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Ingberman, Sima, Ph.D.

City University of New York, 1987

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ABC AND THE DEVELOPMENT OF AN INTERNATIONAL CONSTRUCTIVIST ARCHITECTURE

by

SIMA INGBERMAN

VOLUME I

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

1987

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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.

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INTRODUCTION

The Constructivist movement produced a multifaceted architectural legacy. By 1922, Constructivism, which originated in the Soviet Union after the October Revolution of 1917, had developed into an international movement. Regrettably, the range of Constructivism's international legacy has not been presented in its entirety by the historians of modernism. The critical movement whose projects enriched the Constructivist spectrum of that era still awaits recognition. As a result of this oversight, a less than definitive portrait of the Constructivist era has emerged to date.

ABC is the movement which still awaits distinction. Between 1923 and 1929 its members developed and promoted an unprecedented international Constructivist variant with a notable degree of success. It is the intention of this paper to properly introduce ABC and to chronicle its achievements. Hopefully, ABC will thereafter receive its overdue acknowledgement and will assume its position among the distinguished contributors of this crucial decade.

ABC was a multinational organization founded by Mart Stam of Holland, El Lissitzky of Russia, the Italian born Emil Roth, and the Swiss architects Hans Schmidt, Hannes Meyer, Werner Moser, Hans Wittwer and Paul Artaria. Based in Switzerland, the group produced two bodies of work which deeded an architectural legacy of notable dimension. ABC's

outstanding contribution consisted of a large body of international Constructivist projects which reflected a Constructivist approach that was aimed at architects and clients of all nationalities. To promote this style, the members drafted a guideline in which various aspects of the above were itemized. This guideline appeared as the magazine, ABC - Beitrage Zum Bauen which was issued eight times between 1924 and 1928. In ABC, essays, photographs and projects described aspects of this largely unprecedented Constructivist style which fused functional conceits of European origin with stylistic features that derived from Russian Constructivist examples.

ABC - Beitrage Zum Bauen was a successful guideline. Throughout its lifespan it inspired the architects of the group to design over thirty buildings in the ABC style. These included projects for Switzerland, Germany, Russia, Holland, Czechoslovakia, the United States and Mexico.[1] ABC also inspired the formation of a student group at the Bauhaus which drafted designs that were based on ABC's principles.

To date, few historians have recognized the existence of a larger ABC movement of international dimensions. Although ABC - Beitrage Zum Bauen and the projects of the group affiliates have received mention in architectural texts, the

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1 Due to a lack of space only limited examples of ABC works were reprinted in ABC.

manner in which they are represented belittles their significance. The designs are not presented within the context of an ABC movement, and they are not portrayed as part of a total effort. Instead, they are treated as isolated contributions within the mainstream of modernism, devoid of ideology or affiliation.

ABC - Beitrage Zum Bauen's evaluation by architectural historians exemplifies the prevailing attitude. ABC is a magazine which merits evaluation on several levels. Its Constructivist-inspired graphics, examples of Russian designs and pro Soviet editorials are as easily appreciated as they are strikingly visible. Less noticeable, but far more important, are its many articles on building, production, town planning and the evaluation of Constructivism, the sum of which act as a guideline toward an architectural approach. Writers on the subject have, however, chosen to disregard the importance of the latter and have focused only on the former. They have applauded ABC for its perpetuation of the stylistic conceits of an earlier Constructivist network of periodicals and for compatible essays which underscore a pro-Communist position.[2] As a result, their evaluations have been

2 Included in this network were Veshsch-Gegenstand-Objet, Berlin, No. 1-2, 3, March-May 1922. El Lissitzky co-edited the three issues. G-Zeitschrift for Elementare Gestaltung, Berlin, Nos. 1-6, 1923-1926. El Lissitzky co-edited only No. 1. Part 1, Chapter 2, will review the magazine within this network.

oblivious to ABC's true raison d'etre and the movement which it fostered.

A major proponent of this approach is Reyner Banham who in Theory and Design in the First Machine Age describes ABC as "being closely modeled on the short lived G."[1] Banham's statement alludes to ABC's imitation of the Constructivist-inspired graphic, photographic and thematic material which has appeared in the earlier German magazine. Ulrich Conrads, on the other hand, values the ideological articles in ABC. In Programs and Manifestos on 20th Century Architecture, Conrads briefly describes the value of both the magazine and the essay. He claims that their importance derives from the fact that they are "closely connected with the ideas of Hannes Meyer."[2] Meyer, one of the most outspoken ABC affiliates, has come to represent the ideological pro-Soviet position of ABC to Conrads. This analysis was later shared by Charles Jencks who, in Modern Movements in Architecture, cites ABC only for its association with "the polemics of Meyer".[3]

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1 Reyner Banham, Theory and Design in the First Machine Age, New York, 1960, p. 196.
2 Ulrich Conrads, Programs and Manifestos on 20th Century Architecture, Cambridge, 1975, p. 115.
3 Charles Jencks, Modern Movements in Architecture, New York, 1973, p. 88.

A theoretical evaluation of the ABC effort is also found in Jacques Gubler's Nationalisme et Internationalisme dans L'architecture Moderne de la Suisse (1975). The book offers the lengthiest discussion of ABC and its architects in print to date. Gubler's main purpose in the book is to illustrate that the ultimate achievement of the ABC group was its magazine. His excellent analysis of ABC - Beitrage Zum Bauen is devoted to its philosophies on urbanism, mass production and building methods. These are discussed within the framework of their historical sources.[4] However, Gubler's account, like those of Banham, Jencks and Conrads, fails to point out that ABC's conceptual elaboration and its graphic renderings were but preludes to its intended function, namely; that it was meant to represent an ABC Constructivist movement of which only limited examples appeared in the magazine.

Hannes Meyer, Mart Stam and Hans Wittwer each attained individual degrees of fame and are therefore included in many surveys of modern architecture. The manner in which their works have been discussed in the literature of modern architecture is again indicative of a failure to deal with the larger movement. When cited, designs by these architects have not been treated as examples of the ABC position but

4 Jacques Gubler, Nationalisme et Internationalisme dans L'architecture Moderne de la Suisse, Lausanne, 1975. See section "L'Apres-Guerre de Quatorze", pp. 69-141.

rather as singular personal achievements which display a personal style.

Hitchcock and Johnson's discussion of ABC inspired projects in The International Style (1932) illustrates the above point. Their text presents a diverse range of projects for the purpose of illustrating the authors' definition of the latter 'style'.[5] Shown are projects by Mart Stam, Werner Moser, Hans Schmidt and Paul Artaria. Mention is also made of Hannes Meyer's work.[6] However, their collective

5 Henry Russel Hitchcock and Philip Johnson, The International Style, New York, 1966 edition. In this book the authors state the features of the Styles: as they cite an emphasis on volume as opposed to mass, regularity as opposed to symmetry and a dependence on the intrinsic elegance of materials as opposed to applied decoration. Buildings which displayed these features were considered to be proponent of the style.

6 In The International Style Hannes Meyer is mentioned on p. 36. Projects by Hans Schmidt and Paul Artaria on pp. 208-209 (Professional Women's Residence, 1928, Basel and the Waldner House, 1930, Basel) and by Stam and Moser on pp. 215-217 (The Budge Home for the Aged in Frankfurt, 1928). The Von Nelle Factory, 1928, also appears on p. 109, here attributed only to Brinkman and Van der Vlugt, although Hitchcock did attribute the building to Stam in a later text. See note 10.

inclusion is not meant to be indicative of a Constructivist faction within the international style, but rather the buildings of Meyer, Stam, Artaria and Moser are said to exemplify a European functionalist position which falls "within the limits of the international style."[7] Functionalism is defined by Hitchcock and Johnson as a concept in which "all aesthetic principles of style are meaningless and unreal ... aesthetic expression is based on structure and function."[8]

It will be shown in the course of th's study, however, that these works, while functionally inspired in their concern for production-oriented building methods and ulitarian conceptions of layout and plan, are also expressive of a specific Constructivist style.

Henry Russell Hitchcock's Architecture: Nineteenth and Twentieth Centuries (1977) reaffirms his 1932 evaluation. In spite of this book's broader spectrum, Hitchcock chooses not to recognize either the ABC group or the style which characterized its architects' efforts. For example, Mart Stam's Weissenhof flats are described only as "superior," and the Van Nelle factory as "the finest building in Holland."

7 Ibid., p. 28.
8 Ibid., p. 35.

No mention is made of Stam's ABC affiliation as the context within which these buildings should be understood.[9]

The Swiss organization is not recognized by other distinguished international historians as well. In Space Time and Architecture, Sigffied Gideon is equally evasive on the subject of ABC. On several occasions in this classic text, he singles out Stam's Weissenhof entry and Meyer and Wittwer's League of Nations projects, but draw no connection between the two.[10] Leonardo Benevolo reiterates this approach when he discusses both of these projects. In addition, he chronicles Hannes Meyer's activities at the 1927 Bauhaus without any mention of ABC's role in inspiring his pedagogical platform.[11]

Even the biographies of Mart Stam and Hannes Meyer have failed to point out that there was relationship between their subjects' designs and those of the ABC network. Neither biography focuses to a large degree on the magazine or the ABC group in their texts. Gerrit Oorthuys in his monograph on Stam, states only that Stam was a founder of ABC -

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9 Henry Russell Hitchcock, The Pelican History of Art, Architecture: Nineteenth and Twentieth Centuries, New York, 1977, pp. 509-510.

10 Sigfried Gideon, Space Time and Architecture, Cambridge, 1978, pp. 536, 595, 599.

11 Leonard Benevolo, History of Modern Architecture, Cambridge, 1971, pp. 429, 476, 478.

Beitrage Zum Bauen, and omits mention of the group. Although Oorthuys points to the influence of Russian Constructivism in Stam's designs, the architect emerges in this account as a self styled individualist above association with any acknowledged mass movement.[12]

Claude Schnaidt's stance in Hannes Meyer, Buildings, Projects and Writings is not dissimilar. Throughout the book, ABC is mentioned in brief biographical notes which state that Meyer was a member of the "Gruppe ABC for scientific building".[13] Neither Meyer's contribution to ABC nor the influence of its theories upon the final Peterschool or League of Nations projects are ever mentioned. Meyer's writings, as well as his buildings, are examined largely outside of the Constructivist context which nurtured them.

To date, the most accurate assessment of both the ABC group and its magazine has come from Kenneth Frampton. His Modern Architecture, A Critical History also places ABC - Beitrage Zum Bauen, by virtue of its ideology and imagery, within the network of small Constructivist magazines. Unlike previous historians, however, Frampton presents ABC as part of the larger organized effort of the ABC group. He makes it clear that the group produced a series of Constructivist

12 Gerrit Oorthuys, Mart Stam, A Documentation of his Work, London, 1970, p. 1.
13 Claude Schnaidt, Hannes Meyer Buildings, Projects and Writings, Teufen, 1965, p. 15.

projects and that not all of these were published in the Swiss magazine (two noted examples are Meyer and Wittwer's Peterschool and Stam's Van Nelle design.)[14] Implied in Frampton's text is that ABC's sphere of influence extended beyond its previously recognized parameters. Modern Architecture, A Critical History however, does not indicate the full dimension of the organization's output.

In this dissertation I intend to present a comprehensive overview of the ABC movement, one which will accurately illuminate the group's significant contribution to modern architecture. Accordingly, this paper will discuss the formation of the ABC group and their publication, ABC - Beitrage Zum Bauen. The magazine will be shown to have established new directions within the genre of small magazines by serving as a guideline to a Constructivist style which had no direct precedent in Russia, Europe or the Americas. This dissertation will also analyze the ABC style, one which fused select aspects of Russian Constructivism and features of a functional approach which essentially derived from nineteenth and twentieth century Swiss and Dutch sources. The projects the group drafted between 1922 and 1929 will be presented and a review of these works will prove that this legacy enriched not only the architecture of its time, but modernism as a whole.

14 Kenneth Frampton, Modern Architecture, A Critical History, New York, 1980, pp. 130-135.

PART I

THE ESTABLISHMENT OF ABC AND ITS PROGRAM

CHAPTER I

THE ABC GROUP: FORMATION AND ALLIANCE WITH EL LISSITZKY

The ABC Constructivist movement emerged in Switzerland in the spring of 1924. A significant series of events signaled its commencement to the international architectural communities. The first occurred in February of 1924 when the architects Mart Stam, Hans Schmidt, Emil Roth, Hannes Meyer, Hans Wittwer and Paul Artaria joined to form the ABC group.[1] Shortly thereafter, with the assistance of El Lissitzky, the group drafted the ABC manifesto to delineate the principles of their specific Constructivist position. Within three months of the above events, they issued the magazine ABC - Beitrage Zum Bauen ("ABC - A Contribution to Building") which remained a viable publication through 1928. The manifesto served as the first issue. Subsequent numbers proceeded to outline aspects of an ABC style, an original Constructivist varient whose ideological bases derived from the manifesto's principles.

Despite the rapid succession of ABC's inaugural manifestations, the movement was hardly the result of a

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1 Werner Moser was in the U.S.A. at the time of this meeting. Future chapters will indicate that Moser was then serving as an apprentice to Frank Lloyd Wright in Wisconsin. He was, nonetheless, a corresponding founder and member.

sudden impetus. ABC's emergence was the climax of an evolutionary process which had begun in December of 1922. During the successive fourteen months, the group's nucleous was formed and its aesthetic and theoretical values were formulated. These values ultimately determined the contents of the manifesto and the ABC magazine. In light of the period's significant nature, this history of the ABC movement dates to the final weeks of 1922.

In the middle of December 1922, a meeting was called by the architect Hans Schmidt in Basel, Switzerland. Invited to attend were the Swiss architects Hannes Meyer, Paul Artaria, Hans Wittwer, Emil Roth and Werner Moser.[2] The purpose of the gathering was the formation of a Swiss architectural network that would simultaneously support a functionally

2 Also attending the meeting were Georg Schmidt, the brother of Hans Schmidt, Max Ernst Haefeli and Rudolf Steiger. They did not become members of the ABC group.

This information comes from a document written by Emil Roth on ABC's origins presented to the author in July of 1978. See Note 2a on next page.

Also see Jacques Gubler, in Nationalisme Et Internationalisme Dans L'Architecture Moderne De La Suisse where this meeting is dated to December, 1922, see p. 115.

2:a Document presented by Emil Roth to the author in July, 197a describing the initial meeting of the future ABC group.
Angaben betreffend das Zustandekommens der Zeitschrift: ABC - Beitrage Zum Bauen
Als Initialzundung der Idee, es musse auch in der Schweiz im Bereiche des Bauens ein entscheidender Wandel erfolgen, darf das von Hans Schmidt anfangs 1923 eingeriechte Wettbewerbsprojekt fur den Zentralfriedhof Hornli bei Basel genannt werden -- ein Projekt, das von der Juri im ersten Rundgang ausgeschaltet wurde, offenbar wegen seiner Schlichtheit und fehlendem pathos (bluhende Pfirsich-Baume statt Trauerweiden).

Das Schiksal dieses Projektes hat damals in Basel unter jungen Malern, Bildhauern und Architekten viele Diskussionen ausgelost sowie die Bildung einer kleinen Gruppe, wovon ausser dem Verfasser des Projektes genant werden konnen: Georg Schmidt, Bruder von Hans Schmidt (spater Direktor des Kunsthauses Basel), Hannes Meyer (der die Siedlung Freidorf in Muttens gebaut hatte), Paul Artaria, Hans Wittwer, und Emil Roth (wegen nicht abgeschlossenem Studium ein Jahr Volontar bei einem Basler Arcjtekten, und dort Hans Schmidt kennen gelernt). Die erste Zusammenkunft -- an der auch 3 junge Kollegen aus Zurich teilgenommen haben (Werner Moser, Max Ernst Hafeli, Rudolf Steiger) -- fand statt an einem Wochenende bei dem Ferienhauschen eines Arztes aus Basel, das Paul Artaria Sudhang des Bielersees errichte hatte, in Form eines gleichseitigen Dreieckes uber einer Weingruft auf den Boden gestellt. Man hat dort im Freien Plane an Wascheleinen geheftet und die aktuellen Probleme besprochen.

TRANSLATION: The first gathering of the architects who established ABC - Beitrage Zum Bauen.

Hans Schmidt's Hornli Cemetery Competition entry (early (1923), a project which was eliminated from competition on the first round because of its lack of pathos and pretention, was the earliest indicator of a significant change in Swiss architectural circles which proved that Swiss architects had new aspirations.

The fate of this project was soon discussed by Basel's painters, sculptors and by its architects by a small group who knew Hans Schmidt well; Georg Schmidt, his brother (the future director of Basel's Kunsthaus), Hannes Meyer (who built the Friedorf colony in Muttens), Paul Artaria, Hans Wittwer and Emil Roth (who was then voluntarily working for a Basel architect and met Schmidt there). Three young Zurich colleagues attended the above group's first meeting: Werner Moser, Max Ernst Haefeli and Rudolf Steiger. The first meeting took place over a weekend in a triangular variation house, south of the Beilersee (outside of Basel) which Paul Artaria had built ... There we hung plans on the washline and we discussed actual problems.

inspired architecture and reflect a Communist-inspired commitment to improve working class living conditions.[3] Prompting the formation of this network was the members' common opposition to mainstream Swiss political and architectural attitudes. The members believed that the capitalistic Swiss government ministered mainly to the needs of the upper classes, and that the nation's architectural establishment catered to the upper classes by designing edifices which monumentalized reactionary power and taste. As a result, neo-classical and traditional vernacular building types had come to dominate the architecture of the period. Cited as outstanding examples of the above were the Pfister Brothers 1922 neoclassical Winterthur Canton School and Otto Ingold's traditional 1915 Volkshaus in Bern.[4] It was felt that too little emphasis was placed on the development of contemporary building types which derived from functional precedents, nor was there sufficient concern for improved working class housing among either the political or architectural elite, despite the post 1917 workers riots.[5]

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3 Gubler's text reviews the many functional precedents which ultimately formed the ABC position. See pp. 69-115.

4 For a review of popular establishment tastes in Switzerland during these years see Hans Schmidt "The Swiss Modern Movement 1920-1930, Architectural Association Quarterly, Volume 4, Number 2, April-June 1972, pp. 34-37.

5 This situation will be discussed in Part III, Chapter I.

Determined to change the status quo, group members continued to meet and discuss pertinent issues. Their cause gathered force when Mart Stam, a Dutch architect, joined their ranks. Stam was a personal friend of both Hans Schmidt and Werner Moser. The three had met in Holland the previous year when Moser and Schmidt were serving apprenticeships in Rotterdam firms. Stam, a self declared Communist, espoused Socialist ideas on worker reform and sought to develop an architecture based on functional precedents. Impressed by Stam, Moser invited him to Zurich to work in his family's practice and in 1923, Mart Stam accepted the offer. Shortly after his arrival, he was introduced to the fledgling ABC network where he voiced his commitment to international Communism and to the development of progressive architectural ideas on an international scale and he was asked to join the group. Following the example of his friend Hans Schmidt, he soon assumed an active role within the ABC nucleus, together with Schmidt formulated a plan of action for the group.

After some deliberation, the two men realized that the ABC group's interests could best be served by publicity. Since 1922, Stam had been writing essays on contemporary Dutch architecture which derived from functional antecedents and which projected a commitment to Socialist ideals. Schmidt translated the pieces from their original Dutch and Stam submitted them to the Swiss engineering and architecture journal Schweizerische Bauzeitung. The members of the developing ABC circle believed that if fellow Swiss

architects would read the articles, they could be inspired to alter their stance and come to support the causes of their minority network, whose ideals had much in common with those mentioned in Stam's essays.

Although the Schweizerische Bauzeitung usually featured traditional building types, it nonetheless did accept Stam's essays and their accompanying plans and projects.[6] Between October and November 24 of 1923, four articles entitled "Holland und die Baukunst Unserer Zeit" ("Holland and the Architecture of Our Time") were published to illustrate developments in Holland. The first piece discussed Berlage

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6 Building types commonly found in the magazine are exemplified by the neo-classical buildings in
"Wettbewerb Zum Neubau des Burgspitals Bern" Schweizerische Bauzeitung, Vol. 82, No. 6, August 1923, pp. 76-79; and
"Wettwerb fur die Erweiterungsbau des kantonspitals Glarus" Schweizerrische Bauzeitung, Vol. 81, No. 5, February, 1923, pp. 50-52.
Vernacular chalet types were also featured in the Swiss publication. Typical were those shown in the issue "Das Burghaus in der Schweiz" Schweizerische Bauzeitung, Vol. 81, No. 22, December 1923.

and his functional programme.[7] The second, subtitled "Der Haagsche Kreis", ("The Hague Circle") featured projects by Bijvoet and Duiker, Oud, Dudok and Mart Stam, all of which were derived from a functional aesthetic. Noteworthy was the fact that the illustrations included the designs of two socialists, Oud and Dudok, and by Stam, a Communist.[8] One week later, "Der Amsterdam'sche Kreis" ("The Amsterdam Circle") presented an analysis of the large scale communal workers' housing projects by Kramer, Staal and De Klerk which had been commissioned by the Dutch government and the municipality of Amsterdam.[9] The final Stam installment was devoted to town planning, "Stadtbau". Detailed in the issue were Stam's plan for a Haague extension and one by Granpre Moliere, Verhangen and Kok for a Rotterdam sector. Both

7 Mart Stam "Holland und die Baukunst Unserer Zeit" Schweizerische Bauzeitung, Volume 82, No. 15, October 3, 1923.

8 Mart Stam, "Holland und die Baukunst Unserer Zeit; II der Haag'sche Kreis" Schweizerische Bauzeitung, Volume 82, No. 18, November 3, 1923.

9 Mart Stam, "Holland und die Baukunst Unserer Zeit; III Der Amsterdam'sche Kreis", Volume 82, No. 19, November 10, 1923, pp. 241-243.

described the upgrading of working class residential, commercial and recreational areas in the city.[10]

The ABC nucleus was jubilant that an established periodical was publicizing the issues and works that they supported. They hoped for additional recognition in future issues as well.[11] But within weeks of Stam's fourth article, their successful tenure had ended. In December, the Schweizerische Bauzeitung publicly denounced Stam and his cause. The Schweizerische Bauzeitung's negative stand began on the 15th of December with a review entitled "Holland und die Baukunst unserer Zeit" by E. Wipf, a prominent Swiss architect. It stated the following:

> In light of the architect M. Stam's interesting digression, I feel there are essential points that must be brought to the reader's attention ...
>
> ... This Dutch architect believes that the architecture of our land could develop along the lines of the architecture of his land ...
>
> ... This cannot be the case, our traditions, our terrain, our climate and our indigenous building materials are not the same as those of our neighbors ...
>
> ... It is important to fight such foreign influences, they can only mislead us. For if we heed them they will lead us to create buildings that do not suit our areas and our land ...

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10 Mart Stam, "Holland und die Baukunst Unserer Zeit IV, Stadtbau" Schweizerische Bauzeitung, Volume 82, No. 21, November 24, 1923, pp. 268-272. Stam's articles and plans will be reviewed in later chapters.

11 Ibid., p. 272.

> We must not abandon our own needs, our own traditions ...[12]

Wipf's digression was a prelude of what was to follow in forthcoming issues. On January 5, 1924, Armin Meili, a prominent Lucerne architect, published an article "Wir und die Architektur Auslands" (Foreign Architecture and Us) in which Mart Stam and his ideas were once again criticized. He proclaimed:

> It is obvious that our culture has come under foreign influence in past years ...
>
> Why should not we Swiss contribute to the future works that are of Swiss origin?
>
> The source of today's temptation is the Dutch school ... Although their windmills are wonderful ...
>
> Mart Stam's digresions show the final results of a serious development. One which is rarely spiritual in the building solutions it seeks...
>
> Regardless of whether or not the Dutch, in their pursuit of the rational or the fantastic have validity, let them not bring their quest to our soil.[13]

Meili's article championed Swiss traditionalism and the continuation of vernacular types while berating the functionalism of Stam. The author did not end his attack with this article, but published an additional article which

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12 E. Wipf, "Holland und die Baukunst unserer Zeit" Schweizerische Bauzeitung, Volume 82, No. 24, December 15, 1923, pp. 317-318. For the original text see Note 12a on next page.

13 Armin Meili, "Wir und die Architektur des Auslands." Schweizerische Bauzeitung, Volume 83, No. 1, January 5, 1924, pp. 5-7. For the original text, see note 13a on next page.

12a Excerpts from "Holland und die Baukunst Unserer Zeit" by E. Wipf (Schweizerische Bauzeitung, Volume 82, No. 24, December 15, 1923, pp. 317-318). Note: English translations in text are by the author unless otherwise noted.

> Die Interessanten Ausfuhrungen von Architekt M. Stam veranlassen mich die Aufmerksamkeit auf einige Punkte zu lenken und meine Meinung dazu zu aussern...
>
> Zugegeben, dass fur den hollandischen Architekten wie fur uns im Grossen und Ganzen die gleiche Aufgabe vorliegt und die selbe allgemeine Entwicklung uns in unserem Schaffen bestimmt. Allein nicht nur die Landschaft, die kunstlerische Tradition und der Einflus des Nachbarlandes bestimmen uns, sondern vor allem, und das scheint mir der hollandische Kollege etwas ausser Acht gelassen zu haben, die klimatischen verhaltnisse und das uns zur Verfungung stehende Baumaterial ...
>
> ... wichtiger ist der Kampf gegen die Witterungseinflusse mit dem uns zur Verfugung stehenden Material und wenn wir dies nicht beachten, so schaffen wir Bauwerke, die nicht in die Gegend in unser land passen und nicht bestehen bleiben ...

13a Excerpts from "Wir und die Architektur des Auslands" by Armin Meili (Schweizerische Bauzeitung, Volume 83, No. 1, January 5, 1928, pp. 5-7).

> Bekanntlich stand unser Kunstschaffen der letzten jahre stark unter dem Einfluss des Auslandes ...
>
> Warum sollten wir Schweizer nicht Schweizerakzent in die grossen Bewegung der Gegenwart bringen? ...
>
> Die aktuelle Lockung von hier und heute ist die "Hollander-Schule" Geradezu wunderbar ist die windeseile ...
>
> Mart Stams Ausfuhrungen erweisen sich als das Endergebnis einer ernsthaften Entwicklung. Die seltsamen teilweise durchgeistigen Bauorganismen sind ohne Zweifel Produkte eines Zielbewussten Suchens. Ob die rationalistche oder die phantastische Richtung der Hollander Recht hat soll hier nicht untersuch werden ...

appeared during January of 1924. The second article described and praised those foreign influences which were acceptable singling out Oestberg's Stockholm Town Hall as a good example in kind.[14]

The attacks on Stam signaled the beginning of the ABC group's fall from grace. By February of 1924 the group had lost not only its recognition but also its podium. Unwilling to terminate their crusade, the members resolved to take action. They formed an official group, chose the name ABC, and discussed the possibility of publishing their own journal.[15] Despite their positive intentions, they faced a major obstacle. No ABC member had any prior experience in the publication arena and they therefore did not know how to approach such an undertaking.

The above situation was reversed on February 9, 1924 when El Lissitzky arrived in Zurich for a brief stay.[16]

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14 Armin Meili, "Wir und die Architektur des Auslands." Schweizerische Bauzeitung, Volume 83, No. 2, January 12, 1924, pp. 20-22.

15 No documentation has been found which explains why the name ABC was chosen by the group. However, Het Bounbedrijf No. 3, 1926 p. 378-379 did print an essay by Stam entitled "In Search of the ABC of Building" where "ABC" represented the essentials of building.

16 Lissitzky passed through Zurich enroute to a Locarno sanitorium where he was to undergo a cure for tuberculosis.

When Stam heard of the Lissitzky's arrival, he recognized that assistance had come. Lisstizky, in Stam's opinion, was an authority on the establishment of small magazines, having founded Veshch, Gegenstand, Objet in 1922 and G in 1923.[17] Since the two men were friends, Stam asked Lissitzky to guide the ABC group in their endeavor during his stay.[18]

Lissitzky agreed to help the ABC group. His motives, however, were not entirely prompted by friendship. To a large extent, they were self serving.

El Lissitzky had been sent to the West by the Soviet regime to promote Russian art. In Germany he had achieved that goal with a degree of success via the First Exhibition of Russian Art in Berlin (October, 1922) and the aforementioned publications.[19] Although many of his efforts centered around the presentation of art, he had given Russian

17 El Lissitzky, Veshch, Gegenstand, Objet, Berlin, No. 1-2, 3, March-May 1922. Lissitzky co-edited with Ilya Ehrenburg all three issues. He founded and with Hans Richter co-edited the first issue of G - Zeitschrift fur Elementare Gestaltung Berlin, Vol. 1, No. 1, 1923. These magazines will be reviewed in Chapter II.

18 Lissitzky states this information in a February 13, 1924 letter to Sophie Kuppers. See Sophie Lissitzky-Kuppers, El Lissitzky: Life, Letters, Texts, Greenwich, 1968, p. 38.

19 For a complete overview of the Berlin exhibition see Annely Juda, The First Russian Show, London, 1983.

architecture some exposure as well. In Veshch, for example, he devoted an article to Vladimir Tatlin's Monument to the Third International.[20] Since 1922, however, there had been many new developments in Soviet architecture and Asnova was one of these. In 1923 a group of Lissitzky's Moscow colleagues, led by Nikolai Ladovsky, had formed the Asnova group[21] and Lissitzky sought a Western publication in which to publicize their activities.

While in Germany, Lissitzky had also presented a Constructivist platform intended for a European audience at the Congress of Progressive Artists in Dusseldorf (May 1922),[22] and he sought a Swiss outlet for the dissemination of this platform as well. Eager to publicize both interests, Lissitzky informed Stam and his Swiss colleagues that he offered them his assistance on the condition that his concerns be included in the upcoming publication. The ABC group agreed to Lissitzky's terms and under Lissitzky's guidance, drafted a four page manifesto. Originally, the ABC architects' main interest had focused on the development of a function-oriented architectural tradition for Switzerland which incorporated Socialist-oriented planning requirements.

20 N. Punin, "Tatlina Bashnia" (Tatlin's Tower), Veshch, Gegenstand, Objet, No. 1-2, March-April, 1922, pp. 15-17.
21 The activities of Asnova and Ladovsky will be discussed in Chapters II and III of Part III.
22 See Part I, Chapter II.

Lissitzky's promotion of Asnova Constructivism fostered a significant reevaluation of the ABC architect's position. The Russian inspired the ABC group not merely to include Soviet material in their publication but to incorporate aspects of the Soviet style into the projects they were about to draft. This new ambition was articulated in the group's manifesto.

CHAPTER II

THE ABC MANIFESTO: A FUSION OF CONSTRUCTIVIST, FUNCTIONALIST AND SOCIALIST IDEALS

The ABC manifesto appeared as ABC's first issue in the spring of 1924. Mart Stam, Hans Schmidt and Emil Roth served as the designated editors. Schmidt and Stam oversaw all editorial matters while Roth handled financial and advertising related concerns.[23] Although El Lissitzky's name did not appear on the masthead, the document reflected his ideological position.

The manifesto had two goals. First it sought to avenge the earlier insults of the Schweizerische Bauzeitung by denouncing that publication. ABC voiced its opposition to the magazine's position in extremely blatant terms. This stance was inspired by the Schweizerische Bauzeitung's rejection of the political and aesthetic concepts of the ABC nucleus. As a defensive measure, ABC assumed an outspoken anti-traditional, anti-classical position which, prompted by the group's public disgrace, assumed a degree of strident adamance. For example, ABC - Beitrage Zum Bauen opened with a black rimmed obituary to the "Schweiz" ("Switzerland") and

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23 Based on an interview between Emil Roth and the author in July, 1978. Roth resigned from his editorial post after the first issue to devote more time to his practice.

its architecture [Fig. I]. Openly named as the party which had brought about Switzerland's demise was the Schweizerische Bauzeitung.[24]

> We have a painful duty to fulfill. Not only has our culture been destroyed, but its beloved daughter, architecture, has passed from us as well. This mournful state of affairs comes via an entry in the Schweizerische Bauzeitung, No. 3, Volume 83, 1924, where the debacle of architecture is announced. Debacle, destruction, death ... "We grieve deeply ..."[25]

The manifesto's second goal was far more complex. The ABC manifesto sought to establish a program which simultaneously accepted specific conceptual and pragmatic aspects of functionalism and the socio political and stylistic aspects of Asnova inspired Constructivism. To announce this goal the manifesto offered brief articles and several illustrations which focused on the various interest of this newly established ABC program. ABC's program intended to serve as a precursor to the ABC style, a unique Constructivist prototype which fused the stylistic aspects of

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24 ABC's repriands did not go unheeded. it should be noted that in 1925 the Schweizerische Bauzeitung finally featured a favorable review of ABC. ABC reprinted the latter's statement in the opening title section of Series I, No. 5, 1925, p. 1.

25 "Schweiz," ABC - Beitrage Zum Bauen, Zurich, 1924, Vol. 1, No. 1. For the original text see Note 25a on next page.

25a Schweiz

Wir haben eine schmerzliche Pflicht zu erfullen. Nicht nur unsere Kultur ist zusammengebrochen, sondern mit ihr auch ihre innigst geliebte Tochter, die Architektur. Diese traurige Gewissheit gibt uns eine Notiz in der "Schweizerischen Bauzeitung" No. 3 dieses Jahres (Band 83), wo offen vom Debacle der Architektur gesprochen wird. Es bleibt kein Zweifel mehr: debacle -- plotzliche Auflosung -- Zusammenbruch -- also Tod. Das Unvermeidliche ist offenbar eingetreten trotz des aufopfernden Beistandes den nach derselben Quelle Vaterland, Religion und Staatsautoritat zu leisten bemuht waren.

Wir sind tief erschuttert und beelen uns etc. . .

the Constructivism Lissitzky favored and those particulars of functionalism ABC's members valued.

The opening page of ABC's first issue immediately addressed the above concern by openly accepting the architectural policies of the U.S.S.R. and Asnova Constructivism. The first page prominently featured an editorial "Russland" (Russia) in which Russia's progressive architectural motives were noted and the prototypes it had generated were lauded. The editorial mentioned the "Palace of Labor" as a structure where the concerns of the working proletariat were elevated to a status previously accorded royalty. ABC clearly pointed out that in buildings such as the Palace of Labor, the U.S.S.R. was seeking to create new architectural prototypes which were free of the constraints of the pre-revolutionary era.[26] With the "Russland" editorial the Swiss publication acknowledged that in the Soviet Union and in all other nations, architecture reflected the prevailing political climate and ABC openly voiced its support for both the political and design policies of the U.S.S.R.

The stylistic aspects of the new Russian architecture were further discussed in an editorial entitled "Moscau". Here the Asnova group, whose work Lissitzky was promoting, was openly recognized as a source of inspiration by ABC's architects.

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[26] "Russland", Ibid., p. 1.

> In the summer of 1923, a group of Architects and Engineers had gathered in Moscow to form the group "Asnova" or "The Association of New Architects". Their goal -- to develop an architecture based on the latest technological developments and contemporary ideology.
>
> This group seeks to establish a Congress in Moscow and thereafter hopes to establish ties with groups outside of Russia. They seek the moral support of the latter in their effort to institute their new ideas.
>
> We gratefully acknowledge the efforts of our Russian colleagues and seek to establish contact with them.[27]

In conjunction with the "Moscau" editorial, the periodical presented "Element und Erfindung" ("Element and Invention") by El Lissitzky, which depicted the Asnova style in descriptive rather than graphic terms.[28] The article described an architecture which was formal, symbolic and highly dependent upon technological imagery. It was an architecture of components ('elements'), which assumed the shapes of Malevich's suprematist forms -- the cube, the cone and the sphere. Each shape and its color had symbolic connotations. In addition, each form had a clearly articulated "function". These functions were housed within an "open" structural frame. The "openness" implied "the modern style" which "separates the parts under tension from

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27"Moscau", Ibid., p. 1. For the original text see Note 27a.

28El Lissitzky, "Element und Erfindung", Ibid., pp. 3-4. The Rationalist bases of this essay will be discussed in Part III of this document, where the theoretical concept of Lissitzky and Nikolai Ladovsky are cited.

27a MOSKAU

Im Sommer 1923 hat sich in Moskau eine Gruppe von Architekten und Ingenieuren als "Association des architectes nouveaux" - "Assnowna" zusammengeschlossen. Das Ziel der Vereinigung ist, die Kunst der Architektur emporzubringen und sie in den Stand zu stellen die Forderungen der Technik und der modernen Wissenschaft zu erfullen.

Die Vereinigung beabsichtigt, mit den Vertretern der neuen Architektur des Westens in Verbindung zu treten, sich auf internationalen Boden zu stellen und einen Kongress in Moskau zu organisieren. Sie erwartet von der moralischen Unterstutzung ihrer Kameraden im Ausland eine Festigung ihrer Stellung gegenuber der offentlichen Meinung.

Wir begrussen das Wollen unserer russischen Kollegen und hoffen, den Kontakt mit ihnen zu erweitern.

the parts which outline it and enclose it. It does not seek to cover, mask or decorate. Its health is its naked form." Lissitzky also emphasized that "the characteristics of the external surfaces" were determined by the materials of construction -- concerete, iron, aluminum and glass. In addition, these constructions were enhanced by a network of bridges, elevators, towers, balloons, billboards, and "illuminated advertisements composed of separate flashing letters."

In addition to accepting the stylistic advocations of Lissitzky and his Asnova compatriots, ABC voiced its support of the larger housing and planning programs of the U.S.S.R. by announcing an opposition to governmental programs which supported capitalism and which did not promote improved housing and planning schemes that would benefit the working class. ABC equated neo classical and traditional prototypes of an architectural or planning related nature with reactionary political values. A series of articles detailed this evaluation.

The early obituary to Switzerland had implied that the Schweizerische Bauzeitung had succumbed to the majority which favored capitalism and the Beaux Arts. To further underscore its anti establishment position the manifesto went on to state that Switzerland was not the only nation whose physical presence and political situation was affected by such shortsightedness. France and the U.S.A. were suffering a similar fate. America, the new frontier, was plagued by an

overwbelming taste for the classical, one which was fostered by capitalist values.[29]

> "Chicago ... architects are dead ... and in New York architects are bad ... There is no pursuit of modern architecture here. There is only classicism without soul and taste -- but no real architecture. Young architects are trained in the principles of the Ecole des Beaux Arts and then sent off to Paris or Rome ...
>
> Is there hope that America will ultimately find an architectural vocabulary of its own? There is no positive answer since here man is valued only by the size of his bank account ..." [30]

Paris, according to "Das Chaos im Stadbau" ("The Chaos in the Cities"), was dying as well. Its Beaux Arts plan could no longer accommodate the needs of a growing population and could not absorb increasing vehicular traffic. Its plan was not concerned with "spatial movement and traffic patterns", but only with "a collection of artistically arranged forms". Paris was now a city of "chaos" built under the aegis of the upper classes.[31]

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29 ABC was critical of those American architects who represented establishment taste. The ABC group, however, did think highly of the work of Frank Lloyd Wright. In fact, Werner Moser migrated to the U.S.A. in 1923 to study with Wright in Spring Glen. He remained there through 1925.

30 "Amerika", ABC, Vol. 1, No. 1, 1924, pp. 1-2. See Note 30a for the original text.

31 Hans Schmidt, "Das Chaos im Stadbau", No. I, 1924, pp. 2-4. Authors are cited whenever they are acknowledged by ABC.

30a Amerika

Die Architekten, die ich in New-York antraf, waren schlecht. Man findent eigentlich uberhaupt kein modernes Streben in der Architektur. Nichts als Klassizismus ohne Geist, Geschmack, aber keine Baukunst. Die jungen Architekten werden nach den Prinzipien der "Ecole des Beaux-arts" erzogen und dann nach Paris oder Rom geschickt...

Wird Amerika schliesslich seine eigene Form finden? In New York habe ich keine Antword darauf gefunden...

Ein Mann wird nach der Hohe seines Bankkontos eingeschatzt...

ABC claimed that a new solution was needed to counter the Beaux Arts and those classes who had manipulated architecture and planning in order to monumentalize their powers. A statement signed by the editors optimistically stated that ABC would rectify the above situation by providing an official "new solution". It stated:

> Although we have grieved we are no longer sad. We will now attempt to cleanse and disinfect architecture of the ills that plague it -- historical columns, broken pediments, cornices and other exterior and interior evils of their kind ...
>
> ... We seek to find true architectural expression that bespeaks purpose and structure ...
>
> ... We advocate an entirely new solution! ...[32]

ABC's "new solution" addressed not only issues of style but new planning programs and a series of ideals previously promoted in El Lissitzky's Constructivist programme. In May of 1922 in Dusseldorf, speaking on behalf of the International Faction of Constructivists, Lissitzky had given a lecture in which he had listed the prerequisites for a Constructivist commitment. These had included: (a) the advocacy of Constructivism on an international level, since it "unites the leaders of the new art in nearly all countries"; (b) a recognition of the fact that a Socio-Communist orientation was politically and socially necessary since "progress in art is possible only in a society that has

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32 "Schweiz", Ibid., p. 2. For the original text see Note 32a on following page.

32a Schweiz

So ganz trauen wir der Sache ja noch nicht. Es sollen Erben vorhanden sein, man spricht von einer Sanierung zur Verwertung der ungeheuren Bestande von auf Vorrat gearbeiteten Saulen, Hauptgesimsen, gebrochenen Barockdachern und ahnlichen aussern und innern Ausstattungsstucken. Man ist auch einigermassen besorgt uber das Schicksal so vieler edler Gefuhle, die bislang in der Architektur ihre Unterkunft und Pflege finden konnten. Auch furchtet man, dass bei vollkommener Geschaftsaufgabe die Liquidation der gesamten schriftlich festgelegten architektonischen Weisheit zu grossen Verlusten fuhren wurde. Es ist also anzunehmen, dass die Firma auch nach dem Tode des Inhabers weitergefuhrt werden soll, man wird versuchen, die alte Kundschaft festzuhalten und selbst dazu ubergehen, durch Einbeziehung von Artikeln der neuromantischen oder expressionistischen Richtung den Absatz der alten Stocks zu fordern. Es sind uns auf dem Wege der "Verstandigung" selbst Angebote gemacht worden, einen Teil der erwahnten Lagerbestande fur uns zu ubernehmen.

Wir haben zum Totalausverkauf geraten. RED.

already completely changed its social structure"; (c) an acceptance of art as a functic i of communal collectivity, as an exponent of technology and as the product of a triumverate wherein "the artist is companion to the scholar, the engineer and the worker" and (d) a realization that one must be prepared to fight to attain these goals, as did the Russian revolutionaries: "We were attacking the same problems in Russia sa our friends here in the West ... In Russia we have fought a hard but fruitful struggle to realize the new art on a broad social and political front." [33]

Despite the fact that the group accepted Lissitzky's programme, ABC did not reprint any direct quotes from his lecture. Instead, the publication presented several articles

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[33] Excerpted from El Lissitzky "Deklaration an den Ersten Kongress Fortschrittlichen Kunstlere Dusseldorf," De Stijl, Amsterdam, Vol. 4, No. 4, April 1922, pp. 56-57.

The English translation appears in Stephen Bann, The Tradition of Constructivism, London, 1974, pp. 63-64.

Aspects of Lissitzky's Doctrine derived from earlier Soviet documents, specifically the "Program of the Productivist Group" (1920) by Alexei Rodchenko and Vaovara Stepanova. There collectivity, productivity, the perpetuation of Communist doctrine and the primacy of a technical and industrial culture were espoused. For a translation see Bann, The Tradition of Constructivism, pp. 18-20.

based on Lissitzky's premises. The articles offered an interpretation of the Russian platform as one which emphasized pragmatic concerns rather than theoretical elaborations.

In taking this direction, ABC sought to indicate that it was attempting to develop a Constructivist position which was unprecedented and of its own creation. It did not wish to duplicate any existing models but rather to establish a social platform which merely derived from Russian precedents. The entries by Mart Stam and Hans Schmidt exemplified this position. Both men's entries were based upon topics that Lissitzky had discussed in his 1922 Dusseldorf lecture. However, as Western Europeans, Stam and Schmidt both realized that an October Revolution was not imminent in their homelands and they therefore re-interpreted certa n points in Lissitzky's platform to pragmatically suit the needs of their more stable, rightist nations. What Schmidt and Stam hoped was that through an evolutionary process the Communist programme would gain a foothold in Western Europe.

Stam's article "Kollective Gestaltung" ("Collective Design") elaborated upon Lissitzky's ideas concerning collectivity and the increased stature of the worker and engineer. It stated:

> What is special or individual must yield to what is common to all ...
>
> The modern artist's new sense of meaning will enable him to recapture a full concern with public problems -- he will feel himself to be primarily a part of the great

> living whole, a community whose problems will be his own ...
>
> If an engineer wants rapid and profitable work done he organizes mechanical help and with the aid of science seeks out in every field the optimum means and the most economic way to combine forces ...
>
> At the engineers side -- the engineer who is rationally occupied with the characteristics of materials, who employs them scientifically and by combining them discovers new characteristics and applications -- at his side stands the artist. This is how we shall get designs in which use is made exclusively of collective means of expression.[34]

Stam also spoke of the "struggle" for a new society geared to the needs of the proletariat. However, Stam saw the struggle in pragmatic terms. Where Lissitzky had spoken of a mass restructuring of government and society in nebulous and idealized terms, Stam had discussed specific plans for dealing with working class problems. He advocated a shift in government policy toward realistic and attainable goals rather than a total overthrow of government. Stam's "struggle" focused on the poor, the inadequate living conditions of the European masses, and proposed solutions based on economy, machine production and an increase in mass housing.

> The struggle for survival is getting fiercer and under its coercion all nations find themselves stretched to the breaking point. Production is the main ingredient in the struggle and is closely linked to the steady increase in population. Its future involves a progressively improved economy, that is to say, better use of materials, increased production in shorter time.

[34] Mart Stam, "Kollective Gestaltung," No. 1, 1924, p. 1. Translation appears in Oorthuys, Mart Stam, p. 20.

By production I mean the production of foodstuff, followed by equipment and shelter.[35]

Stam's ideas had been influenced by Engel's Zur Whonungsfrage (1887) which had served as a guideline for the housing and planning policies established in post revolutionary Russia. Engel's treatise had emphasized that economic crises and existing caste systems would end if land ownership and manufacturing concessions were removed from the hands of private owners. New cities could then be built, with production centers providing employment to all who needed it and producing enough food and equipment for the entire proletariat. Mass housing complexes built adjacent to the production centers would avert all housing crises and would create an egalitarian community.[36]

ABC had accepted the larger position that town planning was a necessary part of the larger Communist scheme and designated planning as a major topic in its manifesto. It proposed pragmatic schemes which were based on a need for a "changed social structure", i.e. urban centers with no social hierarchies, only an egalitarian working class. The city would be designed to serve the workers' needs. Separate sections would be designated for residential, recreational, commercial and vehicular purposes. Conditions of terrain

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35 Ibid.
36 Friedrich Engels, Zur Wohnungsfrage, Leipzig, 1887, p. 10.

would determine where the various zones of the city would be located.

In "Das Chaos in Stadtbau", Hans Schmidt proposed such a city plan for Basel. His scheme, accompanied by plans, divided the city into two major zones, one for production and another for mass housing.[37] [Figs. 1&2] According to Schmidt, the scheme was completely functional, based solely on considerations of need and topography and followed no preconceived formal plan as did chaotic Paris. It aimed to meet the needs of the masses in terms of industry, transportation and the land. As indicated in a series of diagrams, Basel would be broken into sectors, one for housing and one for production, with a large nature belt and hospital complex forming the boundary between them. The latter two would serve both areas equally. The siting of each zone was to be determined by wind patterns and the contours of the terrain. For adequate vehicular and pedestrian circulation, each sector would have its own street pattern. The industrial section would connect to a highway network while the streets of the residential area would radiate into the scenic countryside. Basel was to serve as a model for the city prototype that ABC hoped to promote.

In addition to the above concerns, the manifesto

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37 Hans Schmidt "Das Chaos Im Stadtbau", ABC, No. 1, Vol. 1, pp. 2-4. Subsequent chapters will discuss the international sources of ABC's town planning ideals.

addressed the issue of a Constructivist ABC style, and once again offered its own pragmatic variant. As it had done in the areas of planning and programme, ABC sought to bend a Soviet precedent to suit the pragmatic concerns of its international affiliates. While the magazine featured entries on Asnova and its style, ABC did not want to be identified with the Asnova approach alone. It merely intended to incorporate its stylistic features and to merge them with other functional considerations. ABC sought to promote a style which simultaneously fused both functional and Constructivist elements.[38]

To underscore this point, the manifesto featured articles which focused on both approaches. In order to emphasize the ABC commitment to functionalism, in addition to the already cited commitment to Russian Constructivism, the issue opened with "Die Neue Gestaltung" ("The New Design"). This essay reviewed principles which Walter Gropius had delineated in 1923 and which Hitchcock and Johnson's International Style later codified.[39] These principles promoted an architecture which was based upon machine

[38] Following chapters will define ABC's understanding of the terms functionalism and Constructivism.

[39] Walter Gropius "The Theory and Organization of the Bauhaus (Weimar), Munich, 1923. In Bauhaus 1919-1928, New York, 1938, pp. 20-29. These will be reviewed in the forthcoming chapter.

technology, and signified the end of traditional craftsmanship. Structural regularity, a sense of volume, an emphasis on the materials of construction and above all, a 'form follows function' ethic were the major tenets it espoused. "Die Neue Gestaltung" stated in 1924:

> The new design seeks the (new) appropriate solution to each problem, one that is based solely on technical and economic factors ...
>
> Sentimentality, a yearning for the achievements of the past and individual virtuosity, cannot be accomodated within this approach ...
>
> The New Design had ground rules based on order and regularity ...
>
> The New Design seeks new challenges and new technical achievements ...[45]

The juxtaposition of such articles as "Element und Erfindung" and "Die Neue Gestaltung" announced a hybrid style which merged the stylistic elements of two distinct approaches. Unfortunately, this issue did not feature any projects which illustrated such a hybrid ABC style. It was, however, not the intention of the manifesto to explicitly present either a fully developed discussion of the ABC programme, or the projects it inspired. The manifesto issue merely sought to briefly delineate, in a very condensed manner, the principles that ABC was promoting and to imply the development of a style in the near future.

Those facets of functionalism, Constructivism, and

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45 "Die Neue Gestaltung", Ibid., p. 1. For the original text see Note 4a on following page.

40a Die neue Gestaltung auf jedem Gebiet geht von den Forderungen, und den Moglichkeiten aus und erfullt beide Gesetze bis zum Aeussersten. Damit ist die vergangene Periode abgeschlossen, denn sie hat einem zum voraus aufgestellten Dogma (einem Grundsatz -an- sich) die Forderungen und die Moglichkeiten und ihre Losung untergeordnet.

Die neue Gestaltung wird jeder Aufgabe ihre eigene Losung geben: die jenige, welche durch Technik und Oekonomie bedingt ist. Sentimentale Gefuhle der Pietat fur Erzeugnisse aus vergangener Zeit und individualistitsche Formenvirtuositat konnen auf diesem Wege nur hemmend wirken und die heutige Unordnung fortdauern lassen.

Die neue Gestaltung hat als Grundgesetze: Ordnung,
Gesetzmassigkeit.

Die neue Gestaltung kennt weder die Genugsamkeit der Resignierten, noch die Selbstsicherheit der Traditionellen --
darum mussen unsere Aeusserungen bisweilen kritisch und destruktiv sein,

Die neue Gestaltung sieht neue Aufgaben und neue technische Bedingungen --
darum muss unsere Erkenntnis fortschreiten und sich stetig wandeln.

planning that ABC adopted, were carefully detailed in the issues which appeared between 1924-1928. The features of the Russian style that the group admired were carefully itemized alongside examples of Asnova architecture and lengthy articles formulated a functional stance based on mass production, economy, standardization and innovative building techniques. Additionally, extensive accounts and diagrams of improved town planning schemes geared to the needs of the working class were shown throughout the magazine. Finally, most of the ABC issues went on to feature numerous ABC projects which illustrated a deference to all of the above concerns.

PART II

THE PREMISES AND SOURCES OF ABC'S FUNCTIONAL APPROACH

CHAPTER I

ABC'S FUNCTIONAL PROGRAM

Functionalism was an architectural approach which characterized both a style and an ideological position before and after the first World War. In The International Style (1932) Hitchcock and Johnson defined "functionalism" as an approach in which "aesthetic expression is based on structure and function" and "the aesthetic is related to, even dependent on, the technical."[1] They went on to state that "modern construction receives ... straightforward expression" from functionalist architects who "use standardized parts whenever possible and ... avoid ornament or unnecessary detail." To these architects "an elaboration of design, any unnecessary use of specially made parts would add to the cost of the building."[2]

Hitchcock and Johnson's text described Hannes Meyer as a major proponent of functionalist ideology.[3] Their description was accurate since Meyer openly espoused functional values in his critical essay "Die Neue Welt" (1926). There he stated:

> The ancient institutions of the old -- the classical grammar schools and the academies are growing obsolete

1 Hitchcock and Johnson, The International Style, p. 35.
2 Ibid., p. 36.
3 Ibid.

> ... In their place, unburdened by an artistic confusion of ideas or the trimmings of applied art, the witnesses of a new era are arising: industrial fairs, grain silos, music halls, airports, office chairs, standard goods. All these things are the product of a formula: function multiplied by economics. They are not works of art. Art is composition, purpose is function ...
>
> Building is a technical not an aesthetic process, artistic composition does not rhyme with functions of a house matched to its purpose. Ideally and in its elementary design our house is a living machine ...
>
> Architecture has ceased to be an agency continuing the growth of emotion. Individual form, building mass, natural color of material and surface texture come into being automatically, and this functional conception of building in all its aspects leads to pure construction. Pure construction is the characteristic feature of the new world of form ...[4]

Meyer's ABC compatiriots shared his ideals. Stam, during the period in which he served as editor of ABC, expanded upon his functional affiliation in an article for the Dutch publication Het Bouwbedrijf.

> Each new task gives us the chance to abandon aesthetic considerations, to forget beauty of external proportion and to study the project from a purely functional point of view. I know that in this work there are still leftovers from the era of prettification, these are usually elements that win most praise. But best things are always those which are remarkable only for their unpretentious righteousness. The important element in any undertaking is not that which betrays its creator, the designer, but only what is functional and impersonal.[5]

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4 Hannes Meyer, "Die Neue Welt", Das Werk, No. 7, 1926. For the English translation see "The New World" in Schnaidt, Hannes Meyer, p. 3.

5 Mart Stam "Op Zoek Naar Een ABC van Het Bowen" ("In Search of the ABC of Building") in Het Bowbedrijf, Amsterdam, Number 3, 1926, pp. 378 and 521. English translation appears in Oorthuys, Mart Stam, p. 6.

The values of Meyer and Stam were reiterated throughout ABC in a functional programme its founders had drafted. The programme was characterized an opposition to formalism and its Beaux Art predecessors. It supported a new architectural style which was outwardly expressive of rational planning concerns and the primacy of material and structure, and which also incorporated economic building methods, mass production, standardization, and architectural schemes which related to larger town planning concerns.

ABC's members were not the only architects who voiced functional interests during this era. Walter Gropius, in his seminal text Idee und Aufbau des Staatlichen Bauhauses Weimar (1923), argued that modernism opposed "academic aestheticism" and called for an architecture of "modern materials" such as steel, glass and concrete. He believed that new architecture should demonstrate "the new boldness of engineering" by revealing structure externally. Such an approach, he felt, would result "in a new lightness and airiness." Gropius believed that functional buildings should be constructed of standardized parts and units and based upon assymetrical ground plans which conformed only to the requirements of the necessary functions. Also emphasized by Gropius was the relationship of architecture to town planning, since "all the building parts should be functional limbs of the comprehensive organism which depends simultaneously on building, street and means of

transportation."[6]

Despite the strength of their beliefs, the statements of Meyer, Stam and Gropius were hardly original. Prior to 1924 noted European architects had announced convictions which described aspects of the above points. Antonio Sant Elia's "Futurist Manifesto" had proclaimed in 1914 "I oppose and despise: All classical, solemn, hieratic, theatrical, decorative, monumental, frivolous, pleasing architecture,"[7] a sentiment which echoed Adolf Loos' anti-historic deduction in "Ornament und verbrechen" (1908) that "no ornament can any longer be made today by anyone who lives on our cultural level."[8] Le Corbusier in Vers un Architecture (1923) promoted a utilitarian architecture by opening his classic text with "The engineer's aesthetic and architecture are two things that march together and follow one from the other ..."[9] and Mies van der Rohe, in the premier issue of G

6 Walter Gropius, "Idee und Aufbau des Staatlichen Bauhauses Weimar", Munich, 1923. The English translation appears in Walter Gropius and Herbert Bayer, Bauhaus 1919-1928, Boston, 1938 under the title "The Theory and Organization of the Bauhaus", pp. 27-28.

7 Antonio Sant Elia 'Nuove Tendeze', Lacerba, Florence 1914. For the English translation see "Manifesto of Futurist Architecture 1914" in Umbro Apollonio, Futurist Manifestos, New York, 1970, p. 171.

8 Adolf Loos, "Ornament und verbrechen" Trotzdem 1900-1930. Innsbruck, 1931. For the English translation see "Ornament and Crime" in Ulrich Conrads, Programs and Manifestos on 20th Century Architecture, p. 23.

9 Le Corbusier, Towards a New Architecture, New York, 1960, p. 7.

(1923) openly called "for an architecture of maximum effect with the minimum expenditure of means" and such materials as "concrete iron" and "glass".[10] His article recalled Sant Elia's insistence on an architecture of "... reinforced concrete, of iron, of glass ... and all those substitutes for wood, stone and brick to obtain maximum elasticity and lightness."[11] And, as the previous chapter noted, town planning ideals which benefited the working class were already a part of socio-political ideology by 1924.

While the above statements all reiterated general aspects of functional doctrine, they were not necessarily representative of identical positions. Functionalism was a broad term which included a variety of interpretations on more precise levels. The explosive Futurist visions of Sant Elia did not parallel the understated refinements of Miesian design and the colorful inventive forms of Le Corbusier did not directly correspond to Gropius' more rigid and austere projects despite the above architects' common appreciation of functionalist rhetoric.

The functional position of the ABC group can be understood in similar terms. While Stam, Meyer and their compatriots were "functionalists", their understanding of "functionalism" did not compare to the position of such

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10 Mies van der Rohe "Burohaus" G, Vol.1, No. 1, 1923. For the English translation see "Working Theses", Conrads, Manifestoes, p. 74.
11 See note 7.

contemporaries as Mies and Le Corbusier in all respects. Between 1924 and 1928, ABC advanced a highly selective and often self-serving functional position. In ABC - Beitrage Zum Bauen the group detailed their platform.

The specific points of ABC's functional programme were underscored throughout various ABC issues. Most frequently emphasized were those points which described an anti-formalist position, the primacy of materials and structure, rational ground plans, standardization, mass production and town planning. ABC's unique evaluation of these concerns will emerge in the ensuing overview of ABC's functional programme.

An Anti Formal Position

Throughout its run, articles in ABC underscored a commitment to functionalism by voicing an opposition to classicism and formalism. The article "Komposition Ist Starrheit" ("Composition Means Inflexibility") listed the stylistic types that ABC opposed.[12] ABC was openly opposed to all buildings which did not reveal structure or function in a visible manner. Neo-Classical and formally conceived

12 ABC, Series II, No. I, 1926, pp. 1-3.

buildings exemplified this tendency. Huge X's were imposed over photos of such edifices which included a Beaux Arts building, Ostberg's Stockholm Town Hall as well as a Van Doesburg De Stijl prototype for a house.[Fig. 3][13] Accompanying these was a text which outlined ABC's aesthetic position.

> Composition is a conscious or unconscious arrangement of forms which follow laws that are not based on requirements of construction. These reign independently. Composition is superficial cosmetic beauty.
>
> ... Clarity is not composition, it is not contrived beauty ... It deriv from realistic, unchanging requirements ...
>
> ... (Clarity) follows as a result of the expression of function and need the economical use of materials ...
>
> Composition, Compositions of cubes of colors and materials are an aid but also a weakness.
>
> What matters only are the functions and these determine the form.[14]

13 This chapter will go on to prove that ABC opposed all contemporary "formal" approaches. In addition to that of Van Doesburg, cited will be the approaches of Le Corbusier and Mies Van der Rohe.

14 See Note 14a on next page for original text.

14a Diese Klarheit ist keine Komposition, sie ist keine vorgefasste Schonheit, eine ursprunglich banale Aufgabe veredelnd, sondern sie steht da als Ergebnis, entstanden aus den von Tag zu Tag steigenden Forderungen...

Zu diesen Forderungen gehort nicht allein das gute Funktionieren und die Dauerhaftigkeit, sondern vor allem auch die okonomische Verwendung des Materials. Wozu sollen wir Zeit und Krafte an Verzierungen und Modegrillen verschwenden...

Komposition ist ein bewusstes oder unbewusstes Ordnen von Elementen nach Gesetzen, die neben den Gesetzen der Aufgabe selbst regieren. Komposition ist Schonmacherei ....

Komposition, Komposition von Kuben, von Farben, von Materialien bleibt ein Hulfsmittel und eine Schwache. Wichtig sind die Funktionen, und diese werden die Form bestimmen...

Additional articles reiterated these theses and provided photographs and floor plans of non-acceptable models. These included the Beaux Arts schemes in "Warum Nicht Schon" ("Why Not Beautiful") and the Romanesque style church by A. Meili in "Die Baukunst und Der Liebe Gott" ("Architecture and the Dear Lord").[15] All of the above were presented with superimposed black X's.[Fig. 47] Needless to say, Oestberg's Town Hall was the building A. Meili had lauded in the Schweizerische Bauzeitung. It should come as no surprise then that ABC included Meili's own 1925 Kanzel Kirche in Wolhusen for such negative distinction.[16]

These above articles must be understood as part of ABC's larger ideological position. They were not merely condemnations of Beaux Arts architecture and of architects who had insulted ABC members at an earlier time. "Komposition Ist Starrheit" and "Warum Nicht Schon" acted as a prologue to the essay "Die Menschen Sind (Mehr Menschen Sind) Die Masse Geworden" ("The People Have Become the Masses").[17] Here ABC cited population figures which proved

15 "Warum Nicht Schon", ABC, Series II, No. 3, 1926, p. 6.
16 "Die Baukunst und der Liebe Gott" ABC, Series II, No. I, 1926, pp. 7-8.
17 "Die Menschen Sind (Mehr Menschen Sind) Die Masse Geworden", ABC, Series II, No. 3, 1926, pp. 1 & 2. A photograph of "Die Masse" in "Komposition Ist Starrheit" reaffirms this point.

European nations had experienced extraordinary population growth. This growth created a large new working class for which these nations were largely unprepared. ABC here claimed that traditional Beaux Art building and planning prototypes and antiquated production methods did not suit the needs of the emerging proletariat, the new masses. Their needs could only be met if old methods were replaced by new systems of mass production, planning and housing which was conceived along lines of economy and function.

Primacy of Materials and Structure

Articles discussing the primacy of materials and structure also received emphasis throughout ABC. Issue 3/4 of 1925 was devoted entirely to this point. On the subject of materials, concrete, iron and glass were singled out as the supreme materials of the era. The issue chose to focus on new developments in concrete construct A variety of articles concerning the [illegible] written by ABC members, were presented. The issue featured a s tive overview of contemporary concrete building types, one which focused only on those concrete construction methods which suited the particular needs of ABC's architects. For example, this overview made no mention of Robert Maillart's highly significant prototypes (although future chapters will indicate that ABC did recognize him as a major source of

inspiration).[18] Le Corbusier and Mies van der Rohe were openly degraded. Only several specific concrete methods were recognized for distinction by the group methods which suited their "functional" approach.

Emil Roth contributed "Schalung" ("Formwork") which discussed his method for the poured concrete process. Roth detailed the various stages of the procedure in the article.[19] The essay "Mauer und Wand" ("Wall and Partition") compared the two leading materials of wall construction -- bricks and concrete. Both were analyzed in terms of cost, supportive strength and inherent insulation. Concrete was found to be more economical and superior in all areas.[20] "Neue Beton Materialen" ("New Concrete Materials") listed three new reinforced concrete systems and analyzed these as well.[Fig. 46][21] ABC also featured a discussion of another concrete construction method used by Hans Schmidt. "Technische und Wirtschaftliche Resultate eines

18 See the following chapters.
19 ABC, Series I, No. 3-4, 1925.
20 Ibid., p. 10.
21 Ibid., p. 12. These were: "Gasbeton" - a light and porous concrete, "Stahlbeton" - a very dense strong cement mixed with a metalic material, "Torcbeton" - a concrete type which was intended for thin skinned curvilear structures.

Wohnhausbaues-1927" ("Technical and Economical Factors of a Residence-1927") by Artaria and Schmidt, in the final issue, detailed the construction of the Colnaghi House in Basel (1927).[Fig. 110] The house was an experimental one, employing a concrete block method that Schmidt had devised. In an effort to educate the reader on this concrete system, the house was shown at various stages of its construction. An elaborate account of construction details accompanied the above.[22] The method was lauded for its low cost and technical suitability.

In addition to discussing materials, the afore-mentioned 1925 issue proposed that materials be given external emphasis whenever possible. Mart Stam expounded upon this point in his article "Modernes Bauen 3" ("Modern Building 3").[23] In the article, he advocated the use of reinforced concrete construction systems and specified that they be given

22 ABC, Vol. II, No. 4, 1928, p. 9. Hans Schmidt has discussed this method in "The Swiss Modern Movement 1920-1930". Architectural Association Quarterly, Vol. 4, No. 2, April-June, 1972, p. 38.

It is very likely that Schmidt was aware of Frank Lloyd Wright's cement block techniques at this time. Werner Moser had worked with Wright between 1923 and 1925 and had brought back related information to Switzerland in 1925.

The Colnaghi House will be discussed in the last section.

23 "Modernes Bauen 3" which includes all the illustrations mentioned in ABC Volume 1, Nos. 3-4, 1925, pp. 3-5.

external articulation. The text discussed several concrete systems and concluded that the one Mart Stam employed, the portal frame system, was best for reasons of flexibility, strength, economy and proper structural expression.

The Dutch architect illustrated those concrete systems he felt to be deficient, such as Le Corbusier's Domino method.[Fig. 6] The Domino method was said to suffer from a failure to reveal the workings of the support system to the naked eye. Domino revealed only pillars, but no beams or other horizontal supports, since these were enclosed within the slab. Needless to say, Stam did not approve of Le Corbusier's exteriors either, as these rarely incorporated a sufficient display of the structural system.

Stam championed a system which he believed was superior to that of the Domino. His portal frame system did not consist of a slab and column configuration but rather, advocated the use of reinforced concrete frames upon which a floor slab rested. These were extremely flexible in that they could span large spaces and, via calculated taperings, could support extremely heavy loads. Stylistically, they were advantageous in that they forced a revelation of structure. Beams could not be hidden within concrete slabs. The 1922 Konigsberg Office building by Stam showed an interior view of this system with its visible right angled frames.[Fig. 4]

Stam was not content to see his system exposed merely on

interiors and therefore developed a scheme for its external exposure as well. (His "Wohnhaus mit Erweiterungsmoglichkeit" ("Expandable Home") was also shown as an example of a building using this structural method.[Fig. 5]) In Konigsberg, Stam extended the concrete frames beyond the perimeter of the house to create a second story loggia. A lightweight covering was laid above the frames to demostrate the load and support system outside the house.

The office building's open ground floor also displayed the frame system. In addition, this project articulated another feature as well. Stam believed that if a building employed a concrete slab floor, that fact should be recognizable on the building's exterior. Although the Konigsberg project did not have load bearing walls and could have accomodated a glass curtain wall, Stam deliberately chose not to use one. Instead, he foreshortened the vertical spread of the windows to allow for broad bands of concrete which alluded to the slab within. Obviously these bands did not correspond to the dimensions of the interior slab in that they were necessarily much thicker. They were a deliberate attempt on Stam's part to express 'structure' externally in a stylistic manner.

To emphasize his points, Mart Stam took the liberty of reworking two Mies van der Rohe designs along the lines of

this format. Mies' 1922 Glass Skyscraper had employed a system like the Domino on its interior. However, its shimmering glass walls obliterated the fact that a concrete slab system existed within. Stam therefore provided a drawing of what might be called a corrected version of the same building.[Fig. 6] In the Stam version, concrete parapets were sandwiched between the stretches of glass to indicate the slab. Similar liberties were taken with Mies' Concrete Office Building project of 1922.[Fig. 7] In his original drawing, Mies had designated a series of two directional beams as interior supports and had specified alternating glass and concrete trays for the facade. Stam did not see the concrete trays as an expression of structure, but rather as the product of purely formal considerations. To break the symmetry of these alternating bands Stam thickened the concrete bands and reduced the size of the windows. And to adequately accomodate and emphasize his preferred portal frame, Stam reduced the depth of the building in his revised version. For Stam, the latter system emphasized the rigors of structure rather than the visual harmonies of form which often characterized Mies' work.

The Rational Plan

ABC presented two types of rational plans. The first was organized around diverse and unrelated functions which

had little in common. The second was developed for building programs where a number of related functions served as unifying common denominators.

The first type of plan was exemplified by Mart Stam's Cornavim Station (1924) proposal.[24][Fig. 8] For this entry programme was developed for the housing of unrelated functions with distinct functions being given distinct volumes, both externally and internally.

According to Stam, his Cornavim plan countered traditional terminal schemes. Stam claimed that existing Swiss Beaux Arts rail terminals had usually stressed an opposite approach. There all functions were housed within an enormous edifice of predetermined proportions. How well functions inter-related within the building was not important. Rather, their conformity to the master plan was the issue. Additionally, it was the outward expression of Beaux Art grandeur and not interior function, which determined exterior form. Stam upheld his Cornavim scheme as a challenge to the above. He believed that his new format was based on a methodology which he believed to be rational and thus functional.[25]

24 ABC, Vol. I, No. 6, 1925, pp. 3-4.
25 The next section will prove that this methodology was based on specific 19th and early 20th century sources.

Rather than combining all functions within a single building, Stam separated such diverse functions as restaurants, platform areas and service accomodations. He gave each their own sections and noticeable exterior forms. Their arrangement was determined by the building's relationship to the site and to traffic avenues. The plan was also determined by access routes within and out of the complex. Stam's own description of his plan attested to these concerns.

> This station is planned as a complex of rooms that are arranged around the main access lines -- the street and the rail platforms. Traditional stations require that passengers walk through endless stretches of imposing masonry, filled rooms and apartments. In this plan such rooms are placed in a separate wing, and are conveniently connected to the service wing.
>
> This station does not attempt to create a barrier between the trains and the city. From the rail platforms passengers can see both a network of ramps and stairs that not only moves them about but also allows them to see and thus orient themselves to their new environment. Thus, when they reach the street they already know what to expect.
>
> In traditional stations, passengers must pass through a formal and monumental series of hallways which do not prepare the travellers for what awaits them on the outside. This station, on the other hand, is designed to meet all the requirements of traffic and passengers.[26]

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26 "Projekt", ABC, Series I, No. 6, 1925, p. 3. See Note 20a for the original text.

26a LEITSATZE:

Dieser Bahnhof ist ein Komplex von Raumen, die zu beiden Seiten des Verbindungsweges: Strasse -- Perron angelegt sind.

Die Tradition fordert, ein grosses Volumen zu bauen, durch das jeder Reisende hindurchkriechen muss. Einen Baublock, gross und imposant, der vollgestopft werden muss mit Wohnungen und nebensachlichen Raumen, um eine Scheinmotivierung zu finden fur kolassale Abmessungen. Diese im Programm vorgeschriebenen Raume sind in einem besonderen Flugel untergebracht, der mit dem Dienstgebaude in guter Verbindung steht.

Dieser Bahnhof ist keine Schranke zwischen den Zugen und der Stadt; die Reisenden ubersehen sie bereits von den Perrons aus. Treppe und Rampe geben ihnen Gelegenheit, sich zu orientieren, sich an die neue Umgebung zu gewohnen. Die Reisenden kommen vorbereitet in die Strasse.

Allgemeiner Brauch ist es, dass der Reisende durch formalistisch-monumentale Hallen schreitet und sich dann -- unerwartet in den starksten Verkehr gestellt sieht, wenn er das Gebaude verlassen hat.

Dieser Bahnhof akzeptiert die Forderungen des Verkehrs und versucht sie zur aussersten Konsequenz zu organisieren.

The second type of plan ABC proposed proclaimed that there were many complexes or buildings which did not warrant a scheme as diverse as Cornavim's. Many of these housed a limited number of functions which either repeated themselves or which shared common interests. When spaces shared denominators, ABC felt they belonged within a single volume. Furthermore, their common grounding made them candidates for standardization. Therefore, ABC advocated that a norm be established for each function. That norm was then to be translated into a room size of specific dimensions which could be treated as a module that was to be repeated whenever necessary. Buildings which housed one or several related functions were thus regarded as receptacles in which modular units could be stacked. Exteriors of such buildings were required to reflect these repetitious modules. And if several buildings housed these, they were to assume a similar or identical external guise.

Articles within ABC - Beitrage Zum Bauen discussed various aspects of this "rational" method. For example, "Das Bauen und die Norm" ("Building and Standardization") promoted the extensive use of the standardized module.

> Standardization implies uniformity ... It is the necessary solution for those assignments that share common functions ... It is the economical solution ...
>
> ... We must establish standardized norms for each task. Once we study the specific needs of each, we can thereafter formulate an appropriate set of standardized norms for it. We can then use these as often as necessary.

> ... As a result, spaces with similar functions and needs will be created along the lines of a singular model and will be identical ... Buildings employing this method will then no longer be monumental compositions which house a multitude of differently sized rooms. They will be structures where all functions will be clearly expressed, since each specific function will have its own standardized unit. A variation in the design of the building will bespeak a change in function ...[27]

A complex designed by Hans Schmidt articulated such a modular concept in architectural terms. In 1927 Schmidt drew a plan for a multi-use complex for the city of Bern (Switzerland) which was based on an earlier 1923 design.[28][Fig. 9] These were the Swiss Regional Library, the Municipal Bureau of Statistics and the Official Archives. Schmidt arrived at this design with the following rationale:

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27 ABC, Vol. II, No. 3, 1926, pp. 2-4. See Note 27a for the original text.

28 ABC, Vol. II, No. 4, 1927-1928, pp. 10-11.
This project reflected concepts evident in Schmidt's 1923 Geneva International Workers Bureau project which appears in ABC, Series 2, No. 3, 1926, p. 5. It will be discussed in the last section.

27a Das Bauen und die Norm.

Die **Norm** ist die Einheit, die neutrale Einheit, sie will weder schon noch hasslich sein, sie bedeutet nichts als die Anpassung an eine moglichst grosse Anzahl von Moglichkullen.

Die Norm ist die allgemein brauchbare Losung fur gleichsortige und gleichzeitige Aufgaben. Sie wird stets wieder neuen Normen weichen, sobald diese konsequenter und okonomischer die gestellten Forderungen zu losen vermogen. Es ist unsere Aufgabe, stets von neuem fur alle Dinge, die uns umgeben, **die Norm** festzustellen. Wir mussen lernen, jede Forderung, von allem Nebensachlichen absehend, deutlich zu erkennen:

Gleiche Gruppen von gleichsortigen Raumen --
Gleiche Funktionen --
Gleiche Bestimmungen --
Gleiche Anspruche.

So werden wir einsehen, dass das Bauen kein asthetisches Zusammenwurfeln von verschiedenen Baukorpern zu einer kristallformigen Komposition ist, aber auch kein Zusammenschachteln von vielen verschiedenen kleinen Raumen zu einem grossen Monumentalgebaude, das hinter einer ausserlich grossen Erscheinung wichtige und unwichtige Raume gleichmassig verbirgt. Gleiche Gruppen von Raumen, gleiche Functionen, gleiche Bestimmungen ergeben gleiche aussere Erscheinungen. Jede architektonische Variation schadet der Klarheit und Uebersicht...

> Today it is possible to house any number of functions in identical spaces. Thus, there will be identical work rooms for business, administrative and education oriented concerns. Identical stockrooms for archives, libraries and collections. Identical gathering space for purposes that are educational, political or religious.[29]

In keeping with this outlook, Schmidt chose to orient his complex only along lines of interior function. Rather than giving each municipal branch its own edifice with separate offices, assembly halls and archives, he elected to combine all related functions within a single complex of repetitious sections. Within this complex he devised modules for each function and these were repeated throughout each building whenever possible. Schmidt sought to express his modular scheme externally as well. To that end, he gave buildings external forms which alluded to their interior plans.

Hans Schmidt's resultant Bern complex encompassed five large sections. It consisted of a main facade which was flanked by four wings. Each of the latter joined the facade on a right angle. Specific functions were housed in each section. All office entry and reception spaces were

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29 ABC, Vol. II, No. 4, 1927-1928, p. 10.
Es ist heute **moglich**, die uberall und fur jede wirliche Arbeit **gleichen** Bedingungen festzustellen -- also **gleiche** Arbeitstraume fur Geschaft, Verwaltung und Unterricht --
gleiche Stapelraume fur Archive, Bibliotheken und Sammlungen --
gleicne versammlungsraume fur padagog., polit. u. religiose Zwecke.

contained within the facade bloc. Modules of exact dimensions were established for each of these and then used throughout. Two flanking wings housed archives, one contained reserves and the other held assembly spaces and related cubicles. To express the fact that each of these housed repetitious (as in the case of the archives) spaces, non-differentiating rows of ribbon windows distinguished their facades. To identify those buildings which housed individual functions, each was given a distinguishable silhouette. The office section took the form of a horizontal corridor, since it did connect all the wings. The assembly building was granted a square form and an elliptical stairtower. The remaining three structures were identical. The rationale: they enclosed virtually identical interior plans and functions.

Schmidt's modular proposal resulted in a serial approach to building which ultimately characterized numerous ABC projects. Serialization came to represent ABC's increasing appreciation for mass produced standardization not merely on the product level but on the planning and architectural level as well.

Mass Production

The importance of the machine, mass production and standardization were stressed throughout ABC. The magazine let it be known that standardization did not only apply to rational groundplans but to the materials and methods of construction as well. An integral part of the ABC's functional approach was the outward display of standardized parts. To underscore the significance of mass production's parent -- the machine, ABC prominently featured an ode to the latter entitled "ABC Promotes the Dictatorship of the Machine", which declared

> The machine is neither the future paradise in which all technical possibilities will be fulfilled, as in our bourgeois aspirations had hoped -- nor does the machine signal the coming Hell in which all human development will be destroyed.
>
> The machine is simply nothing more than the merciless dictator of the collective possibilities open to our lives as well as to our life's work.
>
> But we are still in a transitional stage, in a process of becoming. The machine is the servant of the Renaissance, individualistic -- bourgeoise culture which gave birth to it. Just as the servant is paid and watched by his master, so too is the machine needed by its citizens, while from their educated members and philosophers damn it upper spiritual echelons. But the machine is not the servant -- it is the dictator. It has come to dictate how we are to think and what we are

> to understand. Each year it exerts more and more control as the master over her dutifully dependent masses and over their way of life and culture. It recognizes no philosophical respite and does not accept peaceful gestures of compromise. The machine gives us no opportunity for developing a perspective on life, on understanding, no opportunity for promoting our own sense of aesthetic. Reality shows us how far we have already come in our subservancy to the machine. We have sacrificed our handiwork to it, and in doing so have surrendered our peasantry to it. We have consolidated over to it our most important ways of transcommunication and our larger industries. Under its rule we have developed new methods of production -- serial production, standardization and mass production ...[30]

To emphasize the importance of the machine, the magazine featured a variety of articles which called for the implementation of mass production and standardization. Brief essays and photomontages also cited examples of how houses could stylistically express the repetitious, mass produced parts of which they were made.

"Industrielle Massenproduktion von Wohnhausen in England" ("The Industrial Mass Production of Homes in England") by Hans Wittwer was one of the featured essays.

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30 ABC, Vol. II, No. 4, 1927-9, pp. 1-2. For the original text see note 30a on the next page.

30a Excerpts from "ABC Fordert die Diktatur der Maschine"

Die Maschine ist weder das kommende Paradies der technischen Erfullung aller unserer burgerlichen Wunsche -- noch die nahende Holle der Vernichtung aller menschlichen Entwicklung --

Die Maschine ist nichts weiter als der unerbittliche Diktator unserer gemeinsamen Lebensmoglichkeiten und Lebensaufgaben.

Aber wir stehen noch im Werden im Uebergang. Die Maschine ist der Diener einer aus der Renaissance geborenen burgerlich-individualistischen Kultur geworden. Wie der Diener vom selben Herren bezahlt und verachtet wird, so wird die Maschine vom Burger zur selben Zeit gebraucht und von seinem geistigen Hofstaat, seinen Kunstlern, Gelehrten und Philosophen verdammt. Aber die Maschine is nicht Diener, sondern Diktator -- sie diktiert, wie wir zu denken und was wir zu begreifen haben. Sie fordert als Fuhrer der mit ihr unerbittlich verbundenen Massen von Jahr zu Jahr dringender die Umstellung unserer Wirtschaft, unserer Kultur. Sie kennt keine Atempause auf der philosophischen Ruhebank, keinen Kompromiss mit pazifistischen Phrasen. Sie gonnt uns keinen Ausblick auf einen Verstandigungsfrieden, keine asthetische Distanz zum fordernden Leben. Die Wirklichkeit zeigt uns, wie weit wir heute schon dem Diktat der Maschine gefolgt sind: wir haben ihr das Handwerk geopfert, wir sind daran, ihr den Bauernstand auszuliefern. Wir haben ihr die Zusammenlegung unserer wichtigsten Verkehrsmittel und unserer grossen Industrien zugesthen mussen. Wir haben unter ihrem Druck eine neue Produktionsweise entwickelt, die Produktion der Serie, des Standards, der Masse. Wir haben ihretwillen dem Staat immer grossere Machtmittel der Organisation in die Hande geben mussen und sogar unsere heiligsten nationalen Guter internationalisieren lassen...

Hans Wittwer was an outspoken proponent of mass-produced prefabricated construction. In 1922 Wittwer had left Switzerland to study working class housing developments in England. He traveled throughout Britain and assembled a body of documents on the subject. The documents included plans and British texts which featured low cost homes composed of standardized and mass produced parts and a manual called Houses for Workers which Wittwer brought back to Switzerland.[31] Singled out for distinction in the latter was the Well Hall project for munitions workers in Woolwich, Kent.[Figs. 10,11] Well Hall's houses were constructed solely of mass produced panels and parts which the architect admired [Figs. 12,13].

Upon further investigation of British building types, Wittwer found one type which he felt to be superior to all the others, namely the method of G&J Weir, Ltd. in Glasgow. In the G&J method, residential dwellings were mass-produced in a factory, in assembly line fashion. The houses produced were not made of traditional materials, but were rather

31 Houses for Workers published by Technical Journals Ltd., 27-29, Tothil Street, Westminster, S.W.I. (No copyright date is given.) Wittwer's copy is currently in the archives of the Eidgenossichen Technische Hochschule in Zurich, Switzerland. Wittwer placed markers on those pages he felt to be of importance.

assemblages of prefabricated steel panels which remained in their panelled state on the home's exterior and were thus externally expressive of their construction method. Impressed, Wittwer detailed the G&J process in the article. He hoped to inspire ABC's architects to turn to a prefabricated architecture which expressed its standardized state. It will be shown in later chapters that architects such as Hans Schmidt ultimately did design buildings which employed exterior prefabricated panels.[32]

The previously cited 'Beton' issue of 1925, also stressed mass production and featured mass produced parts which ABC's architects should incorporate into their design. Among these was the "Betonfensterahmen" or concrete window frame produced by Christen and Cie in Basel. The article "Wir Erhalten" ("We Believe") lauded the frame's economical and structural qualities. An accompanying photomontage displayed both the frame and an example of a building in which it was being used on a repetitive basis.[33] [Fig. 39]

32 See Part IV, "Prefabricated Concrete Garage and Gardenroom" by Hans Schmidt, 1925.
33 See ABC, Series I, No. 3-4, 1925, p. 10.

Town Planning

ABC's founders, like Gropius, did not see buildings as isolated entities but believed that they were integral parts of larger town planning schemes. In keeping with the ideals of Engels, ABC recognized that planning schemes could be instrumental in the creation of egalitarian, production oriented cities. Improved planning concepts would result in improved architecture and ultimately a better society which was structured along Socialist lines. Articles in ABC spoke of this intention and designs by Stam, Schmidt and Roth indicated various ways in which socialism, planning and architecture could interact in a manner that was beneficial to cities and workers.[34]

"Die Menschen Sind Mehr Menschen Sind Die Masse Geworden" ("People and More People Have Become the Masses") underscored the fact that the structures of society and production had changed drastically since the last century.[35]

34 ABC's orientation to town planning emphasized production and egalitarian housing. ABC's ideal schemes thus countered such schemes as Le Corbusier's 1922 "Contemporary City for Three Million", which also called for zones for different functions and for green belts, was centered around a towering hub of commercial institutions, which catered to the middle classes and white collar workers.

35 ABC, Series II, No. 3, 1926, pp. 1-2.

Cities had changed as well, and were increasingly becoming centers of production. The article stated that it was the duty of architects to provide not only new housing prototypes for the emerging constituency but also city schemes which addressed themselves to the needs of production, traffic and recreation.

These concerns were described in essay and plan form by Hans Schmidt in the first issue of ABC, and were expanded upon by Mart Stam in ABC issues through 1928. In 1926, ABC published a competition entry by Stam for the city of Trautenau in Czechoslovakia[36][Fig. 14] and in it the above concerns were further illustrated.

For Basel, Hans Schmidt had proposed a division of the city into zones, each for a specific function. Mart Stam elaborated on Schmidt's scheme and addressed himself to the above topics. There his 1924 plan for the city of Trautenau, in Czechoslovakia Stam advocated a division of Trautenau into zones of industry and housing whose location would be

36 ABC, Series II, No. 1, p. 7.

determined by the contours of the sloping terrain.[37] Stam emphasized that housing sectors would not be locked within the confines of any master plans so that they could be expanded to accomodate additional population growth. Also stipulated was the proximity of the housing to an adjacent green belt which diffused into the surrounding countryside. Emphasis was also placed upon an extensive network of streets and broad avenues to accomodate traffic's increasing flow.

Stam's essay and detailed plans for Trautenau did not reflect ideas that were totally original to ABC -- nor even to Stam. These concepts had been formulated while Stam still resided in the Netherlands. In 1921, Stam had been an apprentice in the Rotterdam offices of Granpre-Moliere, Verhangen and Kok when the firm had been drawing plans for an extension of South Rotterdam.[Fig. 15] The plan divided the

37 Why did Stam draft a plan for Trautenau? Stam and the Czech architect Karel Teige were friends and the latter may have encouraged Stam to develop a plan for the Czechoslovakian city. El Lissitzky certainly encouraged their comraderie, one which he made official in 1926 when he named both men (and Emil Roth) international affiliates of Asnova in the 1926 Izvestia Asnova magazine that he co-edited with Ladovsky. See "Who Works with Asnova" in the English translation of Izvestia Asnova which appears in The Institute for Architecture and Urban Studies, Art and Architecture, U.S.S.R., 1917-32, New York, 1971, p. 13.

city into zones, each designated for either commercial, residential or manufacturing concerns. Connecting the zones was an organized system of roads, and tunnels and linking these was a park network which grew larger as it moved toward the countryside. This approach intended to physically merge the city with the surrounding open country.[38]

While with Granpre Molier's firm Stam, attempted a planning scheme of his own. In 1922, he entered a competition for a southern extension of the Hague.[Fig. 16] He did not win, but the influence of his mentors was obvious. Stam's design called for clearly organized zones each of which encompassed grids of small streets. Emphasis was placed on the organization of the various functions and concerns within the regularized grids. Broad avenues outlined the grids, thereby granting the Hague a logical and well apportioned road system. Stam's Hague also attempted to merge town with nature by having the space between buildings and surrounding greenery grow continually more pronounced as the town expanded into countryside.[39]

38 The Rotterdam plan by Granpre-Moliere, Verhangen and Kok is featured in Mart Stam, "Holland und die Baukunst unserer Zeit IV" Schweizerische Bauzeitung, Volume 82, Nov. 1923, p. 271.

39 Ibid., p. 270.

By 1923, Stam had drafted an account of what good town planning should entail. His 1923 article for the Schweizerische Bauzeitung expounded upon his priorities:

> The truly modern city is a composite of functions and of necessary requirements. Clearly demarcated spaces must be established for all of its concerns, and these include residential sections, industrial quarters, commercial centers, recreational areas, and parks. Equally, properly defined spaces must be designated for roads, avenues, railroad terminals, tram lines ...[40]
>
> The city of the middle ages was a closed city, surrounded by a wall ... The new city is open ... It is concerned with the health of its residents and therefore all efforts are made to extend and merge the city grid with outlying regions.[41]
>
> Time has come for the recognition of the importance of proper traffic avenues... The beloved plans of the monumental era did not function properly ... Our cities demand better solutions... Their life spaces and energies demand them... In the era of closed monumental cities, streets were interior spaces which conformed to a preordained plan. They were dead volumes which had little in common with the actual requirements of traffic ... Traffic avenues had no logical beginning and no logical end ...[42]

In spite of the fact that ABC did not publish plans that were distinguished for their originality, the magazine can be

40 Ibid., p. 269.
41 Ibid., p. 270.
42 Ibid., p. 271. For the original text see note 42a on next page.

42a Excerpts from "Holland Und Die Baukunst Unserer Zeit IV" by Mart Stam (Schweizerische Bauzeitung, Volume 82, November 1923, pp. 268-272).

Denn eine wirklich moderne Stadt wird nur aus dem starksten Gegenwartsbewusstsein entstehen konnen. Alle Faktoren, alle Funktionen, das ganze Leben wird in ihr Raum finden mussen, das Wohnen so gut wie das Arbeiten, die Geschaftstadt ebenso wie das Industrieviertel, der Spazierweg im Erholungspark sogut wie die Automobilstrasse, die Eisenbahnlinien und Bahnhofe, die Statten der Erholung und des Vergnugens ...

Die Stadte des Mittelalters umgaben sich mit Festungsmauern setzten Stadttore als Abschlusse an das Ende ihrer strassen -- so wurde die Geschlossenheit ihr starkstes ahnnzeichen. Die modernen Stadte dagegen offnen sich ah aussen, Handel und Wandel hereinlassend, an sich saugend. Im Herzen der Stadt schliessen sich die Hauser am dichtestern zusammen, die Ausnutzung des Raumes notigt uns, Bureau- und Geschaftshauser hoher hinaufzufuhren. Nach aussen zu nimmt die Bebauung an Hohe und Dichtigkeit ab dem Abnehmen der geschaftlichen Intensitat folgend. Die kompakte Massenerscheinung der mittelalterlichen Stadt ist damit freilich nicht mehr moglich. Denn die moderne Stadt sucht sich nicht mehr von der umliegenden Landschaft abzusondern, sie mit Mauern und Turmen von sich abzuwehren. Sie wird im Gegenteil versuchen, die Umgebung in ihren Bereich zu ziehen, in sie hinauszudringen. Dabei wird die Stadt am Fluss trachten sich seinen Ufern entlang auszubreiten; die Stadt am Meere wird, die Gunst ihrer Lage fur die Erholung der Bewohner ausnutzend, darauf sehen, einen moglichst grossen Teil der Kuste mit einem weitreichenden Strassennetz zu erschliessen, u.s.f. aber in allen Fallen werden vorhandene Faktoren im Verein mit den aktiven Funktionen eines Stadtwesens sie als lebendes Organ niemals aber al reprasentatives totes Formgebilde entstehen lassen.

Das stromende Leben verlargt Weite und keine Geschlossenheit. Und darum mussen wir ... einsehen, dass der so beliebte monumentale Abschluss, dass die Kopf-Wand, an der die ganze Bewegungsrichtung des Verkehrs tollauft, Konsequenz, sondern noch mehr die Anerkennung der grossen gestaltenden Verkehrsfaaaktoren, die Achtung, die wir dem Leben und der Energie unserer Weltstadte schuldig sind. Jene Generation, die den Raum nicht anders als geschlossen, als begrenztsehen konnte, musste notwendigerweise auch die Verkehrstrassen als Inneraume, als tote Luftvolumina auffassen ... Dagegen haben wir deutlich erkannt, dass die Verkehrstrasse keinen Anfang und kein Ende kennt.

commended for the fact that it afforded Schmidt and Stam a vehicle in which to expand and develop their design concepts.[43] The Hofplein plan, which appeared in ABC's final issue clearly illustrated this point.[44] [Figs. 17, 18] The periodical devoted a two-page long examination to The Hofplein (Rotterdam) traffic problem. One page outlined a number of proposed schemes which Stam felt to be inadequate. The following page provided a detailed description of Stam's more viable solution. Stam's solution emphasized a street plan based only on the functional consideration of decentralized intersections. The needs of pedestrians and trains were also considered in the article.

The magazine also featured an essay on housing by Emil Roth which illustrated the integration of planning concerns and architecture. "Gelande und Bebaung am Zurichsee" ("Terrain and Building by the Zurichsee") described Roth's solution for the construction of low rise mass housing along the steep terrain surrounding Zurich's central lake.[Figs. 19,20][45] Roth sought a solution which would not counter the

43 Schmidt's Basel schemes were detailed further and presented in ABC, Series II, No. I, p. 6.

44 ABC, Series II, No. 4, 1927-1928, pp. 4-5.
For a review of the history of the Hofplein solutions, see G. Oorthuys Mart Stam, p. 9.

45 Emil Roth "Gelande und Bebaung am Zurichsee", ABC, Series I, No. 5, 1925, pp. 1-2.

natural flow of the terrain and proposed the building of attached two-story units which would descend the slopes in step-like fashion, parallel to the lake. Such a scheme allowed each dwelling an unobstructed view of the lake and terraced gardens. Additionally, the scheme would not disturb Zurich's pre-existing system of roads which also ran parallel to the lake. Road access from the houses was an essential part of Roth's scheme, and provisions were made for the expansion of traffic routes within the area.[46]

ABC included the aforementioned articles as examples of its pragmatic approach. In presenting these essays and plans ABC proved that it was not merely a theoretical journal which exposed social and creative shortcomings. Instead, ABC's functional programme demonstrated the group's distinct interest in the practical resolution of real problems. This interest was not incidental, but rather an outgrowth of the members' Swiss and Dutch architectural heritage, a heritage which dated to the previous century.

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46 This scheme was later adopted by Roth, Moser, Schmidt and Steiger in 1930 (to 1932) for Zurich's "Neubuhl" Siedlung. See Alfred Roth The New Architecture, Zurich, 1975, pp. 71-80. The final chapter of this dissertation will discuss the "Neubuhl" project in detail.

CHAPTER II

THE NINETEENTH CENTURY SOURCES OF ABC FUNCTIONALISM

It has already been established that ABC's functional position promoted specific concepts of a rational nature. ABC's young members were not the first architects to elucidate such ideals. Although ABC's functional ideals were representative of a post 1920 position, they derived from values which were common to Swiss architects since the middle of the nineteenth century and to Dutch architects since the era of Berlage. Schmidt, Stam and their colleagues merely translated these ideals into terms that suited their particular position.

It should be noted that many of ABC's principles echoed sources which were not Swiss or Dutch, such as the structural principles of Viollet Le Duc.[47] This dissertation, however, will focus only on the most noteworthy Swiss, Dutch and German precursors of the ABC's ideals, namely Karl Moser, H.P. Berlage and Gottfried.[48]

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47 Pieter Singelenberg in H.P. Berlage Utrecht, 1972, discusses Viollet le Duc's influence on Berlage. See pp. 102-107.

48 Jacques Gubler in Nationalisme Et Internationalism Dans L'Architecture Moderne De La Suisse cites several other Swiss architects, including Hans Bernoulli.

The rational points ABC members came to value were intitially brought to the attention of certain ABC members by the eminent Karl Moser (1860-1936). Between 1915 and 1920, Karl Moser, the father of Werner, served as a professor of architecture at Zurich's premier architecture school, the Eidgenossischen Technischen Hochschule or ETH. While most members of Switzerland's architectural community and the faculty of the ETH tended to emphasize traditional, vernacular and Beaux Arts values, Moser did not.[49] His lectures, buildings and writings emphasized rational planning, the external revelation of interior functions, the expression of materials and structure and the absence of ornament. Moser's classes attracted a circle of progressive young students who included Hans Schmidt, Emil Roth, Hans Wittwer, Paul Artaria and Werner, his son. These aspiring architects soon became the senior Moser's friends and his values ultimately came to influence their developing positions.[50]

Although Karl Moser was trained at the ETH in the latter part of the nineteenth century, he never chose to completely

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49 Example of their work will be noted in the next chapter.
50 Emil Roth in a 1978 interview with the author emphasized the influential role of Moser's lectures and works in the development of the ABC position.

emulate the neo-classical style the school advanced. Instead he developed a reductive, planar and non-ornamental version of the Beaux Arts style which was based upon abstraction and clarity.[51] Several buildings characterized his approach.

Moser's Badischer Station in Basel (1912) illustrated a pursuit of the above ideal. While the Badischer Station did incorporate the arch, the pediment and massive columns, its primary emphasis was on simplicity and planar surfaces. The pediment lacked overt ornamentation; columns were presented as heavy pilasters and the arch appeared as a curved form cut flush within the station walls, thereby projecting an image which predated the modern movement in its clarity, simplification and implied lightness.[52] A later project, the 1916 Kunsthaus C.F. Bally in Schonenwerd [Fig. 25]

51 Christian Hubert has stated that Moser's work was influenced by the "classicizing structural rationalism of Auguste Perret", which may therefore indicate his pursuit of these values. See Christian Hubert, "Introduction," William Lescaze, New York, 1982, p. 1.

52 For a discussion of this work and others of this perios by Moser see Hans Schmidt, The Swiss Modern Movement, pp. 34-35.

reiterated these intentions.[53] The Kunsthaus's Mansard roof, dormer windows, columns, cornice moldings and arched portals recall neo-Baroque antecedents. it was evident that in this structure, Moser was attempting to duplicate the approach he had employed in the Basel station. Once again, the building is stripped of decoration with emphasis placed on the bare, planar quality of the walls (here shown in a light color). Windows are set flush with the wall and columns appear, once again, as pilasters. Also notable in this project is Moser's sense of simplification. The architect limits himself to only one window type for each story. As a result, the Kunsthaus Bally appears as a large rectilinear volume distinguished by three bands of repetitous window shapes. While neo-classical monuments stressed mass and plastic form, Moser's emphasized clarity, lightness and volume.

Although Moser was reluctant to emulate Semper's classical models, he did choose to promote those Semperian ideals which stressed rational planning and the expression of structure and material. Moser championed an architecture which was divorced from pre-determined ground plans. He insisted on floor plans which were arranged along lines of function and design, where only functions, materials and

[53] For drawings and a discussion of Kunthaaus C.F. Bally, see Hans Bernoulli, "Skizzen aus England", Das Werk, Vol. 7, No. 10, 1920, pp. 208-211.

elements of construction merited external expression. For the Kunsthaus Bally and the Badischer Station, Moser developed functional layouts as well. These are pre-ABC projects, however, and do not indicate an overt expression of structure and material. Moser's promotion of this principle is evident in a seminal 1922 article "Neue Hollandische Architektur Bauten von W.M. Dudok-Hilversum". There Moser openly credited the eminent Dutch architect H.P. Berlage as the source of inspiration of his values. He believed that Berlage had inspired a select generation of Dutch architects (as well as himself) to adopt an approach which rejected Beaux Arts imagery and which emphasized rational planning and an unpretentiousness emphasis on structure and material, points which were self evident in Berlage's most notable buildings and which derived from Semperian ideals.[54]

Rational planning concerns in Berlage's work were expressed by the compartmentalization of his structures along lines of function and by giving each section an individual exterior expression. Edifices such as the Amsterdam Montplein (1894-1895), the Kirkplein in the hague (1895-1896) and the Amsterdam Borse (1898-1903) all housed such diverse parts as stairtowers, auditoriums and offices. In order to express their functional diversity, each part was articulated as a separate unit within the main block and given and individual fenestration pattern.

54 See note 54a on next page.

54a Hendrik Petrus Berlage's (1856-1934) position reflected many of the teachings of Semper. Berlage was born in Amsterdam and his elementary education was Dutch. In 1875 he migrated to Zurich to study at the ETH. Semper had taught at the Zurich school only until 1871, but his ideology continued to influence the ETH curriculum after his departure. Berlage remained at the Swiss school until 1878, when he graduated and received his architects diploma. While there he formed a friendship with Karl Moser, who was then a fellow student. According to Pieter Singelenberg, Berlage's most important mentors at the ETH were Gottfried Kinkel (1815-1882) and Julius Stadler (1828-1904), who were both proponents of Semperian thought and design. Via their teachings, Berlage developed a strong respect for the German pedagogue's ideals. Singelenberg cites Berlage's reiteration of seminal Semperian points in such texts as "De Menselijke Woning" ("The Human Habitation") (1889) and "Orer Stijl in Boun en Meubelkunst" ("On Style in Architectural and Furniture Design") (1904). See Pieter Singelenberg, H.P. Berlage Idea and Style, Utrecht, 1972, pp. 8-22.

The above cited "functional" ideals which characterized Berlage's well known buildings echoed aspects of Gottfried Semper's oeuvre as well. Semper's position will be discussed in this chapter.

Berlage deliberately overlooked Beaux Arts tradition and such buildings as the Borse made every effort to expose the material of construction, brick, and all structural and ulitarian parts. Interior ceiling beams, trusses and ducts were left in an unclad, painted state. Their bareness was echoed by the fixtures which were suspended from above. The fixtures were the sum products of their physical properties, namely; wires, bulbs and their connecting parts. The Borse's roof revealed large expanses of glass and the iron members which reinforced the functionality of the fixtures.

Berlage's rational planning concerns also recognized the necessity of standardization in architecture. Accordingly, he stated that he planned to develop housing types in which repetitive schemes would be used for repetitive functions.

> ... Repetition of the same motif is a primary aesthetic function ...
>
> But the monitoring does not have to exist because we admire just those building complexes from an earlier time which are put together in an ingenious series or grouped in the same unity ...
>
> Indeed it is not any different than the ordering of rhythm just a stringing together of the same, only on this essentially the whole of ornament is based, on this the form of each style is based and finally, on this the whole of architecture is based."[55]

After the turn of the century, Berlage's ideas were absorbed and reinterpreted by young architects throughout

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55 H.P. Berlage Normalisatie in Woningbou, Rotterdam, 1918, pp. 39-40. The English translations are in Donald I. Grinberg, Housing In The Netherlands 1900-1940, Delft, 1982.

Holland. Such Berlage disciples as W.H. Dudok rose to prominence and were awarded noteworthy commissions.

Karl Moser recognized the new architectural developments in Holland and in order to prove to the Swiss establishment (and to his own circle) that a functional tradition could receive popular acceptance, he wrote the article "Neue Hollandische Architektur Bauen von W.M. Dudok-Hilversum" ("New Dutch Architecture -- Buildings of W.M. Dudok-Hilversum") for Das Werk which was published in 1922.[56] In the article he cited Berlage's opposition to the Beaux Arts, his incorporation of functional ideals and his influence on Dudok and the younger generation of rising Dutch architects.

> The beginning of an artistic consciousness in Dutch architecture dates to the early work of Dr. Berlage, especially to his Amsterdam Borse, which was designed contrary to the popular ideas of the 90s. The Borse gave Dutch architecture a good foundation. His ideas were against contrived or premeditated programmes, and his own were freed of their constraints. And he strongly advocated the "natural". His design schemes were based only on what was practical and suitable to each situation, construction methods, layout and materials. He also took into account, when choosing the latter, what was most suited to the site and the surrounding landscape.
>
> Berlage's ideas have had a profound influence on the new generation of Dutch architecture. They have adopted his formulae and principles and have reinterpreted them in viable ways that truly merit wonder ...

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[56] Karl Moser was a member of the S.W.B. and was therefore entitled to publication in Das Werk. See Karl Moser "Neue Hollandische Architektur, Bauten von W.M. Dudok-Hilversum", Das Werk, 1922, Vol. 9, No. 11, pp. 205-214.

> The only material of construction for the facade (of the Borse) is brick ... whose color and formal properties permits numerous possibilities ...
>
> The Dutch architect no longer abides by traditional types of architectural expression with their inherent monumentality and self enclosed cubes. His designs have life, they move and this is due to the fact that his layouts are based only on practical considerations .....[57]

The remainder of the article discussed the work of W.M. Dudok and his translation of Berlage's concepts into contemporary terms. Moser cited Dudok's "Middle and Trade School" for its "practical" and "logical" groundplan and for the manner in which the groundplan was given external articulation. He wrote,

> The groundplan is clear and practical, and specific functions are clearly given their own sections. Most of the classrooms are placed in a longitudinal section that faces west. They are well lit by large expanses of window. The gymnasium to which one enters through three large doorways is logically connected to the outdoor gym area. The exterior of this school complex (as is its plan) is of a rich arrangement of masses.

Dudok had also designed a plaza between the school's boathouse and the school. It too was commended by Moser for its expression of interior functions and its economic considerations.

> The architect, as a solution, here designed a large exterior "room" between the school and bathhouse which at the same time sought to give the residences their privacy by separating them from the lively public

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57 Ibid., p. 205. For the original text see note 58.

> structure. The latter two attest to the highly developed prospective ideas of their creator and in that they are designed to be as absolutely expressive (of their inner functions) ina most forthright manner. The stairtowr and the chiming section of the school are given their own plastic forms. The main body is divided into sections, one each for their specific functions. The corridor between the outer court and the upper story is given a separate form as well, one which is here lower than the classrooms. Economic considerations are also a major governing force in this design. The Bathhouse is an interesting example. There the vestibule, entryways, the chimney flue and the drying chamber all merit their own articulation which when combined, provide the Bathhouse with its own specific imagery.
>
> These few examples should suffice to acquaint one with this worthwhile young master of the Dutch School. They are also testimony to the fact that Culture and Art can most successfully be used for the benefit of the public when cities and communities allow talented young architects as these to design on their behalf.[58]

The work of Dudok had come to exemplify the contemporary translation of Berlage's approach to Karl Moser.

In reality, Berlage's ideals were not unique and did not reflect a vision that was entirely personal. To a large extent they echoed the values of an earlier architectural pedagogue who had taught at the ETH, Gottfried Semper. Any appreciation of Berlage's and thus, Moser's position must acknowledge Semper's teachings, since they did inspire specific proto-functional points. Although Karl Moser openly credited Berlage as a source of emulation, it must be noted that Moser had been educated at the ETH where a large part of the curriculum was based on Semperian principles. It is therefore unlikely that Moser was not aware of those

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58 Ibid., pp. 205-214. For the original text see note 58a on the next page.

58a Excerpts from the text of "Neue Hollandische Architekture Bauten von W.M. Dudok, Hilversum" by Karl Moser, (Das Werk, 1922, Volume 9, No. 11, pp. 205-214) NOTE: English translations in text of the following excerpts are done by the author.

> Der Ausgangspunkt der kunsterlerischen Richtung in Holland sind die ersten Werke Dr. Berlages, vor allem seine in den neunziger jahren erbaute Borse in Amsterdam, durch welche er der damals herrschenden Zerfahrenheit entgegentrat und die Baukunst Hollands auf ein sicheres Fundament hob. Die Grundlagen seiner Architektur beruhen auf der ungezwungenen, naturlichen, d.h. von traditionellem Schematismus freien Erfassung des Programmes. Die Architektur soll bestimmt werden durch Anpassung an Situation, durch praktische Anordnung und Berucksichtigung der im Lande ublichen und bewahrten Baumaterialien und Konstruktionsweisen.
>
> Berlage ist durch Tat und Schrift fur seine neuen Ideen eingestanden und hat auf die jungere Generation einen starken, fordernden Einfluss ausgeubt. Da diese nicht nur die Formeln, sondern die Prinzipien von Verlages Werk hochhielt, so spruht aus der neueren hollandischen Architektur eine Lebendigkeit, die bewundernswert ist. Als einziges Baumaterial fur die Fassade herrscht seit der Erbauung der Borse wieder der Backstein welchem farbig und formal neue Moglichkeiten abgewonnen worden sind...
>
> Der hollandische Architekt verzichtet grundsatzlich auf den traditionellen Ausdruck der Monumentalitat und der absoluten kubischen Geschlossenheit. Er bringt aber Leben in seine Schopfung durch Massenbewegung, die stets durch die praktischen Anforderungen gerechtfertigt ist...
>
> Der Grundriss ist stark gruppiert, klar und praktisch. Die Mehrzahl der Schulzimmer liegen an einem geraumigen Gang gegen Westen. Sie werden je durch ein gewaltiges bis zur Decke reichendes Fenster beleuchtet. Eine vorbildliche Anordnung zeigt die Turnhalle, die durch drei grosse Tore mit dem Turnplatz in Verbindung steht. Das Aussere des Gebaudes weist, dem Grundriss entsprechend, eine reiche Massengliederung auf.

Eine wietere Aufgabe, die dem Architekten zu losen beschieden war, lag in der Bebauung eines dreieckigen Platzes zwischen Hilvertweg und Bochdrift mit Schulhaus, Badehaus und Burgerhausern. Der Architekt hat versucht, mit diesen Elementen einenteils die Strassenwande zu schliesen, andernteils ansprechende Raume im Innern zu schaffen, und die ruhigen Wohnbauten durch besonders ausgepragte Gestaltung von Bad und Schulhaus einzufassen. Diese letztern Bauten legen Zeugnis ab von der fortschrittlichen Entwicklung ihres Meisters, der nach dem einfachsten Ausdruck ringt Treppenhaus und Kamin geben beim Schulhaus Anglas zu plastischer Steigerung. Auch der Hauptkorper dieses Gebaudes ist terrassiert. Der Gang bezw. Vorplatz im oberen Stock ist niedriger als die Schulzimmer. Wirtschaftlichkeit ist hier das Mittel zur Bereicherung der ausseren Erscheinung. Das Badehaus ist besonders interessant. Vorhallen, geschutzte Eingange, der Kamin und die Trockenraume sind sinnreich als Ausdrucksmittel fur die Erscheinung des Baues benutzt.

Die wenigen Beispiele mogen genugen, um mit einem tuchtiegen Meister der jungen Hollander Schule bekannt zu machen. Sie sind auch ein Beweis dafur, dass Kultur und Kunst da am meisten gefordert wird, wo durch das Vertrauen einer Gemeinde die in ihrem Dienst schaffenden Krafte zu ihrer Enfaltung gebracht werden.

functionally inspired premises which characterized Semper's ideological stance. A review of Semper's conceptual oeuvre underscores his proto functional values, values which resurfaced years later within ABC.

The functional ideals ABC chose to integrate into its programme thus trace many of their origins to a most influential predecessor -- Gottfried Semper (1803-1879). Although Semper was a German architect whose most memorable monuments were sited in Austria (The Vienna Burgtheater 1874-88) and Germany (Dresden's Opera House 1871-88), he nonetheless deeded a significant legacy to Switzerland. Between 1855 and 1871 Semper had resided in Zurich. While there, he designed several imposing buildings, including Zurich's Town Hall (Rathouse 1858-1864), (1862-1864) and lectured at the Eidgenossischen Technische Hochschule. Although Semper's well known buildings underscored a preoccupation with Beaux Arts monumentality and establishment oriented symbolism, his writings, and a lesser known work, the Treichler laundry boat emphasized the very principles which later impressed Berlage (and by derivation, Moser and the ABC members). A review of specific literary works and the design for the Treichler boat prove that Semper promoted a complex approach which encompassed a Beaux Arts vocabulary and classical symbolism as well as rational points based on the articulation of structure, materials, functions and standardized building units.

Semper's writings emphasized the expression of

structure. While Semper accepted the existing historical and classical architectural vocabulary that was prevalent throughout the nineteenth century, he was, however, critical of those Beaux Arts architects whose edifices did not express structure or function.[59] To differentiate his works from these, Semper determined to use historical conventions to articulate structure and function. He developed an approach which he was to employ for the Treichler laundry boat (see discussion below). Semper's approach employed two methods. The first relied on straightforward articulation while the second employed a vocabulary of symbols.

Semper's understanding of the Gothic exemplified the first method. He promoted the Gothic style for its clear articulation of structural parts. He wrote:

> These monuments remain for us in many respects grandiose enigmas: the depth of the conception can, it is true, be recognized in details, but in its totality it is only dimly felt. Thus we admire the perfect execution of the construction which in the Gothic more than in any other style shows itself in all its beauty, clearly and openly. Construction is not only the means of embellishment, it is beauty itself.[60]

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[59] For Semper's position on the contemporary architecture of his time, see Wolfgang Hermann, Gottfried Semper in Search of Architecture, Cambridge, 1984, pp. 158-162.

[60] Gottfried Semper, Lehre der Gebaude, Semper Archiv, Zurich, 1840-1849, Manuscript 25, fol. 200F. English translation is in Hermann, p. 128.

Semper also itemized those parts of the construction he most admired, namely the pointed arch, the buttresses, the flying buttresses and the roof. He emphasized the fact that their beauty lay in their open display construction since "All are structural forms. They are the most beautiful adornment of the building."[61]

Semper's discussions of Greek architecture attested to his admiration for symbolic promotion of structure. Semper valued the Greek style for its symbolic emphasis of structural parts, specifically those which supported loads and those which did not. Different exterior symbols designated the different structural functions. Semper developed his theory of the "structural functional meaning of ornament";[62] based on Greek examples. Semper wrote,

> Greek ornaments are emanations of the constructive forms and at the same time they are symbols of the dynamic functions of the parts to which they belong.[63]

Clearly, the revelation of structure was so integral a part of Semper's ideology that he sought its expression within a range of assorted historical styles. Accordingly,

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[61] Ibid., fol. 201.

[62] According to Herrman, Semper's understanding of the Greek was inspired by Carl Botticher's Die Tektonik der Hellens, Potsdam 1844-52. See Herrmann, pp. 139-152.

[63] Gottfried Semper, Manuscript 129 Semper Archiv, Zurich, 1852-1854, Manuscript 129, fol. 14. English translation in Herrmann, p. 144.

he promoted its articulation through whatever means seemed appropriate, be they structural or symbolic.

The revelation of materials was also promoted by Semper. He believed that materials were to be given their own articulation whenever possible. As early as 1834, he wrote "let the material be true to itself ... brick should appear as brick, wood as wood, iron as iron, each according to its own statistical laws."[64] Later, in his manuscript on "The Attributes of Formal Beauty", Semper outlined those factors which determined the "style" of a work of architecture. Included among the factors were the materials of construction.

> Also belonging to this class is the material available to the artist that will enable him to execute the object that, depending on the circumstances, fits the purpose or makes it manifest.[65]

The rational plan and its external expression formed the basis of many Semperian designs in which outward form was determined by interior function. This proposition was discussed in a manuscript entitled "The Attributes of Formal Beauty" where Semper proclaimed that exteriors must exactingly express corresponding interior functions. If

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64 Gottfried Semper, Vorlaufige Bermerkungen uber Bemalte Architektur und Plastik bei den Alten, Altona, 1834, p. xi.

65 Gottfried Semper, Theorie des Formen Schonen Semper Archiv, Zurich, 1856/1859, Manuscript 179, folios 43 and 44. English translation in Hermann, p. 242.

there was a change in the latter then the former was required to reflect that change.

He devised an equation to express the infinite possibilities of this idea. The equation stated that if "U" was the building, then "C" was its programme. "C" was merely a composite of numerous functions. If any one of the functions was altered, then the character of "C" was changed. "U" therefore had to be changed to appropriately reflect this programmatic change.

> There is a stylistic conception of what is beautiful in art -- this considers the object not as a collectivity but as a unit, as the uniform result or function of several variable values that unite in certain combinations and form the coefficient of a general equation; by giving these variables the values appropriate to the particular case, one will arrive at the solution of the problem
>
> $$U = C\ (x,y,z,t,v,w\ \ldots)$$
>
> As soon as one or some of these coefficients change the result U must also be different and must in its general appearance show a distinct character that distinguishes it from other closely or distantly related results. Where this is not the case and where the result does not show modifications that correspond to the changed elements making up a function, there it is false and lacking in quality ...[66]

Standardization in architecture was another point the German master emphasized. The "Baukastensystem" lecture Semper delivered at the ETH further illustrated this

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[66] Ibid., fols. 40-42. The English translation is in Hermann, pp. 241-242.

architectural concern.[67] In the lecture, Semper imparted to his students that buildings were not to be planned according to any pre-determined formula. Each building had distinct requirements and these were determined by the functions they housed and by traffic and access routes within and without. The resulting interior plan was to be determined solely by these factors.

To facilitate the employment of this approach by his students, Semper developed the Baukastensystem (The Building Block System). The Baukastensystem reduced all building functions to rectilinear modules or blocks. In a number of sketches, Semper illustrated how the blocks could be combined to meet the different requirements of different buildings. The end result was a series of functionally oriented plans each of which was planned according to access patterns [Fig. 21].

Semper, however, did not see the Baukastensystem as an end in itself. He believed not only that buildings could be

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67 Semper's lecture on "Vorrang der Organisation" (Preliminaries of Organization) is reproduced with Semper's illustrations in Martin Frohlich Gottfried Semper, Basel, 1974, pp. 302-303.

No exact date is cited for the "Baukasten" lectures. However, one can assume that the one cited by Frohlich occurred after 1862, since the Treicher Washboat was there mentioned.

reduced to modules, but he believed that the modules could be universal. Nature, he claimed, modified and reduced all of her motifs to a "few basic forms" which were consistently being reinterpreted within various formats over the centuries. Architecture, he felt, should follow suit. Architecture's many forms could be reduced to a series of "standard forms" which could be combined to adapt to a variety of needs, like the modules of the Baukastensystem. In 1850 he wrote:

> ... The task of an intelligent architect should be to seek and pursue the rise and development of basic ideas and to reduce to its simplest expression the law that lies hidden within the artistic covering.
>
> In this search the architect will encounter so many difficulties and complications that he will be able, in a few cases only, to hear the mysterious passage of man's thought throughout the centuries. But he cannot fail to have some success if, guided by this, he explores the domain of architecture and selects, from the infinite variety of what is most outstanding, groups what is related into families and reduces what is derivative and complex to its original and simple state.
>
> In the end he will realize in the same way that nature, for all her abundance is thrifty in her motifs, in the same way that she modifies the few basic forms a thuosandfold according to the evolutionary stage reached by living beings as well as according to varied living conditions -- making some parts short, some long, some fully developed while others are only hinted at -- in the same way architecture too, is based on certain standard forms which, contingent on an original idea, throughout constant reappearance make possible infinite variations that are conditioned by particular needs and clearly defined circumstances.
>
> It will certainly be important to trace these standard forms and the ideas inherent in them. Not only will the overall view and the understanding of what exists be made easier but it will also be possible to derive an architectural theory of design and inventiveness that

shows how nature works and avoids equally both monotony and fancy notion.

> Once a standard form has been established as the simplest expression of the idea, it will come to life, modified according to the conditions of the site, the period and its customs, the climate, the material to be used, the idiosyncrasies of the client as well as of the artist and many more identical circumstances...[68]

The above ideals were finally realized in the Treichler laundry boat. In this structure, Semper translated his rational and function concerns into this most unexpected structure.[Fig. 22] It was designed in 1862 in Zurich.[69]

During the late 19th century, it was not uncommon for laundry boats to be moored in Zurich's Limmat river with laundry drying upon their decks. These boats were often bargelike structures which were aesthetically unappealing. In 1861 Heinrich Treichler, a member of a family which had formerly owned laundry boats, expressed an ambition to build a new ship on which laundry would be dried inside the cabin. It was to be 22 meters long, 9 meters wide and its interior was to accomodate a laundering area, the laundry machines, and a drying zone.

As Semper was a renowned ETH professor, Treichler approached him with the project. The German pedagogue accepted this unprecedented commission because he recognized

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[68] Gottfried Semper, Vergleichende Baulehre, Semper Archiv, Zurich, 1850, Manuscript 5, fol. 13. Translation in Hermann, pp. 194-195.

[69] The plans for the Treichler Laundry Board are reproduced in Frohlich, pp. 126-131.

that Treichler's ship would allow him to develop a truly rational plan internally and to express structure and materials externally. In his draft scheme, each function was given an individual room within a logical assembly line arrangement [Fig. 22B]. As a result, there was adequate space for washing, drying, starching and ironing as well as convenient access to all functions.

To express the fact that the ship was a laundry boat, Semper resorted to a symbolic approach which was classical in derivation. The architect selected classical motifs to symbolize the boat's functions. To indicate that the boat was a sea going vessel, Semper depicted on the boat's exterior mythical figures associated with the sea and assorted water motifs on sea blue panels. To allude to the vestments that were laundered within, female figures bearing drapery were depicted on the panels as well [Fig. 23].

Semper wanted the boat to articulate its construction method and the materials of construction externally. In keeping with his Gothic inspired promotion of structure, a preliminary sketch indicated that the ship was to be constructed of supporting iron columns and an iron web which supported the roof. All non-load bearing infill walls were made of wood and clad in metal [Fig. 24]. To reveal this, Semper once again resorted to a code of symbols. Non-load bearing infill walls were treated as planar screens on which the above-mentioned ornametation as well as trellis patterns, were painted. To indicate structure, all iron columns and

horizontal beams were shown painted a contrasting salmon color. These stretched throughout the roof to indicate its supportive longitudinal web.

The Treichler laundry boat was significant for several reasons. The ship synthesized and expressed Semper's interest in classical symbolism and Gothic structuralism. And the Treichler boat was also able to prove that Semper's discussions regarding rational planning and the exposition of structure and material were not merely theoretical. By 1852 Semper was able to show that even within the constraints of historical vocabularies, it was truly possible to express new ideas of form and structure.[70]

70 The Treichler boat operated on Zurich's Sonnenquai between 1864 and 1872. It was then moved to Wollishofen and grounded. The Treichler Washboat was not demolished until 1955. Photographs of the boat at various stages of its existence appear in Frohlich. See pp. 128-130.

CHAPTER III

20TH CENTURY SOURCES OF ABC'S FUNCTIONAL POSITION

While the ABC nucleous did not openly credit Semper as a source of emulation, they did acknowledge several contemporary Swiss and Dutch architects (including Berlage) as inspiring forces. Their oeuvre reiterated ideas which ABC openly admired. Included in this group were the Swiss born Robert Maillart and the Dutch architect Bijvoet, Duiker and Oud. In keeping with ABC precedent, the ABC group did not choose to admire all the aspects of their architectural works. Instead, they only chose to laud those facets which corresponded to specific aspects of the ABC position.

In Robert Maillart, the Swiss group recognized a master who had discarded Semper's historical allusions and who fulfilled more of the group's aesthetic and structural requirements. Maillart (1870-1940) was Swiss-born and had studied at the ETH between 1890 and 1894. Semper's concepts were, thus, integral facets of his formative education. Maillart was not impressed by the decorative, historical or symbolic qualities of the neo-classicism that the ETH stressed. Instead, he developed an abiding interest in the structural aspects of design and concentrated on classes devoted to structural engineering. During the same period, Maillart also developed a strong interest in concrete

construction methods. After his graduation from the ETH, Maillart devoted his time to the design of structures and constructions which openly revealed the mechanics of structural engineering. Not unexpectedly, these designs were often made of concrete and steel.

By 1909, Maillart had made several significant architectural contributions which illustrated his successful realization of his avowed interests. Maillart developed types of reinforced concrete interior support systems which allowed for a beamless floor slab. In his interiors, the support systems were presented in their natural, unclad state. As a result, structural members formed the interior spaces.[71] In addition, he designed several reinforced concrete bridges which were characterized by their forthright display of materials (concrete and steel) and structural components. The 1905 Rhein bridge in Tavanasa was an early example of these works.[72]

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71 See Robert Maillart "Die Sicherheit der Eisenbetonbauten" ("The Security of Reinforced Concrete Structures") in Schwseizerische Bauzeitung, Vol. 53, No. 9, Feb. 27, 1909, pp. 119-120.

72 For examples of the bridges Maillart built in Switzerland see Max Bill Robert Maillart: Bridges and Constructions, New York, 1969. See also David P. Billington, Robert Mark and John F. Abel, The Maillart Papers from The Second National Conference in Civil Engineering: History, Heritage, and the Humanities, commemorating the birth of Robert Maillart, October 4,5,6, 1972. Princeton University, Princeton, 1973. The Tavanasa Bridge appears on pp. 36-39.

In 1911 Maillart returned to academic circles and shortly thereafter, was appointed as professor of structural engineering at Zurich's Polytechnikum. His new position did not hamper his design career and he continued to design reinforced concrete factories, warehouses and bridges in Switzerland. Examples of these later works, such as the 1911-1912 Aara bridge, continued to exemplify his articulation of structure in concrete and steel in as undisguised a manner as possible.[73] [Fig. 26]

Robert Maillart's achievements were greatly admired by the evolving ABC nucleus. Emil Roth went so far as to take several of his engineering classes.[74] The master's lessons made a lasting impression on Roth and these impressions later formed the basis of several ABC articles, thus becoming integral parts of the ABC platform. Written by Roth, the articles detailed significant aspects of Maillart's contributions. "Schaalung" ("The Form"), an ABC article,

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[73] Bill, Robert Maillart, pp. 40-41.

[74] This information is based on taped interviews between the author and Emil Roth that occurred during July of 1978 in Zurich. There Roth spoke of Maillart's influences on his work and on ABC.

detailed reinforced concrete construction methods, which were based on Maillart's teachings.[75]

In 1924, Maillart completed the concrete Ziggenbach bridge in Waggital which spanned a valley and connected two mountains.[76] ABC's second issue featured a photograph of the bridge in its construction stage.[Fig. 27] "Gestalten-Form", Roth's accompanying article pointed out that the bridge's importance lay in its clear revelation of (concrete) structural components. The photograph shown emphasized these aspects, thereby officially codifying the facets of Maillart's structural rationalism[77] but not his invention.

Noteworthy is the fact that ABC never elected to mention Maillart's most outstanding contribution, his beamless mushroom column system of construction.[78] That however is hardly surprising since ABC openly promoted Mart Stam's preferred portal frame method.

Despite the precedents set forth by architects such as Semper and Maillart, a functionally inspired tradition did not develop on a prominent scale in Switzerland. The pursuit of this tradition was largely limited to Karl Moser and to

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75 Ibid. See ABC, Series I, No. 3-4, 1925, p. 1.
76 See Max Bill, p. 51.
77 ABC, Series I, No. 2, 1924, p. 2.
78 For a review of Maillart's beamless system see Robert Maillart "Die Sicherheit der Eisenbeton bauen" Schweizerische Bauzeitung, Vol. 71, February 27, 1909.

his students. During the late 19th and early 20th centuries, the Swiss architectural establishment was dominated by the proponents of neo classical and vernacular traditions and their whose works had come to characterize the mainstream of architecture in Switzerland.

The failure of the Swiss Werkbund further illustrates state of affairs. The Swiss Werkbund or (SWB) was established in 1913 ostensibly for the ideological purpose of promoting a marriage of art, industry and individual expression.[79] While its sister organization in Germany, the German Werkbund was associated with a diverse range of projects which successfully reflected Werkbund ideals, the same was not true of the Swiss organization. Although the German Werkbund did not espouse a single set of aesthetic ideals, its buildings often shared a common denominator in their efforts to move beyond nineteenth century prototypes. These works were intended to establish valid models for a new era. Behrens AEG factory, Gropius' Werkbund Pavillion, Taut's Glass Pavillion and the Weissenhof Siedlung all came

79 Lucius Burckhardt in The Werkbund, History and Ideology 1907-1933, New York, 1977, contrasts the achievements of the German and Swiss Werkbunds. See pp. 7-16, pp. 81-94 and pp. 114-117.

to characterize the broad range of prototypes that the German Werkbund recognized.[80]

The architects of the Swiss Werkbund did not share the ambitions of their German counterparts. In 1915, the S.W.B. published the magazine Das Werk which featured the designs of its members.[81] A review of the works published between 1915 and 1922 reveals that the large majority of SWB members were primarily interested in perpetuating the traditional vernacular and neo classical architectural precedents of the previous century rather than promoting any new ideas.[82]

Das Werk's opening issue in 1915 featured a review of "Die Erste Ausstellung Des Schweizerischen Werkbundes" ("The First S.W.B. Exhibitions") an exhibition whose emphasis was on jewlery design, gold, utensils, ceramics, stained glass, tapestry, as well as on graphics and printing. All of the

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80 Although not all the architects at the Weissenhof Siedlung were German, this was essentially a German function since it was held in Stuttgart and many of the noted contributors were Germans.

81 Das Werk "Schweizerische Zeitschrift fur Baukunst Gewerbe Maierel und Plastik, Offizielles Organ des Bundes Schweizen Architekten (B.S.A.) und des Schweizerrischen Werkbundes (S.W.B.)", (Verlag "Das Werk" A.G., Bern), Volume I, published in 1915.

82 Not in the majority faction were the members Karl Moser and Hans Bernoulli.

objects were presented in the article as precious, unique, hand-crafted objects, which displayed strong arts and crafts and Art Noveau influences.[83] Das Werk's graphics, also recalled 19th century Pre-Raphaelite and Art Noveau conceits rather than those of a more contemporary movement.[84]

The architectural works that the SWB chose to promote reflected the group's traditional stance as well. In 1915, Das Werk devoted extensive coverage to traditional building designs such as the St. Annahof by Gerbruder Pfister, a massive neo-Baroque edifice; Otto Ingold's Volkshaus in Bern, a reinterpretation of a local medieval prototype; and Jos and Klausner's 'Haus der Schmiedenzunft'.[85] The traditional pitched roof and gabeled villa, "Wohnhaus in Langenthal" by H. Egger was also shown.[86]

Throughout its existence, the coupling of traditional, picturesque and nationalistic models continued to reappear prominently in Das Werk.[87] The type of architecture

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83 "Die Erste Arsstellung Des Schweiserischen Werbundes" in Das Werk, 1915, Volumes I, Vos. 1 and 2.
84 Ibid.
85 'St. Annahof' appeared in Das Werk II, 1915, Volume I.
86 'Wohnhaus in Langenthal' in Das Werk, 1915, Vol. 1, no. 6.
87 This is not to say that Germany did not promote traditional prototypes. It did, however, it was not the German Werkbund which promoted these.

promoted by the magazine was best represented by Keiser and Bracher's Baroque Mansard roofed villas in Zug in 1918.[88] In 1920 the magazine profiled Haus Zay in Zuos by Nikolaus Hartman, a chalet with traditional interiors and carved Swiss furniture by Streff and Schindler.[89] In 1921 Das Werk featured an article on the neo-Baroque, mansarded and porticoed Hause Specker in Klichberg by Henauer and Witschi.[90]

All this is not to say that the SWB was categorically opposed to the modern movement. Das Werk did feature an article on the modernist work of Dudok in Holland, as was shown in the previous chapter. However, by virtue of the majority of the designs that it published, the SWB proved that by and large its members were dedicated to the promotion of a rather reactionary traditionalism.

By 1920, it was increasingly obvious to the Moser group that the functional lessons of Semper and Maillart had found no notable supporters within the SWB or anywhere else in Switzerland. In light of their disappointment, the Moser group was forced to look outside their homeland for circles where modern ideals had found acceptance. They found what they were seeking in the Netherlands. Because of Holland's more liberal socio-political climate, Semper's functional

88 Zug villas in Das Werk, 1918, Vol. 4, No. 8.
89 "Haus Zay" in Das Werk, 1920, Vol. 6, No. 9.
90 'Haus Specker' in Das Werk, 1921, Vol. 7, No. 1.

advocations were attaining a degree of popularity among the principals of Dutch architecture. Karl Moser and his disciples were impressed by these developments. Moser, his son Werner and Hans Schmidt resolved to leave Switzerland temporarily for Holland where the architectural developments were more compatible with their own interests.

Other architects, equally dissatisfied with reactionary Swiss attitudes had already left Switzerland. Eduard Jeannaret, the future Le Corbusier, a Swiss national and a founding member (1913) of the SWB's French speaking division L'Oeuvre, had migrated to France during the First World War. Hannes Meyer, a native of Basel, who had received his formal education at the Basel Technical School where policies were similar to those at the Zurich ETH had left for Berlin in 1909, where he had completed his education.[91] Hans Wittwer, inspired by Meyer's example, had departed for England after his 1916 ETH graduation to study working class housing

[91] Between 1909-1912 Meyer studied in Berlin at the Kunstegewerbeschule (School for Applied Art) and the Landwirtschafts Akademie (Agricultural Academy), taking courses in economics and land reform at the latter. During this period he also joined the German Land Reform Movement, a socialist-populist organization led by Adolf Damaschke. See Schnaidt, pp. 9-10.

there.[92] The two Mosers and Schmidt now joined the expatriate ranks, seeking recognition and new sources of functionally oriented inspiration.

[92] While in England Hans Wittwer studied such projects as well Hall in Woolwich. The ETH archives contain a number of texts which were once owned by Wittwer. These include Houses for Workers (Technical Journals Ltd., Westminster). There Wittwer marked those pages (27-28) which detailed that project.

In the Netherlands, Werner Moser and Hans Schmidt attempted to enhance their understanding of functionalism. While they shared Karl Moser's admiration of Berlage and Dudok, they also sought to meet other young Dutch architects who were extending the functionally inspired idiom. To facilitate these meetings, both men took jobs in architectural firms in Rotterdam, where they had settled.

Hans Schmidt joined the office of M. Brinkmann and Werner Moser found work with Granpre Moliere, Verhangen and Kok. Shortly after joining the firm, Moser met a fellow employee of Dutch descent, Mart Stam. Schmidt, Moser and Stam shared a common interest in contemporary Dutch design based upon functionally inspired premises. As their careers were in their early developmental phases, they looked to existing Dutch models with a functional bias for inspiration.

Since Stam was a Dutch national, he was regarded as the authority on Dutch architecture. He looked to Berlage, Oud, Bijvoet and Duiker[93] for inspiration and shared his insights with Moser and Schmidt. As a result, Moser's and Schmidt's knowledge of Berlage's theories was reinforced and their

[93] Bernard Bijvoet (1889-1979) and Johannes Duiker (1890-1935) were prominent exponents of the Rotterdam School which emphasized structure, materials and innovative floor plans that echoed a Constructivist sensibility. For an overview of their careers, see Peter Bak, J. Duiker Bouwkundig Ingenier, Rotterdam, 1982.

introduction to contemporary Dutch functionalism commenced. The result of this shared information was a common understanding of an approach which underscored rational planning, the expression of materials, technological articulation, planar construction and standardization.

A series of essays which Stam wrote elaborated upon his interest in the functionalism of Berlage, Oud, Bijouet and Duiker.[94] These lend insight into the ideas which Stam imparted to his Swiss colleagues.

The first essay stressed the importance of H.P. Berlage and his fundamentals. Berlage, Stam claimed, had liberated architecture from the superficialities of the Beaux Arts and had promoted "an architecture of rational and truthful revelation" where each space had "a designated function" and "received its own interior and exterior articulation". Berlage's buildings, Stam wrote, "clearly expressed the materials of construction and the constructional system."[95]

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94 Although these appeared in the Schweizerische Bauzeitung, in 1923, they were written by Stam in 1922 as a result of his meetings with Moser and Schmidt. It was Schmidt who had gotten him the commission to write these essays for the Schweizerische Bauzeitung. See Oorthuys, p. 19.

95 Mart Stam, "Holland und die Baukunst Unserer Zeit", Schweizerische Bauzeitung, Vol. 82, No. 15, Oct. 1923, pp. 1-4.

Also of interest to Stam was Berlage's advocation of technological imagery and standardization[96]

Stam's other essays documented the contemporary prototypes which derived from Berlage's precedents that members of the post war generation were developing. For example, Berlage's Borse had implied the use of a technological vocabulary, particularly in its interiors. By 1922, the Nijverheidsschool (School for Applied Arts) in Groningen by Wibenga and Van der Vlugt had been completed and in this structure Berlage's ulitarian ideals saw fruition. The entire school was conceived as factory and consisted of a flat roofed three story structure of concrete slabs, interior columns and floor to ceiling factory type windows. No ornamentation or symbolic elaborations were added to indicate that the school was an educational institution. For Stam, the school exemplified what he thought to be a primary principle of functionalism; i.e. the visible articulation of technological factors.

> Technology has endowed ... buildings with the ability to bespeak their (technical) functions. As examples one usually thinks of silos, bridges and factories. And one thinks of such technological facts as autos, machines, locomotives and battleships ... Now, however, we must grasp the fact that technological articulation is not limited to these. We must learn to express our buildings in similar terms ...[97]

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96 Ibid.

97 Mart Stam, "Holland und die Baukunst unserer Zeit" (II), Schweizerische Bauzeitung, Volume 82, No. 18, November 1923, p. I.

97a Excerpts from "Holland Die Baukunst Unserer Zeit II, Der Haagsche Kreis" by Mart Stam (Schweizerische Bauzeitung, Volume 82, No. 18, November 1923, p. 1) NOTE: English translations in text of the following excerpts are done by the author.

> Technik beantwortet sie mit immer kuhneren Kostruktionen stets uberwaltigender werden die Baumassen, immer eindeutiger sprechen ihre Funktionen. Man denke nur an die hoch aufstrebenden Silos, an Brucken und Frabriken, man denke an andere mehr technische Schopfungen, wie Autos, Maschinen, Lokomotiven und Kriegschiffe -- wie sollte sich all diese Energie, all diese Kraft auf die Dauer mit dem Formenkleid der fruhern Generation bedecken lassen? Was andere in Jahrhunderten vor uns schufen, was nutzt es uns -- wir mussen selbst die Dinge um uns her sehen lernen, wir mussen sie selbst begreifen und ihr Wesen und ihre Funktionen im Licht unserer eigenen Zeit erfassen.
>
> ... gescharfte Kunstauffassung der Haag'schen Architekten musste sie notwendig zur Abstraktion fuhren -- eine Erscheinnung, die sie mit ahnlichen Tendenzen in der modernen Malerei verbindet. Die geometrischen Elemente werden auf das Einfachste zuruckgefuhrt, die gerade Linie, die ebene Flache, das rechtwinklige Prisma.

J.J. Oud and his development of a standardized, modular architecture also drew Stam's admiration. For the Mathenessee garden village (1922) in Rotterdam, Oud had effectively devised standardized housing prototypes.[98] Stam

98 As Stam ws a resident of Rotterdam, he was able to personally view Mathenesee's development. For photographs of the project see Gunther Stamm J.J. Oud Bauten und Projekte 1906 bis 1963, Mainz, 1984, pp. 72-76.

was impressed by two similarly conceived sketches of Oud projects. One sketch was of a series of rowhouses in Meeresstrand (Rotterdam, 1921-22) [Fig. 28], and the other was for a project entitled "Street with Mass Housing" (1922) [Fig. 29].[99] Both presented townhouses as repetitive modular units. It was precisely this quality that Stam admired. His essay cited both project sketches for their "repetitious articulation which was produced by mechanized standardization."[100]

While Stam supported the functionally derived aspects of Berlage's approach, he did not, however, subscribe to Berlage's emphasis on mass. Stam believed that contemporary architecture needed to express volume rather than mass and therefore, cited Oud and other Haague architects in his whole for their lightweight planar surfaces.[101]

> The work of the Haague architects is based on abstraction ... one which parallels developments in modern art. Geometric elements are there expressed in

99 The "Street with Mass Housing" was actually a drawing for a row house development in Scheveningen (1917) by Oud. See Stamm, pp. 37-40.

100 See Note 97, p. 3. Mart Stam published the cited Oud drawing in this article.

101 Ibid., p. 1.
Stam did not list the names of other Haague architects here.

the simplest of terms, terms of line, plane and rectangular prisms.[102]

The above quotation also alluded to another Stam assumption. Stam strongly believed that rational interior plans were best expressed by designs which consisted of pristine cubic forms which conveyed a clear sense of organization. He therefore championed buildings where "facades are punctuated by the cubic protrusions which express the interior spaces"[103] and cited Bijovoet and Duiker's single family complex in the Haague (1921) as an example of a building which was based upon a rational plan and whose varied functions were given exterior expression in planar terms. [Fig. 30]

Although Schmidt and Moser looked to Stam as a major influence, they encountered other functionally oriented Dutch mentors, primary among whom was the architect Jan Brinkman. Via Schmidt, Brinkmann's ideas came to influence Stam as well.

Shortly after his arrival in the Netherlands, Schmidt had joined Michiel Brinkman's office. Michiel was the father of Jan Brinkman, one of Holland's more progressive architects. During his employ, Schmidt was exposed to the various facets of the younger Brinkman's functional approach. These included the extensive use of the perimeter block format, the incorporation of multiple facilities within a single complex and the visible exposure of circulatory systems.

Between 1919 and 1921 Brinkman was in the process of refining Dutch residential prototypes. His Spangen municipal housing project was an outstanding example in kind.[104] After the turn of the century, particularly after 1910, the Dutch government had sponsored the design and construction of large-scale multi-story housing projects for the working class which were conceived along Socialist inspired egalitarian lines. Many of these were based on a prototype in which repetitious blocks were arranged within a perimeter bloc around an open courtyard. These projects housed not only flats but also such communal facilities as laundries and nurseries. Often the communal facilities were given individual enclosures within the courtyard or adjacent to the complex.[105] In addition, it also promoted a new method of

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102 Ibid., p. 1. For the original text see Note 97.
103 Ibid., p. 3.
104 For a detailed review of Spangen, see Donald I. Grinberg Housing in the Netherlands 1900-1940, Delft, 1982, pp. 74-79.
105 Perimeter Block complexes were common to many countries by the turn of the century. These included Germany and Austria. Often these were built by the private sector. However, in Holland these were commissioned on a large scale by the government, particularly in Amsterdam. For models which predated Spangen, see Wim de Wit The Amsterdam School, Cambridge, 1983, pp. 9-29 and pp. 145-161.
A. Asselberg's Amsterdamse School 1910-1930, Amsterdam, 1975, p. 15-70.
Also see Suzanne S. Frank, "Michel de Klerk (1884-1923): An Architect of the Amsterdam School," Ann Arbor, 1984.
Suzanne S. Frank, "Michel de Klerk's Design for Amsterdam Spaarndammerbuurt 1914-1920" in Nederlands Kunsthistorisch Jaarboek 22, 1971, pp. 175-213.
Helen Searing "With Red Flags Flying: Housing and the Amsterdam School". In Art and Architecture in the Service of Politics, Cambridge, 1978.

circulatory articulation.

Brinkman designed the Spangen project [Fig. 31] as a perimeter block complex in whose multi-story quarters standardized flat layouts repeated themselves continuously. Different functions were given separate enclosures within the blocks. Spangen's circulatory system was worthy of note as well. Rather than to enclose corridors within the main block, Brinkman chose an unprecedented alternative: he externalized the rear gallery which spanned the horizontal length of the upper story and connected it to the ground floor via a network of outdoor stairwells. The galleries openly revealed their cantilevered supports. As a result, Spangen was endowed with an exterior display of structure and support, and an externalized circulatory system.

Hans Schmidt was impressed by Brinkman's approach and passed on the ideas he had learned in Brinkman's his office to his friends. Throughout the following years, elements which recalled Brinkman's oeuvre appeared in designs of the ABC affiliates. These elements included, most prominently, the use of open circulatory systems in conjunction with multi story repetitious perimeter bloc formats.

By 1921, Stam, Schmidt and Moser had arrived at a mutual understanding of the properties of functionalism and it was this understanding which formed the basis of ABC's platform. The ABC platform was thus characterized by a functional position that was based on a selective evaluation of the ideals of Semper, Berlage, Maillart and the other aforementioned Dutch architects. In section three I will discuss concepts of Constructivist origin which were adapted and elaborated upon by ABC. My focus will center on ABC's rationale for the incorporation of a Constructivist approach based on Soviet precedents, and the manner in which ABC fused European ideals with the Russian approach to produce the unique ABC projects.

PART III

THE CONCEPTUAL AND STYLISTIC PARAMETERS OF ABC'S CONSTRUCTIVIST PROGRAM

ABC's adoption of Swiss and Dutch functional values was in keeping with its members educational and early professional values. Far less indigenous to the ABC nucleus were the Constructivist concepts derived from the Soviet Union. Nonetheless, between 1921 and 1929 ABC's architects came to champion the Russian approach, and subsequently adopted a number of its features.

The Bolshevik Revolution of 1917 intended to transform a backward monarchy into a contemporary egalitarian society for which there was no historical precedent. In addition to instituting political, social and economic reform, Russia's post revolutionary regime also developed new cultural prototypes. Constructivism, a distinct architectural approach, was one of these prototypes. Russian Constructivism was a multidimensional style which stressed technology and productivity via the articulation of structural elements, materials, building components and technological features as well as theoretical and formal concerns which sought to experss Communist ideology in a symbolic manner.

ABC's members elected to accept Soviet Constructivism in the same selective manner as they had accepted functionalism. The group chose to recognize and subsequently adopt only certain aspects of the Constructivism Lissitzky had introduced them to, aspects which suited their particular orientation. Itemized in this section will be those features of Russian Constructivism which the ABC group chose to adopt,

those it rejected and the rationale which governed their selections. Finally, this section will illustrate how the aspects ABC did adopt served to inspire an original Constructivist varient which was feasable, pragmatic and internationally applicable.

CHAPTER I

THE DEVELOPMENT OF ABC'S COMMUNIST AFFILIATION

The ABC group's support for the U.S.S.R. and its architects was the result of the ABC members' gravitation towards Communism prior to the formation of ABC. As early as 1921, several of the members had indicated a pronounced interest in Socialism and Communism. Hans Wittwer's advocacy of socialist inspired low cost housing and his studies of British working class housing have already been cited.[1] Hannes Meyers' similar interest in low cost housing had led to his membership in the Swiss Co-Operative Union (SCU) and to his design for their communal Freidorf housing estate (1919).[2][Fig. 114] Hans Schmidt, under the influence of his brother Georg Schmidt, a Basel radical, also developed

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1 See Section II, Chapter II.

2 TheSwiss Co-Operative was a Socialist organization headed by Dr. Bernhard Jaggi which promoted collective housing estates and collective art projects. For a review of activities they sponsored and Meyer's participation in them see Schnaidt pp. 19-21. For a detailed discussion of the Freidorf project, see Projects Section, pp. 5-15.

strong leftist values by 1921.[3] Werner Moser and Emil Roth, in Schmidt's company, came to share these leftist sympathies.[4]

By 1922, the young Swiss architects had developed an abiding interest in Communism. To a large extent, Schmidt and Moser's sojourn in Holland was responsible for this development. In Rotterdam they had met Stam, a self declared Communist and member of an avant garde community which openly admired the policies of the Soviet Union.[5]

Holland had noteworthy Communist supporters within the avante garde fringe. Its' Communist supporters included such Dutch artists and architects as Jan Wills, Robert van't Hoff and Gerrit Rietveld and the artists Peter Alma, Theo van Doesburg and Chris Beekman.[6] These men had openly expressed interest in the U.S.S.R.'s political and cultural postion.

Letters written by these artists document their

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3 This information is based on a series of interviews between Emil Roth and Mrs. Lili Schmidt and the author during July of 1978.

4 Ibid.

5 Ibid.

6 These Dutch architects were later supporters of the already discused Congress of International Progressive Artists and its International Faction of Constructivists in Dusseldorf in 1919. De Stijl reviewed those activities. See Part I, Chapter II.

Communist allegiance. For example, a letter written on May 7 of 1919 by Jan Wills to Beekman, states:

> "I am firmly convinced that communism is also bound to enter our country very soon. I should immediately add that I am a Communist through and through..."[7]

Also in 1919, Robert van't Hoff wrote of the Soviet building programme in another letter.

> I myself am convinced that we will get a Soviet government ... I am trying to anticipate and be ready for its implementation after the revolution by designing mass production buildings ... no more private villas ...[8]

A September 1919 letter from Theo van Doesburg to Chris Beekman gives evidences of the growing curiosity about the new Soviet style.

> I am looking forward to communication with our Russian colleagues. Will their work ... have progressed ...[9]

Mart Stam was a member of the Dutch Communist movement. By 1919, he too supported the U.S.S.R. and the architectural trends evolving there. After Schmidt and Moser arrived in Rotterdam he introduced them to his Communist friends and

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7 This correspondence is from Ger Hamsen's personal collection of letters documenting the period between 1917-1922. See Ger Hamsen "De Stijl and the Russian Revolution" in De Stijl, Visions of Utopia, Mildred Friedman, editor (New York, 1982).

8 Ibid., p. 48.

9 Ibid., p. 46.

imparted his pro-Soviet ideas to them. As a result, the two Swiss nationals soon developed an extensive interest in the Communist movement.[10]

In 1922, Stam migrated to Berlin which since 1919 had served as a haven for a large group of Russians expatriates including Boris Pasternak, Anton Belz, Alexander Archipenko, Lilly Brik and Vladimir Mayakovsky. When Germany had lifted its political blockade of the Soviet Union in 1921, Naum Gabo, Anton Pevsner, Nathan Altman and El Lissitzky had migrated to Berlin. European artists and architects seeking information on cultural developments in the U.S.S.R. travelled to Berlin to meet with these expatriates.[11]

In an effort to broaden his knowledge of Russian architecture, Stam sought out El Lissitzky in Berlin. The two men became friends and Lissitzky introduced the Dutch architect to the Constructivist works of Tatlin, Ladovsky and to those of Ladovsky's students.[12] By the time Stam left Berlin, he had become a staunch proponent of Constructivism. Upon his return to Rotterdam, in the fall of 1922, he detailed his Berlin experiences and his understanding of Soviet architecture to his Swiss colleagues.

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10 See note 3.

11 For a portrait of Russian society in Berlin see Alan Birnholz El Lissitzky, Yale University Dissertation 1973, pp. 144-147.

12 This topic will be discussed in forthcoming chapters.

By the time they returned to Switzerland in December of 1922, Stam's colleagues had been coverted to the Constructivist point of view. The aforementioned Beilersee meeting organized by Schmidt brought ABC's position on Soviet policy and style to the attentions of Meyer, Wittwer, Roth and Ataria.[13] Stam's 1923 arrival in Zurich added momentum to the group's interest and in 1924, El Lissitzky cemented their commitment. By March of 1924 ABC's pro Soviet stance was firmly rooted.

Despite their enthusiasm, the ABC group soon found itself isolated within the Swiss cultural establishment. ABC received neither the support of the Swiss architectural circles or that of leftist organizations. Unlike Germany or Holland, there was no pro communist avante garde of consequence in Switzerland which could encourage or promote their ideals on a noteworthy scale.

This state of affairs hardly came as a surprise to the ABC nucleus. Switzerland's persistent disavowal of Communism was an established fact since 1917. While pro-Communist networks had formed within anarchist and socialist circles in Holland, Germany, France and Spain after 1917, Switzerland, did not follow suit. The Swiss Socialist party, under the leadership of Robert Grimm, opposed the new Soviet government and the Communism it espoused. Grimm's party saw itself as an organization of pacifists who opposed World War I and all

13 See Part I, Chapter I.

other acts of war. They perceived the Bolshevik revolution as a military act and condemned the Russian regime that it had produced.[14] The Comintern, Russia's international Communist Organization, attempted several times to reverse their attitude, but failed in its efforts. In March of 1919 it sponsored a conference in Bern where it presented the positive aspects of the Soviet platform. Few followers were attracted and the conference was deemed a failure. In August of the same year at Lucerne, another such attempt was made. That conference suffered a similar fate when the peace oriented socialists negated the Comintern's position.[15] Only Basel, an industrial city, had gathered enough sympathizers to form a small Communist party within Switzerland.[16]

The attitude of the Swiss Labor movement toward Communism was similar to that of the Socialists. In both 1918 and 1919 its members had launched widespread general strikes throughout Switzerland to protest food shortages and other unsatisfactory working and living conditions. The strikes failed and were seen as self-defeating condemnable gestures by Labor. Historian Franz Borkenau notes that "Swiss workers were tired of revolutionary tactics" and

14 Franz Borkenau World Communism, Ann Arbor, 1962, pp. 167-169.
15 Ibid., p. 184.
16 Ibid., p. 204.

therefore followed Labor Party precedent by opposing the violent methods of the Comunists.[17]

Switzerland's anti-Communist stance persisted through the early 1920's. By March of 1924, it had become clear to the emerging ABC nucleus that the Swiss Left's position had little in common with their own political values. ABC's outspoken Communist position was developed as a response to this prevailing Swiss attitude.

The ABC group sought to establish a pro Soviet, pro Communist architectural network in Switzerland which would receive international recognition.[18] In order to attain their goal, they published ABC - Beitrage Zum Bauen, which they filled with inflammatory material whose aggressive verbiage distinguished it from virtually all other non-Soviet architecural publications of the period. Schmidt, Stam and the other affiliates hoped that ABC's outspoken stance would gain them a notoriety which would ultimately lead to the recognition that they sought.

To indicate the extent of their support of the U.S.S.R., ABC adopted the style of its architects. The group adopted the Russian style not only to please Lissitzky but also because ABC believed that Constructivist architecture was symbolically representative of Communism.

17 Ibid., p. 184.
18 See note 3.

The "Russia" and "Moscow" editorials in ABC are prime examples of ABC's symbolic assessment.[19] Both pieces discuss the Asnova organization and the developing architectural trends in the U.S.S.R. ABC could have entitled these pieces "Asnova" and "New Directions in Russian Architecture." However, ABC did not chose to do so because its focus was not purely on the singular stylistic aspects of Asnova. Rather, ABC saw Asnova as a body of designs which collectively represented the political and philosophical ideals of the Soviet Union.

The ABC article which featured Tatlin Monument to the Third International underscored this approach. Again, the piece was entitled "Russian Architecture" even though it did stress an individual contribution. Although the article could have discussed Tatlin's well known work as a contribution in its own right, ABC instead treated the monument as a symbol of Communist ideology. Thus, after an opening paragraph which itemized the Tower's singular parts, the essay moved to a larger discussion of the Tower significance as an embodiment of all the collective "ideals" of the Revolution.[20]

"Flying Propaganda", the sketch by L. Popova and A. Vesnin [Figs. 32] reprinted in ABC, exemplified this trend as

19 ABC, Series I, No. I, 1924, p. 1.
20 ABC Series I, No. 3-4, 1925.

well.[21] In actuality, "Flying Propaganda" was a 1920 rendering of a mass festival set which the artists had originally entitled "Sketch for the Struggle and Victory of the Soviets."[22] As evidenced by the difference in titles, ABC was not interested in the design's original raison d'etre but merely recognized the design for the propaganda message it so blatantly displayed. Clearly then, ABC was indicating its bent for valuing Constructivist projects mainly for their symbolic content. In adopting Constructivism the ABC group announced that they, like their Russian contemporaries, had embraced Communism.

21 ABC, Series II, No. 1, 1926, p. 3.
22 This attribution is made by K. Paul Zygas in "Cubo Futurism and the Vesnin's Palace of Labor". See Stephanie Barron and Maurice Tuchman The Avante Garde in Russia 1910-1930 New Perspectives, Cambridge, 1980, p. 113.

CHAPTER II

THE PUBLICATION: CONTEMPORARY SOURCES AND PARALLELS

To announce their support of Constructivism, ABC resorted to another method as well. Prior to the establishment of the ABC magazine a host of European publications had demonstrated their allegiance to Soviet ideology and art by imitating a literary Constructivist prototype El Lissitzky had designed for magazines outside of the U.S.S.R. This prototype balanced art related layouts, literary material, propaganda oriented editorials and Constructivist inspired illustrations within a specific format.

El Lissitzky, in his efforts to create an international Constructivist brotherhood in 1922, had devised an ideological programme for the opening issues of Veshch and G which acknowledged Russian values and Constructivist precedent. For these periodicals he also devised a striking graphic format which balanced typeset, graphics and bold illustrations. Also featured were reproductions of technological innovations and less frequently, examples of Russian Constructivist structures. After 1922, numerous small European magazines, including Blok, began to publish similar illustrations. ABC imitated the examples of Veshch, G and other network periodicals in order to establish its allegiance to Constructivism. ABC thus advanced a format

which juxtaposed art oriented typographical material with factual propaganda oriented editorials in order to underscore international Constructivism's expansive interests. A review of ABC's design, illustrations and significant editorials bears this out.

ABC's Design:

The format of ABC clearly derived from precedents established by the earlier pro-Constructivist European publications, Veshch and G.[23] Unlike these magazines, ABC was not designed or planned by El Lissitzky. At ABC, the Russian acted only in an advisory capacity and therefore did not develop a special scheme for the Swiss magazine. He left that task to Hans Schmidt and Mart Stam, the editors.[24]Not being seasoned veterans in the field of design, the architects Stam and Schmidt looked to Lissitzky's earlier magazines and to other network publications for inspiration. Ultimately they created a periodical whose layouts, format, editorial sequences and photographic inclusions echoed those of extant models.

23 It should be noted that ABC may have been influenced by graphic innovations which were not designed by Lissitzky but which had distinct Constructivist overtones nonetheless. The graphics at the "Art and Techics, A New Unity" exhibition in 1923 at the Weimar Bauhaus are examples in kind. The works by such designers as Schlemmer and Bayer are illustrated in Gropius, Bauhaus, pp. 78-81.

The aesthetic influence of Lissitzky was highly evident at ABC. For Veshch and G, Lissitzky had planned pages which were characterized by striking contrasts and visual tensions. In these publications he had juxtaposed typeset, variations in face, thickness and scale, the printers rule, bold graphics and essays in unique ways. No two pages were ever identical, as each was an original amalgam of the above. Despite this seemingly confusing fusion of ingredients, Lissitzky's pages were carefully organized and adhered to a specific format. For example, Veshch, Gegenstand and Objet's formats were based on a clearly demarcated division of the page [Fig. 33]. The opening pages of issues isolated the title and editorial listing in the upper left corner which was outlined by the black printers rule. Adjacent to the title section, on its right, was a fine print paragraph which offered a brief editorial statement. Below the upper divide, the page was fragmented into either horizontal or vertical columns whose perimeters were sometimes broken by overscaled illustrations. Typeface varied in character, thickness and size throughout. G, Lissitzky's second effort, used this same format with one major exception. Veshch's articles were usually presented in vertical formation while G preferred frequent horizontal page divisions. The latter also adopted a similar mode of title presentation, changing typeface, and vivid graphics and photographs [Fig. 34].

Schmidt and Stam attempted to emulate both these models. ABC's title sections followed Veshch's lead.[Fig.

35] ABC's title was relegated to the upper left and the editorial introduction to the upper right corner, with the printers rule used in their delineation. Like G, the Swiss magazine selected a title of alphabetical letters, and, in the manner of Lissitzky, a variety of typefaces was used throughout the above.

To lend ABC an original quality, its editors merged Lissitzky's precedents with some of their own interests. For example, the lettering for the ABC title and for "Beitrage Zum Bauen" did not recall typesets of Lissitzky. It was a type that Hans Schmidt had been using for a series of advertisements developed for the O. Christen and Cie Cement Works in Basel in 1924.[25] Three advertisements by Schmidt, which were not shown in ABC, made use of these typesets [Figs. 36,37,38]. A more intricate, 1925 version of these ads later appeared in ABC in 1925 in a montage for a Christen frame, utilizing the typeset that was often used for ABC's essays.[26][Fig. 39]

ABC's opening headings also featured Mart Stam's

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26 "Betonfensterrahmen", ABC, Series I, No. 3-4, 1925.

talents. Volume I, No. 2 was distinguished by a small arrow while Number 3-4 boldly featured the word "Beton".[Figs. 40,58][27] Both of these were created by stamps that Stam had designed. Stam had an interest in bloc stamps and had designed a stamp bearing his name which he used on his letterheads and his envelopes [Fig. 41,42]. For ABC, he created the stamps for "Beton," the above cited arrow and the "ABC-Beitrage Zum Bauen" logo. (The architect retained custody of these and later used them in 1924 letters to Werner Moser [Fig. 43].)[28]

Despite Stam's serendipitous touches, ABC's title sections and imitative pages seemed timid when compared to those of Lissitzky's publications. ABC lacked Vesch and G's dramatic angle, scale variations, and novel type arrangements and Veshch's pages relied on the unexpected in their arrangements. Its margins were often infringed upon, scale was used in a disoriented manner, and colmnar boundaries were fractured. ABC adopted Veshch's longitudinal columnar format and enhanced its pages with montages, logos and graphic material. The results were not the same, however. In ABC the opening page and all subsequent pages

25 O. Christen and Cie was a concrete and cement manufacturer based in Schanzli, Basel.

26 "Betonfensterrahmen", ABC, Series I, No. 3-4, 1925.
27 ABC, Series I, No. 2, 1924, p. 1.
ABC, Series I, No. 3-4, 1925, p. 1.
28 The correspondence between Stam and Moser, as of 1978, was in the custody of Moser's widow, Mrs. Silva Moser of Zurich. She allowed the author access to this material.

were obligatorily divided into columns but only into a conventional format of two regularized columns. Typeface was changed throughout but on a modest scale. Illustrations and graphics remained within the confines of a columnar format which was constant throughout ABC's life span. It was only in the final issue of ABC that these borders were infringed upon when large photos were allowed to extend beyond their usual parameters.[29]

Hans Schmidt's influences were also apparent on the ABC pages since Schmidt selected the entries and often arranged them within the magazine. A series of small notebooks containing Schmidt's private ABC notes listed and itemized the entries for each issue, thus indicating that much of the responsibility for these selections was in his hands. [Figs. 44,45,46][30] In addition to creating the layouts, Schmidt provided much of the graphic material. "Warum Schon" was an example in kind.[Fig. 46][31] Although ABC did not credit him for the "Warum Schon" effort, two similar versions have been found among his unpublished private papers [Fig. 47,48].[32] It is not unlikely that in this case Schmidt had been

25 O. Christen and Cie was a concrete and cement manufacturer based in Schanzli, Basel.

26 "Betonfensterrahmen", ABC, Series I, No. 3-4, 1925.

27 ABC, Series I, No. 2, 1924, p. 1.
ABC, Series I, No. 3-4, 1925, p. 1.

influenced by Lissitzky's preference for stepped formations, since the latter did use them in his magazine titles.

Other artwork by Schmidt in ABC revealed the influence of G. The German publication had voiced its opposition to specific anti-progressive prototypes by placing an X over them.[33] Schmidt imitated that approach in "Die Baukunst und der Liebe Gott" ("The Dear Lord and The State of Architecture").[Fig. 49][34] For this image, and for a number of others, Schmidt created the G graphic effect by placing a photograph, such as "Ineres Kirche Dietikon", within a folder containing a cutout section of only a black X [Figs. 50 & 51] and publishing a final version of the photograph with the X superimposed.[35]

The Manifesto's Ideological Format

The editorials and essays that were featured in the ABC manifesto issue followed the thematic sequences which G and Veshch had employed in their opening issues. ABC's opening issue did not merely echo the principles of Lissitzky's

28 The correspondence between Stam and Moser, as of 1978, was in the custody of Moser's widow, Mrs. Silva Moser of Zurich. She allowed the author access to this material.
29 ABC, Series 2, No. 4, 1927-8, p. 2.

Constructivist position, but literally imitated the manner in which his two periodicals presented a brief essay on functional concerns such as economy, regularity and practicality. ABC articles calling for a Soviet Constructivist affiliation echoed Lissitzky as well.

The first entry in ABC's manifesto issue exemplified this approach. One year earlier G had opened its first issue with an essay entitled "Neue Gestaltung" ("New Design") which called for an end to individual craftsmanship and the adoption of a collective policy. It demanded "new solutions" based on economy, the "coefficient of materials and energy... is a primary essential and necessary factor for the creation of elementary regularity and order." G's "Neue Gestaltung" sought "solutions" of a "constructive nature" based on the "practical answers" of the Soviets.[36] The tone, content and the points of emphasis in the G article were extremely similar to those which appeared in the ABC's opening article, "Die Neue Gestaltung" ("The New Design").

G had cemented its alliance to the Russian Constructivists, specifically to the group headed by N. Gabo and A. Pevsner, by publishing excerpts from their "Realistic Manifesto."[37] Page four of G #1 included "Thesen aus dem

36 "Neue Gestaltung" in G, Volume I, No. I, July 1925, p. 1.
37 Naum Gabo and Antoine Pevsner, "The Realistic Manifesto" (Moscow, 1920). English Translation by Naum Gabo in Gabo Constructions Sculpture, Paintings, Drawings, Engravings, London, 1957.

Realistischen Manifest, Moskau 1920" ("Theses from the Realistic Manifesto Moscow 1920").[38] It came as no surprise, therefore, to see the paragraph "Moscow" in ABC where the latter affiliated itself with Asnova. Both of these alliances traced their origins to El Lissitzky's editorial "The Blockade of Russia Moves Towards its End" in Veshch's opening issue.[39] In the editorial Lissitzky called for an international Constructivism based on a collaboration between the artists of Russia and Europe. It stated:

> The appearance of Veshch is an indication of the fact that the exchange of 'objects' between young Russian and West European masters has begun ... From now on art, while preserving all local characteristics and symptoms, is international. The founders of a new guild of painters are making sure that the links are securely established between Russia, which experienced the most powerful revolution, and the West ...

38 "Thesen aus dem Realistischen Manifest", in G, Vol. I, No. I, July 1923, p. 4.

39 While the Realistic Manifesto reflected the stance of artists and sculptors and Asnova that of architects, both shared a common understanding of Constructivism. They saw the latter as a symbolic expression of Russia's new society which incorporated an engineering oriented vocabulary and communal collectivity. They did not address themselves to pragmatic production oriented solutions, as Tatlin had attempted to do in the "Program of the Productivist Group" (1920). The Veshch editorial reiterated the former position.

In addition, the editorial also promoted Communism and its collective approach to life and design.

> "We are not in favor of an art which stands outside of life and which is apolitical ... We cannot imagine a creation of new forms in art unrelated to the change in social structure ... It is obvious that all those in sympathy with Objet belong to the young creative forces in Europe and Russia who are creating new 'objets'. The new collective international style is a product of communal creation."[40]

This point was introduced once again by G in "Neue Gestaltung" and in Stam's "Kollective Gestaltung" ("Collective Design") in ABC.

The article by Mart Stam also emphasized the growing importance of the engineer. Previously, G had published an entire article on that subject -- "Es Kommt der Neue Ingenier" ("The New Engineer is Coming "). Stam had written that:

> Artists ought to be standing at the engineer's sides in their controlling role. For not only do they have to possess scientific knowledge of materials and understand economic requirements, but also an intuitive eye, and ability to see within the material to its pure elemental value.[41]

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40 El Lissitzky, "Die Blockade Russlands get Ihrem Ende Entegegen" ("The Blockade of Russia Moves Towards its End") in Vesbch, Gegenstand, Objet, Berlin, Vol. I, No. I, 1922, pp. 1-4. The English translation is in Bann, pp. 55-57.

41 Mart Stam, "Kollective Gestaltung", ABC, Vol. I, No. I, 1924, p. 1. English translation is in Oorthuys, Mart Stam, p. 20.

These were not original ideas, in that Werner Graeff in G had stated them the year before:

> For the new engineer the elementary ground rules of design are totally clear. Accordingly, for him they are uncomplicated, clearly articulated, and understood precisely in terms of their economic needs .., in terms of their elementary and formal requirements.[42]

The Illustrations

Echoing the manifesto's early precedent, ABC's subsequent issues continued to feature editorial material which reflected its interest in Constructivism. Once again, this material echoed those publications which had preceded ABC. These included not only Veshch and G but a host of small European magazines which projected a Constructivist bias. ABC's visual setup and specific Constructivist examples revealed a conscious debt to these small publications.

In 1922, The Congress of International Progressive Artists had inspired a number of small magazines devoted to the arts to adopt a policy which supported Lissitzky's Constructivist platform. The common interests of these publications fostered a strong bond that afterwards came to be regarded as a European based Constructivist network. Ma,

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42 "Es Kommt der Neue Ingenier" ("The New Engineer is Coming") in G, Vol. 1, No. 1, 1923, p.4.
The above sentence was translated by the author. A complete translation appears in Conrads, Programs, p. 71.

a Hungarian language magazine even went so far as to codify a membership roster in one of its issues. [Fig. 52][43]

By and large, these magazines were devoted to the arts and concentrated on poetry, cinema, graphics, painting and sculpture, and only occasionally on architecture as in De Stijl. To prove their affiliation to the network, each member publication chose to print some form of Constructivist oriented material which related to their specific concerns. Often, these consisted of statements, graphics, projects or essays by El Lissitzky. Ma, for example, reprinted Lissitzky's Dusseldorf statements and featured his graphic works in several issues.[44] The Dutch De Stijl also published the Dusseldorf proclamation and the proto-architectural Prouns.[45] Zenit, the Zagreb based paper

43 Ma, Vienna, Volume 8, No. 1, October 15, 1922, Final page.

44 El Lissitzky, "Deklaracio a Halado Muveszek Elso Dusseldorfi Kongresszuhsahoz" ("Declaration by editors to the Dusseldorf Congress") in Ma, Vol. 7, No. 8, August 30, 1922, p. 62.

Lissitzky cover on Ma Vol. VIII, No. 8, August 1922.

Lissitzky graphics in Ma Vol. IX, No. 8-9, September 1924.

45 El Lissitzky, "Deklaration An Den Ersten Kongress Fortschrihlichen Kunstler, Dusseldorf" ("Declaration to the Congress of Progressive Artists Dusseldorf") in De Stijl (Schevingen), Vol. 5, No. 4, April 1922, pp. 56-57.

El Lissitzky "Proun" in De Stijl, Vol. 5, No. 6, June 1922, pp. 81-85.

featured an issue dedicated to Russian art with a cover, by Lissitzky.[46] Kurt Schwitters, the editor of Merz, asked Lissitzky to contribute to a special volume of the Hanover periodical[47] and the American Broom asked him to design three covers.[48]

Under Lissitzky's guidance, ABC sought to become a network affiliate soon after it was established. It publicly linked itself to that network with the following statement:

> "The ABC has 25 letters, whoever wishes to go beyond the first three, read and subscribe to: Architectura, Contimporanue, Ma, Manometre, Mavo, Merz, Stavba, Zenit."[49]

46 Cover of Zenit, Micic, Zagreb, No.. 17-18, September-October 1922.
47 El Lissitzky "Nasci" in Merz, Hanover, Vol. 2, Nos. 8-9, April-July 1924.
48 El Lissitzky, covers for Broom, New York, Vol. 2, No. 3, June, Vol. 4, No. 3, February, Vol. 5, No. 3. All were done in 1922.
49 ABC, Vol. 1, No. 2, 1924, p. 4.

In addition, ABC's second series contained a listing on each of its back covers of the twenty-seven magazines in that network, including Block, Disk, G, De Stijl, Stavba, Merz and Praesans. The home base and mailing address for each magazine was also given. [50] To further emphasize its affiliation, the Swiss magazine reprinted quotes and articles from other publications. Included was a lengthy quote from Merz in issue 3/4, Lissitzky's article "Rad Propeller und das Folegende" (Wheel, Propeller and What Follows") which had appeared previously in G, and Hans Richter film stills (untitled) from the same magazine. [51] In keeping with network tradition, ABC also featured works by Lissitzky including "Constructor" (1925) and in the 1926 issue devoted to modern art, a "Proun" and the "Proun Room" [52]

[50] ABC - All back covers of Series II, which began in 1926.

[51] Merz quote in ABC, Vol. 1, No. 3/4, 1925, p. 12.
El Lissitzky "Rad-Propeller Und Das Folegende" ("Wheel Propeller and What Follows") originally in G, Vol. 1, #2, Sept. 1923, p. 2.
Later in ABC, Vol. 2, No. 1, 1926, p. 3.
Hans Richter's film stills first appeared in G, Vol. No. 1, July 1923, p. 3.
Later in ABC, Vol. 2, No. 1, 1926, p. 4.

[52] "The Constructor" ABC, Vol. 1, No. 3-4, p. 12.
"Proun" and the "Proun Room" in ABC, Vol. 2, No. 2, p. 3.

In addition to the above, many network magazines featured reproductions of technological edifices and innovations. After 1922, such iconographic images continued to appear in network publications on an increasing scale. To a large extent these were based on the illustrations that Lissitzky had included in Veshch and G and were employed to reaffirm Constructivism's support of productivist ethos. For example, Veshch's first page featured a blow-up photograph of a locomotive.[53] G displayed factories, power plants, turbine halls, and industrial structures in which the merger of structure and material was clearly evident.[54]

Variations of these technological reproductions resurfaced in ABC after 1924. Throughout its run, ABC showed photographs of technology related subjects. These included the Waggital power plant, a skyscraper skeleton in Baltimore, Freysonnet's hangar, the Muscle Shoals power plant, details of factory conveyor belts, and large industrial interiors of glass and steel.[55] A review of the photographic inclusions

53 Veshch, Vol. 1, No. 3, May 1922, p. 1.
54 G, Vol. 1, No. 2, September 1923 featured these structures.
55 "Kraftwerke Waggital", ABC, Vol. 1, No. 2, 1924, p. 2.
Baltimore Skeletal Frame "Wolkenkratzers in Baltimore", Ibid., p. 3.
Freysonnet's Hangar, ABC, Vol. 1, No. 3-4, 1925, p. 2.
"Muscle Shoals", Ibid., p. 3.
Conveyer Belts, ABC, Vol. II, No. 1, 1926, p. 6.
Industrial Interiors, "Fabrikhalle Wema", ABC, Vol. II, No. 4, 1927-28.

in ABC's predecessors proves that the Swiss magazine was not innovative in selecting this type of photograph.

Veshch and G were not the only sources for this material nor were they the first publications to feature it. ABC's editors were Swiss and Dutch and there were other publications in their respective native countries that had included similar visual material. The Schweizerische Bauzeitung, the Swiss engineering Journal, had featured photographs of power systems, tensile structure, engines, dams and railway systems since 1883.[56]

The German Werkbund in Germany had sought to illustrate the successful integration of art, technology and industry in its documents since 1907. Its 1914 poster-map for the 1914 Cologne Werkbund exhibition was a good example in kind. It showed a site plan of the Cologne exhibit that was surrounded by large photographs of industrial sites, airplane hangars, factory interiors, and Darmstadt's glass and steel railroad station. [Fig. 53] By showing these photographs on its map, the Werkbund canonized industrial and technology-oriented architecture and indicated that it was representative of a

[56] Schweizerische Bauzeitung Revue Polytechnique Suisse Wochenschriet for Bau Verkehrs and Maschinentechnik, Zurich. All issues between 1883 and 1924.

significant architectural trend which influenced the design of the era.[57] Le Corbusier's Towards a New Architecture, published in 1923, gave further credence to this trend by depicting factories, automobiles, engines and tensile cranes.[58] De Stijl, in Holland, had also been presenting such material since 1920 when it published the views of the Bethlehem shipyards as examples of utilitarian structure of exposed glass and steel. In De Stijl issues published between 1921 and 1922, a grain silo, automobiles, aerial tramways and turbine rooms were shown.[59]

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57 The map is a separate section which is included in Deutsche Werkbund Ausstellung, Offizieller Katalog, Cologne, 1914.

58 Le Corbusier, Towards a New Architecture, New York, 1927.

Hans Schmidt was an admirer of Le Corbusier's. In 1927 Schmidt wrote an article where he spoke of his admiration for his work. See: Hans Schmidt "Le Corbusier als Architekt und Schriftsteller" ("Le Corbusier -- Architect and Writer") in Bruno Flieri, Hans Schmidt: Beitrage zur Architektur 1924 - 1964, Berlin, 1965, pp. 28-30.

59 "Bethlehem Shipbuilding", De Stijl, Vol. III, No. 6, April 1920, p. 58.

"Grainsilo", De Stijl, Vol. IV, No. 4, April 1921, p. 62.

"Auto Apollo", De Stijl, Vol. IV, No. 10, October 1921.

Aerial Tramway - "Luchttrein Kohlernspoorbaan in Tirol" De Stijl, Vol. V., No. 3, March 1922, p. 48.

Machine Room - "Machinekamer in Een U-Boot" De Stijl, Vol. V., No. 5, May 1922, p. 76.

All of these international sources saw in such technological innovations the roots of an honest, ulitarian architecture, a fact which Walter Gropius reaffirmed in 1923 when he wrote:

> We want to create a clear organic architecture whose inner logic will be radiant and naked, unencumbered by lying facades and trickeries; we want an architecture adapted to our world of machines, radios and fast motor cars, an architecture whose function is clearly recognizable in the relation of its forms.[60]

The appearance of these types of images in European publications increased after the appearance of Veshch. These images came to represent that part of the Constructivist programme which stressed production and the primacy of technology and therefore were often included in network periodicals. For example, Ma, in 1922, featured a skeleton of a hangar, a silo and a suspension bridge.[61] Blok, the Polish journal, included a montage of machines, cranes and

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60 Walter Gropius "The Theory and Organization of the Bauhaus" originally published in 1923 (Munich) under the title Idee und Aufbau des Statlichen Bauhauses Weimar by the Bauhausverlag. The English version appears in Herbert Bayer, Walter and Ise Gropius Bauhaus 1919-1928, New York, 1938, p. 27.

61 Ma, Vol. III, No. 5-6, May 1, 1922, pp. 8 and 9.

engines.[62] Laszlo Maholy Nagy and Ludwig Kassak included photographs of a radio tower, turbine engines, a racing car, suspension bridges and a silo in their book Buch Neuer Kunstler, published in 1922.[63] ABC followed network precedent and included similar illustrations. It wanted to provide a source of inspiration for a new Constructivist style which relied on exposed functional elements and the incorporation of technological innovations.

However, the most significant illustrations in ABC were those of new Russian designs. To signify that this new Soviet architecture constituted a primary source of inspiration to the Swiss group, ABC published a more extensive array of Russian Constructivist projects than any of its network predecessors. Between 1924 and 1926 it showed Tatlin's Tower, Lissitzky's Speaker Tribune and six Russian building designs.[64]

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[62] Photograph, "Kemal's Construction Program" in Blok (Warsaw), Vol. 1, No. 5, 1924.

[63] Ludwig Kassak, Laszlo Maholy Nagy, Buch Neuer Kunstler (Vienna, 1922). Page numbers were not used here.

[64] Lye Chemical Plant in Series I, Issue 2, 1914, p. 4 and Issue 3/4 1925, p. 2.
Tatlin's Monument in Series I, Issue 3/4, 1925, p. 1.
Restaurant on a Pier, Ibid., p. 3.
Airport Project, Series I, No. 6, 1925, p. 1.
"Flying Propaganda", Series II, No. I, 1926, p. 3.
"Speakers Tribune", Ibid., p. 8.
"Blind Architecture", Series II, No. 2, 1926, p. 2.
"Nowo-Svharewski Rynek", Series II, No. 3, 1926, p. 2.
Many of these works will be discussed in later chapters of this paper. There the actual architects for the Atelier Ladovsky projects will also be cited.

The Western avante garde had already been introduced to Constructivist architecture by 1919 when Konstatin Umansky, a Soviet Tass correspondent based in Vienna published Neue Kunst in Russland 1914-1919 "New Art in Russia 1914-1919". Umansky's book expounded upon the new developments in the U.S.S.R.[65] In January of the following year he wrote "Neue Richtungen in Russland, Der Tatlinsmus oder die Maschine Kunst" (New Directions in Russia -- The work of Tatlin or Machine Art) which appeared in the January 1920 issue of Ararat (Vienna).[66] Umansky's efforts constituted the first official introduction of the works of Soviet designers in Europe. In addition, Umansky delivered a speech on Russian art and architecture in Vienna in November of 1920 during which he showed slides of works by Altman, Goncharova, Falk, Malevich, Rodchenko and Tatlin.

[65] Konstatin Umanski, Neue Kunst in Russland 1914-1919, Potsdam, 1920.

[66] Konstatin Umansky, "Neue Richtungen in Russland/Der Tatlinismus oder die Maschinenkunst", Ararat, January 1920, pp. 12-13.

Umansky's efforts were soon rewarded. His speech and his works captured the attention of the Viennese avant garde. In a January 1921 review of art-related events for Ma, Bela Uitz (the editor) mentioned the Umansky lecture. In February 15, 1921 Uitz devoted a full length discussion on Umansky's ideas, presenting them in a favorable light.[67] Umansky had also inspired Uitz, and Alfred Kemeny, a Hungarian art critic, to go to the Soviet Union to observe its progress in the arts. Both men gathered documentary evidence of what they saw. After his return, Uitz left Ma and founded Egyseg, a magazine which promoted a Communist position in the West far more aggressively than Ma had. For Egyseg's September 1922 issue he reprinted the material that he had assembled in Russia. This included the "Realist Manifesto", the "Program of Productivists" and his own essay on "The Situation of Russian Art in 1921"[68] Uitz thus

67 Bela Uitz, "Ma Korebol" Ma, Vo. VI, No. 2-3, January 1921, p. 36.
Bela Uitz, "Jegyzetek A Ma Orosz Estelyehez" Ma, Vol. VI. No. 4, February 1921, p. 52.

68 A Persner, N. Gabo "Realist Manifesto" Egyseg (Unity) (Vienna), Vo. 1, No. 2, June 22, 1922, p. 8.
A. Rodchenko, V. Stepanova "Program of the Productivists", Ibid., p. 5.
Bela Uitz, "The Situation of Russian Art in 1921", Ibid., p. 1.

placed a wealth of information on the developments in the U.S.S.R. at the disposal of the European avante garde and enhanced the efforts of Lissitzky, who after his arrival in Berlin in 1921, continued to further Uitz's efforts at enlightenment with additional emphasis on architecture.

In Lissitzky's Veshch, Gegenstand, Objet, Russian architecture was promoted as a phenomenono in its own right. In the magazine an illustration of Tatlin's Monument to the Third International was shown in April of 1922 for the first time outside the U.S.S.R. A lengthy article discussing the monument's formal properties and technological features accompanied the illustration. The essay was reprinted in May of the same year (in Hungarian translation) in Ma. American artist, Louis Lozowick's woodcut of the Tatlin project was also reproduced in Ma.[69] Three months later, the Tatlin Tower was reintroduced in the German language Buch Neuer Kunstler.[70]

Other Constructivist projects had appeared in the various publications prior to ABC, and had included stage designs. The stage designs were microcosms of the Constructivist approach in their arrangement of frame, structure and staircases and rotating parts. In 1924, Ma devoted an entire issue to the theater and featured sets by

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69 For Veshch, see Note 9.
70 See Note 24.

Stepanova and the Vesnin brothers.[71] The catalog for the Internationale Ausstellung Neuer Teatertechnik ("International Exhibition of New Theater Technology") was printed in Vienna in that year as well and also featured photographs of the Vesnin sets.[72]

ABC joined the network ranks by publishing Soviet projects. It should be noted, however, that ABC's gesture was not solely imitative. ABC's promotion of these works served to underscore the serious intentions of this magazine. Although ABC had shown an interest in such art related concerns as typeset, layout and avante garde illustrations, the inclusions of such projects proved that the publication genuinely sought to foster an architectural varient which derived from Constructivist precedent. ABC was not the first European journal which attempted to promote an international Constructivism, but it was the most successful. Prior to ABC, such publications as Veshch (1922), G (1923) and the Polish periodical Blok (1924) had hoped to establish the foundations of an international Constructivist architecture but had done so with only limited success. Neither

71 Sets by v. Stepanova for "Coq Magnifique" and "Tod des Taralkin" for Meierhold and a Vesnin set for "Der Mann Donnerstag War" in Ma, Vol. 9, No. 8-9, September 1924, Cover and pp. 1-2.

72 Friedrich Kiesler, Katalog Internationale Ausstellung Neuer Theatertechnik, Potsdam, 1924, pp. 68 and 75.

Lissitzky's publications nor Blok had delineated a pragmatic guideline which practicing architects could use as a tool. In addition, Veshch and G had both failed to provide role models for a Constructivist style which was conceived by architects who were not Russians and which addressed the concerns of Europeans. As a result, these periodicals did not inspire a significant number of projects. A review of their efforts substantiates this fact.

While Veshch, Gegenstand, Objet was not essentially devoted to architectural interests, it did nonetheless, attempt in a limited fashion, to interest Europeans in the development of Constructivist architecture by providing several examples. These examples included Tatlin's Tower and the works of the Stenberg Brothers, both of which were Soviet in origin.[75] However, Veshch did not point out how any of these projects could be adapted to suit a European sensibility. It presented no projects by non-Soviets which described such attempts.

G, on the other hand, prided itself on a strong architectural bias. Its shortcomings lay in a different area. Although it was both pro-Constructivist and architecture oriented, it segregated one interest from the

[75] Projects by the Stenberg Brothers were features in Ulen "Die Ausstellungen in Russland" Veshch, Gegenstand, Objet, No. 1-2, March-April 1922, pp. 18-19. Tatlin's Tower, "Tatlina Bashnia" appears on pp. 15-17 of the same issue.

other. Only in its essays, editorials and graphic inclusions was a true Constructivist bent apparent. Although examples of factories (often by anonymous architects) with exposed and externalized circulatory elements were featured in G, the actual projects by European affiliates and contributors that it presented did not project a strong Constructivist inclination. In the two issues that appeared before 1924, G published illustrations of Mies van der Rohe's Concrete Office Building and Ludwig Hilbersheimer's Chicago Tribune Tower.[74] Mies' project was presented as a stylized, formal abstraction in concrete, iron and glass. Nowhere in the accompanying text was it hailed as the precursor of a new European Constructivism movement. Likewise, the text accompanying the illustration of the Hilbersheimer tower, with its repetitive geometric modules and smooth skin, offered few hints of the Russian influence that had entered into its plan.[75] Ultimately, G published no European Constructivist buildings designed by European architects.

Warsaw based Blok was more successful than either G or Veshch in its efforts to promote an international

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74 Mies van der Rohe's "Burohaus" appeared in G, Vol. 1, No. 1, 1923, p. 3.

75 Although Hilbersheimer's work was seen as being representative of the architecture of the new age, accompanying captions made no references to Russian influences.

Constructivist ideology and Polish projects which reflected a Soviet bias. In 1924, it printed the editorial "What Constructivism Is" which described Constructivism to Polish architects.[76] The editorial recognized such functional realities as machine production, standardization, technological innovations and the economic use of materials. In addition, it championed a style which was based on the articulation of the elements of construction. To reinforce its commitment to the above position, Blok printed other articles which called for a new Constructivist architecture. "The Renewal of Architecture," is an example in kind.[77]

To some extent, Blok's calls were answered. Projects by Polish architects did appear in the magazine and did reflect Constructivist tendencies in their show of right angled juxtapositions and occasional externalization of structure.[78] The dynamic emphasis upon the structural

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76 "What Constructivism Is", Blok, Vol. 1, No. 6-7, 1924. English translation by John Bowit appears in Stephen Banzz, The Tradition of Constructivism, London, 1974, pp. 103-104.

77 "The Renewal of Architecture", Blok, Vol. 1, No. 5, 1924.

78 For a review of the architectural projects which appeared in Blok, see Hieronim Listowski The Polish Avant-Garde, Brussels, 1981, pp. 129-141.

Appearing in the opening issue of 1924 was Mieczslaw Szczuka's "Theoretical Construction".

aspects of Constructivism which characterized ABC's designs between 1923 and 1926, however, were absent. The Polish designs of this early period were weak and very limited manifestations of the emerging Constructivist style.

That Blok failed to inspire a viable Constructivist architecture of any noteworthy measure should come as no surprise. Such Blok essays as "What Constructivism Is" stressed broad ideological concepts and did not address genuine pragmatic values. Although the magazine may have been inspired by realistic concerns, these were not explained or described in any detailed manner by its writers. Polish Constructivist architecture may well have evolved in conjunction with this publication, however, the extent of Blok's role in this development in questionable. There is too much of a discrepancy between the realities of architecture and Blok's oblique rhetoric. Accordingly, Blok's essays do not emerge as forceful catalysts capable of generating a new style. When Polish architecture did finally enter a decidedly Constructivist phase, it was in 1928, after the run of Blok (1924-1926).[79]

The shortcomings of the above periodicals serve to underscore the significance of ABC. The Swiss magazine

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79 For examples of Polish architecture between 1928-1936 see Hillary Gresty and Jeremy Lewison Constructivism in Poland 1923-1936, Kettles Yard Gallery, Cambridge, pp. 19, 53, 182 and Listowsky, pp. 156-190.

elected to pursue a different course than any of the above publications. Unlike the above cited publications ABC's tone was more forceful and convincing.[80] It attempted to promote a style by clearly delineating its components and by providing the factual information which would aid in its realization. ABC also presented a host of works by European affiliates. These works proved that the new ABC Constructivist style was viable and would lend itself to utilization on an international scale. As a result of the many projects that it inspired, ABC became the most successful catalyst of European Constructivism during this era.

[80] ABC's tone was propaganda oriented following a precedent the earlier Zurich based iconoelantic anti-establishment Dada faction of Ball, Huelsenbeck, Tzara, Janco, Arb and Serner had established in 1916. See Jean Arp Arp on Arp, Poems, Essays, Memories, New York, 1966.

CHAPTER III

THE SELECTIVE PARAMETERS OF ABC'S APPROACH

The ABC group intended to create an unprecedented Constructivist style which did not directly imitate the Soviet examples published in ABC but did adapt selected aspects of the Soviet style. In addition to the ABC group's acceptance of the symbolic implications of Constructivism, as well as its graphic format, they also chose to emulate a number of the stylistic features of the Russian approach. There were, however, some aspects of Russian Constructivism which ABC did not wish to incorporate into its programme. These consisted primarily of the theoretical concepts upon which the Asnova projects were based.

In its "Moscow" editorial ABC had clearly affiliated itself with the Asnova organization. The Ladovsky Atelier projects that were featured exemplified the Asnova point of view that had been formulated by El Lissitzky and Nikolai Ladovsky. Two major treatises, Ladovsky's "Basis of the Construction of a Theory of Architecture" and Lissitzky's "Proun" lecture delineated the fundamentals of this approach.[81] Both documents strongly supported the theory

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81 The members of Ladovsky's Atelier were ultimately Asnova members as well. Both discourses were seminal to Asnova's ideology since both Ladovsky and Lissitzky were instrumental forces in its establishment and longevity. Asnova (1923-1930) "The Association of New Architects" was officially founded by Ladovsky in 1923. He remained president and administrator through 1928. For a detailed list of Asnova's

that perceptual concerns determined the setting and design of buildings and that materials, and that forms and structural components were symbolic expressions of an emotive vocabulary. Neither document discussed the pragmatic realities of building at any length.

The ABC members realized that the underlying premises of these treatises were antithetical to ABC's realistic "functional" bias. Since the ABC group was attempting to develop a Constructivism which was in keeping with the values of its Swiss and Dutch forebears, it rejected virtually all utopian and theoretical premises. As a result, ABC did not reprint parts of either treatise. Instead, the group offered the above cited editorials which presented their evaluation of the Asnova members contributions. In so doing, ABC created a programme distinguished by an opposition to the theoretical parameters of Asnova Constructivism.

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members and ofices see O.A. Shvidkovsky, Building in the U.S.S.R. 1917-1932, New York, 1971, p. 133.

Lissitzky, in 1926, acted as editor of Izvestia Asnova.

Lissitzky and the Proun Concept

In 1919, El Lissitzky began to draft a series of renderings entitled "Projects for the Affirmation of the New" or "Prouns". These renderings were graphic presentations of Suprematist forms which dynamically interacted within multidimensional, non gravitational spaces. Lissitzky considered these "Prouns" to be proto-architectural studies and stated: "Through the Proun we have now come to architecture."[82] He believed that the Prouns embodied ideals which could be translated into plastic architectural terms.

To lend credence to his contention, Lissitzky assigned a number of Prouns architectural titles. Included were "Proun 1A Bridge I" (1919) [Fig. 54] and "Proun IE The Town." (1921) [Fig. 55]. These Prouns manifested distinct features which would later resurface in later Asnova projects. "Proun 1E The Town" represented volumetric rectilinear 'buildings' which intersected on a series of right angles. These buildings were linked to each other and to a central space by a network of long and narrow bridgelike connectors. "Bridge I" featured buildings which were shown in a diffracted state. Each structure was presented not as a single large volume, but as a compound of diverse volumes which interlocked on right or obtuse angles. In addition, these structures were

82 El Lissitzky "Proun" in Galerie Gmurzynska, El Lissitzky, Cologne, 1976, p. 70.

depicted in a state of suspension, which signified a lightness not usually associated with large scale edifices. The Prouns also employed lightweight, suspended volumes that were connected by externalized circulatory networks and arranged in configurations which were often based on the right angle. These features formed an essential stylistic basis for all Constructivist projects regardless of theoretical bent.

Lissitzky intended that his Prouns (and any constructions they might inspire) express his theoretical interests as well. He saw his designs as conveyors of a symbolic code and representating specific mathematical and scientific theories. In a lecture he delivered on September 21, 1921 to the Institute of Artistic Culture (Inkhuk) in Moscow, he reiterated a support of Malevich's formal vocabulary and emphasized that the Prouns were symbolic entities which conveyed messages via Suprematist forms and their inherent properties. Each shape, color and material was symbolic of an emotion or a state of being. The circle, for example, an equivalent of the earthly globe, connoted infinity.[83]

As mentioned above, colors was a vital component of the Proun language. Black and white exemplified the "supportive character" of the human condition, while its "subjective

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83 Ibid., p. 66.

character" was "expressed in green, orange, violet, etc."[84] Lissitzky also believed that colors symbolically connoted materials of construction. Accordingly, he developed a color code for various construction materials. In the Prouns, he wrote,

> "strength of contrast or harmony between two black, two white, or two in between colors provide us with the key for determining the components or contrasts between two industrial materials, as, for example, aluminum and granite, concrete and iron."[85]

In his Ikhuk lecture, Lissitzky also stressed the relationship between architecture and theories of perception. He stated that he had studied Albert Einstein's Theory of Particular and General Relativity[86] and intended, via the Prouns, to demonstrate the application of relativity theory to architecture. Lissitzky felt that Einstein proved that "the speed with which we measure a particular distance influences the size of the unit of measure."[87] Speed was a factor of the "fourth dimension" --time then speed also

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[84] Ibid., p. 68.
[85] Ibid., p. 68.
[86] The theory was published in Germany in 1916 while Einstein was a professor at the University of Berlin. Lissitzky was fluent in German since he had studied at the Polytechnic in Darmstadt, Germany in 1909.
[87] Ibid., p. 63.

created multiple vantage points. Lissitzky therefore resolved to design his buildings "not in three dimensions, but in four."[88] He intended to portray them as composites of infinite images, thereby acknowledging the numerous images that the fourth dimension implied. To facilitate this, the Prouns and constructions were rendered in a multi-dimensional floating state so that a viewer could "walk around it, look at it from above, study it from beneath."[89]

Ladovsky's Position

The theoretical concepts of Nikolai Ladovsky often paralleled those of Lissitzky. It is not surprising, therefore, that Lissitzky encouraged ABC to promote the work of his colleague and those of his students. The student or Atelier Ladovsky projects reflected Ladovsky's ideological stance, emphasized symbolic connotations and promoted perceptually oriented design.[90] Ladovsky had codified his

88 Ibid., p. 64.
89 Ibid., p. 66.
90 For further discussion of Ladovsky's concepts, see M. Bliznakov "The Rationalist Movement in Soviet Architecture of the 1920's" 20th Century Studies, 7/8, December 1972, 147-61.

position in 1920 in a document entitled "Basis of the Construction of a Theory of Architecture."[91]

Ladovsky's "Basis of the Construction of a Theory of Architecture," stressed two major points. The first point was that buildings should consist of forms which were elementarist in inspiration. The size, shape and weight of each form implied a "symbolic" message which projected either strength and grandeur or weakness and humility. "Visible technological structure" was also of importance. Its components formed a supplementary code of "elements and symbols." Each structural member designated a meaning of its own. The combined sum of the above formed a "system of elements and symbols."[92]

The second point that Ladovsky's document stressed was the need for forms to be perceived properly. Perception was considered to be of prime importance since architecture was man's guide to "orienting himself in space." However, if "geometric expressive forms were always perceived in perspective" and man's constant locomotion continuously

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91 Nikolai Ladovsky "Basis of the Construction of a Theory of Architecture," Izvestia Asnova, Vol. 1, No. 1, 1926.
For an English translation see The Institute for Architecture and Urban Studies Art and Architecture U.S.S.R. 1917-32, New York, 1971, pp. 15-16.

92 Art and Architecture USSR 1917-32, p. 15.

altered their perspective,[93] there could not be a single perceivable image, since objects were actually composites of multiple images.

Ladovsky felt it was the architect's role to rectify this nebulous situation by ensuring that a building would be seen only from proper multiple vantage points. If the architect constructed a form which did not "show the proper way it will be perceived by the viewer", it would be considered an act of "complete unscrupulousness and incompetence" on his part.[94] In order to guarantee accurate perception, an architect should present his project as "an exposition which truly demonstrates a construction's 'geometric characteristics'" from multiple vantages. To accomplish this the architect was to acknowledge the "orientation of the surfaces forming the sides of the prism" and to include "spatial coordinates" which defined "perspective". Additionally, a project should encompass a

> "clear reading of the edges ... the identity of the sides, the relation of the other base plane to the height, the perpendicular relationship of the surfaces forming the sides ... and the orthogonal nature of the corners 90 angles."[95]

Ladovsky's treatise was more than merely a document. It acted as a definitive guide to a specific architectural

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93 Ibid., p. 15.
94 Ibid., p. 16.
95 Ibid., p. 16.

approach. It attained this goal by serving as the basis of a course which was first given in 1920 at the Svomas (Free Art Studio) and then at Moscow's Vkhutemas (Higher State Art and Technical Studios) the following year. There Ladovsky instructed his students to design ulitarian structures with the elements of their construction exposed. The fulfillment of pragmatic requirements was not considered to be of primary importance in these works. What was essential, however, was the manner in which the elementarist forms and structural parts were combined to produce perceptual and symbolic effects. Ladovsky maintained that the combination of the forms and the structural parts together relayed a coded message. In addition, students were encouraged to exhibit multiple views of a project.

Student projects were executed along these proscribed lines. Ladovsky's students designed factories, piers and other ulitarian concerns. Because the student projects were valued as 'Space Volume Studies', their functional properties were not recognized in their titles.[9o]

An excellent example of these student studies was a water tower by I.V. Lamstov (1921). Lamstov placed little regard on the ability of the water tower to function as a

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9o For a review of Vkhutemas of 'Space Volume Studies' by both Ladovsky and his students see S.O. Chan-Mahomedov "N.A. Ladovsky 1881-1941" in Building in the U.S.S.R. 1917-1932, O.A. Shvidkovsky, editor. New York, 1971, pp. 72-77.

true water tower. Rather, his major concern was in the depiction of elementarist volumes for the drum and in a prismatic elaboration of the base in order to facilitate a number of viewpoints. Lamstov's work was labeled "Exercise in the Representation of Volume and Space."[97] [Fig. 56]

Another example of a Ladovsky student project was Course II student Simbirchev's suspended restaurant over a pier (1922) [Fig. 57] entitled "Exercise in Qualities of Mass and Equilibrium."[98] W. Simbirchev's project also stressed the spatial organization of Suprematist shapes within an exposed frame and a diagonal elevation of the restaurant to allow for multiple perspectives.

In 1924 ABC began to publish the Atelier works as examples of the Asnova style. The captions and essays which accompanied these projects gave credence to the fact that the ABC group supported only selected premises of the Asnova designs. ABC's captions deliberately overlooked any references to the Asnova's theoretical ideals, namely the emphasis on perspectives, elementary composition and the symbolic connotations of colors, material and form. Instead, they emphasized those aspects which supported the values of

97 S.O. Chan-Magomedov, Pionere Der Sowjetischen Architektur, Berlin, 1983, p. 114.
98 Ibid., p. 114.

Semper, Berlage, Brinkman, Dudok and Oud. The principles that were included respectively supported the expression of materials, the exposition of technological features, the separation of functions, the exposure of circulatory systems[99] and implementation of a lightweight planar approach to building. Thus, despite their theoretical origins, the Atelier works had become the basis for a selective new Constructivism.

[99] It should be noted that Brinkman and the Russian Constructivists were not the only sources for the exposure of circulatory systems. Walter Gropius' Fagus factory (1911) and his model factory at the Cologne Werkbund exhibition (1914) emphasized circulation elements in an overt fashion. Antonio Sant' Elia, the Italian futurist architect, also exaggerated circulatory parts and mechanical elements in his "Citta Nuova" (1914) plans.

CHAPTER IV

ABC'S INTERPRETIVE CONSTRUCTIVISM: A NEW RATIONALE FOR SOVIET THEORY AND DESIGN

ABC Constructivism was an interpretive approach which selected only functional traits from the Soviet Constructivist codex. The origins of this approach can be traced to Stam's 1922 visit to Berlin. In Berlin, Lissitzky had introduced Stam to the designs of several Russian architects, including those of Tatlin and Ladovsky's students. Stam was impressed by these works. He did not, however, appreciate them for their ideological or perceptual qualities but rather for their open, lightweight volumes, their employment of such tensile equipment as antenae, their clear separation of functions, their marked emphasis on all circulatory parts and their incorporation of such mobile innovations as cable cars. A 1966 essay by Stam, in which he recalled his Berlin experience, substantiates these observations. Of the projects of Lissitzky, the Vkhutemas architects (Atelier Ladovsky) and Tatlin he wrote:

> "In the years when the Prouns were being painted the discovery of new paths, of new means of expression was the most important thing. The picture as such, the picture shut up in a frame, visibly enclosed on every side -- that picture was abandoned by Segal. Other painters found the rectangle too restrictive -- Peri gave his pictures non-rectangular outlines.

> In the sculpture of that time enclosed volume gives way to space -- created by wire, rods, straight and curved surfaces. Transparent volume evolves. They know that the sun turns in space, that shadows continually alter, that men move ...
>
> The architects trained by the Vkhutemas developed projects: representations of space, hanging from a cliff linked by steps and cable cars. Tatlin entered a competition with revolving, mobile lecture rooms ..." [100]

After his return from Berlin, Stam introduced Schmidt and Moser to Constructivism in the light of such evaluations as the above. They in turn, transmitted Stam's views to their Zurich and Basel colleagues. ABC - Beitrage Zum Bauen chronicled the group's subjective evaluations of the Soviet style.

ABC's Interpretation of the Russian Projects

In 1924, El Lissitzky presented his new ABC colleagues with photographs of Russian projects for their publication. The photographs included Atelier Ladovsky projects, his own Speakers Tribune and Tatlin's Tower. Lissitzky had selected these for the scientific, perceptual and symbolic qualities he believed they embodied. ABC's members accepted these works, but did so with the intention of evaluating them along the lines that Stam had previously established. It should be noted that out of deference for Lissitzky, this policy did not go into effect until ABC's second issue. The opening issue was drafted under Lissitzky's guidance in March of 1924

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100 Mart Stam, "El Lissitzky's Conception of Architecture", in Lissitzky-Kuppers, pp. 389-390.

and included only those entries which respected his position; "Element and Invention", "Russia" and "Moscow". After Lissitzky's departure, however, Stam, Schmidt and the other affiliates began presenting Lissitzky's material in a manner which better reflected their own particular views.

In the issues of ABC which followed the manifesto articles, captions intentionally overlooked the Russian projects' symbolic, perceptual and scientific bases. Instead, ABC singled out those 'functional' features which the editors deemed important. The essay "Russian Architecture" or "Architektur Russlands" of 1925 is a good example of this new approach.[101] The article opened with a discussion of Tatlin's Monument to the Third International and was accompanied by a drawing of the model.[Fig. 58] After presenting concise statements which itemized the Tower's physical properties, the article changed direction and offered ABC's evaluation of the Soviet movement.

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101 "Architektur Russlands", ABC - Series 1, No. 3-4, 1925, pp. 1-2, page 11 lists El Lissitzky as one who "mitaearbeited", collaborated, on the piece with Stam. Given its outlook it is likely that he provided only the illustrations and not the text. Essays which he personally wrote were always signed by him in ABC. See "Rad Propeller and Das Folgene" in Series 2, Number I, 1926, p. 3 and "Element und Erfindung" in the opening issue. The text of "Architektur Russlands" was not signed by Lissitzky.

Two years earlier Lissitzky had featured an article on Tatlin's Tower in Veshch.[102] It consisted of a reprint of Nikolai Punin's 1920 article on the Tatlin Tower and an accompanying woodcut.[103] In the Veshch article, Punin, focusing on the work's elementarist and artistic premises, stated: "The basic idea of the monument took shape on the basis of an organic synthesis of architectural, sculptural and painterly principles ..."[104] He also placed emphasis on the project's use of suprematist forms and upon the multiple perspectives that its moving parts generated.

Veshch's presentation of the Tower differed considerably from ABC's. Veshch featured an evaluation which Tatlin and Lissitzky had condoned. ABC's essay, however, offered a "functional" appreciation of not only the Tower, but of the entire Constructivist spectrum. The "Russian Architecture" essay de-emphasized the very points that Punin had stressed. While it did not deny Constructivism and its reliance on formal properties, the essay focused mainly on those functionally inspired facets that it deemed important.

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102 N. Punin "Tatlina Bashnia" (Tatlin's Tower) in Veshch, Gegenstand, Objet, No. 1-2, March April 1922.
English translation in Stephen Bann, The Tradition of Constructivism, London, 1974, pp. 15-17.

103 Nikolai Punin, "Tatlina Basnia" Pamiatnik III Internatsionala ,Petersburg, 1920.

104 See note 42.

Emphasis was placed on Constructivism's clear and honest manner of expression, and its exposure and articulation of materials, functions, structure, circulatory systems, and other mechanical and technological elements. It stated:

> All of Europe is fascinated by the concept of the beautiful Art-Beaux Arts and this thesis has resulted in its subjective expression.
>
> But in Russia the opposite is advocated -- no beautiful art. Wanted only is the ordinary and the clearly defined, and the end of the era of picture painting. The future does not belong to them, to those that advocate the beautiful art. It belongs to that which is simple and clear. What is it that is simple and clear? It is a cube or a glass cylinder and that which is expressive of the structure of architecture.
>
> According to the old laws only diplomaed architects had the right to practice architecture, thus hindering the growth of a new generation of architects. It was for that reason that the new generation of artists organized themselves into a group to oppose the establishment and the Beaux-Arts. But as in all beginnings the results were not yet constructive. When the elements of the construction were designed they were not done in a manner that allowed them to be usable or functional. Then came the Revolution and the belief that the new designs could be brought to fruition. New works were conceived. Tatlin designed his tower.
>
> These works are not merely a glorification of the "Mechano-Technik" -- (of a functional mechanical and technological mode of expression). They are aimed at projecting more than a reaction against the old aesthetic. Their goal is to bring to architecture all the energies that had been developed in the new art. And this includes not only the formal elements of expression i.e. the Cube and the Rectangle, but even more so a separate expression of a structure's parts and forces. One certainly does not want to be misled by painterly interests and color. Instead the new art expresses space in terms of line, volume and plane. The structure is no longer enclosed, but open and skeletal and expressive of interior movement and parts. The building is no longer clad in the facade of classical architecture, but in an open construction revealing on the exterior the interior function in this manner, these clearly devised interior functions then became an

integral part of the total composition. Its separate parts are then linked through a circulatory system which includes elevators, or cable railways, etc. This is the means toward an organic totally, integrated composition.[105]

Additional evidence of ABC's Constructivist bias appeared in the article "Das Volumen" (The Volume) in a later 1925 issue. "Open construction" which revealed cranes, mobile technological and structural parts as well as circulatory elements was lauded.

> The architecture of the past made the effort not to accept space and volumes in their whole state. Instead it divided these into smaller sections so that one could not recognize the entire singular space. In this way we ultimately arived at closed, symmetrical compositions. And whenever these symmetrical compositions were not based on practical considerations, buildings were compositions of closed divided spaces.
>
> Modern buildings on the other hand, destroy the enclosed volume and replace it with open forms and open constructions. Tatlin built a model of his monument in Moscow. The concept of a monument is not modern. But his laboratory inspired creation gives a sense of purpose to the many parts assembled within his monument. His construction has its (modern) gratifications. Characterizing it are the following:
>
> 1. Tatlin's creation is an open construction. The interior space is open and exposed, free of dividing walls. The many functional parts of the structure simply exist within open space and are clearly visible.
>
> 2. His structuremoves and rotates, thereby endowing it with control over the time factor.
>
> We are prepared to accept into our designs those creations of technology -- the cranes and various interior and exterior transport methods, so that we can create similar structures. This interests us more than a knowledge of classical "beautiful" architecture. For

[105]For the original text, see "Architektur Russlands" ABC, Series I, 3/4, 1925, pp. 1-2. (See note 105a on next page.)

105a ARCHITEKTUR RUSSLANDS

Ganz Europa war beherrscht von der These: "DIE SCHONEN KUNSTE -- LES BEAUX ARTS" und man hat diese Kunste zue einer ganz privaten, subjektiven asthetischen Angelegenheit gemacht. In Russland wurde demgegenuber die Antithese gestellt: "NUR NICHT -- DIE SCHONEN KUNST" sondern das Allgemeine -- das Eindeutige. Also -- aus ist es mit der Bildermalerei! Die Zukunft gehort denjenigen, die erstaunlich unbegabt sind fur die schonen Kunste. Eindeutig? Eindeutig ist ein Quadrat oder ein Glaszylinder. Eindeutig ist das organische Wachsen, das Bauen -- Architektur.

Nach dem alten Gesetz hatten in Russland nur die diplomierten Architekten das Recht zum Bauen -- dadurch wurde die Enstehung einer neuen Architektengeneration verhindert. So kam es, dass die neuen Maler und Bildhauer sich zu einer Gruppe organisieten und sich in Gegensatz stellten zur alten Richtung der Beaux-Arts. Aber wie im Anfang jeder aufbauenden Arbeit waren die ersten Resultate destruktiv. Wohl kamen die Gestaltungselemente bereits zum Ausdruck, aber sie blieben noch ungebunden und funktionslos. Inzwischen kam die Revolution -- und mit ihr der Glaube an die sofortige Verwirklichung aller dieser Ideen. Neue Arbeiten entstanden. Tatlin erfand seinen Turm.

Diese Arbeiten sind nicht bloss eine Verherrlichung der Mechano-Technik -- sie wollen auch mehr geben als eine notwendige Reaktion gegen die alte Aesthetik. Das Ziel war: Die ganze Energie, die sich in der neuen Malerei kristallisiert hatte, in der Architektur zur Auswirkung zu bringen -- und zwar nicht nur die neu gesehenen Formen (z.B. Kuben und Quadrate), sondern vor allem die zum Bau des neuen Korpers ausgeschiedenen Krafte. Am wenigsten wollte man sich vom Urelement der Malerei -- der Farbe -- verfuhren lassen. Es kam auf die Gliederung des Raumes durch Linie. Ebene und Volumen an. Keine nach aussen abgeschlossenen Einzelkorper, sondern Beziehungen und Verhaltnisse. Nicht die Ummantelung des Baues (klassische Flachengliederung, Fassadenkunst), sondern das Gestalten der inern Struktur des Baues nach aussen: Das Offene. Diese zur Anschauung gebrachte innere Struktur enstand als Folge der durchdachten Funktionalitat der einzelnen Teile des Gesamtkomplexes. Die eizelnen Teile wurden durch eine Zirkulation (Lift, Drahtseilbahn, etc.) verbunden. Das ist der Weg zu einer organischen Totalitat.

here there is a far more important knowledge of space and time that one can arrive at. Thus vis a vis the uniform enclosed (classical) building block stands the new architecture of lifts, cranes, transport and conveyor belts and modern open construction.[106]

ABC followed the aforementioned precepts in its presentation of the Asnova or Atelier Ladovsky projects. The captions which accompanied the projects reflected the ABC biases. Issues 2 and 3 (1924 and 1925) featured Gruesenko's 1922 "Tower for the Manufacture of Alkaline Solutions -- Study in the Representation of Solid and Void."[Figs. 59,60] In neither issue was the designer nor the original Ladovskian title of the project mentioned. The caption merely read "Elements: Cylinders (Storage Drums), Stairs, Truss and Ladders"[107] and "Atelier Ladovsky" was cited as the source. It is evident that by disregarding the work's original title ABC was choosing to overlook the architect of record and the work's theoretical basis. ABC's main interest in the project was limited to the work's open display of structure and primary functional components.

Another version of Simbirchev's 1922 "Restaurant on a Cliff over a Lake" appeared in a 1925 issue.[Fig. 61] [108]

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[106] M. Stam and H. Schmidt. "Das Volumen" ABC, Series 1, No. 5, 1925, p. 4. For the original text see note 106a on the next page.
[107] "Turm zur Verabeitung von Lauge" ("Tower for the Production of Lye") ABC, Series I, No. 2, 1924, p. 4 and ABC, Series I, No. 3-4, 1925, p. 2.
[108] The other version of this project is discussed on page 144. This version is in ABC, Series I, No. 3-4, 1925, p. 3.

106a Das Volumen

Die Vergangenheit hat gesucht, begrenzte Stucke aus dem Raum berauszuschneiden und als einzelne Raume an Stelle des Ganzen zu setzen, das sie nicht erkennen wollte. So kam man zu geschlossener, symmetrischer Komposition. Aber auch wo diese symmetrische Komposition aus praktischen Grunden oder Neuformalismus nicht durchgefuhrt wird, bleibt das Bauen eine Komposition von geschlossenen Raumteilen.

Das moderne Bauen zerstort des begrenzte Volumen, den begrenzten Korper und gestaltet das Offene, den offenen Bau.

Tatlin baute in Moskau das Modeil seines Turmes. Die Idee eines Monumentes, eines Erinnerungszeichens war nicht modern -- die Zweckbestimmung der verschiedenen Bauteile als Versammlungs-und Museumsraume war erfunden, um das Studiumsmodell, das Laboratoriumsstuck als lebensfahiges Gebaude zu motivieren. Dennoch war es ein Schritt:

1. dass Tatlin einen offenen Bau projektierte, dass er nicht mehr Raum zwischen Wande einschloss, sondern dass er den Raum beherrschte, anspannte, gestaltete durch ein offenes Gerust von funktionierenden Bauteilen;

2. dass er eine rotierende Bewegung und damit das Element Zeitfortgang in sein Werk einfuhrte. (Siehe ABB. ABC 3 4).

Bereits gibt uns die Technik in Kranen und Transportanlagen ein ahnliches Bauen zu sehen. Es interessiert uns mehr als die Vorbilder klassischer Formschonheit, weil es unserer Erkenntnis von Raum und Zeit mehr zu sagen hat. Gegenuber den einformig starren, raumverneinenden asthetischen Baublocken steht, mit der regelmassigen Bewegung seiner Lifte, Kranen und Transportbander, der moderne offene Bau.

Originally, this too was a "Space Volume Study" of multiple viewpoints and primary forms. Ladovsky had originally entitled it "Exercise in the Representation of Formal Qualities of Mass and Equilibrium." However, in its presentation of the work, ABC once again ignored both artist and the title by according it the following caption:

> "Restaurant Suspended on a Pier over a Lake: A construction demonstrating the technical possibilities of modern material and construction methods. A study of the function of stairs, platforms and lifts. Architecture Divisions - Moscow Academy."[109]

Other projects presented by ABC were similarly retitled. I.N. Lamstov's 1923 project presented in Issue 6 of 1925 as "Airport Model, Atelier Ladovsky, Moscow" was originally entitled "Exercise in the Representation of Dynamism, Rhythm, etc." by the architect under Ladovsky's tuteledge.[110] [Fig. 62] Popova and Vesnin's "Sketch for the Struggle and Victory of the Soviets" was similarly distorted as mentioned previously and was re-titled "Flying Propaganda" by ABC. [Fig. 32] The project was valued primarily for the open "flying" manner in which the tensile elements of construction were displayed, and for the bold incorporation of signs and

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109 "Restaurant en einem Felsen uber Meer." ABC, Series I, No. 3-4, 1925, p. 3.

110 Attribution by S.O. Khan-Mahomedov. See O.A. Shvidkovsky, Building in the U.S.S.R. 1917-1932, p. 73. In ABC, Series I, No. 6, 1925, p. 1.

placards, "propaganda" elements into the overall design.[111]

Out of these ABC evaluations, a clear picture of the Constructivist elements that ABC supported begins to emerge. They included the display of placards, and advertisement related materials, the "open" display of separate building parts, often within reductive rectilinear shapes, and the marked articulation of components and materials. In addition, the elaborate visible cable networks which often met at sharp angles and displayed communications and circulatory paraphernalia were much admired.

111 I. Popova and A. Vesnin "Fliegende Propaganda" in ABC, Series 2, No. 1, 1926, p. 3. "Sketch for the Struggle and Victory of the Soviets" (1920) in Stephanie Barron and Maurice Tuchman The Avante-Garde in Russia 1910-1930 New Perspectives,(Cambridge, 1980, p. 113.

CHAPTER V

ABC'S PRAGMATIC EVALUATION OF CONSTRUCTIVISM

ABC had a dual purpose in presenting the afore-mentioned projects. First, it wanted to underscore its support of the functional features that they encompassed and second, ABC wished to emphasize that despite its recognition of Russian Constructivism, it did not totally support the Soviets' theatrical contexts. ABC maintained that the application of Constructivism should not be limited to utopian Soviet visions. Rather, it was felt that Constructivist principles should be suitable for adaptation by architects anywhere in the world for pragmatic usage. To prove this point, ABC-Beitrage Zum Bauen showed common international sites where elements common to Constructivism were employed in a feasible and realistic manner. Articles and photographs depicting the practical application of Constructivist elements appeared in ABC throughout the magazine's life span. Examples of such elements in ABC included advertising types, tensile paraphernalia, moving transport systems, aerial cableways and the expositions of frame and structure.

In the essay, "Die Reklame" ("The Advertisement") ABC's editors discussed this art form in terms of its employment of typography, photography, and the abstract organization of

colors and forms.[112] The major point of the essay was that advertisements were economical, mass produced, aimed at the masses rather than the elite and that therefore advertising was an excellent medium for promoting industrial production and political propaganda. Subsequent ABC articles discussed the different advertising methods employed in major European countries citing the "Bewegliche Lichtreklame" (Moving Light Advertising) used commercially in parts of London and Berlin as a case in point.[113]

Another Constructivist feature that ABC promoted was the pragmatic usage of tensile paraphernalia and exposition of frame and structure. Emil Roth's "Gestalten-Form" ("Form") was considered by ABC to be an alternative to the cited Popova and Vesnin work. Roth's project featured a lightweight floating tensile network of sharply angled triangular supporting members. It incorporated exposed ramps, ladders and terminals, yet these did not belong to a fictional set. Rather, they were parts of the construction

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112 M. Stam (and E. Lissitzky) "Die Rekalme" ABC Series I, No. 2, 1924, pp. 3&4.

113 "London - Bewegliche Lichtreklamen" and "Berlin - Schreibbare Lichtreklamen" in ABC Series II, No. 1, 1926, pp. 2-3.

site of the Waggital power plant in Switzerland that Maillart had planned.[114] [Fig. 27]

The publication also stressed practical transport prototypes which related to those that the Soviet architects had incorporated into their projects. The "Aerocar St. Denis" of Paris project was presented as an example of an aerial tramway and moving transport system designed by French engineers incorporating Constructivist features. In this project, cables and their blatantly exposed triangular posts supported an aerial tramway. The tramway was cited as a "suspended airplane" of exposed steel and glass which acted as a lightweight transport alternative.[115] [Fig. 63] Another contemporary, "transport type" was illustrated in "Transport Mittel".[116] In this instance, a detail of an existing British factory was displayed showing a factory of separately exposed bridges, ramps and a seemingly freestanding circulatory tower. The tower's stairwell had been replaced by a mechanized conveyor belt, and the belt was exposed within a cage, so that its functionality was revealed to outside viewers. [Fig. 64]

Additional material proved that the exposure of frame

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[114] Emil Roth, "Gestalten Form", ABC, Series I, No. 2, 1924, p. 2.

[115] Der Aerocar Paris-St. Denis" ABC, Series III, No. 1, 1926, pp. 4-5.

[116] "Transportmittel", ABC Series II, No. I, 1926, p. 6.

and supports was a significant ABC concern. In order to emphasize this concern, a photograph of a Baltimore skyscraper was presented. The skyscraper was not shown in its completed state but instead only its structural frame was presented.[117] [Fig. 65] Additionally, the final issue of ABC included a photograph of a Wema factory interior. Rather than showing the exterior or a wide angle view of the interior of the factory, the picture focused primarily upon the sharply visible network of metal roof supports and columns. [Fig. 66] In the same issue, the "Zirkus Hagenback," was presented in order to emphasize the lightweight tensile supports of the enclosure.[118] [Fig. 67]

In its singular evaluations of the Soviet material, and in its presentation of international examples that reflected a particular type of Constructivism, ABC was promoting an approach which adapted Constructivist elements in a pragmatic manner. The forthcoming chapters will delineate how ABC developed a Constructivist style which similarly stressed a pragmatic orientation.

117 "Stahlgerippe eines Wolkenkratzers in Baltimore", ABC, Series I, No. 2, 1924, p. 3.

118 Both photographs appear in ABC, Series II, No. 4, 1927-1928. "Fabrikhalle Wema" is on p. 2, "Zirkus Hagenbeck" on p. 3.

PART IV

THE ABC PROJECTS AND

THE PLACE OF ABC IN MODERN ARCHITECTURE

CHAPTER I

TOWARDS A NEW STYLE: THE EARLY PROJECTS 1922-1924

ABC merits a noteworthy position within the history of modern architecture for its development of a unique Constructivist idiom between 1921 and 1928.

To recapitulate, ABC Constructivism fused functional aspects of European derivation with specific Russian Constructivist elements. The functional aspects of ABC's approach consisted of the external expression of such structural components as slabs, beams and columns; the outward articulation of rational plans via the separation of function into distinct volumes; and modular schemes which dictated that similar functions be housed within standardized units, both internally and externally. Additionally, the ABC approach encompassed the forthright use and display of glass, steel and concrete; planar surfaces and building plans which related to town planning concerns. ABC's architects juxtaposed these features with elements of the Russian "open architecture" such as cranes, pylons, trusses, cables, antennae and tram lines.[1] Also adopted by ABC were various

1 It is necessary to note that these mechanical and constructional elements were not limited solely to the Russian Constructivists prior to 1920. Antonio Sant Elia had employed such elements between 1912 and 1914 in his drawings for the "Citta Nova". See Caramel and Longatti Antonio Sant' Elia, Como, 1962.

forms of advertisement and ground plans which stressed right angled junctures and an emphasis on dematerialization.

It should be noted that in addition to the above elements, ABC's architects adapted two aspects of the Russian style which had also appeared in Dutch works prior to 1924, namely, the externalization of circulatory elements and the separation of functions into individual volumes. The group chose to express these in a manner which echoed the approach of the Russians. ABC's architects had recognized that the U.S.S.R.'s designers presented designs in a different manner than their European forebearers had promoted. European schemes had stressed clarity, practicality and restraint. The Soviets valued a mode of expression which was characterized by the theatricalization and the exaggeration of specific building components. In order to both designate a commitment to the Soviet cause and to employ a more visible approach than that of their Swiss and Dutch teachers, the ABC affiliates presented these cited 'functional aspects in a Constructivist fashion.

ABC Constructivism began to emerge as an approach which expressed functional concerns in a manner that was ostensibly more aggressive than that of most other Swiss and Dutch architects. The ABC designs also revealed however, that despite the group's admiration of Russian Constructivism,

ABC's architects presented Constructivist features in a fashion which rarely rivaled that of the Soviet's. Instead, ABC's functional predisposition engendered a Constructivist varient which was marked by a distaste for the theatrical and a deliberate promotion of restraint.

ABC's architectural variant did not emerge suddenly. In 1924, the year of ABC's official formation, works drafted by future ABC affiliates between 1922 and 1924 already displayed aspects of a dual approach. The works had adapted both Soviet and Swiss-Dutch sources and thereby established the precedents for ABC's essential contribution. The remainder of this chaper will focus upon those essential pre 1924 projects which provided the foundations for ABC Constructivism.

The earliest project to exemplify ABC's hybrid approach was Mart Stam's Am Knie office complex.[2] Designed in 1922 during his Berlin visit, it reflects a fusion of the functionally oriented Dutch concerns with Lissitzky's ideals, and establishes a basis for the mature ABC style. The many

2 Am Knie appears in ABC, Series II, No. 3, 1926, p. 3 under the title "Berlin, Wettbewerbsentwurf fur ein Bureauhaus am Knie".

ABC projects which followed Am Knie recalled tendencies of this original work.

Am Knie was a project which Stam designed without a sponsor, and which was therefore never built.[Fig. 68] It is distinguished by a clear rational plan with a modular basis. Stam developed a repetitive module for all the interior spaces intended for offices. Since not all of the offices would be occupied by a single concern, and in order to facilitate possibilities of rental and subdivision, he divided Am Knie into a series of identical smaller buildings. In his implementation of this modular method, Stam recalls the previously discussed approach of Oud.

Am Knie drew inspiration from other Dutch sources as well. Its buildings are arranged as linked perimeter blocs that surrounded open courtyards in a serial manner, a motif which recalls the perimeter bloc housing that is common to Amsterdam. In addition, Stam created separate stairtowers throughout Am Knie in a manner similar to Berlage's plan for the Borse.

Am Knie was also the first project by Stam to acknowledge Russian Constructivism in a plastic manner. Stam's Berlin encounters with Lissitzky had convinced him that European sources were not the only sources worthy of emulation. Lissitzky's Constructivst influence is evident in Am Knie in its emphasis of primary volumes linked at right angles and the exaggeration of all circulatory elements. In order to distinguish the primary shape and volumetric nature

of his buildings, Stam limited himself to a singular rectangular building bloc whose flat walls and ribbon windows imply thinly skinned planes. Am Knie's blocs are then either bisected on the right angle by linking buildings or connected by three story glass enclosed bridges which span the center of the complex. Stam also places strong emphasis on stairwells and elevator shafts. These are separated from the main bloc, granted their own fenestration pattern, and appear at regular intervals throughout the design. Their staccatto pattern imparts a rhythmic consistency to the project which goes beyond mere considerations of function. As a result, the circulatory towers and enclosed bridges become Am Knie's distinguishing features and in so doing, they imparted a distinct Constructivist air to this early work.

While in Berlin, Stam had worked in the offices of Hans Poelzig and Max Taut. He had recognized in the works of these notable architects both functional and Constructivist tendencies which reinforced his own Dutch and Soviet interests. Stam therefore emulated some aspects of Poelzig's and Taut's oeuvre in Am Knie, and as a result, Am Knie came to reflect the influence of these established masters as well.

Hans Poelzig was a designer of monumental buildings which demonstrated a Expressionist bias. Both the exterior and interior of his Grosse Schauspielhaus (1918-1919) in Berlin exemplified a distinct approach that emphasized a

sculptural, organic expression of structure. Poelzig was also a master architect of ulitarian and industrial structures which emphasized an organic outlook as well as flat, and sometimes unadorned walls, multi storied expanses of glass which revealed interior functions and linking bridges and ramps. Exemplifying the above was his 1968 study for a water mill in Breslau.[Fig. 69] The Breslau water mill dramatically incorporated the aforementioned features as did his Chemical Factory in Luban (1911-1912), which was characterized by vast walls of flat brickwork.[3] Stam admired these Poelzig works for the manner in which proto-Constructivist elements were incorporated into largely unadorned ulitarian "functional" buildings.

Max Taut designed the Berlin Printer's Trade Union building (1922) [Fig. 70] during the period that Stam was working in his office. The building impressed Stam with its planar concrete exteriors, separation of functions within a rectilinear bloc via variances in window size and roof heights, and for the manner in which ground levels opened to reveal structural columns. The flagpole which crowned the building granted it an additional distinction which Stam came to admired.

Stam's early impressions of Poelzig and Taut's oeuvre

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3 For detailed accounts of Poelzig's projects see Dennis Sharp, Modern Architecture and Expressionism, New York, 1966, pp. 39-58.

influenced the design of Am Knie. Am Knie's ground floor clearly recalls the Trade Union in its presentation of open bays punctuated by columnar supports, and as Stam's side elevators indicate, in their alternation of rectangular and square windows. Taut's expression of structure and Poelzig's use overstated expanses of glass and striking connecting bridges are also echoed in Stam's project. Both German architects served to reinforce Stam's developing Constructivist interests and ultimately influence Stam's Swiss colleagues as well.

Upon returning to Switzerland in December of 1922, Schmidt called the Beilerssee meeting which Moser, Roth, Artaria, Wittwer, and Meyer attended.[4] Among the topics discussed were was Stam's oeuvre and the Constructivism he was promoting.[5] Shortly after the Beilersee meeting, members of the Swiss group attempted to design projects which indicated an interest in Constructivism. Am Knie was their model, and their early experiments featured elements of Stam's Berlin project.

It must be noted that the pre 1924 Swiss designs differed from Stam's prototype in their approach toward the exposure of structure. Stam tended to regard buildings as volumetric containers which served to enclose rational plans

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4 See Part I, Chapter I.

5 According to Emil Roth, who stated this fact in an interview with the author in July 1978 in Zurich.

and standardized modules. Am Knie, and the previously discussed Konigsberg project (1922), emphasized constructional methods on facades and internal structure through large expanses of glass.[6] The Swiss architects, however, believed that structural components were not intended for exterior revelation and thus their early works emphasized only rectilinear ribbon windows and planar walls.

The Swiss approach was indicative of the group's strong ties to classicism. Both Zurich's ETH and the Basel Gewerbeschule where Meyer had studied between 1905 and 1909 had emphasized values based upon the fundamentals of nineteenth century neo classicism and vernacular traditionalism. The pre ABC Swiss works which were executed before 1924 give evidence of a reliance on a Beaux Arts or traditional vocabulary. Entries in the Basel 1922 Hornli Cemetery competition clearly illustrate this point. The Hornli competition was a local Basel event which attracted many architects including Hannes Meyer and Hans Schmidt. Despite their growing radical posture, their entries still recall ideas of the pre 1900 era. Meyer's design [Fig. 71] indicates a reliance on a neo-classical prototype which dates

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6 The Konigsberg project is discussed in Section II, Chapter I.

The work is there contrasted with Mies von der Rohe's 1922 Concrete Office building which promoted a similar approach.

to the previous century. And the peaked roofs which crown Schmidt's entry [Fig. 72] point to his inability to disassociate himself from the roof style common to traditional Swiss buildings.

The projects of Schmidt and Meyer do, however, indicate a definite interest in the abstract. Meyer's entry is actually an abstracted rendition of a classical model where all signs of detail or ornament are removed. Schmidt's drawing features buildings which are little more than undecorated planar volumes. To a large extent these Basel works point to the influence of Karl Moser, the Swiss circle's mentor.

Karl Moser had established specific precedents during his tenure at the ETH based on a manipulation of traditional styles. He espoused the retaining of traditional monumentality and details such as roof shapes and columns while at the same time emphasizing the light, unadorned treatment of surfaces (including columns). Moser's Kunsthaus C.F. Bally in Schonenwerd (1916) [Fig. 25] illustrates his reliance on a neo-Baroque prototype, his lack of ornamentation and exteriors in which planar volumes are punctuated by bands of repitious rectilinear windows.

Other ABC members who studied with Moser came to regard contemporary design in a similar fashion. An early student work of Emil Roth proves the extent of Karl Moser's influence. Roth's 1918 Hotel Am Schanzengraben [Fig. 73] project illustrates his interest in reductive repetitive

design within a volumetric historical format.[7] In this project, the young Roth presents a monumental bloc whose roof ornament and arched windows allude to Beaux Arts models. The manner in which the hotel's symmetrically balanced repetitive windows punctuate the simple facade also indicates an emulation of Moser's approach.

By 1922, however, the influence of Stam was becoming noticeable in other Swiss works. Some of the 1922 projects, while retaining a number of the classical conventions to which the Swiss were accustomed, also began to show traces of the architectural features which Am Knie encompassed. The works began to stress a volumetric separation of functions and an emphasis on circulatory parts.

For example, Emil Roth designed the Canton School in Winterthur project in 1922.[Fig. 74][8] Several changes from his earlier approach are apparent in this work. In the Canton School project, Roth discarded all traces of classical imagery in his roof and in the window shapes. Although he retains the massive classical bloc format with its staccatto of windows, these are now uniform and rectilinear. As in Stam's Berlin design, circulatory elements are now separated from the main bloc. To distinguish these, the bloc is

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7 An unpublished work for which the family of Emil Roth in Zurich retains all the original plans.

8 An unpublished work. The family of Emil Roth in Zurich retains all the original plans.

divided from the stair tower, is now no longer flush with the facade, and is not of the same height. In addition, a separate smaller volume is designed for the entry area. For further emphasis, both the main bloc and the entry section are given distinct fenestration patterns which differ from those of the facade. To further underscore the separation of functions, a single story pavillion housing an unrelated activity is joined at a right angle to the main building.

A similar approach had come to characterize Hans Schmidt's works of this period. In an untitled sketch (1922) [Fig. 75] Schmidt chose to keep the peaked roof, and placed emphasis on the essential circulatory parts. Once again, a regularized facade is vivified by a series of stairtowers whose volumes are distinguished from the main body. Accordingly, these have a distinct roof line and fenestration rhythm.[9] At street level, the most noticeable features are the three portals, two of which connect to the towers.

Schmidt also came to champion the dispersion of functions in 1922. As an unpublished drawing illustrates how [Fig. 76] the architect of this large unnamed complex divides his activities into separate volumes, each of which is of a distinct height and window pattern and meets or intersects on

9 An unpublished sketch currently in the Hans Schmidt Archive at the Eidgenosischen Technische Hochschule, Zurich, Switzerland.

the right angle.[10] A detail of the complex [Fig. 77] again acknowledges the separation of stairways, housed in their own towers. In Am Knie, Stam had created no single monumental portal, but instead a series of smaller towers which were not placed in positions of prominence. Stam sited them inside courtyards and off the street. In Schmidt's project as well, an entry tower is wedged in between two taller imposing sections, in a position which indicates a lack of interest in monumental entry.

In 1923 Schmidt designed his competition entry for the International Workers Bureau in Geneva.[11][Fig. 78] The work gives evidence that Schmidt had, at this time, developed a prototype for the modular approach he would later implement in the 1927 Bern Library Complex.[12][Fig. 9] The Geneva complex was to house a number of diverse activities which necessitated library stacks, offices, study rooms and an assembly hall. Schmidt developed a single module for all offices and encloses these within four identical buildings. The library and assembly halls are housed within sections whose different shapes and heights indicate their autonomous natures. Following Am Knie's example, the office buildings conform to a serial perimeter bloc format. And as Stam had

10 Ibid.
11 See ABC, Series 2, No. 3, 1926, p. 5.
12 For a discussion of the modular approach in relation to the 1927 Bern Library see Section I, Chapter 3.

done in his project, emphasis is placed on stairtowers and entrances. All stairwells are separated from the main bloc and are presented as glass enclosed towers whose ground level entrances received additional through the use of canopies.

Schmidt's project represents the culmination of the pre 1924 Swiss approach. Unlike Am Knie, it does not indicate the structural nature of the building externally but rather emphasizes the feature which would come to characterize later ABC projects, namely; the synthesis of rational plans, Constructivist elements and a classical bias of distinctly Swiss origins.

In 1923 Karl Moser invited Stam to leave Holland and come to work in his Zurich firm. Stam accepted the offer and once again worked alongside Werner and Werner's friend, Emil Roth. Stam also renewed his friendship with Schmidt, who in turn introduced him to the Basel architects, Artaria, Meyer and Wittwer. Stam's presence on the Swiss scene reinforced the group's pro-Russian interests and created a desire on the part of the young Swiss to strengthen their Constructivist interests. By 1924, with the arrival of Lissitzky in Zurich, these interests had evolved into a movement toward the development of the international Constructivist architecture.

CHAPTER II

ABC CONSTRUCTIVISM: THE 1924-1929 PROJECTS

The ABC style crystallized in 1924, after the first issue of ABC was issued. Between 1924 and 1929, the ABC affiliates designed over thirty projects which reflected the tenets of ABC's dual programme. These were intended for an international constituency which included clients (both hypothetical and real) in Holland, Czechoslovakia, Switzerland, Germany, Mexico, the U.S.S.R. and the United States. ABC's architects also maintained that their style merited application by architects other than those in the ABC group. To promote this idea, several ABC affiliates organized a pro-ABC faction at the Dessau Bauhaus.[13] There several student members ultimately designed several buildings which derived from the ABC approach.

This chapter will examine the ABC projects and the works of the Bauhaus faction. These designs comprise the ABC's group's essential contribution and illustrate ABC's specific Constructivist style. Both published and previously

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13 This faction is cited in Schnaidt, Hannes Meyer, pp. 40-51.

unpublished projects will be noted and all works will be listed according to their respective architects.[14]

14 Biographical notes on each architect appear in Appendix

Mart Stam

Mart Stam may be ranked among the ABC group's most prolific members. Throughout the 1924-1929 period, he developed an approach which simultaneously expressed structural and rational concerns in a forthright manner and Constructivist elements in a non exaggerated way. He applied his mode of articulation to schools, municipal structures, office buildings, a factory and homes in several countries. In so doing, Stam realized the ABC ambition of creating a Constructivist style which was international in scope and primarily realistic. Outstanding examples of the designs which reflect Stam's specific version of the ABC approach will now be reviewed.

Two school projects designed by Stam, the St. Wendel's Boy's Grammar School (Switzerland 1924) [Fig. 79] and the Thun Boy's Grammar School (Switzerland 1925) [Fig. 80], clearly indicate Stam's integration of ABC's dual interests. The plans for both schools are clearly reminiscent of Lissitzky's proto-architectural Prouns. In the Prouns, structures are not presented as single edifices but rather as diffracted agglomerations of lightweight rectilinear forms which interpenetrate on the right angle. Stam's groundplans for the schools display similar tendencies in that the schools are not presented as single buildings but as a series of rectilinear, volumetric pavillions which similarly join at right angles with each pavillion housing a specific function.

Thus, classrooms, libraries, common rooms and headmasters' studies each receive distinct volumetric enclosures.

In addition, the manner in which Stam presents his circulatory elements reveals a Constructivist influence as well. In both schools, the circulatory parts are externalized and granted distinct emphasis. In St. Wendel's, lengthy connecting ramps are punctuated by open stairwells which run parallel to the main bloc. In the Thun School, an enclosed corridor connects the pavillions. Also striking is the Thun School's entryway which consists not of a portal but of an entire wing in which a network of stairs and corridors is openly revealed.

In accordance with the precepts of ABC's functional programme, Stam's buildings reveal their manner of construction. Networks of exposed columns are shown on the ground levels of several pavillions, thereby indicating the schools' structural slabs and piers. It should also be noted that both schools were planned to properly inter-relate with their terrain, the surrounding city scape, and the pre-existing urban plan.[15]

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15 The two schools, their plans and their relationship to the above cited concerns are discussed in an article by Mart Stam. See M. Stam "Op zoek naar een abc van het bouwen" Het Bouwbedrijf 3, 1926, pp. 523-524.

The Cornavim Railroad Station, Geneva Switzerland, 1924 (in ABC, Series I, No. 6, 1925) (Fig. 8) reflects a fusion of Dutch and Russian ideals similar to the one evident in Stam's two Swiss school projects. In an early issue of ABC, Atelier Ladovsky's Tower for the Production of Lye is cited for the manner in which it articulates openly displayed volumes, circulatory element, and structural supports.[16] Stam's Cornavim projects use a similar approach. The Cornavim railroad station design does not propose a singular enclosed edifice. Instead, the design emphasizes dematerilization and diffraction by calling for a plan of distinct pavilions (each for a diverse function) which join at right angles and which are connected by a network of openly displayed circulatory parts (ramps, bridges and stairwells).

Structure in the Cornavim project is emphasized both externally and internally. The structural portal frame system employed is the same as Koenigsberg's, namely one of concrete slabs resting above beams and posts which meet at right angles. Stam shows this system externally by extending his support beyond the perimeter of the facades thus allowing them to form an external collonade. The interior supports are visible since they are placed behind glass curtain walls. The facade's transparency lends a sense of dematerialization to this scheme.

To further underscore a Constructivist affiliation, a

16 See ABC, Series I, No. 3/4, 1925.

sign of billboard proportions announces "Geneva Cornavim", while large advertisements for such concerns as "Agfa Film" are incorporated into side facades. Russian Constructivists also chose to imply that theirs was a lightweight hovering architecture. Cornavim makes a similar implication in having as its uppermost story in the main bloc, a small glass volume resting above exposed supports in a floating manner.

An earlier discussion has already pointed out that this station was designed to best accomodate the city's traffic plan.[17]

Stam's design for an Extendable House, 1925 (in ABC 3/4, 1925) (Figs. 5 & 81) translates ideas found in Cornavim to a single family home. The Extendable House's structural system is identical to Cornavim's and here too, the architect extends his portal frame supports beyond the facade to form a loggia. As in the larger project, the house is portrayed not as a single volume but as an interlocking series of volumes, each housing a distinct function. Once again, in order to indicate a floating and lightweight approach, the uppermost story (which is a volume smaller than those below it) seems to hover above the exposed supports.

The Van Nelle Factory, in Holland, 1925-1930 (Fig. 82) was the outcome of a collaboration between Stam, Brinkmann

17 See Section II, Chapter 1.

and Van der Vlugt. While it is, difficult to ascertain Stam's exact role within the scheme,[18] a prepatory sketch for the project (circa 1925-1928) [Fig. 83] by Stam serves to illustrate his personal outlook[19] and clearly reflects a Constructivist viewpoint. As in Am Knie the Van Nelle Factory design consists of a series of rectangular buildings linked by a network of enclosed bridges. It is distinguished by stairtowers which are self enclosed, and adjacent structures whose roof heights vary from those of the main buildings. In the Van Nelle sketch, circulatory elements assume a more dominating presence. Bridges and ramps occur not only on one level but on several levels throughout, and the stairtowers are shown to be totally of glass. Bold lettering announces the function of each production section. As in the previously discussed designs, a series of exposed piloti on the ground level attest to the structural system while facades of thick concrete bands and ribbon windows allude to the slab and beams within.

The Rokin and Dam project (Amsterdam, Holland 1926) [Fig. 84] is a part of a larger re-development scheme for an existing inner city quarter in Amsterdam. Concern for

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18 Gerrit Oorthuys in Mart Stam, A Documentation of His Work features letters by Stam discussing his role in the Van Nelle project. See p. 8 and p. 40.

19 This sketch appears in the Oorthuys monograph. See p. 8.

existing traffic and planning schemes prompted the architect to utilize an aerial cableway for transport purposes within the design.[20] As a result of this inclusion, the Rokin and Dam project emerges as one of Stam's most striking Constructivist projects.

In the Rokin and Dam project, the primacy of structure is emphasized. Glass walls clearly reveal the slab and column structural system on the upper stories, while the free standing pillars of the ground floor focus on the system below. Additionally, the work projects a greater sense of floating lightness than do Stam's previous works. Buildings not only intersect at the right angle, but hover above it as well. The upper left section of the design, for example, floats above the lower building, as it is connected to it by only twelve pillars.

The main feature of the project which clearly recalls earlier Russian models is the aerial railway. Stam had written in ABC (2/1 1926, p. 4) of his admiration for the Paris St. Denis cable system. In his proposal for Rokin and Dam, he wrote:

> The means of rapid transport chosen here is an overhead railway hung on cables much the same way as the express line now being built between Paris and St. Denis.[21]

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20 See Mart Stam "Rokin en Dam", International Revue, Vol. I, No. 3, 1927, pp. 86-88.
21 Ibid.

The incorporation of a cable system into the Rokin-Dam design gives the project a surreal and fantastic quality, a quality more common to Russian designs than to those of Dutch origin. The building's boldly exposed steel supports (for the rail), also recall a similar system which appears in the Atelier Ladovsky Lye Works that ABC had published.[22] This system, in both projects, not only supports structure, but acts as an essential design feature as well. The combination of Rokin and Dam's subordinate network of exposed staircases, bridges, escalators, elevators and large billboards, as well as the tensile cable rail, results in an outstanding example of European Constructivism.

The Atelier Ladovsky Lye Works may also have significantly influenced a Watertower (1927) [Fig. 85] design by Stam. Like the Russian design, the Watertower consists of an undisguised representation of functional components. As in the Atelier Ladovsky Lye Works, a tower is reduced to a cylinder, open framework and stairs. Stam's Watertower does, however, differ significantly from other Watertowers designed by Ladovsky's Atelier. In N. Krassilnikow's Water Tower project of 1921, (Fig. 86) for example, the access ramp, the exposed supporting frame and the tank are each granted a dynamic and aggressive presence via the use of sharp angles and bold, large scale diagonals.

22 See note 71.

In Stam's scheme there are no theatrical devices. Rather, Stam's tower projects a straightforward display of functional elements, in a restrained manner, indicative of the Constructivism that Stam favored.[23]

A house which Stam designed in 1928 [Fig. 87] for the Baba district of Prague, Czechoslovakia and was later built between 1931 and 1932 [Fig. 88], continued to express his Constructivist interests through 1928.[24] Unlike any of its predecessors, the Baba house deliberately exposes its

23 It should be noted that not all of Stam's work during the 1924-1929 period reflected Constructivist ideals in a decided manner. Rather they indicated his conformity to the larger values of the modern movement. His 1927 Weissenhof Siedlung design [Fig. 89] reflected this stance. His design consisted of three attached rectangular units which did not attempt to display structural or Constructivist elements on their facade. Stam's Weissenhof entry did not necessarily indicate a lack of interest in the perpetuation of the ABC idiom. It was merely an example of his willingness to conform to a Stuttgart standard.

For a review of all Weissenhof entries see Jurgen Joedicke and Christian Plath Die Weissenhof Siedlung Stuttgart, Stuttgart, 1977.

24 This house was originally illustrated in Degen Opbouw, 1934, No. 5, p. 232. For 1969 photos of this house, see Oorthuys, p. 23.

structural and circulatory system in more overt ways. The entire house is presented as a floating entity of interlocking glass enclosed volumes which are suspended above the ground on piers. Linking these columns is an externalized system of open corridoors, stairtowers and terraces. Structure is displayed on a most prominent scale, as all vertical supports and horizontal slabs form a network of outdoor corridoors and terraces. In keeping with Stam's anti-monumental position there is no prominent entry portal to the Baba house, only a staircase which scales the side of the house. It too, in Constructivist fashion, remains skeletal and open.

The Baba house marks one of Stam's most successful translations of the ABC approach. It is an honest and feasible construction of steel, glass and concrete. No attempt is made to disguise the building materials. Stam clearly reveals the constructional and circulatory systems and through the use of glass, the interior functions as well. Yet despite its rigorous adherence to the above Constructivist constraints, the Baba House is a well integrated house whose innate elegance is self-evident.

Emil Roth and Werner Moser

While Emil Roth and Werner Moser did not become partners until 1930, when they joined the team which designed Zurich's exemplary Neubuhl colony, they are being presented together in this section because their work shares a distinct commonality. [25] Both men were admirers of Stam's approach and each one had collaborated with Stam on a project. Their individual works reflect Stam's influence, specifically his revelation of structure. Moser and Roth produced comparatively few schemes during the ABC period. Nonetheless, their works illustrate how two ETH trained architects adopted the Constructivist varient that Stam had devised.

The only documented building which Stam and Moser designed jointly during their ABC years was the Old People's Home of the Henry and Emma Budge Foundation in Frankfurt, Germany in 1928.[Figs. 90& 91].[26] This late work recalls many of the elements in Stam's works. Like the Thun and St. Wendel schools, the Old People's Home consists of rectangular elongated buildings which are bisected by a bridge like

25 Neubuhl was the colaborative effort of M.E. Haefeli, Hubacher and Steiger, Moser and Roth, Artaria and Schmidt and Architekten BSA. For a detailed review of that development see Alfred Roth; The New Architecture, Zurich, 1975, pp. 71-90 and the last chapter of this dissertation.

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pavillion. As in Stam's Prague house, all of the circulatory corridors are externalized and assume the guise of linked terraces. And on the rear facade, a connecting pavillion of exposed pillars reveal facets of the constructional system, thereby echoing Stam's preference for structural exposition. Moser's design for the Frankfurt Old People's Home thus gives clear indication that after 1924, Moser had begun to move away from the restrictive values of his classical training toward an approach which echoed Stam's structural ideas and elements of the Russian Constructivist style.

The project which most clearly illustrated Moser's movement toward Stam's Constructivist varient was his Office Building at Pearson Street and Michigan Boulevard for Chicago, unbuilt, (U.S.A., 1924) (In ABC, Series 2, Number 3, 1926) (Fig. 92). In 1924 Werner Moser resided at the Spring Green, Wisconsin compound of Frank Lloyd Wright where he served as an apprentice and as a draughtsman.[27] During that year, Wright was working on a design for the headquarters of the National Life Insurance Company at Water Tower Square in Chicago (Fig. 93). Moser, on his own accord, designed the office building at Pearson Street as an ABC-inspired variation on the Wright project.

Wright's is a richly detailed and complex scheme that

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27 See bibliographical notes in Appendix

was very much in keeping with his Romeo and Juliet ideal.[28] In his design, Wright separates the essential services from the office bloc. All of the offices are placed within four large towers. A thin slab structure housing all circulating and service devices bisects the tower at a right angle. The construction method employed by Wright consists of a system of branch like cantelivers which rise in stepped configuration from the central core as they approached the roofline allowing for non-load bearing curtain walls. Wright, however, did not attempt to express the latter through the use of curtain walls. He called instead for an exterior sheathing of copper grills.

Moser's project is a Constructivist version of Wright's National Life Insurance project. In a manner reminiscent of Stam's Am Knie and Van Nelle projects, Moser reverses Wright's plan. All offices are placed within a rectilinear tall slab while services are delegated to three tall towers which are adjacent to the main bloc and at least one story

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28 In 1896 Wright had designed The "Romeo and Juliet" Tower in which he separated service functions from the main structure. Originally known as "Misses Lloyd Jones Windmill" in Spring Green, Wisconsin it appears in Henry Russell Hitchcock In the Nature of Materials, New York, 1942, Plate 42.

Wright retained this approach for the Larkin Building (1904). See Hitchcock plates 92-99.

higher. These service towers are placed on the street facade and are glass enclosed, thereby allowing for the external revelation of all circulatory functions and a sense of dematerialization. The constructional system that Moser employs also points to Stam's influence in its similarity to the system Cornavim and Koenigsberg had advanced, namely one of right angled supports above which slabs rest. In order to express this system externally, Moser, like Stam, does not resort to all glass curtain walls. Instead, he employs a thick concrete slab sandwiched between ribbon windows therby granting external emphasis to the slab. Structural supports are openly displayed on the ground floor which is treated as an open pedestrian promenade. This arrangement is Moser's method of integrating the building with the surrounding city. A lit advertisement marquee extending from the facade lends an additional Constructivist touch.

Stam influenced Emil Roth as he had influenced the junior Moser. Several works in Roth's oevre illustrate this point. In 1925 Emil Roth and Stam collaborated on a 1925 alternative design to El Lisitzky's Moscow Wolkenbugel [Fig. 94]. This project was ultimately the most dynamic ABC design Roth was to produce. While its Constructivist overtones reemerged in Roth's later ABC works, the later works lacked the dynamism of this collaborative effort which marked Roth's first graphic expression of a Constructivist bias merged with functional considerations.

Previous chapters have already shown that Mart Stam had

offered alternative designs to Mies van der Rohe's projects.[29] Between 1924 and 1925, Stam and Roth jointly designed the alternate version to Lissitzky's Wolkenbugel [Fig. 95] in order to formally express their objections to Lissitzky's design. Roth contended that the Lissitzky plan was not structurally sound.[30] He believed that Lissitzky's vertical supports could not properly support the top heavy horizontal upper section. In addition, Stam objected to Lissitzky's formal orientation.[31] Both ABC members therefore joined forces in order to create a better Wolkenbugel solution by offering a version with considerably more functionality.

Lissitzky's Wolkenbugel consists of single legged structure which is self enclosed. Emphasis is placed on such abstract values as the balance of horizontal and vertical elements which hover in a state of repose. The Stam-Roth effort differs considerably in its attempt to present a design which is structurally feasible. The Stam-Roth version presents a Wolkenbugel which rests on six huge supports. The supports carry an upper horizontal section which is

29 See ABC, Series I, No. 3-4, 1925, pp. 7-8.
30 According to an interview between Emil Roth and the author in Zurich during July of 1978. A comprehensive portrait of Lissitzky's Wolkenbugel appears in Lissitsky-Kuppers, pp.
31 Ibid.

conceived as a real building of concrete slabs and ribbon windows. Unlike the formal Soviet work, the alternate design seeks to expose structure totally. Framework, circulatory parts and elevator shafts remained open and unclad and supporting shafts are dramatically angled. As a result, a dynamic tension is imparted to this version, a quality wnich Lissitzky's tamer version lacks.

The Kindergarten Group, Switzerland 1928 (unpublished project) [Fig. 96] attests to the growing presence of Stam-inspired Constructivist concepts in Roth's solo work. While Roth's pre 1924 designs are essentially composed of singular blocs, the Kindergarten Group design reveals an interest in diffraction and serialization. As in Stam's earlier schools, this facility, which is based on a rational plan, is broken into smaller pavillions which are linked on the right angle. All of the pavillions are connected by an extensive interior corridor which spans the length of the main bloc and which feeds into separate small service units. The corridor itself is granted a distinct form and assumes a highly visible presence. The externalization of structure is also promoted in the work. Roth's drawing clearly indicates a network of externalized columns on his facades that is highly reminiscent of Stam's early school projects.

In Roth's design for the Hospital at St. Imier Switzerland 1928 (unpublished project) [Fig. 97], many of the concepts alluded to in the Kindergarten complex are

developed more extensively. In spite of the scope of the hospital complex, Roth again employs a plan of bisecting right angled pavillions. Each section represents a different medical concern. Extensive emphasis is placed on stairtower and the connecting pavillions by endowing them with different fenestration patterns roof heights and varying rectilinear forms. Additionally, many pavillions are distinguished by elongated terraces which permit an outdoor display of support and slab.

Hans Schmidt and Paul Artaria

Between 1924 and 1930 Hans Schmidt and Paul Artaria formed a partnership in Basel. Their projects during this period were jointly acknowledged, and were signed "Artaria and Schmidt, Basel." Schmidt acted as the team's designer and threfore the resulting works reflect his outlook. Schmidt and Artaria's designs were in keeping with the designs of the ABC affiliates in that they conformed to ABC's guidelines by acknowledging constructivist and functional sources. However, one major difference in approach removed these works (particularly twice between 1924-1929) from the mainstream of ABC design: the influence of Le Corbusier.

Le Corbusier's ideas were a strong point of contention among the ABC's members. Mart Stam openly opposed Le Corbusier and disavowed both his formal approach and his Domino method in the 1925 "Modernes Bauen" article for ABC.[32] In addition, at the Weissenhof Siedlung (1927) where both men were participants, Stam had argued with Le Corbusier over issues of style. Stam insisted that buildings were utilitarian containers which needed to house only necessary functions. Le Corbusier maintained that architecture was a form of artistic expression which lent itself to the formal

32 Mart Stam, "Modernes Bauen 3", ABC, Series I, No. 3/4, 1925, pp. 3-5.

arrangement of shapes, colors and structural elements.[33] Both Roth and Moser sided with their mentor, Stam.

Hans Schmidt, however, defended and supported Le Corbusier. As early as 1923 he had admired Le Corbusier's designs and the ideas that had been presented in Toward a New Architecture.[34] In 1925 Schmidt traveled to Paris to meet Le Corbusier.[35] In 1927 Schmidt wrote an article entitled "Le Corbusier als Architekt und Schriftsteller" (Le Corbussier as Architect and Writer) which was highly complimentary and presented the expatriate Swiss architect as an outstanding artist who had devised a significant formal language.[36] Concurrently, Schmidt designed the poster for an exhibition of Le Corbusier's works in Basel [Fig. 98] (1927). Schmidt retained his enthusiasm for the Corbu's oeuvre throughout his career. In Schmidt's article "The Swiss Modern Movement", he continued to laud the architect for his buildings, his "theoretical work", and his enthusiasm for the greatness and the beauty of the products of contemporary

33 Oorthuys, Mart Stam, p. 1. Oorthuys based his information on a series of interviews with Mart Stam.
34 Schmidt, "The Swiss Modern Movement", p. 37.
35 Based on interview between the author and Mrs. Lili Schmidt in Basel, July 1978.
36 Hans Schmidt "Le Corbusier als Arcitekt und Schriftsteller" in Bruno Flieri, editor, Hans Schmidt, Beitrage zur Architektur 1924-1964, Berlin, 1965, p. 28.

technology."[37] Much of Schmidt's 1924-1929 oeuvre recalls the influences of this master architect.

A great deal of Schmidt's support of Le Corbusier's values was due to Schmidt's inability to disavow the classicism of his student years. While fellow ETH students such as Roth and Moser were able to move away from their neo classical roots toward the style that Stam promoted, Schmidt could not. The predisposition toward formalism which had characterized his pre-1924 work continued to mark his ABC projects. For the most part, these projects continued to emphasize enclosed geometrical volumes which did not attempt to externalize structure in an explicit fashion. In Le Corbusier, Schmidt recognized similar architectural tendencies and he came to admire Le Corbusier's manipulation of a formal vocabulary. Schmidt emulated aspects of the architect's approach after 1923. The planar elementarist forms, ribbon windows, exposed piloti on ground floors and the roof terraces of his ABC buildings all attest to the strength of Le Corbusier's influence.

A Watertower (1925) [Fig. 49] (ABC Series 2, No. 1, 1926) illustrates the manner in which Schmidt's work acknowledged Russian sources and functional concern and then presented them in a manner which recalled the ideals of Le Corbusier. ABC had featured the Russian's "Tower for the

37 Schmidt, "The Swiss Modern Movement", p. 37.

Production of Lye"[38] in a 1924 issue. The text accompanying the Lamstov tower had stressed that this Atelier Ladovsky project was to be valued for its compartmentalization of such ulitarian components as trusses ladders and a storage drum. It is apparent that Schmidt sought to create a construction which was similarly compartmentalized. Unpublished versions of this watertower substantiate this intention.[39] One of these bears a caption which closely recalls ABC's caption for the "Tower for the Production of Lye." It states: "Watertower with Observation Deck and Stairtower." [Fig. 99] Two other drawings also indicate that Schmidt viewed his project as a composite of waterdrum, truss, and stairtower. [Figs. 100, 101]

The title and articulation of Schmidt's project reveal the influence of a Corbusian sensibility as well. The Russian tower shown in ABC is notable for its theoretical bases and for its emphasis upon strictly ulitarian components. Schmidt's tower, however, is a far more lighthearted version. His title does not emphasize the ulitarian drum, but its observation deck. In addition, Schmidt does not expose functional elements to reveal their true nature, but treats them instead as stylistic components

38 "Tower for the Production of Lye" in ABC, Series I, No. 2, 1924, p. 4 and ABC, Series I, No. 3-4, 1925, p. 2.
39 The unpublished versions of the Schmidt watertower are in the Hans Schmidt Archive, ETH, Zurich.

within a formal composition. Projects designed by Le Corbusier prior to 1925 may have inspired Schmidt's approach. The French master's 1920 Citrohan houses [Fig.103] and Maison Rambouillet (1924) [Fig.104][40] had de-emphasized the ulitarian nature of roofs and presented them as decks intended for recreational purposes. A selective arrangement of elementarist forms characterized the exterior and interior of these buildings as well.

The Schmidt watertower design echoes the deliberate stylization of the Corbusier houses. This orientation becomes even more apparent when Schmidt's Watertower project is compared to Mart Stam's Watertower of 1927 [Fig. 85]. The Stam design emphasizes external structural parts in order to underscore a ulitarian bias. Schmidt was also concerned with the structural makeup of his design. However, he believed that functional concerns were internal and did not necessarily merit exterior expression. The "Technik" montage which is featured alongside his Watertower in ABC proves this point. The montage presents the internal workings of the tower only within the shell of the building while the exterior is characterized by strong formal contrast. Where Stam's Watertower emphasizes a drum resting above trusses in X formation, Schmidt's, on the other hand,

40 The drawings and plans for these Le Corbusier works appear in Boesinger and Stonorov Le Corbusier Oeuvre Complete 1910-1929, Zurich, 1964, pp. 31, 45 and 59.

incorporates a highly stylized support system consisting of a mitered rectangular grid which denies the industrial nature of Stam's trusses. Neither does Schmidt's project present a circulatory system of simple open ladders as does Stam's version. Instead, his tower is distinguished by a staircase housed within a soaring glass shaft crowned by an antena whose vertical attenuation recalls the crystalline Pravda building by the Vesnin Brothers (1923). And while Stam presents his water tank as a mundane but requisite component, Schmidt's water tank acts as a cylindrical counterpoint to a highly organized composition of horizontal and vertical linear elements.

Schmidt's "Watertower" is his most overtly dramatic ABC work. The precedents set forth by this project resurfaced in various ways in other Artaria and Schmidt designs of the period. However, it should be noted that none of the designs which followed the Watertower were as boldly executed. Nonetheless Hans Schmidt's distinct orientation remained indentifiable throughout his ABC career.

A "Garage House of Pre-Fabricated Concrete Panels"[Figs. 105, 106] (built in Basel 1925) ilustrates the application of the Schmidt approach, particularly its integration of Corbusian, Russian and functional sources to a modest house. Like Le Corbusier's earlier "Maisons en Serie Pour Artisans" (1924) [Fig. 107] this house is rendered as a single cube punctuated by small, carefully placed square windows and a side entry. The entry's elevation also recalls the Citrohan

(1920) prototypes [Fig.103] since these favored second story side entrances which connected to a staircase at the side of the building. In "Garage House" Schmidt also seeks to reinforce his commitment to ABC's functional programme. The entire exterior of the Garage House is constructed of prefabricated concrete panels whose standardized dimensions are clearly recognizable. Their repetitious nature grants them a utilitarian rigidity. In addition, Constructivist precedents are acknowledged as well, in the exterior staircase and its connecting corridor which are left open in order to reveal their circulatory activities.

The ideas promoted in Schmidt's Garage House were developed on a far larger scale in his "Bern National Library Complex"(Project, Bern 1927) [Fig. 9].[41] Previous chapters have already addressed the rational plan Schmidt devised for the Bern Library project, namely his use of repetitious interior modules and exterior sections for related functions.[42] Also worthy of note is the manner in which Schmidt enervates the simplified Corbusian surfaces of the Library with Constructivist-inspired detail. Here large planar expanses of concrete and extensive ribbon windows, exposed piloti on ground levels and smaller volume on the roof act as foils to the stairtowers and their entrances, the complex's Constructivist-inspired features. These

41 ABC, Series 2, No. 4, 1927-8, pp. 10-11.
42 See Section I, Chapter II, pp

stairtowers are separated from the main bloc, given distinctive forms (semi-circular and rectangular) and are at least one story taller than main blocs, and thereby become the Library's most distinguishing characteristics.

Later Schmidt designs reprinted in ABC further indicate Schmidt's fusion of rational planning schemes and the above interests. These works are, respectively: the "Housing Estate for Large Families" (Wohnkolonie) [Fig. 108] (Basel, 1927), Maisonette-Laubeganhaus (Reihenhauser, Basel, 1927) [Fig. 109] and "Single Family Home" ("Einzelhaus", Basel, 1927) [Fig. 109][43] For all of these works, the architect developed an interior plan which reduced all room sizes into four categories. All small spaces (e.g. W.C.'s and stairlandings) were 100M in size. Areas such as small bedrooms, kitchens and bathrooms were 200M, and all bedrooms and studies were exactly 300M. Only the living-dining space received an allotment of 400M. ABC illustrated the floor plans for all of the above projects, and attempted to show

43 The Housing Estate for Large Families appears under the title "Wohkolonie" and the Maisonette-Laubeganghaus under "Reihenhauser" in ABC, Series 2, No. 4, 1927-28, pp. 7-8. The Maisonette-Laubeganghaus was intended for, and later shown at the 1928 Munich exhibition "Heim und Technik." ABC's single family dwelling or "Einzelhaus" proved to be the inspiration for the Schaeffer house (Basel, built in 1928) which will be discussed.

that Schmidt's modular approach was equally as suitable for a villa as it was for a large scale housing estate.

The exteriors of these three examples indicate a new stylistic development on Schmidt's part, one which indicates the growing influence of Soviet design in his oeuvre. The Garage House of 1925 and the Bern Library both follow Corbusian precedent in that they are singular volumes which were either self enclosed (Garage House) or a network of linked buildings which meet at right angles but do not interlock in any discernable fashion. Each building retains an autonomous volumetric presence. While the cited Housing Estate, Maisonette-Laubeganghaus and single family home still retain such Corbusian features as piloti, ribbon windows and planar walls, their plans do not imitate these earlier works. Instead they attest to Schmidt's increasing adaptation of Soviet groundplans, specifically those which emulate the layouts of El Lissitzky's Prouns. Lissitzky's Prouns proved that the Constructivist architects of the Soviet Union valued the dynamic interlocking of volumes. Schmidt here attempted a similar approach in these 1927 projects. Following the precedents established by the Prouns, they are not presented as singular blocs but rather as series of diffracted rectilinear volumes which interpenetrate in an enervating manner at 90 and 45 angles. Externalized corridors and staircases (as in the Wohnkolonie) lend an additional Constructivist note to these works.

Two villas built in the Rhien suburb of Basel, the

Colnaghi House [Fig. 110] and the Schaeffer House (1928) [Fig.111] further illustrate Schmidt's unique Constructivist bias,[44] namely his simultaneous use of Proun inspired ground plans and pragmatic building methods and modular schemes. The Schaeffer House, which is based on his "Einzelhouse" scheme, as well as the Colnaghi house, consist of Corbusian volumes which bisect and interpenetrate within an active dramatic right angled plan. The Colnaghi house also alludes to additional Constructivist sources through its exposure of circulatory and entry areas. Schmidt's preference for modular schemes is also apparent in these works since both homes employ room sizes which conform to the exacting dimensions he previously delineated in ABC for his Housing Estate. Standardized building parts are also utilized throughout the structures. For example, windows are limited to a number of mass-produced types and were used throughout the Schmidt and Artaria buildings, with the result of depriving the above structures of the highly individualistic fenestrative arrangement which characterized such works as Le Corbusier's Villa Stein at Garches.

By 1929, the influence of Mart Stam was evident in the designs of Schmidt as well. The manner in which Stam externalizes structure, opens corridors and externalizes

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44 The Colnaghi House is featured in "Techische und Wirtschaffliche Resultate eines Wohnhausbaues" ABC, Series 2, No. 3-4, 1927-8, p. 9.

circulatory systems in his House in Baba (Prague) is echoed in Schmidt's " Double Residence in Mexico City" (built in 1929) [Fig. 112]. Although the "Double Residence in Mexico City" employs the modular dimensions of its predecessors, it differs from them to a considerable degree. The facade of the Mexican dwelling clearly exposes structural slabs and steel columns to form a network of terraces and open corridors. Terraces are linked to open double bridges which connect the sister houses. The prominence of these elements serves to underscore Artaria and Schmidt's adaptation of an overtly Constructivist method of articulation, one which ultimately conformed to the ABC dictum which stressed such an articulation of structure.

Hannes Meyer and Hans Wittwer

The most notable partnership to emerge during the ABC years was that of Hannes Meyer and Hans Wittwer. The projects executed by their Basel firm (established in 1926) have since attained a significant degree of recognition for their forceful Constructivist bias.[45] Yet, throughout the ABC era, the magazine's editors did not single out their works for distinction and did not publish any Meyer-Wittwer projects.[46] Instead, ABC documented only the individual efforts of Meyer and Wittwer prior to and during 1926. In so doing, the magazine performed an invaluable service in that it revealed the interests and methods of architectural expression that each partner developed prior to their collaboration.

While it is regrettable that ABC did not focus on the

45 See introduction for a discussion of sources where their works are noted.

46 ABC's failure to promote the the joint works of Meyer and Wittwer may have been due to the personal strife between Meyer and Stam. Mrs. Lili Schmidt in a July 1978 interview with the author, pointed out that Meyer and Stam's wife, Lena Lebau (an ABC contributor) were having an affair during the 1926-1928 period. Stam's resentment may have resulted in the deliberate oversight of Meyer's architectural works during and after 1926. After the demise of ABC, Lebau divorced Stam and married Meyer.

Meyer-Wittwer designs, its documentation of their pre 1926 interests is extremely noteworthy. The Meyer-Wittwer partnership has come to be perceived in enigmatic terms. While Hannes Meyer was an outgoing public figure who lectured extensively (i.e., at the Bauhaus), wrote significant texts and merited a monograph, the opposite was true of his partner.[47] Hans Wittwer was a private and retiring man who rarely discussed his personal oeuvre and who left no memoirs.[48] As a result of this uneven state of affairs there has been little indication of each man's role in this famous partnership. By concentrating on these men's pre 1926 interests, ABC shed substantial light on the creative aspects of their partnership.

According to ABC, Meyer's interests between 1922 and

47 In his monograph, Hannes Meyer, Claude Schnaidt examines the facets of the architect's career. He also reprints such seminal Meyer texts as "The New World" (1926), pp. 91-93 and "Building" (1928), pp. 95-97 which underscore a distinct ulitarian bias.

48 Wittwer grew disenchanted with architecture after 1931 and left the profession. He joined his family's dairy business in Basel. After his death his sister donated a small box containing his architectural "souvenirs" to the ETH in Zurich. The author examined the box. It contained no letters, memoirs or plans, only the afore cited book Houses for Workers and several magazine clippings of his work.

1926 were related to Socialist inspired causes and to modern art. They were not centered on the development of a new Constructivist architecture. Wittwer on the other hand personified the ABC architect during this period. He examined mass produced housing prototypes and by 1925, had produced an architectural design which clearly fused functional and Constructivist interests. This section will review the Meyer-Wittwer projects of 1926-1928. However, before they are presented, ABC's observation of the partners' early activities will be cited. These will illustrate each architect's interests, and now these interests, may have contributed to the team's mature ABC works.

In 1926, ABC featured a special issue on modern art which was edited solely by Hannes Meyer.[49] The publication of the ABC issue was significant in that it revealed that Meyer's interests were not limited only to architecture during this period but also focused on Constructivist-inspired developments in painting and sculpture, interests which were inspired by his affiliation with Swiss and European Co-Operative organizations.

In 1914 Meyer joined the socialist Swiss Co-Operative (or Co-op) Union. The organization promoted a communal way of life based on the collective ownership of houses and land, as well as a division of labor amongst the residents. All educational, recreational and health related concerns were

49 ABC, Series 2, No. 2, 1926.

the responsibility of the commune. The Swiss Co-operative also subsidized a variety of art related activities. In addition to supporting Co-op sculptors, painters, photographers and theatrical designers, the organization also promoted the development of consumer products which were expressive of materials and functions and packaging which emphasized a reductivist viewpoint. According to Claude Schnaidt, Meyer's biographer, Meyer was an active participant in Co-op activities having designed Co-operative display windows, product packaging, linoleum cuts and sets for the Co-op theater between 1923 and 1926.[50]

In 1923, the Swiss organization designated Meyer as its official international envoy. The position required that Meyer record the art-related activities of other international Co-op organizations. Meyer traveled throughout Europe and Scandinavia and his observations resulted in over thirteen essays and illustrations of Co-op art types which were printed in such publications as Das Werk and Ma.[51]

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50 Claude Schnaidt discusses and documents Meyer's Co-op activities. See Hannes Meyer, pp. 19-21.

51 See Hannes Meyer, "Das Theater Co-op". Das Werk, No. 10, December, 1924.

Hannes Meyer, "Klischee Co-op" in Ma, Vol. 9, No. 8-9, September 1924.

For a listing of all articles and photographs published by Meyer, see Schnaidt, p. 115.

During this period Meyer also developed an interest in contemporary art. In 1925 he wrote a "Young Belgium" special issue for Das Werk. The following year he discussed European art in the essay "The New World", again for Das Werk.[52]

As an ABC affiliate Meyer came to share the group's preoccupation with Constructivist architecture. Nonetheless, he was more interested in Constructivist developments in the fine arts prior to 1926. For his ABC contribution, he wrote a special issue on modern art which featured paintings and constructions by such Russian artists as Malevich, Lissitzky, Gabo as well as European works with a reductive elementarist bias sympathetic to Constructivism such as those of Tschichold Baumeister, Maholy, Nagy, Vantogerloo and Mondrian. Brief essays by these artists explaining their outlook accompanied the above illustrations, and these further underscored an elementarist viewpoint.

The ABC modern art issue marked Meyer's only ABC contribution. The periodical did not show any pre 1926 architectural designs by Meyer because none were felt to be worthy of reproduction. Between 1919 and 1926, Meyer's only significant work was the Freidorf Housing Estate [Fig. 113] which the Co-op had commissioned in 1919 and which was

52 Hannes Meyer, "Das Junge Belgien" Das Werk, No. 9, 1925, and Das Werk, No. 10, 1925.
Hannes Meyer, "Die NeueWelt" Das Werk, No. 7, 1926.

subsequently built in Switzerland.[53] Although "Freidorf" designated standardized units for its residents and emphasized a communal socialist way of life the style of the work can hardly be termed progressive. All of Freidorf's buildings were abstract renditions of traditional Swiss residential types complete with mansard roofs, dormers, chimneys and a conventional arrangement of windows and doors. The Freidorf homes radiated a centuries old respectability which had little in common with the architecture that ABC would come to promote.

Hans Wittwer, on the other hand, was developing a style during the 1923-1926 period which clearly reflected ABC ideology in its emphasis on Constructivist values and functional concerns. Wittwer's submissions to ABC illustrated these interests. Previous sections of this paper have already discussed Wittwer's ABC essay on mass produced British housing.[54] ABC also showed Wittwer's photograph of an English industrial conveyor belt, [Fig. 64] which revealed his interest in British factories and in the exposed automated circulatory methods that they employed.[55] While

53 For detailed plans and illustrations of Freidorf see Plans, pp. 5-15, in Schnaidt Hannes Meyer.
54 See Part I, Chapter II.
55 "Gleitrolbahn" in ABC, Series 2, No. 1, 1926, p. 6. Wittwer was the only member to contribute British material and therefore this photo was most probably submitted by him.

in Great Britain, Wittwer had also studied the construction of railroad terminals.[56]

Wittwer's studies were the inspiration for the railroad station design which he entered in the Geneva Cornavim competition in 1923-24 [Fig. 114]. ABC published the Wittwer entry[57] whose design fused British technological imagery, Constructivist influences and rational planning ideals. Like Mart Stam, Wittwer based his Cornavim entry on a rational ground plan in which separate sections are designated for diverse functions. As a result, the railroad station is composed of separate volumes which house waiting rooms, ticket offices, private quarters and other necessary service areas. The dfferent sections are intersected on right angles to form an integrated composition. Wittwer's project attempts to merge the station with the street and the intersection on which it is situated in a manner reminiscent of Stam's Cornavim design. In order to facilitate the flow of pedestrian and vehicular traffic, Wittwer employs two large ramps which ascend from the street directly into the station's entrance. Rail lines lie directly behind the entry area, thereby allowing this space to act as an intermediary

56 Based on an interview with Martin Steinmann at the ETH in Zurich, July, 1978. Mr. Steinmann did studies on Wittwer at the ETH. These have not been published.

57 Hans Wittwer Cornavim Entry - "Shed", ABC, Series I, No. 6, 1925, p. 2.

stop between pedestrian and vehicular city traffic and the trains. In keeping with Constructivist precedents, all circulatory and connecting avenues are emphasized. The overwhelming scale of the station's ramps causes them to dominate the building's facade. And the large, multi-story bridges which connect the main sections assume a prominent, highly significant presence.

The Wittwer design differs from the Stam model in one major way. Stam's version seeks to display the station's structural programme by enclosing the main facade in glass and by extending the structural members beyhond that facade. Wittwer's plan however, calls for an entirely different approach, one which echoes the style of Hans Schmidt. Wittwer's station houses functions in distinct enclosed volumes which differ in size, scale, and fenestration pattern. The resultant effect of this approach is a formal arrangement of bisecting shapes enervated by bold circulatory sections.

The title of the Wittwer project "Shed" refers to its source of inspiration. Shed roofs were used to cover rail tracks and were common to British railroad stations and factories at the time. Thus, these may very likely have inspired Wittwer's design.

In 1926, Wittwer and Meyer formed their partnership and designed the Peterschool (Basel, Project 1926) [Fig. 115,116]. Despite its unusual appearance, the Peterschool building was expressive of the theoretical and stylistic

ideas of its architects. The project fused some of the concepts which Wittwer's Cornavim had previously presented and a number of the new concepts that Hannes Meyer had developed.

In 1926, Meyer developed a strong interest in an architecture which stressed functional requisites. In his essay "The New World" (1926) he stated:

> Building is a technical, not an aesthetic process. Artistic composition does not rhyme with the function of a house matched to its purpose. Ideally, and in its elementary design, a house is a living machine.[58]

The Peterschool was the first work of Meyer's "functional" era. The text accompanying the Peterschool plans presented its functional programme by stating that the school "faithfully reflects the philosophy of buildings set forth in "The New World" and emphasized that the "spatial organization" was determined primarily by "the need to make use of available space and to obtain sunshine and ventillation." Window design resulted after a "careful calculation of the intensity of illumination," and

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58 H. Meyer, "The New World", Das Werk, No. 7, 926. Reprinted and translated in Schnaidt, Hannes Meyer, pp. 91-94. See Section II, Chapter I for a discussion of this essay.

"classroom, school baths, toilets, staircases" were "simple", i.e. only "articulated so as to form an integrated unit."[59]

Meyer's text failed to mention the school's flamboyant exterior. This omission may be due to Hans Wittwer's role in the design of the building. An examination of the Peterschool reveals an elaboration of methods that had previously been used by Wittwer at Cornavim.

Like Wittwer's railroad station, the Peterschool is essentially a formal building consisting of an enclosed volume punctuated by bands of windows. It is distinguished by exaggerated circulatory elements which are perceived in a layered multi-dimensional format. At Cornavim, a viewer is first confronted by a giant ramp and a large open staircase before reaching the actual station. The experience at the Peterschool is similar in that before entering the school building one must first pass through a sequence of outdoor staircases, multi-level ramps and narrow exterior steps. In keeping with Wittwer's predelection for British industrial design, the shed roof is used in this project as well.

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59 H. Meyer and H. Wittwer, "Die Peterschuule Basel" Bauhaus, No. 2, 1927, p. 5.

Although Meyer and Wittwer are listed as the architects of the design in Bauhaus, Schnaidt attributes this text to Meyer. See Schnaidt Hannes Meyer, Plans, p. 17.

The English translation of the above Bauhaus article appears here.

It should be noted that the joint Peterschool project develops the circulatory areas along more 'Constructivist' lines than Cornavim. All modes of circulation are totally externalized and presented in a floating and theatrical manner which recalls the Soviet style. The cantilevered rear ramp, for example, is so exaggerated in size and scale that its overpowering presence recalls the scale of such Russian constructions as Tatlin's Tower. The Tatlin Tower also had a lightweight tensile quality, and the Peterschool ramp shares this quality as well, as it is suspended from four tensile cables and a series of bare girders. The open, skeletal quality of all exterior circulatory sections further underscores this Soviet inspired bias. In light of Meyer's enthusiasm for the ethereal Constructivist sculptures of Gabo and Maholy Nagy which appeared in ABC's modern art issue, one can speculate that he encouraged this lightweight treatment of support, structure, and stairs.

Immediately after completing the school, Wittwer and Meyer embarked upon their League of Nations design (Project, Geneva, 1926-7) [Figs. 117,118,119]. Again, Meyer, insisted on describing this project strictly in terms of its functional programme:

> The buldings of the League of Nations will be designed with their purpose in mind and not as an exercise in stylistic composition ... This building is neither beautiful or ugly ... It asks to be evaluated as a structural invention.[60]

60 H. Meyer and H. Wittwer "Ein Volkerbunde gebaude for Genf - 1927", Bauhaus, No. 4, 1927, p. 6.

Despite Meyer's programmatic evaluation, the League of Nations project came to be the most pronounced Constructivist project of the ABC era. It was unprecedented even by ABC group standards. No other ABC work had integrated such a variety of overscaled forms into a single complex. Nor had any other project possessed a monumentality and expansiveness to equal dramatic impact of the League of Nations project.

While the League of Nations design follows few precedents, it nonetheless does echo some of the stylistic features of Wittwer's earlier work. In League of Nations, as in Cornavim, a volumetric separation of functions is emphasized, with different buildings joining at right angles. Wittwer's signature "shed" roof appears throughout the project and formal juxtapositions which characterize Cornavim are apparent as well. At Cornavim, Wittwer chose to contrast his rectilinear pavillions with curved or eliptical shapes. As the birds eye views of Cornavim [Fig. 115] indicates, curved porticoes hover over entrances and a round wall appears on the outer corner of the main complex. The League of Nations drawings indicate a similar treatment. The two tallest buildings rise above a curved entry section and the large auditorium wing is crowned by an eliptical dome. Additionally, the two slab towers splay in a rigid fashion from roof to baseline.

Once again Schnaidt attributes this text to Meyer. See Plans, p. 25. The English version of this text is reprinted here.

Despite these similarities, the League of Nations project moves beyond any earlier works by either Wittwer or Meyer. In the Peterschool, structural articulation was limited to the ramp and its supports. The League of Nations, represents a dematerialized cage in which all buildings reveal their structural members on their facades. The auditorium pavillion's ground level is composed of free standing piers which originate at the roof level. While Peterschool displayed its circulatory network by leaving stairwells unclad, the League of Nations employs a more sophisticated approach. The slab towers, for example, are linked by a crystalline service core which visibly houses elevator shafts and stairwells. The externalization of structure is further pronounced by the massive X connectors which rise above the twin towers. Finally, a huge billboard screen and a towering tensile network of antennae, cables and poles crowns the entire complex. Clearly, the League of Nations entry flaunts its Constructivist predeliction in a more flamboyant fashion than any of its ABC predecesors, and thereby comes to serve as the most outstanding example of the ABC style.

The Bauhaus Projects

Throughout its tenure, the Bauhaus actively supported a modern style which, as I have stated earlier, echoed ideals Hitchcock and Johnson described in The International Style. Between 1927 and 1929 the German school promoted another style as well, that of ABC Constructivism. The scale on which the ABC style projects were developed was small. Nonetheless, their promotion by the Bauhaus was significant since it proved that the ABC style could be adapted by architects in any nation.

ABC Constructivism came to Germany via the efforts of Hannes Meyer.[61] When the new Bauhaus was completed in Dessau in 1926, Walter Gropius decided to establish an architectural faculty there. At the beginning of the following year he invited Hannes Meyer to organize and head this department.[62]

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61 This is not to imply that Constructivism came to this country via Meyer. Germany and the Bauhaus had certainly displayed an interest in Constructivist architecture prior to 1927. For example, in 1923, Peter Rohl produced a poster in Weimar for a "Konstruktivististche Ausstellung" ("Constructivist Exhibition") of the works of "Architekt Josef Zachmann." See Dawn Andes, The 20th Century Poster - Design of the Avant Garde, New York, 1984, pp. 111 & 122.

62 For a review of the events of the Bauhaus during this period, and its curriculum, see "Origin and History of the 'Bauhaus'" and "Bauhaus Dessau -- The Hannes Meyer Era" in Hans Wingler, Bauhaus, Cambridge, 1969, pp. 1-11 and pp. 141-189.

Meyer accepted and on January 18, 1927 described a plan for his division in a letter to Gropius. His letter stated his intention to institute an ABC oriented program at the Bauhaus.

> Basically my teaching will be based on absolutely functional ... Collectivist ... Constructive lines in keeping with ABC and "The New World."[63]

After his arrival at Dessau in 1928, Meyer remained true to his word. He established an architectural section which stressed both functional and pro-Soviet ideals. To facilitate the institution of his program, he invited Mart Stam and Hans Wittwer to join the Bauhaus faculty. Stam became a visiting lecturer on elementary building and town planning and Wittwer was designated chief draughtsman and lecturer on light and accoustical installations and heat engineering.

Within a year after his arrival, in 1928, Meyer suceeded Gropius as director of the Bauhaus.[64] Once in control, Meyer upgraded the status of the architecture faculty by designating it as one of the four main sections which comprised the school. Meyer personally controlled its programme and stressed both his doctrine of functionalism and

63 Schnaidt, Hannes Meyer, p. 48.
64 See note 26.

the style that ABC championed. Between 1928 and 1929, several projects were drafted by both Meyer and his Bauhaus students. These illustrated the Bauhaus's adoption of ABC Constructivism and thereby reveal that ABC did generate a limited influence outside its immediate nucleus.

Meyer's own building designs acted as a guideline for the Bauhaus students. The designs included Meyer's earlier collaborative efforts with Wittwer and a commission he had designed at the Bauhaus, "The Federal School of the General German Trade Unions Federation"(1928) [Fig. 120,121] (built in Bernau, Germany 1928-1930). While the Federal Trade School work does indicate a Constructivist influence, it also emphasizes a pragmatic approach to building free of the theatrical overtones of those earlier ABC works which were designed with Wittwer. In this project, all functions are relegated to either two building types, a small residential unit reserved for faculty housing and larger, multi story buildings which house dormitories, classrooms and assembly rooms. Both building types (with two exceptions) are identical and are constructed of repetitive, standardized forms. These forms are laid out in a serial plan that follows Constructivist precedents. Buildings are sited in zig-zag fashion on an obtuse angle, an arrangement which conveys a degree of the dynamic. Linking the five large buildings is a externalized glass-enclosed corridor. This corridor evolves into an enclosed staircase which rises to the upper story of the last building within the complex.

Both the corridor and the nonstatic groundplan lend a distinct Constructivist orientation to the German trade school design.

Meyer's students adapted similar Constructivist-inspired articulations for their own projects. Hans Vogler, a Building Department student, designed a single family residence for a doctor in 1928 [Fig. 122] (Built in Mayen, Rhineland, 1928) The residence recalls many aspects of the ABC approach. Vogler divided the house into two sections which bisect on the right angle. The house's staircase and the corridor which links its upper rooms are externalized and presented in a non-decorative, ulitarian fashion. To further imply an externalization of functions and structure, the upper story terrace is presented as a room whose walls are removed leaving only framing members.

Another Bauhaus student project by Ernst Gohl, reflects similar ABC antecedents. In 1928, Gohl designed "Project for a School with 8 Classes" (Project 1928)[Fig. 123], which, like the German Trade Union School, separates school functions into serial repetitive pavillions. Gohl's plan, however, is rectilinear and emphasizes a unique circulatory system. The circulation system is presented as a large scale grid of linked bridges and corridors supported by a visible system of piloti. For maximal effect, the grid breaks into an angled curve near the main entrance in order to distinguish that part of the network. Thus, the circulatory

network is clearly the school's most distinguishing and unique feature.

The "Project for a School with 36 Classes" [Fig. 124] (Project 1929) by the Students of the Bauhaus Building Department, diffracts a school's functions in yet another fashion. Rather than to place functions in distinct pavillions, this project contains them all within a single building. However, in order to emphasize their separation, they are designed in stepped ziggurat formation with each room externally delineated. Rooms are connected by an externalized glass enclosed staircase which rises from both sides of the building to the roof. This staircase serves to link and unify the structure. The manner in which the stairs ascend along the sides of the large scale bloc recalls the stairways of one of the outstanding European Constructivist works of this period, the Peterschool.

While these Bauhaus projects cannot be deemed as outstanding examples of the ABC style, their mere existence proves an important contention, that is; that the ABC style was an international one, and one which could be applied by architects anywhere in the civilized world for an international constituency. The German designs prove that the parameters of ABC's influence were broader than any the Swiss magazine had indicated the projects published in ABC were designed only by ABC affiliates. Its practitioners were truly international. ABC's founders had succeeded in their quest.

CONCLUSION

THE PLACE OF ABC IN MODERN ARCHITECTURE

In 1928 the ABC era ended. The effort which had commenced with enthusiastic optimism terminated on a pessimistic note. ABC's founders believed that they had failed to fulfill the goals delineated in their 1924 manifesto. That early document had called for the adoption of Socialist inspired planning policies and the widespread institution of a building style which relied on Constructivist precedent. ABC's members had hoped that the adoption of both programmes would promote social, economic and political change that were in accordance with Communist ideology. In spite of their noble aspirations, the ABC group was unable to effect the desired changes on any recognizable scale.

Disappointed by ABC's lack of success the members resolved to disband and cease publication of their magazine. The final issue of ABC - Beitrage Zum Bauen appeared after the spring of 1928.[1] Soon afterward, several former members migrated to nations where Socialist or Communist

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1 The issue had to appear after February of 1928 because it included Stam's Hofplein project. The Hofplein was officially presented on February 16, 1928.
See Oorthuys, Mart Stam, p. 9.

regimes were already in place. In these leftist environments, they adapted their particular goals to extant planning and architectural policies which shared common denominators with ABC's program. Moser and Stam joined Ernst May in Frankfurt-Am-Main (Germany) in 1928.[2] In Social-Democratic Frankfurt, Stam participated in the design of the Hellerhof (1929-1931) housing estate which was established along lines of function and socialistic planning.[3] In 1930, Stam travelled to the U.S.S.R. where Schmidt and Meyer soon joined him. Between 1930 and 1936, the three men accepted positions as planners and architects within the Soviet Union. Schmidt and Stam joined those teams which drafted the plans for the cities of Magnitogorsk (1930-1931), Makeyevka (1932-1933) and Orsk (1933-1934).[4] Meyer designed the Lenin School in Moscow (1930), and schools and factories in Giprovtus (1930-1934). He also collaborated on plans for the cities of Nishny-Kurinsk (1932), Sozgorod Gorki (1932) and Birobidjan (1933-1934).[5]

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2 Artaria and Roth went on to form a part of the team which designed Zurich's progressive Neubuhl housing estate between 1930-1032. See Alfred Roth, The New Architecture, pp. 71-90. Wittwer entered private practice.

3 For plans and a discussion of Stam's Hellerhof design, see Oorthuys, pp. 16-17.

4 Oorthuys, pp. 24-29.

5 Schnaidt, Hannes Meyer, pp. 61-75.

Roth, Artaria and Wittwer pursued careers in Switzerland after 1928, and in 1929 Werner Moser returned to his family's practice in Zurich.

The members were far too hasty in their deprecation of the ABC effort. Although ABC had been unable to institute major architectural and socio-political changes, it had nonetheless made a significant contribution. The group and the periodical had jointly added a noteworthy chapter to the history of the modern movement. ABC's published, unpublished, built and unbuilt projects, documented the development of an international Constructivist architecture by a European group between 1922 and 1929.[6] The works

6 Many non-Soviet constructivist designs were not inspired by ABC and this paper does not intend to infer that the development of international Constructivism was limited solely to the efforts of the ABC group. Works by non ABC architects in such nations as Germany, Hungary and Poland indicated definite Constructivist tendencies between 1919 and 1930. A 1919 "Architekturentwurf" by the Hungarian architect Jozsef Fischer proved that Constructivism had already found a small base in that country while Ludwig Hilbersheimer's "Skyscraper City" (1922) and Heinz and Bodo Rasch's "Hangenhauser" project (1927-1928) illustrated German versions of this international development. Such projects as Teresa Zarnower and Mieczyslaw Szczuka's "Dzwignia" (1927) and Bodhan Lachert and Jozef Szanajca's "Villa" project (1926) proved that Constructivism had been adapted by members of the Blok group in Poland as well. ABC, however, differed from the above efforts in that it was the first international group to promote the style on a broad multinational scale. Fischer's project appears in Istvan Schlegl Ungarische Avantgarde, Zurich, 1975, (no. pp.). The Rasch brothers "Hangenhauser" is detailed in Heinrich Klotz, Vision der Moderne, Munich, 1986, pp. 224-230. Hilbersheimer's design is reviewed in Neuen Nationalgalerie, Berlin, Tendenzender Zwangziger Jahre, Berlin, 1977, pp. 2-98. The Polish "Dzwignia" and "Villa" projects appear in Hieronim Listowski, The Polish Avante Garde, Brussels, 1981, p. 148 and pp. 152-153 respectively.

they promoted proved that Constructivism, which had originated in the Soviet Union, had evolved into an international movement which expanded the territorial and stylistic parameters of the Russian style. By developing Constructivist prototypes for Holland, Czechoslovakia, Switzerland, Mexico, Russia, Germany and the U.S.A., ABC's architects demonstrated that the style lent itself to adoption in diverse geographical and social climates. Furthermore, the group's distinct version of the style also proved that Constructivism was a multi-dimensional approach suited to both restrained pragmatic interpretations as well as to utopian visions.

While the individual works of Meyer, Stam, Schmidt,

Wittwer, Moser, Roth and Artaria attested to the group's development of a specific international idiom, they were not equally expressive of Constructivist affiliation. Such projects as the Meyer-Wittwer Peterschool and League of Nations, Stam's Rokin and Dam, Schmidt's Watertower and the Stam-Roth Wolkenbugel manifested a dynamism of outstanding proportion. On the other hand, numerous group designs which included Stam's Watertower and the Moser-Stam Budge Home were characterized by a subdued restraint which nearly masked their Constructivist intent. However, the major importance of ABC did not lie in its individual contributions, but rather in its collective impact and in the legacy it deeded after 1928.

Although ABC failed to inspire a major pro Constructivist movement, ABC's advocations did attain a noteworthy degree of longevity after the group disbanded. Despite the demise of the ABC network, the former members continued to draft designs which reiterated ABC's planning and design principles, thereby assuring ABC Constructivism a place within the modern movement throughout the early and middle 1930's. These designs ranged from theoretical proposals for the U.S.S.R. and Holland to significant schemes for Germany and Switzerland which proved that the ABC legacy was viable and capable of shaping important developments within the larger parameters of modernism.

After 1930 ABC's town planning and style related principles resurfaced in the U.S.S.R. via the efforts of

Hannes Meyer, Mart Stam and Hans Schmidt. Examples of their Soviet oeuvre illustrate the ongoing evolution of the approach they had formulated during an earlier and more optimistic time. Although these works were never realized they do attest to the international applicability of the ABC program.[7]

In 1932 Hannes Meyer acted as chief project designer for the model town, "Nishniy-Kurinsk" [Fig. 125] in Russia's Perm region. In accordance with ABC precedent, Meyer's plan calls for two major production centers on one side of the town, a central recreational zone and five residential districts on the opposite side of Nishniy-Kurinsk. His functional approach to planning emphasizes the necessity of a well organized traffic plan which includes a figure 8 shaped road network that links the various zones. The town's roads also radiate into the hilly environs which are designated as public parkland.[8]

A similar approach to urban planning is evident in the plan for Orsk [Fig. 126], a city in the Urals for 100,000 residents which was drafted by Mart Stam and Hans Schmidt in

7 It should be noted that ABC's planning principles were originally inspired by the treatises of Engels and were therefore in accordance with Soviet planning principles. See Part I, Chapter 2 of this dissertation.

8 See Schnaidt, pp. 66-67 for a discussion of the plan.

1934.[9] Here the architects site the city around a central stream, placing a production zone on one bank and a residential quarter on the other. To the left of this area is a large green belt and an adjacent district which houses recreational and municipal facilities. A logical grid of roads connects Orsk's divergent districts.

In addition to the town scheme, the former ABC members, in association with Lotte Stam-Beese (Stam's second wife) developed a series of municipal and residential prototypes for Orsk. A school project [Fig. 127] proves that earlier ABC models influenced this design since diffraction governs the total plan. This school is not a single edifice but rather a compound of functions which are housed within repetitious serial buildings in step like progression. Linking these pavillions is an exterior circulatory corridor which spans the length of the entire complex. Orsk's residential quarter [Fig. 128] follows a serial format as

9 The plan under discussion was jointly conceived by Schmidt and Stam in accordance with ABC precedent. The Russians criticized it for its lack of a central district. Schmidt later revised the plan to suit the Soviet authorities. According to Oorthuys, Schmidt's scheme was later realized (no year is indicated in his text). See Oorthuys, p. 28.

well and recalls the linked perimeter blocs of Stam's Am Knie project [Fig 68].[10]

In the U.S.S.R. Stam and Meyer also designed individual buildings which reaffirmed ABC's distinct Constructivist bias. For example, Stam's proposal for an Open Air theater in the Urals (1931) [Fig. 129] is characterized by dematerialization and externalization. Again, this is not a single self-enclosed building but rather an agglomeration of individual parts which are realized individually. The stage is a complex of three connected pavillions that are sited on a right angle, apart from the large seating area which is situated within a taller enclosure whose main circulation system is placed outside of its walls. Towering flagpoles counter the horizontal thrust of the main complex, thereby lending a dramatic presence to this scheme.[11]

A project by Hannes Meyer for a Moscow savings bank (1931-1932) [Fig. 130] proves that this architect continued to refine the powerful Constructivist idiom he had developed with Hans Wittwer after the breakup of their partnership.[12]

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10 See Oorthuys, p. 29 for a review of the Orsk buildings.

11 See Oorthuys for an English description of this project. The original text appears in De 8 en Oupbow, No. 9, 1938, pp. 65 and No. 10, 1939, p. 49.

12 Meyer planned the scheme in collaboration with Geimanson, a town planner and Bucking, an architect. Schnaidt presents an English translation of Meyer's evaluation of this project in Hannes Meyer, pp. 61-65.

The axonometric view of this work illustrates Meyer's adherence to a popular ABC format which Werner Moser had employed in the Pearconstreet project [Fig 92], namely, the long horizontal main bloc flanked by a series of right angled wings. Here the wings alternate in a bilevel arrangement of low rise shed roof structures and high rise buildings whose jagged contours echo the peaks of the shed roofs. Distinguishing the high rise portions are prominent stairtowers whose overall transparency underscores a Constructivist intent, and enormous billboards which further attest to Meyer's adoption of another popular Constructivist element.

Stam's ABC inspired career did not end in the Soviet Union. In 1934 he returned to the Netherlands and several years later produced one of his finest works, a competition entry for the Town Hall of Amsterdam (1937) [Fig. 131] in which many ABC ideas saw fruition.[13] Like such predecessors as the Cornavim Station [Fig. 8], this project is treated as a volumetric compound of functions which are arranged within a right angled format of inter penetrating pavillions. In keeping with Cornavim precedent, Stam uses portal frame construction throughout and externalizes the frames on the

13 Stam collaborated on this design with W. van Tijen, Lotte Beese and H.A. Maaskaut. It appeared in De 8 en Opbouw No. 11, 1940, pp. 76-80.

loggia and entry portions of the lower pavillions. To further emphasize the externalization of structure and circulatory elements, Stam encloses the entire taller bloc within a cage of horizontal and vertical supports which form a network of exterior corridors. The lightweight, tensile quality they lend to this Town Hall proposal is underscored by a stylistic motif that Stam employed in his Rokin and Dam project [Fig. 84]. There, he cantilevered the bulk of the taller bloc over a low rise section while a series of columns visibly supported the upper section. Here, in a similar fashion, a series of triangular supports, three abreast support the upper structure, thereby imparting a floating quality to this expansive composition.

While the above projects proved that versions of ABC approach continued to appear after 1928, these unrealized works did not illustrate the true parameter of ABC's legacy. ABC's contribution to the modern movement did not merely consist of theoretical Constructivist visions, but rather of a larger pragmatic legacy whose stylistic and ideological principles inspired CIAM's program (1928) the Neubuhl Colony (1930-1932) and a host of significant buildings. Additionally, ABC also influenced a group of architects outside the immediate ABC circle, namely Max Haefeli, Rudolf Steiner, Carl Hubacher and Marcel Breuer to adopt aspects of the ABC style, thereby generating a sphere of Constructivist oriented influence which enriched distinct spectrums of the modern movement.

In 1928, the year of ABC's demise, CIAM, the Congres Internationaux d' Architecture Moderne (The International Congress for Modern Architecture) was founded in La Sarraz, Switzerland.[14] Following the example of the earlier Weissenhof Siedlung (1927) CIAM intended to function as a collective of international architects who sought to promote developments in modern architecture and planning on an international basis. Unlike the Weissenhof effort, CIAM did not intend to establish a singular model colony. Instead it elected to draft a charter which would delineate long range proposals that would have a more lasting impact on the evolving modern movement. ABC's ideals determined specific aspects of this important charter.

ABC's influential role at the CIAM conference was the result of ABC's growing strength within architectural circles. CIAM's membership was large and not representative of any singular ideological position. Among the notables who joined in June of 1928 were H.P. Berlage, V. Bourgeois, P. Chareau, J. Frank, G. Guevrekian, H. Haaring, H . Hoste, Le

14 CIAM was formed in 1928 and continued to function through 1956. See Gubler, Nationalisme et Internationalisme for a review of CIAM's formation, pp. 145-161. Martin Steinmann in CIAM, Dokumente 1928-1939, Basel, 1979, Chronicles CIAM's activities through 1939. Kenneth Frampton in Modern Architecture, A Critical History, discusses the activities of the organization through 1956. See pp. 269-272.

Corbusier, P. Jeanneret, A. Lurcat, A.G. Mercadal, E.C. Rava, G. Rietveld, A. Sartoris, H.R. von der Muhll and Juan de Zavala (acting as representatives of Holland, Belgium, Germany, France, Spain, Italy and Switzerland). In addition to these architects, CIAM attracted ABC's most outspoken members, namely Hannes Meyer, Mart Stam, Hans Schmidt, Paul Artaria and Werner Moser as well as Rudolf Steiger and Max Haefeli, two Zurich friends who had attended the 1922 Beilersee meeting, and Ernst May, Stam's friend from Frankfurt am Mein.[15] Karl Moser, the ABC mentor, was elected president of the conference.

Under Moser's guidance the above members joined ranks to draft the CIAM charter. At the charter meetings divergent opinions were voiced and several proposals were announced. These ranged from Le Corbusier's call for the adoption of his five points to Hans Schmidt's insistance on a more radical

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15 El Lissitzky was invited to attend, but the Swiss government would not grant him a visa. See Gubler, p. 148.

Although Emil Roth did not officially join CIAM, he retained a strong interest in CIRPAC, a committee which researched topics of interest for the Congress, according to a 1978 interview between the author and Emil Roth in Zurich. Numerous documents on CIRPAC were found among Mr. Roth's papers in 1978.

Paul Artaria joined CIAM, however did not sign the CIAM declaration. See Gubler, p. 149.

platform which reiterated the ideals set forth in "Wirtschafliches Bauen", which had appeared in ABC's final issue.[16] ABC's members, Haefeli, Steiger and May vociferously supported Schmidt's position.

Schmidt's presentation was part of a premeditated ABC effort to guide the CIAM platform in a direction which reflected the group's distinct position. As early as April 27, 1928, two months prior to the La Sarraz meeting, Schmidt forwarded a letter to Karl Moser which stated that Schmidt and fellow Dutch and Swiss architects jointly advocated a radical "propaganda" oriented position.[17] Later, at the conference, the so-called "Swiss and Dutch architects," namely the former ABC nucleus, openly insisted that Schmidt's ideological program be adopted by the entire CIAM assembly. They threatened to withdraw their active support of the organization and serve as little more than "guests" if

16 See "Wirtschafliches Bauen" ("Economical Building") in ABC, Series 2, No. 4, 1927-1928, pp. 2-3.
Martin Steinmann in CIAM Dokumente 1928-1939 describes the proceedings at CIAM inaugural meetings, see pp. 22-25.

17 See Steinmann, p. 15.
The cited letter states: "Bien que les discussions entre les groupes de jeunes architectes en Suisse et en Hollande aient, donne un resultat peu favorable a un Congres qui vise plu tot une demonstration propagandiste ..."

Schmidt's stance was not favored over more popular estabishment oriented positions.[18]

The campaign of the ABC members ultimately succeeded and the ensuing "La Sarraz Declaration" clearly reflected their stance. The declaration asserted that architecture was not a function of style or establishment requisites, but rather the product of technological innovation, standardization, production, functional town planning, economic considerations and a state supported system of new social policies. It pronounced:

> The idea of modern architecture includes the link between the phenomenon of architecture and that of the general economic system.
>
> The idea of "economic efficiency does not imply production furnishing maximum commercial profit, but production demanding a minimum working effort.
>
> The most efficient method of production is that which arises from rationalization and standardization. Rationalization and standardization act directly on working methods both in modern architecture (conceptive) and in the building industry (realization).
>
> Town planning is the organization of the functions of collective life; it extends over both the urban agglomerations and the countryside. Town planning is the organization of life in all regions. Urbanization

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18 Sigfried Gideon described the events of CIAM in "Internationale Vereinigung des Neues Bauens" Schweizerische Bauzeitung, Vol. 92, 1928, pp. 47-48.

While Schmidt had openly admired Le Corbusier prior to 1928, at CIAM he and the French architect found themselves at opposite ideological poles. See Gubler, p. 153.

> cannot be conditioned by the claimes of a pre-existent aestheticism: its essence is of a functional order.
>
> This order includes three functions: (a) dwelling, (b) producing, (c) relaxation (the maintenance of the species). It's essential objects are: (a) division of the soil, (b) organization of traffic, (c) legislation.
>
> Modern architects having the firm intention of working according to the new principles can only regard the official academics and their methods bending toward aestheticism and formalism as institutions standing in the way of progress.
>
> Architecture's new attitude, according to which it aims of its own volition to resituate itself within economic reality, renders all claim to official patronage superfluous.
>
> If states were to adopt an attitude opposite to their present one they would bring about a veritable architectural renaissance that would take its place quite naturally within the general orientation of the country's economic and social development.[19]

In 1930 Hans Schmidt, Paul Artaria, Werner Moser, Emil Roth and their Zurich colleagues Max Haefeli, Rudolf Steiger and Carl Hubacher went on to prove that points of CIAM's declaration, points which ABC had championed years earlier, could be realized in a most successful manner. Between 1930 and 1932 the group designed the "Neubuhl" Siedlung (garden city development) three miles outside of Zurich under the sponsorship of the Swiss Werkbund [Figs. 132,133]. Neubuhl proved to be a housing prototype which synthesized ideological and stylistic values within a truly feasible scheme. It advocated a cooperative system of ownership, standardized housing types and a functional planning scheme

19 The excerpts noted in this English translation appear in Ulrich Conrads Programs and Manifestoes, pp. 109-112.

which sought to accommodate traffic patterns, land contours and maximal exposure to light and air.[20]

While Neubuhl was designed by a team which had initially joined ranks at La Sarraz, it's plan clearly recalled principles ABC - Beitrage Zum Bauen had delineated between 1924 and 1928. For example, in 1925, ABC had featured "Gelande und Bebaung am Zurichsee" [Figs. 19,20] by Emil Roth, an article which described a hypothetical housing development sited on the banks of the Zuirchsee (Zurich's main lake).[21] Roth there specified rows of attached houses which ascended the Zurichsee's banks in stepped formation parallel to the lake and in accordance with the contours of the mountaineous terrain. The architect believed that this scheme permitted maximal exposure to light and unobstructed views of the Zurichsee. Roth stipulated that the houses conform to several standardized housing types whose floor plans addressed essential needs in a compact and pragmatic manner. ABC's scheme also discussed the project's relationship to Zurich's extant traffic plan and called for a

20 For a review of the history of Neubuhl and its significant prototypes, see Alfred Roth, The New Architecture, Zurich 1975, pp. 71-90.

21 Emil Roth "Gelande und Bebaung am Zurichsee" ("Terrain and Building by the Zurichsee"), ABC, Series I, No. 5, 1925, pp. 1-2.

system of roads, at right angles to the housing rows, which joined the city's existing arteries and it's tram lines.

Neubuhl's plan follows many of Roth's earlier guidelines. The Neubuhl colony is sited outside of Zurich on the west shore of Zurich's lake and it's houses ascended the slopes in stepped rows at right angles to a network of streets which feed into Zurich's road network. Floor plans are standardized and range from one to six room formats which emphasize essential living and family spaces and minimize such service spaces as corridors, staircases and kitchens.[22] [Fig. 134]

ABC's egalitarian bias may have influenced aspects of Neubuhl's charter as well. ABC advocated improved mass housing for the working classes.[23] Neubuhl, however, was not intended as a low income project as the prohibitive cost of its land required a middle income clientelle. Nonetheless, the project was organized along elgalitarian lines in the form of a co-operative venture in which tenants owned shares and in which all recreational and educational facilities were comunally owned and operated.

Stylistically, Neubuhl also points to earlier examples, particularly to Hans Schmidt's earlier work. In 1928, ABC published "Technische und Wirtschafliche Resultate eines

22 Alfred Roth, The New Architecture, p. 75.
23 See "Die Menschen Sind (mehr menschen sind) Die Masse Geworden", ABC, Series II, No. 3, 1926, pp. 1-2.

Wohnhausbaues (1927)"[24] by Schmidt which described the construction of the Colnaghi house in Basel. Schmidt's article detailed a constructional system which featured a steel skeleton and exterior walls of concrete bloc sheathed in an outer layer of concrete. The Neubuhl houses employ a similar system of clad concrete bloc construction.[25] The Colnaghi house also exemplified Schmidt's architectural approach, one which relied on large interconnecting volumes punctuated by bands of horizontal ribbon windows, vertical glass doors and such external spaces as balconies, roof terraces and open circulatory areas . Neubuhl's 195 housing units reflect similar stylistic tendencies. The colony's various prototypes adhere to a format which emphasizes planar undecorated volumes characterized by large expanses of standardized ribbon windows, horizontal terraces and glass doors which open to either a terrace or a garden and separate stairwells.[26]

In addition to Neubuhl, a series of other designs attested to the successful afterlife of ABC's approach.

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24 Hans Schmidt, "Technische und Wirtschafliche Resultate eines Wohnhausbaues (1927)" ("Technical and Economical FActors of a Residence 1927"), ABC, Series II, No. 4, 1927-28, p. 9.

25 See Roth, The New Architecture, pp. 78-80.

26 Roth, The New Architecture. See the PQ type on page 85 for a prototype with a separate stairtower.

These were largely executed by those former members who did not migrate to the Soviet Union and their new affiliates. Werner Moser was among those members who established themselves as rising Zurich architects after 1928. Between 1929 and 1930 Moser drew the plans for the Villa Hagmann which was built in Zurich in 1930 [Fig. 135].[27] While this design lacks the dynamism of Meyer's work or the subtle intricacies of Stam's projects, it nonetheless recalls distinct ABC tendencies. The Villa Hagmann's plan is characterized by a dispersion of function within a dynamic plan of linked right angles which ascend a hilly slope in three steps. The stepped roofs act as open terraces or living areas, as do the pier enclosed patios on ground levels. Externalization is further enhanced by a network of narrow porches which create outdoor corridors and open staircases which lead to various levels. These elements, despite their tame regularity, lend a distinct constructivist air to Moser's independent effort.

Moser expanded on the above approach in 1932 in a competition entry for the Student Union building at the University of Basel [Fig. 136].[28] Here the architect again

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27 The Villa Hagmann is discussed in Margit Staber Um 1930 in Zurich, Zurich, 1977, pp. 120-127.

28 See Werner Moser "Wettbewerbentwurf fur das Kollegiengebaude der Universitat Basel 1932", Weiterbauen, No. 5, January 1936, pp. 1-3.

resorts to a dynamic Constructivist inspired plan which relies on joined right angles. The building is essentially a familiar compound of glass enclosed pavillions which are encircled by large outdoor corridors, ramps, and prominent staircases. Predominantly glass walls elucidate interior function and the structural system, Stam's much preferred portal frame system. Not only does Moser use the portal frame system throughout the interior, but in a fashion which recalls Stam's Cornavim entry [Fig. 8], extends the frames to the open areas of the ground level.

The oeuvre of the ABC colleagues certainly established a precedent for Max Haefeli, who ultimately joined forces with the ABC faction at La Sarraz. A 1928 competition entry for Zurich's Rotachhauser [Fig. 137], which were built in that year illustrates the extent of ABC's influence on his approach.[29] Several architects entered this competition and both Wilhelm Kienze [Fig. 138] and Hans Hoffman presented the project as a singular high rise building while Haefeli resorted to a pre established ABC formula.[30] Since the Rotachhauser were to be built on a slope Haefeli calls for a row of stepped adjacent townhouses which are not presented as

29 See Um 1930 in Zurich, pp. 94-104 for photographs of the various Rotachhauser competition entries, for the plan of the Haefeli entry, and for the built Haefeli project.
30 See Emil Roth "Gelande und Bebaung am Zurichsee", ABC, Series I, No. 5, 1925, pp. 1-2.

singular buildings but as three tiered volumes crowned by rooftop balconies. Also evident throughout the plans is Haefeli's consistent use of the portal frame, which he openly displays on the open lower level of each unit.

Between 1931 and 1934 Haefeli designed two houses which were built in the Goldbach district near Zurich and which attests to his continued development of ABC's distinct idiom.[31] Both houses, (House K, 1931-1932 and House B, 1933-1934)[Fig. 139, Fig. 140] employ right angled plans and a tiered format of stacked multi level interpenetrating volumes. These are encircled on all levels by networks of terraces, open corridors and exposed stairways which link not only interior rooms but some levels as well. The facades also demonstrate an interest in standardization, since the south facade of house K, for example, is characterized by singular window and glass door types. These villas, like Hans Schmidt's earlier Basel villas, prove that despite ABC's ideological Communist bias, ABC's architectural approach was essentially flexible, ultimately lending itself to a diverse range of buildings which included municipal structures, low income housing and expensive villas.

Rudolf Steinger and Carl Hubacher's oeuvre of the early 1930's also reflected the influence of ABC. Steiger had been a periperal ABC member since 1922 and his "Wohnhaus in

31 See Alfred Roth, "Zweilandhauser", The New Architecture, pp. 33-46.

Riehen" (Basel) (1924) [Fig. 141] was the only Swiss non group design to appear in ABC. His project (done in association with Flora Steiger-Crawford) of a half timber, half concrete country house with an external circulatory section was there shown alongside a half timber Schmidt design, "Wohnhaus im Schlipf bei Basel" (1924) [Fig. 141].[32] In 1934, Steiger and Hubacher jointly designed the "Teehaus" [Fig. 142] which was built outside of Zurich (1934). Like the earlier Riehen house, this half timber, half concrete, non urban building echoes ABC ideals in its diffraction of functions, into distinct volumes that are clad in different materials, and in its exposure of the staircase which joins their volumes.[33]

One year later Steiger and Werner Moser designed another wooden vacation house, the "Holzhaus" ("Woodhouse") (1935) [Fig. 143]. This project defers to ABC precedent in its extreme emphasis on structural members. Exposed vertical and horizontal supports (perhaps the rustic equivalents of the portal frame) overwhelm this otherwise simple and understated

32 See Hans Schmidt "Wohnhaus im Schlipf bei Basel, 1924" and Flora Steiger-Crawford "Wohnhaus in Riehen bei Basel 1924" in ABC, Series I, No. 5, 1925.
33 See Jean Bingesser, "Die Tradition des Neuen Bauens", Weiterbauen 1934-1936 Weiter, Zurich, 1977, page xvii.

house in the self-conscious manner common to ABC followers.[34]

The strongest exponents of post ABC Constructivism were two built works which translated elements of the ABC format into oustanding examples of municipal and residential design. Two villas built in the Doldertal section of Zurich [Figs. 144 and 145] (1935-1936) by Emil Roth, his cousin Alfred Roth, and Marcel Breuer are original and masterful interpretations of a format Hans Schmidt established when he modified Le Corbusier's approach to suit his Constructivist sensibility.[35] These houses echo a Corbusian aesthetic in their emphasis on rectilinear volumes that are raised on piloti and in their total use of roof space. However, like Schmidt's Schaeffer and Colnaghi houses [Figs. 11, 111] the Doldertal villas move beyond Le Corbusier's self contained placidity and do not attempt to emulate such monuments as the Villa Savoye, a serene singular volume. Instead they seek to destroy equilibrium by employing a right angled plan which is sited on an angle. And, they emphasize openess with an insistence on externalization that is underscored by tiers of open areas which include patios, terraces and an open roof. The third floor and the roof are connected by yet another common ABC element, a skeletal ulitarian staircase which receives maximal exposure on the facade. The Doldertal

34 Ibid.
35 See Roth, The New Architecture, pp. 47-60.

villas also lack the precious quality which distinguished to Le Corbusier's one-of-a-kind buildings where each detail was presented as a unique form within a well balanced composition. In accordance with ABC's reliance on standardized parts, these Zurich buildings employ repetitious bands of windows and doors. Since these villas are virtually identical, they also lend credence to ABC's contention that modern buildings rely on standardized plans and models. Despite their uniformity and their lack of a diverse formal vocabulary these are, nonetheless, elegant structures whose strong features generate a dynamic impact.

While the Doldertal houses incorporate Constructivist related elements, they hardly served as striking examples of a true Constructivist style. This cannot be said of the singular built work which monumentalized ABC Constructivism after 1928, the Halle, Germany airport [Fig. 146, Fig. 147, Fig. 148] which Hans Wittwer designed between 1930 and 1931, and which was built in 1931.[36] Here many earlier ABC ideals are realized in a bold and highly ulitarian manner which skillfully merges function and the extravagances of Constructivism.

At Halle, Wittwer recalls the precedents of the 1926 Peterschool [Fig. 115, Fig. 116] and centralizes all

36 The Halle airport is discussed in "Flughaten Halle" in Bauwelt-Zeitschrift fur das Gesamte Bauwesen, No. 33, August 1931, pp. 26-28.

functions within a singular multilevel rectilinear structure. Standardization and transparancy characterize this large building as the facade is composed of repetitious, standardized panels and enormous expanses of glass. The overwhelming panes of glass allow for a total exposure of the interior functions and the structural system, a support system of slabs which rest on exposed mitered beams (recalling Stam's portal frames) that are ultimately externalized to form a structural cage. The Peterschool was distinguished by a singular Constructivist inspired feature, an oversized ramp suspended from tension cables. The Halle building relies on a similar, but more realistic element to enhance its presence. At Halle, a huge ramp and an adjacent horseshoe staircase rise in front of the main building, serving as the entry area and the central circulation core. The striking juxtaposition of this largely tensile element and the larger crystalline building results in an assertive and exemplary version of the ABC style.

The Halle airport and the numerous projects ABC inspired between 1922 and 1937 illustrate ABC's development and perpetuation of a specific international Constructivist idiom over two highly influential decades. The group's designs proved that Constructivism was not merely a Soviet based approach but rather a multi-national movement, whose distinct ideological and stylistic bias differed from Russian counterparts, thereby broadening the perspectives on one of

the most striking and complex movements in the history of modern architecture. ABC's outspoken stance and its dramatic oeuvre are critical to a complete understanding of international Constructivism and therefore merit due recognition for their dynamic contribution to the modern movement. Without a recognition of ABC's collective contribution, a definitive portrait of the modern movement cannot emerge.

ABC AND THE DEVELOPMENT OF AN INTERNATIONAL CONSTRUCTIVIST ARCHITECTURE

by

SIMA INGBERMAN

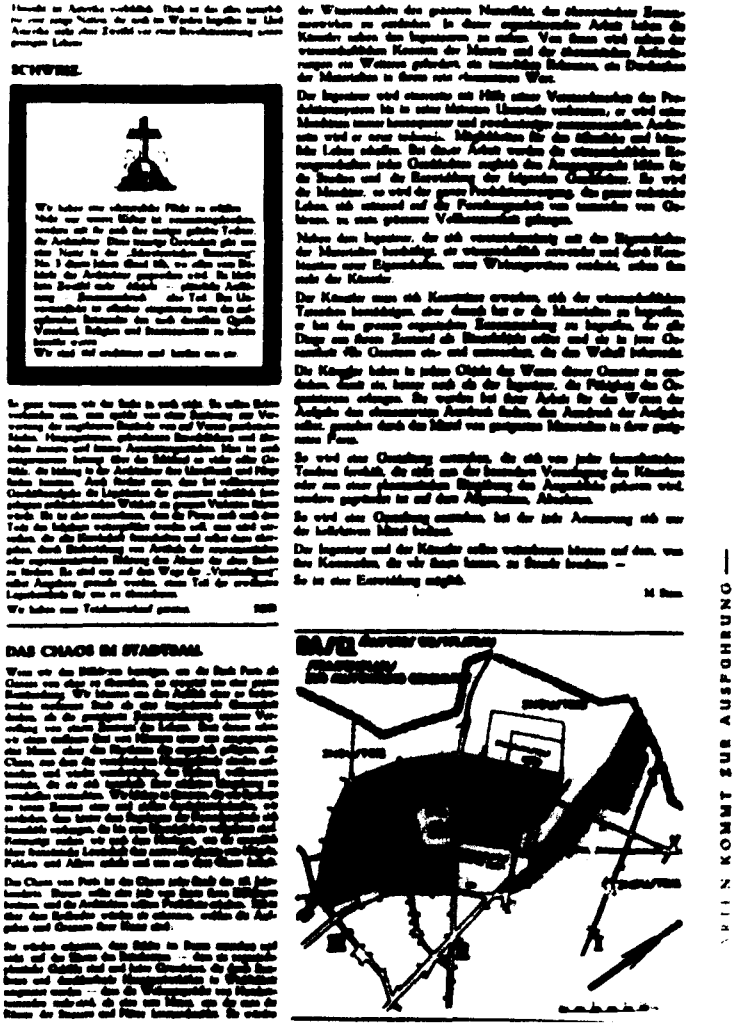
VOLUME II

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

1987

ILLUSTRATIONS

1. "Das Chaos in Stadtbau" by Hans Schmidt (Photo: ABC, Series I, No. 1, 1924, page 3).



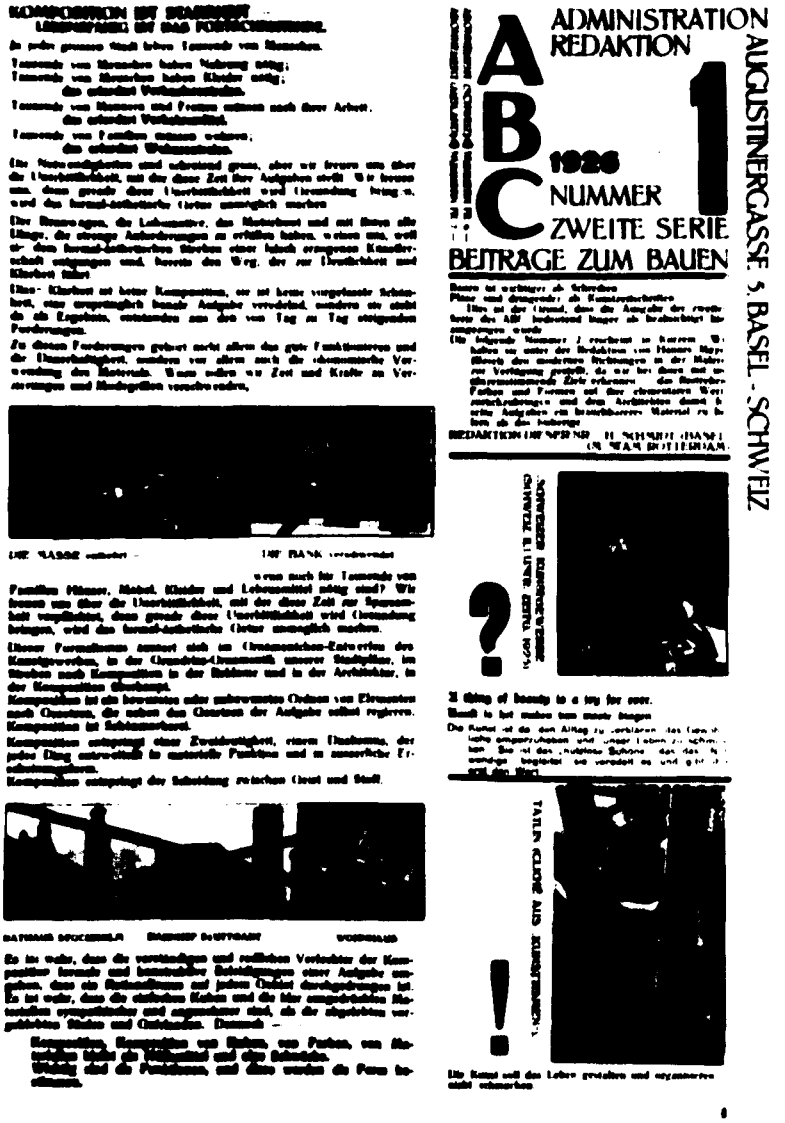
DAS CHAOS IN STADTBAU

SCHWEIZ

2. "Das Chaos in Stadtbau" by Hans Schmidt (Photo: ABC, Series I, No. 1, 1924, page 4).



3. "Komposition Ist Starrheit" (Photo: ABC, Series II, No. 1, 1926, p. 1).



KOMPOSITION IST STARRHEIT

ABC

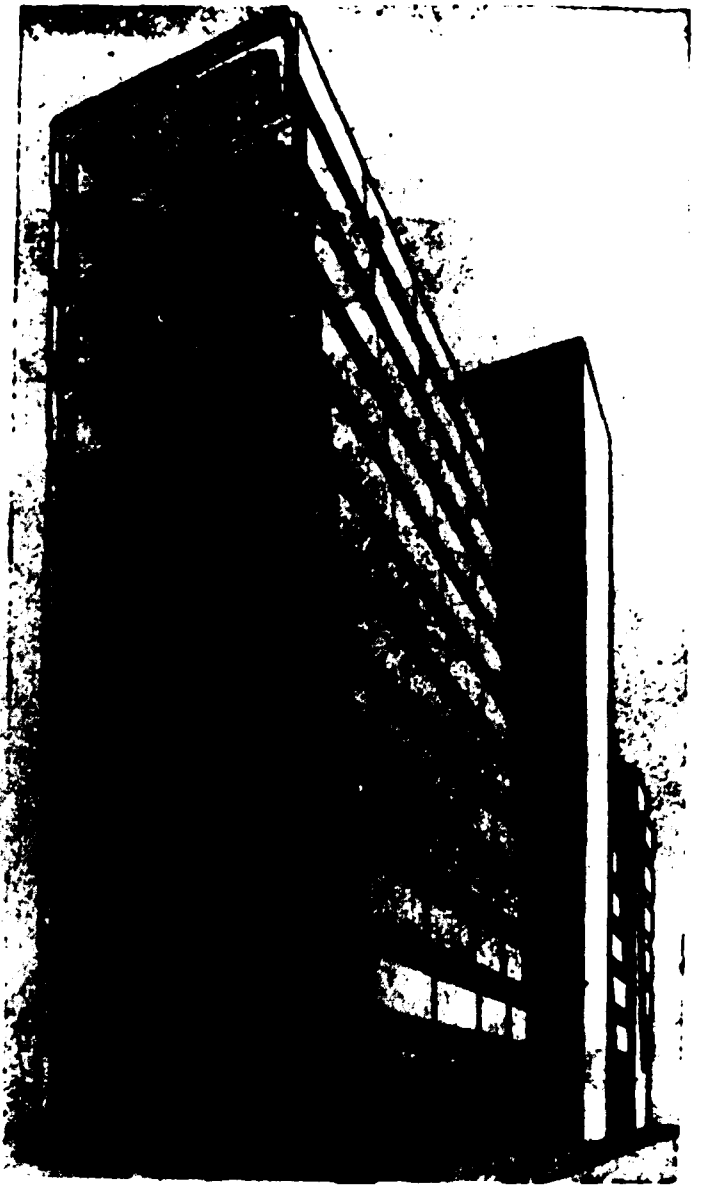
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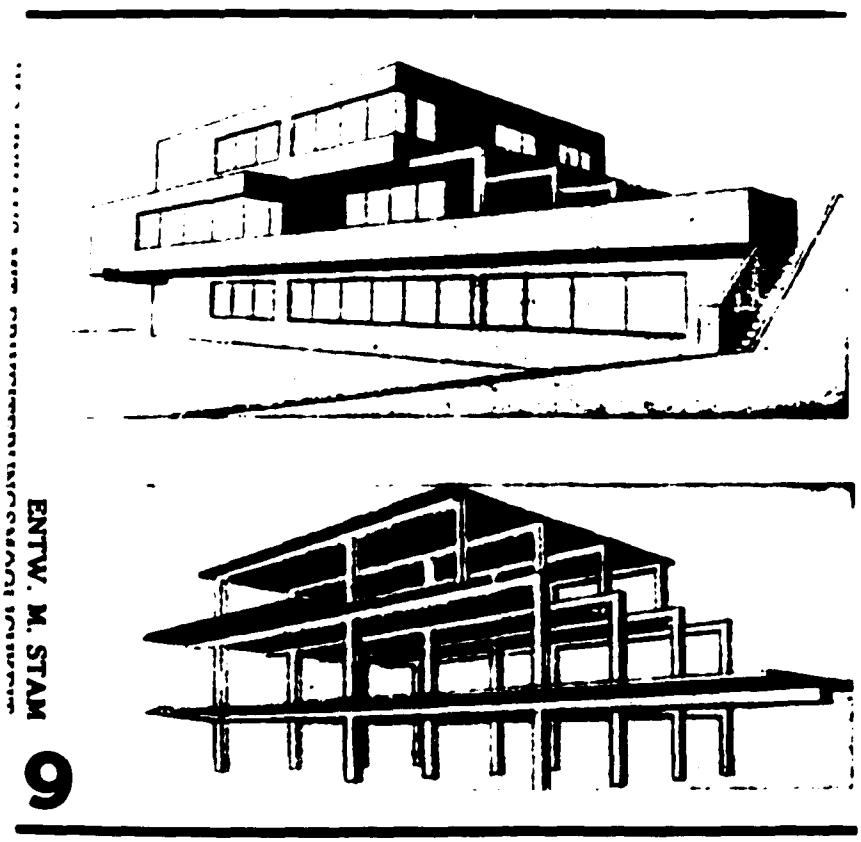
AUGUSTINERGASSE 9, BASEL - SCHWEIZ

4. Konigsberg Project by Mart Stam (1922) (Photo: ABC, Series I, No. 3/4, 1925, page 4).

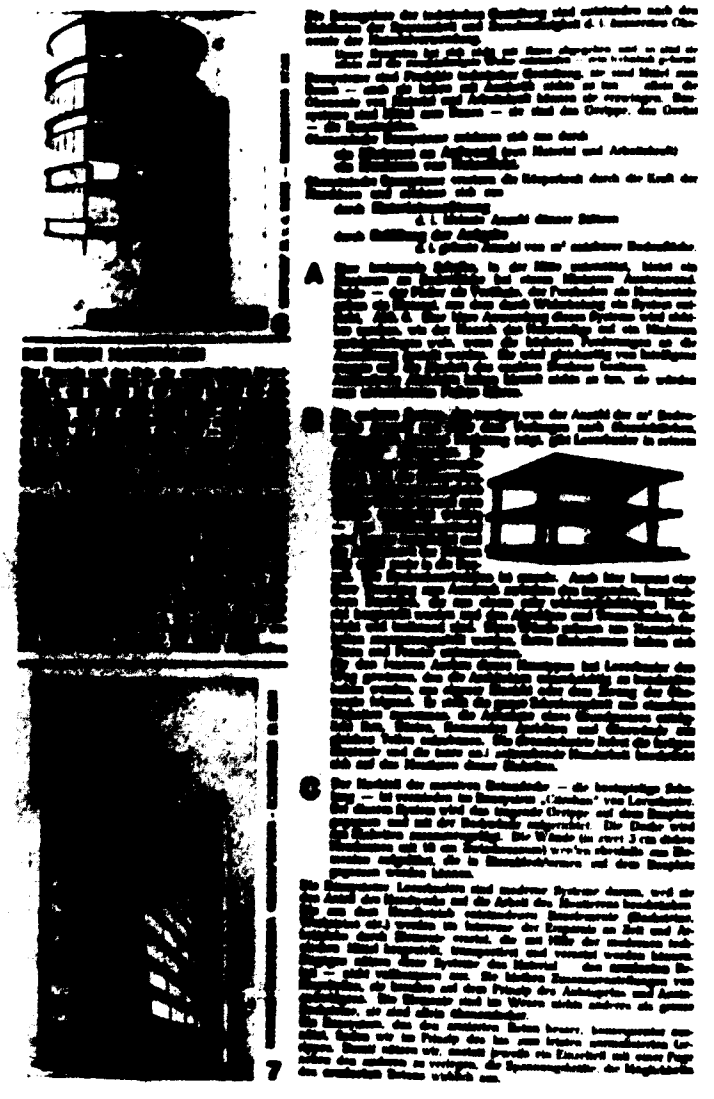


7 KONSTRUKTIONSSCHEMA GESCHAFTSHAUS - KONIGSBERG M. STAM

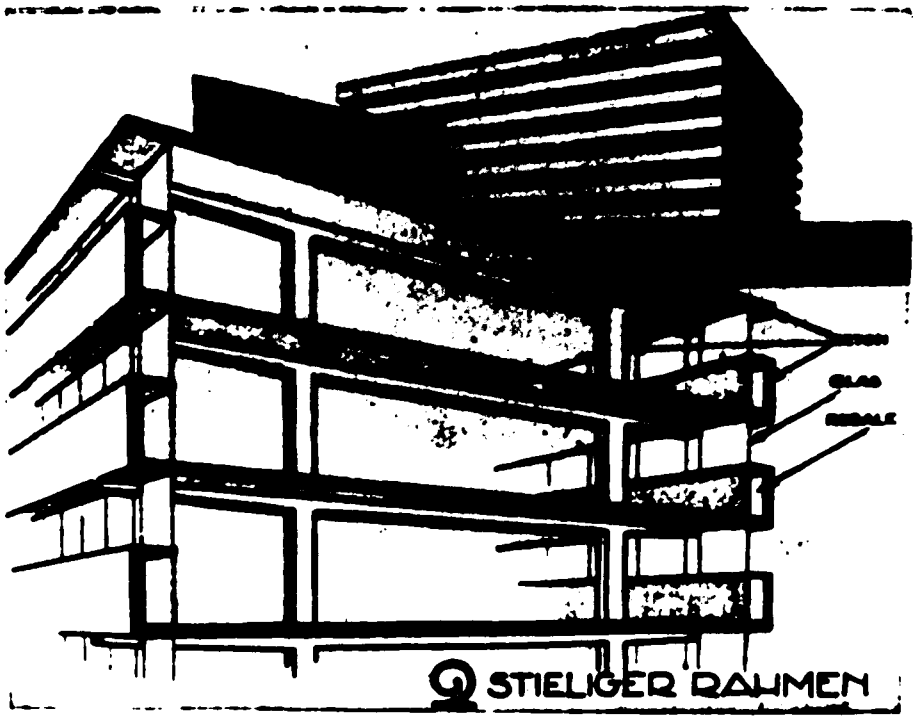
5. "Wohnhaus Mit Erweiterungs Moglichkeit" ("Expandable House") by Mart Stam (From: ABC, Series I, No. 3/4, 1925, page 5).



6. Page from ABC featuring the Stam version of Mies van der Rohe's Glass Skyscraper (1922). (Photo ABC, Series I, No. 3/4, 1925, page 4).



7. The Stam version of Mies van der Rohe's Concrete Office Building (1922). (Photo: ABC, Series I, No. 3/4, 1925, page 4).

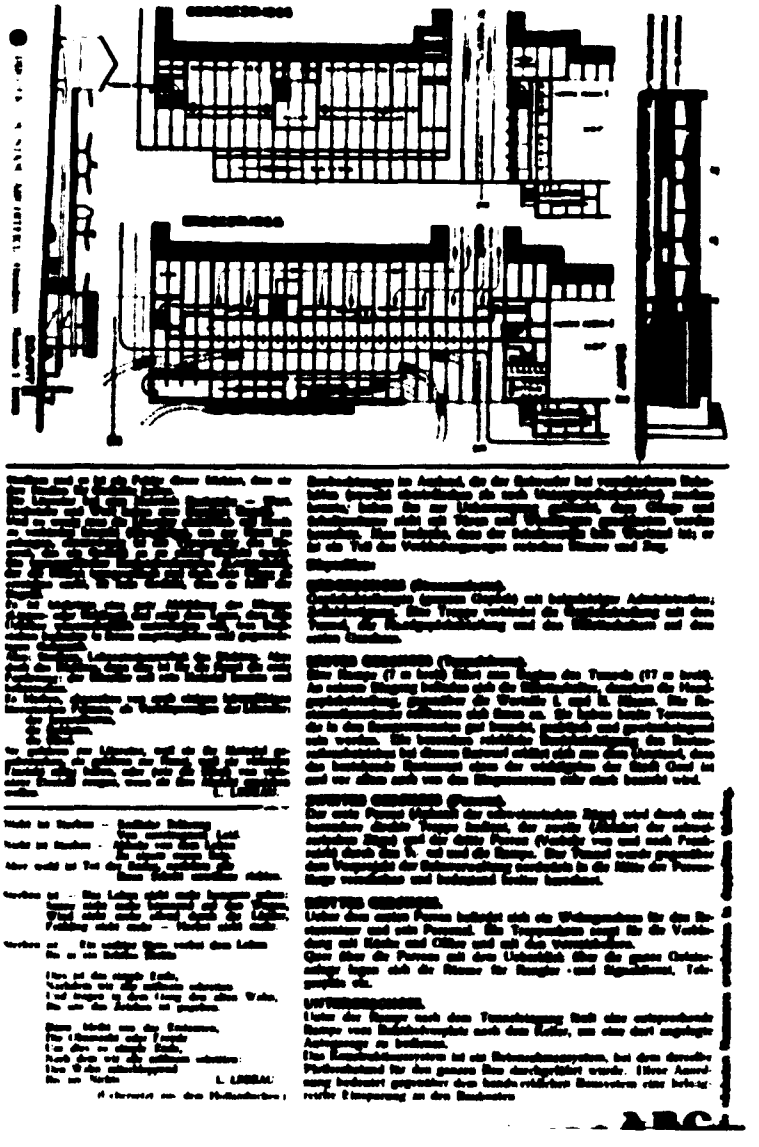


8 **ENTWURF M. v. d. ROHE — BEARB. STAM**

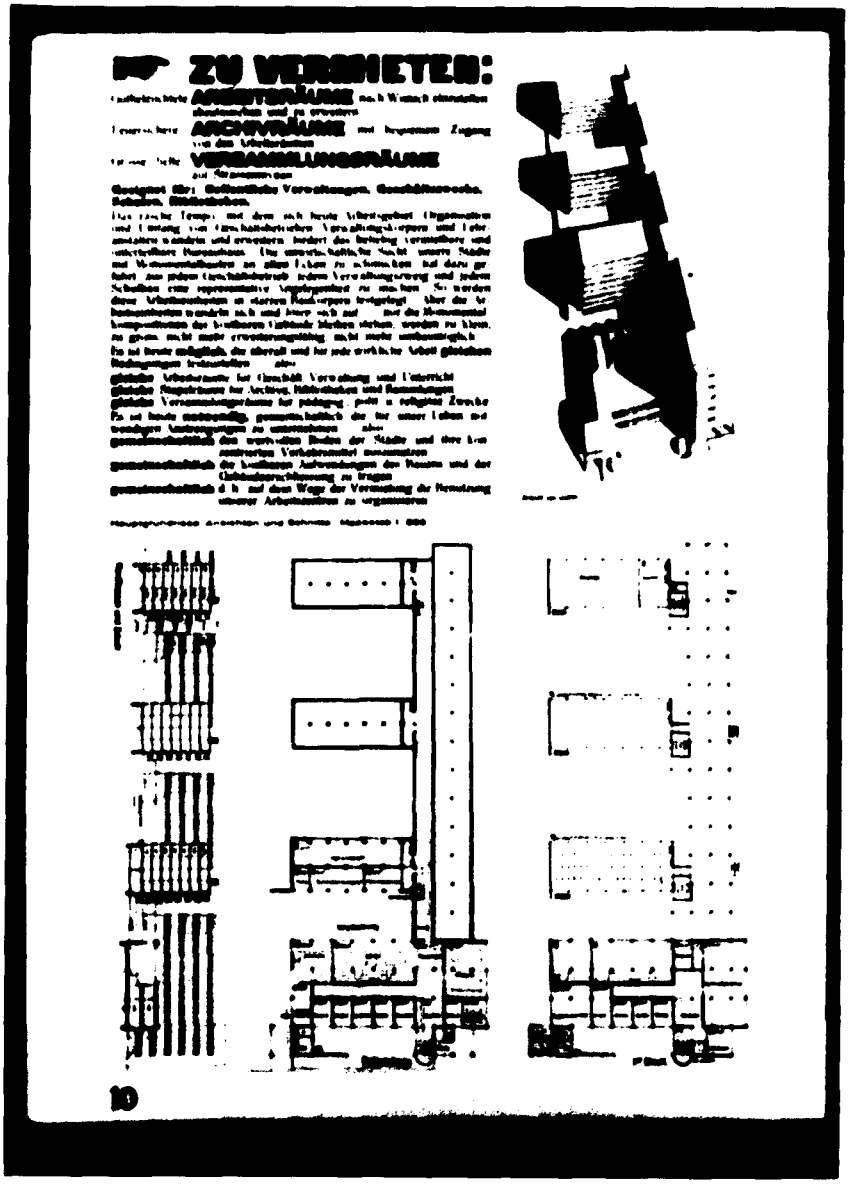
8. A Cornavim Station Project by Mart Stam, Geneva, (1924). (Photo: ABC, Series I, No. 6, 1925, pages 3-4).



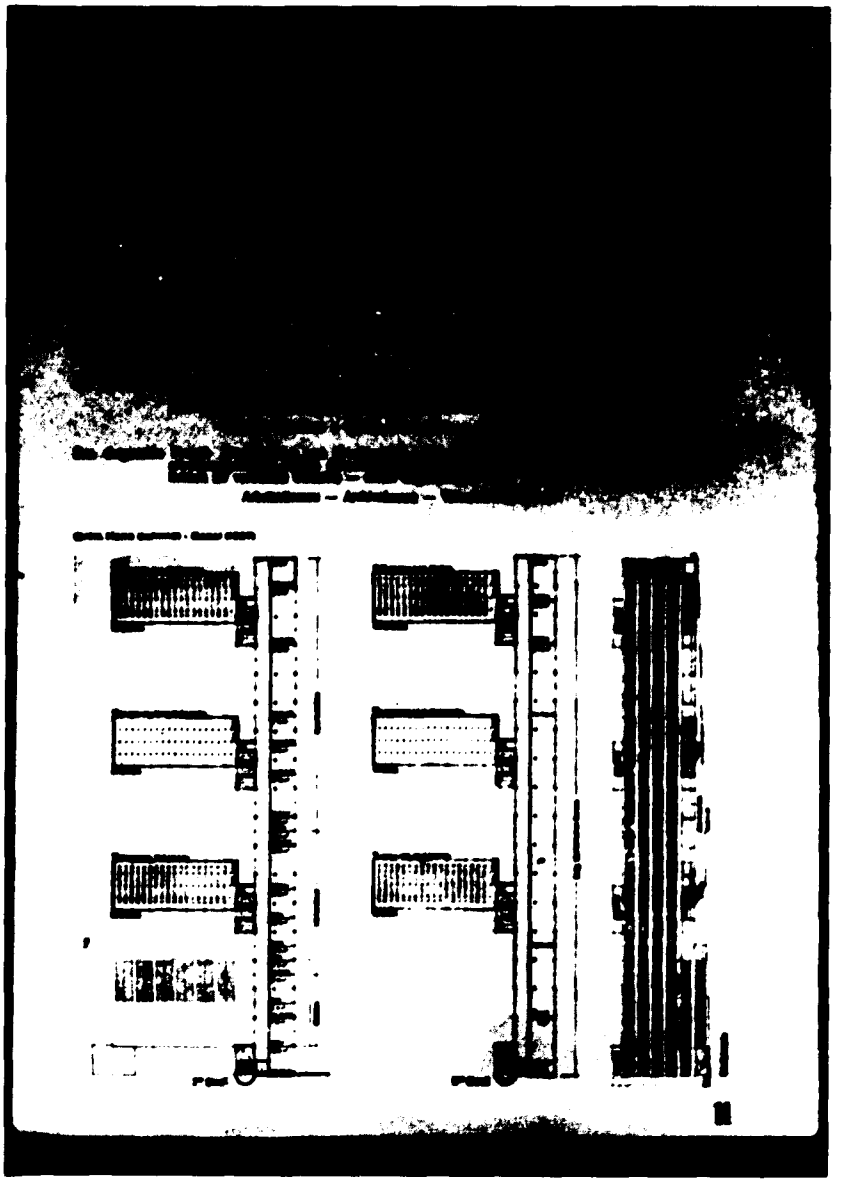
8. B Cornavim Station Project by Mart Stam, Geneva, (1924). (Photo: ABC, Series I, No. 6, 1925, pages 3-4).



9. A Konkurrenz projekt fur den Neubau fur die Schweizer Landes bibliothek, das Amt fur Geistiges Eigentum und das Eidg. Statistische Bureau by Hans Schmidt (1927). (Photo: ABC, Series II, No. 4, 1927-1928, pages 10-11).

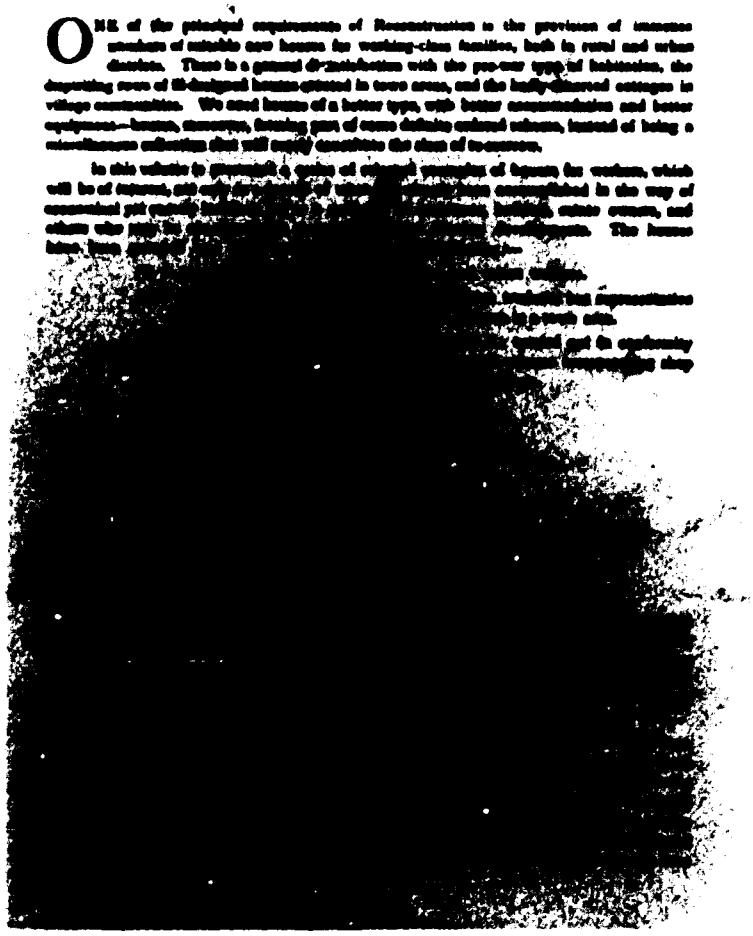


9. B Konkurrenz projekt fur den Neubau fur die Schweizer Landes bibliothek, das Amt fur Geistiges Eigentum und das Eidg. Statistische Bureau by Hans Schmidt (1927). (Photo: ABC, Series II, No. 4, 1927-1928, pages 10-11).

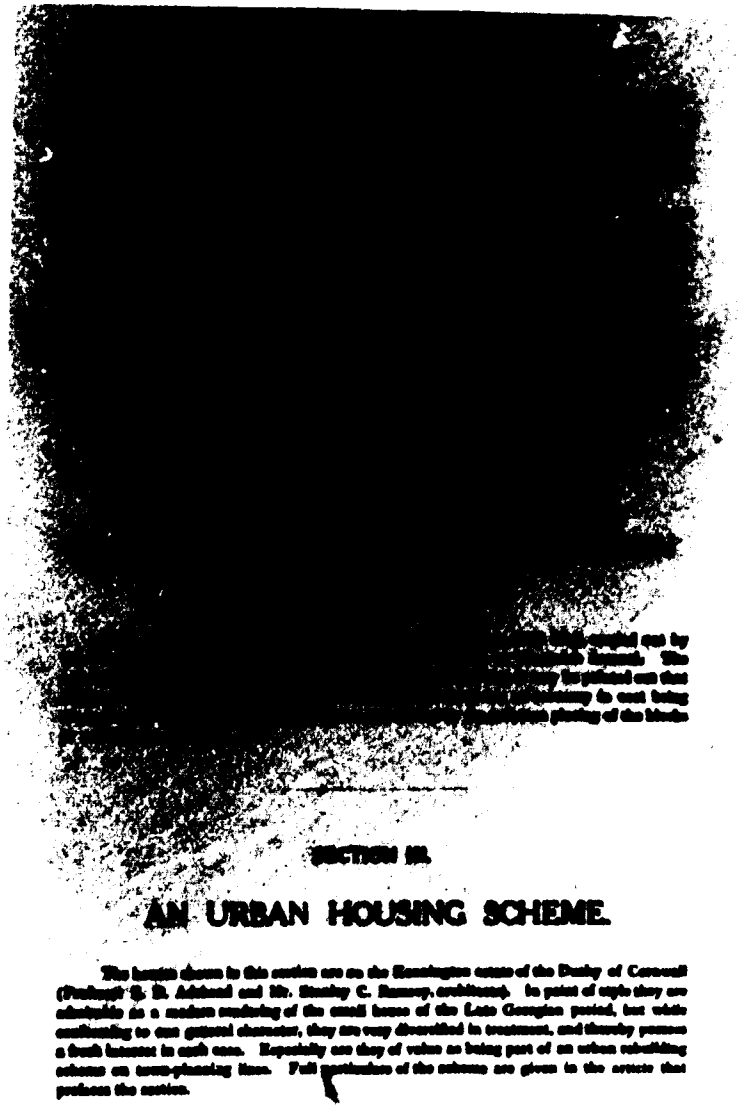


10. Page from Houses For Workers (Photo: Technical Journals Ltd., Westminster, page 3).

HOUSES FOR WORKERS.



11. Page from Houses For Workers (Photo: Technical Journals, Ltd., Westminster, page 4).



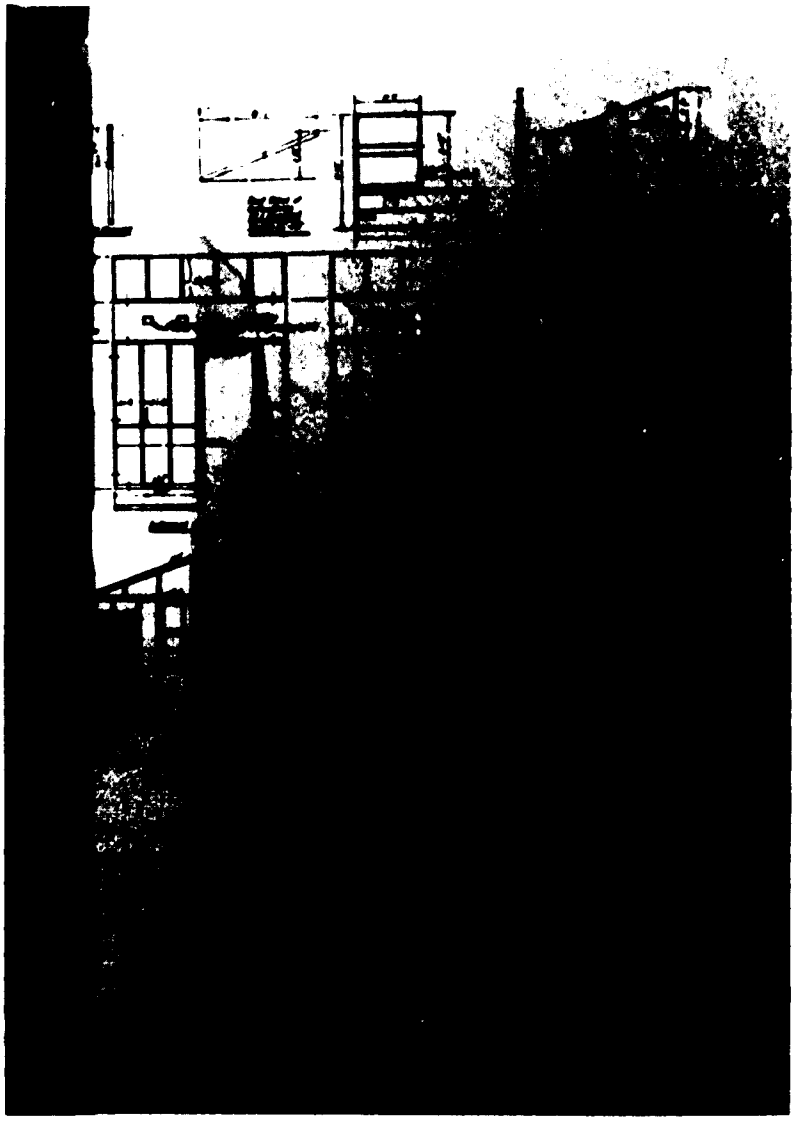
SECTION III.

AN URBAN HOUSING SCHEME.

12. Page from Houses For Workers (Photo: Technical Journals, Ltd., Westminster, page 56).



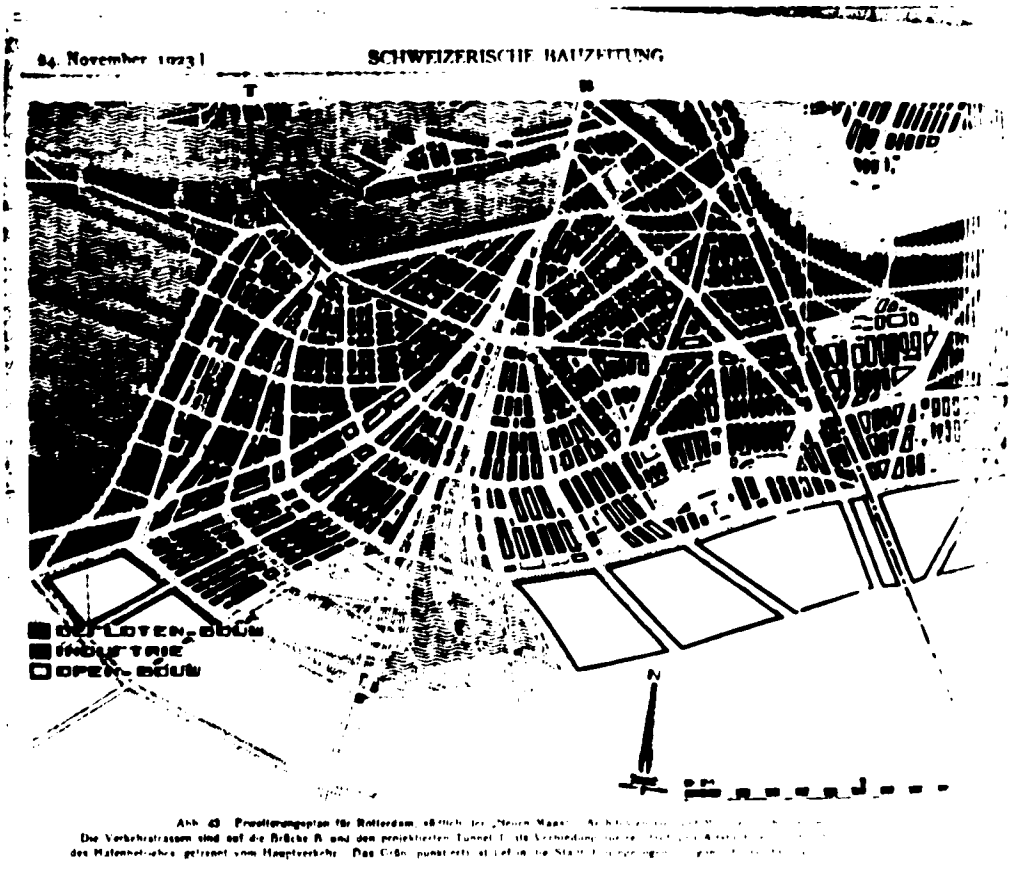
13. Page from Houses For Workers (Photo: Technical Journals, Ltd., Westminster, page 57).



14. "Trautenau" by Mart Stam (1926) (Photo: ABC, Series II, No. 1, 1926, page 7).



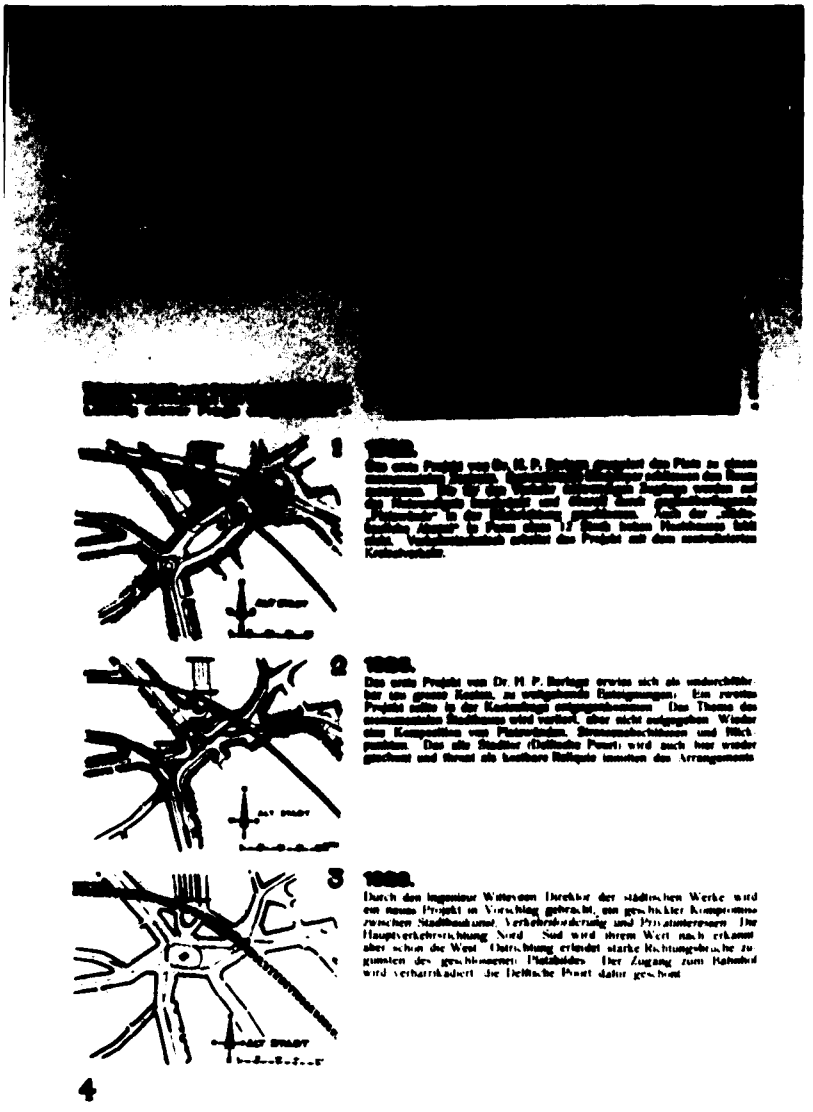
15. Plan for South Rotterdam by Granpre-Moliere Verhangen and Kok, (1921). (Photo: Mart Stam, "Holland und die Baukunst unserer Zeit," Schweizerische Bauzeitung, Volume 82, Nov. 1923, page 271).



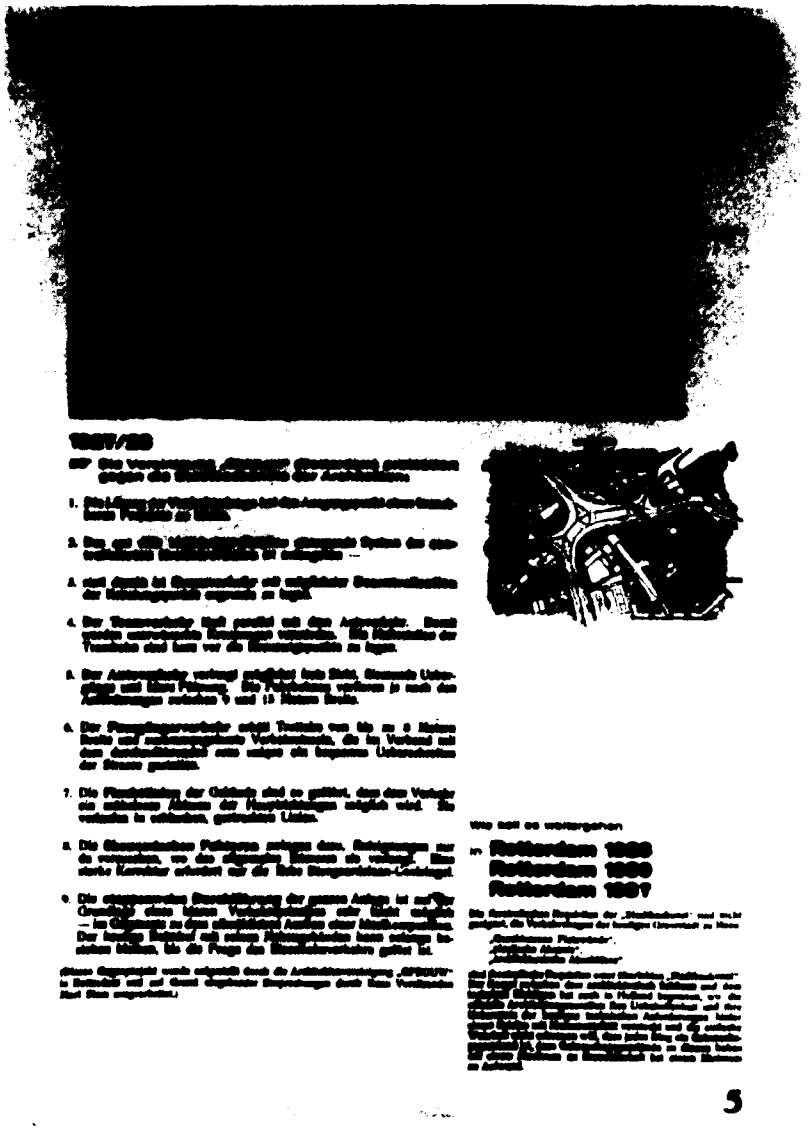
16. Extention Plan for the Hague by Mart Stam (1922) (Photo: "Holland und die Baukunst unserer Zeit", page 270).



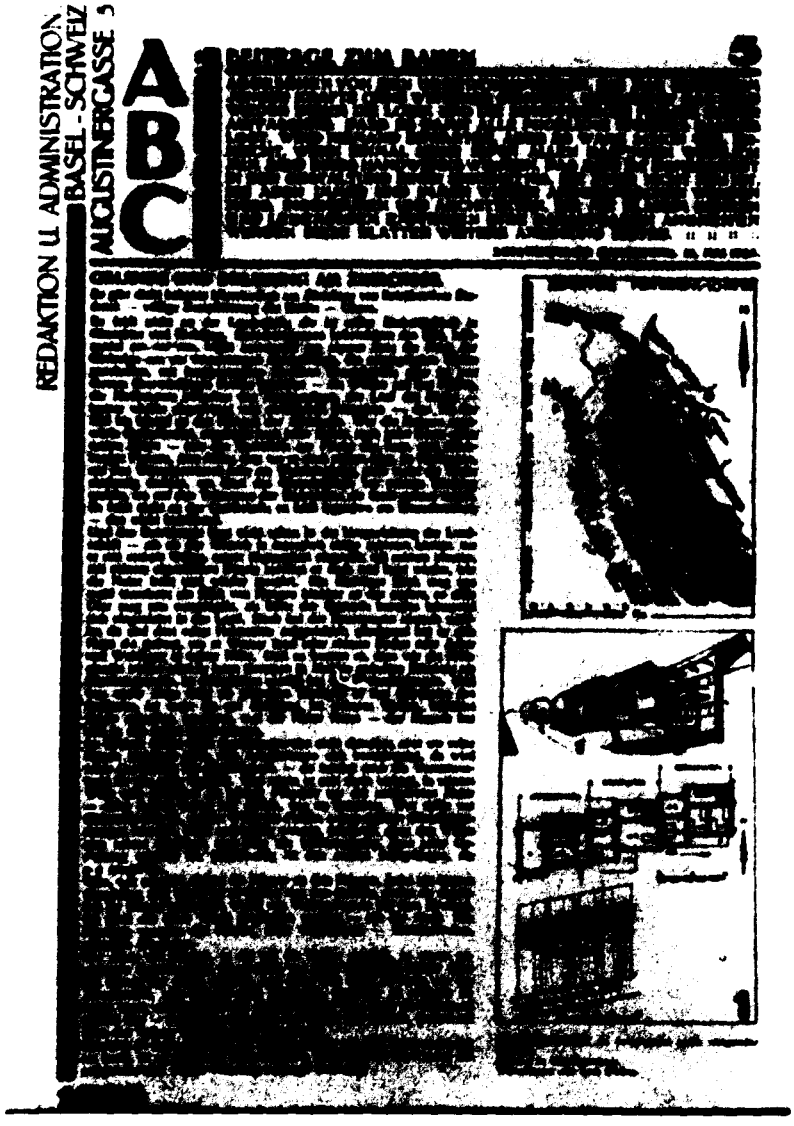
17. "Hofplein 1922-1928" (Photo: ABC, Series II, No. 4, 1927-1928, page 4).



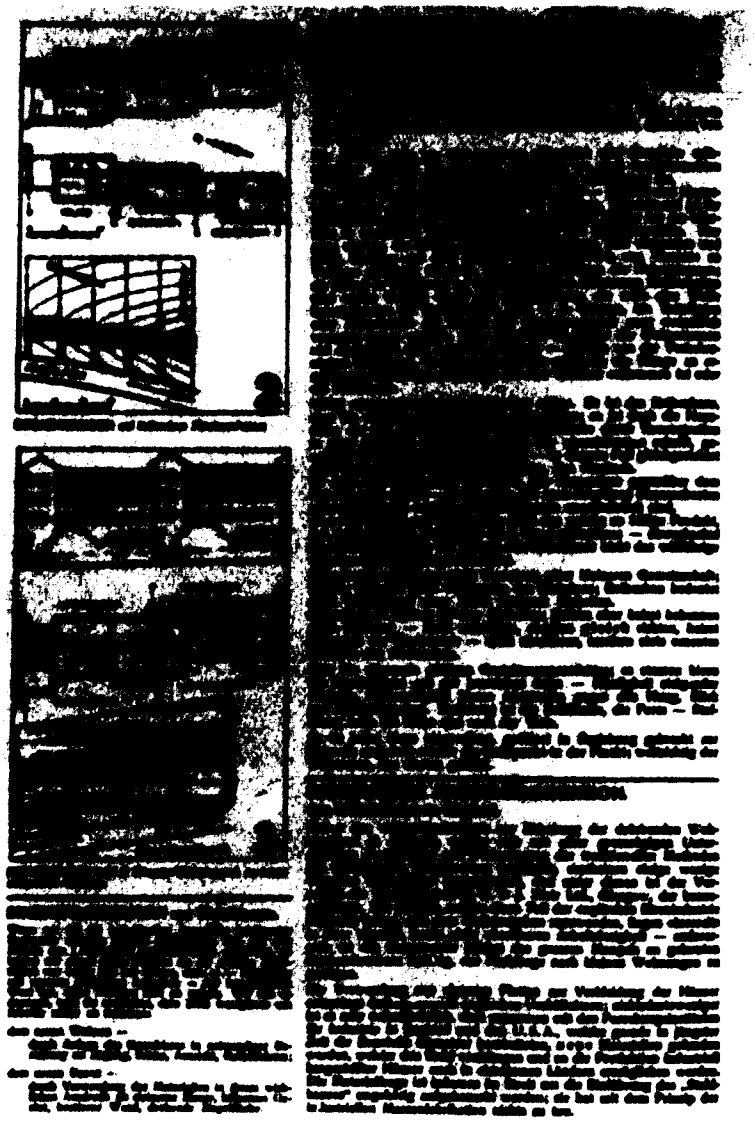
18. "Hofplein 1927-1928" by Mart Stam (Photo: ABC, Series II, No. 4, 1927-1928, page 4).



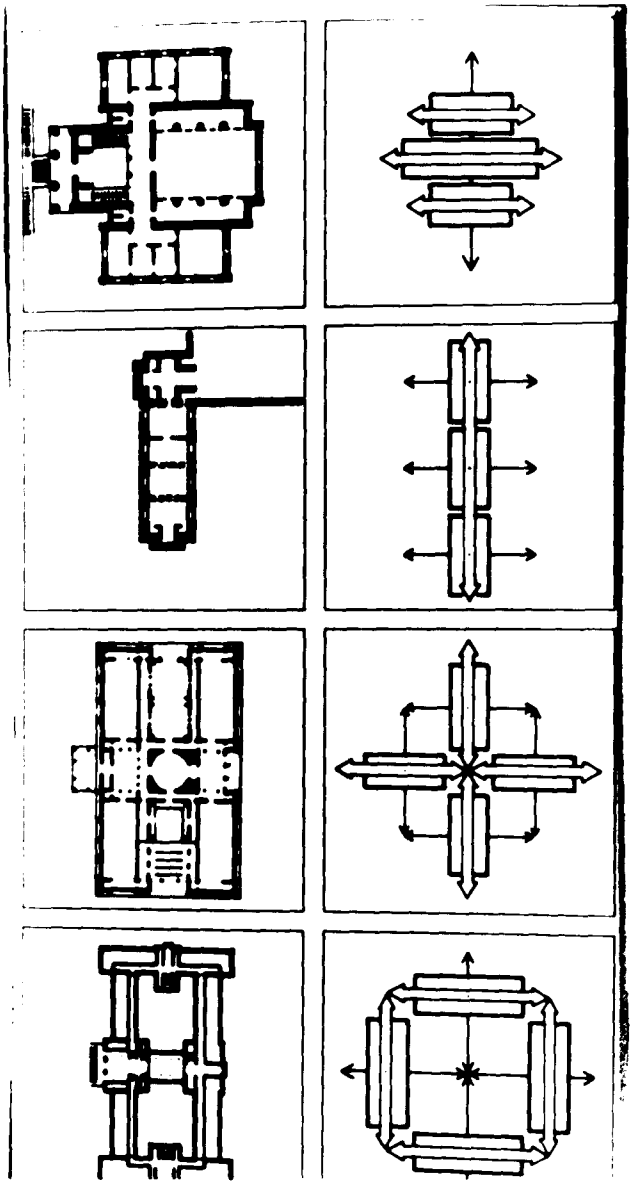
19. "Gelande und Bebaung am Zurichsee" by Emil Roth (Photo: ABC, Series I, No. 5, 1925, page 1).



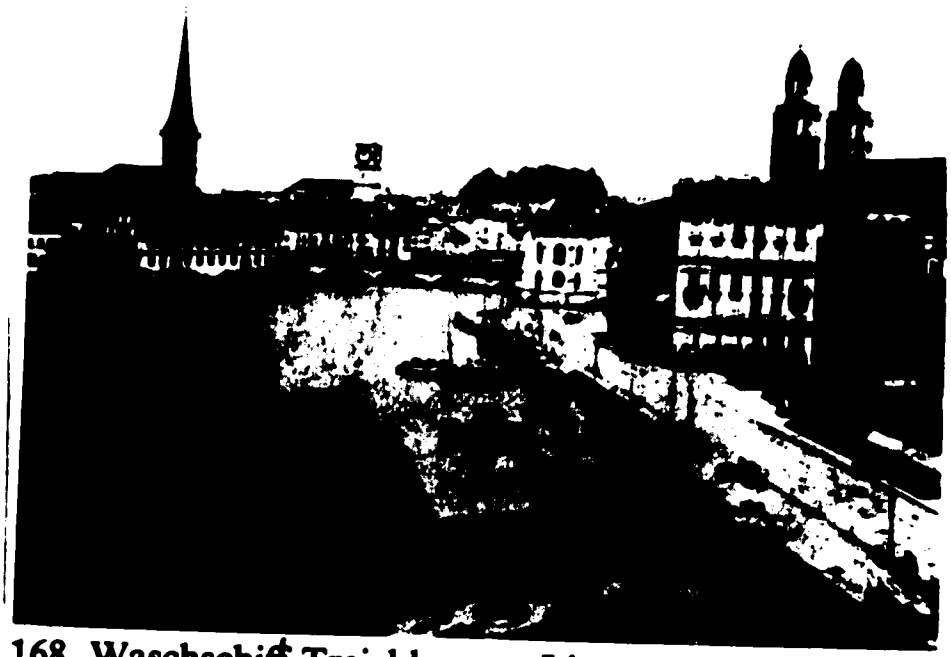
20. "Gelande und Bebaung am Zurichsee" by Emil Roth (Photo: ABC, Series I, No. 5, 1925, page 2).



21. "Baukasten" by Gottfried Semper (Photo: Gottfried Semper "Vorrang der Organisation" in Martin Frohlich, Gottfried Semper, Basel, 1974, page 303).

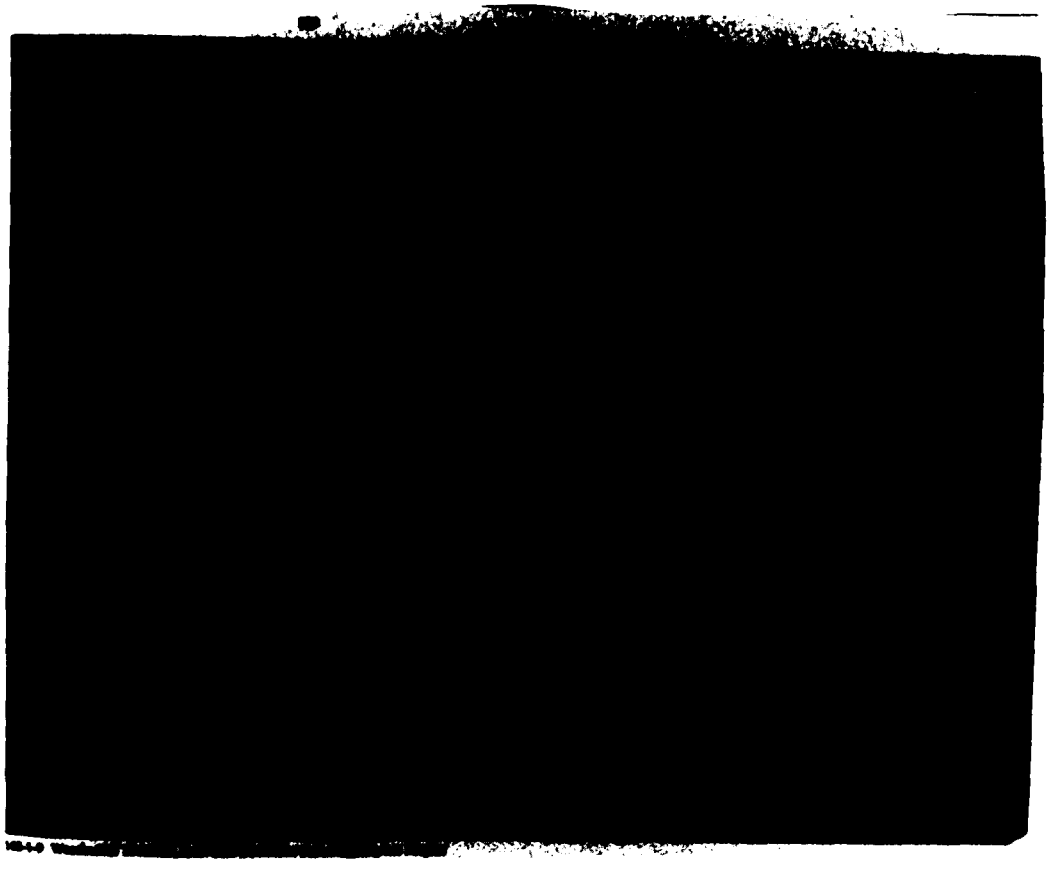


22. A Treichler Laundry Boat by Gottfried Semper (1861) (Photo: Martin Froblich, pages 127, 130).

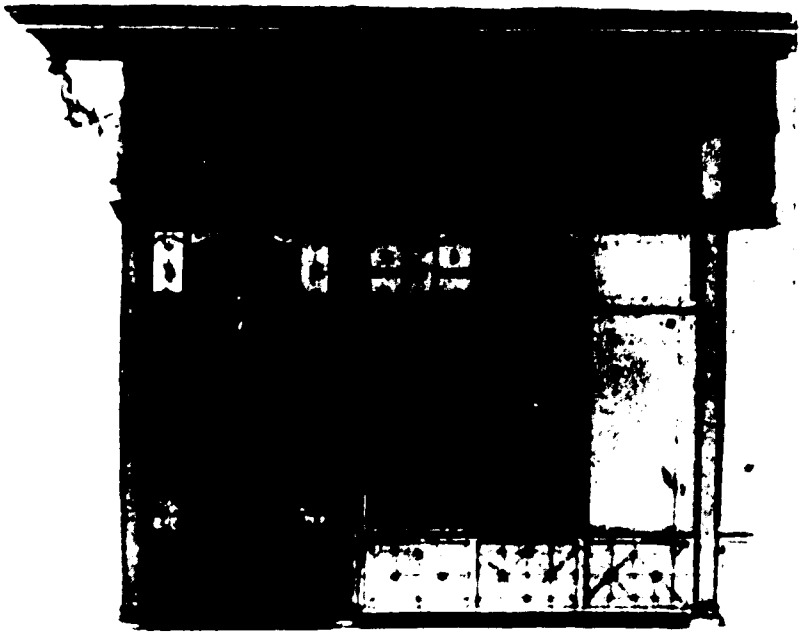


168 Waschschiff Treichler, am Limmatquai um 1870,

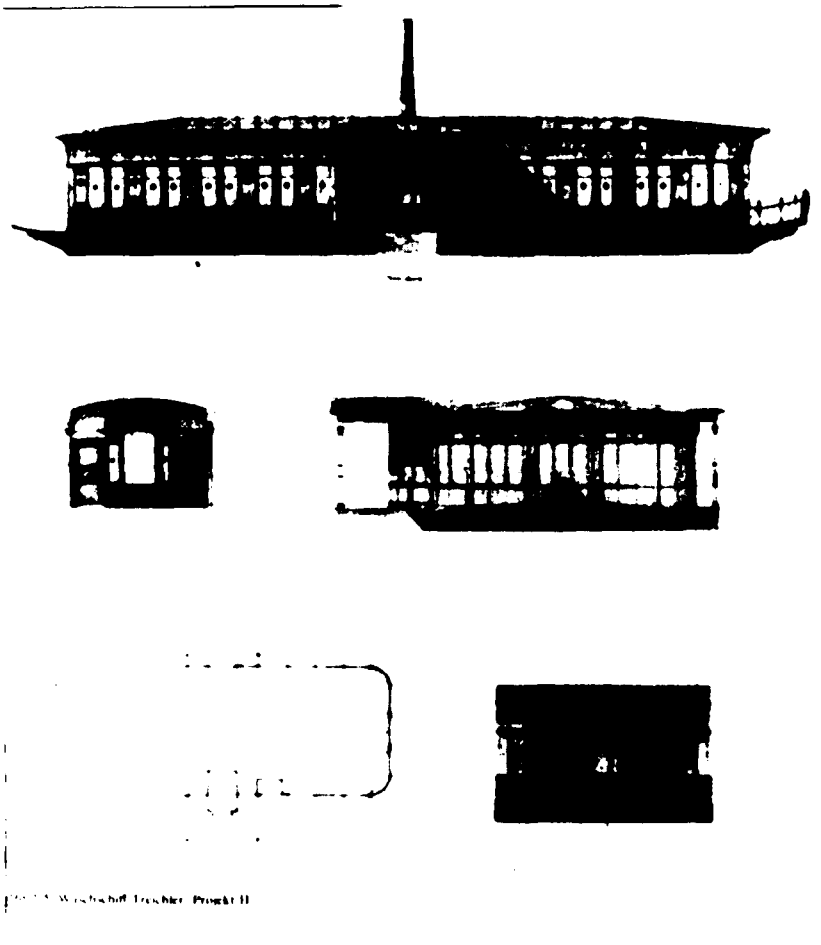
22. B Treichler Laundry Boat bv Gottfried Semper (1861)
(Photo: Martin Frohlich, pages 127, 130).



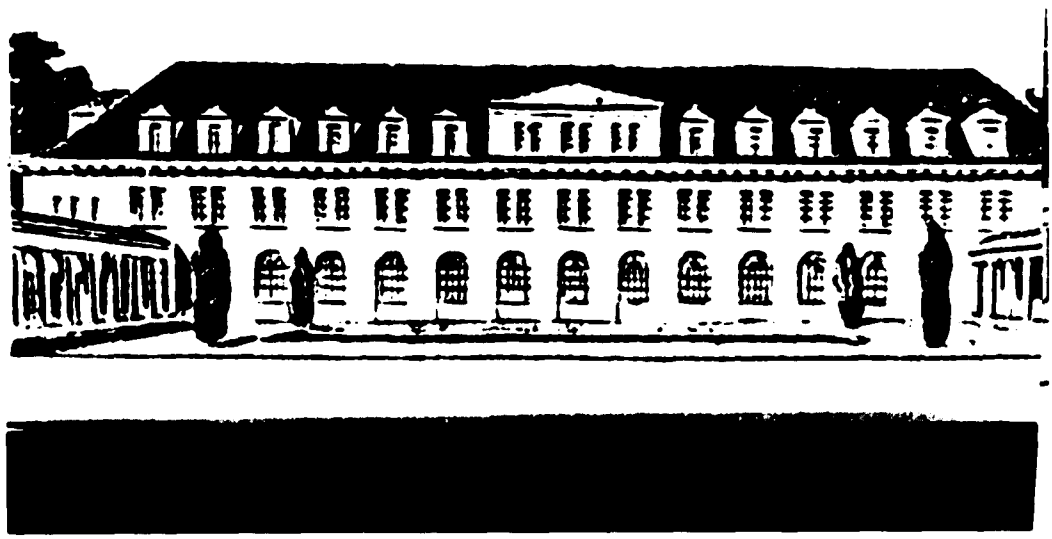
23. Treichler Laundry Boat by Gottfried Semper (1861) (Photo: Martin Frohlich, page 129).



24. Treichler Laundry Boat by Gottfried Semper (1861) (Photo: Martin Frohlich, page 131).



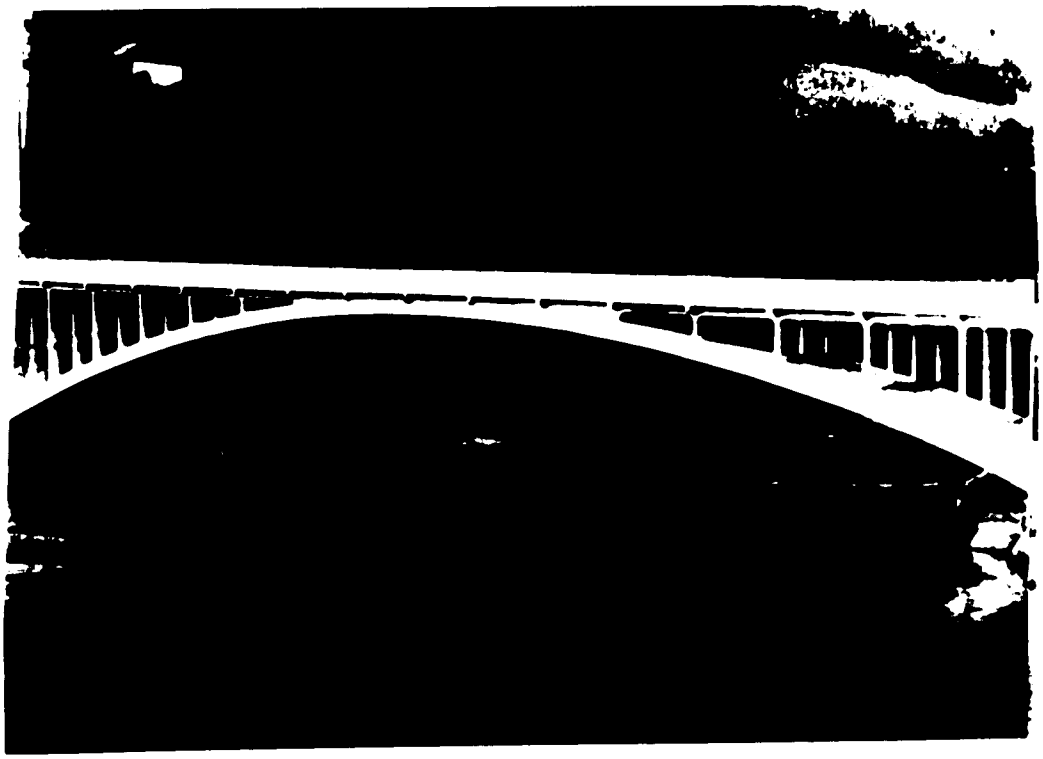
25. A Kunsthaus Bally, Schonenwerd, Switzerland by Karl Moser (1916). (Photo: Hans Bernoulli, "Skizzen aus England", Das Werk, Vol. 7, No. 10, 1920, page 210).



25. B Kunsthaus Bally, Schonenwerd, Switzerland by Karl Moser (1916). (Photo: Hans Bernoulli, "Skizzen aus England", Das Werk, Vol. 7, No. 10, 1920, page 210).

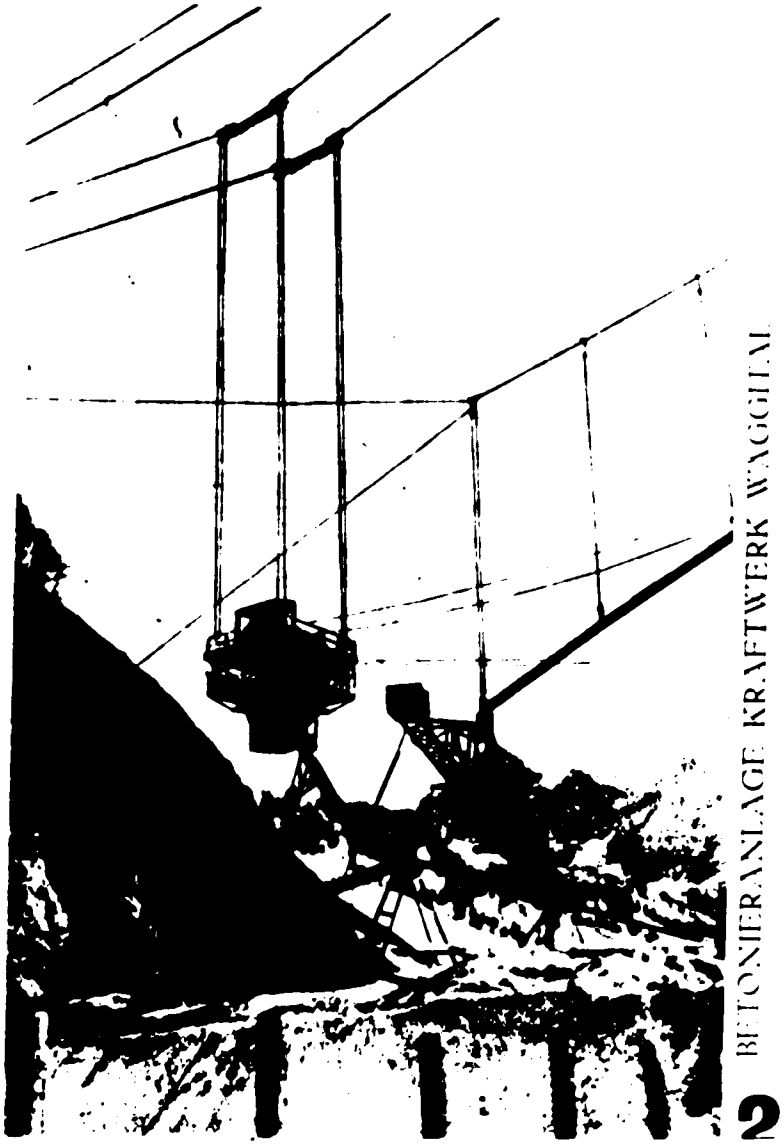


26. Aare-Brucke bei Aarburg, Switzerland by Robert Maillart (1911-12). (Photo: Max Bill, Robert Maillart: Bridges and Constructions, New York, 1969, page 41.



26 Aare-Brucke in Aarburg als eingespannter Eisenbetonbogen [illegible]
strasse — Pont sur l'Aar à Aarburg, construit comme [illegible]
tectonique — Aare Bridge in Aarburg, constructed as [illegible]
concrete arch

27. Illustration for "Gestalten-Form" by Emil Roth (Photo: ABC, Series I, No. 2, 1924, page 2).



28. Meeresstrand Housing, Rotterdam, by J.J. Oud (1921-1922) (Photo: Mart Stam "Holland und die Baukunst Unserer Zeit II" Schweizerische Bauzeitung, Volume 82, No. 18, November 1923, page 3).



-. 17. Reihenhäuser am Meeres-Strand. Entwurf J. J. P. Oud. nwirkung bei mechanischer Gleichförmigkeit (Normalisierung).

29. "Street with Mass Housing" by J.J. Oud (1922) (Photo: Holland und die Baukunst Unserer Zeit II, page 3).



30. House in the Haague by Bijvoet and Duiker (1921) (Photo: "Holland und die Baukunst Unserer Zeit II, page 3).

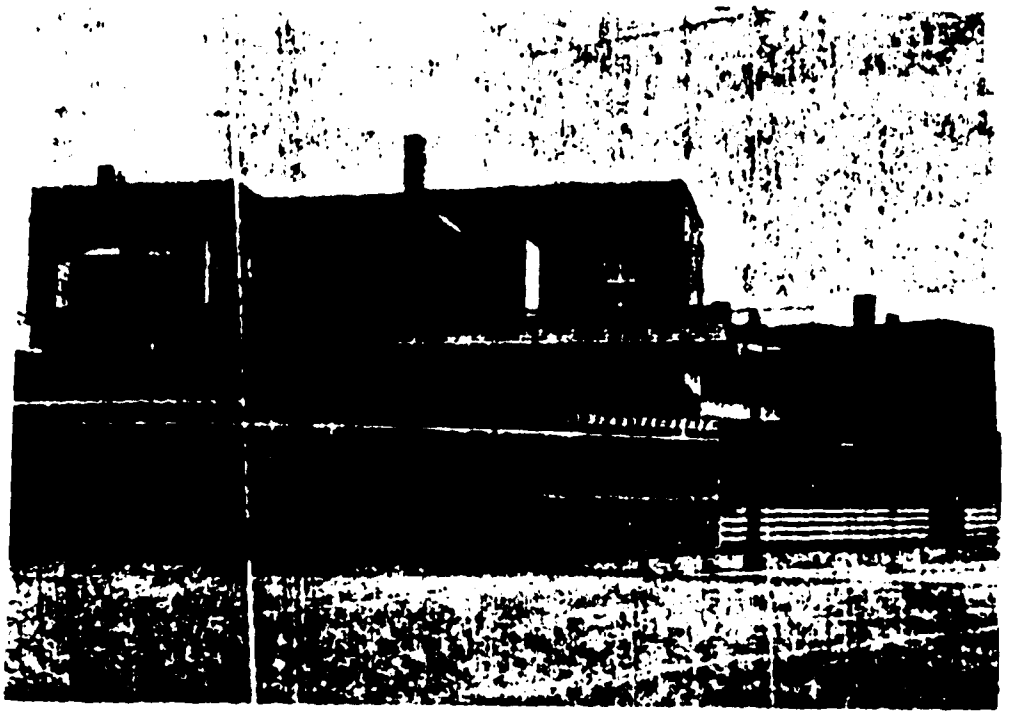
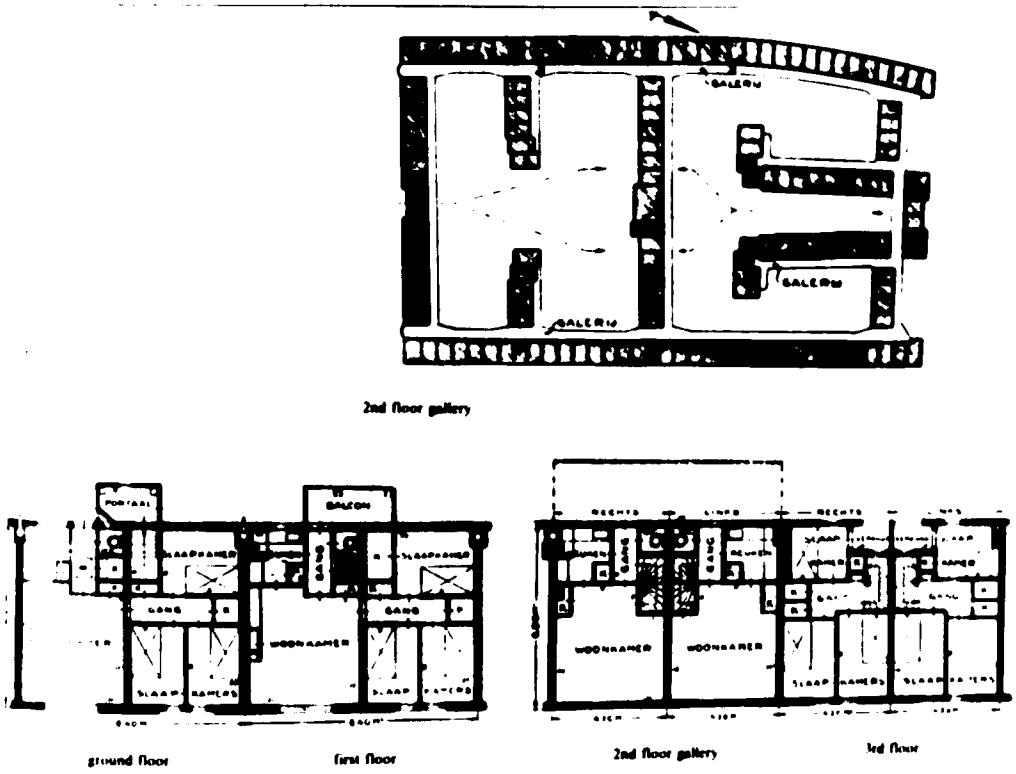
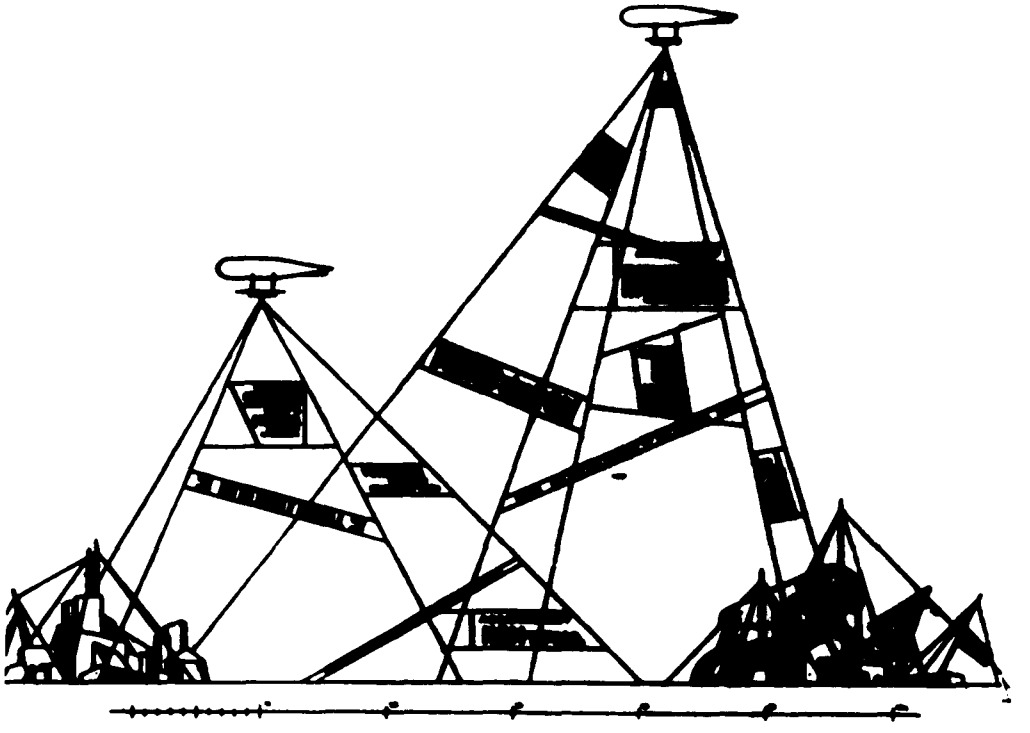


Abb. 15. Einfamilienhaus-Gruppe im Haag. Arch. B. Bijvoet und J. Duiker.
An Stelle der Fassaden (-Strassenwände) treten die kubischen Elemente des Baues.
Stark räumliche Wirkung.

31. Spangen Municipal Housing, Rotterdam, by M. Brinkman (1919-1921) (Photo: Donald Grinberg, Housing in the Netherlands 1900-1940 (Delft, 1982, page 75).

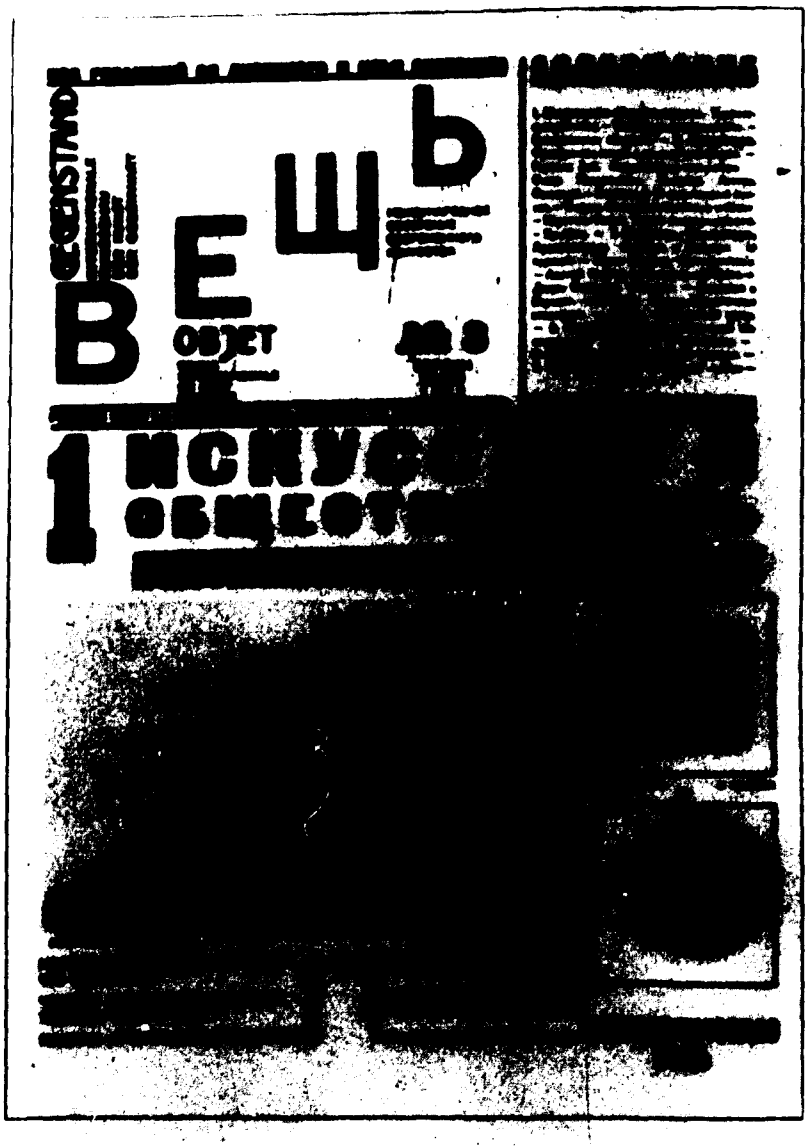


32. "Flying Propaganda" by L. Popova and A. Vesnin (1920) (Photo: ABC, Series II, No. 1, 1926, page 3).

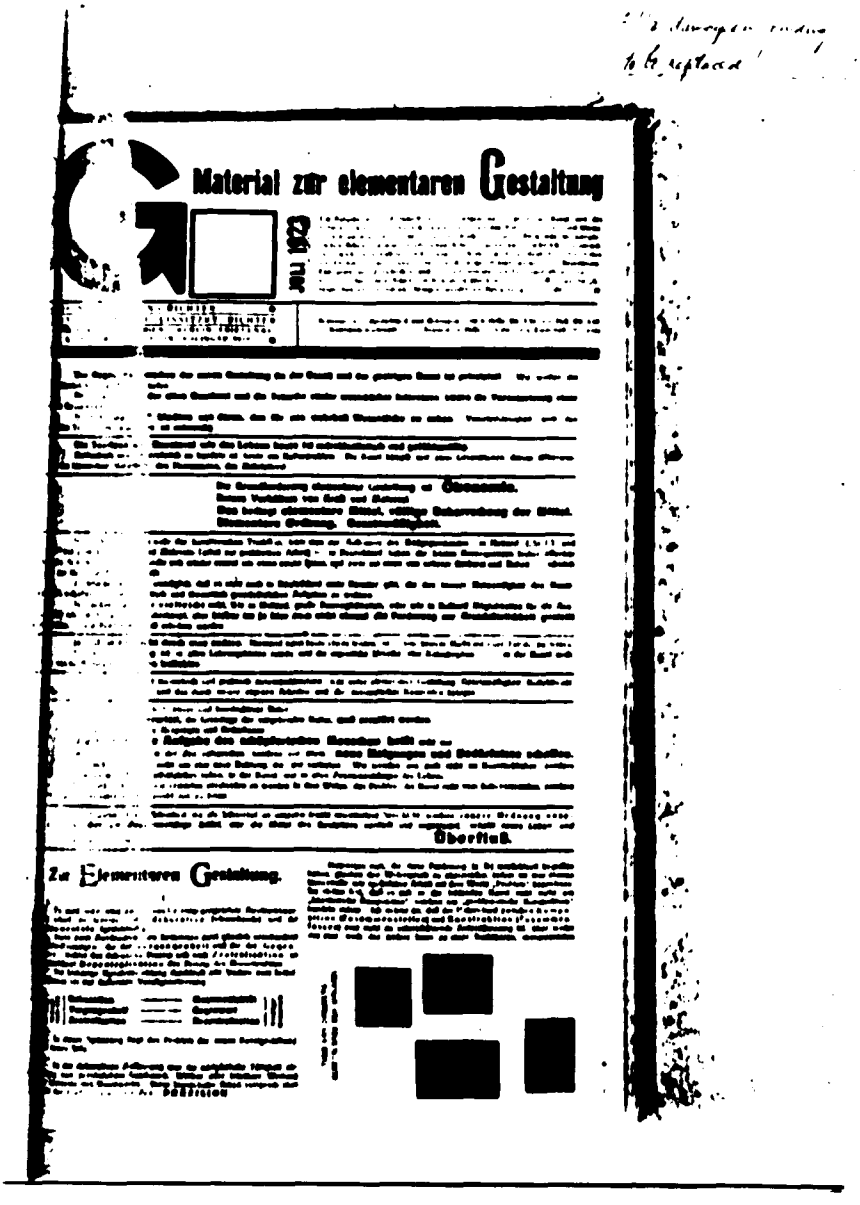


POPOVA UND A. VESNINE FLIEGENDE PROPAGANDA.

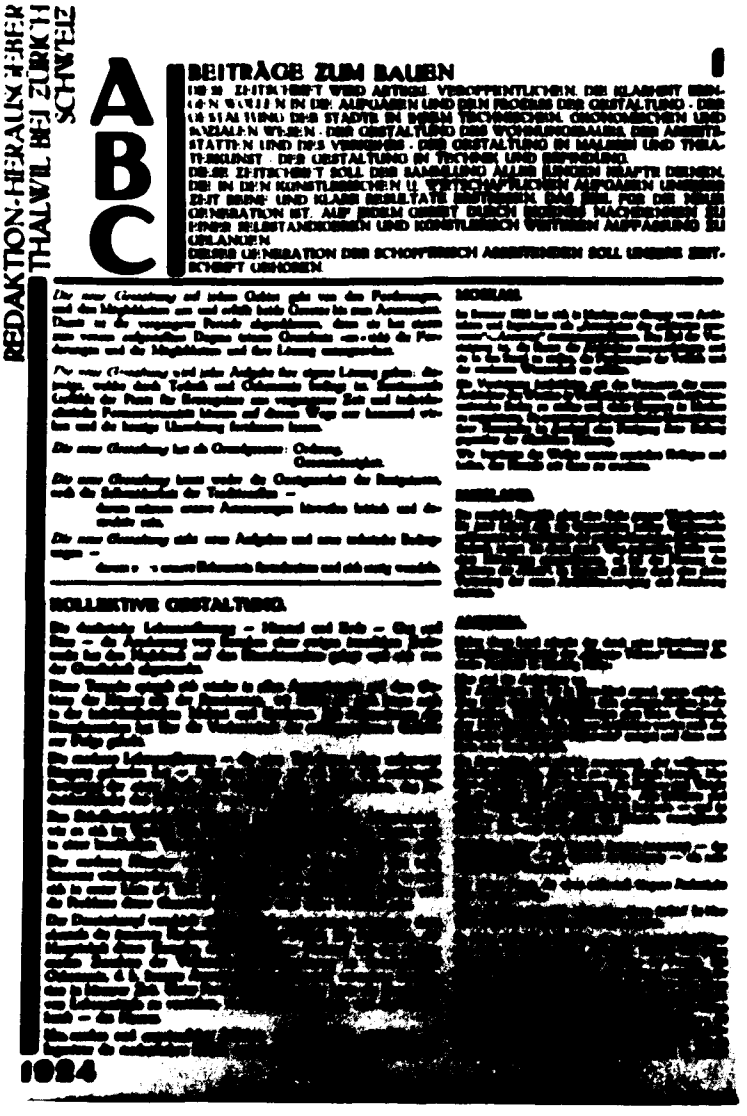
33. Page from Veshch (Photo: Veshch, Gegenstand, Objet, Berlin, No. 3, 1922, El Lissitzky, editor, page 1).



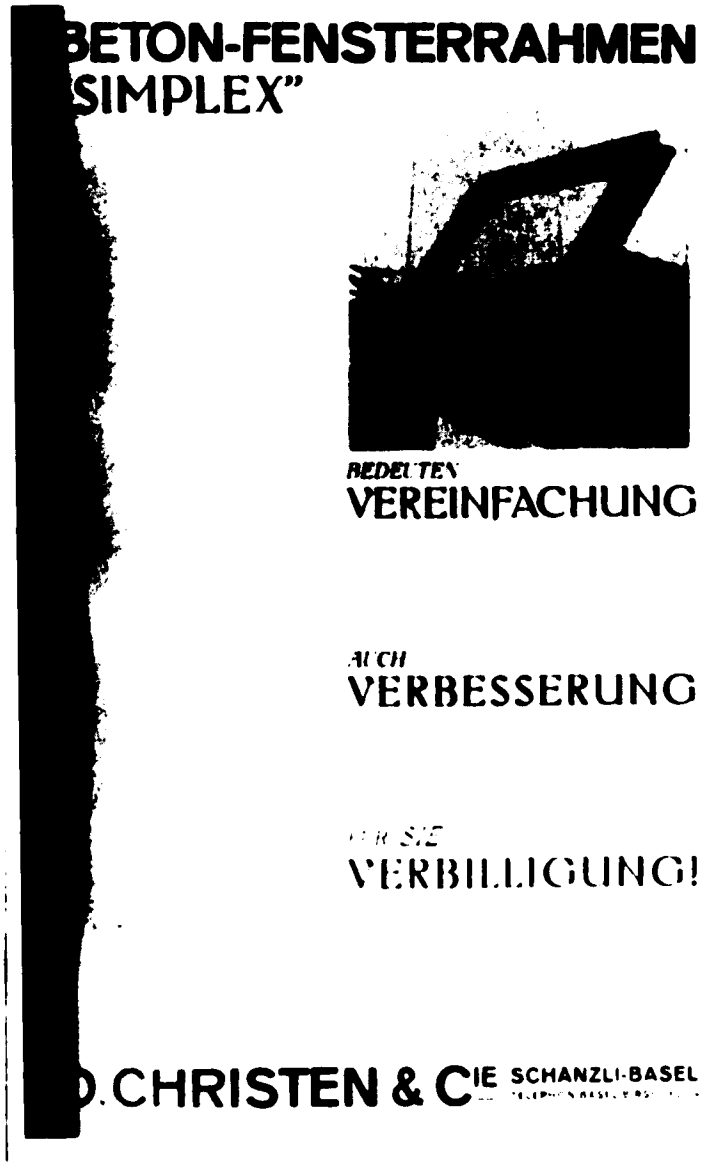
34. Page from G (G, Berlin, Vol. 1, No. 1, 1923, El Lissitzky, editor, page 1).



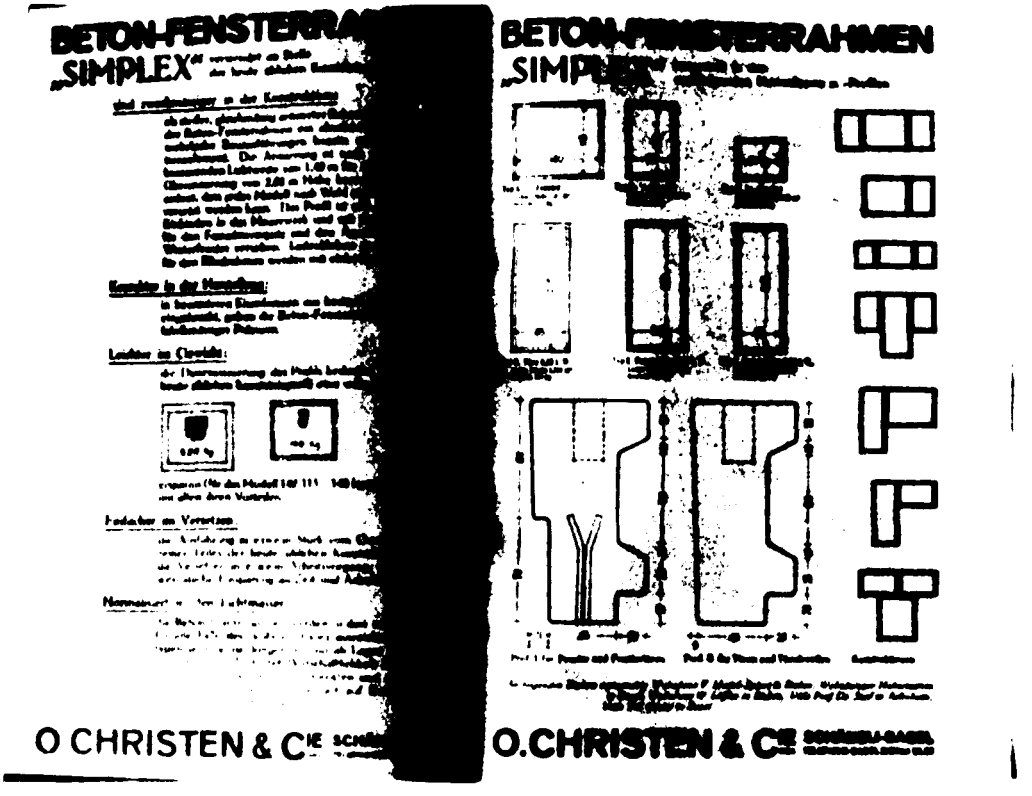
35. Page from ABC (Photo in ABC, Series I, No. 1, 1924, Page 1).



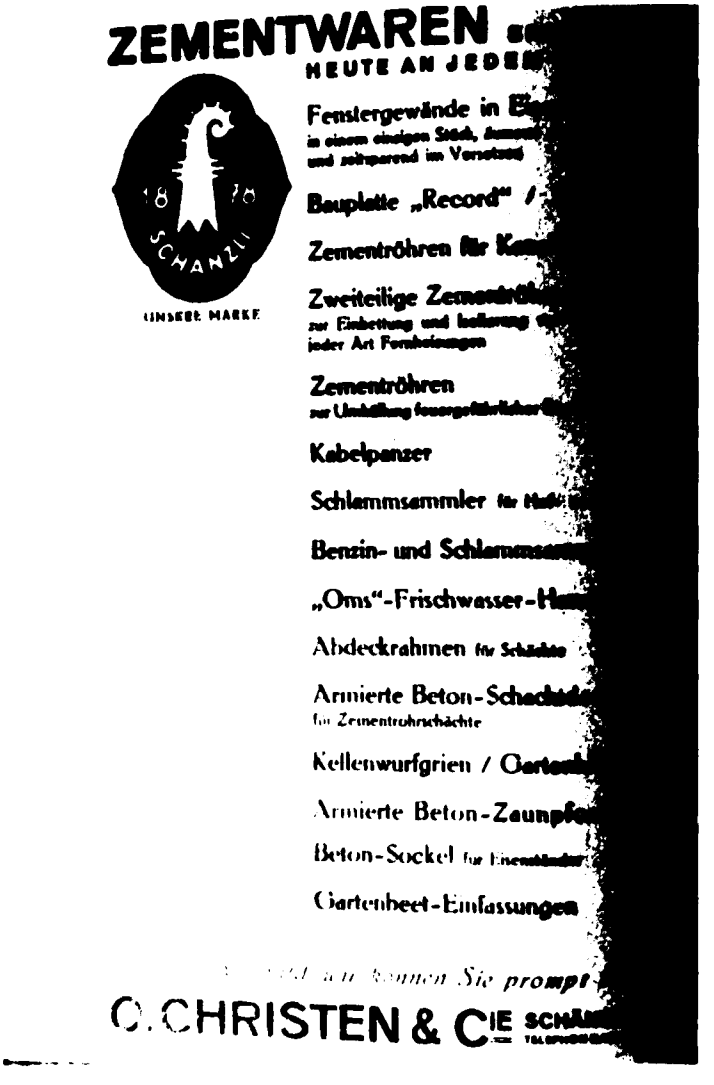
36. Advertisement for O. Christen and Cie Cementworks, Basel, by Hans Schmidt, 1924 (Photo: Eidgenosische Technische Hochschule (ETH), Hans Schmidt Archive, Zurich, Switzerland).



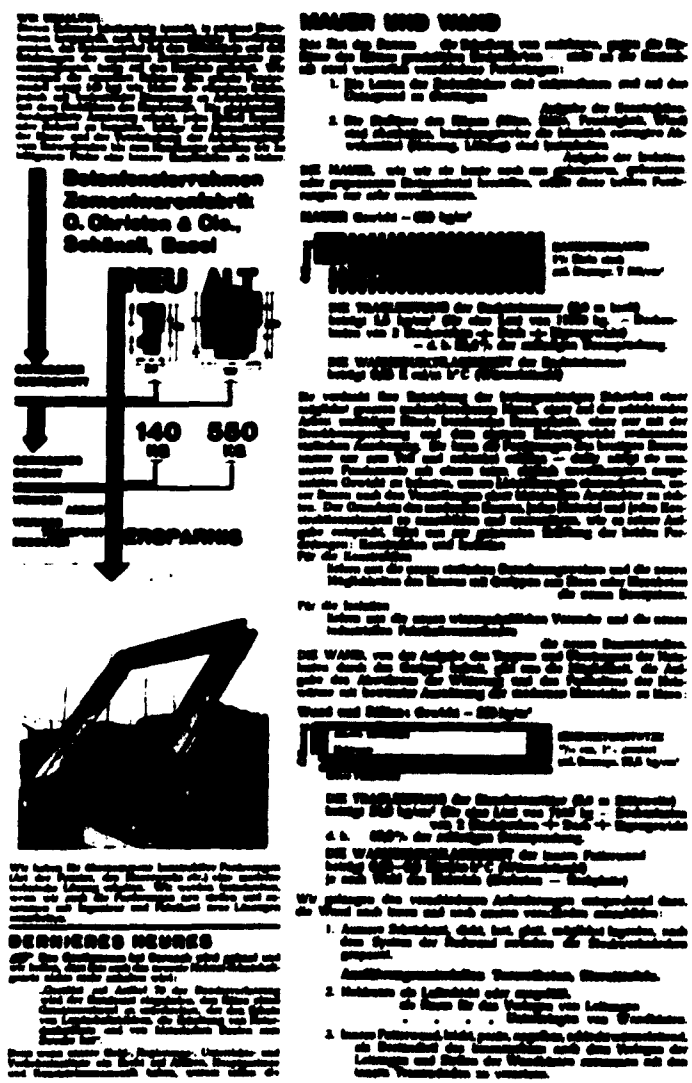
37. Advertisement for O. Christen and Cie Cementworks, Basel by Hans Schmidt, 1924 (Photo: Eidgenosische Technische Hochschule (ETH), Hans Schmidt Archive, Zurich, Switzerland).



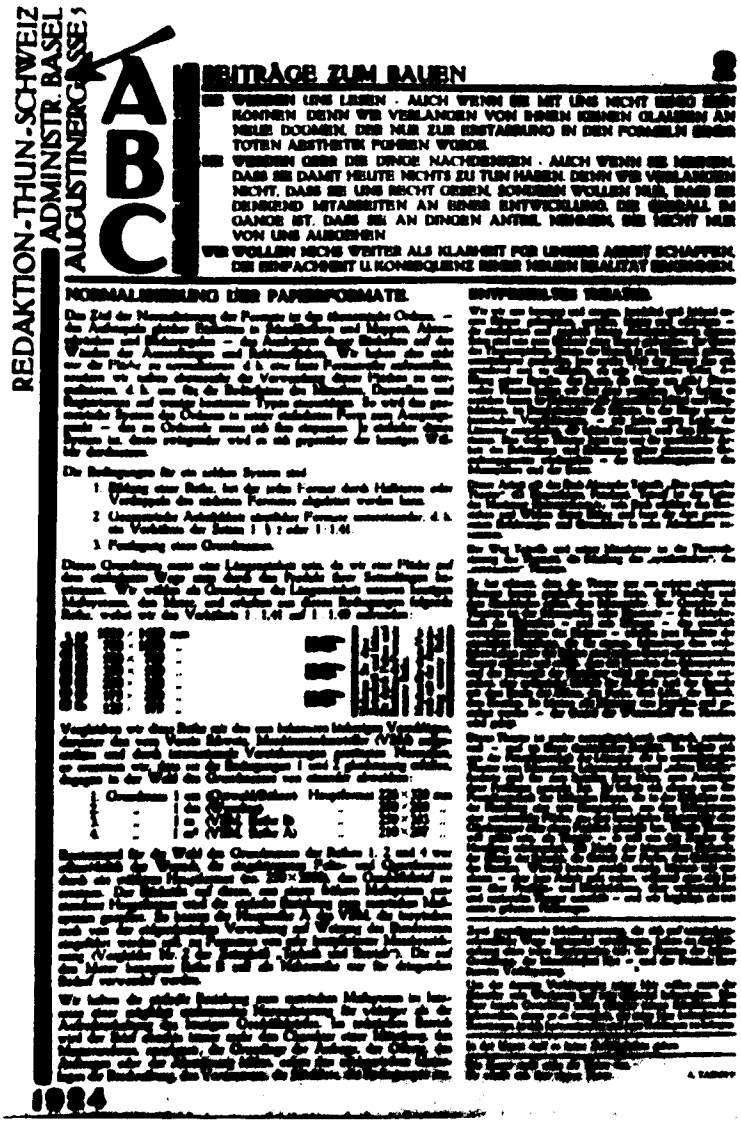
38. Advertisement for O. Christen and Cie Cementworks, Basel by Hans Schmidt, 1924 (Photo: Eidgenosische Technische Hochschule (ETH), Hans Schmidt Archive, Zurich, Switzerland).



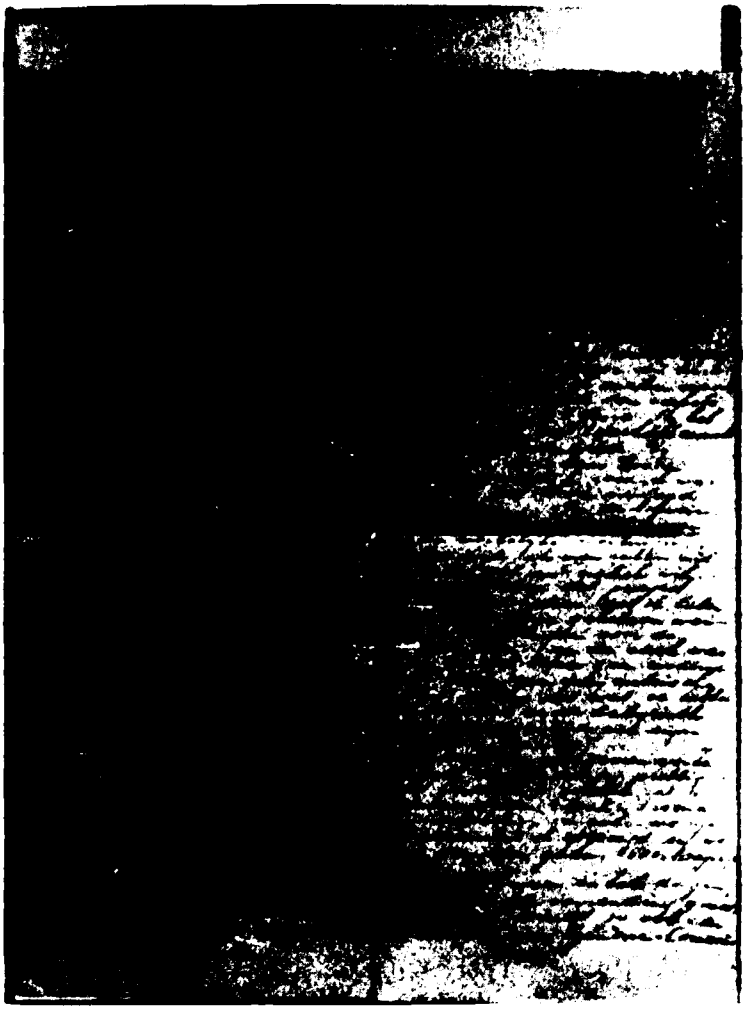
39. Advertisement for O. Christen and Cie Cementworks, Basel by Hans Schmidt, 1924 (Photo: ABC, Series I, No. 3-4, 1925, page 10).



40. Arrow bloc stamp on ABC page by Mart Stam (Photo: ABC, Series I, No. 2, 1924, page 1).



41. Bloc stamp letterhead by Mart Stam from a 1925 letter by Stam to Werner Moser. (Photo: Mrs. Werner Moser, Zurich).



42. Bloc stamp by Mart Stam from a 1925 letter by Stam to Werner Moser. (Photo: Mrs. Werner Moser, Zurich).



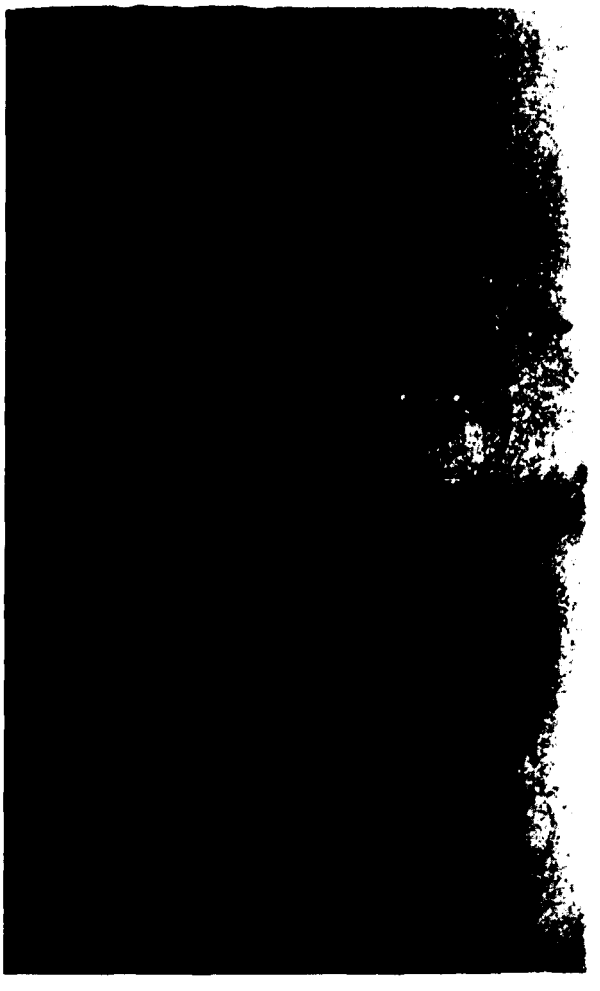
43. "ABC -Beitrage Zum Bauen" bloc stamp by Mart Stam (1924-1925) (Photo: A 1925 letter by Stam to Werner Moser. Photo: Mrs. Werner Moser, Zurich).



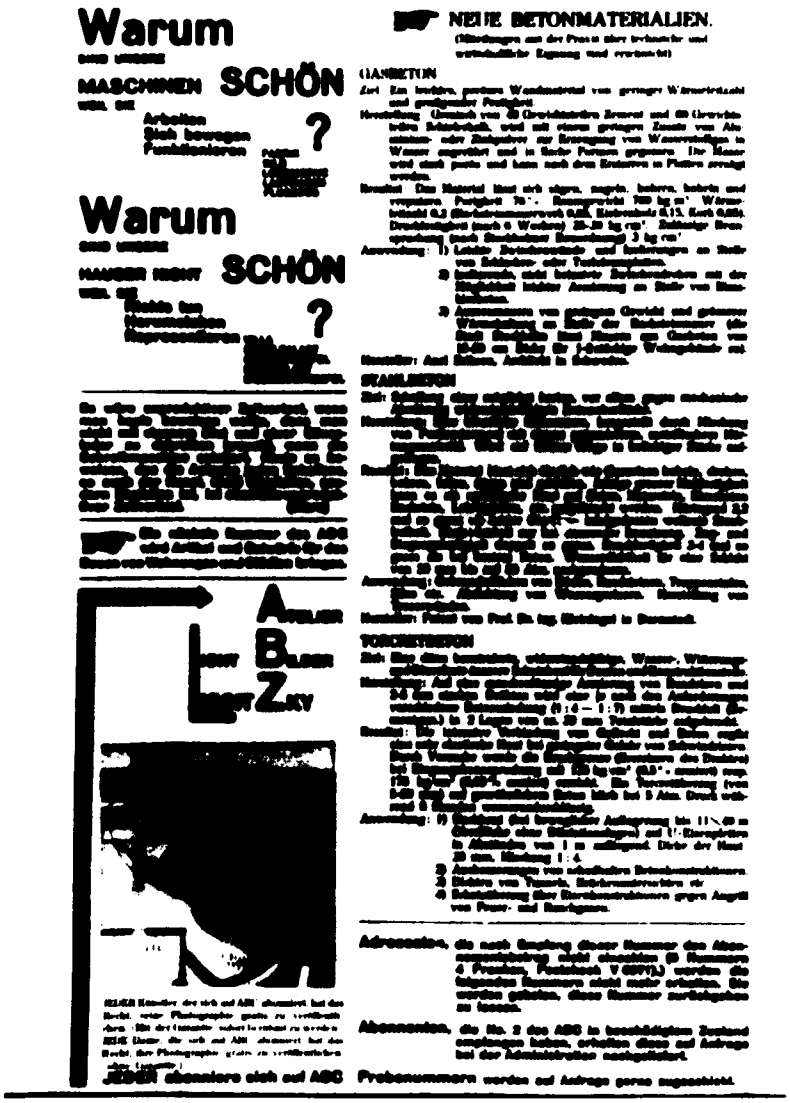
44. Page from Schmidt's private notebook (Photo: Mrs. Lili Schmidt, Basel).



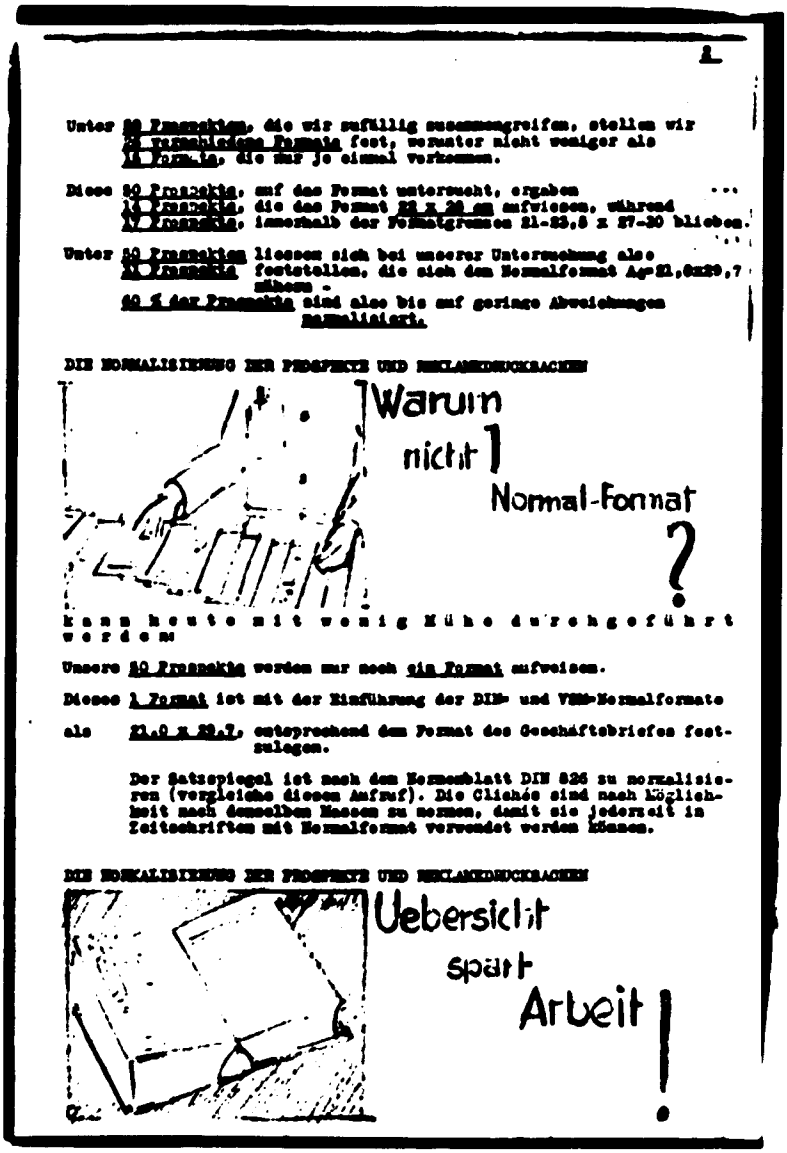
45. Page from Schmidt's private notebook (Photo: Mrs. Lili Schmidt, Basel).



46. "Warum Schon" by Hans Schmidt (Photo: ABC, Series I, No. 3-4, 1925, page 12).



47. Unpublished manuscript by Hans Schmidt (circa 1924-1925) (Photo: The Hans Schmidt Archive, ETH, Zurich).



Unter 50 Prospekten, die wir zufällig zusammengreifen, stellen wir 47 verschiedene Formate fest, worunter nicht weniger als 14 Formate, die nur je einmal vorkommen.

Diese 50 Prospekte, auf das Format untersucht, ergaben ...
13 Prospekte, die das Format 28 x 20 cm aufwiesen, während
37 Prospekte, innerhalb der Formatgrenzen 21-23,5 x 27-30 blieben.

Unter 50 Prospekten liessen sich bei unserer Untersuchung also
13 Prospekte feststellen, die sich dem Normalformat A4=21,0x29,7 näherten.
50 % der Prospekte sind also bis auf geringe Abweichungen normalisiert.

DIE NORMALISIERUNG DER PROSPEKTE UND REKLAMEDRUCKSACHEN

Warum nicht 1 Normal-Format ?

kann heute mit wenig Mühe durchgeführt werden.

Unsere 50 Prospekte werden nur noch ein Format aufweisen.

Dieses 1 Format ist mit der Einführung der DIN- und VDI-Normalformate

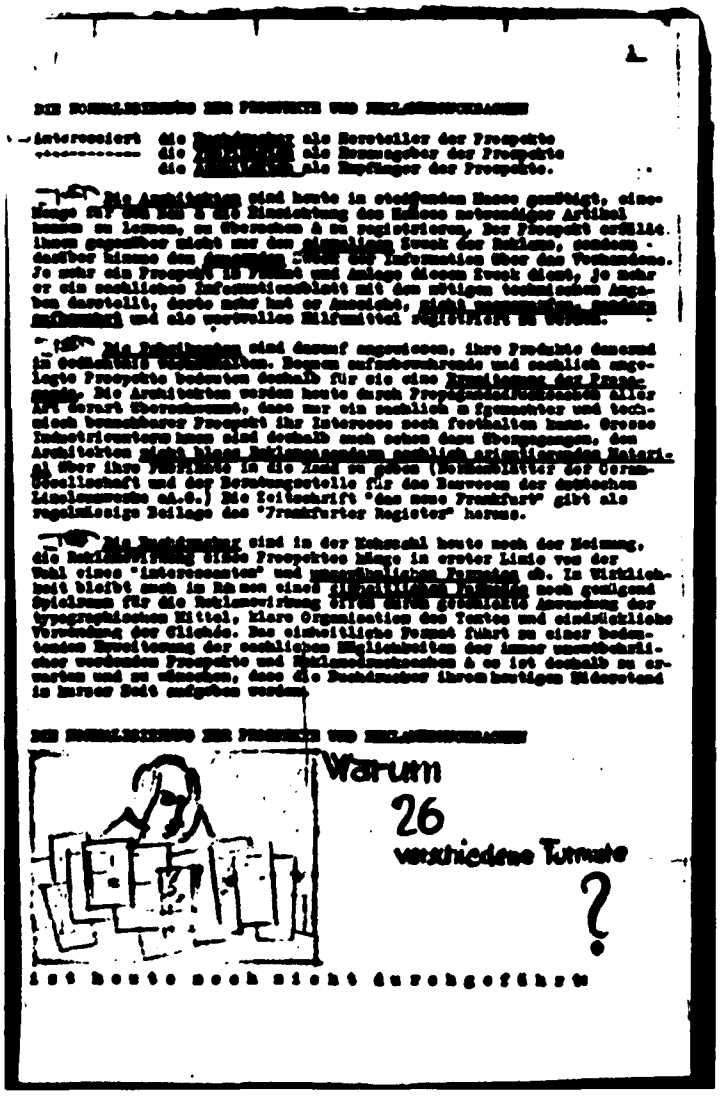
als 21,0 x 29,7, entsprechend dem Format des Geschäftsbriefes festzulegen.

Der Satzspiegel ist nach dem Normenblatt DIN 826 zu normalisieren (vergleiche diesen Aufruf). Die Clichés sind nach Möglichkeit nach denselben Massen zu normen, damit sie jederzeit in Zeitschriften mit Normalformat verwendet werden können.

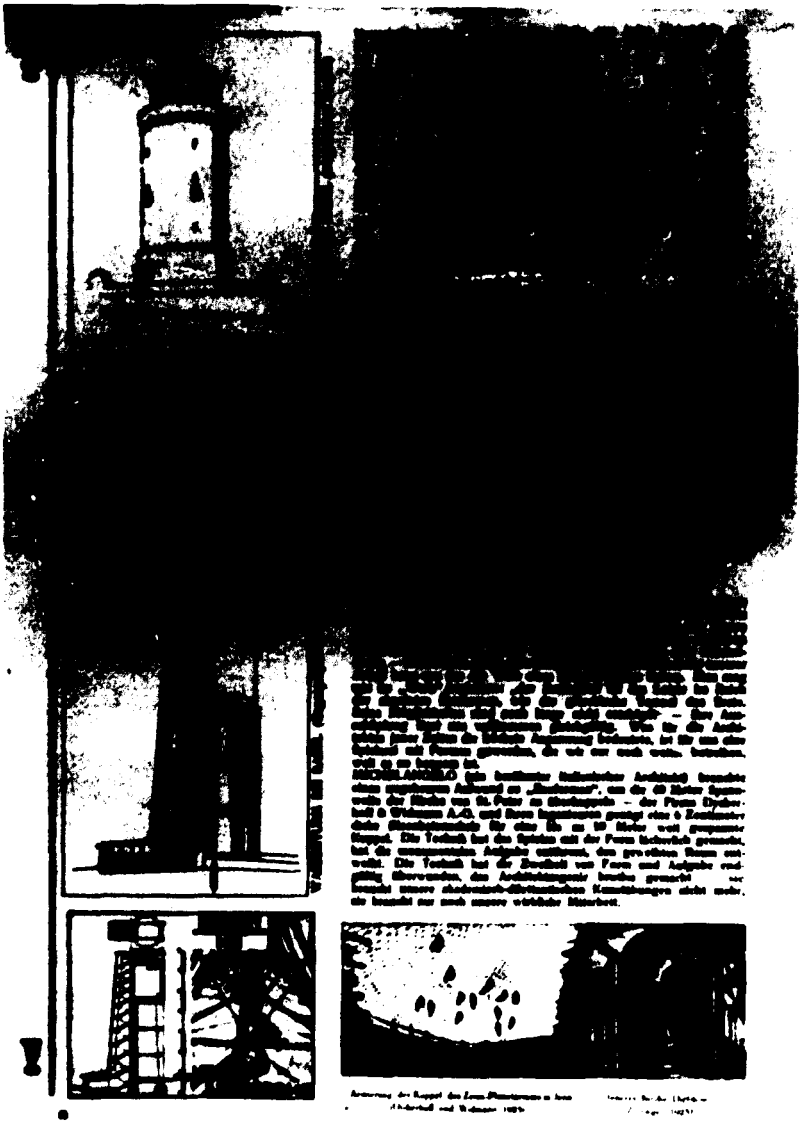
DIE NORMALISIERUNG DER PROSPEKTE UND REKLAMEDRUCKSACHEN

Uebersicht spart Arbeit !

48. Unpublished manuscript by Hans Schmidt (circa 1924-1925) (Photo: The Hans Schmidt Archive, ETH, Zurich).



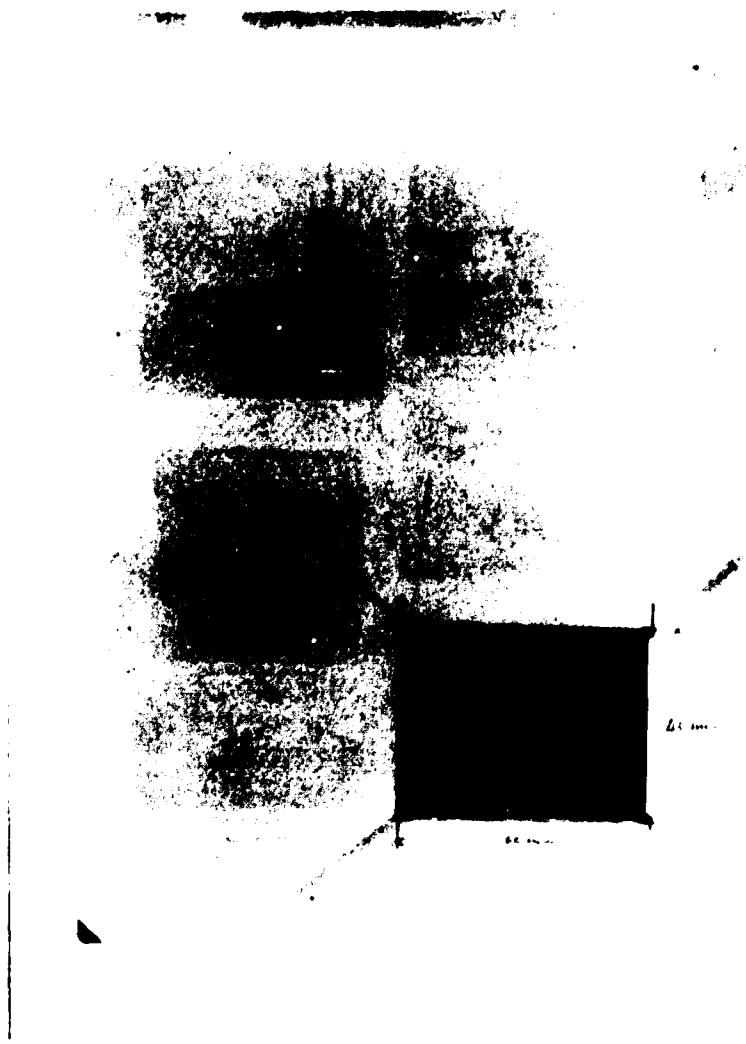
49. Page from ABC featuring the final part of "Die Baukunst und der Liebe Gott" and the Watertower Project by Hans Schmidt (1925) (Photo: ABC Series II, No. 1, 1926, page 8).



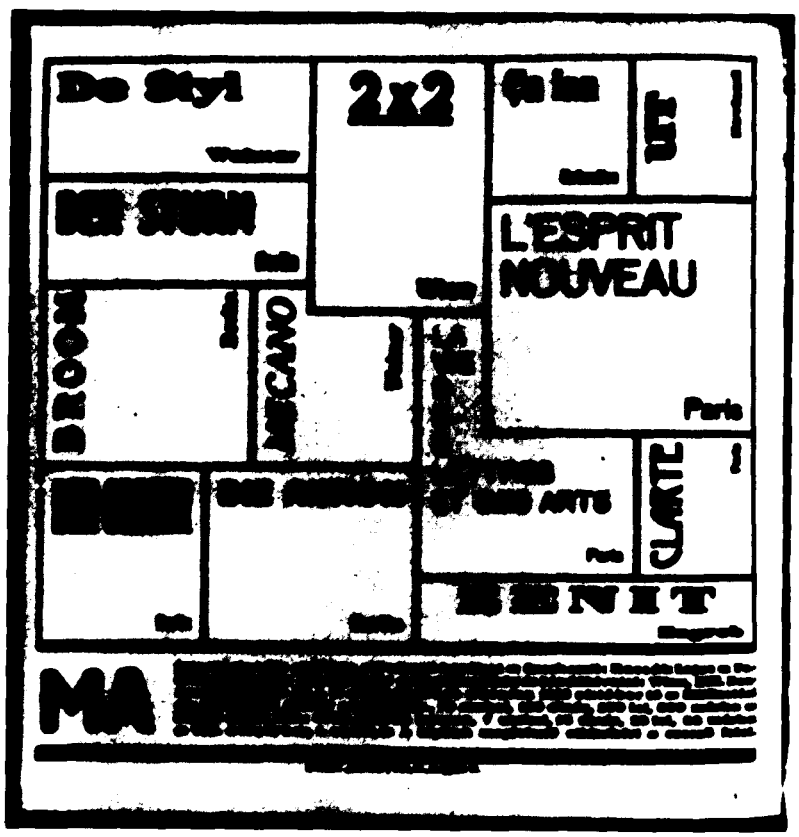
50. Layout for illustration to "Die Baukunst und der Liebe Gott" by Hans Schmidt (Photo: Mrs. Lili Schmidt, Basel).



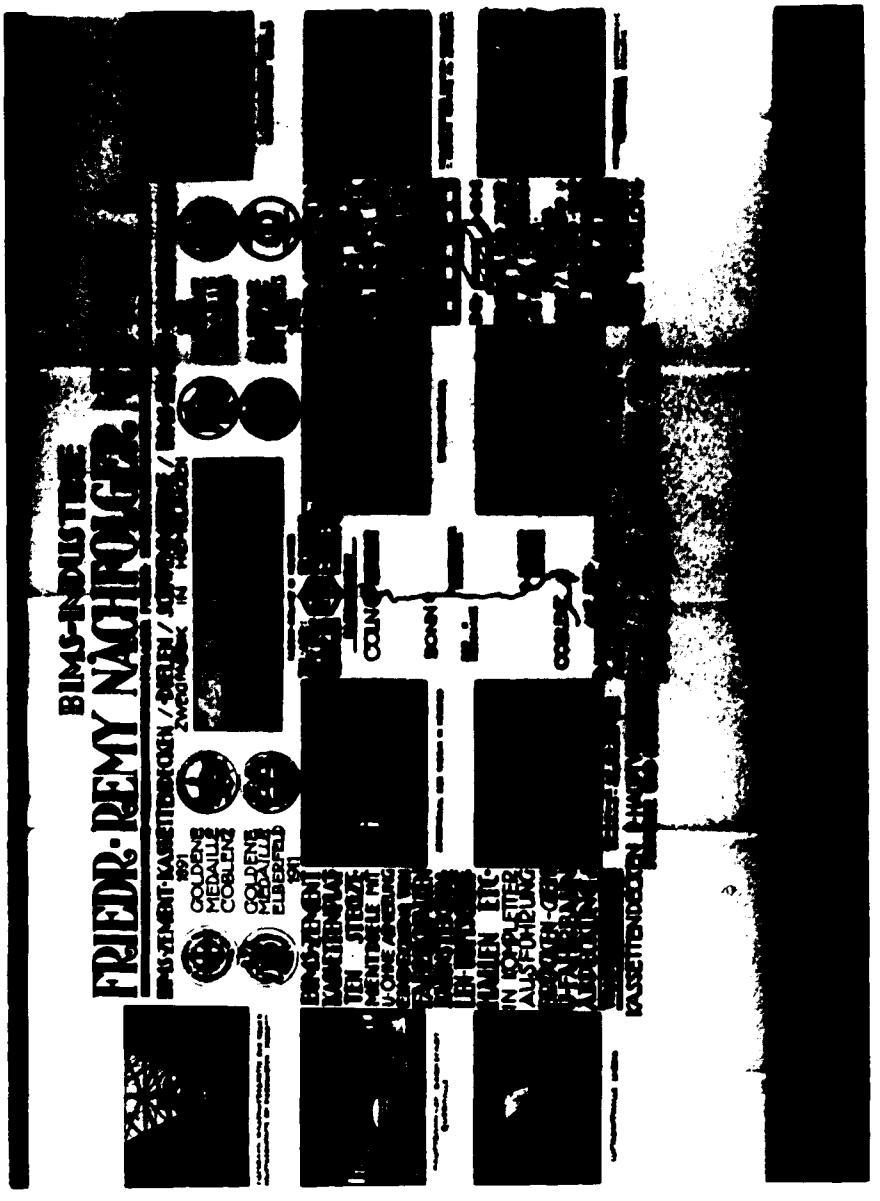
51. Layout for illustration to "Die Baukunst und der Liebe Gott" by Hans Schmidt (Photo: Mrs. Lili Schmidt, Basel).



52. Page from Ma (Photo: Ma, Vienna, Volume 8, No. 1, October 15, 1922).



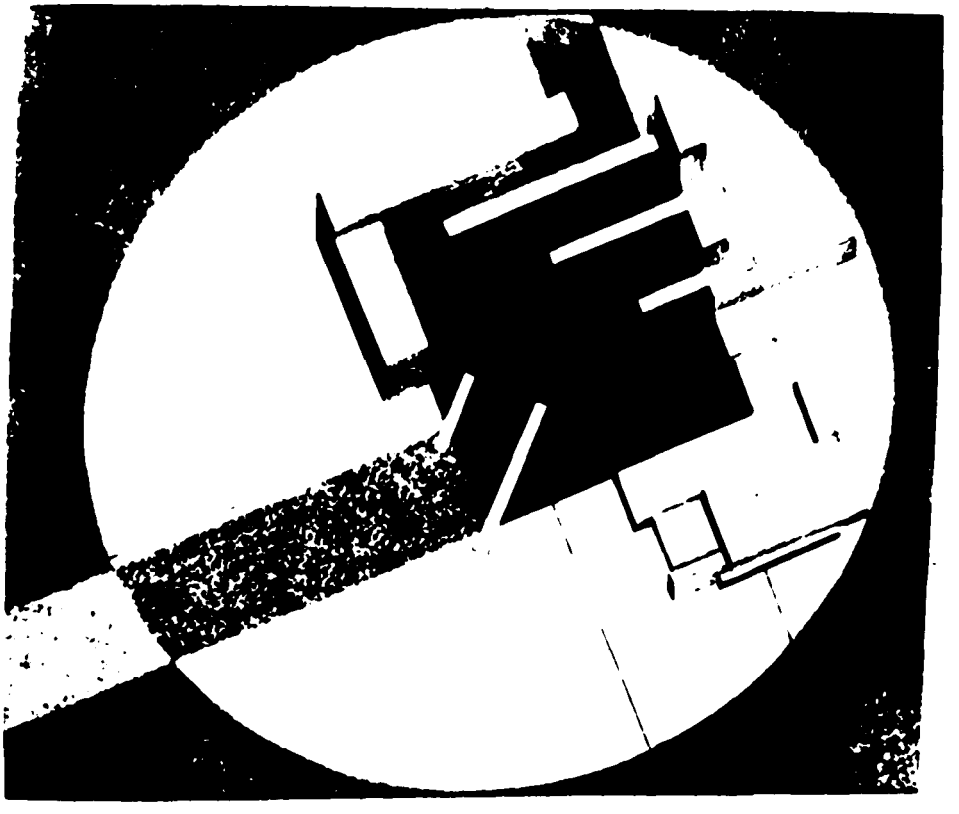
53. Poster for the German Werkbund Exhibition, Cologne (1914) (Photo: Deutsche Werkbund Ausstellung, Offizieller Katalog, Cologne, 1914).



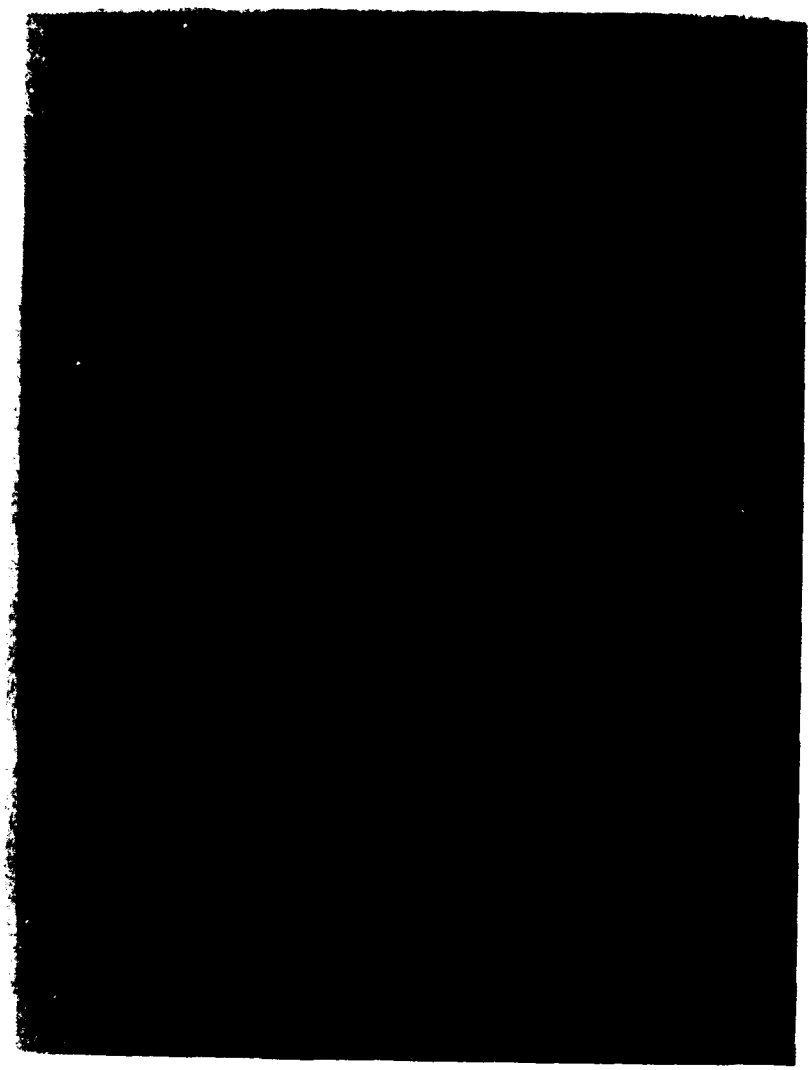
54. "Proun 1A Bridge 1 by El Lissitzky (1919) (Photo: Sophie Lissitzky-Kuppers, El Lissitzky, Greenwich, 1968, Plate, 22).



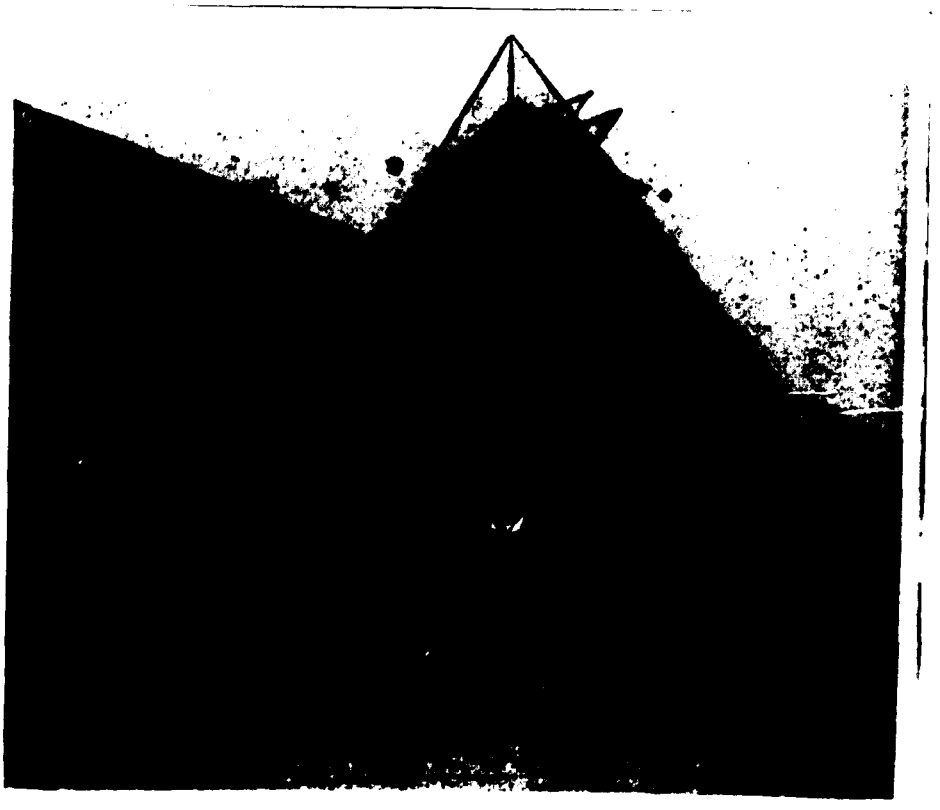
55. Proun 1E, The Town by Photo: El Lissitzky (1921) (Photo: Sophie Lissitzky-Kuppers, Plate 21).



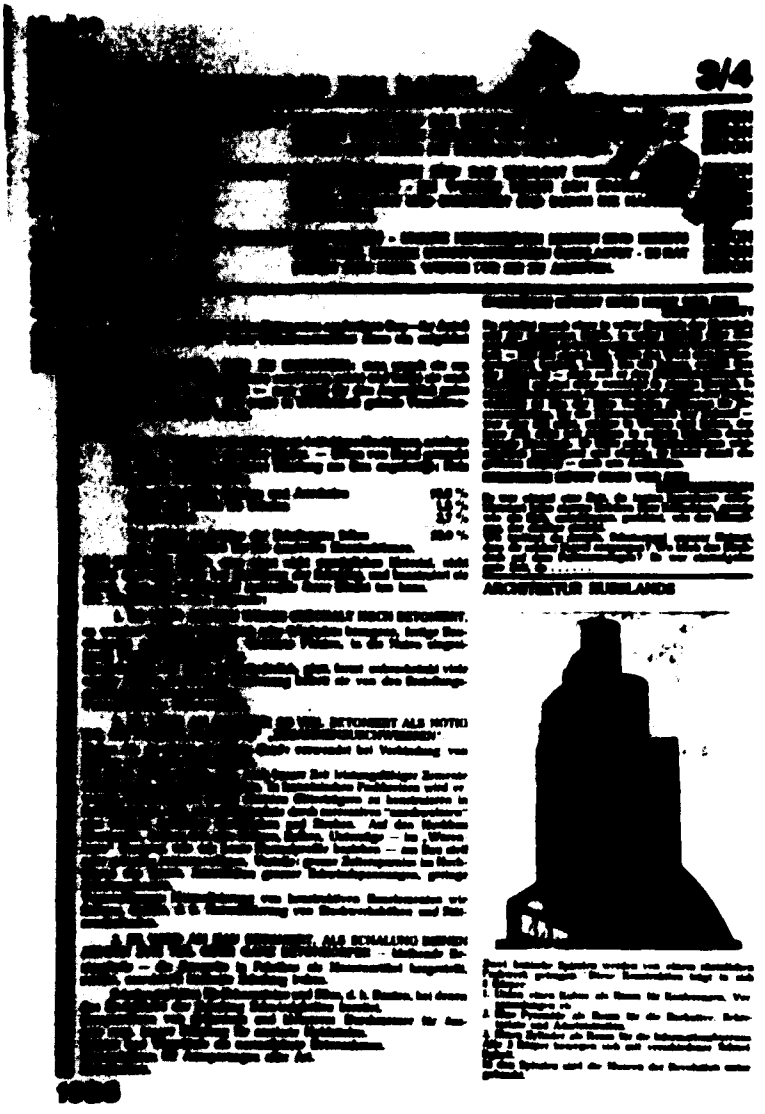
56. "Exercise in the Representation of Volume and Space" by I.V. Lamstov, Moscow (1921) (Photo: S.O. Chan-Magomedov, Pioneere Der Sowjetischen Architektur, Berlin, 1983, page 114).



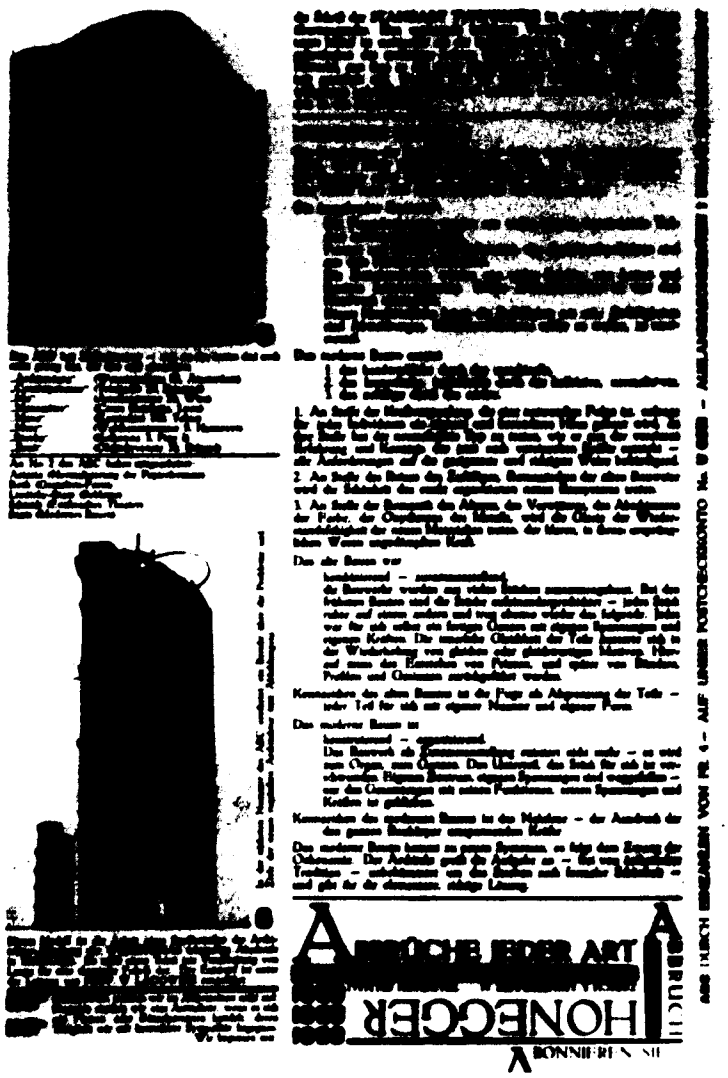
57. "Exercise in the Representation of Formal Qualities of Mass and Equilibrium" by W. Simbirchev, Moscow (1922) (Photo: S.O. Chan-Magomedov, Pionere Der Sowjetischen Architektur, Berlin, 1983, page 114).



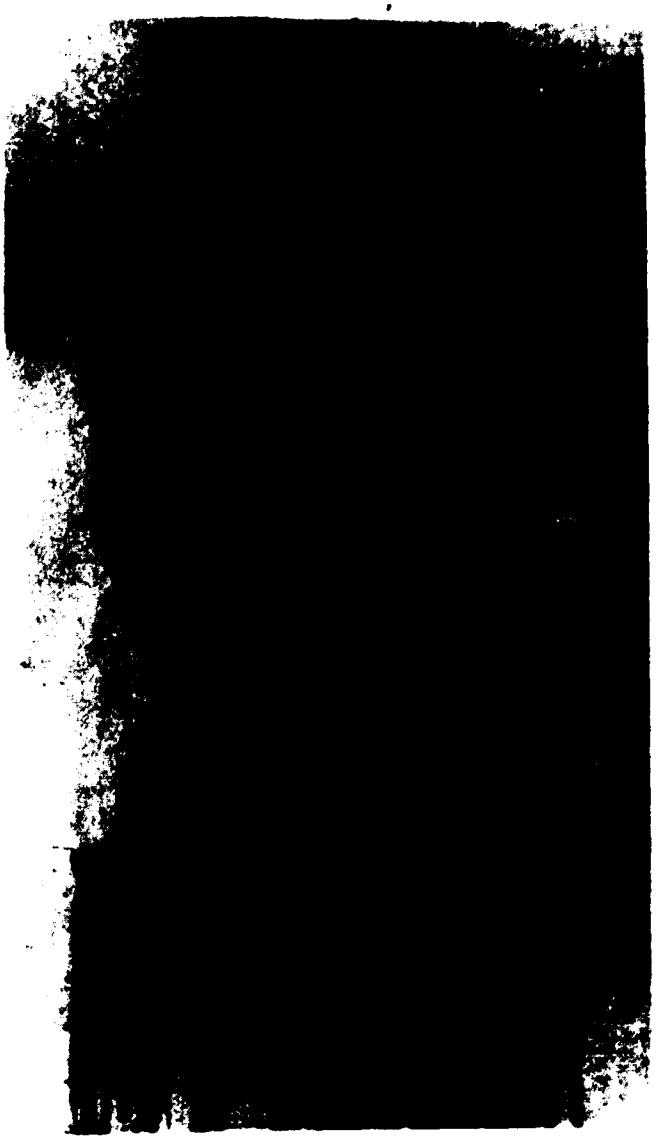
58. Page from ABC featuring "Beton" Bloc Stamp by Mart Stam and Tatlin's Tower from "Architektur Russlands" (Photo: ABC, Series I, No. 3-4, 1925, page 1).



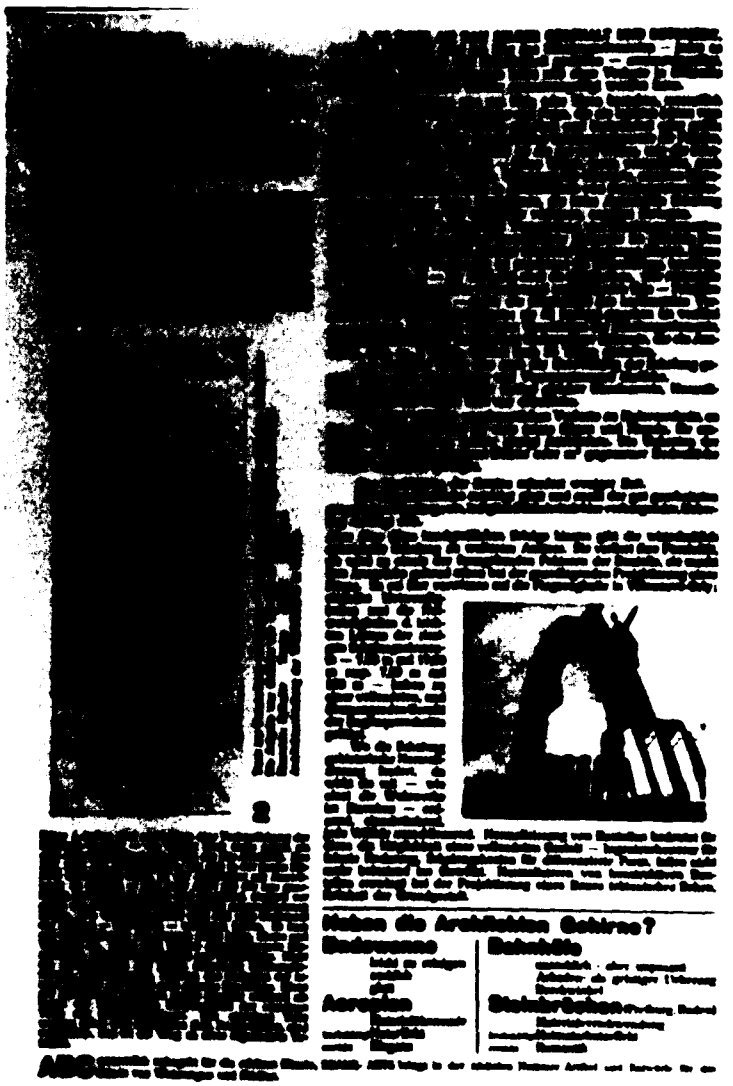
59. A "Turm zur Verarbeitung von Lauge" by Gruensenko, Moscow (1922) (Photo: ABC, Series I, No. 2, 1924, page 4).



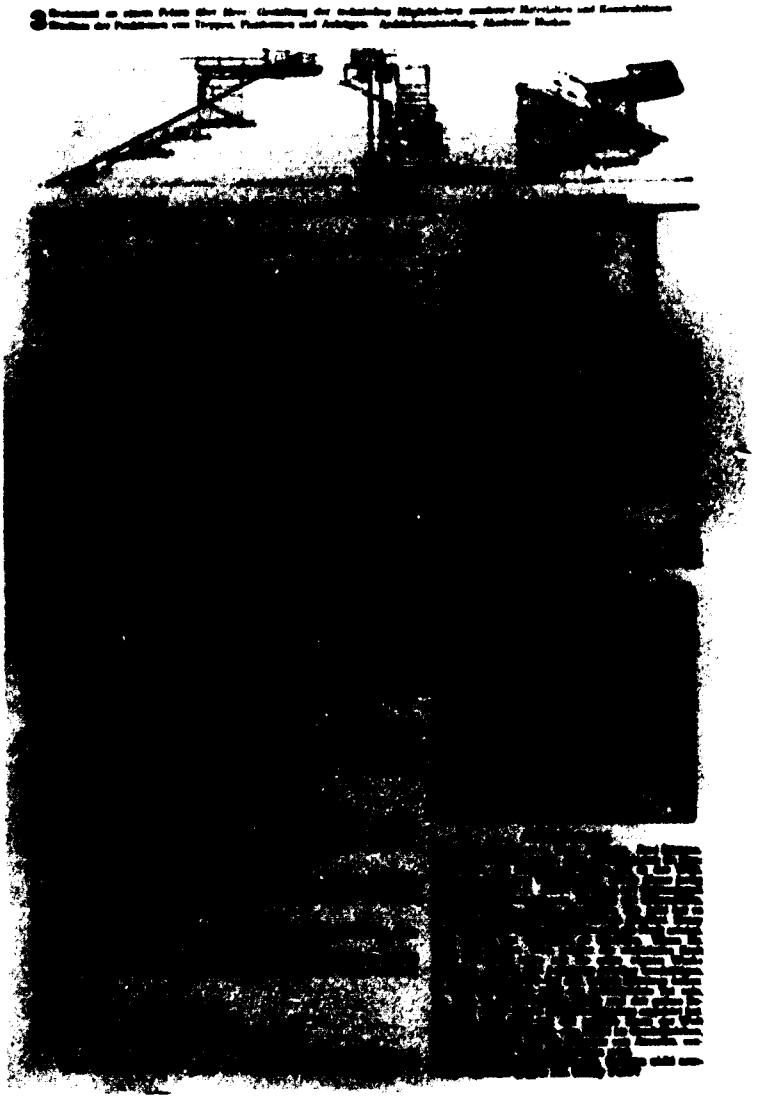
59. B "Turm zur Verarbeitung von Lauge" by Gruensenko, Moscow (1922) (Photo: ABC, Series I, No. 2, 1924, page 4).



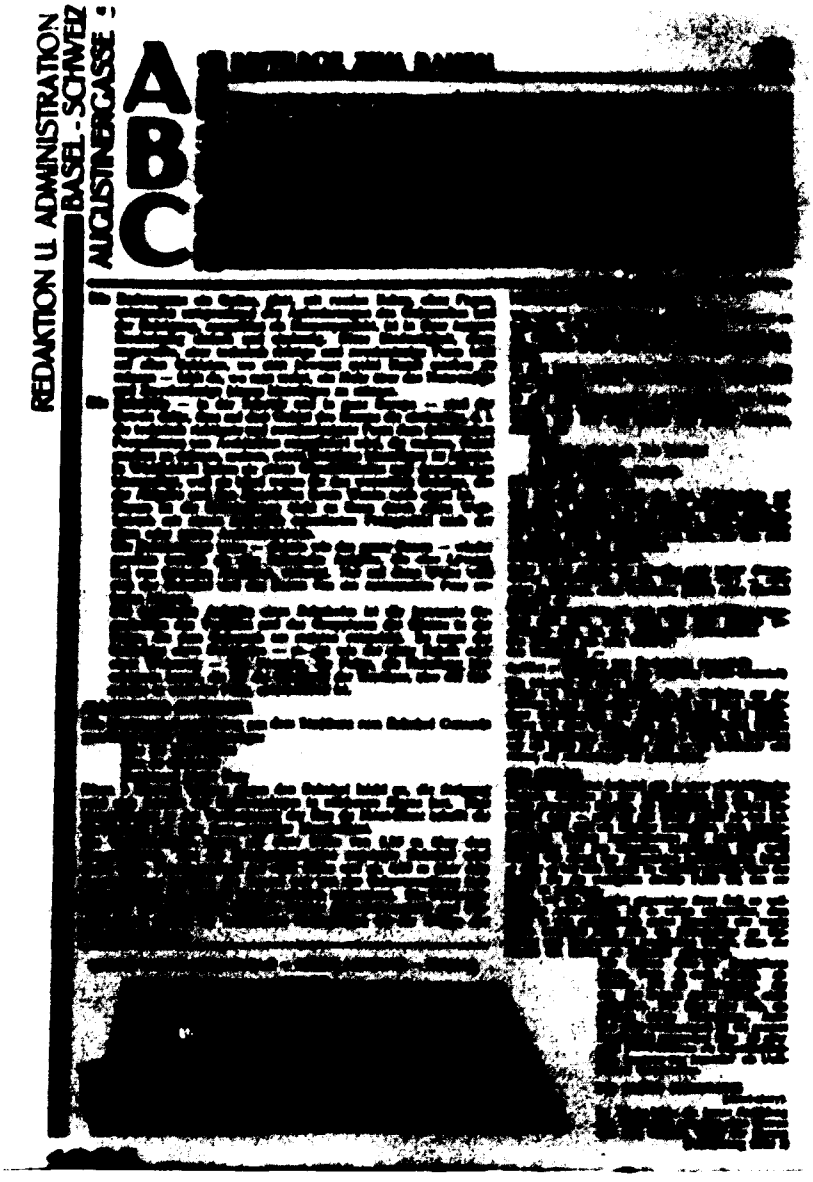
60. "Turm zur Verarbeitung von Lauge" by Gruensenko, Moscow, (1922) (Photo: ABC, Series I, No. 3-4, 1925, page 2).



61. Page from ABC featuring "Restaurant Suspended on a Pier over a Lake", by Simbirchev (1922). (Photo: ABC, Series I, No. 3-4, 1925, page 3).



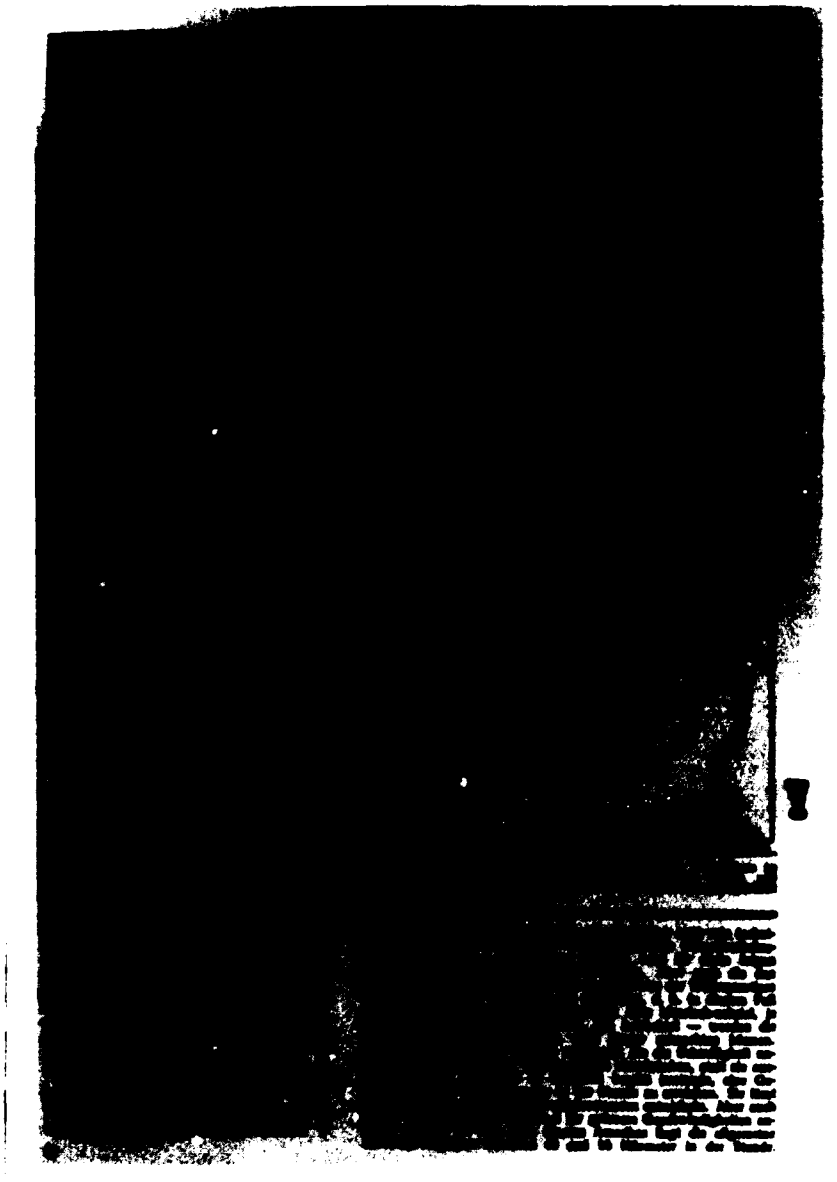
62. "Airport Model" by Atelier Ladovsky, Moscow (I.N. Lamstov, 1923) (Photo: ABC, Series I, No. 6, 1925, page 1).



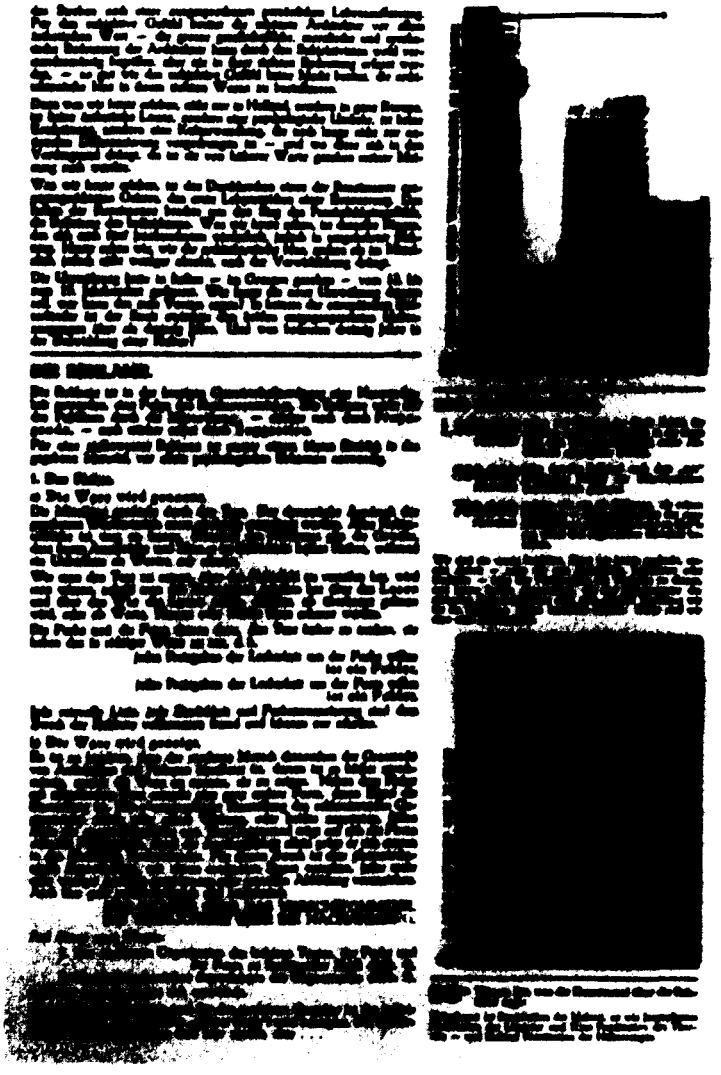
63. "Aerocar Paris-St. Denis" (Photo: ABC, Series II, No. 1, 1926, page 4).



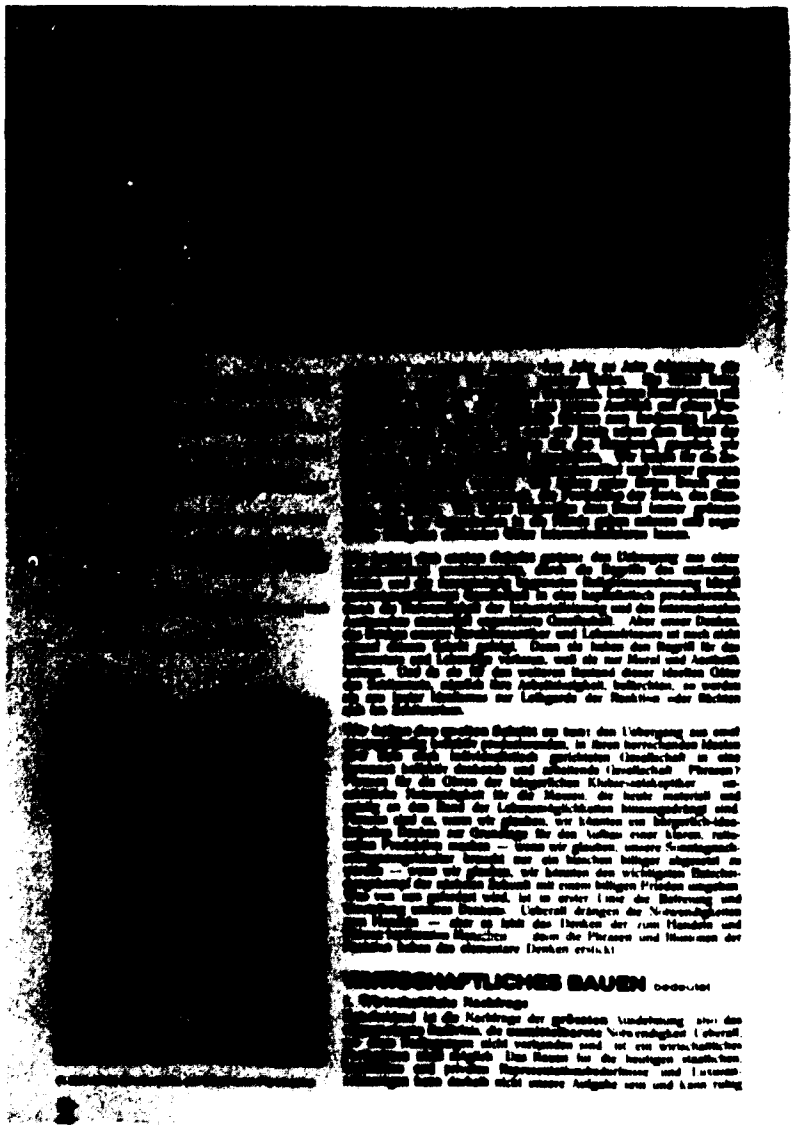
64. "Transportmittel" (Photo: ABC Series II, No. 1, 1926, page 6).



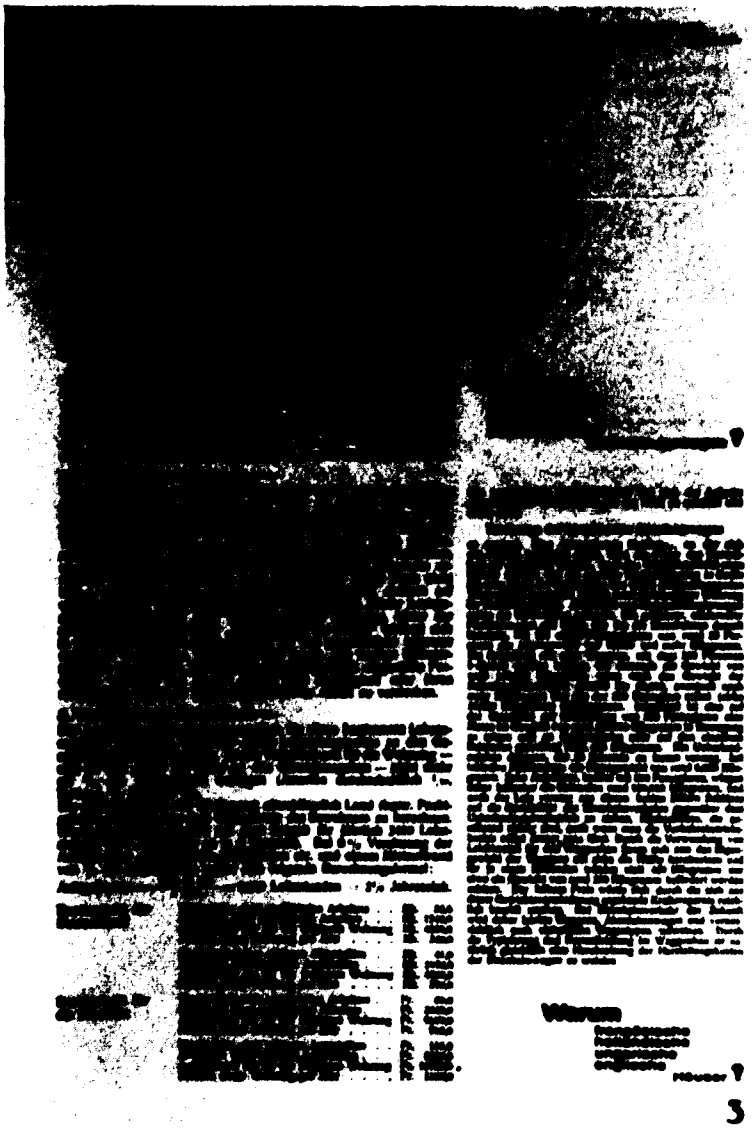
65. "Stahlgerippe eines Wolkenkratzers in Baltimore" (Photo: ABC Series I, No. 2, 1924, page 3).



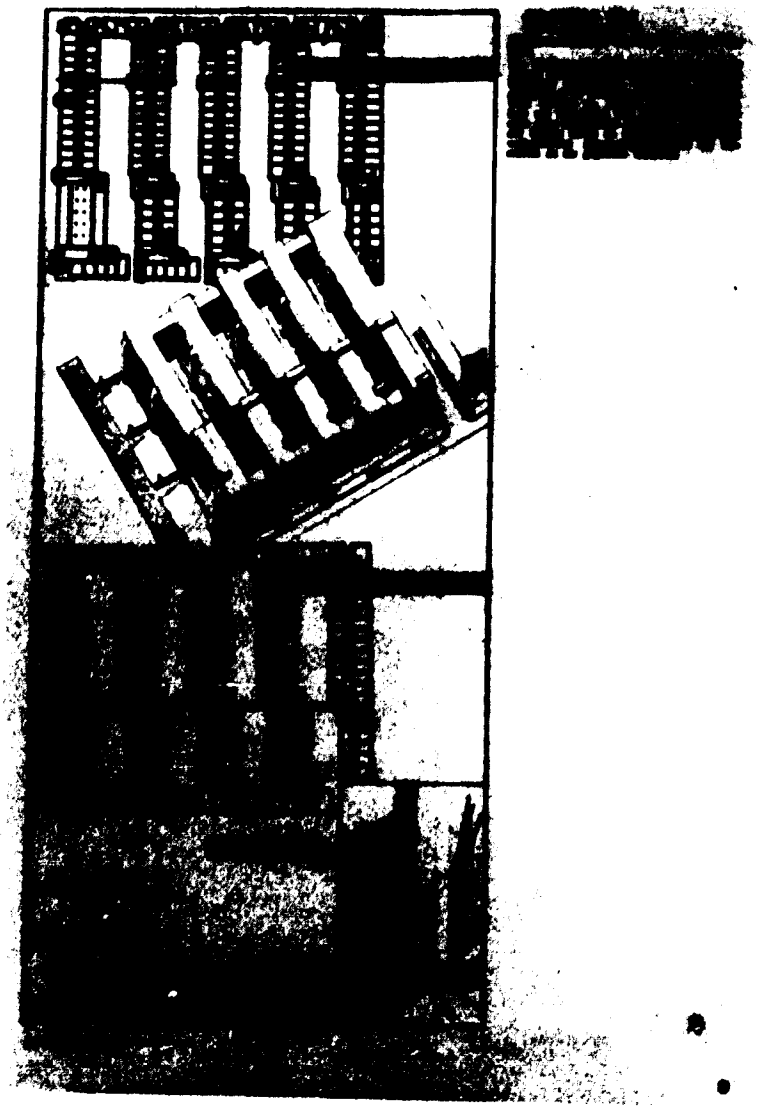
66. "Fabrikhalle Wema" (Photo: ABC, Series II, No. 4, 1927-28, page 2).



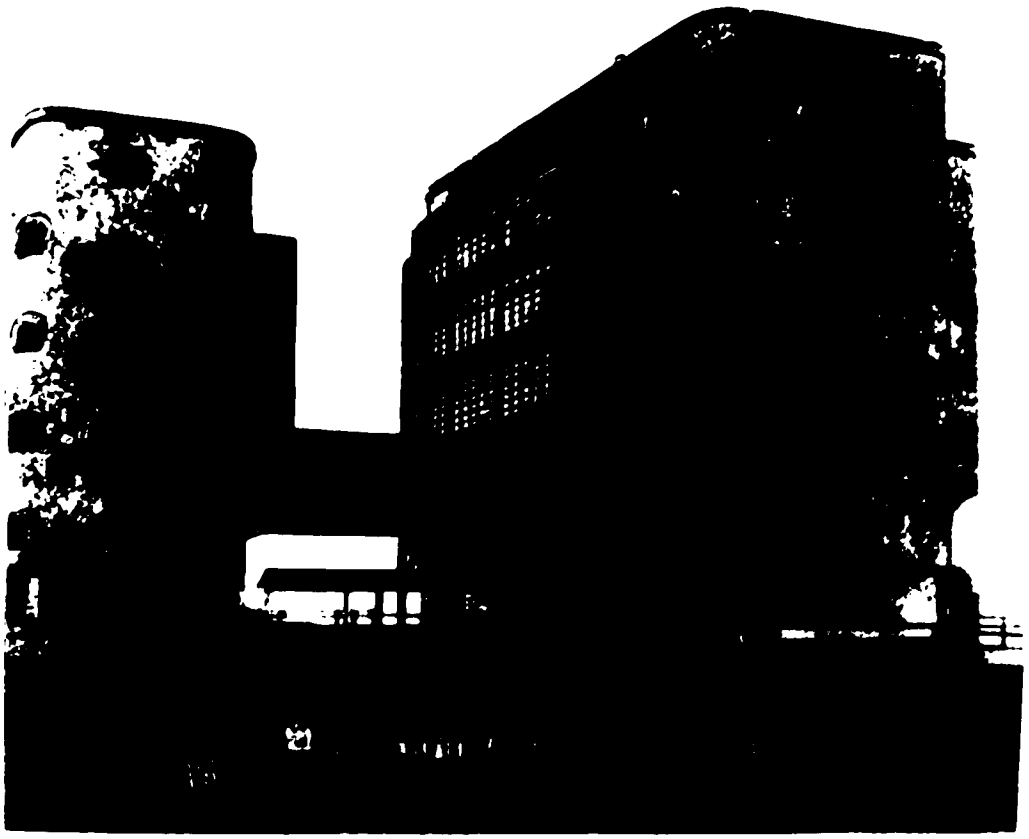
67. "Zirkus Hagenbeck" (Photo: ABC, Series II, No. 4, 1927-28, page 3).



68. "Am Knie" by Mart Stam, Berlin, (1922) (Photo: ABC, Series II, No. 3, 1926, page 3).



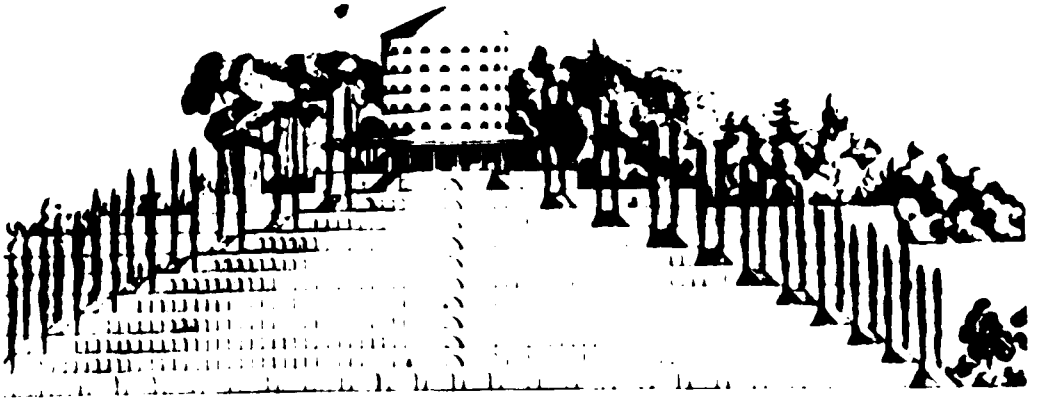
69. "Study for a Water Mill," by Hans Poelzig, Breslau (1908) (Photo: Dennis Sharp, Modern Architecture and Expressionism, New York, 1966, page 40).



70. Printers Trade Union Building by Max Taut, Berlin (1922) (Photo: Gerrit Oorthuys, Mart Stam -- A Documentation of His Work, London, 1970, page 2).



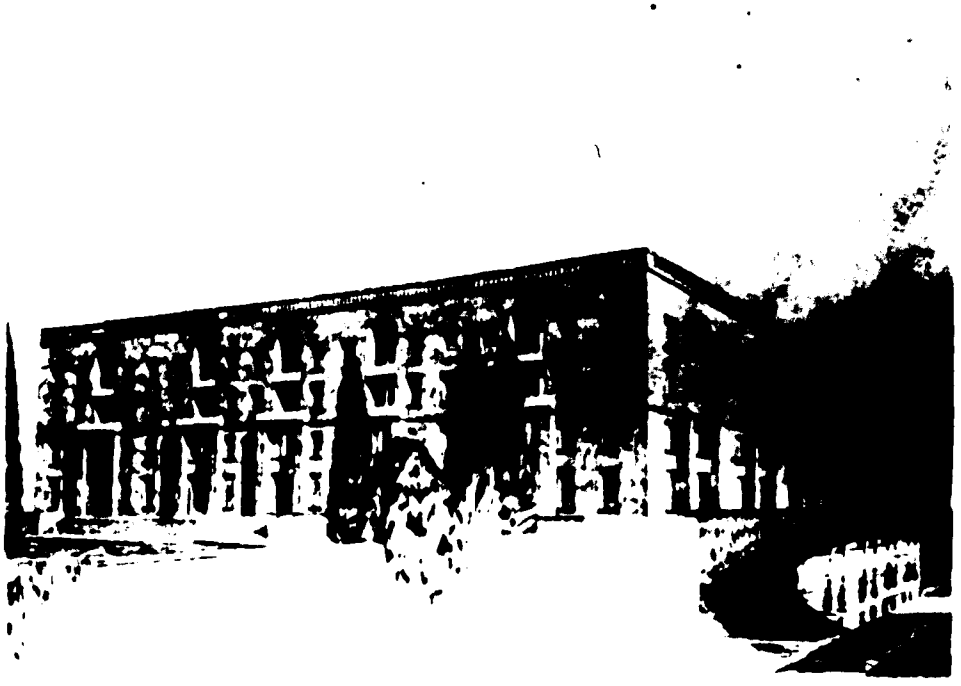
71. "Hornli" Cemetery Competition entry by Hannes Meyer, Basel (1922) (Photo: Jacques Gubler Nationalisme Et Internationalisme Dans L'Architecture Moderne De La Suisse, Lausanne, 1975, Plate XIX).



72. "Hornli" Cemetery Competition entry by Hans Schmidt, Basel (1922) (Photo: Gubler, Plate XIX).



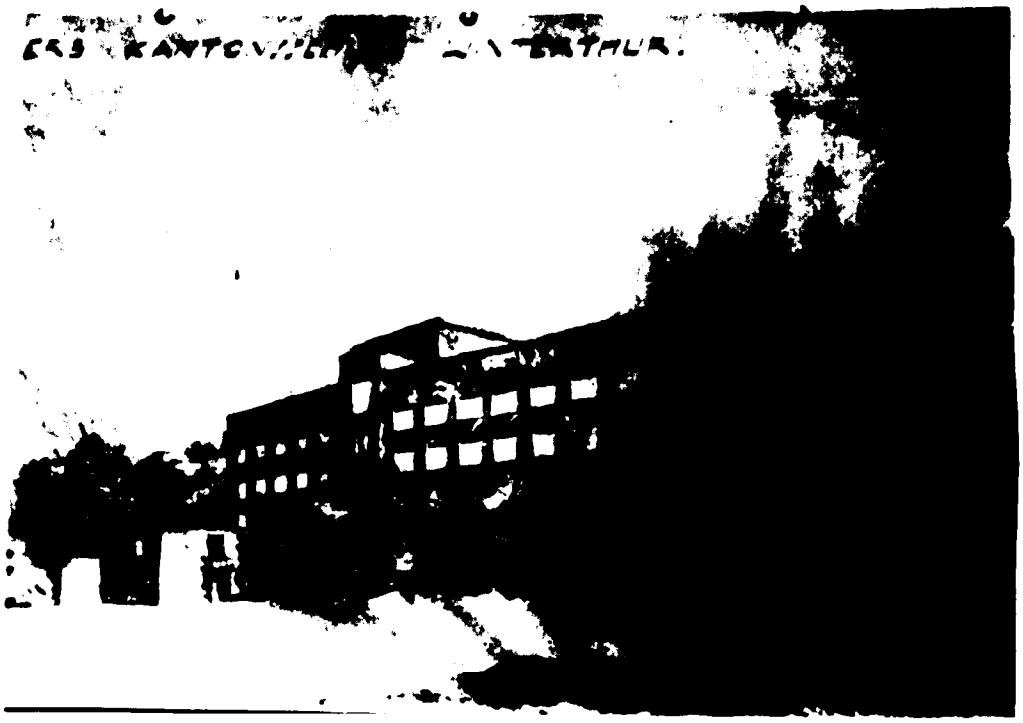
73. A "Hotel Am Schanzengraben" by Emil Roth (1918) (Photo: The Estate of Emil Roth, Zurich).



73. B "Hotel Am Schanzengraben" by Emil Roth (1918) (Photo: The Estate of Emil Roth, Zurich).



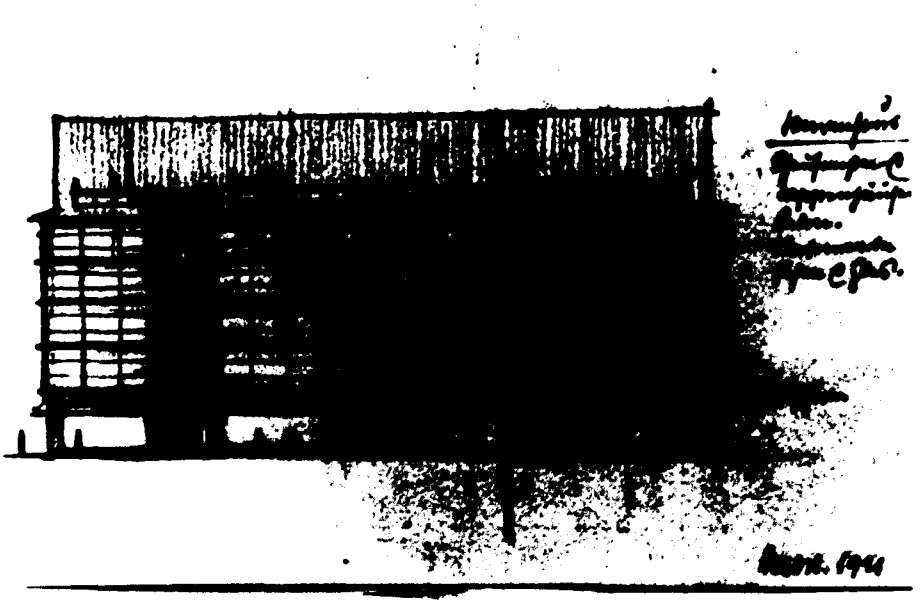
74. A "Canton School in Winterthur" by Emil Roth (1922) (Photo: The Estate of Emil Roth).



74. B "Canton School in Winterthur" by Emil Roth (1922) (Photo: The Estate of Emil Roth).



75. Untitled Sketch by Hans Schmidt (1922) (Photo: The Hans Schmidt Archive, ETH, Zurich).



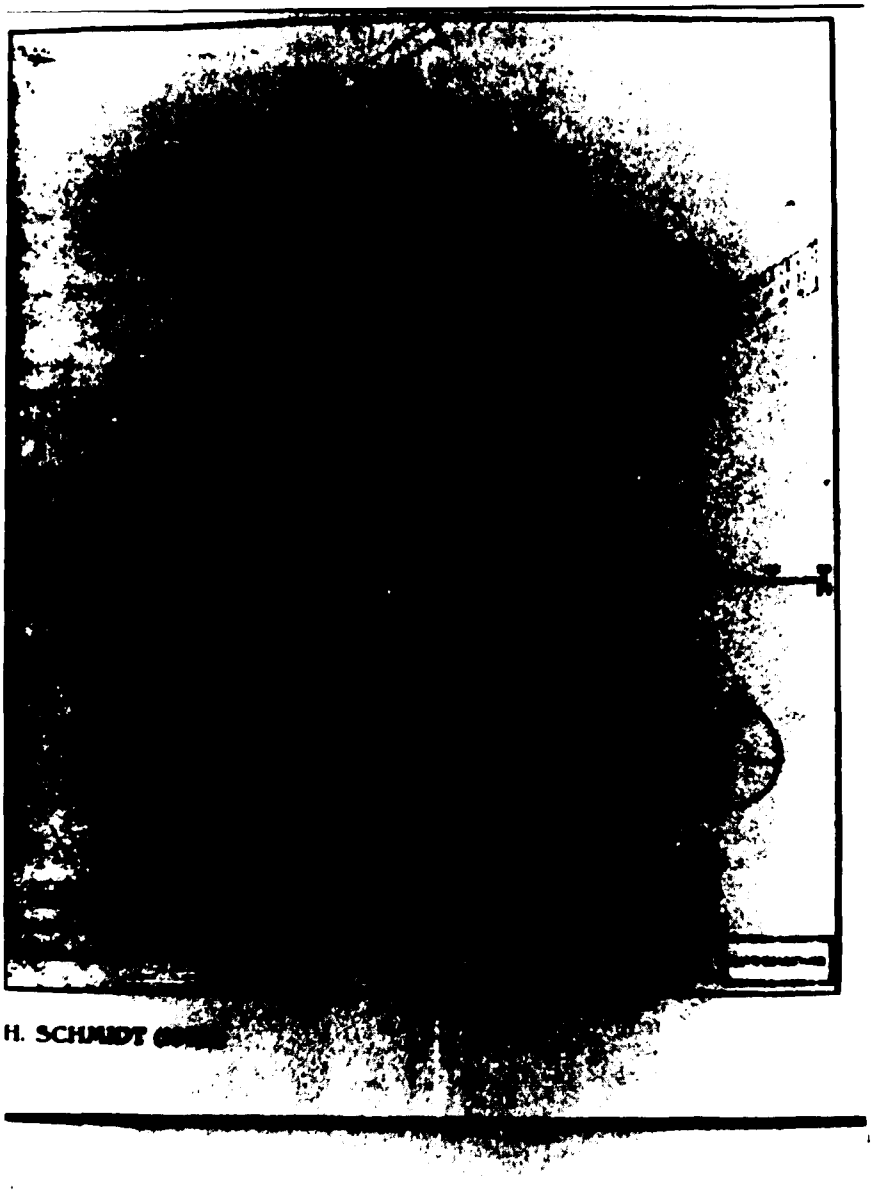
76. Unititled Drawing by the Hans Schmidt (1922) (Photo, the Hans Schmidt Archive).



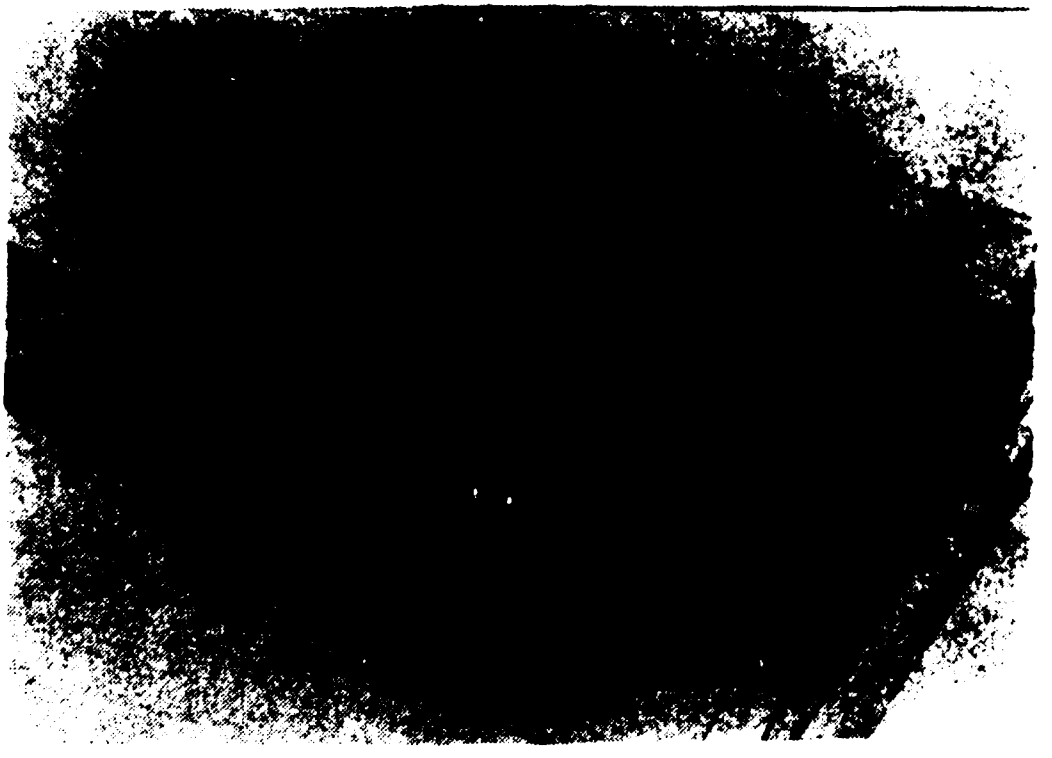
77. Untitled Drawing by the Hans Schmidt (1922) (Photo, the Hans Schmidt Archive).



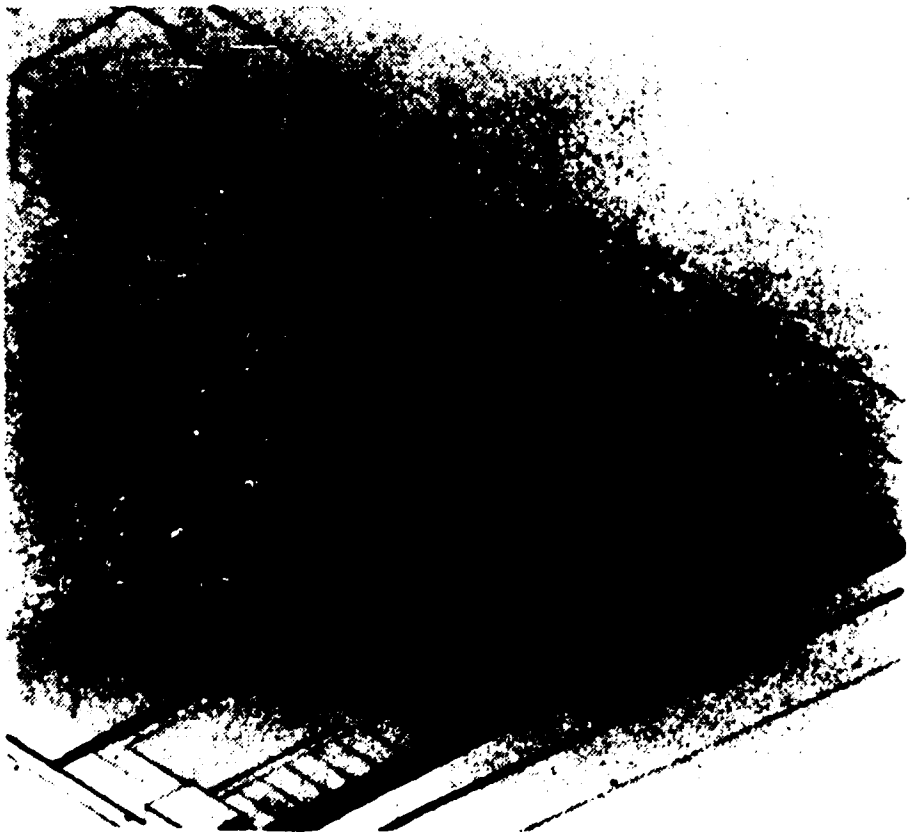
78. "Genf: Wettbewerbsentwurf fur das internationale Arbeitsamt" by Hans Schmidt, (1923) (Photo: ABC, Series II, No. 3, 1926, page 5).



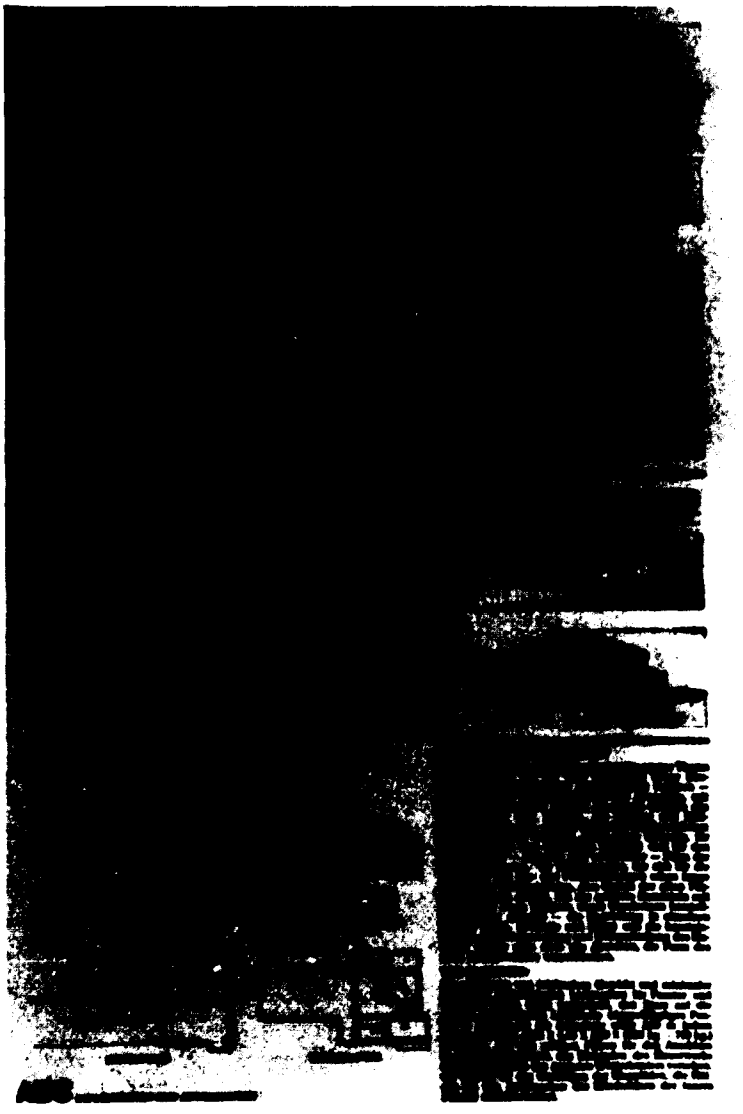
79. "St. Wendel's Boys Grammar School" by Mart Stam, (1924) (Photo: Mart Stam, Op zoek naar een abc van het bouwen, Het Bouwbedrijf 3, 1926, page 523).



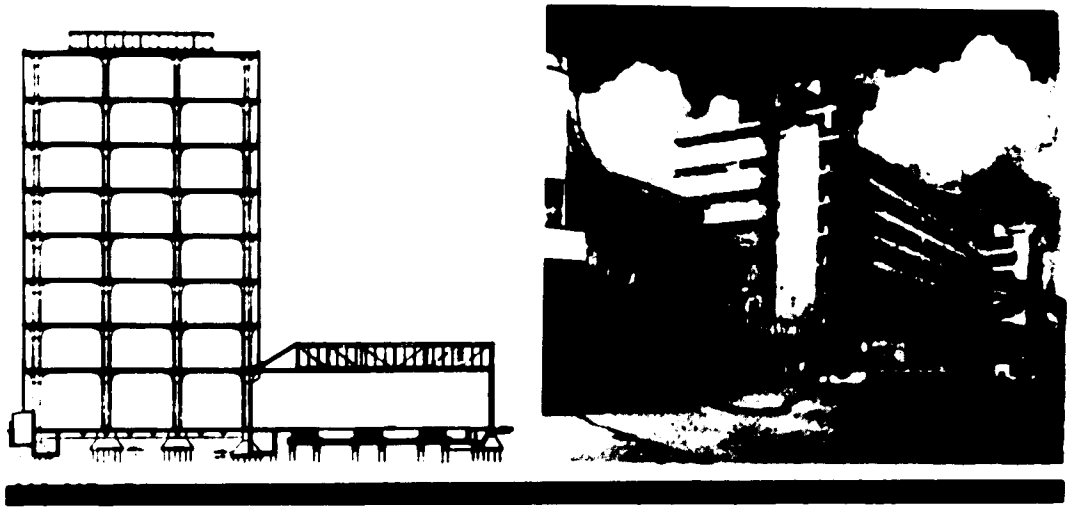
80. "Thun Boy's Grammar School" by Mart Stam (1925) (Photo: Het Bouwbedrijf 3, page 524).



81. Page from ABC featuring "Extendable House" by Mart Stam (circa 1924) (Photo: ABC, Series, I, No. 3-4, 1925, page 5).



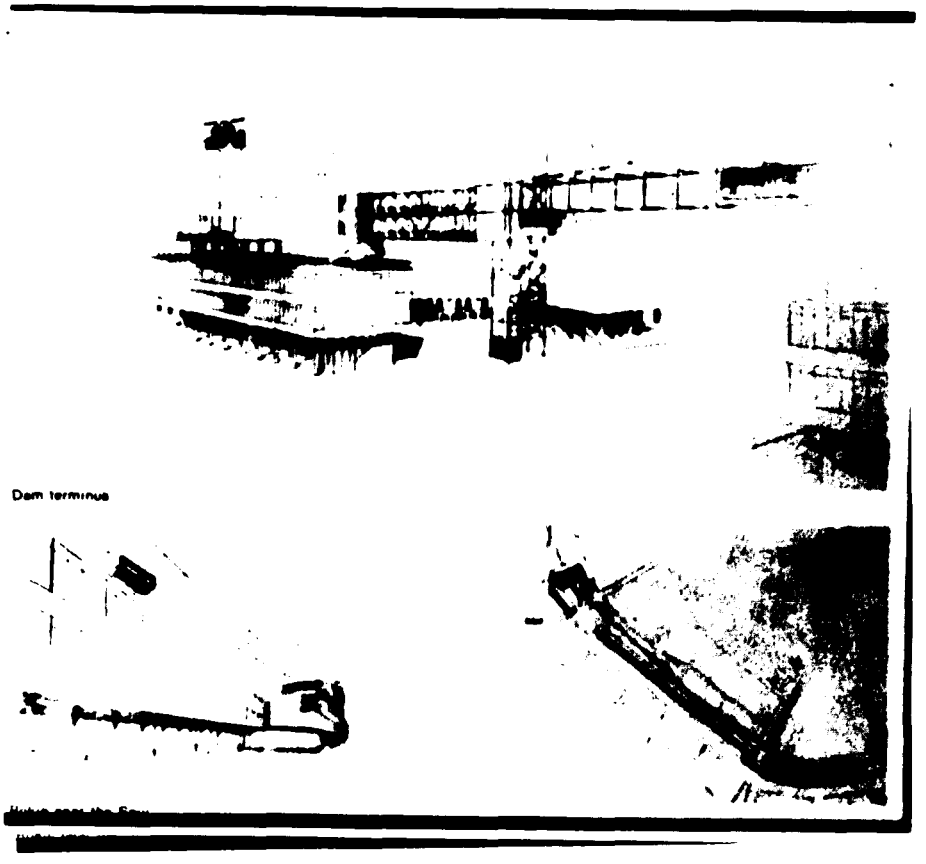
82. The Van Nelle Factory by Brinkman and Van der Vlugt, Rotterdam (1927-9). (Photo: Kenneth Frampton Modern Architecture -- A Critical History, New York, 1980, page 135.



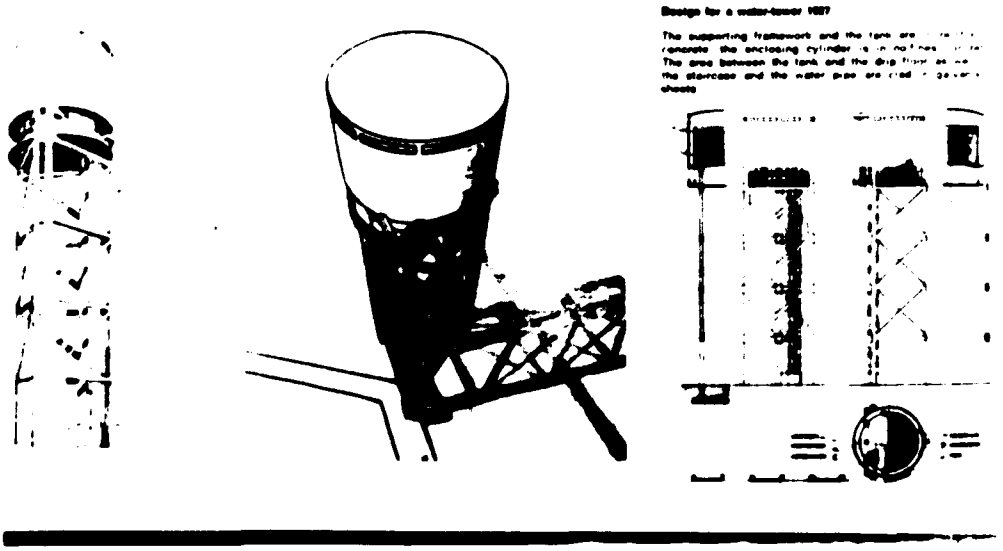
83. Sketch for the Van Nelle Factory by Mart Stam (circa 1925-1928) (Photo: Oorthuys, page 8).



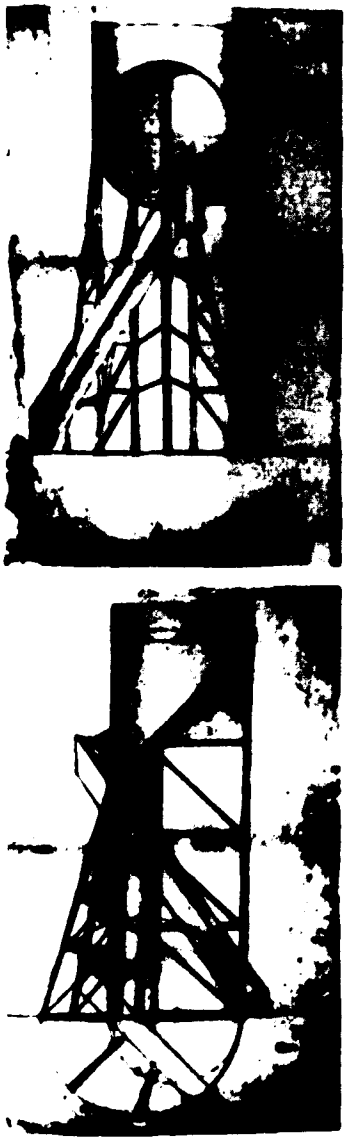
84. "Rokin and Dam" Project by Mart Stam, Amsterdam (1926). (Photo: Mart Stam, "Rokin en Dam" International Revue, Vol. 1, No. 3, 1927, pp. 86-88).



85. Watertower Project by Mart Stam, (1927) (Photo: Oorthuys, page 9).



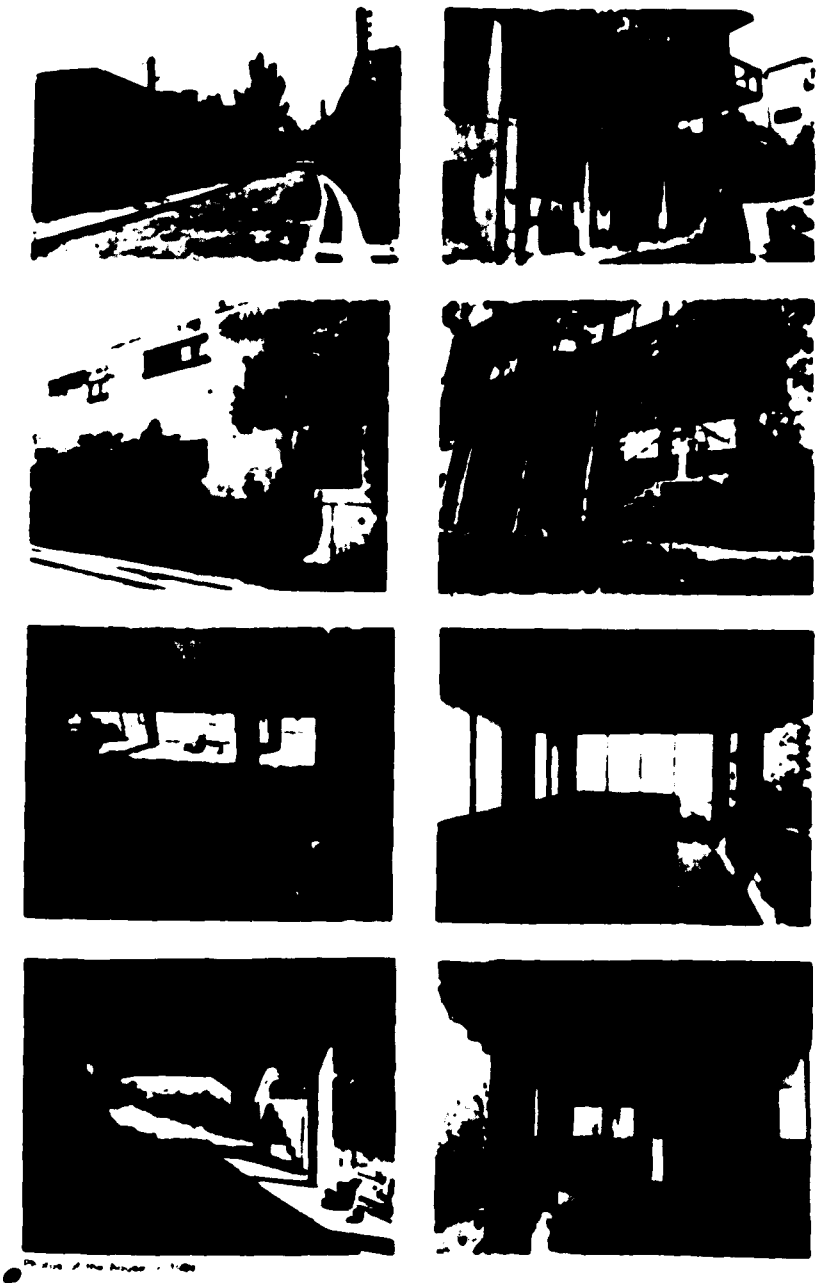
86. Watertower Project by N. Krassilnikow, Moscow (1921) (Photo: Chan-Megomedow, page 115).



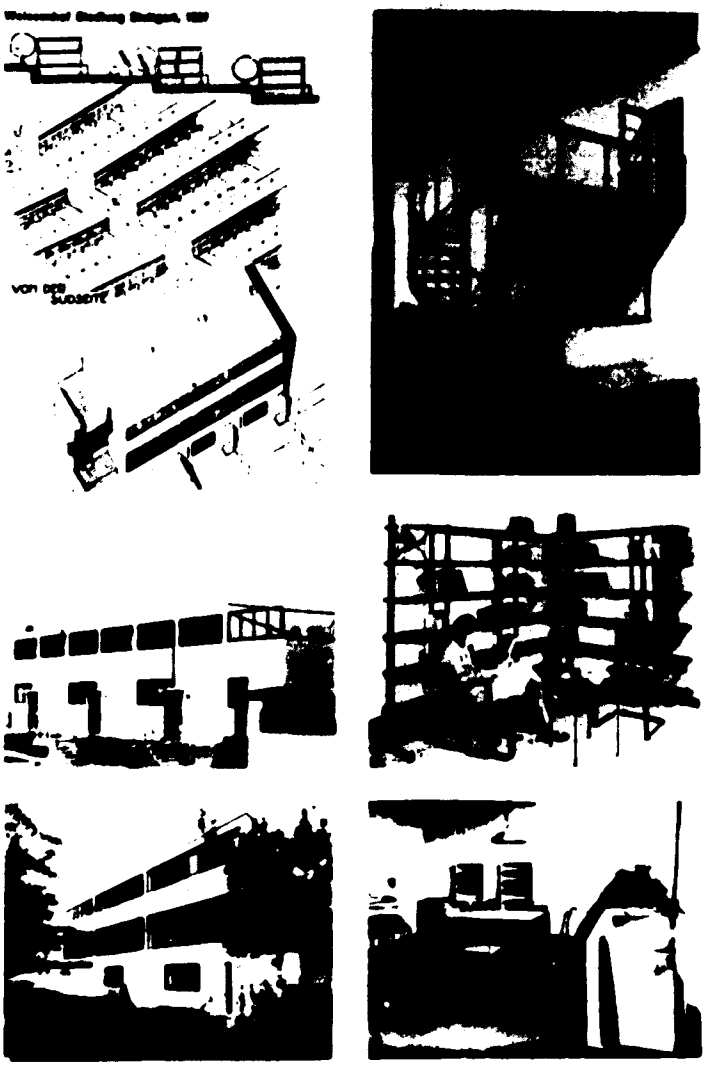
87. House in Baba Project by Mart Stam, Prague (1928)
(Photo: Oorthuys, page 23).



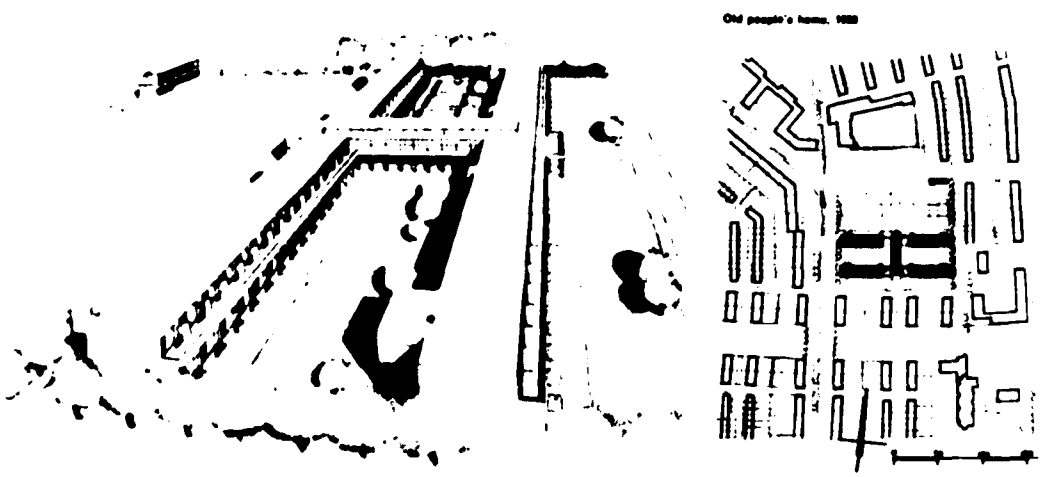
88. House in Baba by Mart Stam, Prague (Built in 1931-32) (Photo Oorthuys).



89. Rowhouse at the Weissenhof Siedlung, by Mart Stam, Stuttgart, (1927), (Photo: Oorthuys, page 12).



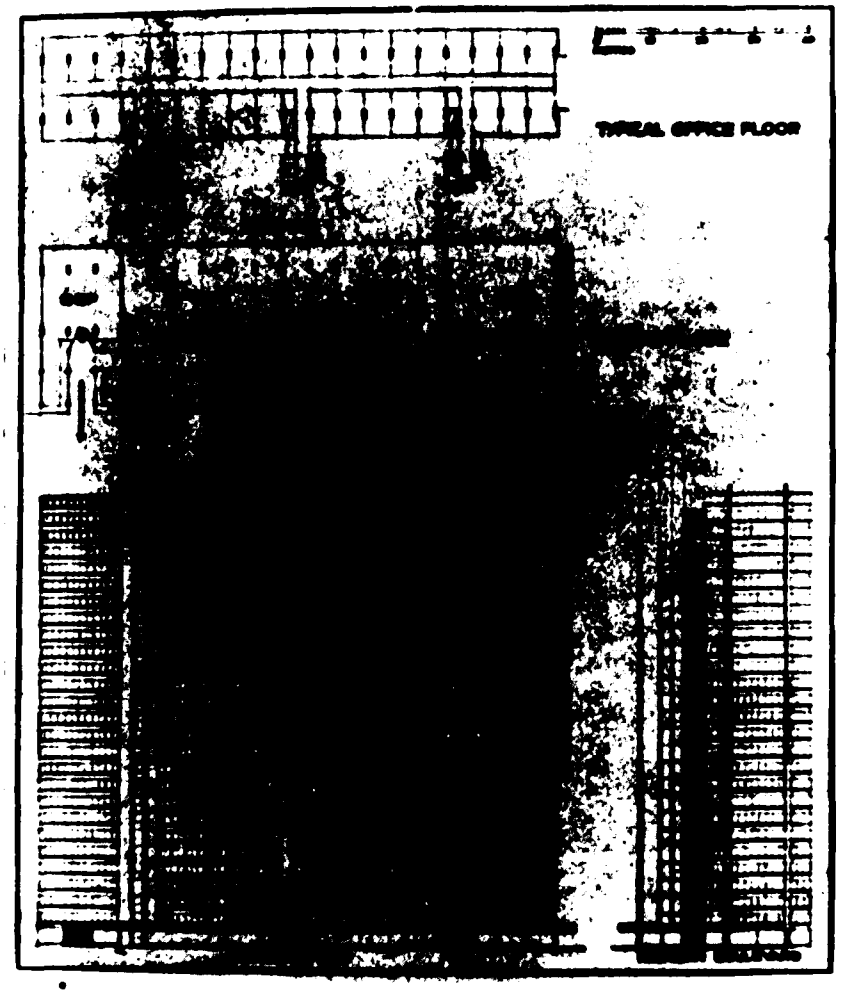
90. Old People's Home of the Henry and Emma Budge Foundation by Mart Stam and Werner Moser, Frankfurt (1928) (Photo: Oorthuys, page 14).



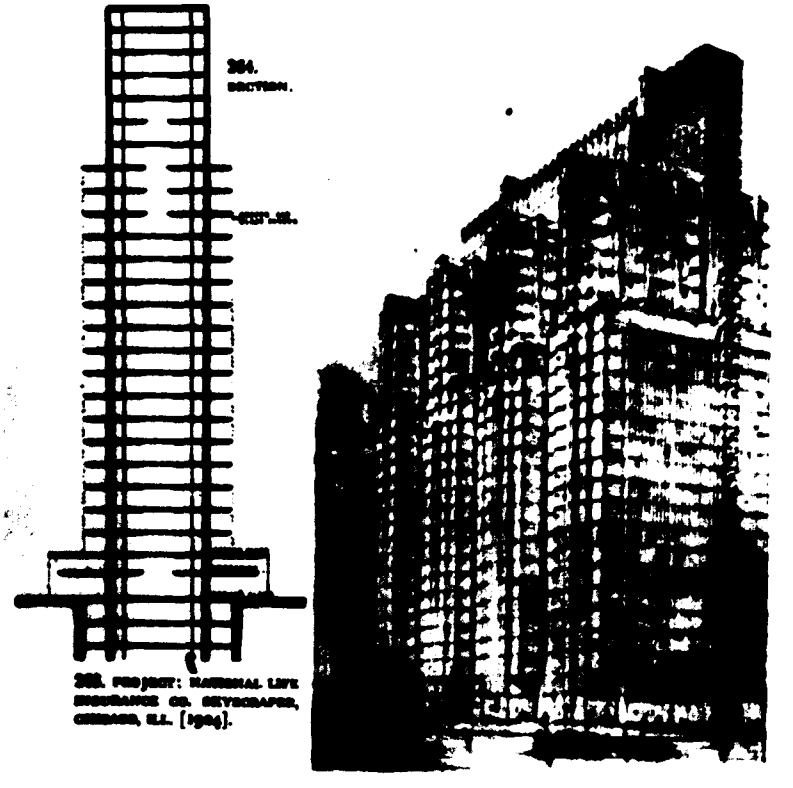
91. Old People's Home of the Henry and Emma Budge Foundation by Mart Stam and Werner Moser, Frankfurt (1928) (Photo: Oorthuys, page 14).



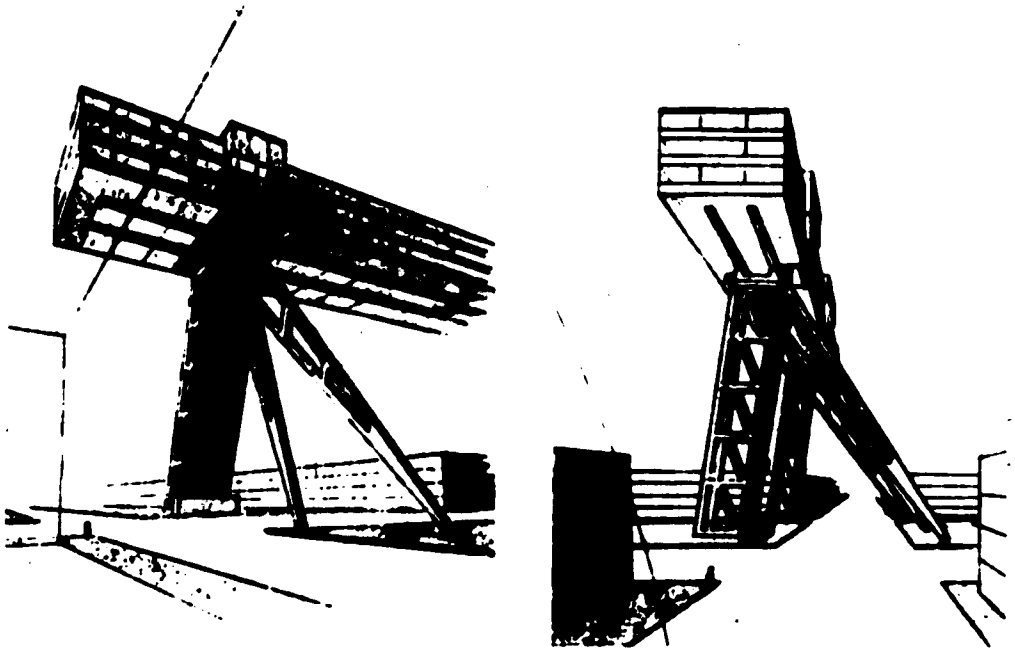
92. "Chicago: Bureauhaus Pearconstreet -- Michigan Boulevard" by Werner Moser (1924) (Photo: ABC, Series II, No. 3, 1926, page 5).



93. National Life Insurance Company at Water Tower Square by Frank Lloyd Wright, Chicago (1924) (Photo: Henry-Russell Hitchcock. In the Nature of Materials, New York, 1975, Plate 263).



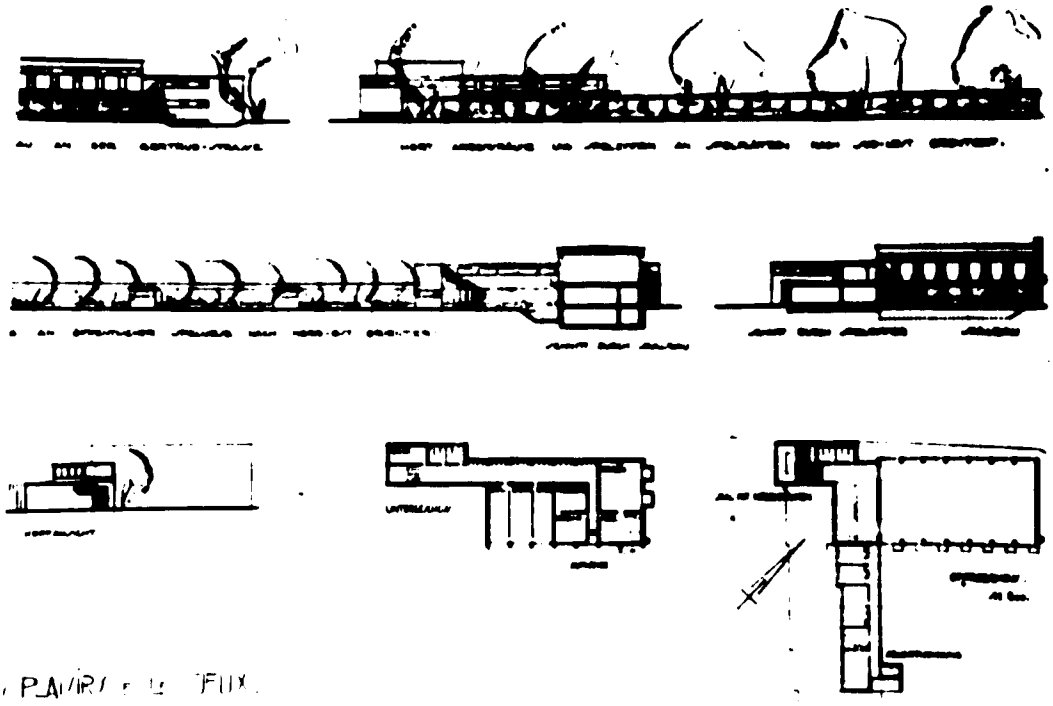
94. Alternative Design to El Lissitzky Wolkenbugel, by Mart Stam and Emil Roth, Moscow (1925) (Photo: Oorthuys, page 5).



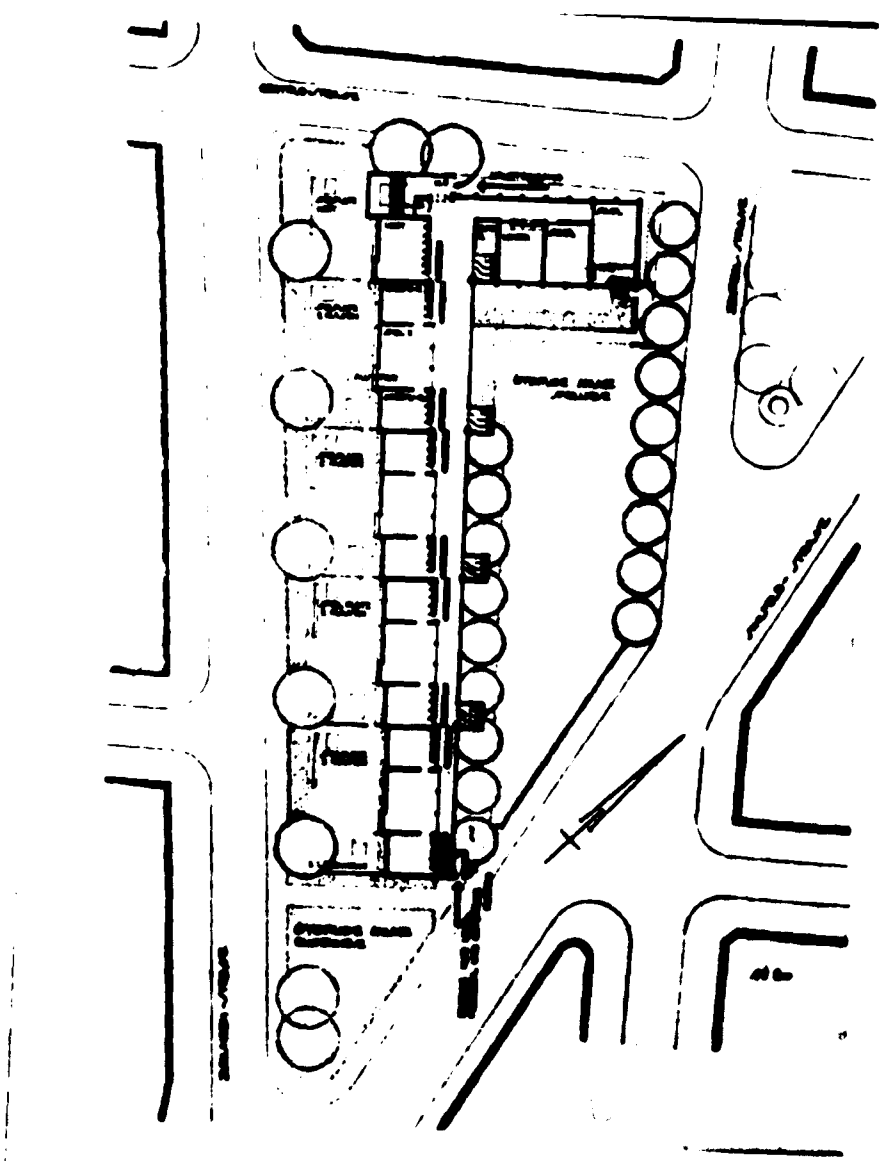
95. "Wolkenbugel" Project by El Lissitzky, Moscow, (1924-25) (Photo: Estate of Emil Roth).



96. A "Kindergarten Group" by Emil Roth, Switzerland (1928) (Photo: Estate of Emil Roth).



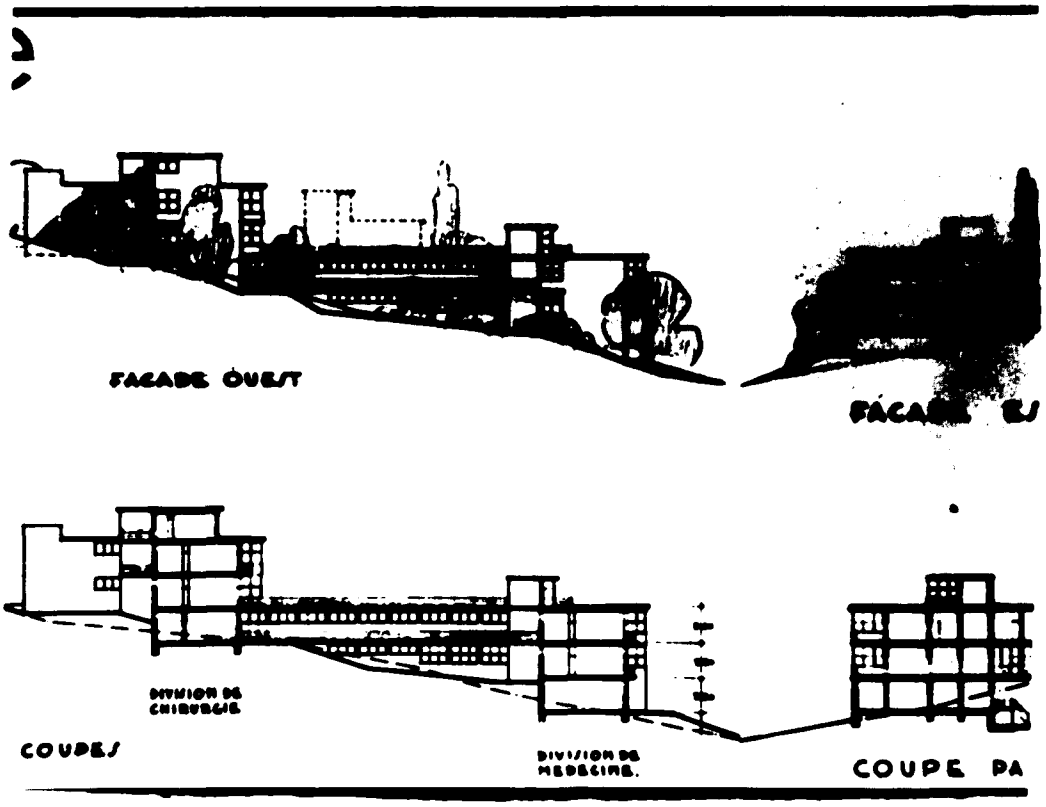
96. B "Kindergarten Group" by Emil Roth, Switzerland (1928) (Photo: Estate of Emil Roth).



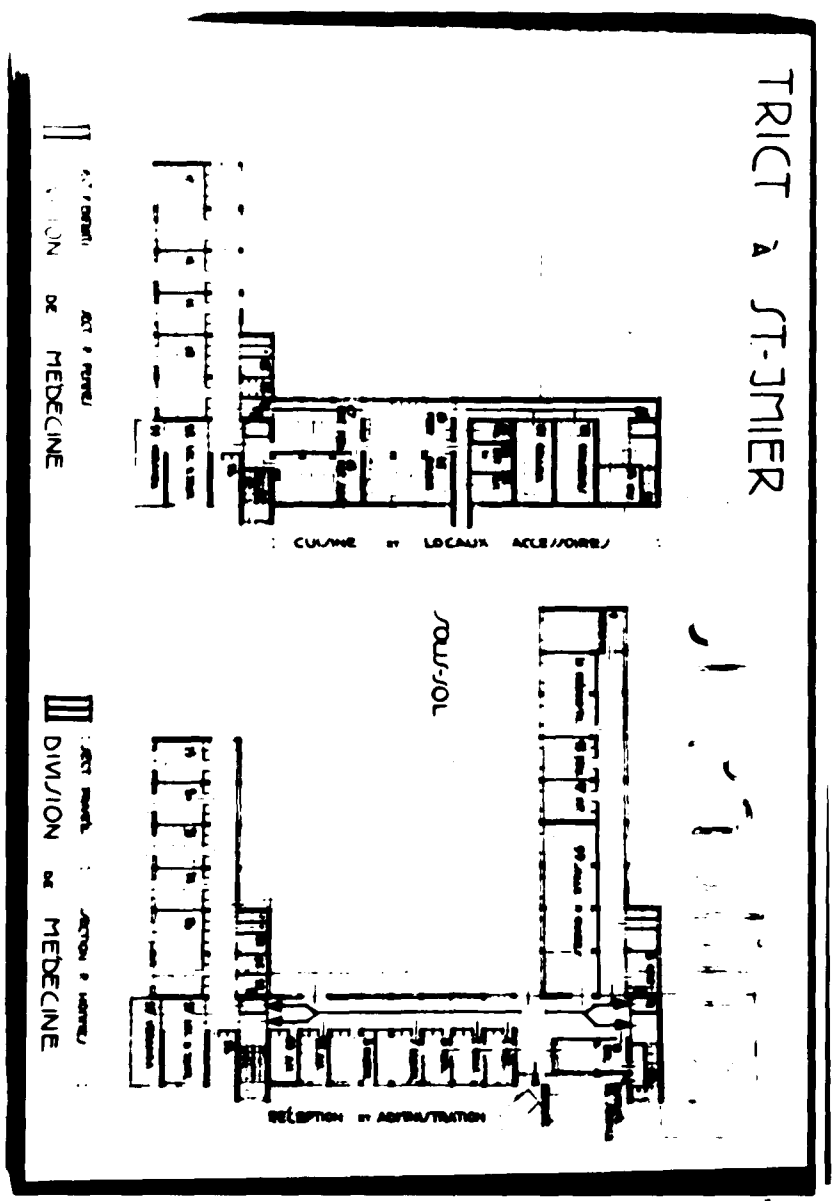
97. A "Hospital at St. Imier" by Emil Roth, Switzerland (1928) (Photo: Estate of Emil Roth).



97. B "Hospital at St. Imier" by Emil Roth, Switzerland (1928) (Photo: Estate of Emil Roth).



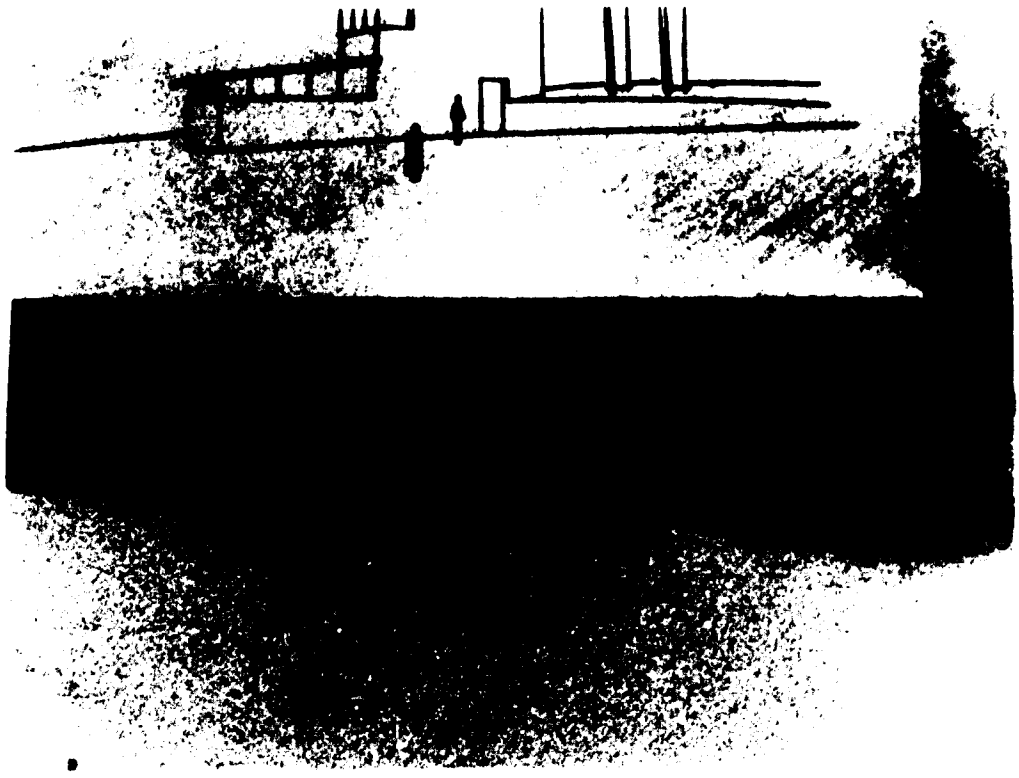
97. C "Hospital at St. Imier" by Emil Roth, Switzerland (1928) (Photo: Estate of Emil Roth).



98. "Le Corbusier" poster by Hans Schmidt (circa 1927) (Photo: Mrs. Lili Schmidt, Basel).



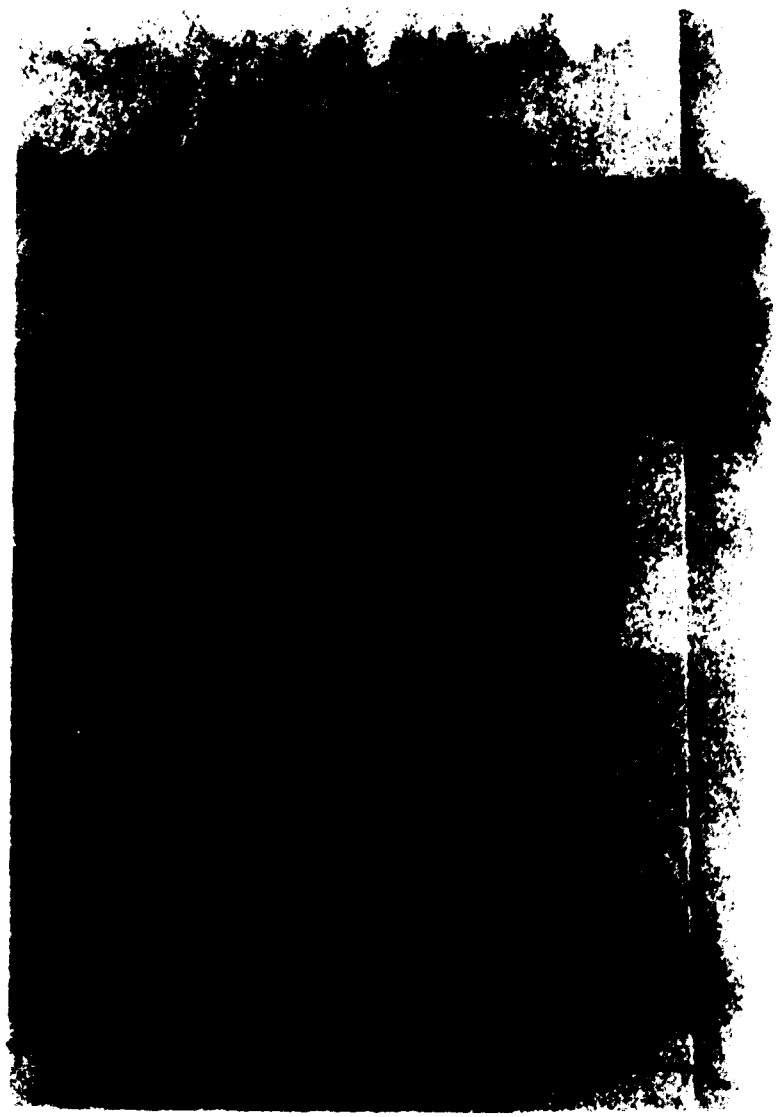
99. "Watertower with Observation Deck and Stairtower" by Hans Schmidt (1925) (Photo: Hans Schmidt Archive).



102. "Watertower with Observation Deck and Stairtower" by Hans Schmidt (1925) (Photo: Hans Schmidt Archive).



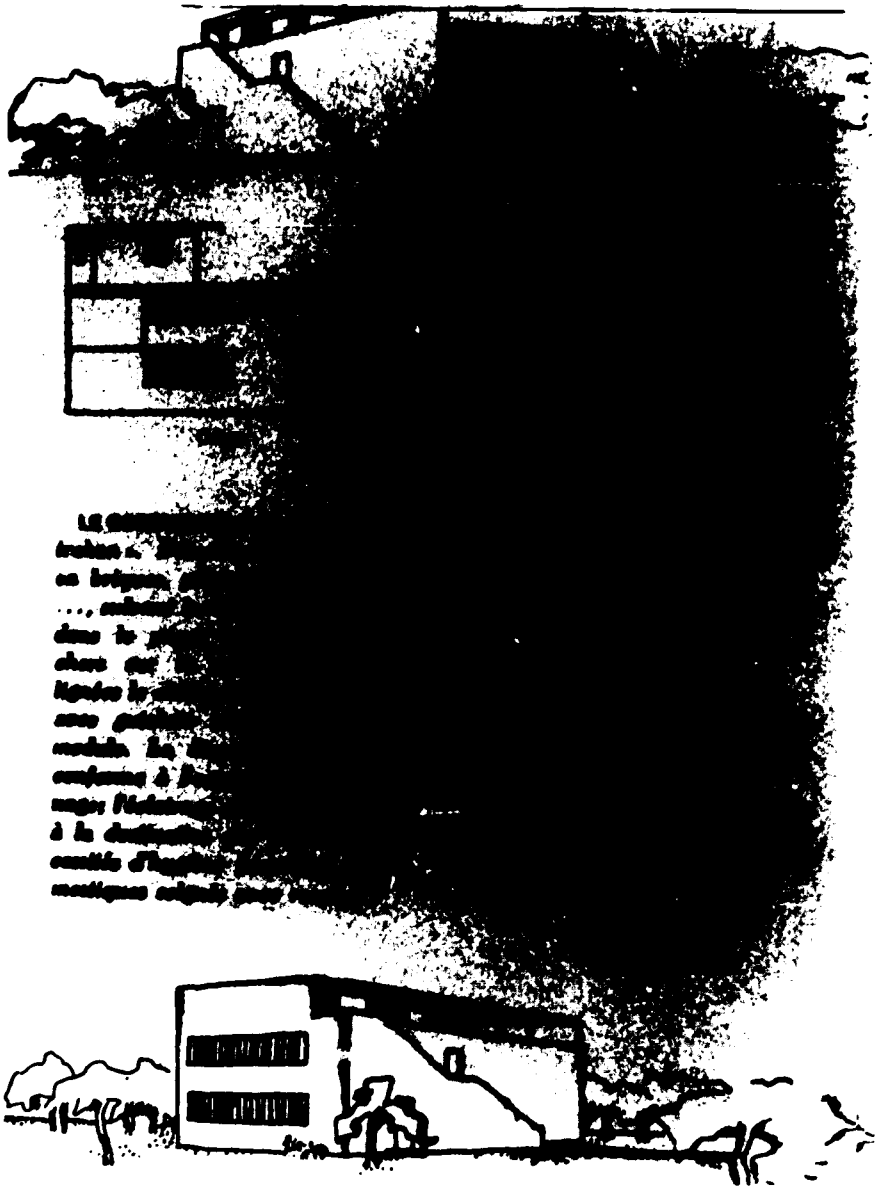
101. "Watertower with Observation Deck and Stairtower" by Hans Schmidt (1925) (Photo: Hans Schmidt Archive).



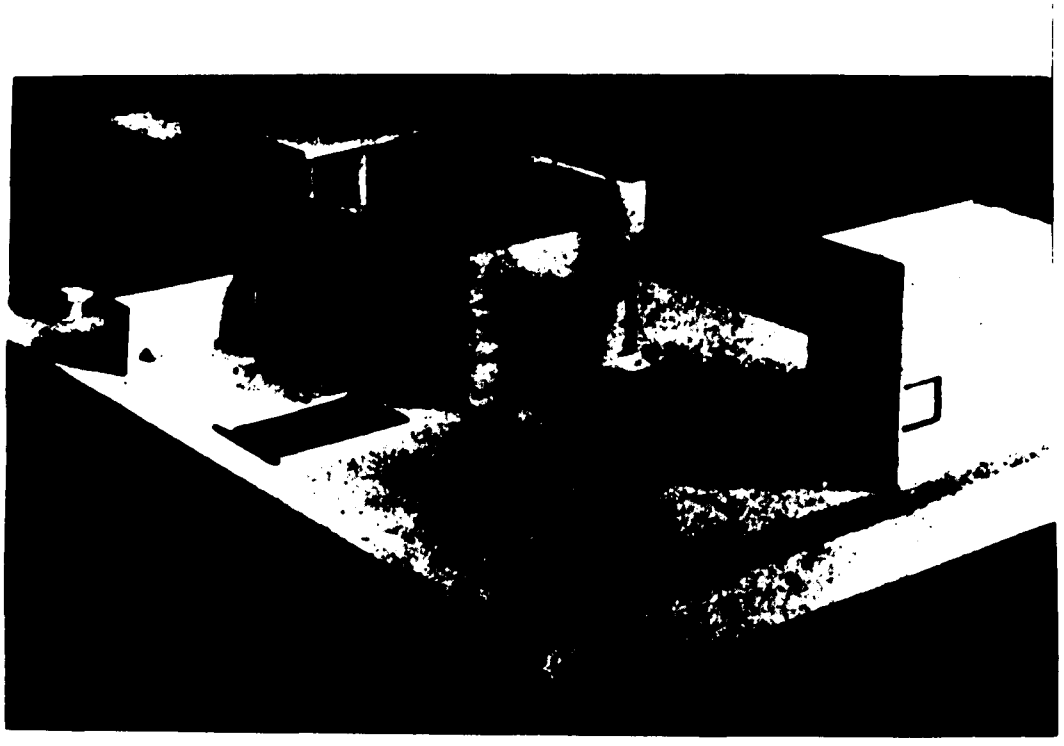
102. "Watertower with Obervation Deck and Stairtower" by Hans Schmidt (1925) (Photo: Hans Schmidt Archive).



1[illegible]. "Maison Citrohan" by Le Corbusier (1920) (Photo: Boesinger and Storonov, Le Corbusier Oeuvre Complete 1910-1929, Zurich, 1964, page 31.



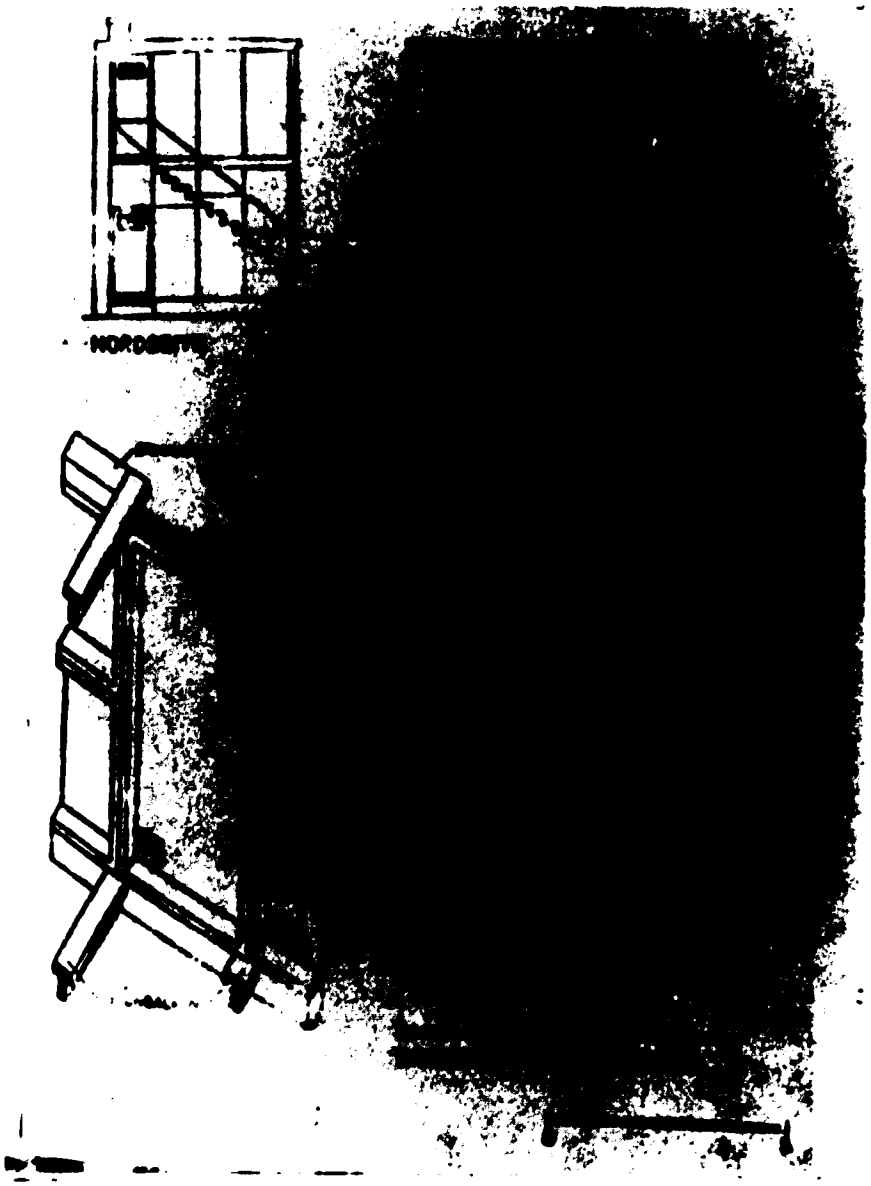
104. "Maison de 'Weekend' a Rambouillet" by Le Corbusier, (1924) (Photo: Boesinger, page 59).



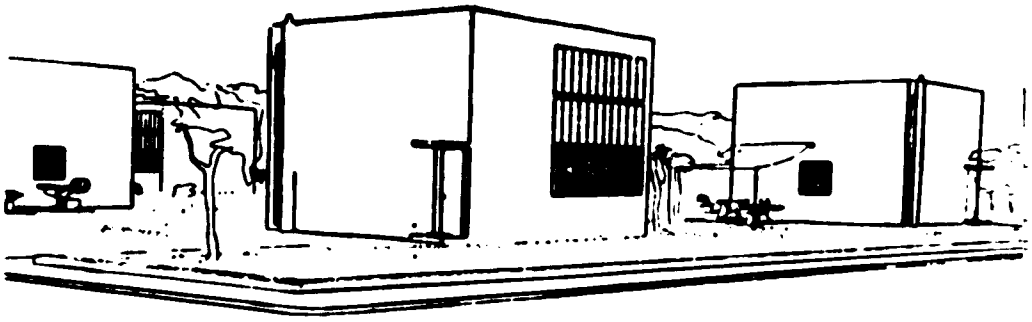
105. "Garage House of Pre Fabricated Concrete Panels by Hans Schmidt, Basel, (1925) (Photo: Bruno Flieri, Hans Schmidt, Beitrage Zur Architektur 1924-1964, Berlin, 1965, page 71).



106. "Garage House of Pre Fabricated Concrete Panels by Hans Schmidt Basel, (1925) (Photo: Bruno Flieri: page 71).

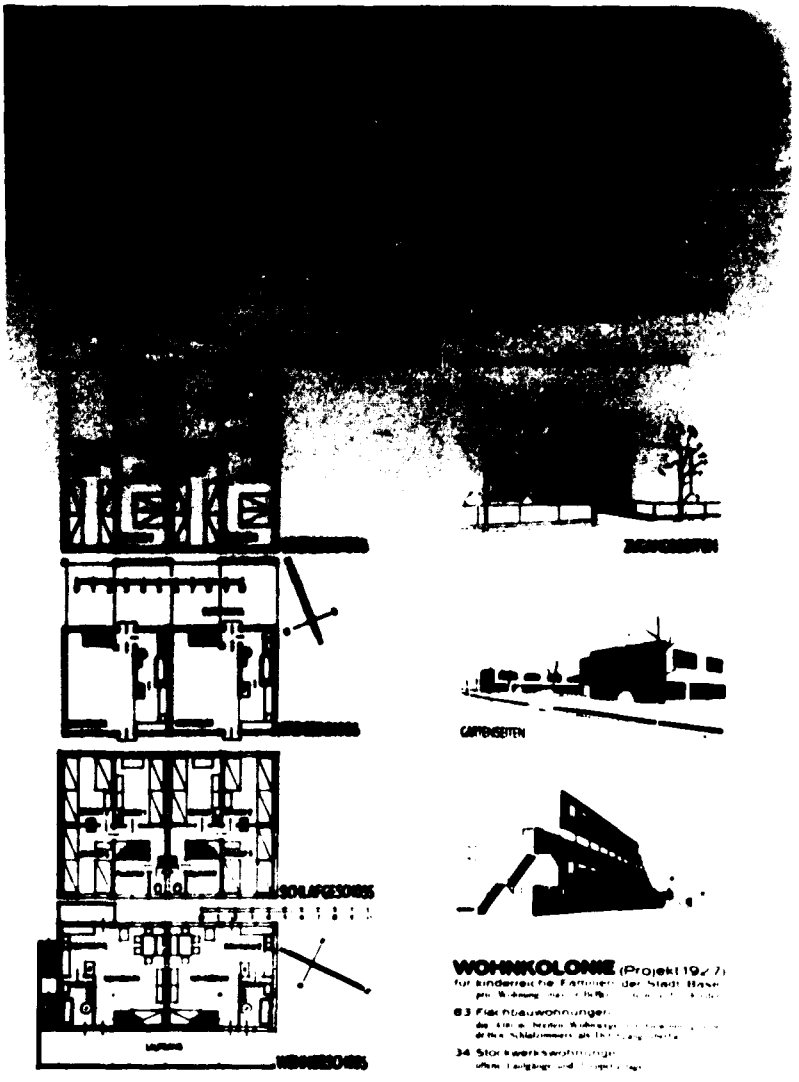


17. "Maison en Serie Pour Artisans" by Le Corbusier (1924) (Photo: Boesinger, page 54).

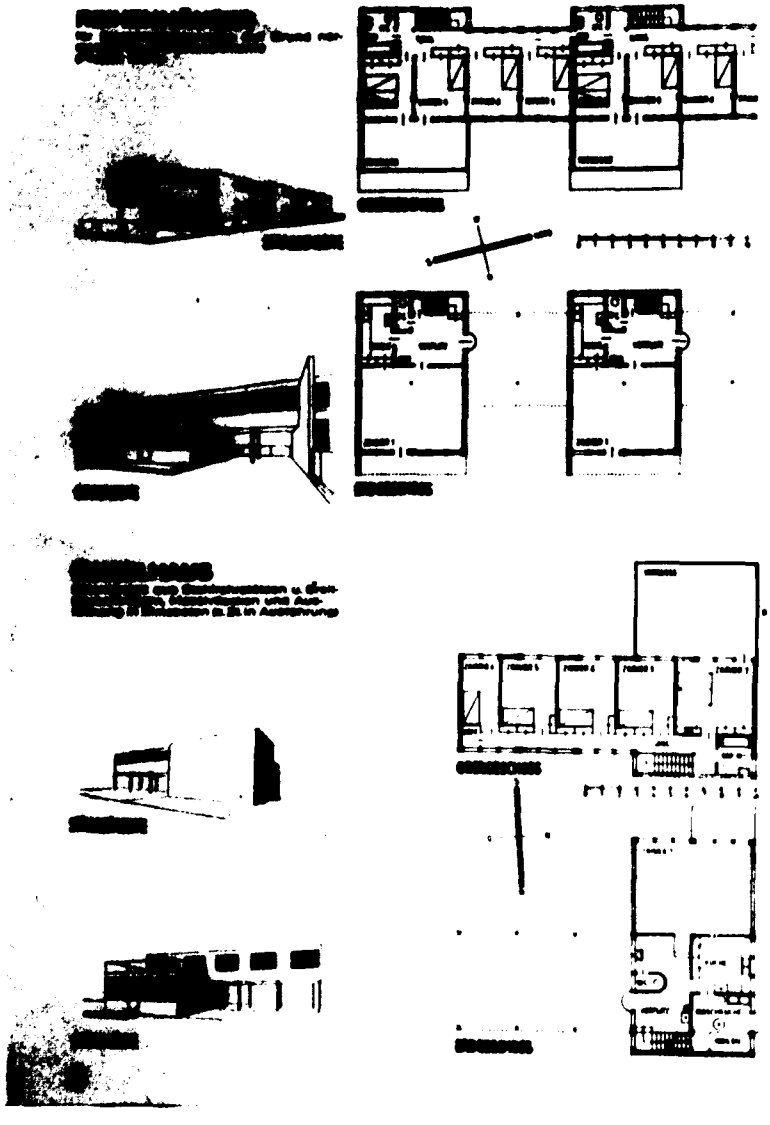


Les maisons en série pour artisans

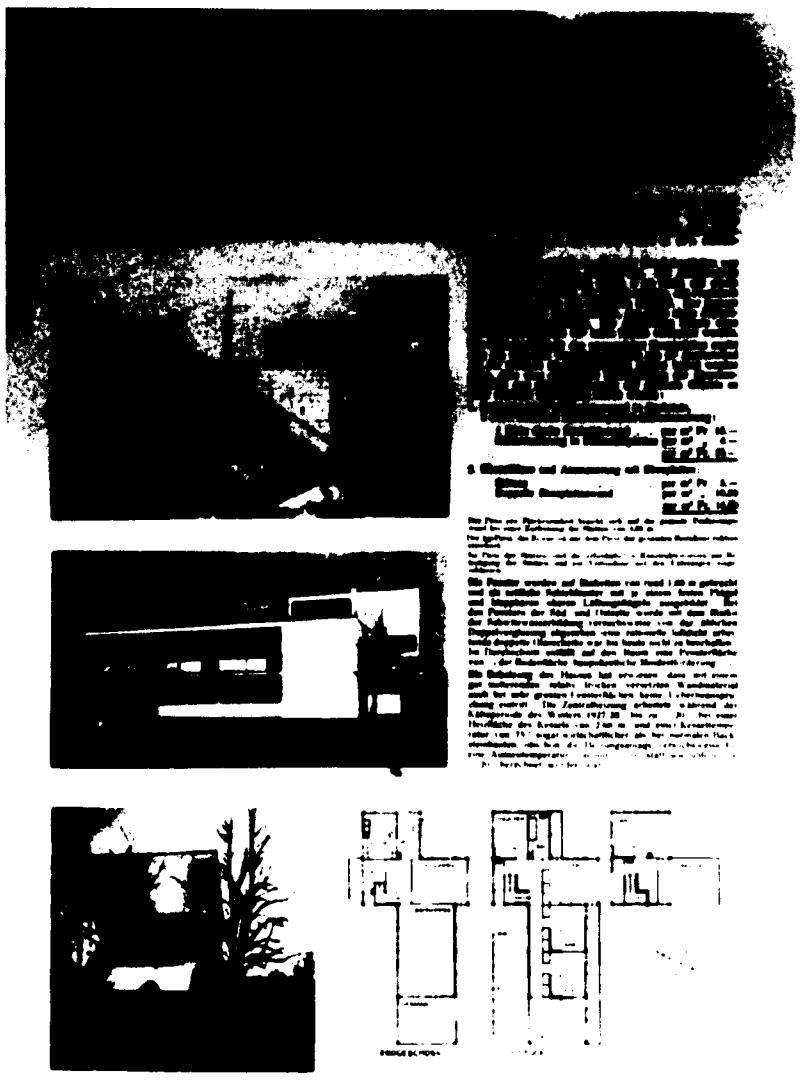
198. "Housing Estate for Large Families" by Hans Schmidt (1927) (Photo ABC, Series II, No. 4, 1927-28, page 7).



109. "Reihenhauser" and "Einzelhaus" by Hans Schmidt (1927)
(Photo: ABC Series II, No. 4, 1927-28, page 8).



110. "Technische und Wirtschaftliche Rusultate eines Wohnhausbaues," the Colnaghi House by Hans Schmidt, Basel (1928) (Photo: ABC, Series II, No. 3-4, 1927-28, page 9).

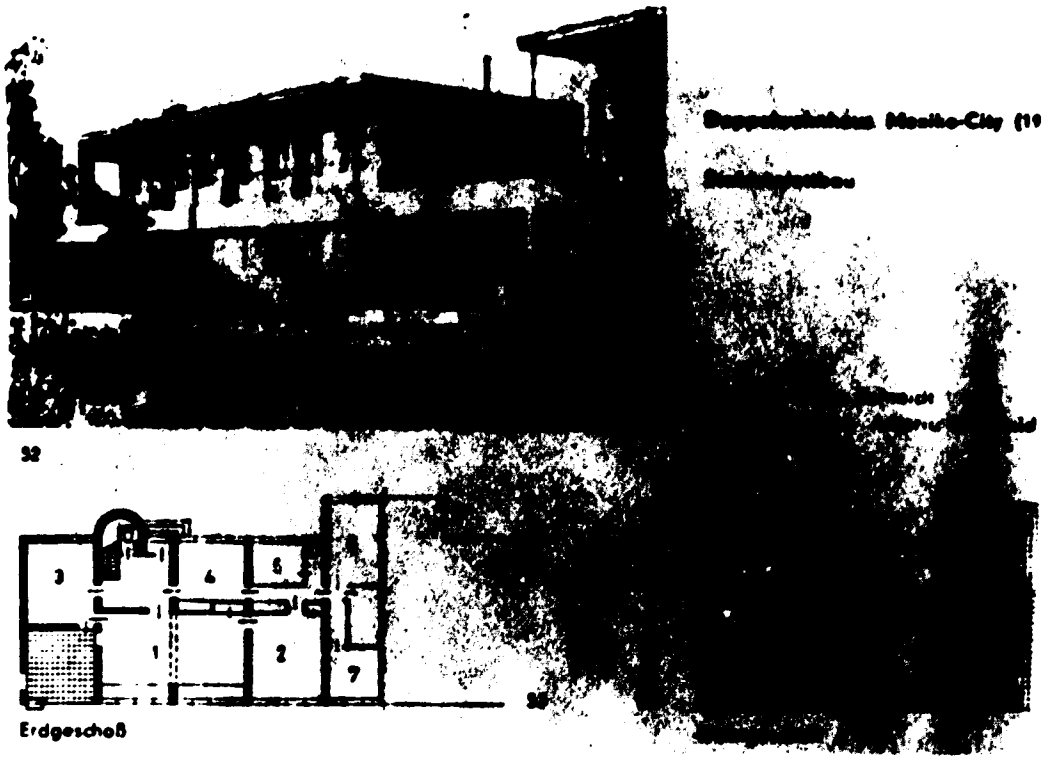


The Schaeffer House by Hans Schmidt, Basel (1928), (Photo: Baslen Magazin, No. 2, January 14, 1978, page 5).

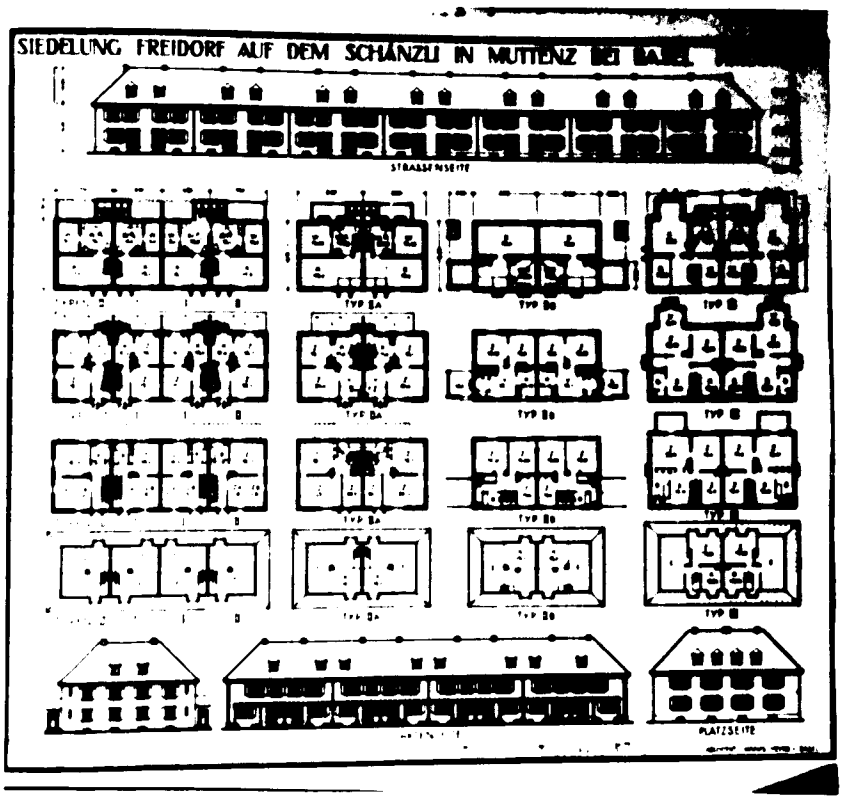


Das Wohnhaus Schaeffer am Sandreuter-Weg in Riehen, 1928 von Hans Schmidt gebaut, wurde im Innern mit starken Farben versehen. Der Haustyp mit Wohnteil im Erdgeschoss und darübergestelltem Schlafwagen entsprang einem Reihenbaukonzept.

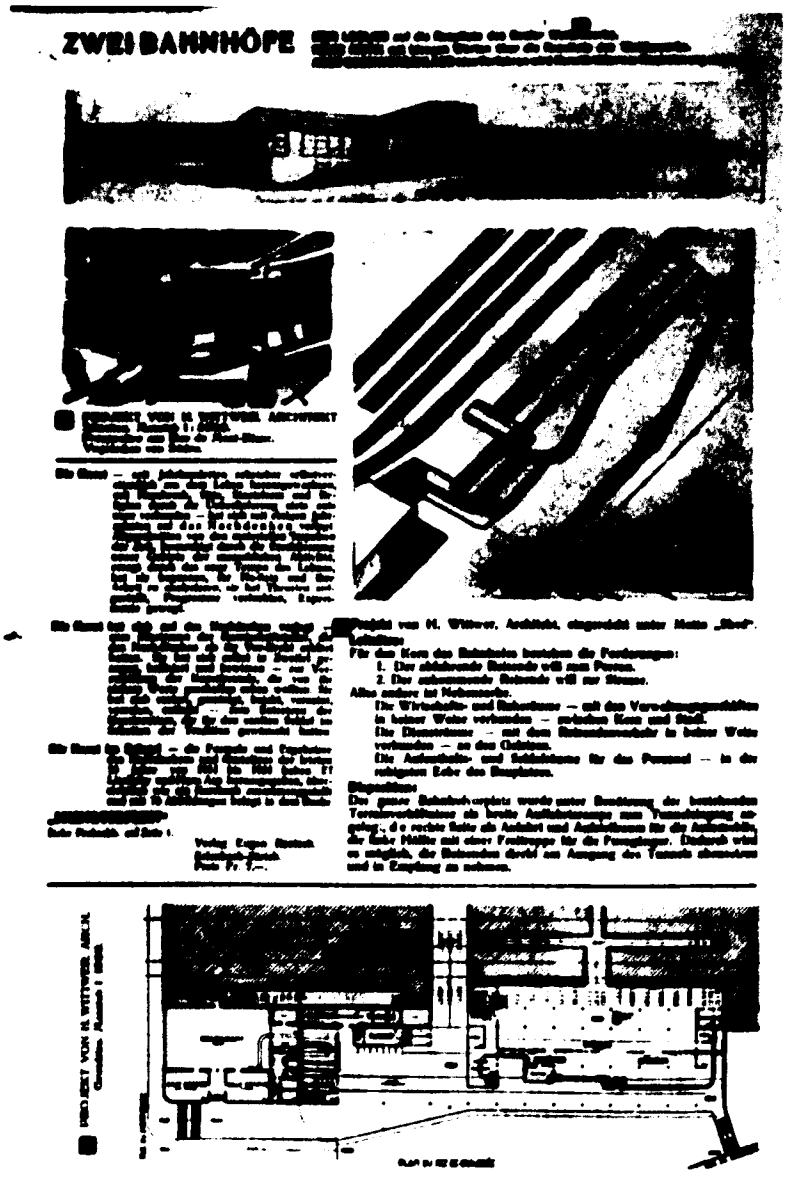
112. "Double Residence" by Hans Schmidt, Mexico City (1929) (Photo: Flieri", page 73).



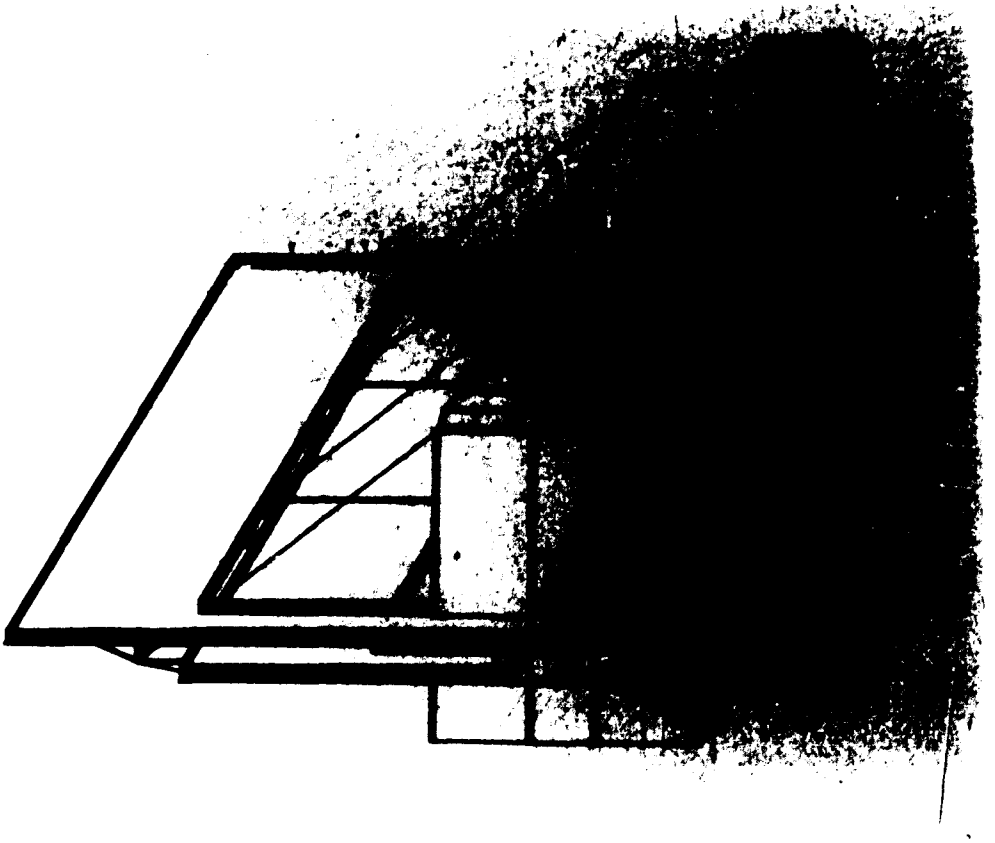
113. "Freidorf" Housing Estate by Hannes Meyer, Switzerland (Photo: Claude Schnaidt, Hannes Meyer, Buildings, Projects and Writings, Teufen, 1965, page 15).



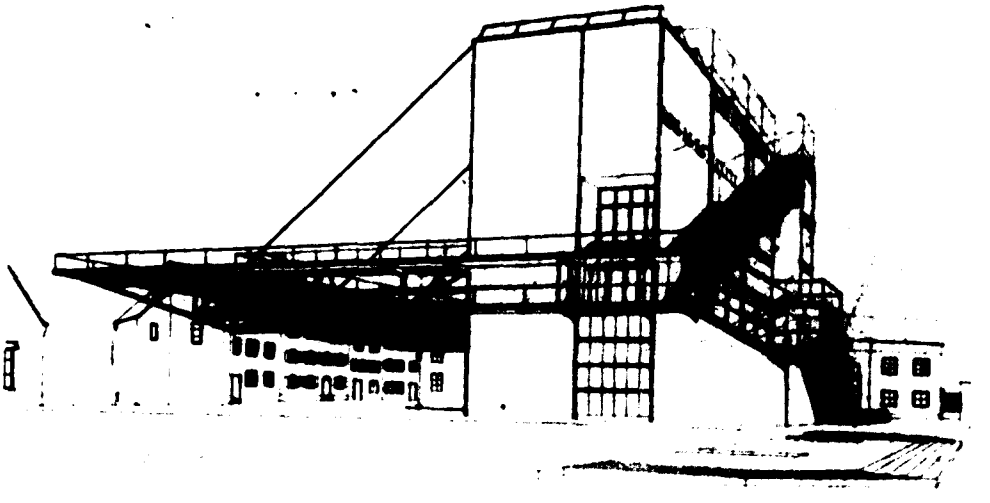
114. "Cornavim" Competition entry, "Shed", by Hans Wittwer (Photo: ABC, Series I, No. 6, 1925, page 2).



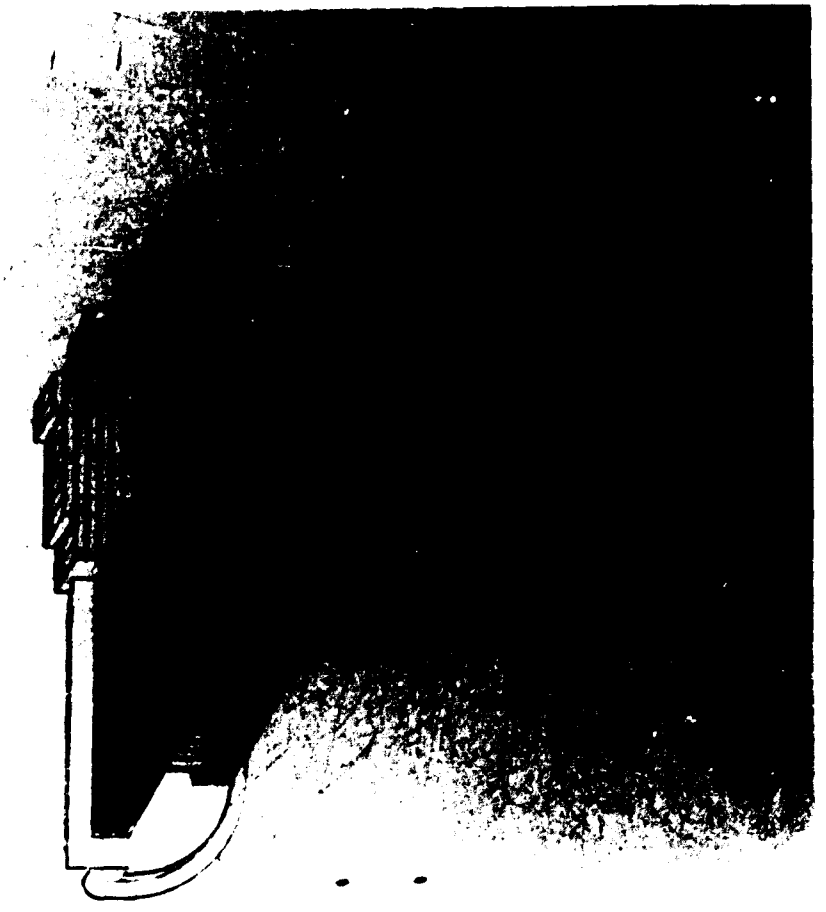
115. "Peterschool" by Hannes Meyer and Hans Wittwer, Basel (1926) (Photo: Schnaidt, page 18).



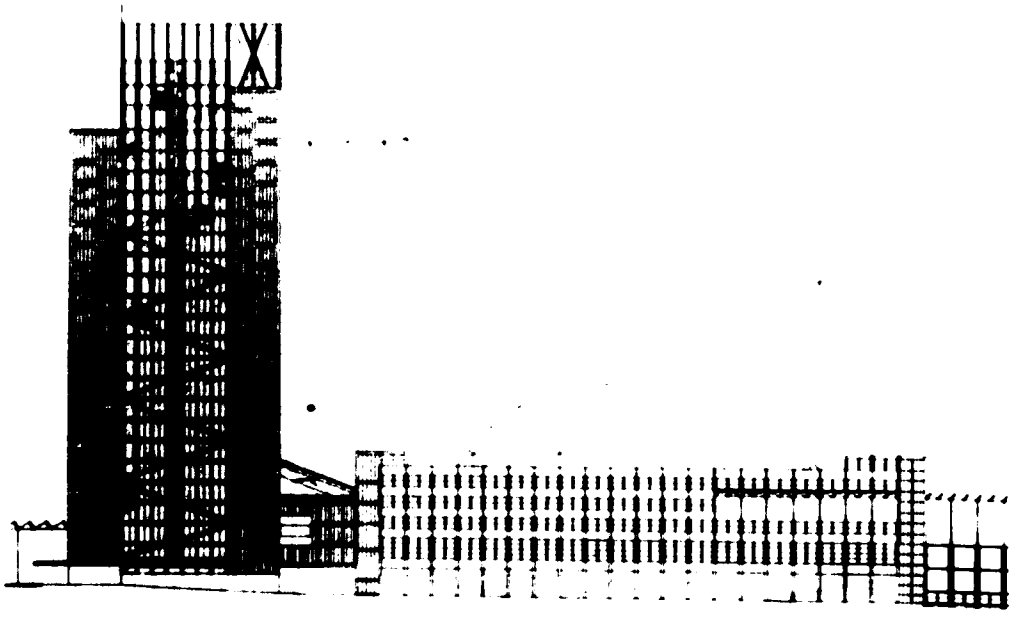
'Peterschool" by Hannes Meyer and Hans Wittwer, Basel (1926) (Photo: Schnaidt, page 20).



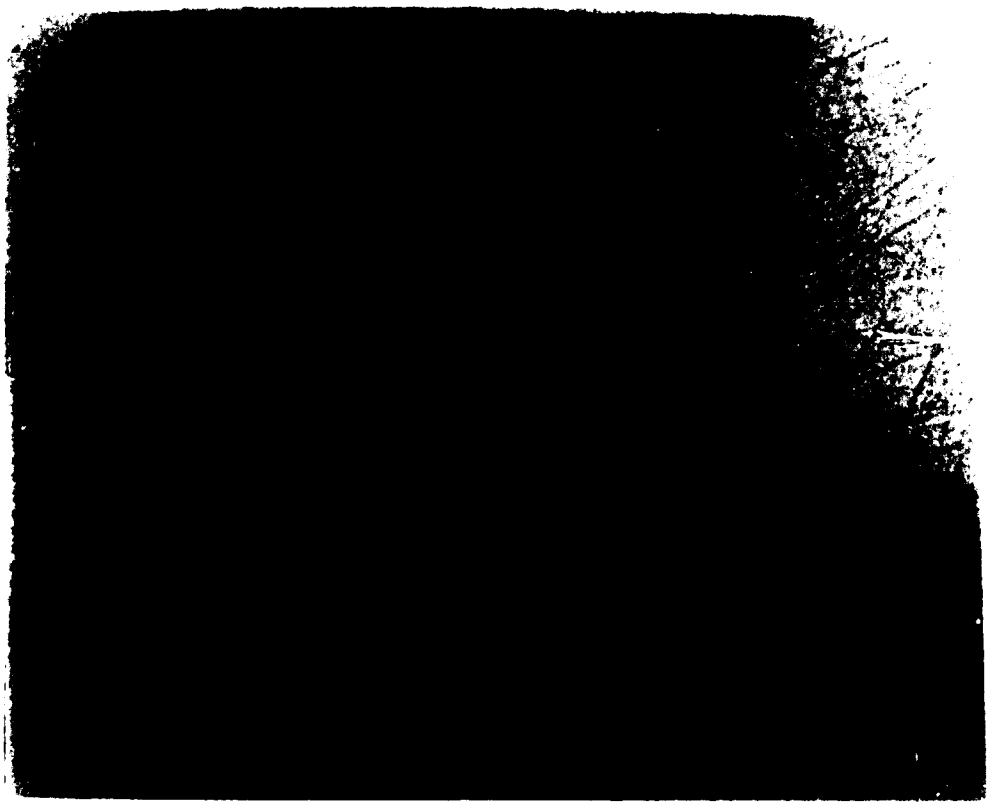
"League of Nations" Project by Hannes Meyer and Hans Wittwer, Geneva (1926) (Photo: Schnaidt, page 24).



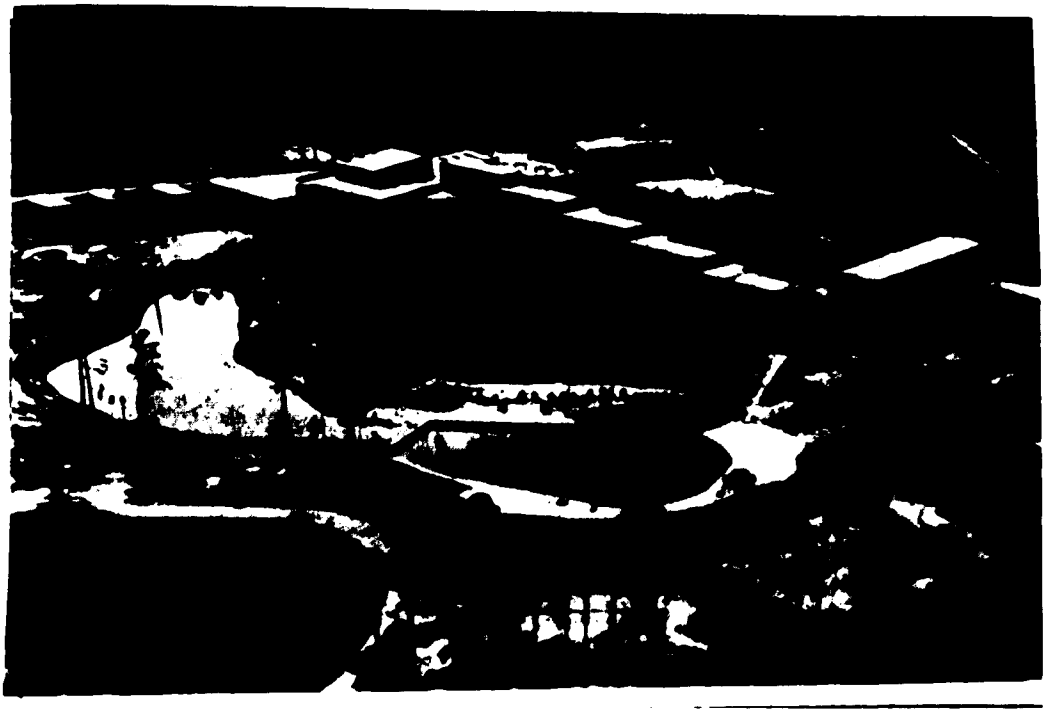
'18. "League of Nations" Project by Hannes Meyer and Hans Wittwer, Geneva (1926) (Photo: Schnaidt, page 23).



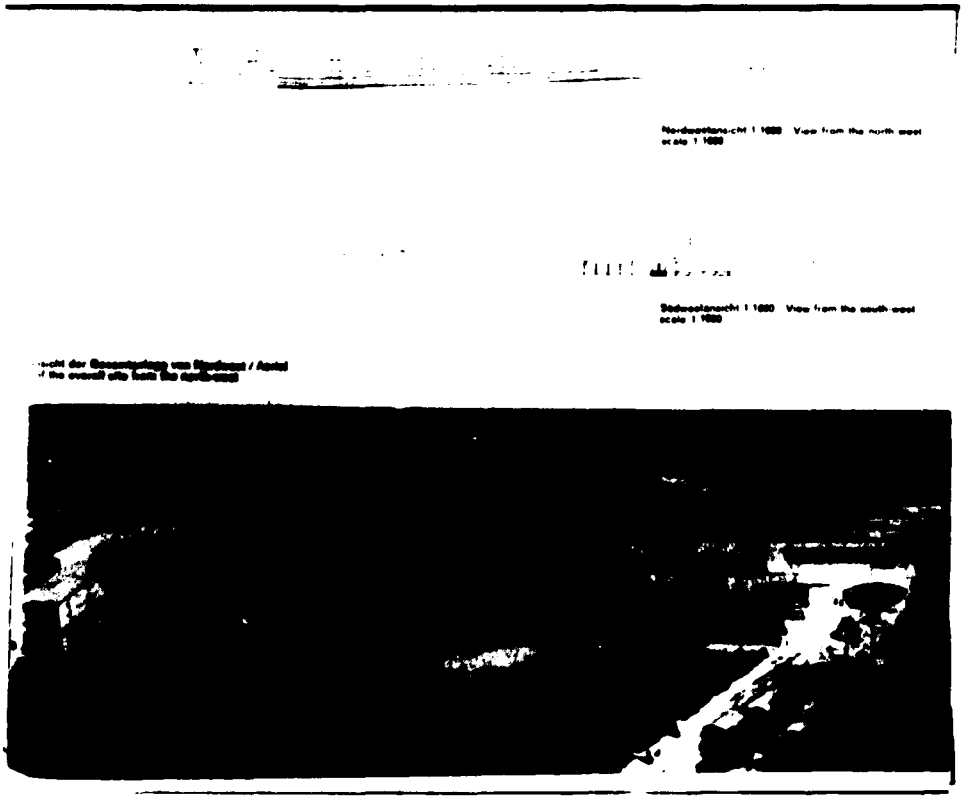
119. "League of Nations" Project by Hannes Meyer and Hans Wittwer, Geneva (1926) (Photo: Schnaidt, page 35).



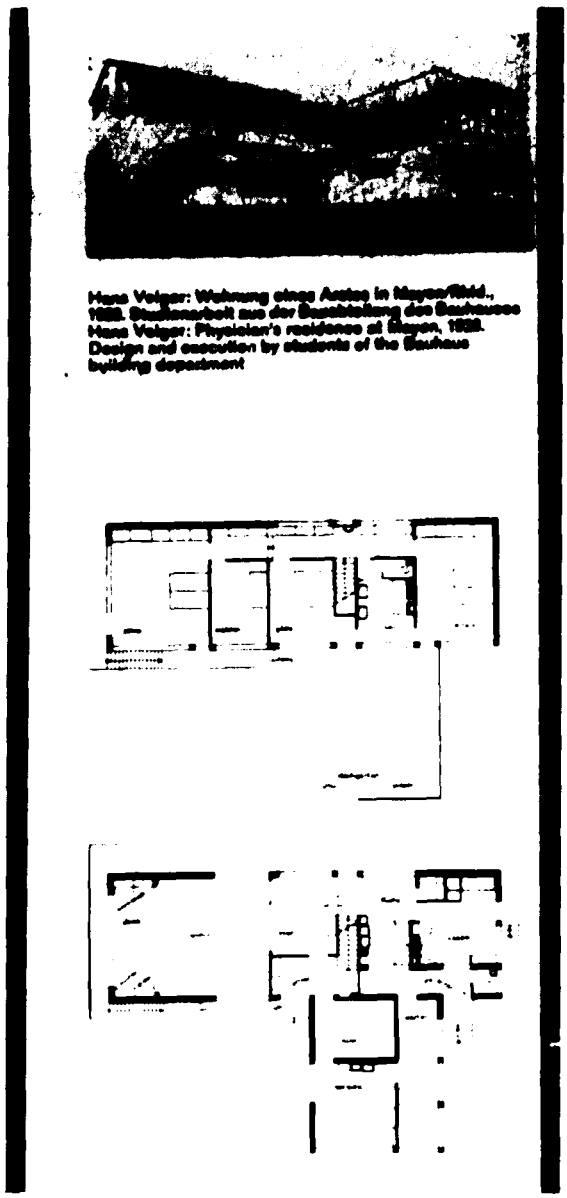
120. "Federal School of the General German Trade Unions Federation," by Hannes Meyer, Bernau (1928) (Photo: Schnaidt: page 41).



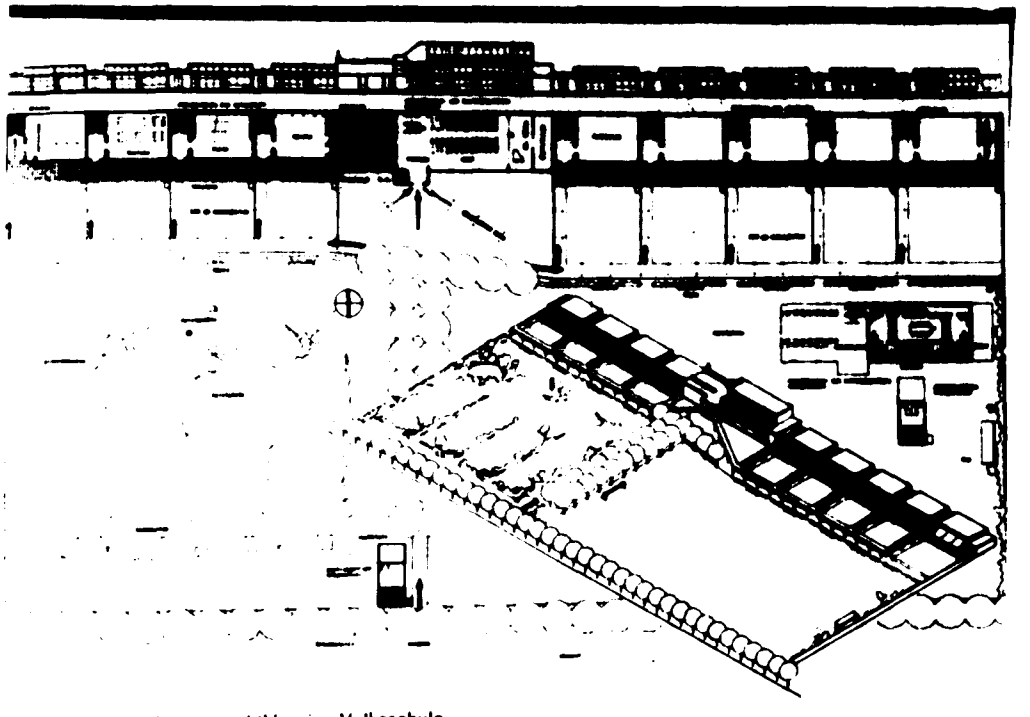
121. "Federal School of the General German Trade Unions Federation," by Hannes Meyer, Bernau (1928) (Photo: Schnaidt: page 47).



122. "Physicians Residence" by Hans Vogler, Mayen (1928) (Photo: Schnaidt, page 40).

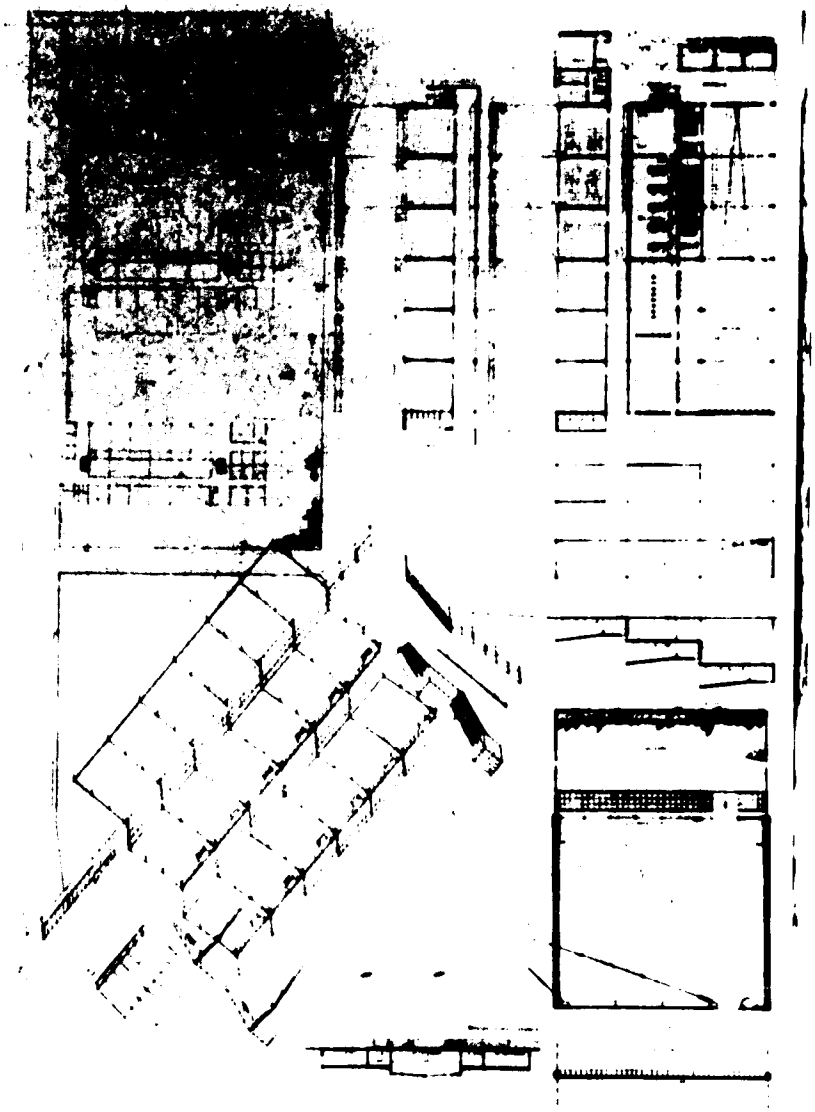


123. "Project for a School with 8 Classes" by Ernst Gohl, the Bauhaus, (1928) (Photo: Schnaidt, page 41).



...st Gohl Projekt für eine achtklassige Volksschule.
...28 Studienarbeit aus der Bauabteilung des Bauhauses /
... Gohl Project for a school with 8 classes. 1928.
...sign by students of the Bauhaus building department

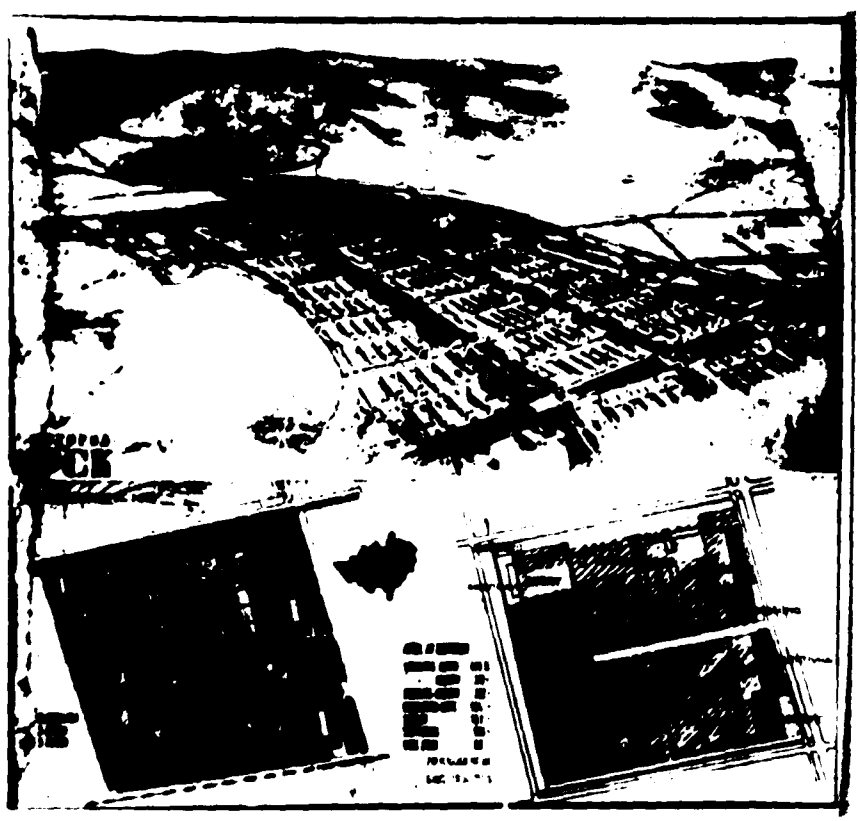
124. "Project for a School with 36 Classes by Bauhaus Students (1929) (Photo: Schnaidt, p. 45).



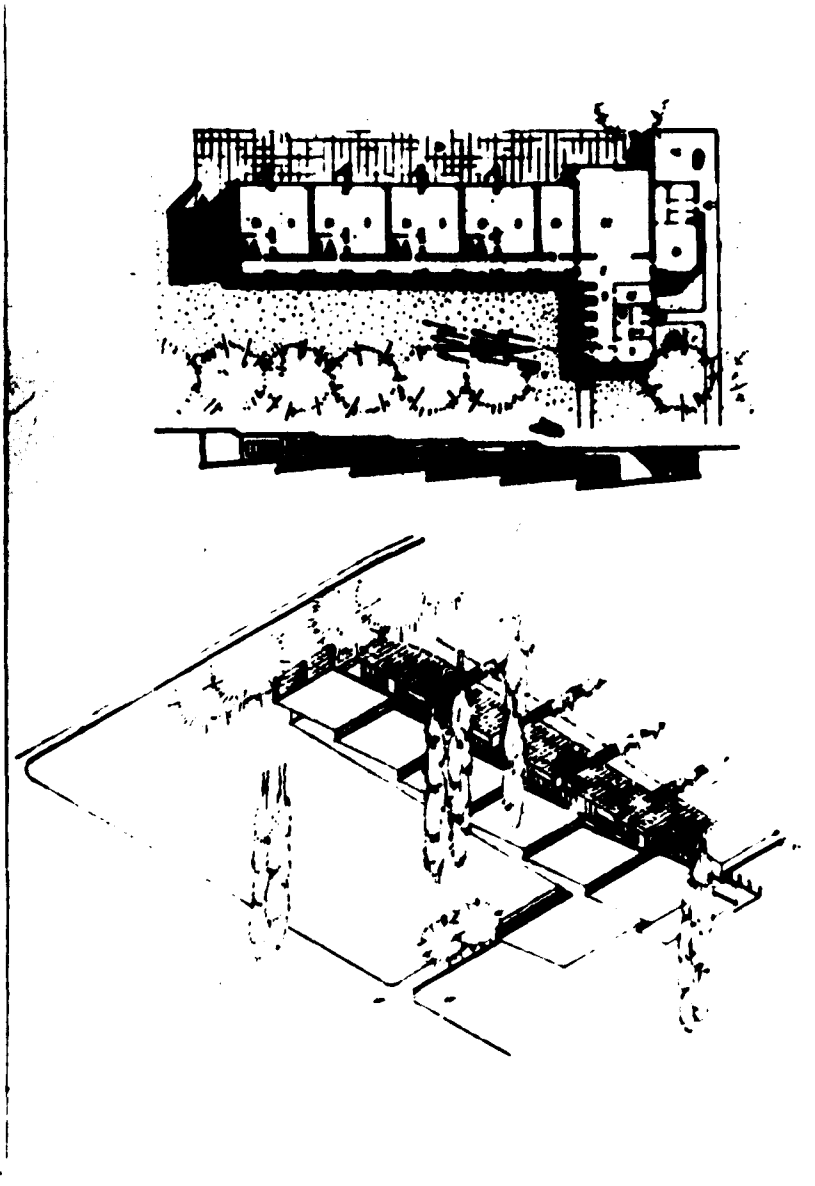
125. Plan for "Nishny-Kurinsk" by Hannes Meyer, U.S.S.R., (1932) (Photo: Schnaidt, p. 67).



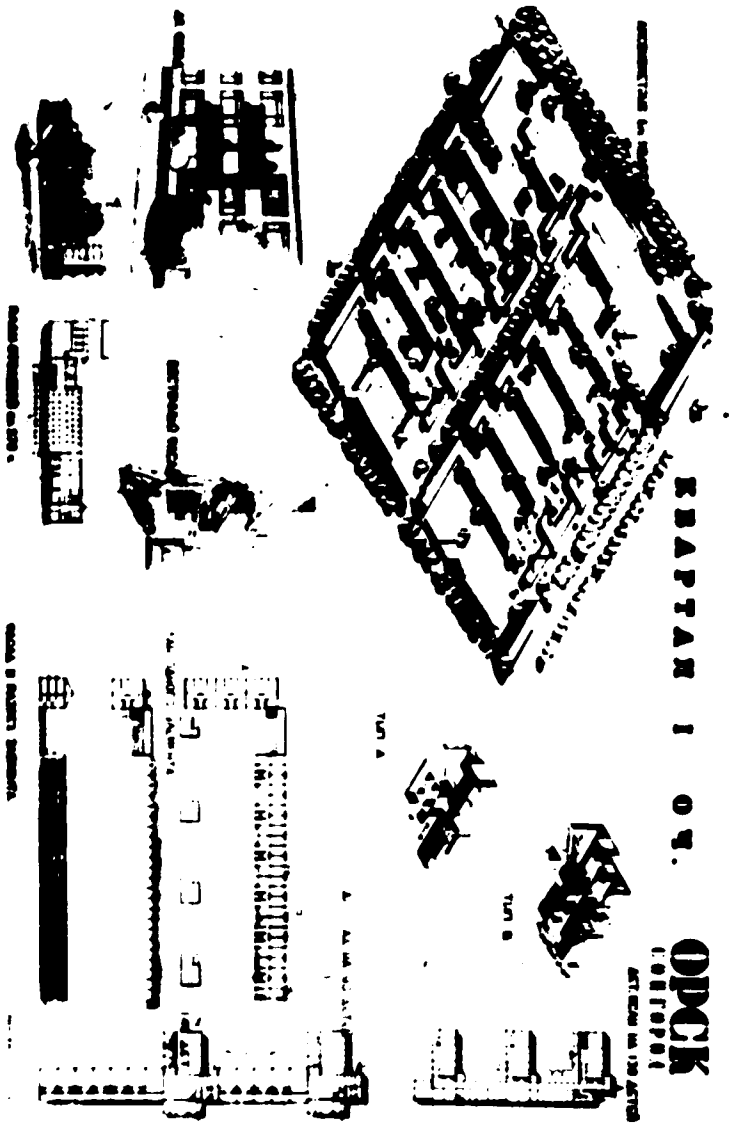
126. Plan for "Orsk" by Mart Stam and Hans Schmidt, U.S.S.R. (1934) (Photo: Oorthuys, p. 28).



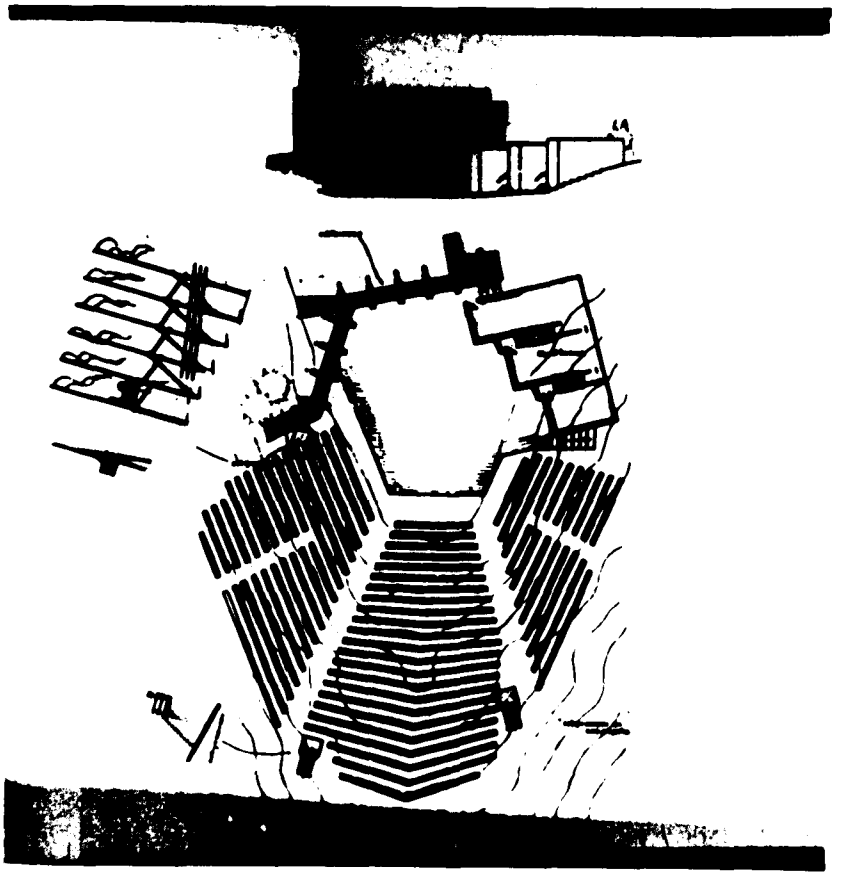
127. "Project for a School in Orsk" by Lotte Stam-Beese, in association with Mart Stam and Hans Schmidt, U.S.S.R. (1934) (Photo: Oorthuys, p. 29).



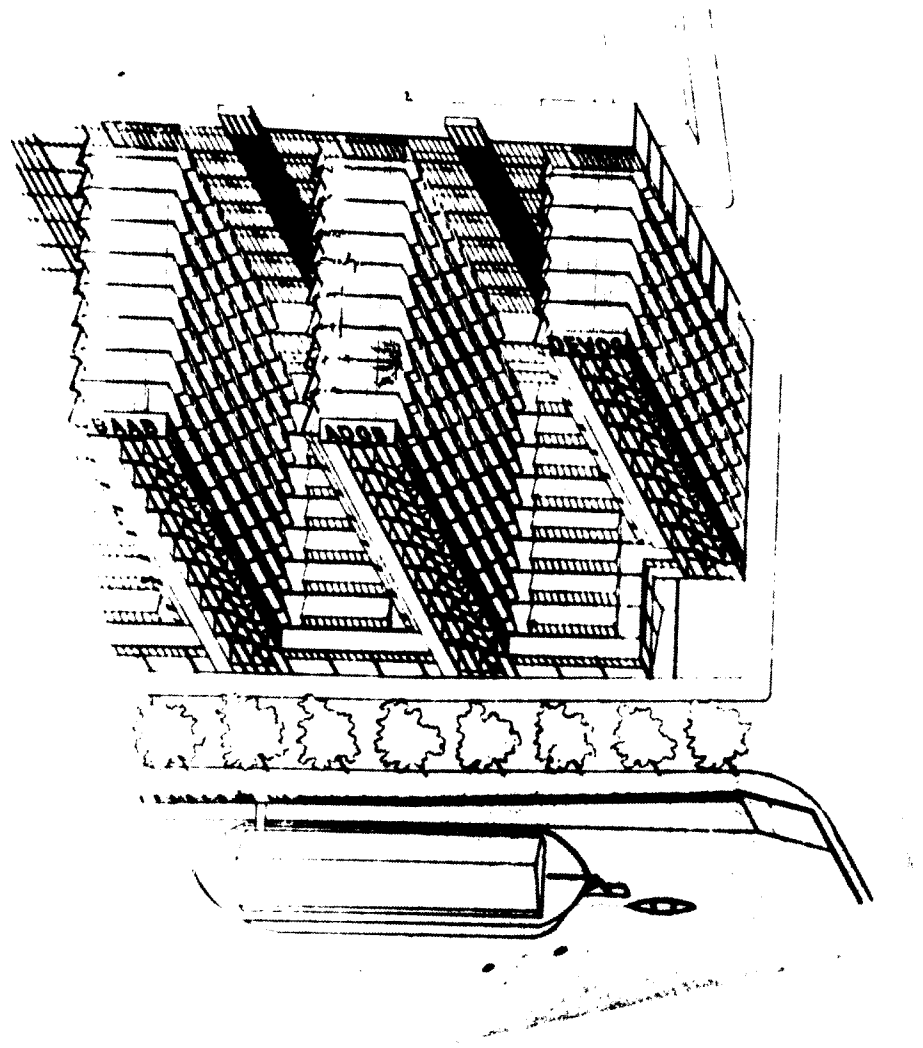
128. "Residential Prototype for Orsk" by Lotte Stam-Beese, in association with Mart Stam and Hans Schmidt, U.S.S.R. (1934) (Photo: Oorthuys, p. 29).



129. "Project for an Open Air Theater in the Urals" by Mart Stam, U.S.S.R., (1931) (Photo: Oorthuys, p. 26).



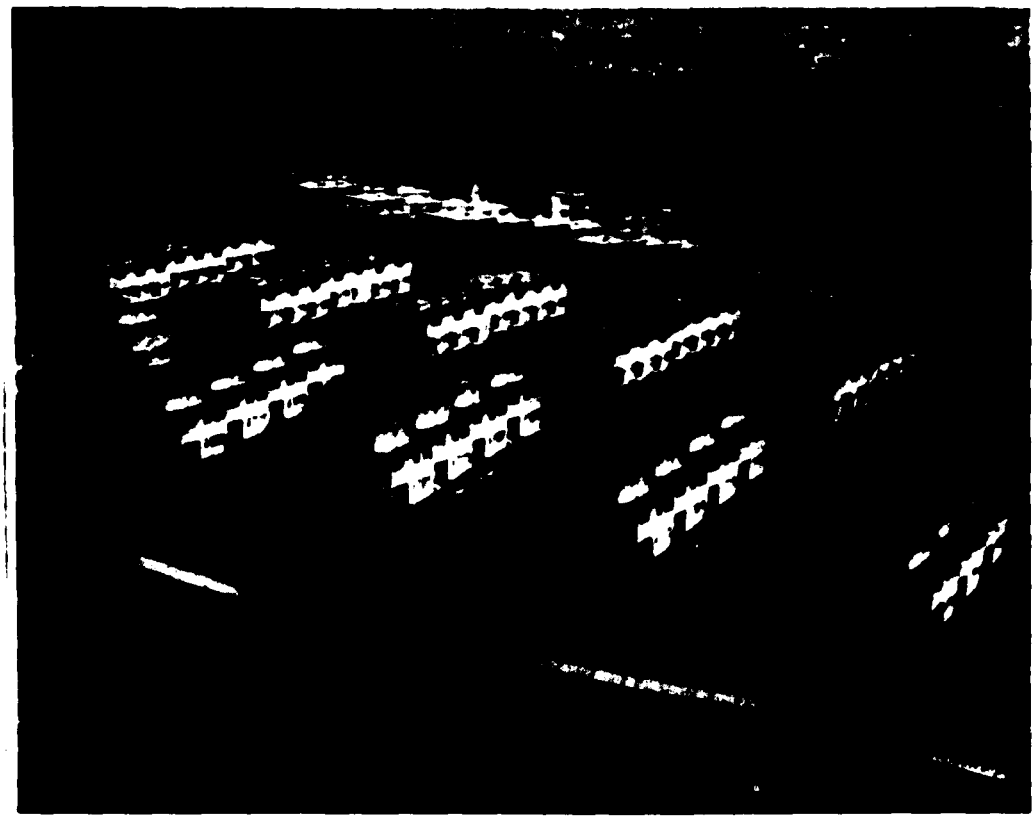
130. "Project for a Moscow Savings Bank" by Hannes Meyer, U.S.S.R. (1931-1932) (Photo: Schnaidt, p. 60).



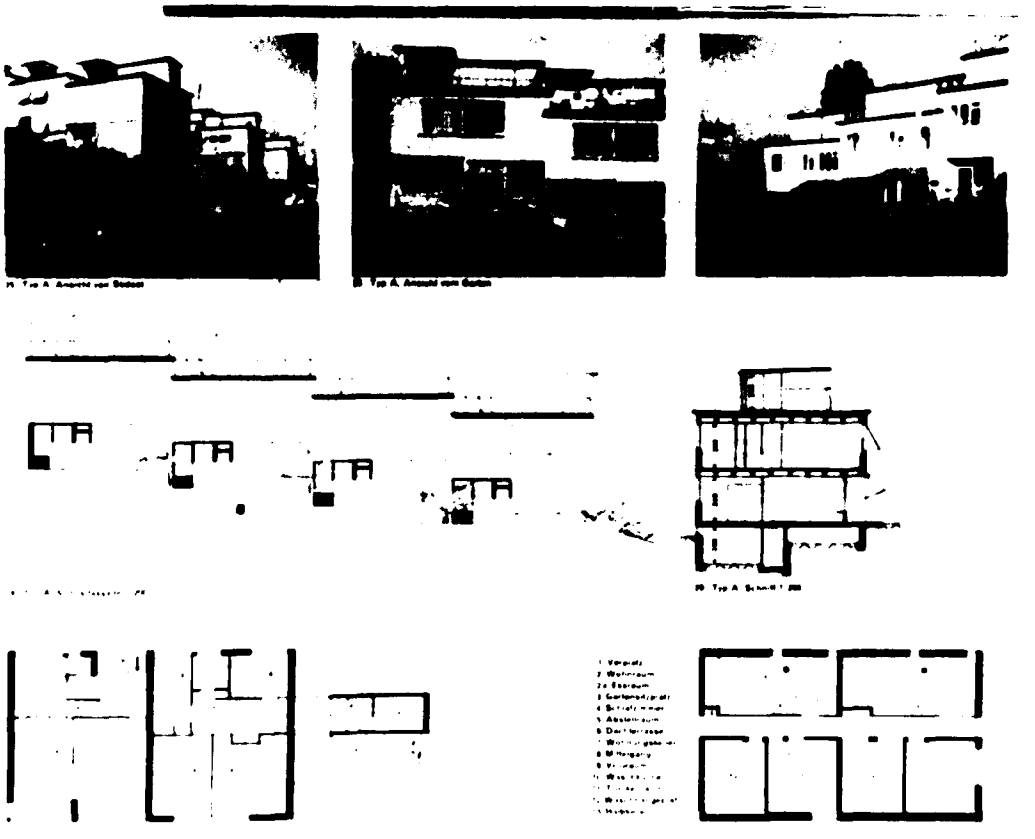
131. "Project for the Town Hall of Amsterdam" by Mart Stam, Holland (1937) (Photo: Oorthuys, p. 31).



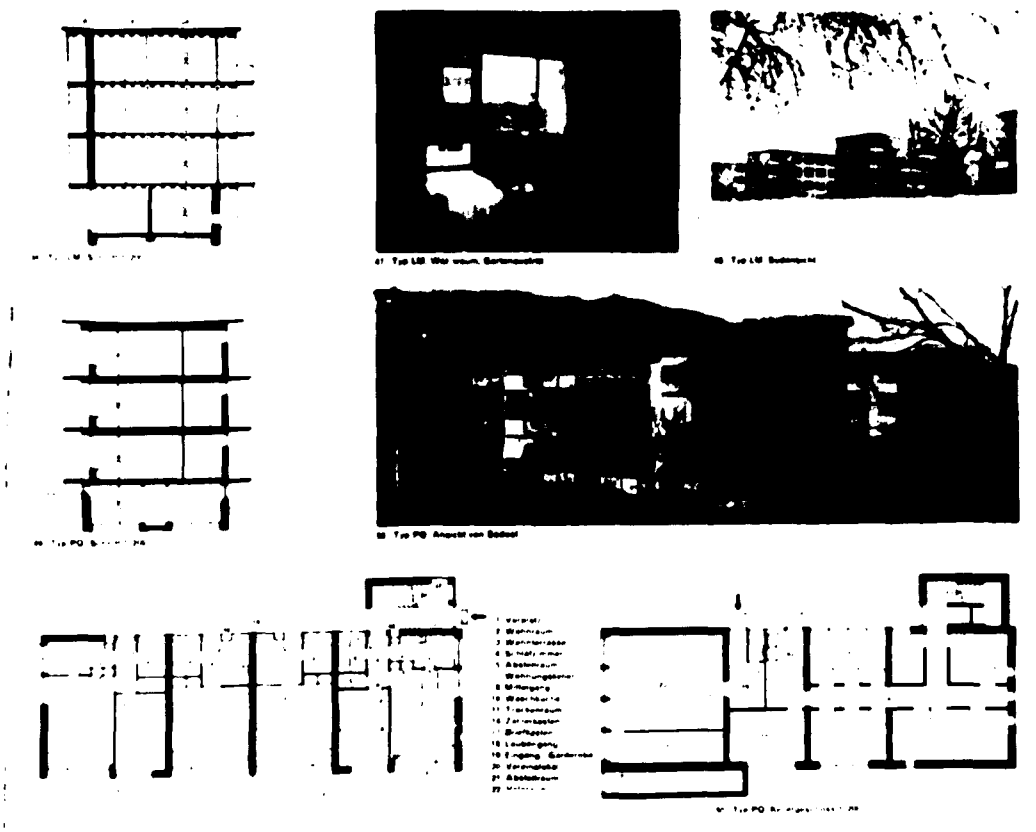
132. "Neubuhl" by Max Haefeli, Carl Rubacher, Rudolf Steiger, Werner Moser, Emil Roth, Paul Artaria and Hans Schmidt, Zurich (1930-1932) (Photo: Alfred Roth, The New Architecture, Zurich, 1975, p. 73).



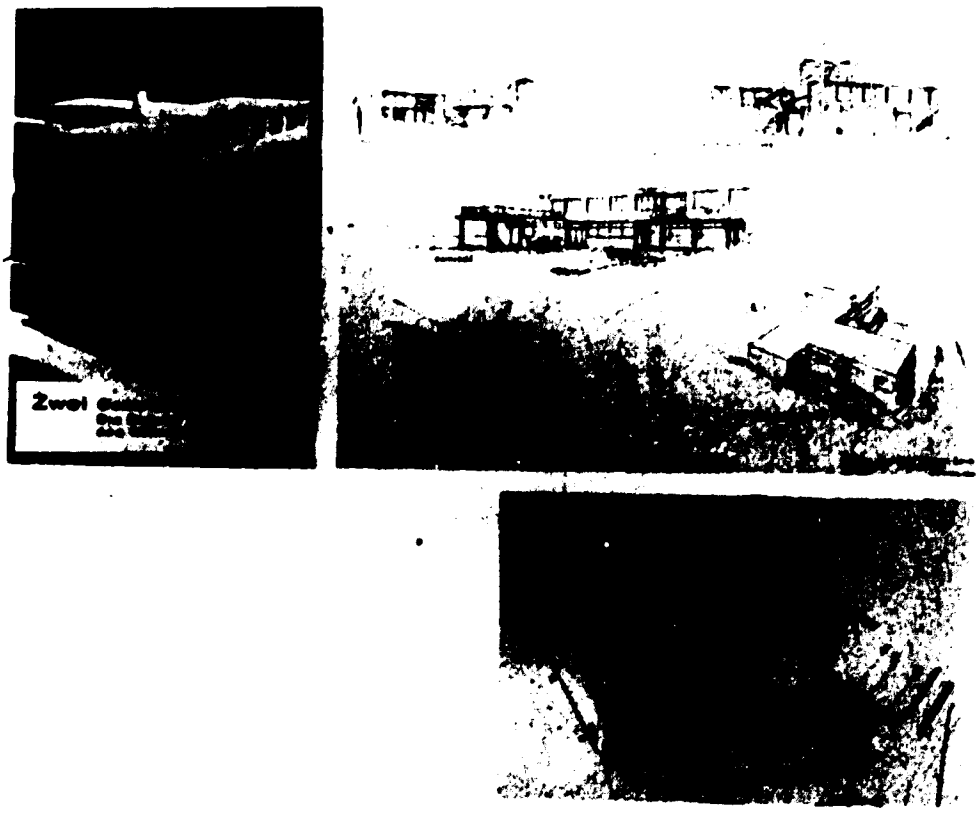
133. "Neubuhl" by Max Haefeli, Carl Hubacher, Rudolf Steiger, Werner Moser, Emil Roth, Paul Artaria and Hans Schmidt, Zurich (1930-1932) (Photo: Roth, p. 81).



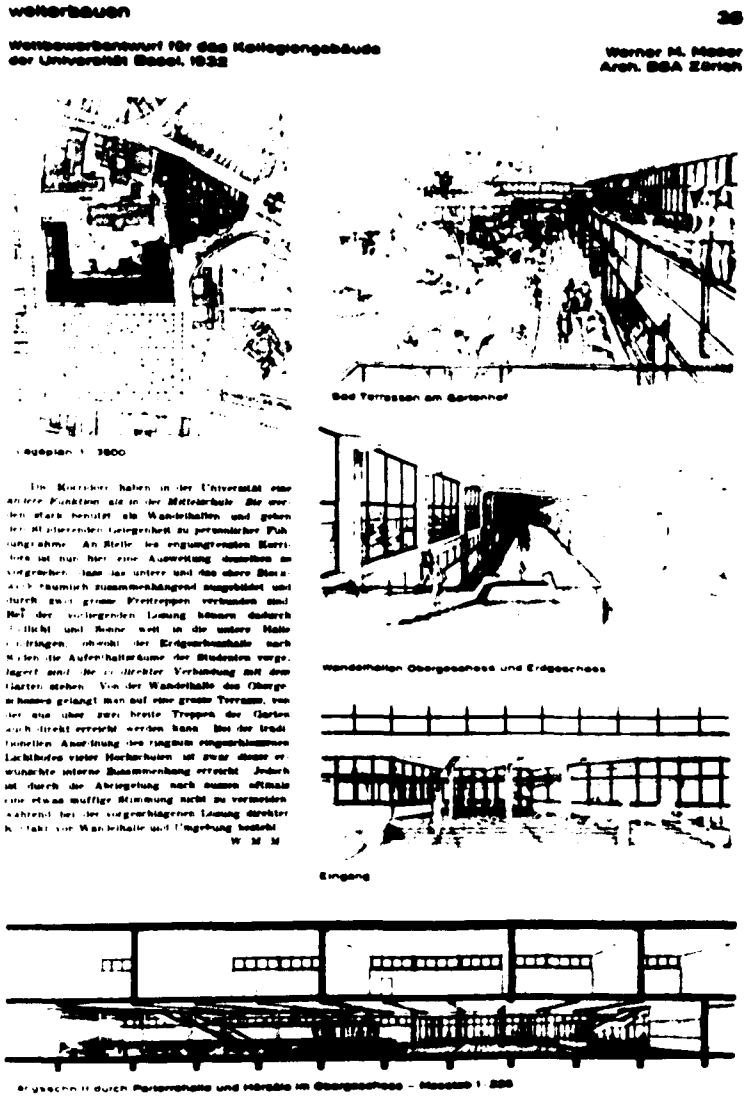
134. "Neubuhl" by Max Haefeli, Carl Hubacher, Rudolf Steiger, Werner Moser, Emil Roth, Paul Artaria and Hans Schmidt, Zurich (1930-1932) (Photo: Roth, p. 85).



135. "Villa Hagmann" by Werner Moser, Zurich (1929-1930 (Photo: Margit Staber, Um 1930 in Zurich, Zurich, 1977, p. 124).



136. "Project for the University of Basel" by Werner Moser, Basel (1932) (Photo: Weiterbauen 5, January, 1936, p. 3).



weiterbauen 36

Wettbewerbentwurf für das Kollegiengebäude der Universität Basel, 1932

Werner M. Moser
Arch. BSA Zürich

Lageplan 1 : 2000

Die Räumlichkeiten haben in der Universität eine andere Funktion als in der Mittelschule. Sie werden stark benutzt als Wandelhallen und gehen in stärkerem Maße auf persönlicher Fühlungnahme. An Stelle des engumgrenzten Korridors ist nun hier eine Ausweitung desselben angestrebt. Dazu ist unten und das obere Stockwerk räumlich zusammenhängend ausgebildet und durch zwei große Freitreppen verbunden. Auf der vorliegenden Lösung können dadurch Tageslicht und Sonne weit in die untere Halle eindringen, während der Erdgeschoßhalle nach Süden die Aufenthaltsräume der Studenten vorgelagert sind, die in direkter Verbindung mit dem Garten stehen. Von der Wandelhalle des Obergeschosses gelangt man auf eine große Terrasse, von der aus über zwei breite Treppen der Garten auch direkt erreicht werden kann. Bei der traditionellen Anordnung des ruhigen eingeschlossenen Lichthofes vieler Hochschulen ist zwar dieser erwünschte interne Zusammenhang erreicht. Jedoch ist durch die Abriegelung nach außen oftmals eine etwas muffige Stimmung nicht zu vermeiden, während bei der vorgeschlagenen Lösung direkter Kontakt zur Wandelhalle und Umgebung besteht.

W. M. M.

Sog Terrassen am Gartenhof

Wandelhallen Obergeschoss und Erdgeschoss

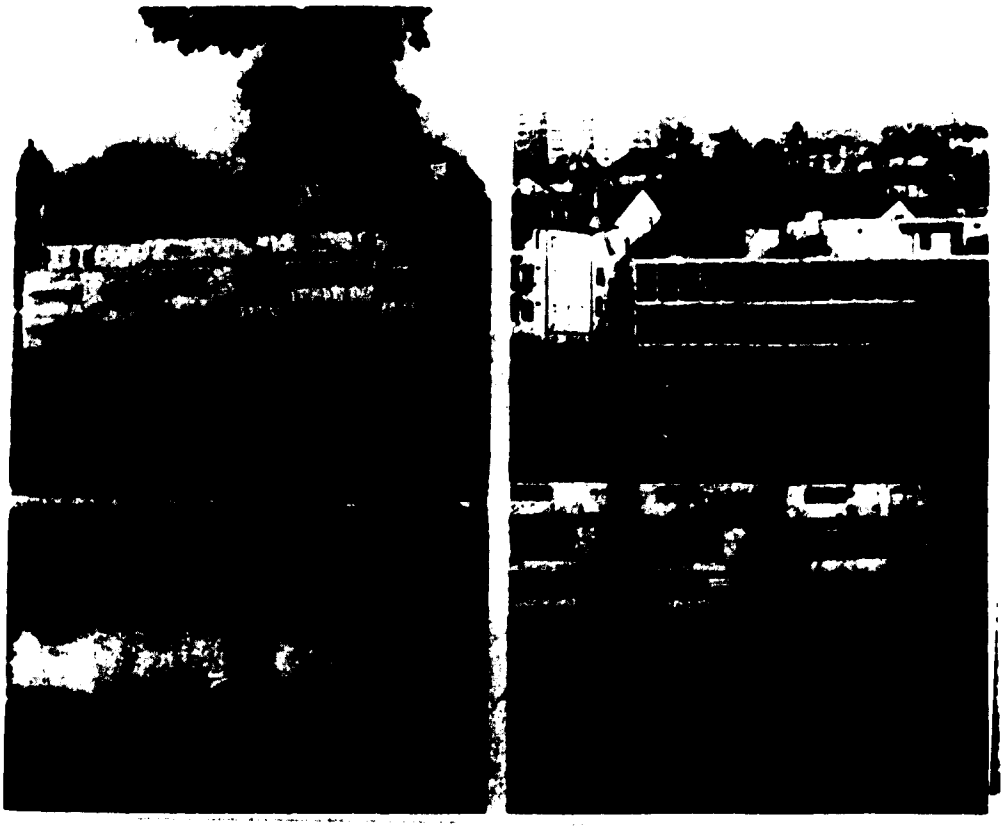
Eingang

Ergänzt durch Personenlifte und Hörsäle im Obergeschoss – Masstab 1 : 200

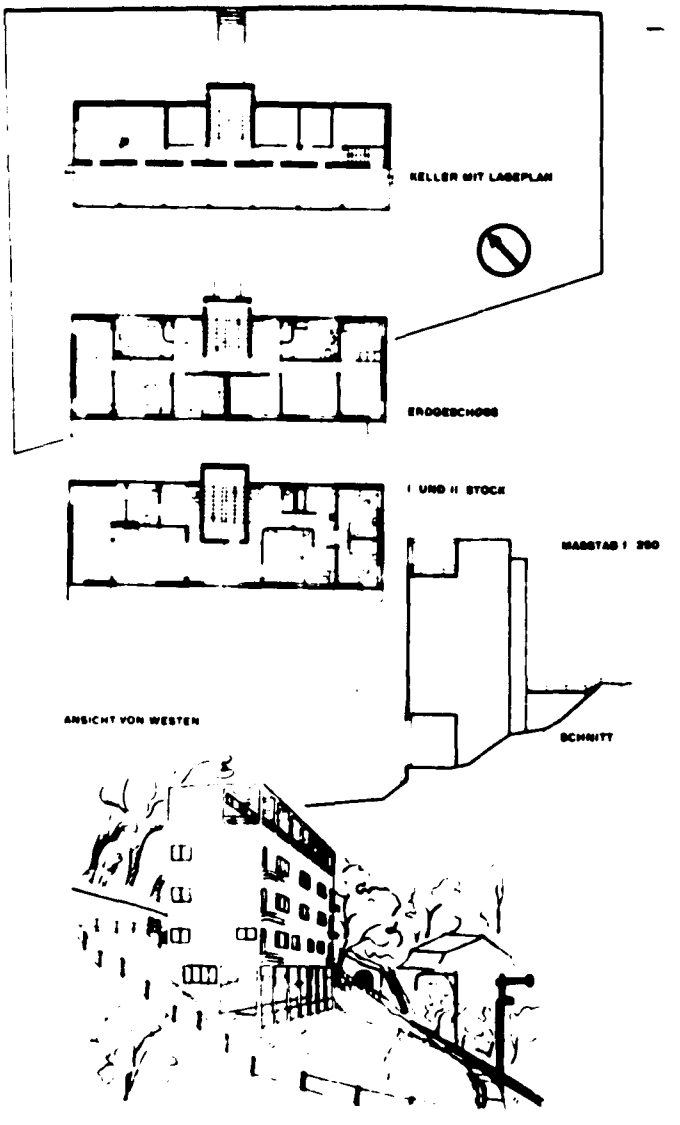
137. A "Rotachhauser" by Max Haefeli, Zurich (1928) (Photo,Staber, pp. 96, 97,).



137. B "Rotachhauser" by Max Haefeli, Zurich (1928) (Photo, Staber, pp. 99).



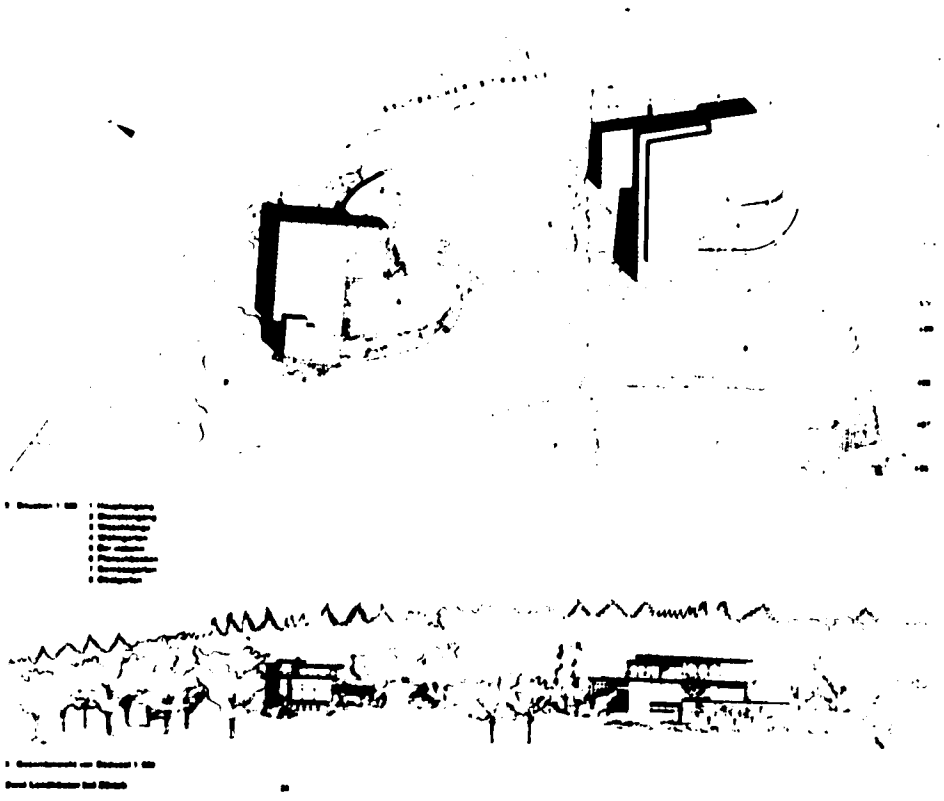
138. "Rotachhauser Project" by Wilhelm Kienzle, Zurich (1928)(Photo: Staber, p. 97).



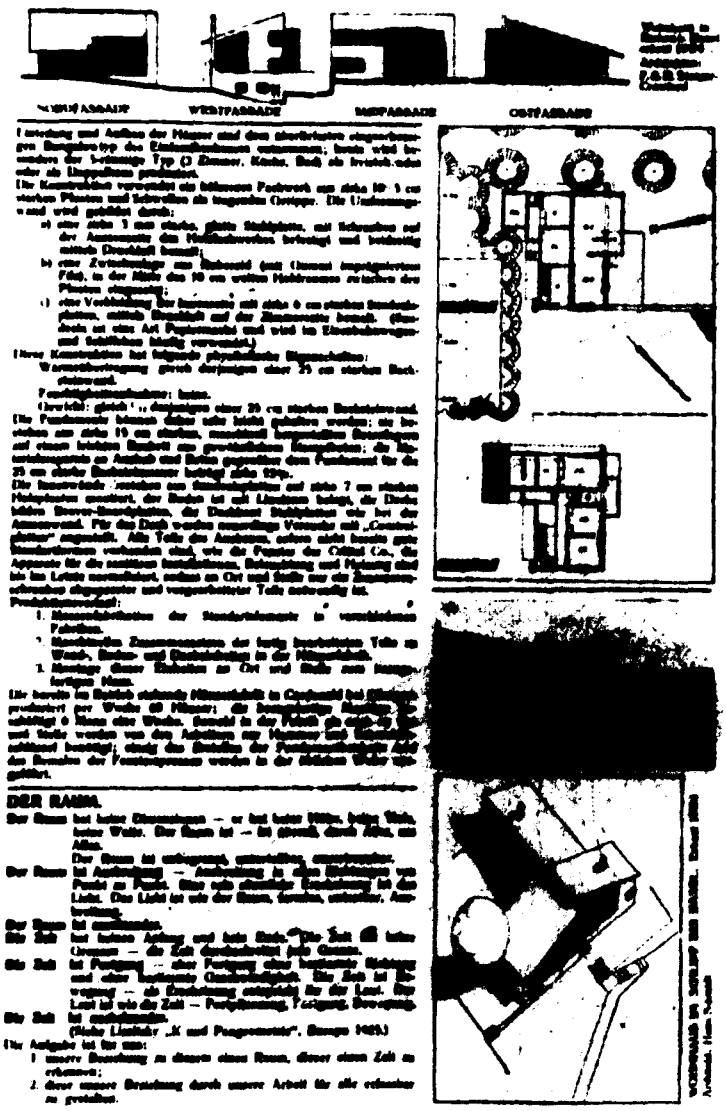
139. "Goldbach Houses" by Max Haefeli, Zurich (1931-1934) (Photo: Roth, p. 35).



140. "Goldbach Houses" by Max Haefeli, Zurich (1931-1934) (Photo: Roth, p. 34).



141. Page from ABC featuring "Wohnhaus im Schlipf" by Hans Schmidt (1924) and "Wohnhaus in Riehn" by Rudolf Steiger and Flora Steiger-Crawford (1924) (Photo: ABC, Series I, No. 5, 1925, p. 3).



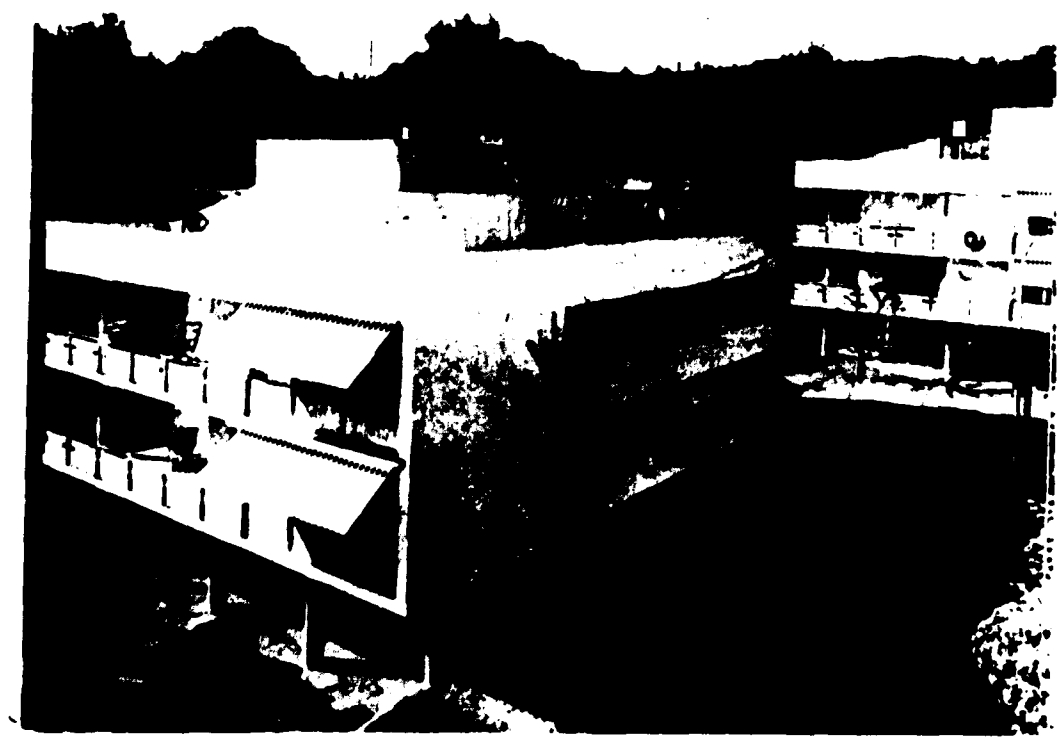
142. "Teehaus" by Rudolf Steiger and Carl Hubacher, Zurich (1934) (Photo: Mario Campi, Weiterbauen Weiter, Zurich, 1977, Plate XVII).



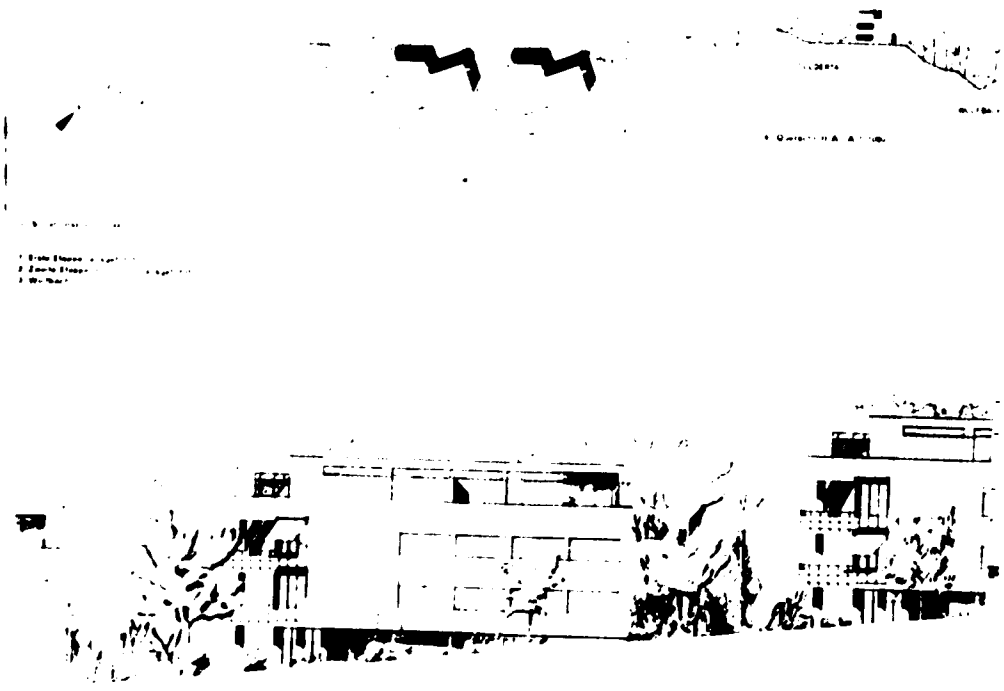
143. "Project for 'Holzhaus'" by Werner Moser and Rudolf Steiger, Zurich (1935) (Photo, Campi, Plate XVII).



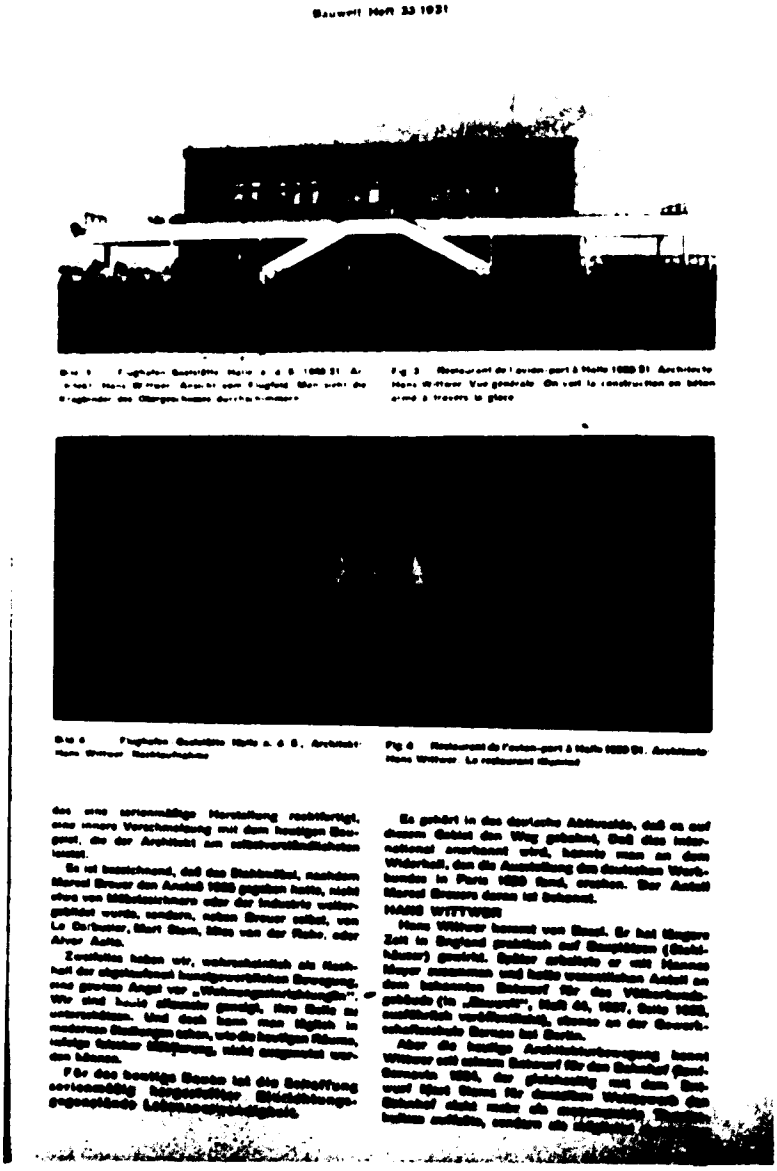
144. "Doldertal Villas" by Emil Roth, Alfred Roth and Marcel Breuer, Zurich (1935-1936) (Photo: Roth, p. 49).



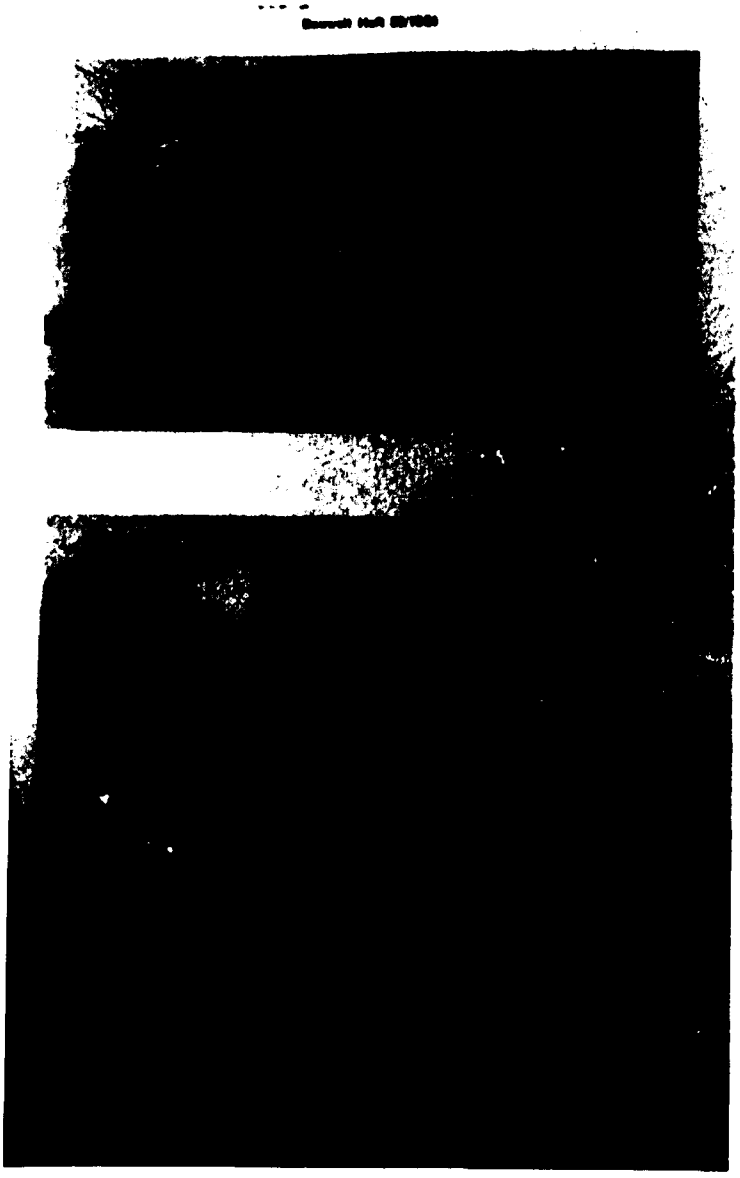
145. "Doldertal Villas" by Emil Roth, Alfred Roth and Marcel Breuer, Zurich (1935-1936) (Photo: Roth, p. 48).



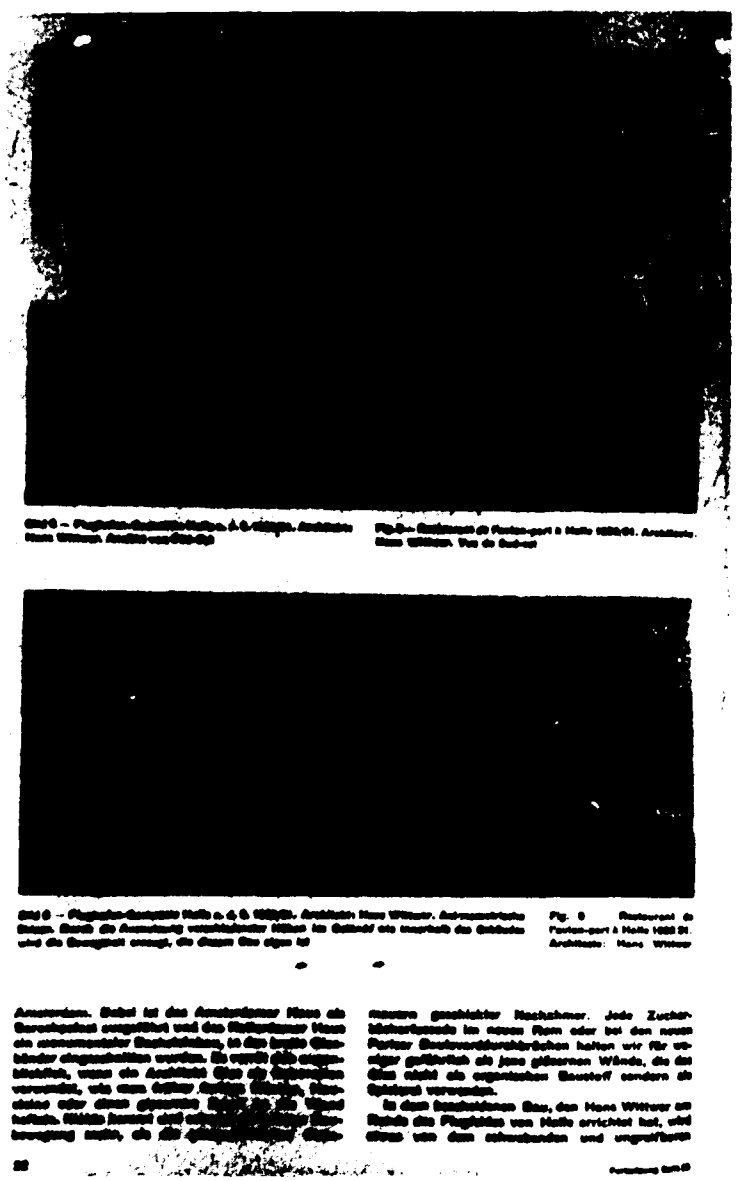
146. "Airport in Halle" by Hans Wittwer, Germany (1930-31)
(Photo: Bauwelt, No. 33, August 1931, p. 19).



147. "Airport in Halle" by Hans Wittwer, Germany (1930-1931) (Photo: Bauwelt, No. 33, August 1931, p. 23).



148. "Airport in Halle" by Hans Wittwer, Germany (1930-1931) (Photo: Bauwelt, No. 33, August 1931, p. 22).



APPENDIX

BIOGRAPHICAL NOTES ON THE ABC GROUP THROUGH 1934

PAUL ARTARIA

1892	Born in Basel.
1907 - 1911	Apprenticeship in various Basel building firms.
1918	Established independent office in Basel.
1924 - 1928	Joined ABC.
1925 - 1930	Formed partnership with Hans Schmidt in Basel.
1928 - 1930	Drafted plans for "Neubuhl" (Zurich) with Schmidt.
1930 - 1932	Worked on the "Neubuhl" project independently.

HANNES MEYER

1889	Born in Basel, Switzerland.
1905 - 1909	Studied at the Basel Technical School.
1909 - 1912	Studied art and architecture in Berlin at the School of Applied Arts and at the Institute of Technology.
1912 - 1913	Studied town planning in England.
1909 - 1914	Joined the German Land Reform movement, the Swiss Free Land Movement and the Swiss Co-op.
1914 - 1916	Served in the Swiss army.
1923 - 1926	Did free lance work for the Swiss Co-op Movement.
1923 - 1926	Traveled throughout Europe for the Swiss Co-op
1925	Joined ABC.
1926	Formed partnership with Hans Wittwer.
1927 - 1930	Assumed directorship of the Bauhaus.
1930 - 1936	Went to Russia to work as an architect and planner.

WERNER MAX MOSER

1896	Born in Karlsruhe, Germany to Swiss parents.
1916 - 1921	Studied architecture at the Technical University at Stuttgart and at the ETH in Zurich.
1922	Worked for Granpre Moliere, Verhangen and Kok in Rotterdam.
1923 - 1925	Joined Frank Lloyd Wright at Spring Green Wisconsin
1924	Membership in ABC.
1925 - 1926	Worked for George Martin, Chicago and Drake Brothers, contractors in Evanston, Illinois.
1927 - 1928	Joined Karl Moser in Zurich.
1928 - 1934	Formed partnership in Zurich with M.E. Haefeli and R. Steiger.

EMIL ROTH

1893	Born in Bari, Italy.
1911 - 1914	Studied architecture at the ETH in Zurich
1914 - 1918	Served in the Swiss Army.
1919 - 1922	Worked at assorted construction jobs as a technical engineer.
1922 - 1928	Worked at various architectural and engineering firms in Basel, thalwill, Glarus and Zurich.
1924 - 1928	Joined ABC.
1929	Worked with Werner Moser in Zurich.
1930 - 1933	Joined the architectural team which designed "Neubuhl".

HANS SCHMIDT

1893	Born in Basel, Switzerland.
1912 - 1913	Worked for the office of Curjel and Moser in Zurich.
1913 - 1917	Studied at Technological Institute in Munich.
1917 - 1918	Studied in Zurich at ETH.
1921 - 1923	Worked in the Rotterdam office of J.A. Brinkmann.
1923	Returned to Basel.
1924 - 1930	Established his own firm with Paul Artaria in Basel.
1924 - 1928	Edited ABC.
1928 - 1930	Drafted plans for "Neubuhl" (Zurich) with Artaria.
1930 - 1937	Went to Russia with Stam and Ernst May to work on various architectural and planning projects.

MART STAM

1899	Born on August 5, 1899 in Pumerend, Holland.
1917 - 1919	Educated at State School for Draughtmanship. Worked for J.M. van der Mey.
1919 - 1922	Worked for Granpre Moliere, Verhangen and Kok, Rotterdam.
1922	Worked for Hans Poelzig, Berlin. Worked for Max Taut, Berlin.
1923 - 1924	Worked in the Moser office, Zurich.
1924 - 1925	Worked for A. Itten in Thun, Switzerland.
1924 - 1928	Edited ABC.
1925	Returned to Holland to work for Brinkmann and Van der Vlugt.
1925 - 1928	Member of the Opbouw Society (Rotterdam).
1927	Participated at the Weissenhof Siedlung, Stuttgart.
1928	Worked with Ernst May, Frankfurt. Guest lecturer at Bauhaus, Dessau. Participated at CIAM, La Sarraz.
1930 - 1934	Travelled to Russia to work on assorted government planning projects.

HANS WITTWER

1894	Born in Basel, Switzerland.
1916	Received Diploma in Architecture from ETH in Zurich.
1922	Studied English architectural and planning prototypes in England.
1924	Became associated with ABC.
1926	Formed partnership with Hannes Meyer in Basel.
1927	Joined Meyer of the Bauhaus as a lecturer.
1928	Formed a private practice in Switzerland.
1932	Chose to leave architecture permanently.

SELECTED BIBLIOGRAPHY

I. TEXTS BY MEMBERS AND ASSOCIATES OF THE ABC GROUP

Lissitzky, El. "Deklaration An Den Ersten Kongress Fortschrihtlichen Kunstler Dusseldorf", De Stijl, Vol. 5, No. 4, April 1922, pp. 56-57.

_____. "Deklaracio a Halado Muveszek Elso Dusseldorfi Kongresszuhsahoz", Ma, Vol. 7, No. 8. August 30, 1922, p. 62.

_____. "Die Blockade Russlands Gel Ihrem Ende Entgegen" Veshch, Gegenstand, Objet, Vol. 1, No. 1, 1922, pp. 1-4.

_____. "Element und Erfindung", ABC, Series I, No. I, 1924, p. 3.

_____. "Nasci", Merz, Vol. 2, Nos. 8-9, April-July 1924.

_____. "Proun", De Stijl, Vol. 5, No. 6, June 1922, pp. 81-85.

_____. "Rad-Propeller Und Das Folgende", G, Vol. 1, No. 2, September 1923, p. 2.

Meyer, Hannes. "Die Neue Welt", Das Werk, No. 7, 1926.

_____. "Bauen", Bauhaus, No. 2, Vol. 4, 1928, pp. 12-13.

Moser, Karl. "Neue Hollandische Architektur, Bauten von W.M. Dudok-Hilversum", Das Werk 1922, Vol. 9, No. 11, pp. 201-214.

Schmidt, Hans. "Das Chaos im Stadtbau", ABC, Series I, No. I 1924, pp. 2-4.

Schmidt, Hans and Stam, Mart. "Der Raum", ABC, Series 1, No. 5, 1925, pp. 3-4.

Schmidt, Hans. "Le Corbusier als Architekt und Schriftseller", Hans Schmidt: Beitrage Zur ARchitektur 1924-1964, ed. Bruno Flieri. Berlin: VEB Verlag, 1965, pp. 28-30.

_____. "The Swiss Modern Movement 1920-1930", Architectural Association Quarterly, Volume 4, No. 2, April-June 1972, pp. 34-38.

_____. "Zusammenbruch der Architektur", ABC, Series I, No. I, 1924, pp. 1-2.

_____. "Zu Vermieten", ABC, Series 2, No. 4, 1927-1928, pp. 10-11.

Stam, Mart. "Der Zusammenbruch der Monumentalitet, Rotterdam 1922-1928", ABC, Series 2, No. 4, 1927-1928, pp. 4-5.

_____. "Holland und die Baukunst Unserer Zeit", Schweizerische Bauzeitung, Vol. 82, No. 15, October 3, 1923.

_____. "Holland und die Baukunst Unserer Zeit II; der Haag'sche Kreis", Schweizerische Bauzeitung, Vol. 82, No. 18, November 3, 1923.

_____. "Holland und die Baukunst Unserer Zeit III; Der Amsterdam'sche Kreis", Volume 82, No. 19, November 10, 1923, pp. 241-243.

_____. "Holland und die Baukunst Unserer Zeit IV; Stadtbau", Schweizerische Bauzeitung, Vol. 82, No. 21, November 24, 1923, pp. 268-272.

_____. "Kollektive Gestaltung", ABC, Series I, No. I, 1924, pp. 1-2.

_____. "M-Kunst", Bauhaus, Vol. 2, No. 2-3, 1928, p. 16.

_____. "Modernes Bauen 3", ABC, Series I, No. 3-4, 1925, pp. 3-5.

_____. "Op Zoek Naar Een ABC Van Het Bowen", Het Bowbedrijf, No. 3, 1926, p. 378.

II. TEXTS ON ABC, ABC MEMBERS, AND ABC ASSOCIATES

Birnholz, Alan. El Lissitzky. Dissertation. New Haven: Yale University, 1973.

Campi, Mario. Weiterbauen Weiter. Zurich: ETH, 1977.

Flieri, Bruno. Hans Schmidt, Beitrage Zur Architektur 1924-1964. Berlin: VEB Verlag, 1965.

Frampton, Kenneth. "The New Objectivity: Germany, Holland and Switzerland 1923-1933", Modern Architecture, A Critical History. New York: Oxford University Press, 1980.

Gmurzynska, Gallerie. El Lissitzky. Cologne, 1976.

Gubler, Jacques. ABC, Architettura e Avanguardia 1924-1928. Milan: Electa, 1983.

_____. Nationalisme et Internationalisme dans L'architecture Moderne de la Suisse. Lausanne: Editions L' Age d'Homme, 1975.

Lissitzky-Kuppers, Sophie. El Lissitzky: Life, Letters, Texts. Greenwich: New York Graphic Society, 1968.

Lissitzky, El. Proun und Wolkenbugel: Schriften, Briefe, Dokumente. Dresden: VEB Verlag, 1977.

Oorthuys, Gerrit. Mart Stam, A Documentation of his Work. London: RIBA Editions, 1970.

Roth, Alfred. The New Architecture. Zurich: Artemis Verlag 1975.

Schnaidt, Claude. Hannes Meyer Buildings, Projects and Writings. Teufen: Verlag Arthur Niggli AG, 1965.

Staber, Margit. Um 1930 in Zurich. Zurich, Kunstgewerbe Museum, Zurich, 1977.

Steinmann, Martin. CIAM, Dokumente 1928-1939. Basel, Birkhauser Verlag, 1979.

III. TEXTS ON RUSSIAN AND INTERNATIONAL CONSTRUCTIVISM

Bann, Stephen. The Tradition of Constructivism. London: Thames and Hudson, 1974.

Baranowicz, Zofia. Polska Awangarda Artystycana 1918-1939. Warsaw: Wydawnictwa Artystyczne, 1979.

Barron, Stephanie and Tuchman, Maurice. The Avant-Garde in Russia 1910-1930, New Perspectives. Cambridge: MIT Press, 1980.

Chan-Magomedow, S.O. Pionere Der Sowjetischen Architektur. Vienna: Locker Verlag, 1983.

Cohen, J.L.; Michelis, M.; Tafuri, M. URSS 1917-1978: La Ville, L'Architecture. Paris: L'Equerre, 1979.

Engels, Friedrich. Zur Wohnungsfrage. Leipzig, 1887.

Framption, Kenneth. "Notes on Soviet Urbanism 1917-1932", Architects Yearbook 12. London, 1968.

Gray, Camilla. The Russian Experiment in Art: 1863-1922. New York: Abrams, 1971.

Gresty, Hilary. Constructivism in Poland 1923 to 1936. Cambridge: Kettles Yard Gallery.

Hayward Gallery. The Hungarian Avant Garde, The Eight And The Activists. London: 1980.

Institute for Architecture and Urban Studies, The. Art and Architecture, USSR, 1917-1932. New York: Wittenborna, 1971.

Juda, Annely. The First Russian Show. London: Annely Juda Fine Art, Ltd., 1983.

Klotz, Heinrich. Vision der Mcderne Das Prinzip Konstruktion. Munich: Prestel Verlag, 1986.

Kopp, Anatole. Constructivist Architecture in the U.S.S.R. London: Academy Editions, 1985.

_____. Town and Revolution. New York: Braziller, 1970.

Lissitzky, El. Russia: An Architecture for World Revolution. Cambridge: MIT Press, 1970.

Listowski, Hieronim. The Polish Avante Garde. Brussels: Archives D'Architecture Moderne, 1981.

Lodder, Christina. Russian Constructivism. New Haven: Yale University Press, 1983.

Neuen Nationalgalerie Berlin. Tendenzen der Zwanziger Jahre. Berlin: Dietrich Reimer Verlag, 1977.

Pompidou, Centre Georges. Presences Polonaises. Paris, 1983.

Punin, Nikolai. "Tatlina Bashnia", Veshch, Gegenstand Objet, No. 1-2. April 1922, pp. 15-17.

_____. "Tatlin Uvegtornya", Ma. Vol. VII, No. 5-6, May 1922, p. 31.

Schlegl, Istvan. Ungarische Avantgarde. Zurich: Galerie Schlegl, 1975.

Shvidkovsky, O.A. Building in the U.S.S.R. New York: Praeger, 1971.

Stanislawski, Ryszard. Constructivism in Poland 1923-1936. Stuttgart: Cantzsche Druckerei, 1973.

Stanislawski, Ryszard. L Avantguardia Polacca 1910-1978, Milan: Electa Editrice, 1978.

Von Bartha, Miklos and Laszlo, Carl. Die Ungarischen Kunstler am Sturm, Berlin 1913-1932. Basel: Editions Panderma, 1983.

Uitz, Bela. "Jegyzetek A Ma Orosz Estelyehez", Ma. Vol. VI, No. 4, February 1921, p. 52.

_____. "Ma Korebol", Ma. Vol. VI, No. 2-3, Jan. 1921, p. 36.

Ulen, "Die Ausstellungen in Russland", Veshch Gegenstand Objet. No. 1-2, March-April 1922, pp. 18-19.

Umansky, Konstatin. "Neue Richtungen in Russland -- Der Tatlinimus oder die Maschinenkunst", Arrarat, January 1920, pp. 12-13.

_____. Neue Kunst in Russland, 1914-1919. Potsdam: Kiepenhauer Verlag, 1920.

IV. TEXTS ON THE NON CONSTRUCTIVIST SOURCES OF ABC

Asselbergs, A.L.L.M. ed. Amsterdamse School. Amsterdam: Stedelijk Museum, 1975.

Banham, Reyner. Theory and Design in the First Machine Age. New York: Praeger, 1960.

Bayer, Herbert, Ise and Walter Gropius. Bauhaus 1919-1928. New York: Museum of Modern Art, 1938.

Benevolo, Leonardo. History of Modern Architecture. Cambridge: MIT Press, 1971.

"Das Burghaus in der Scheiz", Schweizerische Bauzeitung, Vol. 82, No. 22, December 1923. (Entire issue.)

Bill, Max. Robert Maillart: Bridges and Constructions. New York: Praeger, 1969.

Burckhard, Lucius, ed. The Werkbund: History and Ideology 1907-1933. New York: Barrons, 1980.

Berlage, H.P. Normalisatie in Woningbau. Rotterdam, 1918.

Conrads, Ulrich. Programs and Manifestos on 20th Century Architecture. Cambridge: MIT Press, 1975.

Corbusier, Le. Towards a New Architecture. New York: Holt Reinhard, Winston, 1927.

Campbell, Joan. The German Werkbund: The Politics of Reform in the Applied Arts. Princeton: Princeton University Press, 1978.

De Wit, Wim. The Amsterdam School. Cambridge: MIT Press, 1983.

Frank, Suzanne S. "Michel de Klerk's Design for Amsterdam Spaarndammerbuurt 1914-1920", Nederlands Kunsthistorisch Jaarboek 22, 1971, pp. 175-213.

_____. "Michel de Klerk, An Architect of the Amsterdam School." Ann Arbor: UMI Press, 1984.

Frohlich, Martin. Gottfried Semper. Basel: Birkhauser, 1974.

G-Zeitschrift for Elementare Gestaltung. Berlin, Nos. 1-6, 1923-1926.

Giedeon, Sigfried. Space, Time and Architecture. Cambridge: Harvard Press, 1978.

Grinberg, Donald. Housing in the Netherlands 1900-1940. Delft: Delft University Press, 1982.

Gropius, Walter. Idee und Aufbau Des Staatlichen Bauhauses Weimar. Munich: Bauhausverlag, 1923.

Hitchcock, Henry Russel and Johnson Philip. The International Style. New York: Norton & Co. 1966.

Hitchcock, Henry Russel. The Pelican History of Art, Architecture: Nineteenth and Twentieth Centuries. New York: Penguin Books, 1977.

Hubert, Christian. "Introduction", William Lescaze. New York: Rizzolli, 1982.

Hermann, Wolfgang. Gottfried Semper In Search of Architecture. Cambridge: MIT Press, 1984.

Jenks, Charles. Modern Movements in Architecture. New York: Anchor Press, 1973.

Maillart, Robert. "Die Sicherheit der Eisenbetonbauten", Schweizerische Bauzeitung, Vol. 53, No. 9, February 27, 1909, pp. 119-120.

Meili, Armin. "Wir und die Architektur des Auslands", Schweizerische Bauzeitung, Vol. 83, No. 1, January 5, 1925, pp. 5-7.

Searing, Helen. "With Red Flags Flying: Housing and the Amsterdam School", Art and Architecture in the Service of Politics. Cambridge: MIT Press, 1978.

Semper, Gottfried. Lehre der Gebaude. Zurich: Semper Archiv 1840-1849, Ms. 25.

_____. Manuscript 129, Zurich: Semper Archiv, 1852-1854.

_____. Vorlaufige Bermerk ungen uber Bemalte Architektur und Plastik bei den Alten. Altona: 1834.

_____. Theorie des Formen Schonen. Zurich: Semper Archiv, 1856-1859, Ms. 179.

_____. Vergleichende Baulehre. Zurich: Semper Archiv, 1850, Ms. 5.

Singelenberg, Pieter. H.P. Berlage Idea and Style. Utrecht: Haentjens, Dekker and Gumbert, 1972.

Wingler, Hans. Bauhaus. Cambridge: MIT Press, 1969.

Wipf, E. "Holland und die Baukunst unserer Zeit", Schweizerische Bauzeitung, Vol. 83, No. 1, January 5, 1925, pp. 5-7.