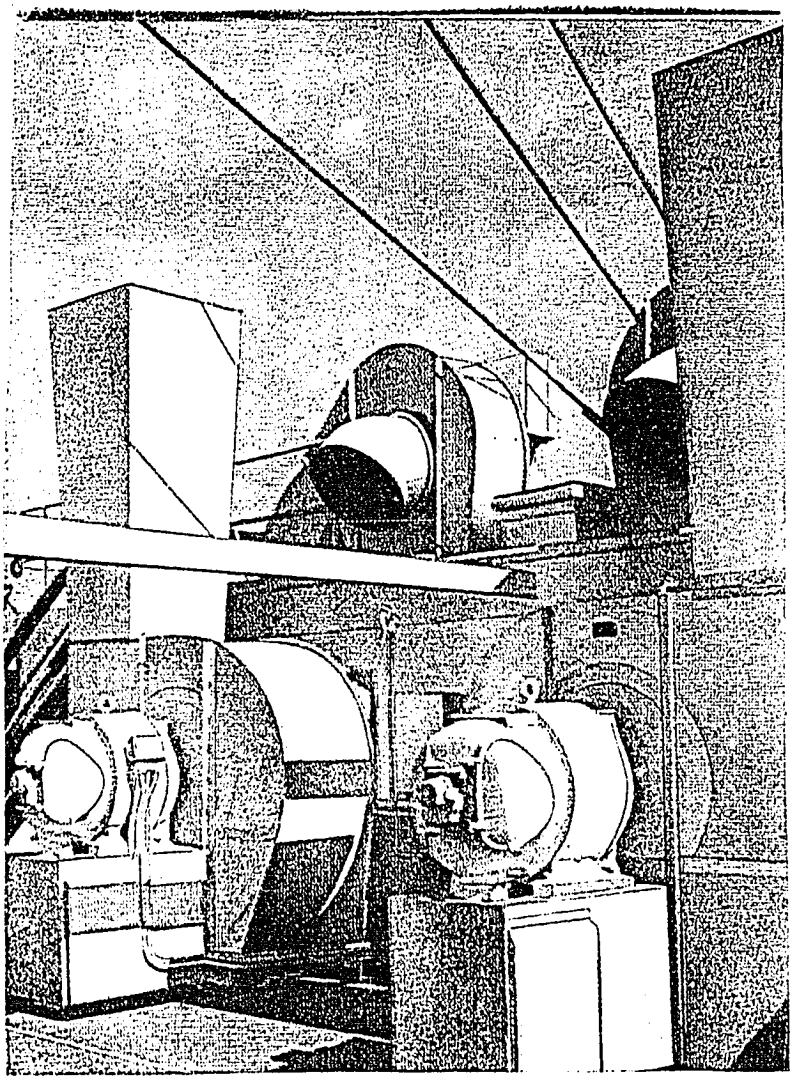

Plate 28. Charles Sheeler, Upper Deck, 1929, o/c, 29 1/8" x 22 1/8."

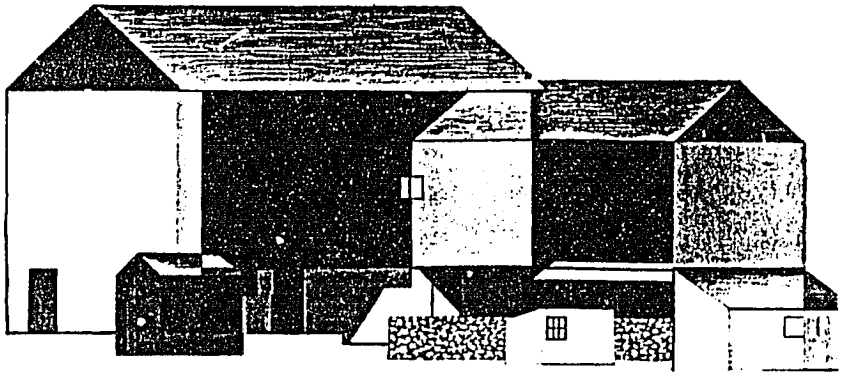

Plate 29. Charles Sheeler, Barn Abstraction, 1946, tempera on paperboard, 22" x 29 1/2".

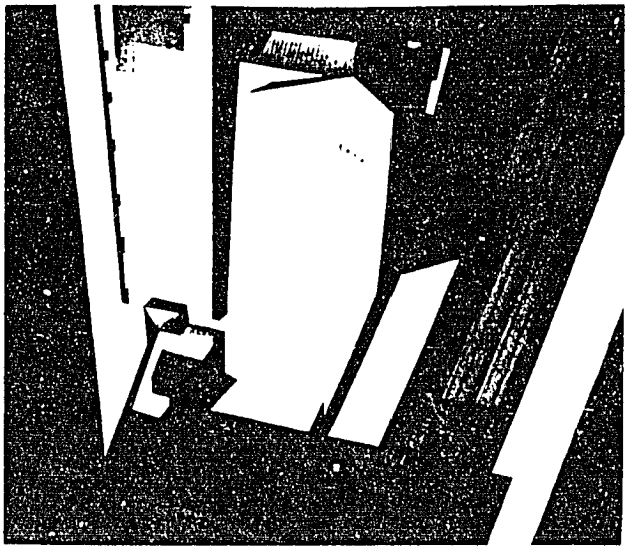

Plate 30. Charles Sheeler, Church Street El, 1920, o/c, 16 1/8" x 19 1/8".

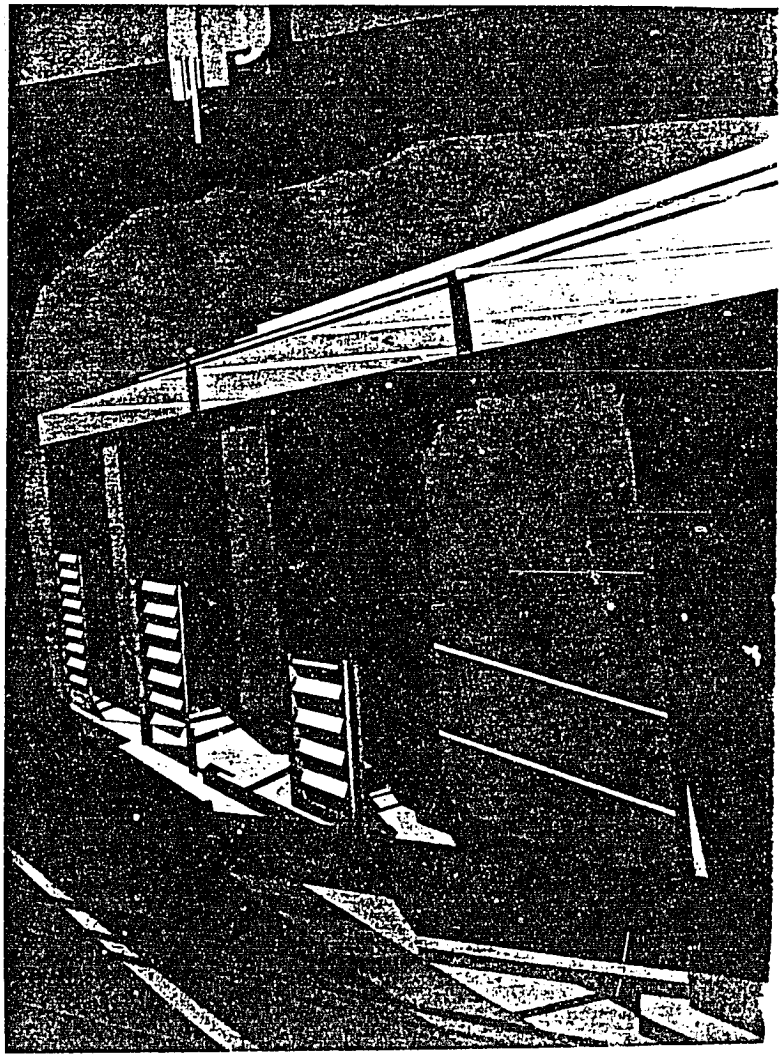

Plate 31. Charles Sheeler, Golden Gate, 1955, o/c, 25 1/8" x 34 1/8".

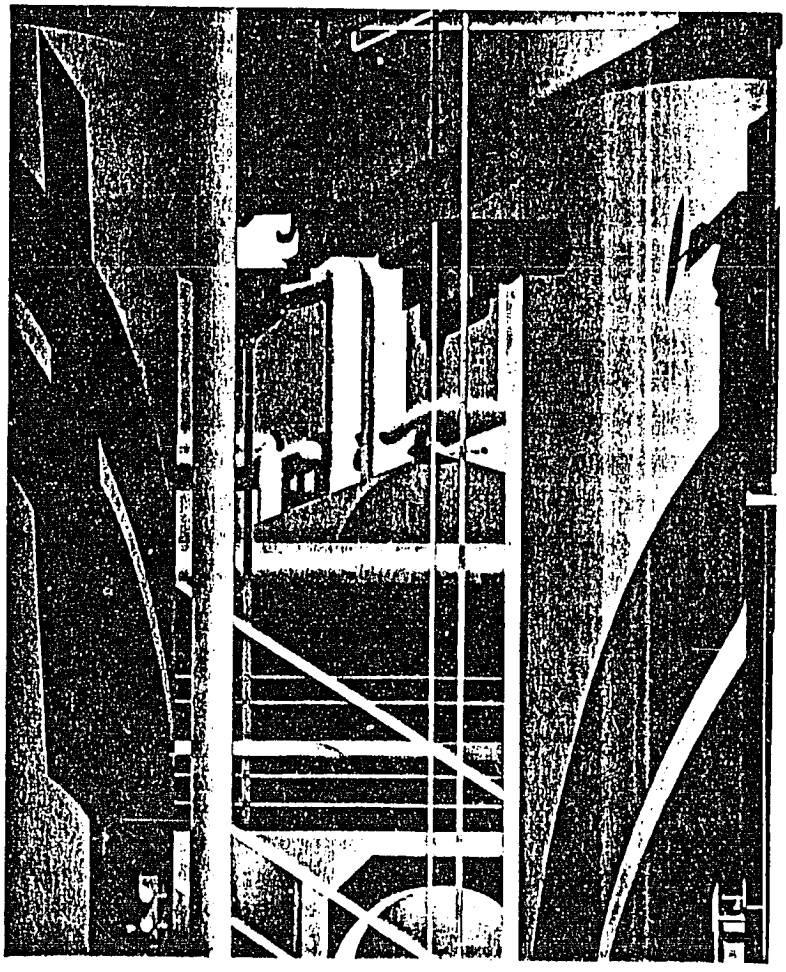

Plate 32. Charles Sheeler, Incantation, 1946, 24" x 20".

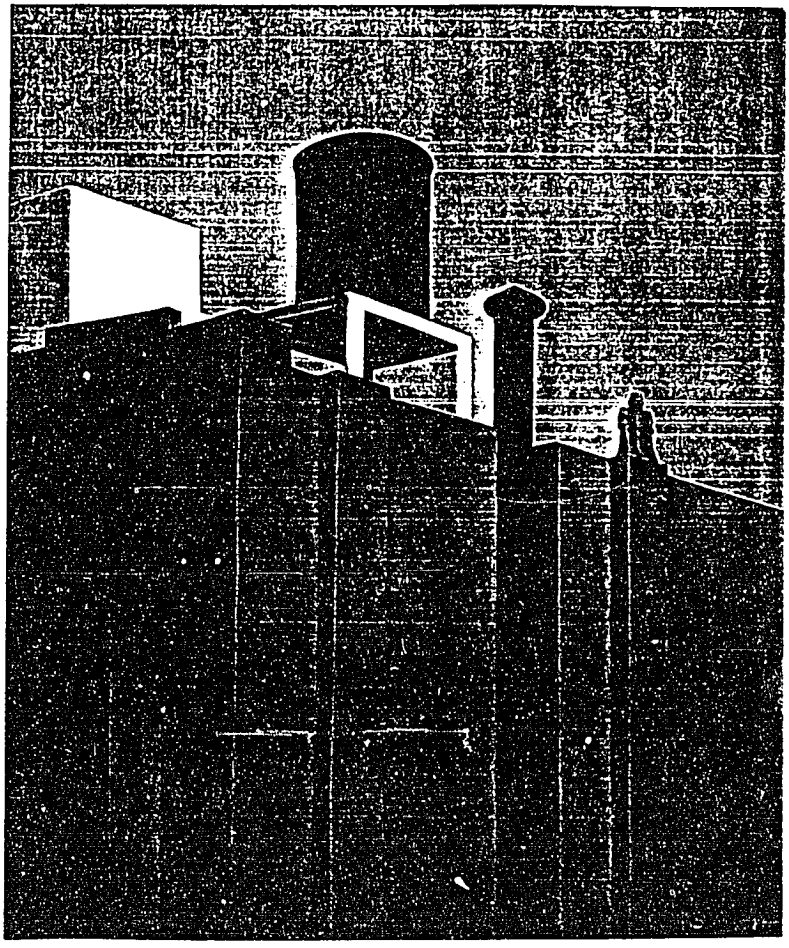

Plate 33. Ralston Crawford, Verticle Building, 1934, o/c, 40 1/8" X 34 1/8".

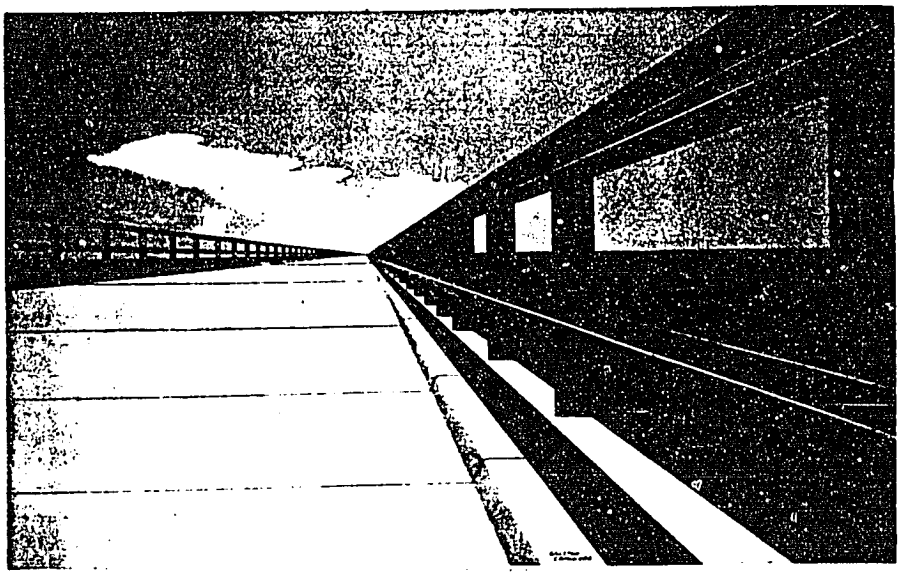

Plate 34. Ralston Crawford, Overseas Highway, 1939, o/c, 28" x 45".

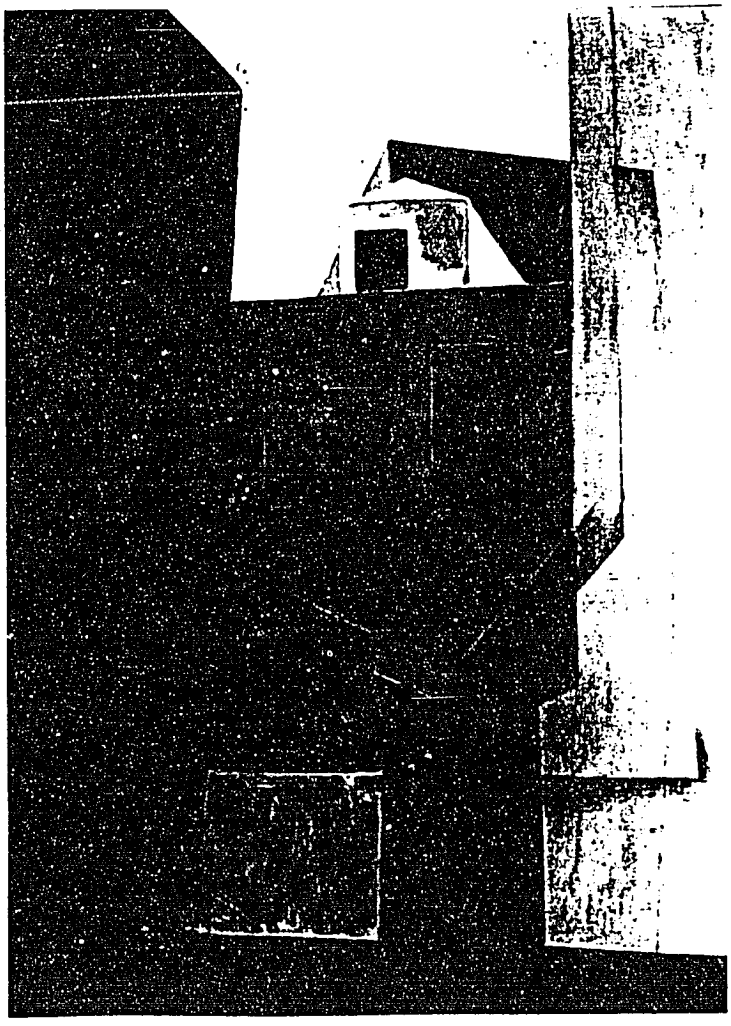

Plate 35. Niles Spencer, The City Walls, 1921, o/c, 39 1/2" x 28 3/4".

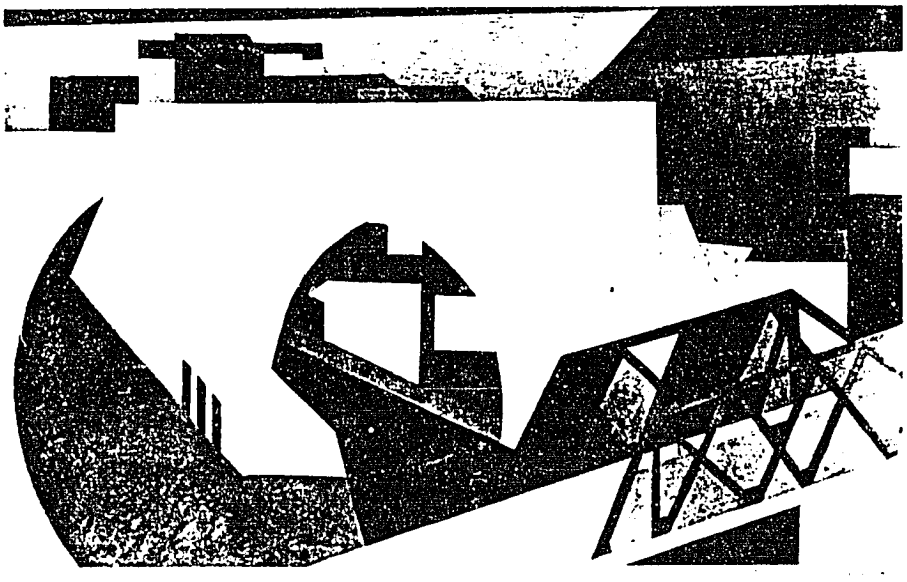

Plate 36. Niles Spencer, Two Bridges, 1947, o/c, 16" x 20".

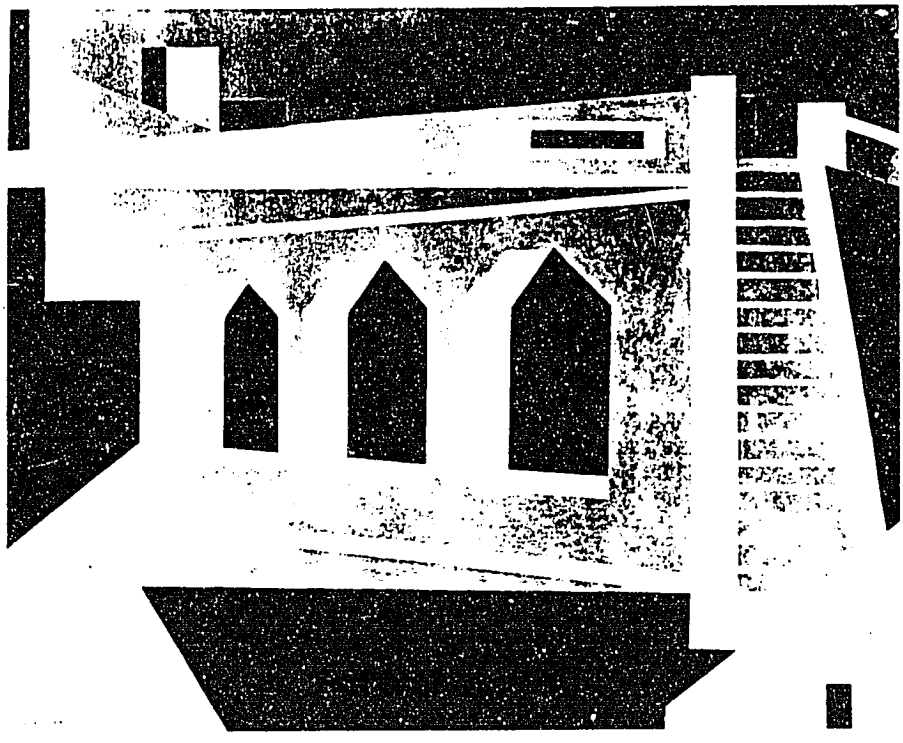

Plate 37. Niles Spencer, Erie Underpass, 1949, o/c, 28" x 36".

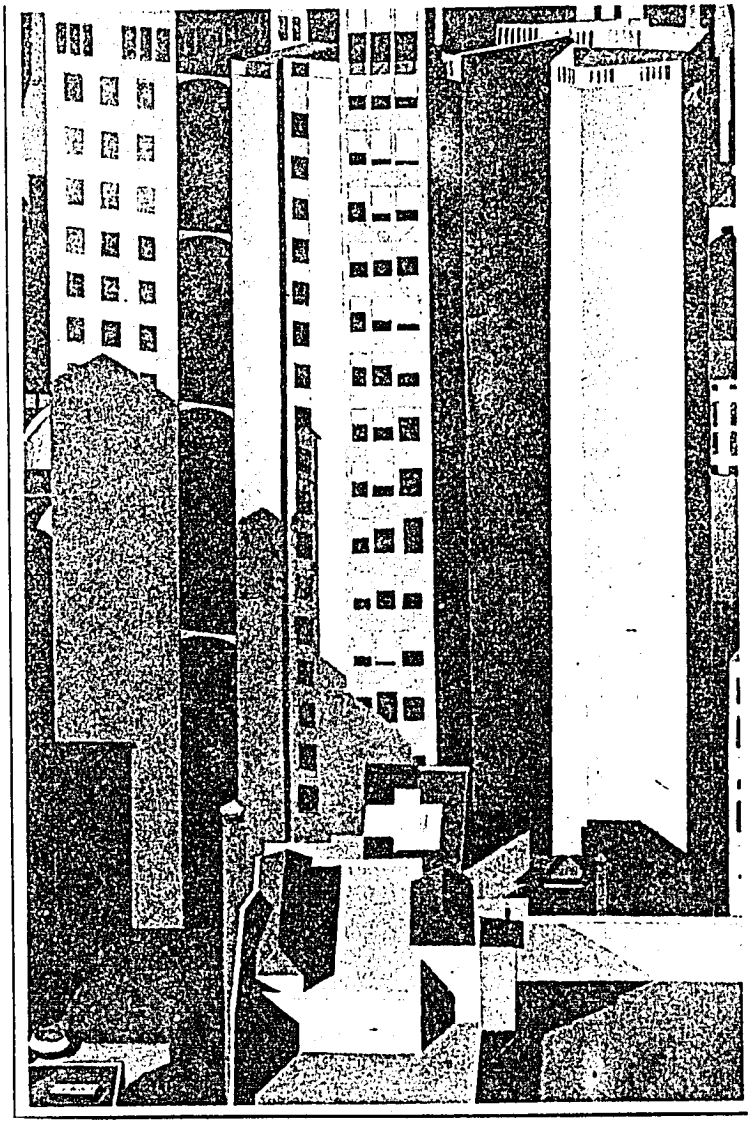

Plate 38. Charles Sheeler, Offices, 1922, o/c, 20" x 13".

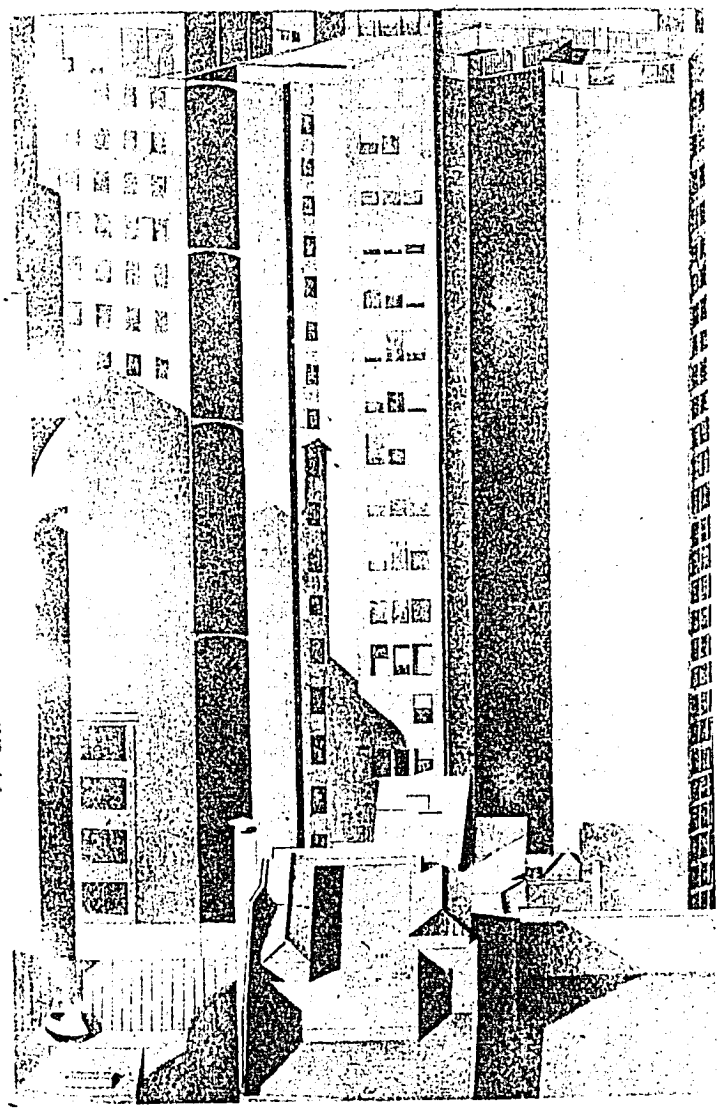

Plate 39. Charles Sheeler, New York, 1920, pencil, 19 7/8 x 13".

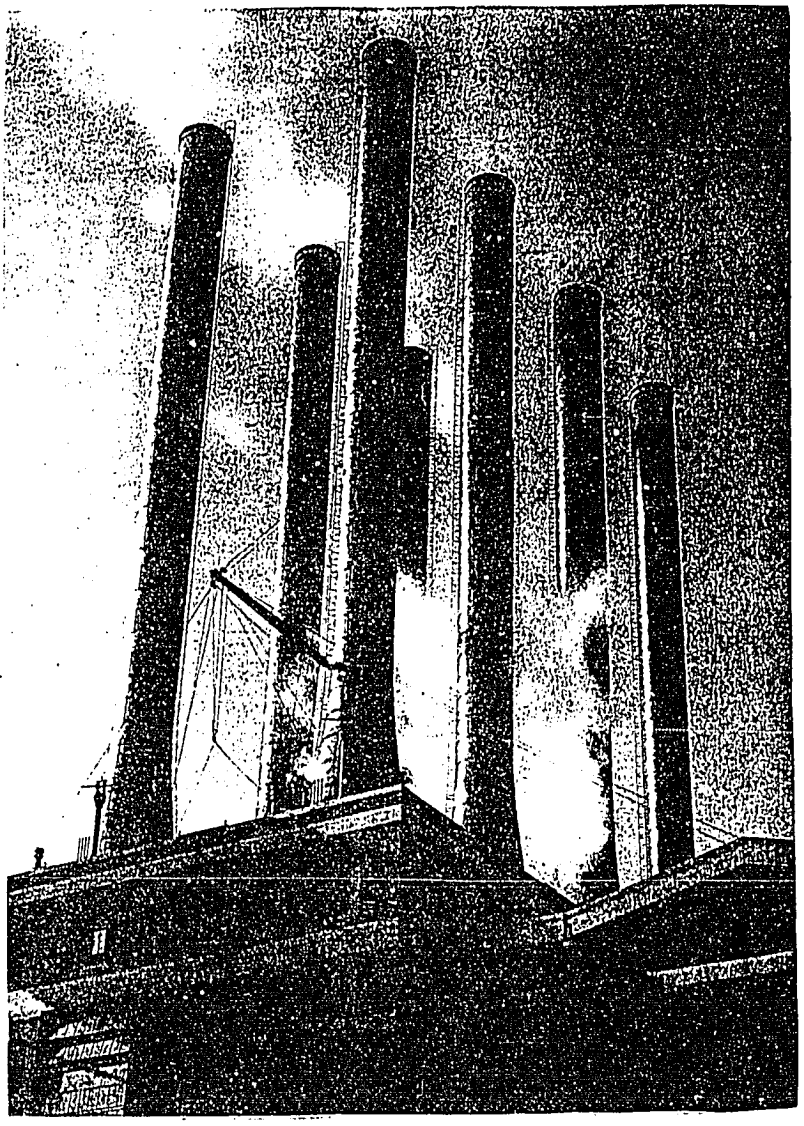

Plate 40. Charles Sheeler, Power House No. 1 - Ford Plant, 1927, photograph, 7 5/8" x 6 1/4".

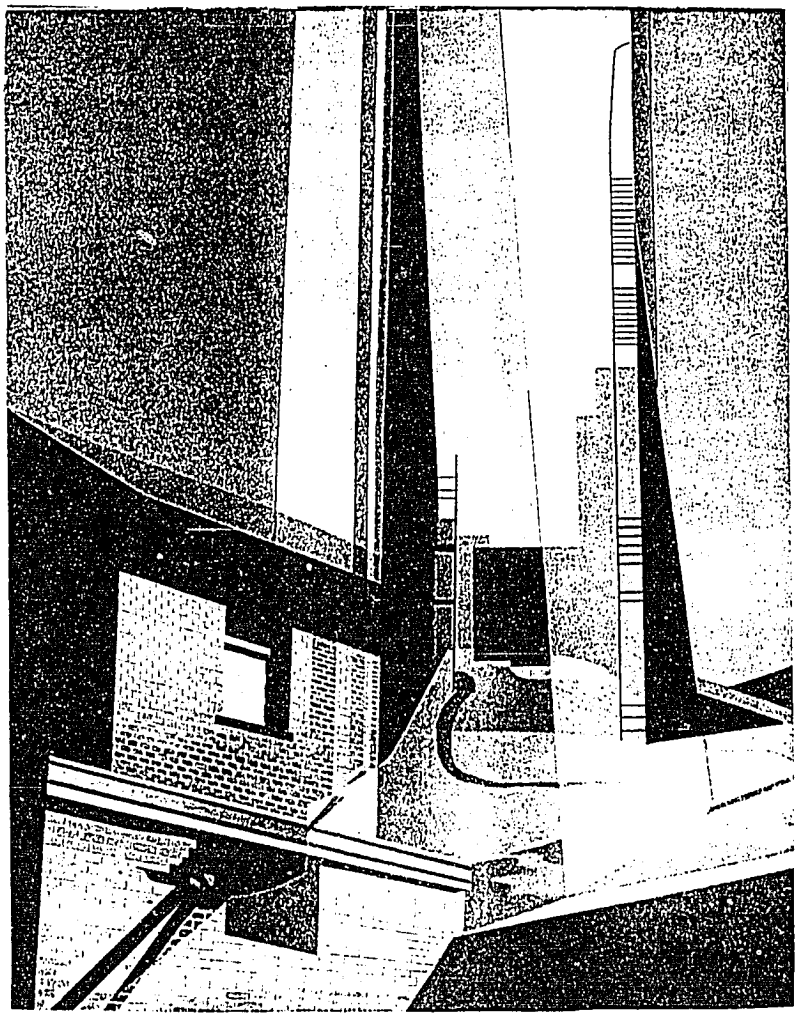

Plate 41. Charles Sheeler, New England Irrelevancies, 1953, o/c, 29 " x 23".

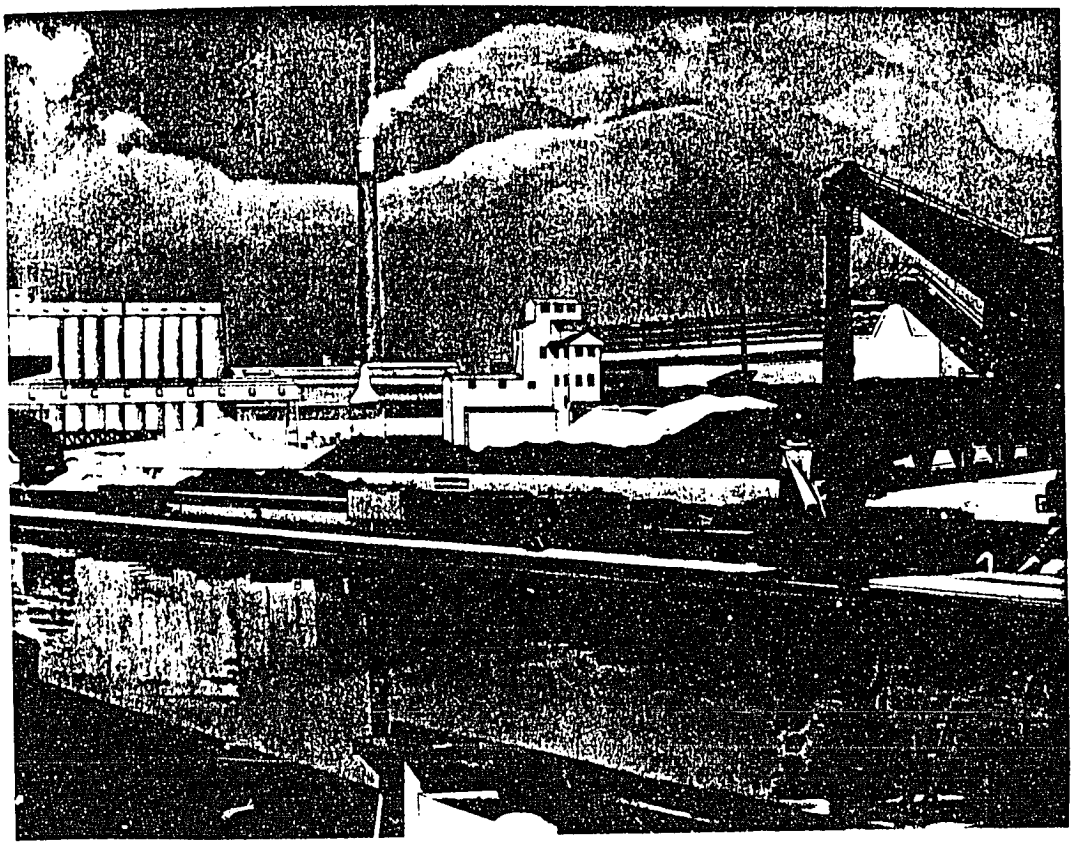

Plate 42. Charles Sheeler, American Landscape, 1930, o/c, 23" x 31".

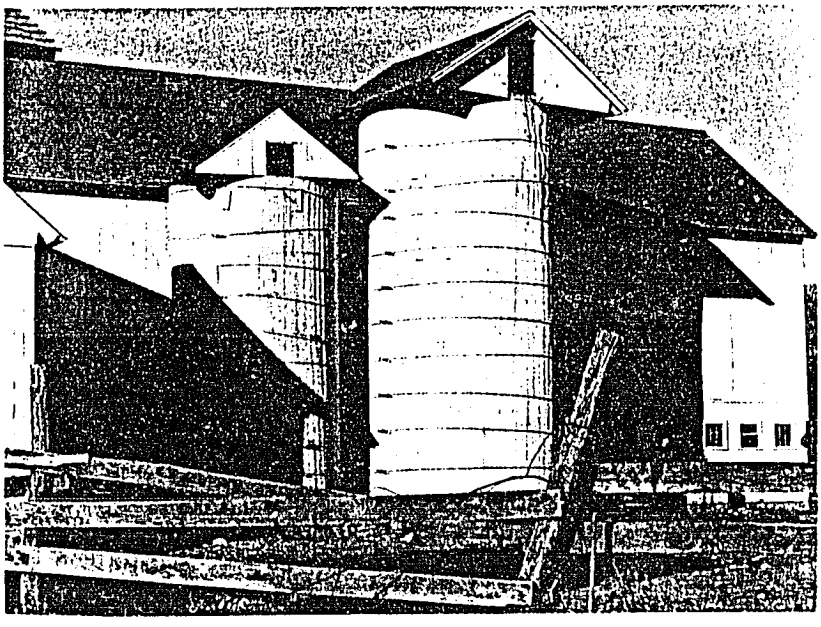

Plate 43. Edward Weston, Connecticut, 1941, gelatin-silver print.

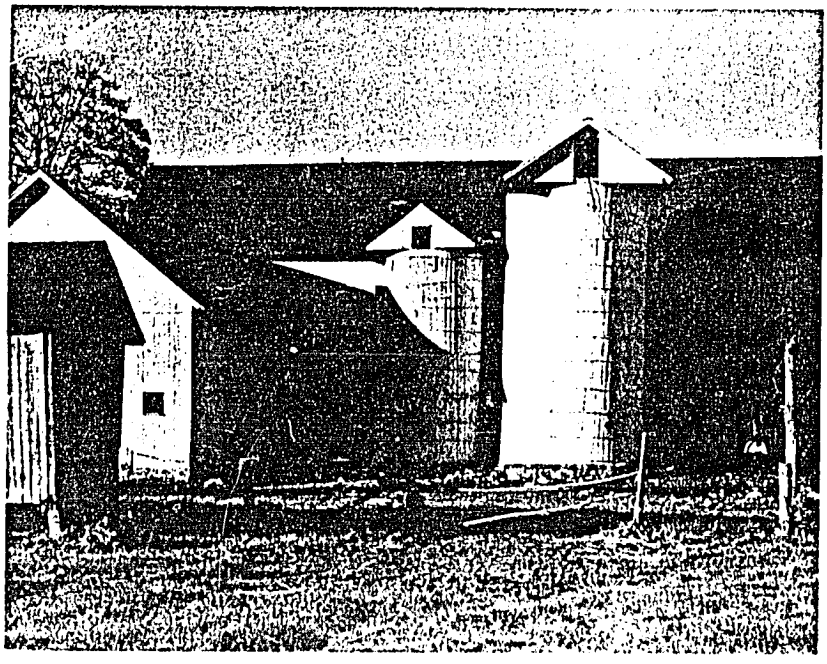

Plate 44. Charles Sheeler, Barn in Connecticut, 1940, gelatin-silver print.

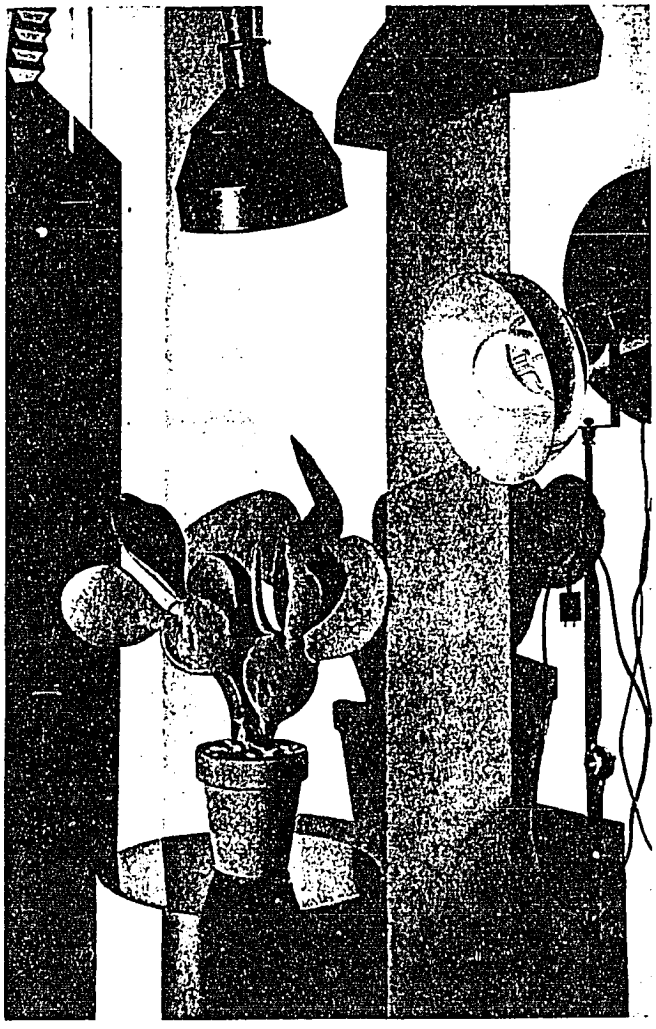

Plate 45. Charles Sheeler, Cactus, 1931, o/c, 45 1/8 x 30".

Plate 46. Edward Weston, Old Adobe, 1934, photograph.

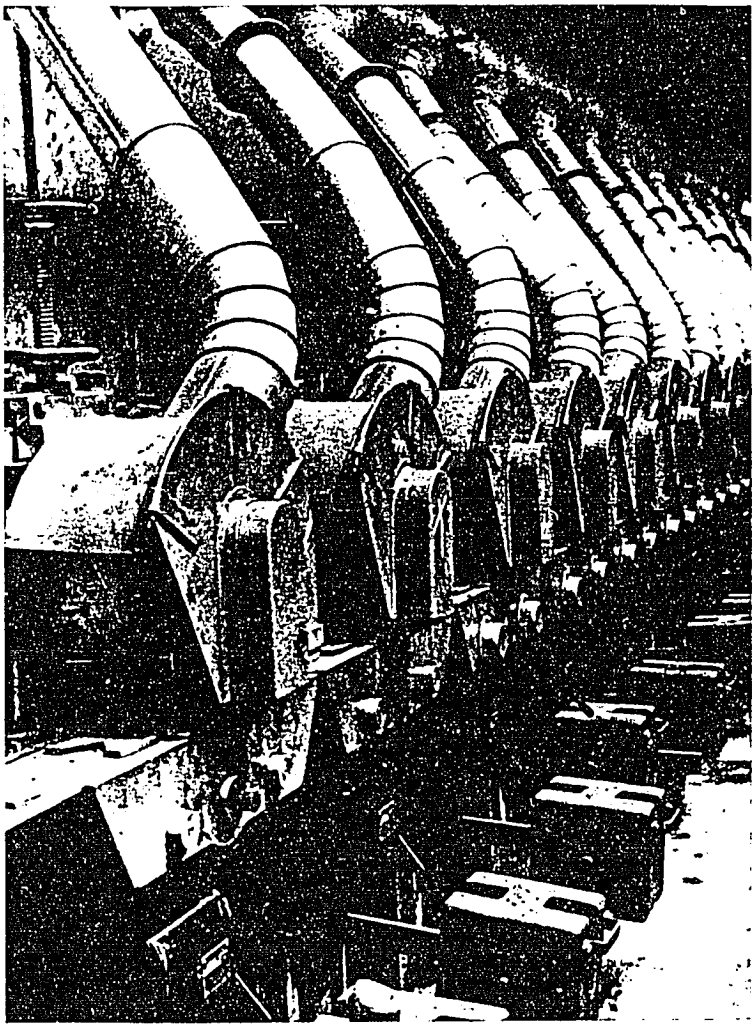

Plate 47. Albert Renger-Patzch, Chain of Insulators, 1925, photograph.

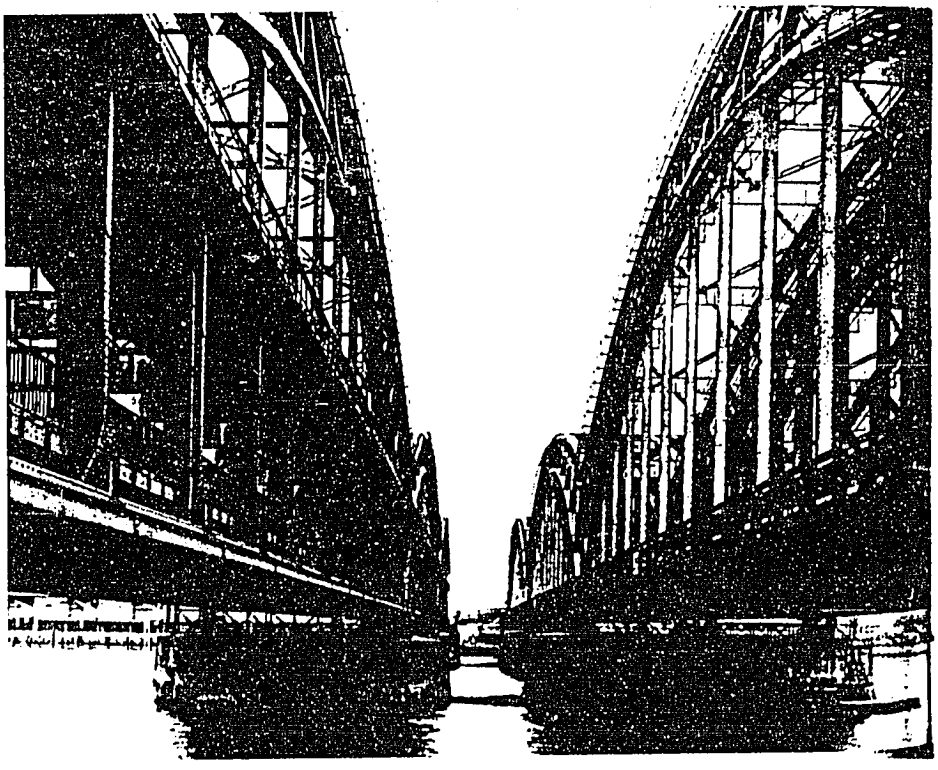

Plate 48. Albert Renger-Patzsch, Hamburg, 1926, photograph.

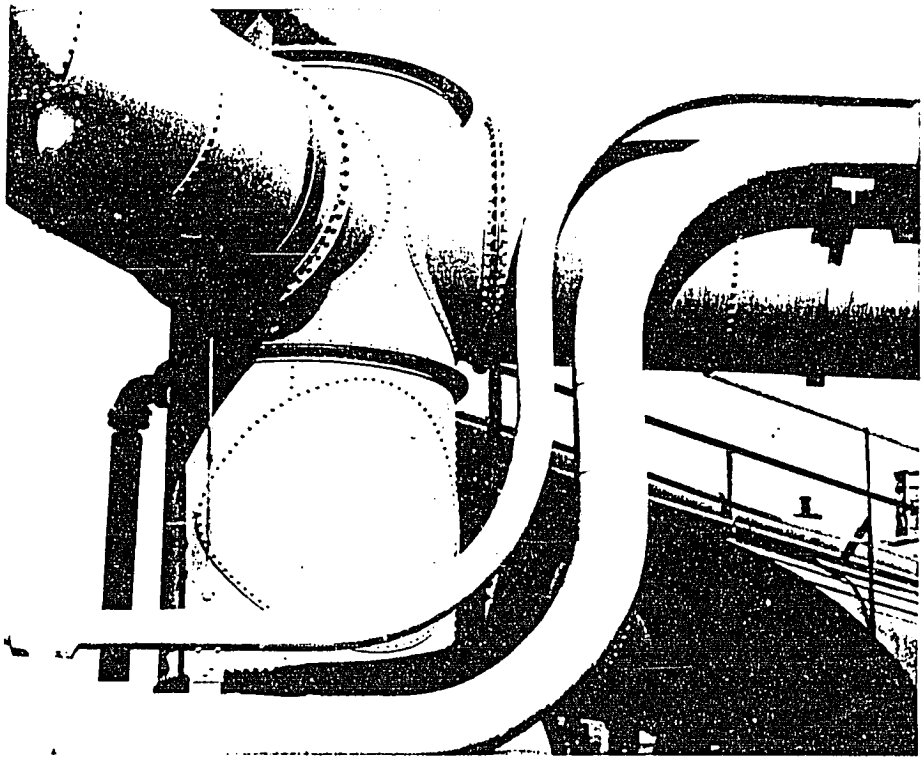

Plate 49. Albert Renger-Patzsch, Main gas line in the Ilseder plant, 1927, photograph.

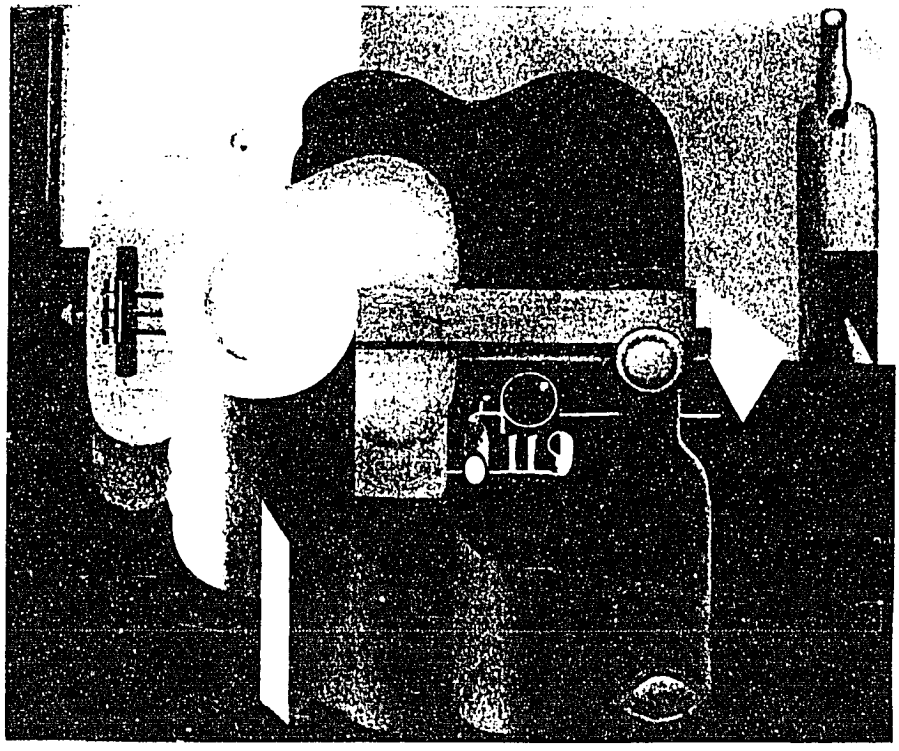

Plate 50. Le Corbusier (Charles-Edouard Jeanneret) Still Life, 1920, o/c, 31 7/8" x 39 1/4".

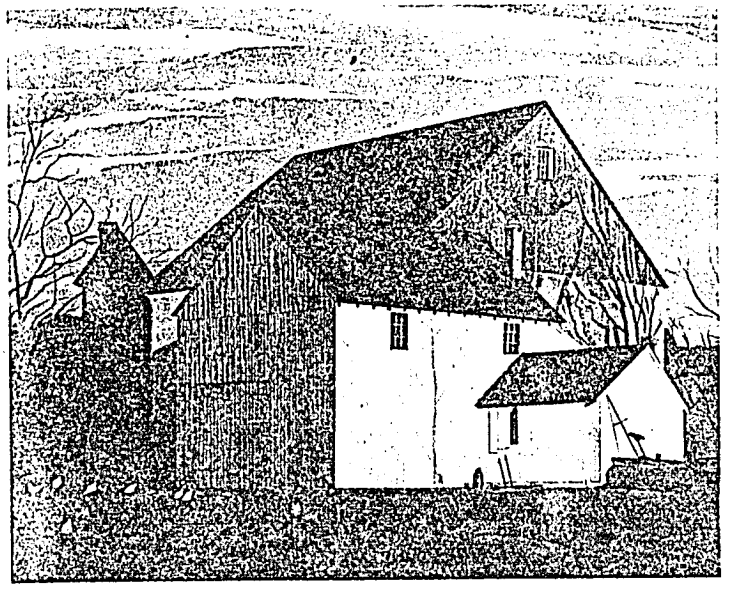

Plate 51. Charles Sheeler, Bucks County Barn, 1932, o/c, 23 7/8" x 29 7/8".

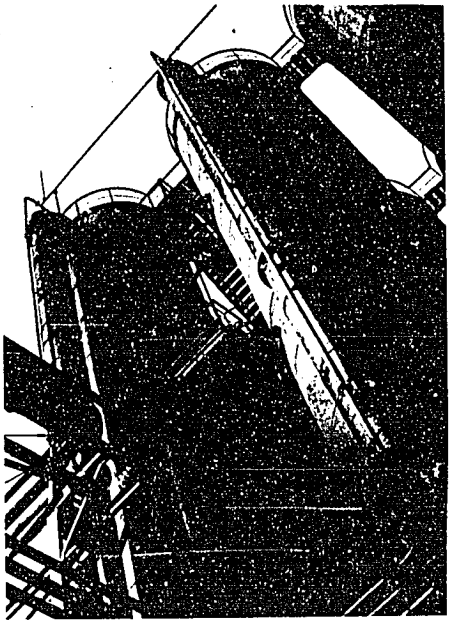

Plate 52. Max Burchartz, Coking Plant, 1930, photograph.

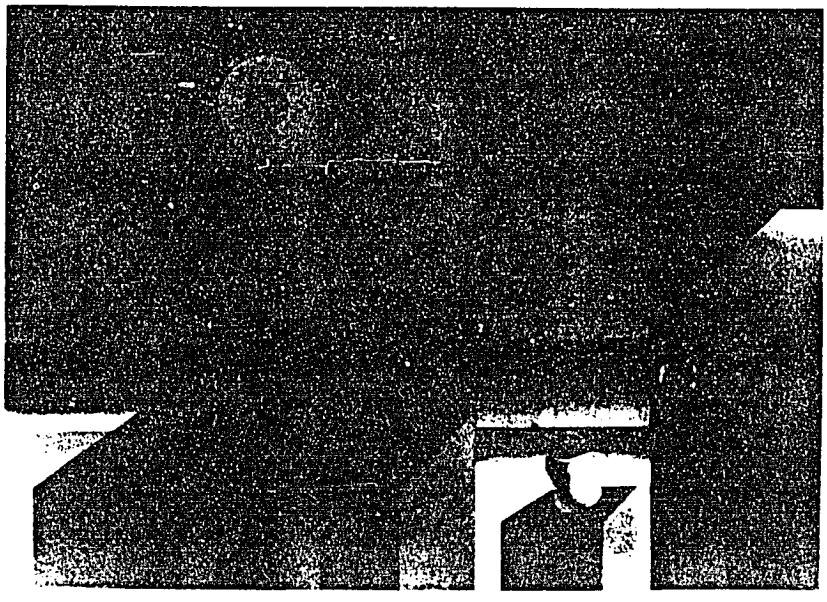

Plate 53. Heinrich Hoerle, Factory Scene, 1926, o/c.

Plate 54. George Ault, Factory Chimney, 1924, o/c, 30" x 16".

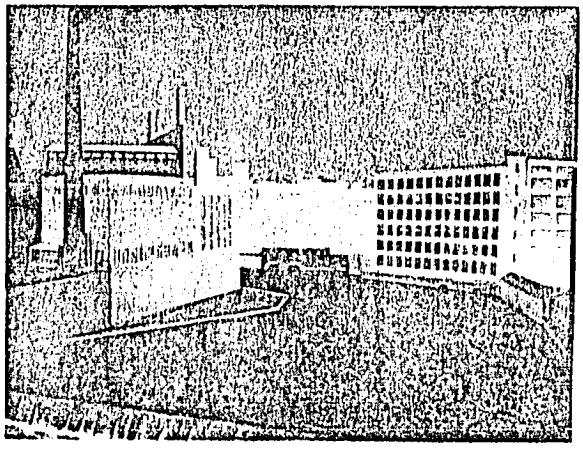

Plate 55. Stefan Hirsch, Milltown, 1925, o/c, 30" x 40".

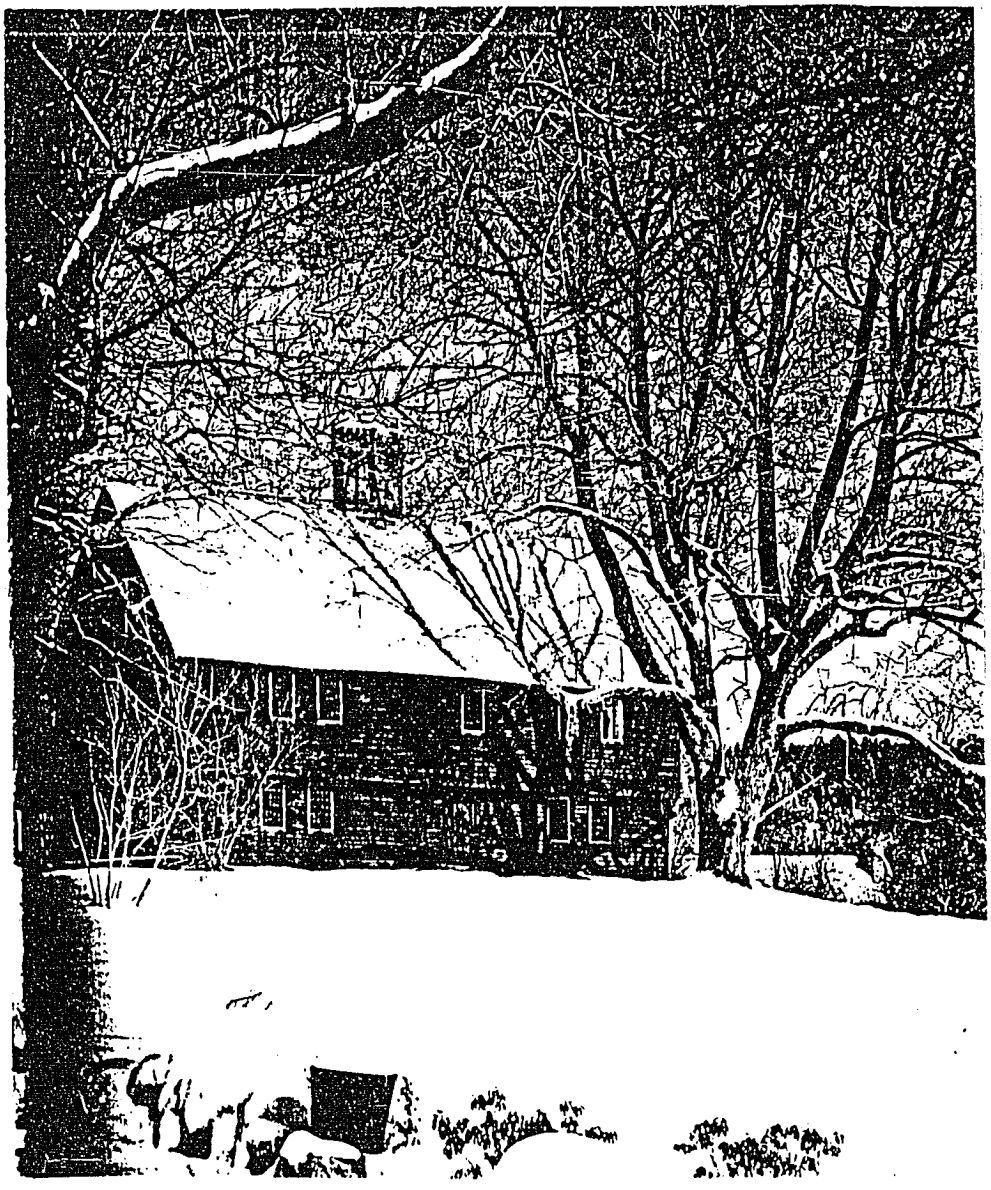

Plate 56. Parson Capen House, 1683.

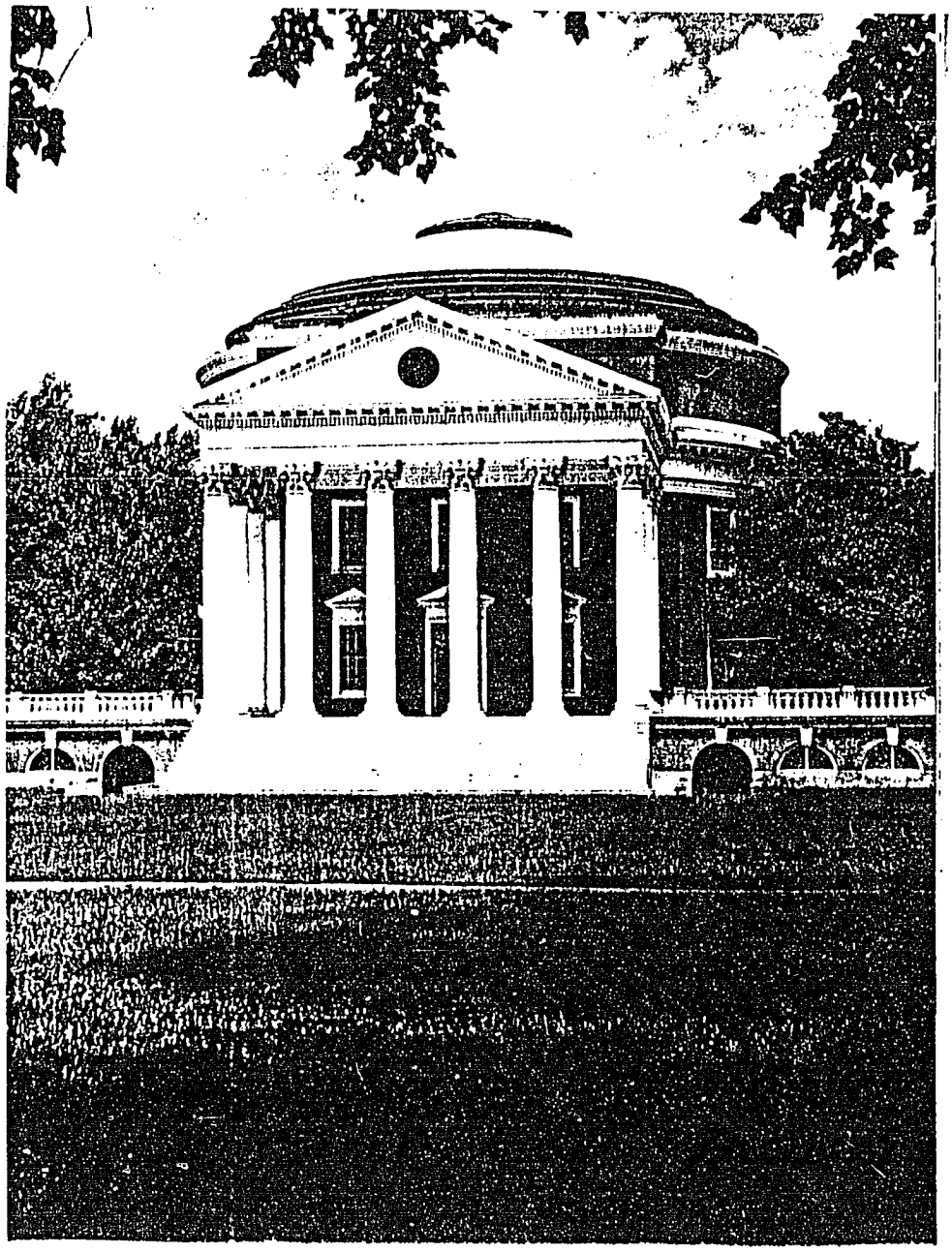

Plate 57. Thomas Jefferson, University of Virginia 1817-26.

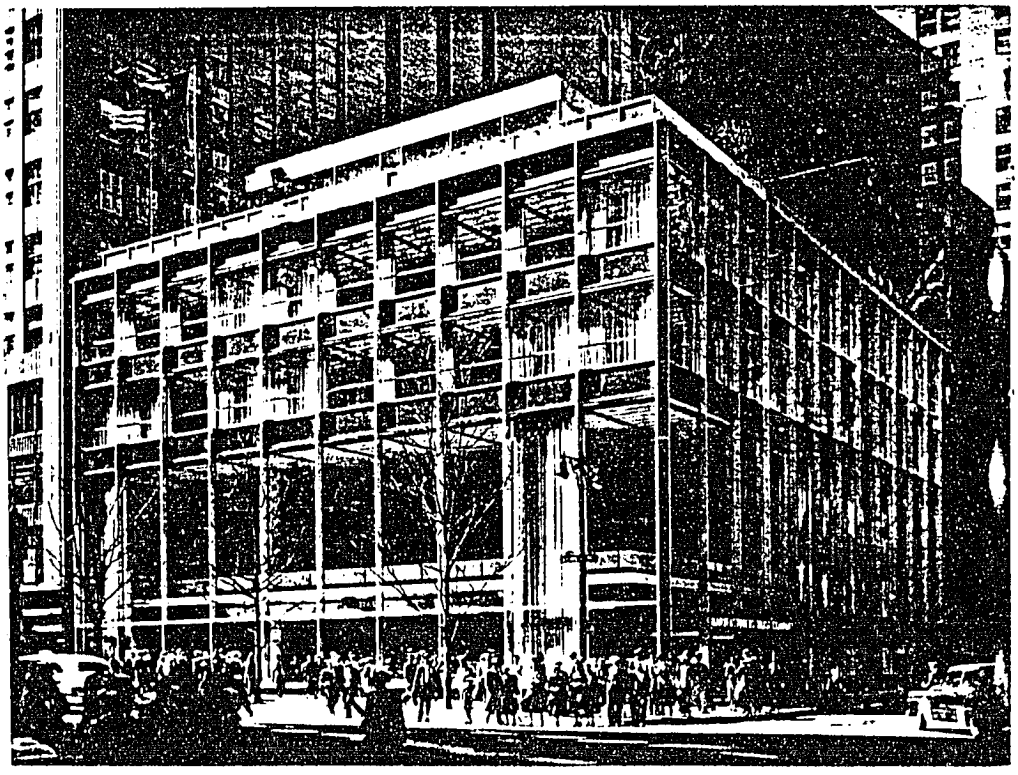

Plate 58. Skidmore, Owings and Merrill, Manufactures Hanover Trust Company Bank, 1954.

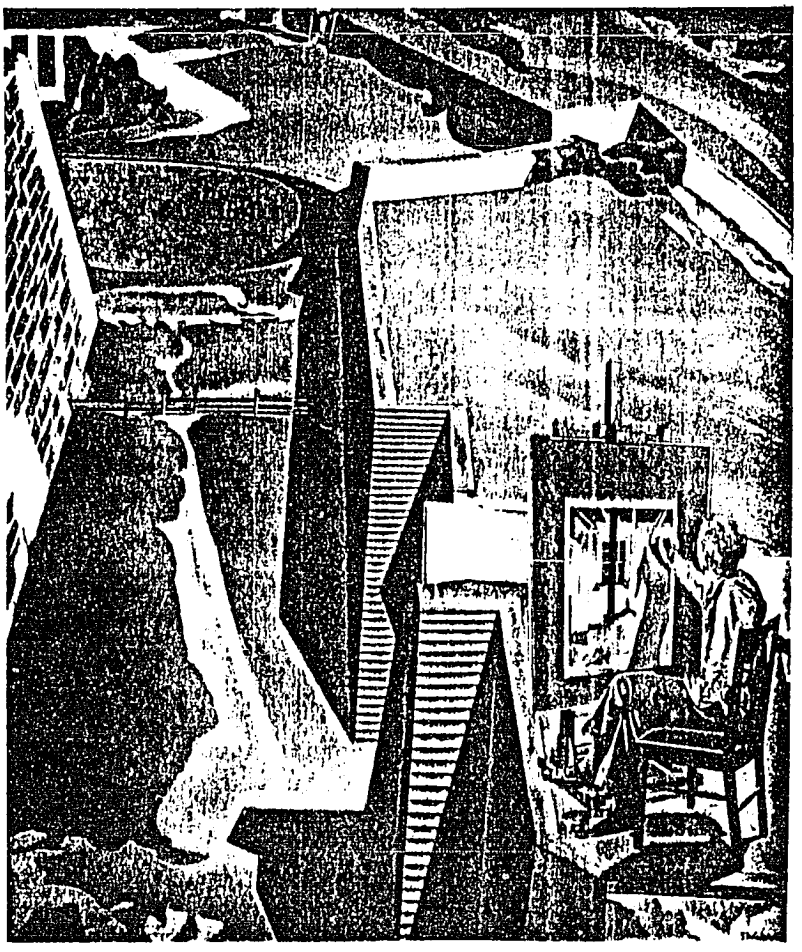

Plate 59. Charles Sheeler, The Artist Looks At Nature, 1943, o/c, 21" x 18".

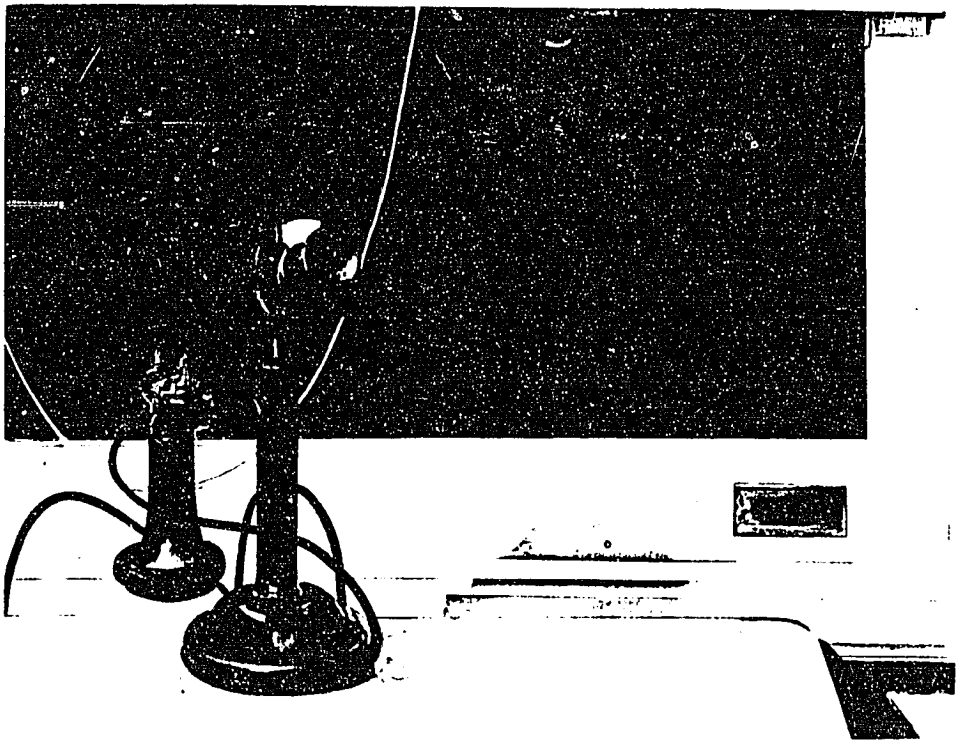

Plate 60. Charles Sheeler, Self-Portrait, 1923, pencil, conte crayon and water color, 19 3/8" x 25 1/2".

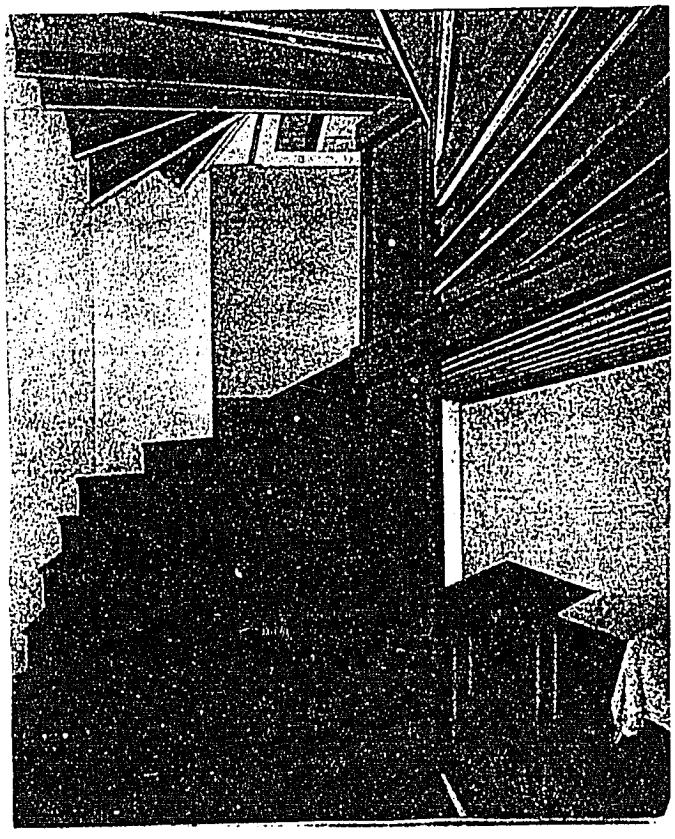

Plate 61. Charles Sheeler, Staircase, Doylestown, 1925, o/c, 25 1/8" x 21 1/8".

SELECTED BIBLIOGRAPHY: BOOKS, ARTICLES, EXHIBITION CATALOGUES, UNPUBLISHED SOURCES AND MANUSCRIPTS

****

BOOKS

American Abstract Artists. New York: Ram Press, 1946.

American Abstract Artists. The World of Abstract Art. New York: George Wittenborn Inc., 1957.

Armitage, Merle. The Art of Edward Weston. New York: Weyhe, 1932."

Arnason, H.H. The Classic Tradition in Contemporary Art. Minneapolis: Walker Art Center, 1953.

Art Center New York. The Art Center and Industry. New York: 1926.

Art Directors Club, New York. Annual of Advertizing Art in the United States. 1921-47. New York: Publishing Printing Co..

Bach, Richard, F. Museums and the Industrial World. New York: Metropolitan Museum of Art, 1926.

Banham, Reyner. Theory and Design in the First Machine Age. New York: Praeger, 1967.

Barr, Alfred. Defining Modern Art Selected Writings of Alfred H. Barr. New York: Harry N. Abrams, Inc., 1986.

Baur, John. Revolution and Tradition in Modern American Art. Cambridge: Harvard University Press, pp. 59-60.

Born, Wolfgang. American Landscape Painting. New Haven: Yale University Press, 1948.

Cahill, Holger. America as Americans. New York: Harcourt Brace & Co., 1932.

Castro, Jan Garden. The Art and Life of Georgia O'Keefe. New York: Crown Publishers Inc., 1985.

Chase, Stuart. Men and Machines. New York: 1929.

Cheney, Sheldon and Cheney, Martha Chandler. Art and the Machine. New York: McGraw Hill, 1936.

Davidson, Abraham. Early American Modern Painting 1910-1935. New York: Harper and Row, 1981.

Dewey, John. "Americanism and Localism." The Dial, (June 1920), pp. 684-688.

Eberle, Matthias. WW II and the Weimar Artists. New Haven: Yale University Press, 1985.

Eiseman, Alvord. Charles Demuth. New York: Watson-Guptill, 1982.

Farnham, Emily. Behind a Laughing Mask. Oklahoma: 1971.

Frank, Waldo. Mumford, Lewis. America and Alfred Stieglitz. New York: Doubleday, Doran and Co., Inc., 1934.

Frank, Waldo. William Carlos Williams The American Background America and Alfred Stieglitz. New York: The Literary Guild, Doubleday, Doran and Co., Inc., 1934.

Frankl, Paul. New Dimensions. New York: 1928.

Frankl, Paul. Form and Re-Form. New York: Harper and Bro, 1930.

Friedman, Martin. Charles Sheeler. New York: Watson-Guptill, 1975.

Greenberg, Clement. The Collected Essays and Criticism v. 1. 1939-44. The University of Chicago Press, 1986.

Gropius, Walter. The New Architecture and the Bauhaus. (Translated by P. Morton Strand). London: Faber and Faber Limited, 1935.

Guggenheim, Margerite. Art of This Century. New York: Art Aid Corp., 1935.

Homer, William. Alfred Stieglitz and the American Avant-Garde. Boston: New York Graphic Society, 1977.

Johnson, Phillip. Machine Art, New York: W. W. Norton & Co., Inc., 1934.

Jordy, William H. The Intelligent Migration Europe and America 1930-60. Massachusetts: Harvard, 1969.

Josephson, Matthew. Portrait of the Artist as American. New York: Octagon Books, 1930.

Kahn, Ely. Design in Art and Industry. New York: Charles Saunders' Sons, 1935.

Keppel, Frederick. The Arts in American Life. New York: 1933.

Kootz, Samuel. Modern American Painters, New York: 1930.

Kouwenhoven, John A. Half a Truth is Better Than One. The University of Chicago Press: 1982.

Kouwenhoven, John A. Made in America. New York: Doubleday & Company, Inc., 1948.

Le Corbusier. Towards A New Architecture. (New York: Fred Etchells, Payson and Clarke, ltd.), 1927.

Lozowick, Louis. Modern Russian Art, New York: Société Anonyme, 1925.

Lucic, Karen. Charles Sheeler and the Cult of the Machine Age. Cambridge: Harvard University Press, 1991.

Marx, Leo. The Machine and the Garden. London, Oxford, New York: 1964.

Meikle, Jeffrey L. Twentieth Century Limited: Industrial Design in America 1925-39. Philadelphia: Temple University Press, 1979.

Moholy-Nagy, Sibyl. Painting, Photography and Film. New York: 1967.

Moholy-Nagy, Sibyl. The New Vision. (Translated by Daphne E. Hoffmann), New York: Brewer, Warren and Putnam Inc., 1930.

Mumford, Lewis. Sticks and Stones. New York: Dover, 1924.

Newhall, Beaumont. The History of Photography from 1838 to the Present Day. New York: Moma, 1964.

O'Brien, Edward. The Dance of the Machines. New York: 1929.

O'Keeffe, Georgia. Georgia O'Keeffe. New York: Viking Press, 1976.

Ozenfant, Amédée. Foundations of Modern Art. London: John Rocker, 1931.

Pearson, Ralph. The New Art Education. New York: Harper Brothers Pub, 1941.

Richter, G. ed.. Lissitzky and Werner Graff. (Berlin: 1926).

Richards, Charles. Industrial Art and the Museum. New York: Macmillan, 1927.

Rosenberg, Harold. The Tradition of the New. New York: Horizon Press, 1959.

Rosenfield, Paul. Portrait of New York City, New York: Harcourt, Brace and Company, 1924.

Rourke, Constance. The Roots of American Culture. New York: Harcourt, Brace and Company, 1942.

Schmied, W. and Eskilden, Ute. Neue Sachlikeit and German Realism of the 1920's. London: Arts Council, 1978.

Sexton, R. W. The Logic of Modern Architecture, New York, Architectural Book Publishing Company, 1929.

Sexton, R. W. The Logic of American Commercial Buildings of Today. New York, Architectural Book Publishing Company, 1929.

Slobodkina, Esphyr. AAA. New York: J. L. S. Printing Corp., 1979.

Smith, Bernard. Concerning Contemporary Art. Oxford: Clarendon Press, 1975.

Tashjian, Dickran. Skyscraper Primitives. Connecticut: Wesleyan University Press, 1976.

Teague, Walter Dorwin. Design This Day: The Technical Order in the Machine Age. New York: Harcourt, Brace And Company, 1940.

Theobald, Paul. Laszlo Moholy-Nagy Vision in Motion. Chicago: Sibyl Moholy-Nagy, 1947.

Veblen, Thorstein. The Place of Science in Modern Civilization. (New York: Rus & Rus), 1961.

Weston, Edward. Daybooks. Rochester: George Eastman House, 1961.

Weston, Edward. The Flame of Recognition. New York: Museum of

Modern Art, (edited by Beaumont Newhall), 1975.

Williams, William Carlos. Charles Sheeler Paintings, Drawings and Photographs. Museum of Modern Art, New York, 1939.

Wingler, Haus M. The Bauhaus. Cambridge: M. I. T. Press, 1969.

ARTICLES

"A Letter from Georgia O'Keefe." Magazine of Art, 37 (February 1944), p. 40.

"A Note on Georgia O'Keefe." Contemporary Arts, (November-December 1932), n.p.

Abstraction-Creation, nos 1, 4, (1932, 1935). Paris: Arno Press.

Addison Gallery of American Art. "European Artists Teaching in America." Addison Gallery of American Art Bulletin, 1944.

Albers, Joseph. "A Note on the Arts in Education." American Magazine of Art 29, no. 4 (April 1936), p. 233.

Albers, Joseph. "Art as Experience." Progressive Education, 12 (1935), pp. 391-393.

Albers, Joseph. Scrapbook, no. 1, (1933-40), Museum of Modern Art, New York.

Allora, Pamela. "Charles Demuth." Arts Magazine, 50, no. 10, (June 1936). n.p.

"Americans 1943: Realism and Magic Realism." Art Digest, 17, (February 15, 1943), pp. 6, 27.

Andrews, Faith and Edward D. "Sheeler and the Shakers." Art in America, 53, (February 1965) pp. 91-95.

Arbuthnot, J. "Poor Inventor's." Scientific American II, (August 1847), p. 389.

Bach, Richard, F. "What is the Matter with Our Industrial Art." Art and Decoration. 18 (January 1923), pp. 14-15, 46, 49.

Baldwin, William H. "Modern Art and the Machine Age." The Independent. CXIX (July 9, 1927), p. 39.

Barr, Alfred. "Bauhaus in Controversy." New York Times,

December 26, 1938, section 12, n. p.

Barr, Alfred. "Modern and Modern." The Art Digest, no. 19, (August 1, 1934), p. 13.

_____. "The Museum of Modern Art." The Art News. 28, no. 14 (January 4, 1930), p. 13.

_____. "A Brief Survey of Modern Painting." The Carnegie Magazine. 6 (March 1933), pp. 308-313.

Barker, Ben. "Art at Meta-Mold." Art in America, 44 (April 1956), pp. 36-38, 63-66.

Benson, E.M. "Chicago Bauhaus." Magazine of Art, 31 (February 1938), pp. 82-83.

Black Mountain College Bulletin, 7, no 1, (March 1949), pp. 6-9.

Boettger, Susan. "San Francisco: Images of American Painting and Modern Photography." Art Forum, 21 (December 1982) pp. 84-85.

Brace, Ernst. "Charles Sheeler." Creative Art, 11, no. 2, (October 1932), p. 97.

Brown, Milton W.. "Cubist-Realism: An American Style." Marsayas, 3-5, (1943-45), pp. 136-160.

Brooks, Van Wyck. "On Creating a Usable Past." The Dial, (April 11, 1918), pp. 337-341.

Bufano, Remo. "Marionette in the Theater." The Little Review, 11, no. 11, (Winter 1926), p. 43.

Burham, Jack. "Systems Aesthetics." Artforum, 7, (September 1968), pp. 34-35.

Cahill, Holger. "Niles Spencer." Magazine of Art, 45, (November 1952), pp. 313-315.

Champa, Kermit. "Shapes in Industry: First Images in American Art." Art News, 75, no. 1, (January 1976), p. 120.

Chanin, A. L.. "Charles Sheeler Purist Brush and Camera Eye." Art News, 54 (June 1955), p. 72.

"Chicago's Bauhaus." The Art Digest, 11, no. 20, (September 1, 1937), p. 20.

Clurman, Harold. "Photographs by Paul Strand." Creative Art, 5,

(October 1929), no 4, 735-8.

Coady, Robert. "American Art." The Soil, 1, (January 1917) pp. 66-67.

_____. "American Art." The Soil, 1, (December 1916) pp. 16-18.

Coates, Robert M. "A Review of the Downtown Gallery." The New Yorker, 32 (April 14, 1956), p. 112.

_____. "The Whitney And Niles Spencer." The New Yorker, 28, (November 15, 1952), n.p.

_____. "The Art Galleries." The New Yorker, (March 5, 1966), pp. 93-96.

_____. "The Art Galleries." The New Yorker, 32, (April 14, 1956), p. 112.

_____. "Out of the Past." The New Yorker, 23, (November 22, 1947), p. 18.

"Color in Industry." Fortune, 1, (February 1930), pp. 85-94.

Craven, George. "Charles Sheeler." College Art Journal, 9, (Winter 1947), p. 37.

Craven, Thomas. "Charles Sheeler." Shadowland, 8, (March 1923), pp. 11, 71.

Crawford, M. D. C.. "Primitive Art And Modern Design." Creative Art, 3 (December 1928), p. 44.

Crowninsfield, Frank. "A Series of American Artists." Vanity Fair, 18 (April 1922), pp. 40-41.

_____. "Charles Sheeler's Americana." Vogue, (October 15, 1939), p. 106.

Dana, Joseph Cotton. "Art in Industry." The Museum, 1, no. 11 (February 1928), pp. 163-4.

_____. "Charles Sheeler in Doylestown and the Image of Rural Architecture." Arts, (March 1985), pp. 135-139.

Davidson, Abraham. "Cubism and the Early American Moderns." Art Journal, 26, no. 2, (Winter 66/67), pp. 122-129, 165.

"Decorative Artists Form Union." The Architectural Record, 64 (August 1928), p. 164.

Devree, Howard. "Disciplined Art." New York Times, November 2, 1952, p. 14.

Devree, Howard. "Spencer Revalued." New York Times, June 27, 1954, p. 7.

Dewey, John. "Americanism and Localism." The Dial, (June 1920), pp. 684-688.

Dooley, William. "Joseph Albers." Boston Evening Transcript, November 14, 1936, n. p..

Duer, Edward Rush. "The Skyscraper in New York." Architectural Forum, (February 1926), pp. 105-107.

Duncan, Phillips. "The Camera Comes of Age." Western Advertising, (June 5, 1930), n. p.

Eiseman, Alvord. "Demuth Retrospective." Art Journal, 31, no 3, (Spring 1972), pp. 283-286.

Faison, Lane. "Fact and Art in Charles Demuth." Magazine of Art, 43, no. 4, (April 1950), pp. 123-28.

Farnham, Emily. "Charles Demuth Bermuda Landscapes." Art Journal, 25, no. 2, (Winter 65/66), pp. 130-37.

Freeman, Richard. "Damaged Mural." Art Journal, 31, (Winter 71-72), no. 2, pp. 178-180.

Freiday, Dean. "Modern Design - A Survey." The Museum, 4, nos. 1&2, (Winter/Spring 1950), pp. 1-18.

Friedman, Martin. "Interview: Charles Sheeler Talks with Martin Friedman." Archives of American Art Journal, 16 (1976), pp. 15-18.

Friedman, Martin. "The Precisionist View." Art in America, 3, (November 1960), pp. 31-37.

Frost, Rosemund. "Living Art Works and Talks." Art News, 42, (February 15, 1943), pp. 14-27.

Gallatin, Albert E. "Abstract Painting and the Museum of Living Art." Plastique, 3 (Spring 1938), n. p.

"Georgia O'Keefe-American." Manuscripts, no. 5, (March 1923), p. 10.

Giedion, Siegfried. "Léger in America." American Magazine of Art, 38, no. 8, (December 1945), pp. 295-299.

Glassgold, C. Adolph. "Modern American Industrial Design." Arts & Decoration. 35, (July 1931), p. 30.

Goodrich, Lloyd. Georgia O'Keefe. Whitney Museum of Art, American Art, New York, 1970.

Goodrich, Lloyd. "Sheeler and Lozowick." The Arts, 10, (February 1926), pp. 97, 102-103.

Graham, John. "Primitive Art and Picasso." American Magazine of Art, 30, (April 1937), pp. 236,239,260.

Granovsky, N.. "Aesthetics and Utility." The Little Review, 11 (Spring 1925), pp. 28-29.

Green, Kneeland. "Modern Life, Ordinary Things Design Americana Fabrics." Creative Art, 4 (February 1929), p. 102.

Greenberg, Clement. "Art." The Nation, (January 9, 1943), pp. 68-69.

_____. "The Camera's Glass Eye." The Nation, (March 9, 1946), pp. 294-296.

_____. "Modernist Painting." Art and Literature, 4 (Spring 1965), pp. 193-201.

Greene, Balcomb. "The Function of Léger." Art Front, 2 (January 1935), pp. 8-9.

H. W. H. "Philadelphia." Arts & Decoration, 6 (July 1916), p. 440.

Haz, Nicholas. "Edward Weston Purist." American Photography, 32 (February 1938), pp. 77-82.

Heap, Jean. "Machine Age Exposition." The Little Review, 11, no. 1, (Spring 1925), pp. 22-24.

Herrera, Hayden. "Gerald Murphy, an Amurikin in Paris." Art in America, 62, no. 5, (September/October 1974), pp. 76-79.

Hess, Thomas B. "Homage to the Square." Art News, 60, no. 6, (October 1961), pp. 26, 61.

Hess, Thomas B. "Spotlight on Spencer." Art News, 46 (November 1952), n.p.

Hubbard, Guy. "Development of Machine Tools in New England." American Machinist, 33 (August 30, 1923), pp. 311-315.

Huelsenbeck, R. "Dada Lives." Transition, 25 (Fall 1936), pp. 77-80.

"Immaculate School Seen At Daniels." Art News, 27, no. 5, (November 3, 1928), p. 9.

J.H. [Jane Heap]. "Machine Age Exposition." The Little Review, 10 (Spring 1925), p. 22.

Janis, Sidney. "School of Paris Comes to America." Decision, 11, no. 5, (November-December 1941), pp. 85-95.

Jewell, Edward Alden. "Abstract Artists Open Show Today." New York Times, April 6, 1937, n. p.

_____. "Sheeler in Retrospect." New York Times, (October 8, 1939), section IX, p. 9.

_____. "Watercolor and Pastel." New York Times, Section 7, pp. 1-2.

Jolas, Eugene. "Industrial Mythos." Translation, 18, (November 1929), n. p.

Josephson, Matthew. "A Painter of the Machine Age." The Nation, (February 18, 1931), n. p.

_____. "American Culture Since the 60's." The Nation, (December 3, 1930), pp. 615-616.

_____. "Chicago: A Modern Portrait." Outlook and Independant, (January 30, 1929), pp. 163-167, 193, 195.

_____. "Detroit: City of Tomorrow." Outlook and Independant. (February 13, 1929), pp. 246, 275, 278.

_____. "Henry Ford." Broom. (October 1923), pp. 137-142.

_____. Life Among the Surrealists. New York: Holt, Rinehart and Winston, 1962.

_____. "Mass Civilization and the Individual." Outlook and Independant. (June 5, 1929), pp. 205-207, 227, 238, 240.

_____. "Open Letter." Transition, 13 (Summer 1928) pp. 83-102.

_____. "The Whitney Museum." New Republic, 69 (December 2, 1931).

Kalonyme, Louis. "Georgia O'Keeffe: A Woman in Painting." Creative Art, 2 (1928), pp. XXXV-XL.

Kalonyme, Louis. "The Art Makers." Arts & Decoration, December 1926, n. p.

Kempe, Fritz. "The World is Beautiful." Camera, 52, (August 1978), pp. 3-38.

Klein, Jerome. "Concretionists Called Tasteful in Their Exhibition." New York Post, Saturday, March 14, 1936, p. 22.

Kootz, Samuel. "Ford Plant Photos of Charles Sheeler." Creative Art, (April 1931), pp. 265-267.

Kootz, Samuel. "Preston Dickinson." Creative Art, 8 (May 1931), pp. 339-340.

Kouwenhoven, John A.. "Arts in America." The Atlantic Monthly, 168, no. 2, (August 1941), pp. 175-80.

Kramer, Hilton. "The American Precisionists." Arts Magazine, 35, no. 6, (March 1961), pp. 32-37.

Kraus, Felix. "Modern Photography." Tricolor, 3, no. 15, (June 1945), pp. 62-77.

Lane, James. "Charles Demuth." Parnassus, 8 (March 1936), pp. 8-9.

Lassaw, Ibram. "Inventing our Own Art." American Abstract Artists Yearbook, Section 8, New York: 1938.

Lawrence, Sidney. "Clean Machines at the Modern." Art in America, 72, no. 2, (February 1984), pp. 127-132.

Lay, Charles Downing. "New Architecture in New York." The Arts, 4 (August 1923), pp. 67-70.

Lèger, Fernand. "Comments". Museum of Modern Art Bulletin, 13 (Spring 1946), pp. 13-15, 38.

Lèger, Fernand. "A New Realism, The Object." The Little Review, 11, no. 2, (Winter 1926), pp. 7-8.

Levy, Jacques Fernand. "The Bauhaus and Design." Architectural Record, 85, no.1, January 1939.

Lieberman, M. "Louis Lozowick." Current Biography, April 1942, n. p.

Lippman, Herbert. "The Machine Age Exposition." The Arts, 11 (June 1927), pp. 324-326.

Loughery, John. "Blending the Classical and the Modern: The Art of Elsie Driggs." Woman's Art Journal, 7 (Fall 1986/Winter 1987), pp. 22-26.

Lozowick, Louis. "A Note on Modern Russian Art." Broom, 4, no. 3, (February 1923), p. 202.

_____. "Art Fernand Léger." The Nation, 121, (December 16, 1925), p. 712.

_____. "Books", Nach-Expressionismus by Von Franz Roh. The Arts, (August 1927), pp. 115-116.

_____. "Gas." The Little Review, 11, no. 2, (Winter 1926).

_____. "Lithography: Abstraction and Realism." Space, 1 (March 1930), pp. 31-33.

_____. "The Americanization of Art." Little Review, (Spring 1927), pp. 18-19.

_____. "The Precisionist-Constructivist Nexus: Louis Lozowick in Berlin." Arts, 56 (October 1981), pp. 121-127.

_____. "The Russian Dadaists." The Little Review, 7 (September-December 1920), pp. 72-73.

_____. "The World of Lissitzy." Transition, 18, (Nov. 1929), n. p.

_____. "What Should Revolutionary Artists Do?" The New Masses, 6, no. 7, (December 1930), n. p.

Lucic, Karen. "Charles Sheeler: American Interiors." Arts, May 1987, pp. 44-47.

M. G. T.. "George Ault." Art News, 48, no. 10, (February 1950), p. 50.

MacAgy, Douglas. "Gerald Murphy." Art in America, 51, no. 2, (1963), pp. 49-51.

McAlmon. Contact, New York, nos. 1,5, (December 1920, June 1923), p. 1.

McAndrew, John. "Modernist and Streamlined." Museum of Modern Art Bulletin, 5, (December 1938), n. p..

McBride, Henry. "An Elegant American Painter." Art News, 53, (March 1954), pp. 61-62.

_____. "Modern Art." The Dial, 70, (February 1921), pp. 234-236.

_____. "Modern Art." The Dial, 70, (February 1923), pp. 217-219.

_____. "Charles Demuth, Artist." Magazine of Art, 31, (January 1938), pp. 21-25, 58.

_____. "Notes and Activities." The New York Sun, April 26, 1924, section 6, p. 3.

McCauley, Lena. "Dana Linked Art with Industry." The Museum, 2, (October 1929), no 10, pp. 86-87.

McCausland, Elizabeth. "Georgia O'Keeffe." Parnassus, 5, (March 1940), n. p..

_____. "Paul Strand." U.S. Camera Magazine, 8, (February-March 1940), pp. 20-25, 65.

_____. "The Daniel Gallery and Modern American Art." Magazine of Art, (November 1951), pp. 280-285.

"Machine Age Exposition." The Little Review, (May 1927), pp. 1-40.

McMahon, Phillip. "Would Plato Find Artistic Beauty in Machines?" Parnassus, 35, (February 1935), pp. 6-8.

McNeil, George. "American Abstract Artists." Art News, 55, (May 1956), pp. 34-35, 65-66.

Mannes, Marya. "Niles Spencer a Painter of Simplicities." Creative Art, 7, (July 1930), n. p.

Marsh, George Perkins. "Machinery." Littell's Living Age, 27, (November 1850), pp. 333-335.

Marter, Joan. "Constructivism in America: The 1930's." Arts Magazine, (June 1982), pp. 73-80.

Millard, Charles. "Charles Sheeler, American Photographer." Contemporary Photography, 6, no. 1, (1967), n. p.

"Modernism in Industrial Art." The American Magazine of Art, 15, (October 1924), p. 540.

Moholy-Nagy, Laszlo. "Education and the Bauhaus." Focus, 2 (Winter 1938), pp. 20-29.

_____. Telehor. no. 1-2. (Translated by F.D. Klimgender), Checoslovakia: Fr. Kalivoda, 1936, pp. 27-46.

_____. "Moholy-Nagy-Photographer." American Photography, 45 (January 1951), no. 1, pp. 41-45.

_____. "Production-Reproduction." Studio International, 190 (July-August 1975), no. 976, p. 17.

Morris, George, L. K. "Art Chronicle." Partisan Review, 4, no. 4 (March 1938), pp. 36-41.

_____. "Ferdinand Léger vs Cubism." Museum of Modern Art Bulletin, 3 (October 1935), n. p.

_____. "On America and a Living Art." Museum of Living Art Bulletin, New York University: 1936, pp. 5-13.

_____. "What Abstract Means." Museum of Modern Art Bulletin, 18 (Spring 1951), pp. 3-15.

Mumford, Lewis. "Art in the Machine Age." The Saturday Review of Literature, September 8, 1928, p. 102.

_____. "Beauty and the Industrial Beast." The New Republic, 35 (June 6, 1923), pp. 37-38.

_____. "Machinery and the Modern Style." The New Republic, no. 234, (August 1921), pp. 263-4.

Newhall, Beaumont. U.S. Camera, 4 (January 1939), n. p..

"O'Keeffe." Art Digest, 5 (June 1946), p. 6.

O'Keeffe, Georgia. "Can a Photograph Have the Significance of Art." Manuscripts, no. 4, (December 1922), pp. 1-20.

Ozenfant, Amédée. "Comments." Museum of Modern Art Bulletin, 13 (Spring 1946), pp. 7-9.

Ozenfant, Amédée. Foundations of Modern Art. London: John Rocker, 1931.

Parker, Robert Allerton. "The Art of the Camera." Arts & Decoration, (October 1921), pp. 369, 414-415.

Pearson, Ralph. The New Art Education. New York: Harper Brothers Pub, 1941.

Platt, Susan. "Precisionism American Immaculates." Images and Issues, 3, (March-April), pp. 22-23.

"Preston Dickinson." Art News, 29, (December 20, 1930), p. 16.

"Preston Dickinson Paints in a Chinese Manner." New York Herald, (March 11, 1923), p. 15.

R. A. "George Ault." Art News, 48, no. 6, (September 1949), p. 46.

Ridge, Lola. "Paul Strand." Creative Art, 9, no. 14, (October 1931), pp. 312-316.

Read, Helen Appleton. "The Exposition in Paris." International Studio, 82 (November 1925), pp. 93-97, 160-165.

_____. "Art and Industry Contemporary." Creative Art, 4 (June 1929), pp. XVIII-XIX.

_____. "The Feminist Viewpoint in Contemporary Art." Vogue, 71, no. 12, (June 15, 1928), pp. 76-77, 96.

Rich, Daniel. "The New O'Keeffe." Magazine of Art, (March 1944), pp. 110-111.

Riley, Maude. "Dickinson Surveyed." Art Digest, 17, no. 19, (February 15, 1943), p. 19.

Roe, Joseph. "Early American Mechanics." American Machinist, 41 (December 17, 1914), pp. 1077-1082.

Rose, Barbara. "Dada Then and Now." Art International, 7, no. 1, (January 25, 1963), pp. 22-28.

Rosenberg, Harold. "On Criticism." Artforum, (February 1964), pp. 28-29.

Rosenfield, Paul. "American Painting." The Dial, 7 (December 1921), pp. 649-670.

Rosenfield, Paul. "Charles Demuth." The Nation, 133, (October 7, 1931), pp. 371-373.

Rubenfeld, Richard. "Stefan Hirsch, Pioneer Precisionist." Arts Magazine, 54, no. 3, (November 1979), pp. 96-97.

Russell, John. "Surviving Murphy's Art at the Modern." New York Times, (April 11, 1974), p. 28.

Sawyer, Charles. "Watercolor and Pastels." Addison Gallery

Bulletin, (October 1935), p. 6.

Schmalenbach, Fritz. "The Term Neue Sachlikeit." Art Bulletin, 22, (Spring 1940), pp. 161-165.

Scully, Vincent, J.. "The Precisionist Strain in American Architecture." Art in America, 3 (1960), pp. 46-53.

Shaw, Charles. G. "The Plastic Polygon." Plastique, 3 (Spring 1938), pp. 28-29.

Sheeler, Charles. "Notes on an Exhibition of Greek Art." Arts Magazine, 53 (March 1925), pp. 153-158.

Sheeler, Charles. "Recent Photographs by Alfred Stieglitz." The Arts, 3 (May 1923), p. 345.

"Sheeler Paints Power." The Art Digest, 15, no. 5, (December 1940), n. p.

Siegel, Arthur. "Fifty Years of Documentary." American Photography, 45, no. 1, (January 1951), pp. 21-26.

"Skyscraper Primitive." The Guardian, (March 1925), pp. 164-178.

Smith, Jacob. "The Watercolors of Charles Demuth." American Artist, 19, (May 1955), pp. 26-31, 73.

Solon, Leon V. "The Vienese Method for Artistic Display." The Architectural Record, 53 (March 1923), p. 266.

"Stefan Hirsch." Space, 1 (January 1930), pp. 24-26.

Stewart, Rich. "Charles Sheeler, William Carlos Williams, and Precisionism: A Redefinition. Arts, November 1983, pp. 100-114.

Strand, Paul. "American Watercolors at the Brooklyn Museum." The Arts, 2 (December 1921), pp. 148-152.

_____. "Georgia O'Keeffe." Playboy, 9 (July 1924), pp. 16-20.

_____. "Photography and the New God." Broom, (1921), pp. 252-254.

_____. "Photography." The Seven Arts, 2 (August 1917), p. 137.

_____. "Photography to Me." Minicam Photography, (May 1945), n. p.

_____. "Realism: A Personal View." Sight and Sound, (January 1950), pp. 23-26.

Sweeney, J. J. "A Note on Super-Realist Painting." The Arts, 16, no. 9, (May 1930), pp. 611-613.

"The Bauhaus." The Art Digest, 5, no. 8, (January 15, 1931), pp. 27-28.

Thwaites, John M. "Albers and DeMonda at the Katherine Kuh Gallery." Magazine of Art, (November 1937), p. 683.

Tillim, Sidney. "What Happened to Geometry." Arts, 33, no. 9, (June 1959), pp. 38-44.

Townsend, Robert. "The Bauhaus, 1919-1928." Focus, 4, (Summer 1939), pp. 30-37.

Vantongerloo, Georges. "Plastique D'Art." Cercle et Carre. 2 (April 15, 1930), n. p.

W. G. H. "Art in the Machine Age." Creative Art, 3, no. 11, (August 1928), pp. 79-80.

"Watercolors at Daniels." American Art News, 15 (April 7, 1917), p. 4.

Watson, Ernest W. "Interview with Niles Spencer." American Artist, 8 (October 1944), pp. 14-17.

Watson, Forbes. "Charles Demuth." The Arts, 3, no. 1, (January 1923), pp. 77-78.

_____. "Charles Sheeler." The Arts, 3 (May 1923), pp. 334-344.

_____. "Preston Dickinson." The Arts, 5 (May 1924), pp. 284-288.

_____. "A Note on Niles Spencer." The Arts, (September 1923), p. 169.

Watson, H. F. "The Omnipotent Machine." Cornhill Magazine, (November 1928), pp. 625-638.

Weston, Edward. "From My Daybooks." Creative Arts, 3 (August 1928), pp. 29-36.

_____. "Light vs. Lightning." Camera Craft. 46 (May 1939), pp. 197-205.

_____. "Photography-Not Pictorial." Camera Craft, 37, no. 7, (July 1930), pp. 313-320.

_____. "What is a Purist?." Camera Craft, (January 1939), pp. 3-9.

"What is Modern Industrial Design." Moma, 14 (Fall 1946), pp. 2-3, 5.

Wight, Frederick. "Charles Sheeler." Art in America, 42 (October 1954), pp. 180-213.

Wolf, Robert. "Art Louis Lozowick." The Nation, 186 (February 17, 1926), n.p.

Xceron, Jean. Cercle et Carre, 2 (April 15, 1930).

Yeh, Susan Fillin. "Charles Sheeler: Industry, Fashion and the Vanguard." Arts, (February 1980), pp. 154-158.

_____. "Charles Sheeler 1923 Self-Portrait." Arts, (January 1978), pp. 106-109.

_____. "Elsie Driggs." Arts Magazine, 54, no. 9, (May 1980).

_____. "Upper Deck." Arts Magazine, (January 1979), pp. 90-94.

Young, Grace Alexander. "Art as a Fourth R." Arts and Decoration, 42, no. 3, (January 1935), pp. 46-47.

Zabel, Barbara. "Louis Lozowick: Urban Optimism of the 1920's." Archives of American Art Journal, 14, no. 2, (1976), pp. 17-22.

EXHIBITION CATALOGUES

Albright Art Gallery. 80 New Paintings. Exhibition catalogue, (includes Crawford, Spencer, Albers, AAA, Surrealists), 1946.

American Realists + Magic Realists. Exhibition catalogue, Museum of Modern Art, New York, 1943.

American Union of Decorative Artists and Craftsmen. Exhibition catalogue, (text by C.A. Glassgold), New York: 1931.

Barr, Alfred. A Museum of Modern Art in New York. Exhibition catalogue, Museum of Modern Art, New York, 1934.

_____. Fantastic Art Dada Surrealism. Exhibition catalogue, Museum of Modern Art, New York, 1936.

_____. German Painting and Sculpture. Exhibition catalogue, Museum of Modern Art, New York, 1931.

_____. Modern Works of Art. Exhibition catalogue, Museum of Modern Art, New York, 1931.

Bayer, Herbert. Walter and Ise Gropius, Bauhaus 1919-1928. Exhibition catalogue, Museum of Modern Art, New York, 1938.

Cedar Rapids Art Center. Charles Sheeler Retrospective. Exhibition catalogue, Cedar Rapids.

Cincinnati Modern Art Society. "A New Realism: Crawford, Demuth, Sheeler and Spencer." Exhibition catalogue, 1941.

Cloudman, Ruth. Preston Dickinson. Exhibition catalogue, Nebraska: Sheldon Memorial Gallery, 1979.

Davies, Karen. At Home in Manhattan: Modern Decorative Arts, 1925 to the Depression. Exhibition catalogue, Yale University Art Gallery, 1983.

Freeman, Richard. Niles Spencer. Exhibition catalogue, University of Kentucky, 1965.

Friedman, Martin. The Precisionist View in American Art. Exhibition catalogue, Walker Art Center, Minneapolis, 1960.

Gallatin, Albert E.. Jean Helion. Exhibition catalogue, Museum of Living Art, New York, 1933.

Gallery of Living Art. Exhibition catalogue, New York, 1927, 1929.

Graham, John. "Joseph Albers." Exhibition catalogue, Artist Gallery, New York, 1938.

Heckscher Museum. The Precisionist Painters 1916-1949. Exhibition catalogue, (text by Susan Fillin Yeh), 1979.

Hircshl and Adler. Lines of Power. Exhibition catalogue, (edited by James Maroney), New York, 1977.

Houston Museum of Fine Arts. Modern American Painting 1910-1940: Toward A New Perspective. Exhibition catalogue, (text by William

Agee), 1977.

Illinois Institute of Technology. Bauhaus Fifty Years, Exhibition catalogue, Chicago, 1969.

Internationale Ausstelung des Deutschen Werkbunds. Film und Foto. Stuttgart, 1929.

Jacob, Mary Jane and Davis, Linda. The Rouge: The Image of Industry in the Art of Charles Sheeler and Diego Rivera. Exhibition Catalog, Detroit Institute of Arts, 1978.

Lane, John R., and Larson, Susan C., eds. Abstract Painting and Sculpture in America 1927-1944. Exhibition catalogue, Pittsburgh and New York: Museum of Art, Carnegie Institute, and Harry N. Abrams, Inc., 1983.

Lehman, Arnold L. and Richardson, Brenda, ed.. Oskar Schlemmer. Exhibition catalogue, Baltimore Museum of Art, 1986.

Lobowsky, Susan. Precisionist Perspective. Exhibition catalogue, Whitney Museum of American Art, 1988.

Museum of Modern Art. A New Art Museum. Exhibition catalogue, New York, 1929.

_____. A Brief Survey of Modern Painting. Exhibition catalogue, (edited by Alfred Barr), New York, 1934.

_____. Americans 1963. Exhibition catalogue, (edited by Dorothy C. Miller), New York, 1963.

_____. American Realists and Magic Realists. Exhibition catalogue, (text by Dorothy C. Miller and Alfred H. Barr), New York, 1943.

_____. Americans 1942. Exhibition catalogue, (edited by Dorothy C. Miller), New York, 1942.

_____. Conference on Industrial Design. Exhibition catalogue, New York, 1946.

_____. Cubism and Abstract Art. Exhibition catalogue, (edited by Alfred H. Barr), New York, 1936.

_____. Eighteen Artists from Nine States. Exhibition catalogue, (edited by Dorothy C. Miller), New York, 1934.

_____. Fifteen Americans. Exhibition catalogue, (edited by Dorothy C. Miller), New York, 1952.

_____. Romantic Painting in America. Exhibition catalogue, (text by Alfred Barr), New York, 1943.

_____. Sixteen Americans. Exhibition catalogue, (edited by Dorothy C. Miller), New York, 1959.

_____. The New American Painting as Shown in Eight European Countries 1958-1959. Exhibition catalogue, (text by Dorothy Miller and Alfred Barr), New York, 1958.

_____. Twelve Americans. Exhibition catalogue, New York, 1956.

_____. What is Modern Design?. Exhibition catalogue, New York, 1950.

Museum Guild Hall. Niles Spencer. Exhibition catalogue, East Hampton, 1966.

National Collection of Fine Arts. Charles Sheeler. Exhibition catalogue, (essays by Martin Friedman, Barlett Hayes and Charles Millard,) 1968.

Newhall, Nancy. Edward Weston. Exhibition catalogue, Museum of Modern Art, New York, 1946.

_____. Paul Strand. Exhibition catalogue, Museum Of Modern Art, New York, 1945.

Rubin, William. The Paintings of Gerald Murphy, Exhibition catalogue, Museum of Modern Art, New York, 1974.

San Francisco Museum of Art. Avant-garde Photography in Germany 1919-1939. Exhibition catalogue, text by Van Deren Coke, 1980.

State University College at Potsdam. New Realism. Exhibition catalogue, (introduction by Benedict Glodsmith), 1971.

Sterling and Francine Clark Institute. The Dada/Surrealist. Exhibition catalogue, (essays by Susan Dodge Peters, Kathleen Zimmerer and Sam Hunter), Williamstown, 1977.

Tashjian, Dickran. William Carlos Williams and the American Scene, 1920-1940. Exhibition catalogue, Whitney Museum of American Art, 1978.

The Art Institute of Chicago. Laszlo Moholy-Nagy. Exhibition catalogue, (essays by K. Kuh and Carl Schniewind), 1947.

Tsujimoto, Karen. Images of America: Precisionist Painting and Modern Photography. Exhibition catalogue, University of

Washington Press, Seattle, 1982.

University of California Art Gallery, Los Angeles. "Charles Sheeler: A Retrospective Exhibition." Exhibition catalogue, (text by Bartlett Hayes and Frederick Wight), 1954.

University of Kentucky Art Gallery. Niles Spencer. Exhibition catalogue, (text by Richard B. Freeman and Ralston Crawford), 1965.

Whitney Museum of American Art. Abstract Painting in America, Exhibition catalogue, New York, 1935.

_____. "Ralston Crawford." Exhibition catalogue, (text by Barbara Haskell), New York, 1986.

_____. "Charles Demuth." Exhibition catalogue, New York, 1938.

Wilk, Christopher. Marcel Breuer. Furniture and Interiors. Exhibition catalogue, Museum of Modern Art, New York, 1981.

Yale University Art Gallery. "Charles Sheeler: American Interiors." Exhibition catalogue, (text by Susan Fillin Yeh), 1985.

MANUSCRIPTS AND UNPUBLISHED SOURCES

American Abstract Artists, AAA Papers 1936--44. Archives of American Art, New York, 1970.

Ball, Susan. "Ozenfant and Purism: The Evolution of a Style 1915-30." Ph.D. Dissertation, University of Delaware, 1981.

Bauhaus. Bauhaus Papers. The Beineche Rare Book and Manuscript Library Collection of American Literature, Yale University, Microfilm.

Crawford, Ralston. Ralston Crawford Papers. Archives of American Art, New York, Microfilm, 1980.

Dickinson, Preston. Preston Dickinson Papers. Archives of American Art, New York, Microfilm, 1938.

Driggs, Elsie. Elsie Driggs Papers, Archives of American Art, New York, Microfilm, 1980.

Freeman, Richard. Richard Freeman Papers. Archives of American

Art, New York, Microfilm, 1954-1972.

Hirsch, Stefan. Stefan Hirsch Papers. Archives of American Art, New York, Microfilm, 1973.

Lozowick, Louis. Louis Lozowick Papers. Archives of American Art, New York, Microfilm, 1967.

Sheeler, Charles. Charles Sheeler Papers. Archives of American Art, Microfilm, 1967.

Sheeler, Charles. Downtown Gallery Papers. Archives of American Art, New York, Microfilm, 1966.

Spencer, Niles. Niles Spencer Papers. Archives of American Art, New York, Microfilm, 1971.

Williams, William Carlos. Letter from Author to Constance Rourke, January 1938, Archives of American Art, New York, Microfilm.

Yeh, Susan Fillin. Charles Sheeler and the Machine Age. Ph.D. Dissertation, City University of New York, 1981.

Zabel, Beth. Louis Lozowick and Technical Optimism of the 1920's. Ph.D. Dissertation, University of Virginia, 1978.