# "AVANT-GARDE" MODERNISM IN ARCHITECTURE: A RE-ANALYSIS OF THE "*NEUE SACHLICHKEIT*" ARCHITECTURE WITHIN THE FRAMEWORK OF POSTHUMANISM

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Approval of the Graduate School of Natural and Applied Sciences

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# ABSTRACT

"AVANT-GARDE" MODERNISM IN ARCHITECTURE:
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This thesis aims to re-analyze the early twentieth century "modern architecture," with in the frame work of "posthumanism." Referring to the "materialist" and "socio-constructive" architecture of Hannes Meyer, the study proposes a "shift" from "humanist" ways of production and reception to posthumanism, where the centrality of human in the productive processes of both art and life is questioned. With this respect, the thesis proposes a historical continuity with the post 1960's "posthumanist" involvement of the postmodern architecture with the early twentieth century "modern architecture." Moreover, it is argued that the ideal of "modern architecture's" break with tradition could be realized through a move towards "posthumanism" referring "posthumanist" shift occurred in the avant-garde modernism. Within this framework the thesis, via proposing the book by Michael Hays: Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer as a pretext, argues that the "modern architecture's" ideal of "break" with tradition is realized through the *Neue Sachlichkeit* architecture of Hannes Meyer within which the architectural production is integrated with the social and productive determinants of life.

Keywords: Autonomy, Universal Humanist Subject versus Posthumanist Subject, Bourgeois Modernism versus Avant-Garde Modernism, Architectural Avant-Garde, "*Neue Sachlichkeit*" Architecture

# ÖZ

MİMARLIKTA "*AVANT-GARDE*" MODERNİZMİ:
"*NEUE SACHLICHKEIT*" MİMARLIĞININ POSTHUMANİZM
ÇERÇEVESİNDE YENİDEN İNCELENMESİ

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Bu tezin amacı erken yirminci yüzyıl 'modern mimarlık' ını 'posthumanist' söylem çerçevesinde tekrar incelemektir. Hannes Meyer'in 'materyalist' ve 'sosyo-yapısal' mimarlık pratiğine referansla tez, erken yirminci yüzyıl 'modern mimarlık' ında, 'humanist' üretim ve algı biçimlerinden, insan merkezli sanatsal ve yaşamsal üretimin sorgulandığı 'posthumanist' söyleme geçiş yaşandığını ileri sürer. Bu anlamda tez, 1960 sonrası mimarlıkta gelişen postmodern 'posthumanist' eğilimlerin tarihsel bir devamlılığı olduğunu ve eğilimin kökeninin erken yirminci yüzyıl 'modern mimarlık' pratiğinin içinde bulunabileceğini iddia eder. Aynı zamanda tez 'modern mimarlık'ın 'tarihsel kopuş' iddiasının, 'avant-garde' sanat çerçevesinde yaşanan 'humanist' üretim ve algı biçimlerinden 'posthumanist' söyleme geçiş süreci, ve 'avant-garde' sanatın en önemli amacı olan 'sanatın yaşamsal pratikle bütünleşmesi' sürecinin bir sonucu olarak gerçeleşeceğini savlar. Bu çerçeve içerisinde tez, Michael Hays'ın Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer kitabını ana metin kabul ederek, 'modern mimarlık' pratiğinin 'tarihsel kopuş' iddiasını, Hannes Meyer'in 'sosyal,' 'teknik,' ve 'yapısal' içeriği üretimin merkezine yerleştiren '*Neue Sachlichkeit'* mimarlığı içerisinde gerçekleştiğini iddia eder.

Anahtar Kelimeler: Özerklik, Humanist Özne-Posthumanist Özne, Burjuva Modernizmi- *AvantGarde* Modernizmi, Mimarlıkta *AvantGarde*, "*NeueSachlichkeit*" Mimarlığı

This thesis is a manifestation of my personal intellectual journey.
The graduate education in architecture has provided me with theoretical knowledge that would help me to realize the systematic relations behind the daily phenomenon; thus in turn improved my perception and capacity of realization.

The further we know, the further we understand things…

I am grateful for the ones who appreciated my being and kept on believing in my progression within this journey...

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## INTRODUCTION

This study is a reinterpretation of the architectural practice of Hannes Meyer in the first decade of the twentieth century referring to the context drawn by K. Michael Hays's[1] book: Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer. Consisting of a discussion on the architectural practice of Hannes Meyer and Ludwig Hilberseimer, the aim of the book is to propose an alternative reading of the early twentieth century "modern architecture" within the framework of "post-humanist" discourse that introduces a new positioning of the relation between man and his environment differing from the one in "modern humanism."

At the beginning of the twentieth century, as Hays argues, a new cultural attitude within modernism emerged that shifted away from dominant "humanism,"[2] which is closely related to the changing systems of production. This new cultural tendency presupposed the disfranchisement of the bourgeois individualism of the creative subject and the "autonomous" character of the object disengaged from the practice of life.

As Hays asserts, in "humanist" thought "the role of the subject, vis-à-vis the object has been that of an originating agent of meaning, unique, centralized, and authoritive." The individual subject conceptualizes his/her role in the dialectic with the world "as its source, as the intending manipulator of the object and the conscious originator of meanings and actions."[3] In the modern bourgeois "humanist" conception, the designing process is one of a free, creative will of the designing subject where the subject has authority over the being and meaning of the object. The

[1] K. Michael Hays, Modernism and The Post Humanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, (Cambridge: MIT Press, 1992).
[2] Ibid., 5.
[3] Ibid., 5.

product is seen as an "autonomous," "disinfected" object, remote from worldly circumstances. And, its reception is a subjective, "contemplative" act where the receiving subject's intellectual capacity plays an important role.

The technological modernisation that occurred in the first decade of the twentieth century made bourgeois "humanism" and its ideal of individualism problematic. The mass production and reproduction techniques of the object brought forward problems concerning the authenticity of individual artistic production; hence discrediting the authoritative, subjective implications of the creative subject over the produced object. The subject is no longer viewed as "the originating agent of meaning," and the object, freed from the authoritive subjectivity of the subject, is interpreted as the outcome of the processes of cultural, social, and productive systems. Mechanical reproduction techniques raised questions about the uniqueness of the art product and its functioning in society finding form in its exchange value as an investment object. The redistribution of artistic production within the circumstances of mechanical production not only provided the dissolution of the "autonomy" status it displayed in society; hence destroying its being an "end-in-itself, but also initiated a reformulation of the art object differing from the one in bourgeois "humanist" artistic ideals.

Hays calls this cultural shift that occurred in modernism as "posthumanism," where it is defined as "a conscious response to the dissolution of the psychological autonomy and individualism brought about by technological modernization; it is a mobilization of aesthetic practices to effect a shift away from the humanist concept of subjectivity and its presumptions about originality, universality, and authority."[4]

"Posthumanism," identified by Hays, is a term that questions the problems of individuality, subjectivity, and authority occurring with the new production processes. Within the discourse of "posthumanism," the subject is no longer interpreted as the centre of the object. The object is seen as an outcome of the processes where the author is regarded as one of the effecting systems.

The argument Hays proposes in the book aims to detect "an analogous perceptual shift," within modern architecture, particularly in the architecture of

[4] Ibid., 6.

Hannes Meyer and Ludwig Hilberseimer. As Hays asserts, in the buildings, projects, and writings of Hannes Meyer and Ludwig Hilberseimer, a new "dialectic of subject and object" materializes though their distinct attempts of handling the problems caused by the industrial modernization process to "bourgeois humanist" mode of production and reception of the object via questioning the authoritive individual centrality of both the creative and the perceiving subject.[5]

The interpretation of the architectural practices of Meyer and Hilberseimer within the framework of the "posthumanist" discourse is mainly structured by the concept of standardization introduced by the technological modernization of the early 1920s for revolutionary reshaping of the society and its forms of production towards a collective international culture. Belonging to the "*Neue Sachlichkeit*" architects of the 1920s, both Hannes Meyer and Ludwig Hilberseimer incorporated newly introduced technological production processes and materials into their architectural production. Regarded as "functionalists," both established their practices within the rationalist ideals of causality of production, maintaining "factual indexes" of their production.

Their structuring of architectural production via mass production techniques enabled the disruption of the bourgeois individualism and subjectivity of artistic production. Moreover the introduction of technique and psychical circumstances into the process of building questioned both the authoritative control of the artist\subject over the produced object and the "autonomous, disinfected, and unified" character of the object. As Hays argues, the conditions of architectural production and the role of the architect have changed with the usage of modern technology and mass-produced objects. Architectural production is considered to be an outcome of the processes of production where the architect's role became only a "switching mechanism" of the processes that overlapped in the production. As the building is constituted as the outcome of the effecting systems, the architect has lost his unquestioned authority over the produced object and became one of the factors above all the "worldly" circumstances of production.

[5] Ibid., 4.

Moreover, their attempt to redistribute architectural practice in accordance with industrial production, as Hays argues, is not only an issue of reorganization but proposes a political and cultural avant-gardism as well. Referring to Peter Bürger's definition of the "historical avant-garde," where the main aim is to "integrate art into life," Hays finds an analogous attempt within the architectural practices of both Meyer and Hilberseimer through their reorganization of the architectural discipline with the processes of production.[6]

Referring to Bürger, in the modernist tradition the evolution of the avant-garde necessitated the existence of the "high" modernist art with its claims of the art object's social "autonomy" and formal "self-referentiality." The modernist avant-garde, then is identified with the tendency of the disruption of the institutional function of art constituting "autonomy": the individual object's assertion of being "an-end-itself," subjectivity of the creative genius, and the object's comprehension in a "contemplative" inner psychic realm.

The avant-garde's attack on the status of "high" modernist art occurred in a context of technological investments and of the reorganization of the socio-economic life under capitalism. The industrial mass production techniques initiated the questioning of the art object's "autonomous" status distinct from the mass produced daily use objects and its economic value as an "authentic" object. The attempt of the avant-garde thus can be interpreted as a critic of this status of the art object's functioning in society and in turn be regarded as an attempt to relocate the art object in the socio-economic and productive systems prevailing in modern society. Further the avant-garde attack involved a redefinition of the productive subject via dismantling the claims of subjective creativity.

As Hays argues, Peter Bürger's Theory of the Avant-Garde initiated a new positioning for the reinterpretation of the general problematic of the social engagement of architecture.[7] Referring to Bürger, Hays argues that "rather than merely to change received representational conventions," the main aim of the "historical avant-garde" was the disruption of the "autonomous" status of art as an institution that does not refer to the real conditions of life; hence proposing "the

[6] Ibid., 11.
[7] Ibid., 122.

sublation of art," which means, "[a]rt was not to be simply destroyed, but transferred to the praxis of life where it should be preserved, albeit in a changed form." As Bürger argues the avant-gardistes' aim to "sublate art into life" can be deciphered as an attempt to integrate art into life, where art would be practical in the sense that it should play a role in the organization of a new life praxis. Moreover, the avant-garde's operational agents utilized for the disruption of the status of "high" modernist art in turn ended up with the revolutionizing of the production of the art work; thus constituting the category of "new" within modernism, which aims to break with tradition.

For Hays, Bürger's argument allowed to distinguish between "a modernism based primarily on issues of aesthetic autonomy and those 'avant-garde' practices."[8] As Hays asserts, such a distinction between "high modernism" and the "avant-garde" breaks apart "the notion of monolithic 'modern movement' in architecture," hence enabling the restructuring of the differing programs within modernist practice and the "revaluation of the routine equation of modernism with the avant-garde."[9]

The distinction developed by Bürger that is between the "humanist" bourgeois "high" modernism and the "posthumanist" avant-garde modernism should be comprehended under the issues which refers to the production and reception of the artistic/architectural work. For, the way that the work is produced and perceived in humanism constitutes bourgeois claims of individuality, and artistic subjectivity whereas the latter constitutes integration into the socio-productive processes and the decentralization of the subjective artistic implications of the author.

Regarding the production and reception of architectural object within "modern architecture," Hays makes a distinction between the architectural practice of Le Corbusier embedded in the discourse of *L' Esprit Nouveau*, and of Meyer's "Neue Sachlichkeit" tendency although they both incorporated the technological developments and the changing production techniques into their production.[10] In the context of the argument proposed by Hays, within the architectural practices of the outstanding figures of the discourse of "modern architecture," the technological

[8] Ibid., 306.
[9] Ibid., 122.
[10] Ibid., 99.

references involved in the building realm became merely visual indexes, for the reason that architectural construction and signification still conveyed the "humanist" traditional ways of production; thus discrediting their claims of performing the supposed "break up" with tradition.

Hays' reinterpretation of the early twentieth century "modern architecture" within the framework of "avant-garde modernism" introduced by Bürger can be taken as an attempt to draw the architectural discipline to the limits of avant-garde practice; thus initiating a new definition of "architectural modernism" via the framework of posthumanist avant-gardism. The insertion of the delegitimizing procedure of the humanist artistic conceptions by the avant-garde to the *Neue Sachlichkeit* architecture of Meyer, as Hays argues, will help to reanalyse the concept of modernity within architecture and its supposed claim of "break up" with tradition.

While reanalyzing the architectural practice of Meyer and Hilberseimer within the framework of "posthumanist" avant-garde modernism, Hays also makes a rigorous statement by interpreting these architects' practices as the precursors of the 1960s "post-humanist" involvement. For Hays, since 1960s, architectural practice displayed "a post-humanist," "post-modern" turn.[11] In the architectural practice of Peter Eisenman, Bernard Tschumi, Stan Allen, as Hays argues, there exists operations against the "orthodox modernist conception of architecture," against its conceptions of "authenticity, originality, and universality." This new positioning of architectural production negates the "idealist, autonomous, self-referential" position of architectural production and introduces new "externalities" such as "audience reception, ideological enframing devices, exclusionary disciplinary conventions and such." This post-modern practice of architecture necessitates a new definition of the institution of architecture and a redefinition of the identity of the architect. As Hays suggests, in these architectural practices the architect in contrast to the "heroic modernist artist as the magisterial creator of an original and unified individual language," is presented as one of the effecting systems in the production of the object; thus decentralize the authority of the architect in the design process.

[11] Ibid., 281.

Referring to Peter Eisenman, the posthumanist turn in architecture occurred after 1960s also discredits the "modern architecture's" claim of performing the supposed "break up" with tradition in terms of the production and the signification of the architectural object.[12] As Eisenman claimed, the supposed modernist "break" in architecture might only be constituted via a "shift" form dominant humanism. However, the repositioning of Meyer's practice within posthumanist discourse by Hays provides the claim of architectural discourse's constitution of expected epistemological shift occurred in the artistic avant-garde modernism in early twentieth century.

This study will specifically focus on two competition projects that are the *Petersschule* project for *Basel* of 1926-1927 and the League of Nations of 1926-1927 by Hannes Meyer in collaboration with Hans Wittwer. These two examples from early twentieth century modern architecture, utilising mass produced materials and new construction techniques, questions the autonomy of the unified, disinfected character of the architectural object and the subjective authority of the creative artist over the produced object. Analysing the projects will help to relocate Hays' argument about their "post-humanist" stance and enable us to make connections with the "post-humanist" involvement of the architectural practice after 1960s.

[12] For further analysis refer to these texts. Peter Eisenman, "Post Functionalism," Architectural Theory Since 1968, ed. K. Michael Hays, (Massachusetts MA: The MIT Press, 1998), 234-239. Peter Eisenman, "The End of the Classical: The End of the Beginning, the End of the End," Theorizing a New Agenda for Architecture: An Anthology of Architectural Theory, ed. Kate Nesbitt, (New York: Princeton Architectural Press, 1996), 211-227.

# CHAPTER II

# HUMANISM AS AN IDEOLOGY OF BOURGEOIS MODERNISM VERSUS POSTHUMANISM

## 2. 1. "Humanism" As an Ideology of Bourgeois Modernism

K. Michael Hays defines "modern humanism" with two different but related concepts in the book Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer.[1] The first is the notion that deciphers "modern humanism" as the bourgeois ideology that gives priority to man as human being and negates the differences of class, race and historicity. The second way to interpret "modern humanism" leads to the "instrumental or technical reason" that is also a part of the bourgeois ideology and culture. Hence as Hays conveys "humanism" is directly associated with the ongoing bourgeois revolution and modern capitalism connected to it.[2] However, the transference of the concept of "humanism" to architecture includes another expanded field which is "a discourse that comes from the Renaissance theory in reception and conceptualization of the world valorising the epistemologies of the human body, perspective and harmony and visual homologies."[3]

In "humanist" discourse, as Hays states,

> The role of the subject vis-à-vis the object has been that of an originating agent of meaning, unique, centralized, and authoritative. The individual subject enters the dialectic with the world as its source, as the intending manipulator of the object and the conscious originator of meanings and actions.[4]

[1] K. Michael Hays, Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, (Cambridge: MIT Press, 1992).
[2] Ibid., 4.
[3] Ibid., 5.
[4] Ibid., 5.

The "humanist" centrality of the subject is directly associated with the Enlightenment ideals occurring after the Renaissance. The dominant philosophical discourse of "Cartesian rationalism" attempted to identify and classify things in the world; thus it tried to organize the material world through the human intellect.[5] Also after the eighteenth century, with the emergence of bourgeois culture, the dominant centrality of the subject and its representation in culture, constituting claims of individuality, originality and uniqueness, became manifest in artistic and architectural production. In the case of bourgeois "humanist" architecture, as Hays argues, there developed a system of representation of the values and norms of the bourgeoisie that met the requirements of "the self, the aesthetic preferences, social habits, and forms of that class."[6]

### 2. 2. A Cultural Shift from Dominant "Humanism" to "Posthumanism"

#### 2. 2. 1. The Change in the Consciousness of the Subject/Object Relation in Modernism:

Within the early 20th century modernism, the capitalist organization of production procedures brought about a perceptual change towards material associations. Hays argues that as a consequence of industrial modernism, there occurred the dissolution of the traditional institutions that were once "unified, genuine and displaying concrete forms of relationships."[7] Subjected to industrial modernism, these institutions' components disintegrated into their fragments. The process of capitalism further reorganized these fragmented components with its characteristic tendency for the greater efficiency due to the "instrumental dialectic of means-ends rationality." As Hays asserts this process finally achieved the structural separation of the subject from the object introducing new hierarchies of function according to their instrumental use. This process of rationalization and reification introduced new forms of reception and generated its objects distinct from the earlier

[5] Michel Foucault, The Order of Things, (New York: Routledge Classics, 2002).
[6] K. Michael Hays, Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, op. cit., 5.
[7] Ibid., 16.

forms of production. Hays argues that in certain modernist practices, the effect of reification in the actual experience of subjects is incorporated into the structure of their works causing changes in aesthetic representations.[8]

Within this new realm of industrial modernism as Hays claimed, new conceptualizations of objects in relation to their producers, their audiences occurred.[9] Hence, a new identification of the subject/object relation, different from the one in "modern humanism," emerged.

### 2. 2. 2. The Problem of Bourgeois Individualism in Technological Modernization

The consequences of technological modernisation in the first decade of the twentieth century made bourgeois "humanism" and its ideal of individualism problematic. The mass production and reproduction techniques of the object brought forward problems concerning the authenticity of individual artistic production; hence discrediting the authoritative, subjective implications of the creative subject over the produced object. The subject is no longer viewed as "the originating agent of meaning," and the object, freed from the authoritive subjectivity of the subject, is interpreted as the outcome of the processes of cultural, social, and productive systems. Mechanical reproduction techniques raised questions about the uniqueness of the art product and its functioning in a society that regards it as an investment object with exchange value. The engagement of the production into the social and economic processes dissolved the art object's "autonomous" state in the functioning of the society; in turn it integrated into the "worldly" processes.

Within modernism in separate disciplines, as Hays states, another cultural attitude developed that broke up the dominant "humanism." This tendency provided the disenfranchisement of the bourgeois individualism, and its claims of subjective centrality. As Hays asserts,

> The subject is no longer viewed as an originating agent of meaning, but as a variable and dispersed entity

[8] Ibid., 21.
[9] Ibid., 4.

> whose very identity and place are constituted in social practice. Objects and processes are seen as having material existence independent of, and at time threatening to, the unity of the individual self.[10]

Hays calls this cultural shift that occurred in the positioning of the subject via the object as "posthumanism," where it is defined as,

> A conscious response to the dissolution of the psychological autonomy and individualism brought about by technological modernization; it is a mobilization of aesthetic practices to affect a shift away from the humanist concept of subjectivity and its presumptions about originality, universality, and authority.[11]

The "posthumanism" identified by Hays is a term that questions the problems of individuality, subjectivity, and authority occurring with the new production processes. Within the discourse of "posthumanism," the subject is no longer interpreted as the centre of the object. The object is seen as an outcome of the processes where the author is regarded as one of the effecting systems.

A thorough analysis of the way artistic production and reception functions in bourgeois culture is vital for exploring the "humanist" conception of the centralized subject and the object's "autonomous" state manifested in the form of being an "end-in-itself." But first, the concept of "autonomy" should be deciphered as an outstanding notion in the way that artistic production *functions* in bourgeois society.

### 2. 3. The "Autonomy" of Art and Aestheticism in Bourgeois Modernism

Peter Bürger in the book The Theory of the Avant-Garde[12] defines "autonomy" as "the detachment of art as a special sphere of human activity from the nexus of the praxis of life."[13] In order to analyse the concept "autonomy," Bürger proposes a "historical typology," where art is reduced to three elements -purpose or

[10] Ibid., 5.
[11] Ibid., 6.
[12] Peter Bürger, The Theory of the Avant-Garde, trans. by Michael Shaw, (Minneapolis: The University of Minnesota Press, 1984), 36.
[13] Ibid., 47-48.

function, production, and reception.[14] He defines three phases where the function, production, and reception change asynchronously due to the characteristics of the society within which art is constituted.

Sacral art; for instance, the art of the High Middle Ages, for Bürger, serves as a "cult object" where it is an integral part of the social institution 'religion.' It is produced collectively as a craft and the mode of reception also is institutionalised as collective. Courtly art, for instance, the art at the court of Louis XIV, for Bürger, displays a functional role by both "representing the glory of the prince and the self-portrayal of courtly society." It constitutes to be a part of the courtly society as sacral art is a part of the life praxis of the faithful. As Bürger argues, the difference reveals in production where "the artist produces as an individual and develops a consciousness of the uniqueness of his activity." However, reception stayed collective as sociability. In bourgeois art the objectification of the self-understanding of the bourgeois class became the representational function it conveyed in society. As Bürger asserts production and reception of the self-understanding as articulated in art are no longer tied to the praxis of life. Both production and reception became individual acts.

As Bürger argues, with the development of bourgeois culture, arts' functioning in society almost changed. In both sacral and courtly art, art stayed as a part of life praxis of the recipient. Works of art, as being cult and representational objects, are put to a specific use. Differing from both sacral and courtly art, in bourgeois society the function of art as the portrayal of the self-understanding occurred in a sphere that is out side the praxis of life. Moreover both production and reception of art became individual acts constituting the subjective creativity- genius of the artist.

> The citizen who, in everyday life has been reduced to a partial function (means-ends activity) can be discovered in art as 'human being.' Here, one can unfold the abundance of one's talents, though with the proviso that this sphere remains strictly separate from the praxis of life. Seen in this fashion, the separation of

[14] Ibid., 47.

> art from the praxis of life becomes the decisive characteristic of the autonomy of bourgeois art.[15]

Bürger argues that "autonomy" is the outcome of the conditions of production and reception of bourgeois art. Furthermore, he emphasizes that "autonomy" should not be understood as a concept related to the content of the works but rather as "the status of art in bourgeois society."

Bürger finds necessary to distinguish between "art as an institution whose functional mode is autonomy," and the content of individual works.[16] At the end of the 18th century "the evolution of art as a sphere that is detached from the praxis of life" meaning the "art's development as an institution" is fully completed. This distinction is important because although the "institution of autonomous art" is fully developed, within the institution there still exists works whose content has political character functioning to "militate against the autonomy principle of the institution."[17]

As Jürgen Habermas argues in the text "Modernity- An Incomplete Project,"[18] in the history of modern art there is a "growing tendency towards greater 'autonomy' in the definition and practice of art" due to the emergence of "cultural modernity"[19] around the midst of the 19th century. The institutionalisation as an autonomous discipline changed art's operational status, thus an " 'aestheticist' conception of art" emerged where artistic production was based on the dictum "art for art's sake," where the artist could articulate his/her subjective experiences "detached from the constraints of routinized cognition and everyday action" into authentic expressions. For Habermas, the realization of this modernist transformation

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[15] Ibid., 48.
[16] Ibid., 24.
[17] Ibid., 26.
[18] Jürgen Habermas, "Modernity- An Incomplete Project," The Anti-Aesthetic: Essays on Postmodern Culture, ed. by Hal Foster, (Seattle: Bay Press, 1983), 10.
[19] The "cultural modernity" is a deliberate project of the 18th century Enlightenment philosophers where the aim was the "rational organization of everyday social life." Habermas explains the "cultural modernity," referring to Max Weber, as "the separation of the substantive reason expressed in religion and metaphysics into three autonomous spheres. They are: science, morality, and art." The problems inherited from older worldviews are arranged into questions of "knowledge," or of "justice and morality," or of "taste." This separation led into the institutionalisation of "scientific discourse," "theories of morality, jurisprudence," and the "production and criticism of art." As Habermas argues, this "project of modernity" formulated in the 18th century by the philosophers of Enlightenment was an effort to develop "objective science, universal morality and law, and autonomous art according to their inner logic;" resulting in autonomous forms of institutions. Ibid., 9.

led into the foundation of the institution of art- Aestheticism- as an autonomous discipline, where art alienated itself from life.[20]

As Bürger asserts, at the end of the 19th century, it is in Aestheticism that the divergence between institutional frame and content of the individual works disappeared due to the development of the bourgeoisie after its confinement of political power. The contents also lost their political character and "art wanted to be nothing other than art."[21] Hence, for Bürger, the apartness from the praxis of life that had always constituted the institutional status of art in bourgeois society now becomes the content of works.[22]

> In Aestheticism, finally, where bourgeois art reaches the stage of self-reflection...Apartness from the praxis of life, which had always been the condition that characterized the way art functioned in bourgeois society, now becomes its content.[23]

As institution and content coincided, the social ineffectuality became the characteristic of art in bourgeois society. For Bürger, the avant-garde movements aroused as the self-criticism of art where art became problematic for itself.

[20] Ibid., 10.
[21] Peter Bürger, The Theory of the Avant-Garde, op. cit., 27.
[22] Ibid., 27.
[23] Ibid., 48.

# CHAPTER III

# THE EVOLUTION OF AN AVANT-GARDE MODERNISM

## 3. 1. The Negation of the "Autonomy" of Art by the "Historical Avant-Garde"

As Bürger argues the European avant-garde movements can be interpreted as "an attack on the status of art in bourgeois society."[1] The avant-garde, for Bürger, negated "art as an institution that is unassociated with the life praxis of men." As it is defined "autonomy" is "the status of art in bourgeois society;" meaning that it is being separated from the praxis of life. This stance, as Bürger argues does not take place at the status of the content of works. Rather what the avant-garde opposed was the "autonomous" status of art as an institution that does not refer to the real conditions of life.

> When the avant-gardistes demand that art become practical once again, they do not mean that the content of works of art should be socially significant...Rather, it directs itself to the way art functions in society.[2]

As argued, the main characteristic of art in bourgeois society mainly in Aestheticism, is the distance it constituted from the praxis of life. The praxis of life that is not integrated into the work of art was the "means-ends rationality" of bourgeois everyday life.

> All those needs that cannot be satisfied in everyday life, because the principle of competition pervades all spheres, can find a home in art, because art is removed from the praxis of life. Values such as humanity, joy, truth, solidarity are extruded from life as it were, and preserved in art.[3]

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[1] Peter Bürger, The Theory of the Avant-Garde, op. cit., 49.
[2] Ibid., 49.
[3] Ibid., 50.

The avant-gardistes proposed "the sublation[4] of art," which means, "[a]rt was not to be simply destroyed, but transferred to the praxis of life where it should be preserved, albeit in a changed form."[5] As Bürger argues, the avant-gardistes' aim to "sublate art into life" can be deciphered as an attempt to integrate art into *this* praxis; the means-ends rationality. They attempt to change the "autonomous" status of art where art would be practical in the sense that it should play a role in the organization of a new life praxis.

As argued, in bourgeois society both the production and the reception of art are carried out individually as the essential principle of the state of "autonomy," where the individual production also confirms the "concept of genius." Bürger claims that, the avant-garde responded to this status of "autonomous" art not by constituting "the collective as the subject of production" but by radically "negating the category of individual creation."[6] As Bürger argues this attitude is mostly manifest in the work of Michael Duchamp; his attitude of signing mass-produced objects not only negates the principles of the "art market where the signature means more than the quality of the work," but also "it radically questions the very principle of art in bourgeois society according to which the individual is considered the creator of the work of art."[7] Signing the mass-produced object where the signature is the evidence of work's both individuality and uniqueness, confuses the idea of the individual creation of unique works that is the nature of art as it has developed since the Renaissance.[8]

The questioning of the individual, being the creator of the artwork called for the elimination of "the antithesis between producer and the recipient."[9] Thus, the production of art is reduced to the type- recipe- especially in Dadaism, in which both the negation of individual creativity and the integration of the recipient to the

[4] Bürger uses the term "sublation" in the Hegelian sense. Also Hays uses the concept as "[t]he English approximation of Hegel's notoriously untranslatable term *Aufhebung*, which means simultaneously 'negation' and 'preservation' in a different, usually 'redeemed,' form." K. Michael Hays, Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, op. cit., 306.

[5] Peter Bürger, The Theory of the Avant-Garde, op. cit., 49.

[6] Ibid., 51.

[7] Ibid., 52.

[8] Ibid., 56.

[9] Ibid., 53.

production process is achieved. As the concepts lost their meaning the distinction of the producer and recipient no longer existed.

In general, Bürger claims, the historical avant-garde negated the essential determinants of "autonomous" art, which are "the disjunction of art and praxis of life," and art's individual production and reception.

### 3. 2. "Modernism" As a Consciousness emerged As "A Break up With Tradition"

In the course of modernism, argued by Habermas, the renewal is a fundamental premise referring to a specific historical epoch.[10] Due to the effects of the French Enlightenment, during the 19th century, a new kind of consciousness of modern occurred, which broke its engagement with history. This new consciousness of "modern" diverged from the preceding one by strictly relating with the concept of the "new."

Bürger, for deciphering the work of the historical avant-garde, makes the "new" concept central to his discussion. As Bürger argues, referring to Adorno, the central theme of the theory of modern art that is the category of "new" is "something distinct from the renewal of themes, motifs, and artistic techniques that also marked the development of art before the advent of Modernism."[11] What is meant by the "new" concept is not the development of a preceding style but a radical break with the existing tradition of art.

> We are dealing not with development but with a break with tradition. What distinguishes the category of new in Modernism from earlier, perfectly legitimate uses of the same category is the radical quality of the break with what had prevailed heretofore. It is no longer artistic techniques or stylistic principles, which were valid heretofore but the entire tradition of art that is negated.[12]

[10] Jürgen Habermas, "Modernity- An Incomplete Project," op. cit., 5.
[11] Peter Bürger, The Theory of the Avant-Garde, op. cit., 59.
[12] Ibid., 60.

The avant-garde movements' attack on the prevalent institution of art corresponds to the concept of "new" that aims to abolish the traditional art. For Bürger, the category within which the concept of "new" is constituted is the representational system that existed since 15th century. As Bürger claims, the installation of "nonorganic (allegoric)" work of art by the avant-garde against the "organic (symbolic)" work of art led into a change of the existing representation system. The category of "new" within Modernism, which aims to break with tradition, coincides with the change, which is guided by the avant-gardiste work, in the prevailing representational system since the 15th century. However, Bürger finds important to emphasize that the historical avant-garde "not only intend a break with the traditional representational system but the total abolition of the institution that is art."[13]

### 3. 3. Traditional Work of Art versus the Avant-Gardist Work of Art: The "Organic" versus the "Nonorganic" Work of Art

As Bürger claims, the avant-garde destroyed the traditional concept of the "organic" work of art and installed a new practice that differs from the preceding one with its changed behaviour towards the material and the establishment of another kind of unity for the realization of the work.[14] The new practice defined as the "nonorganic" work of art, constituted a break with tradition; via changing the category of work.

A thorough analysis is necessary to decipher the changes that realize this break. Referring to Bürger, the "work of art" is defined as the "unity of the universal and the particular."[15] During different periods in the history of art, the unity necessary to conceive "the work of art" is attained through different ways, where in this context the "organic (symbolic)" work of art will be thematized versus the "nonorganic (allegorical)" work of art to which the avant-gardiste art belongs.

[13] Ibid., 63.
[14] Ibid., 59.
[15] Ibid., 56.

In the “organic (symbolic)” work of art, as Bürger asserts, “the unity of the universal and the particular" is conceived without mediation, whereas in the “nonorganic (allegorical) work,” the unity is mediated. In the “nonorganic” work the “unity” is dispersed, where “it is the recipient who creates it.” Bürger insists on the issue that it was not the concept of “unity” which is being dismantled by the avant-gardiste work but a specific kind of unity that exists in the “organic” work of art where the “unity” is achieved by the subordination of the parts to the whole.[16]

As Bürger claims, the “organic” work of art is constructed according to the syntagmatic pattern, meaning “individual parts and the whole form a dialectical unity.” A thorough analysis can be done referring to the hermeneutic circle, where “the parts can be understood only through the whole, the whole only through the parts.” The expected comprehension of the whole, which forms the unity, depends on the comprehension of the parts. This type of reception preconditions an indispensable correspondence between the meaning of the individual parts and the meaning of the whole. As Bürger argues it is the rejection of this kind of precondition that constitutes the essential elements of the “nonorganic” work, which means the comprehension of the parts with their distinctiveness are no longer decisive. In “nonorganic” work, the **construction principle** that underlies the sequence of events constitutes the unity for defining the work.[17]

> The organic work intends the impression of **wholeness**. To the extent its individual elements have significance only as they relate to the whole, they always point to the work as a whole as they are perceived individually. In the avant-gardiste work, on the other hand, the individual elements have a much higher degree of autonomy and can therefore also be read and interpreted individually or in groups without its being necessary to grasp the work as a whole.[18]

As Bürger claims, in the “organic” work, to which the work of the “classicists’” belongs, the aim is to create “a living picture of the totality,” conversely, the avant-garde, joins fragments aiming to posit meaning- “where the

[16] Ibid., 56.
[17] Ibid., 79-80.
[18] Ibid., 72.

meaning may well be the message that meaning has ceased to exist." The nonorganic work is no longer created as an organic whole but put together from fragments.[19]

For Bürger, a theory of the avant-garde must begin with the introduction of the concept of "montage" by the early cubist collages. The insertion of reality fragments into the painting, for instance the application of real material, destroys the unity of the painting as a whole; thus it is distinguished from the techniques of composition developed since the Renaissance.[20] The artist by inserting the reality fragments into the work of art rejects to define a whole and provides the painting a different status. The parts of the work of art no longer constitute the **relationship to reality** characteristic of the organic work of art for "they are no longer signs pointing to reality, they are reality."[21]

> A system of representation based on the portrayal of reality, i.e., on the principle that the artistic subject (the artist) must transpose reality, has thus been invalidated.[22]

As Bürger asserts the collages of the cubists do not show a synthesis, in the sense of a unity of meaning, instead allow one to discover **a principle of construction**.[23]

In the "organic" work, material is treated as a living thing that has developed from existing life situations, while within the avant-gardiste work material is just material. This distinction is important within the **constitution of meaning**, for meaning diverges due to the changing attitudes towards material. The avant-gardiste work detaches the material from its "functional context that gives it meaning," and puts it into another context where it will be assigned new meaning. The classicist while using the material keeps the thing that gives its meaning while the avant-gardiste interprets it as "only the empty sign, to which only they can impart significance." The classicist behaves towards the material as a "whole," while the avant-gardiste "tears it out of the totality, isolates it, and turns it into a fragment."[24]

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[19] Ibid., 70.
[20] Ibid., 77.
[21] Ibid., 78.
[22] Ibid., 78.
[23] Ibid., 79.
[24] Ibid., 70.

The organic work of art demands to "create the appearance (*Schein*) of nature" where this holds for the "reconciliation of man and nature." While pretending to be an image of nature the organic work tries to make unrecognisable the fact that it has been made. However, the avant-garde work announces itself an artificial construct, an **artefact**.[25] Referring to Adorno, Bürger argues that the nonorganic work using the principle of montage does not pretend to create the **semblance (*Schein*)** of reconciliation. To this extent, **montage** may be considered the fundamental principle of the avant-gardiste art.

As Bürger asserts, the nonorganic avant-garde work introduced a new type of reception that resulted in decisive changes in the development of art.[26] The recipient of an avant-gardiste work finds out that the mode of appropriating "intellectual objectifications" that has been shaped by the interpretation of organic works of art is no lo longer valid for the present object. As Bürger claims,

> The avant-gardiste work neither creates a total impression that would permit an interpretation of its meaning nor can whatever impression may be created be accounted for by recourse to the individual parts; for they are no longer subordinated to a pervasive intent.[27]

Hence, another level of interpretation occurs: The recipient rather than proceeding according to the hermeneutic circle, trying to grasp a meaning through the nexus of whole and parts, will "suspend the search for meaning and direct attention to the **principles of construction** that determine the constitution of the work." During the process of reception, "the avant-gardiste work thus provokes a break, which is the analogue of the incoherence (nonorganicity) of the work."[28] Bürger claims that the avant-garde in their attempt of destroying "art as an institution," constituted a disruption in the work of art itself. Hence, the aim to "revolutionize life by returning art to its praxis" led into a "revolutionizing of art."[29]

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[25] Ibid., 72.
[26] Ibid., 80-81.
[27] Ibid., 80.
[28] Ibid., 81.
[29] Ibid., 72.

Hays argues that within modern architecture, an analogous perceptual shift from humanism to what he calls posthumanism may be detected as well. Moreover, the twentieth century avant-garde's attempt to transform the traditional modes of artistic production occurs in a context dominated by industrial mass production.[30] The bourgeois modernist concept that constituted a "removed, inward, self-critical and self-referential artistic (architectural) practice," in which "autonomy" and "uniqueness" are irreducible notions, tended to maintain a "high" culture against the "'degraded' popularities." The invasion of mass production based on "reproduction" and the perceptual changes initiated by the industrialized city necessitated a new definition of the relation both between "the object and its maker" and "the object and its reception." The conditions of industrial capitalism and its metropolitan experience that enunciate "anxieties", as Hays asserted, challenged the viability of the humanist ideal of the "creating or viewing subject" defined as a "free, active, autonomous and unified personality." The avant-garde to "criticize and dismantle the humanist subject and its mode of artistic perception", utilized the negative features of the "actual experience" of the subjects in industrial society; thus interfering with the humanist ideal via introducing the "alienating dissonances and contradictions" that are in conflict with the ideals of unity and autonomy.

The "historical" avant-garde, in the case of Dadaism and such, can be interpreted as an attack for the destruction of the humanist "myth of authenticity" and a demystification of the "dominant culture, whose ambition was to salvage the purity of art from the encroachments of technological modernization and mass industrialization." In this sense, as Hays asserts, "reproduction" is integrated into the "negational" practice of the avant-garde as an operational constituent.

Hays' reinterpretation of the early modernist architectural practice via Hannes Meyer's "*Neue Sachlichkeit*" architecture can be taken as an attempt to draw the architectural discipline to the limits of avant-garde practice; thus initiating a new definition of "architectural modernism" via the framework of posthumanist avant-gardism. The insertion of the delegitimizing procedure of the humanist artistic conceptions by the avant-garde to the *Neue Sachlichkeit* architecture of Meyer, as

[30] K. Michael Hays, Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, op. cit., 150-151.

Hays argues, will endow the architectural discipline with the knowledge of the negation of the "notion of autonomous architectural form and the concomitant centrality of the humanist subject."[31]

[31] Ibid., 151.

# CHAPTER IV

# THE ARCHITECTURAL AVANT-GARDE MOVEMENTS

## 4. 1. The German Avant-Garde: The Weimar Bauhaus– Foundation, Aims, and Development

At the beginning of the twentieth century as a consequence of the process of industrialization, there occurred a pervasive attempt for the reorganization of intellectual activities within which architecture and city planning involved. In the capitalist rivalry the craft production based on artisanship had no chance to compete with the new industrial mass production techniques. The intellectuals had to reorganize the overall process of production under the conditions of the capitalist division of labour.[1]

Germany was one of the countries that fell behind in the competition for a share of world market at the end of the nineteenth century. Unlike France and England, Germany had both no access to cheap source of materials and a ready outlet for inexpensive goods. For to participate among the other countries in the field of exportation, German politicians and intellectuals led the idea of betterment of design in both craft and industry, hence an attempt to increase both the quality and quantity of the products. For them, the only possible way to export products was the improvement of the quality.[2] In 1904, Friedrich Naumann, the nationalist and Christian-Social Democrat, released an essay *Die Kunst im Maschinenzeitalter* (Art in the Epoch of Machine) arguing that the adaptation of the artistically educated

[1] Manfredo Tafuri and Francesco Dal CO, Modern Architecture, trans. from Italian by. Robert Erich Wolf, (New York: Electa/ Rizzoli, 1986), 93.

[2] Kenneth Frampton, "The Deutsche Werkbund, 1898-1927," Modern Architecture: A Critical History, third ed. (New York: Thames and Hudson Ltd., 1992), 110.

people to machine -mass- production would result in the economical achievement of the desired quality. This proclamation drew wide interest among the German intelligencia that throughout the country several movements were initiated under the ideal of reorganizing craft education towards mass production. Hence, the Bauhaus was the outcome of the continuous attempts to reform applied art education in Germany around the end of the century, starting with the foundation of the *Dresdner Werkstatten für Handwerkskunst* (Dresden Workshop for Manual Art) in 1898 by Karl Schmidt. Then, *Kunstgewerbeschule* (School of Arts and Crafts) reform movement was initiated by the architect Hermann Muthesius for the reformation of the national programme of education in applied arts. Finally, the Grand Ducal Saxon School of Arts And Crafts was founded in 1906 under the chairmanship of the Belgian architect Henry van de Velde.[3]

In 1907, gathering the whole institutions, Friedrich Naumann, Karl Schmidt, and Hermann Muthesius founded an organization called *Deutsche Werkbund* (German Arts and Crafts Society) for the reformulation of the relations of crafts and industry.[4] From the beginning, the *Werkbund* became a centre where industrialists and intellectuals performed experiments with close cooperation for achieving "a unified nationwide organization of production."[5] The *Werkbund* performed no particular artistic language; however, the only principle was to reform the relation between artists and industry where "quality and quantity of production became complementary."[6] However a severe contradiction within the *Werkbund* was never resolved and endured throughout. It was the opposition of the "norm vs. form" or in another words "type vs. individuality." This conflict was revealed at most in the "1914 Deutsche Werkbund Exhibition" held in Cologne,[7] where Muthesius stated that the aims of Werkbund design was "concentration and standardization" as Van de Velde announced his contrary proposal of "the artist as a creative individualist." Muthesius argued that the idea of the need for defining typical objects for industrial

[3] Kenneth Frampton, "The Bauhaus: The Evolution of an Idea," Modern Architecture: A Critical History, op. cit., 123.
[4] Ibid., 110-111.
[5] Manfredo Tafuri and Francesco Dal CO, Modern Architecture, op. cit., 93.
[6] Ibid., 93.
[7] Kenneth Frampton, "The Deutsche Werkbund, 1898-1927," Modern Architecture: A Critical History, op. cit., 112.

production is vital for the development of high standard products for the world market. The argument advocated the redemption of individuality for the creation of types, and the achievement of high quality products, along with quantity, in order to increase the share in exportation.

After the First World War, in 1918, the organization The *Arbeitsrat für Kunst* (The Work Council for Art) was founded in Berlin, gathering the revolutionary artists from all over Germany. With the approval of the Work Council for Art, Bruno Taut's declaration of 1918 *Architektur-Programm* (Programme for Architecture) was printed as a leaflet, in which Taut declared,

> Art- that is one single thing, when it exists! Today there is no art. The various disrupted tendencies can find their way back to a single unity only under the wings of a new architecture, so that every individual discipline will play its part in building. Then there will be no frontiers between the applied arts and sculpture or painting. Everything will be one thing: architecture.[8]

This proclamation reveals the *Gesamtkunstwerk* (the total work of art) ideal of German intellectuals that would unite the crafts, art –sculpture and painting- and architecture. Hence, "a new cultural unity could be attained only through a new art of building, wherein each separate discipline would contribute to the final form."[9]

In March 1919 *Arbeitsrat Für Kunst* published a programmatic circular where Bruno Taut's *Architektur-Programm* (Programme for Architecture) of 1918 is restructured into a set of guiding principles and six demands.[10] The guiding principles of the *Arbeitsrat für Kunst* was,

> Art and people must form a unity.
> Art shall no longer be the enjoyment of the few but the life and happiness of the masses.
> The aim is the alliance of the arts under the wing of a great architecture.[11]

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[8] Bruno Taut, "A programme for architecture, 1918," Programs and manifestoes on 20th century architecture, ed. by Ulrich Conrads and trans. by Michael Bullock, (Massachusetts: MIT Press, 1970), 41.

[9] Kenneth Frampton, "The Bauhaus: The Evolution of an Idea," Modern Architecture: A Critical History, op. cit., 123.

[10] "Work Council for Art: Under the Wing of Architecture, 1919," Programs and manifestoes on 20th century architecture, op. cit., 44.

[11] Ibid., 44.

In 1915, after the resignation of Van de Velde from the directorship of the Grand Ducal Saxon School of Arts And Crafts, Walter Gropius was appointed to Velde's position. On the April of the year 1919, with the unification of the Grand-Ducal Saxon Academy of Art with the Grand- Ducal Saxon School of Arts and Crafts, Staatliches Bauhaus was founded in Weimar under the directorship of Walter Gropius.[12] The *Gesamtkunstwerk* ideal was elaborated furthermore, first in the pamphlet written by Gropius in April 1919 for the "Exhibition of Unknown Architects," organized by the *Arbeitsrat für Kunst*, and then in the 1919 founding manifesto of the "Staatliches Bauhaus" consisting of the main lines of Bruno Taut's *Architektur-Programm* (Programme for Architecture) of 1918. In the manifesto Gropius proclaimed,

> The ultimate aim of all visual arts is the complete building! To embellish buildings was once the noblest function of the fine arts; they were the indispensable components of great architecture. Today the arts exist in isolation, from which they can be rescued only through the conscious, co-operative effort of all craftsmen. Architects, painters, and sculptors must recognize anew and learn to grasp the composite character of a building both as an entity and in its separate parts. Only then will their work be imbued with the architectonic spirit which it has lost as 'salon art'... The old schools of art were unable to produce this unity; how could they, since art cannot be taught. They must be merged once more with the workshop. The mere drawing and painting world of the pattern designer and the applied artist must become a world that builds again...Architects, sculptors, painters, we all must return to the crafts! For art is not a 'profession'.[13]

The *Gesamkunstwerk* ideal was a counter thesis towards the stance exhibited in "Arts and Crafts" movement. The "Arts and Crafts" movement's central task was the irreconcilability of the artistic creation- especially seen in ornamentation, with the industrial production. The mass production of the forms derived from craft

[12] Walter Gropius, "Programme of the Staatliches Bauhaus in Weimar, 1919," Programs and manifestoes on 20th century architecture, op. cit., 49.

[13] Ibid., 49.

tradition, as it is argued, was thought to exhibit an antithesis of artistic creation.[14] According to the ideal of *Gesamkunstwerk,* it is argued that the artistic creation-painting and sculpture should merge into architecture whereby the whole building tradition would lean towards a rational unification of the artistic creation and construction. The artistic creation should serve the actual construction of the building instead of mere embellishment. As Gropius argued, art is not a profession that can be taught so the new building tradition should emerge from craft education as a profession from workshop education.

> The Bauhaus strives to bring together all creative effort into one whole, to reunify all the disciplines of practical art — sculpture, painting, handicrafts, and the crafts — as inseparable components of a new architecture. The ultimate, if distant, aim of the Bauhaus is the unified work of art — the great structure — in which there is no distinction between monumental and decorative art. The Bauhaus wants to educate architects, painters, and sculptors of all levels, according to their capabilities, to become competent craftsmen or independent creative artists and to form a working community of leading and future artist-craftsmen. These men, of kindred spirit, will know how to design buildings harmoniously in their entirety — structure, finishing, ornamentation, and furnishing.[15]

The founding manifesto of Bauhaus not only reveals the intention to unify arts, crafts and architecture under the art of building but also makes a clear statement about the abolition of the distinction between the artist and the craftsman, hence announcing the revolutionary negation of the bourgeois division of labour.

> There is no essential difference between the artist and the craftsman. The artist is an exalted craftsman. In rare moments of inspiration, transcending the consciousness of his will, the grace of heaven may cause his work to blossom into art. But proficiency in a craft is essential to every artist. Let us then create a new guild of craftsmen without the class distinctions that raise an arrogant barrier between craftsman and artist! Together let us desire, conceive, and create the new structure of

[14] Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, (Teufen: Verlag Arthur Niggli, 1965), [37].

[15] Walter Gropius, "Programme of the Staatliches Bauhaus in Weimar, 1919," Programs and manifestoes on 20th century architecture, op. cit., 49.

> the future, which will embrace architecture and sculpture and painting in one unity and which will one day rise toward heaven from the hands of a million workers like the crystal symbol of a new faith. [16]

The declaration of the "Staatliches Bauhaus" was a manifestation of both "the question of the place and the role of the artist" and "of the content and meaning of his work within the framework of industrial production."[17] Hence, the role that the Bauhaus took over is the attempt of situating "the part to be played by the artist in shaping a material culture better suited to the needs of the times."

In its first three years, the Bauhaus was dominated by the Swiss painter and teacher Johannes Itten. During these years, the Bauhaus approach was structured under the influence of Itten's preliminary course that gave importance to individual creativity through particular assess to each student's ability.[18]

The contradiction which reined the *Werkbund* about the opposition of the "norm vs. form" –"type vs. individuality"- re-emerged within Bauhaus through Itten's approach to design. The aim of the disruption of the difference between the artist and the craftsman revealing the intention of the negation of the bourgeois division of labour was interrupted, thus betraying a growing conflict between Gropius and Itten. The arrival of the Dutch De Stijl artist Theo Van Doesburg in 1921 and the Russian painter Wassily Kandinsky in the summer of 1922 exposed further more the division between Gropius and Itten. The distinction between the former who proposed a "rational, anti-individualistic aesthetic," and the latter that constituted "an emotive and ultimately mystical approach to art" demonstrated the need for the realignment of the school's tendency. The essay entitled *Idee und Aufbau des Staatlichen Bauhaus Weimar* (The Theory and Organization of the Bauhaus) presented for the first Bauhaus exhibition in 1923 by Gropius became a turning point for the school's development towards mass production. In the text Gropius declared that craft education should be a means for the preparation for mass production. This proclamation on the reunion of craft design and industrial

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[16] Ibid., 49.
[17] Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., [37].
[18] Kenneth Frampton, "The Bauhaus: The Evolution of an Idea," Modern Architecture: A Critical History, op. cit., 124.

production end up with Itten's resignation and the appointment of the Hungarian artist Laszlo Moholy-Nagy for his position.[19] Under Moholy-Nagy' s leadership the products were oriented towards a 'Constructivist Elementarism' that Moholy-Nagy had partly derived from the *Vkhutemas*[20] (Higher Technical and Artistic Studios) of the Soviet Union. This tendency was complemented by the De Stijl influence of Van Doesburg via a post-cubist approach to form. After 1923 the Bauhaus approach became extremely 'objective', as it allied to the *Die Neue Sachlichkeit* movement.

### 4. 2. The Russian Avant-Garde

Benjamin H. D. Buchloh in the text "From Faktura to Factography"[21] asserted that "a paradigm change" occurred within modernism concerning the production and the material agency of the art work. The "high" modernist avant-garde culture, at a time when their "specialized activities" regarding the production of art work was at the climax, dismantled itself to display "a different role in the newly defined process of the social production of culture."

It is this proposed framework that Buchloh aroused the issue that questions the turn from the "high" modernist avant-garde, which changed those conditions of art production and reception inherited from bourgeois society and its institutions, to the "original modernist avant-garde," concerning the "transformation of the aesthetic thinking in relation to the emerging industrialization of the Soviet Union: the program of productivism and the new method of literary representation/production that accompanied it, *factography*… the objective, descriptive self-styled journalistic ideal of art." As Buchloh proclaimed,

> Why did the Soviet avant-garde, after having evolved a modernist practice to its most radical stages in the post

[19] Ibid., 125- 126.

[20] Inkhuk (The Institute for Artistic Culture) and Vkhutemas (Higher Artistic and Technical Studios) were institutes founded in 1920 in Moscow for comprehensive education in art, architecture and design. Kenneth Frampton, "The New Collectivity: Art and Architecture in the Soviet Union 1918-1932," Modern Architecture: A Critical History, op. cit., 168.

On his arrival in Berlin in 1921 Moholy-Nagy had come into contact with the Russian designer El Lissitzky, who was then in Germany for the preparations of the Russian Exhibition of 1922. Kenneth Frampton, "The Bauhaus: The Evolution of an Idea," Modern Architecture: A Critical History, op. cit., 125-126.

[21] Benjamin H. D. Buchloh, "From Faktura to Factography," October 30 (Fall 1984): 82-119.

> synthetic cubist work of the suprematists, constructivists, and Laboratory Period artists, apparently abandon the paradigm of modernism upon which its practice had been based? What paradigmatic changes occurred at that time, and which paradigm formation replaced the previous one?[22]

The following argument involves first into "the paradigms that generated the concern for *faktura,* as the first period of the Russian avant-garde art, then the progression of the concept of "*factography"* in the second period.

The concept of *faktura* was first defined in the Russian context in David Burliuk's futurist manifesto, "A Slap in the Face of Public Taste," of 1912, and in Mikhail Larionov's "Rayonnist Manifesto" of the same year.[23] Between the years 1913—l9l9, *faktura* comprised the main pictorial concern of Malevich's works along with the works of the painters such as Lissitzky, Popova, and Rozanova. These painters had origins in synthetic cubism and had been intensely influenced by Malevich's Suprematism. Further, as Buchloh argued, the concern for *faktura* became "the central concept in the nonutilitarian objects" produced by the Laboratory constructivists, such as Rodchenko, Tatlin, and the Stenberg brothers. The essential qualities of *faktur*a were attained gradually between the years 1913—1920, and further developed by members of that avant-garde individually.

By the year of 1920, "the central concern for a self-reflexive pictorial and sculptural production" was abandoned for the reason that the avant-garde had the

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[22] Ibid., 85.

[23] "As early as 1912 the question of *Faktura* is discussed by Mikhail Larionov in his 'Rayonnist Manifesto,' where he calls it 'the essence of painting,' arguing that the 'combination of colors, their density, their interaction, their depth, arid their *faktura* would interest the truly concerned to the highest degree.' A year later, in his manifesto 'Luchism' he argues that 'every painting consists of a colored surface, its *faktura* (that is, the condition of that colored surface, its timbre) and the sensation that you receive from these two aspects.' Also in 1912 we find David Burliuk differentiating between 'a unified pictorial surface A and a differentiated pictorial surface B. The structure of a pictorial surface can be I. *Granular,* II. *Fibrous,* and III. *Lamellar.* I have carefully scrutinized Monet's *Rouen Cathedral* and I thought "fibrous vertical structure." . . . One can say that Cezanne is typically *lamellar.'* Burliuk's text is entitled 'Faktura.' The concern for *faktura* seems still to have been central in 1919, as is evident from Popova's statement that 'the content of pictorial surfaces is *faktura.'* Even writers who were not predominantly concerned with visual and plastic phenomena were engaged in a discussion of *faktura,* as is the case of Roman Jakobson in his essay 'Futurism,' identifying it as one of the many strategies of the new poets and painters who were concerned with the 'unveiling of the procedure: therefore the increased concern for *faktura;* it no longer needs any justification, it becomes autonomous, it requires new methods of formation and new materials'." Ibid., 86-87.

idea of accomplishing "all the major issues that had been developed during the preceding fifty years of modernist painting." Hence the avant-garde gradually turned towards the "new concern for factographic and Productivist practices," which designated "a more profound paradigmatic change."

### 4. 2. 1. The Genealogy of the Concern for "*Faktura*"

For constructing a genealogy the Russian vanguard's concern for *faktura,* Buchloh refers to Vladimir Markov's text "Icon Painting" of 1914, as the third address after Burliuk and Larionov. Markov, in the text, claims that the concern for faktura originates form Russian icon painting, constituting a "religio-transcendental function."[24] However, in the contemporaneous discussions of the term, any references to specifically Russian or religious functions are abandoned. In 1916, Tarabukin made definition of *faktura* that would remain valid for the entire period of Laboratory constructivism. As Tarabukin asserted,

> The form of a work of art derives from two fundamental: premises the *material* or medium (colors, sounds, words) and the *construction,* through which the material is organized in coherent whole acquiring its artistic logic and its profound meaning.[25]

As Buchloh argued, differing from previous concerns for facture in the works of the cubists and futurists in Western Europe, the concern for *faktura* in the context of the Russian Constructivists displayed a "quasi-scientific, systematic manner," in which "the constructivists pursued their investigation of pictorial and sculptural constructs, *as well as* the perceptual interaction with the viewer they generate."[i] The definition established by Tarabukin concerning the "equation between colours, sounds, and words was no longer the neoromantic call for *synaesthesia* that one could still hear at this time from Kandinsky and Kupka."

[24] Ibid., 86.
[25] Ibid., 87.

### 4. 2. 2. "*Faktura*" In the Constructivist Context

The years of 1915 and 1916 witnessed the formation of structural linguistics in the Moscow Linguistic Circle and the Opoyaz Group in Petersburg. Respectively, the constructivists developed the "first systematic phenomenological grammar of painting and sculpture."[26] As Buchloh asserted,

> They attempted to define the separate material and procedural qualities by which such constructs are constituted with the same analytic accuracy used to analyze the *interrelationships* of their various functions — what Saussure would call the syntagmatic axis — which are equally relevant for the constitution of a perceptual phenomenon. Furthermore, they addressed the apparatus of visual sign production, that is, production procedures as well as the tools of these procedures.[27]

Between 1920—21, Rodchenko accomplished his sculptural series "*Hanging Construction* -a series subtitled *Surfaces Reflecting Light"- and* "the triptych '*Pure Colors: Red, Yellow, Blue'."* In the context of Rodchenko's work, *faktura* already meant, as Buchloh proclaimed,

> more than a rigorous and programmatic separation of line and drawing from painting and color, more than the congruence of planes with their actual support surface, more than **emphasizing the necessary self-referentiality of pictorial signifiers and their contiguity with all other syntagmatic functions.** It already meant, as we, more than just the **objects shift from virtual pictorial/sculptural space into actual space.** We should not take the reference to *Surfaces Reflecting Light* as anything less than **an indication of the potential involvement of these artists with materials and objects in actual space and the social processes that occur within it.**[28]

*Faktura,* as Buchloh argued, also meant the "incorporation of the technical means of construction into the work itself and linking them with existing standards of development of the means of production in society at large." In 1917, Rodchenko

[26] Ibid., 87.
[27] Ibid., 88.
[28] Ibid., 89.

explained the basis for "abandoning the traditional tools of painting," and the concern for his "mechanization" his craft.

> Thenceforth the picture ceased being a picture and became a painting or an object. The brush gave way to new instruments with which it was convenient and easy and more expedient to work the surface. The brush which had been so indispensable in painting which transmitted the object and its subtleties became an inadequate and imprecise instrument in the new non-objective painting and the press, the roller, the drawing pen, the compass replaced it.[29]

The "systematic experimentation with pictorial surfaces as *traces* or immediate results of specific procedures and materials" such as "the metallic and reflective paints are juxtaposed with matte gouaches, varnishes and oil colors are combined with highly textured surfaces," constituted Rodchenko's "techno-logic of experimental approach." Moreover, as Buchloh asserted, this quality prevented "aesthetic comprehension" of his work.

The notion of *faktura* also understood as "a reference to the *placement* of the constructivist object and its interaction with the spectator."[30] As Buchloh proclaimed,

> To emphasize spatial and perceptual contiguity by mirror reflection — as hinted in Rodchenko's project for constructions whose reflective surfaces would mirror their surroundings — means, once again, to reduce the process of representation to purely **indexical signs: matter seemingly generates its own representation without mediation**, the old positivist's dream, as it *was, of course, that of the early photographers.*[31]

Further, the emphasis on the "process qualities of painting" was associated to "a serially organized configuration, a structure that resulted from the aspiration toward science with which artists wanted to associate their production." As Buchloh

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[29] Ibid., 89.

[30] "In the discussions of the Group for Objective Analysis from 1921 *construction* was defined as the organization of the kinetic life of objects and materials which would create new movement. As such it had been juxtaposed with the traditional notion of composition, as Varvara Stepanova defines it: 'Composition is the contemplative approach of the artist in his work. Technique and industry have confronted art with the problem of construction as an active process, and not a contemplative reflection. The "sanctity" of a work as a single entity is destroyed. The museum which was a treasury of this entity is now transformed into an archive'." Ibid., 90.

[31] Ibid., 90.

argued, this involvement into science constituted the "essential features of the modernist paradigm" where the Soviet Union's growing process of industrialization was socially dominated by "modes of control and management of time and perceptual experience." Therefore, *faktura* was the "historically logical aesthetic correlative to the introduction of industrialization and social engineering that was imminent in the Soviet Union after the revolution of 1917,"[32] sustaining "the necessary intermediary step within the transformation of the modernist paradigm around 1920."

### 4. 2. 3. The Productivists and the Constructivists

At the start of the 20th century, Russia went through two revolutions against the tsarist government to construct a socialist state. As Frampton argues, "October Revolution" was an "aesthetic revolt" against the "inhospitality of the bourgeois world: with the creation of a new world, the liberation of the masses would cancel out all anguish and all feelings of difference and alienation."[33] Hence, the February and the October revolutions of the year 1917 was the gained victory of socialism over the bourgeois rule. After the revolution, the refusal towards industrialization turned into a positive value, ending with a practical engagement with industry revealing via Russian Productivism. Technology dominated the process of industry and the reconstruction of post-war Russia.[34] The artistic groups that gathered under the name of the Productivists and the Constructivists had a unified aim to disrupt things that "cause anguish and alienation in the bourgeois system" and to rearrange

[32] "When in 1921 A. V. Babichev, the leader of the *Working Group for Objective Analysis* (of which Rodchenko and, Stepanova were members), gives a definition of art production, his statement is strikingly close to ideas of Tay1orisrn, social engineering, and organized consumption, as they became operative at that time in both western European and American society. 'Art,' he wrote, 'is an informed analysis of the concrete tasks which social life poses. . . . If art becomes public property it will organize the consciousness and psyche of the masses by organizing objects and ideas'." Ibid., 90.

[33] Manfredo Tafuri and Francesco Dal CO, Modern Architecture, op. cit., 204.

[34] John Willet, Art and Politics in the Weimar Period: The New Sobriety, 1917-1933, (New York: Pantheon Books, 1978), 103-104.

these things for human benefit through the socialist system, thus constituting a "positive synthesis of man and machine."[35]

Soon after the Revolution, a proletarian culture within which the avant-garde artists played a significant role appeared to acknowledge the messages of the Revolution. Both the "large-scale graphic art," exhibited in the *Agit-Prop* propaganda trains and boats designed by *Proletkult*[36] artists and the "monumental propaganda plan" initiated by the government aimed to communicate with the public via covering every available surface with "inflammatory slogans and evocative iconography." Furthermore, the *Proletkult* artists propagated the official information of the government through theatrical production and film. [37]

The "new art" constituted by the 'Futurists'[38] had the purpose of uniting art with life. "Futurism" was a tendency appearing in post-revolutionary Russia "to go beyond the limits of the work of art enclosed within itself, i.e. a trend towards the liquidation of art as a separate discipline."[39] The aim of the Russian avant-garde as Tafuri argues, was the "realization of the total work of art," which would eliminate "the separateness of all artistic products" and to "cancel out all distinction between intellectual work and industrial projects and designing."[40] The statement "alliance between art and industrial production" meant, for Tafuri, the reconceptualization of the notion of art and the re- theorizing of the role of the intellectual as a productive man in the "creation-construction" of art objects. Hence, in 1920 new technical-artistic schools -*Inkhuk* (The Institute for Artistic Culture) and *Vkhutemas* (Higher Artistic and Technical Studios)-were founded in Moscow as institutes for the

[35] Manfredo Tafuri and Francesco Dal CO, Modern Architecture, op. cit., 206.

[36] *Proletkult* is the known name of the "Organization for Proletarian Culture," founded in 1906 in Russia with the aim of "regeneration of culture through a new unity of science, industry and art." Kenneth Frampton, "The New Collectivity: Art and Architecture in the Soviet Union 1918-1932," Modern Architecture: A Critical History, op. cit., 168.

[37] Ibid., 169.

[38] The Russian Avant-garde artists named as 'futurists' differing from the "Italian Futurists" was used to name all the avant-garde artists and poets in Russia after the Revolution. Christina Lodder, Russian Constructivism, (New Heaven and London: Yale University Press, 1983), 48.

[39] Ibid., 48.

[40] Manfredo Tafuri and Francesco Dal CO, Modern Architecture, op. cit., 208.

comprehensive education in art, architecture and design[41], having "the new artist-as-producer" as the central idea.[42]

### 4. 3. The Dessau Bauhaus: 1925-1933

Within the last two years when Gropius was the head of Bauhaus, major developments occurred. For political reasons the Bauhaus was forced to leave Weimar, and at the beginning of 1925, it was re-established at Dessau in the new buildings that were designed by Gropius himself. After 1925, a recognizable Bauhaus approach emerged where deriving form from productive method, material constraint and programmatic necessity became essential.[43] The Bauhaus broke with "the rules of imitation" which was the tendency in current academies. Form was no longer interpreted as an independent- autonomous- category, but as an outcome of productive activity and social life.[44] A rationalistic aesthetics emerged where an exact relation would be achieved between the form and the function of the work. The tendency towards expressionism in the productions of the Bauhaus during its early years was substituted by several trends- particularly functionalism, constructivism and neoplasticism- of the rationalist aesthetic.

In 1926 Gropius revealed "The Principles of Dessau Bauhaus Production" where he declared,

> [t]he Bauhaus is seeking — by systematic practical and theoretical research in the formal, technical and economic fields — to derive the design of an object from its natural functions and relationships... An object is defined by its nature. In order, then, to design it to function correctly — a container, a chair, or a house — one must first of all study its nature; for it must serve its purpose perfectly, that is, it must fulfil its function usefully, be durable, economical and 'beautiful'. This research into the nature of objects leads to the conclusion that by resolute consideration of modern

[41] Kenneth Frampton, "The New Collectivity: Art and Architecture in the Soviet Union 1918-1932," Modern Architecture: A Critical History, op. cit., 168.

[42] Manfredo Tafuri and Francesco Dal CO, Modern Architecture, op. cit., 206.

[43] Kenneth Frampton, "The Bauhaus: The Evolution of an Idea," Modern Architecture: A Critical History, op. cit., 126-127.

[44] Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., [39].

> production methods, constructions, and materials, forms will evolve that are often unusual and surprising, since they deviate from the conventional. It is only through constant contact with newly evolving techniques, with the discovery of new materials and with new ways of putting things together, that the creative individual can learn to bring the design of objects into a living relationship with tradition and from that point to develop a new attitude toward design...[45]

The manifesto also reveals the importance of the creation of the standard types for mass production. For Gropius the Bauhaus workshops were the design "laboratories" where prototypes for industrial-mass production are produced. The training in the workshops had the aim to educate a new kind of producer-"collaborator," who would both dictate the form and production technology of it.

> The creation of standard types for all practical commodities of everyday use is a social necessity...The Bauhaus workshops are essentially laboratories in which prototypes of products suitable for mass production and typical of our time are carefully developed and constantly improved. In these laboratories the Bauhaus wants to train a new kind of collaborator for industry and the crafts, who has an equal command of both technology and form.[46]

At the year of 1927, a separate architectural department was founded under the leadership of the Swiss architect Hannes Meyer. As he stated in a letter to Gropius dated January 18, 1927, the teaching policy of Meyer would be "on absolutely functional-collectivist-constructive lines in keeping with the 'ABC' and 'The New World'," through which he revealed his stance of "*Neue Sachlichkeit*" architecture. [47]

[45] Walter Gropius, "The Principles of Bauhaus Production [Dessau] (excerpt), 1926," Programs and manifestoes on 20th century architecture, op. cit., 95.

[46] Ibid., 96.

[47] Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., [41].

### 4. 3. 1. "*Die Neue Sachlichkeit*": "The New Objectivity"

The term "Die Neue Sachlichkeit" ("the new objectivity") had been used by the art critic G. F. Hartlaub to name the 1925 Mannheim exhibition of "Magical Realist" painters, artists –a post-war school of anti-expressionist painting- who since the First World War had depicted both the appearance and the essence of an austere social reality. The phase "*Die Neue Sachlichkeit*" summarizes the "*Gegenstandlichkeit*" of the Berlin Dadaists, "*Sachlichkeit*" of the pre-war Werkbund. Also Egon Erwin Kisch defines "*Sachlichkeit*" as the "hallmark of good journalism." [48] However, the use of the phrase in the architectural context did not derive from a community of style between "Magical Realism" and the new architecture; the phrase "*Die Neue Sachlichkeit*" was first used in 1926 to designate a "new-objective" and a socialist attitude in architecture.[49]

The German word *Sachlichkeit* had been first used in an architectural context in a series of articles written for the journal *Dekorative Kunst* by Hermann Muthesius between 1897 and 1903.[50] Muthesius had used the word *Sachlichkeit* to name the growing functionalist tendency of designing objects as a means to reform production in industrial society. The German word '*Sachlichkeit*' can be translated into English as 'objectivity.'[51] However, the idea behind the word is rather complex and the word 'objectivity' soon becomes an obstacle for understanding. Concerning the Constructivist context, the 'Gegenstand' or 'Veshch' is used as the object referring to the actual concrete thing. On the other hand a 'Sache' is used define a fact, a matter, and a 'thing' in a more abstract sense. Consequently, 'Sachlichkeit' designates 'objectivity' in a more conceptual context where it is used to define a 'neutral, sober, matter-of-fact approach.' Thus, in the architectural context it corresponds to a functionalist, utilitarian approach devoid of subjectivity and embellishment.

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[48] John Willet, Art and Politics in the Weimar Period: The New Sobriety, 1917-1933, op. cit., 111-112.

[49] Kenneth Frampton, "The New Objectivity: Germany, Holland and Switzerland 1923-1933," Modern Architecture: A Critical History, op. cit., 130.

[50] Ibid., 130.

[51] John Willet, Art and Politics in the Weimar Period: The New Sobriety, 1917-1933, op. cit., 111-112.

The post-1918 entry of the word 'object' (*Gegenstand or Veshch*) into the vocabulary of the German intelligencia corresponds to some of the politico-economic occasions that occurred between Russia and Germany, thereby attributing *Die Neue Sachlichkeit* architecture a specific set of socio-political connotations.[52]

After the Russian Civil War, in 1921, as a consequence of the decreasing foreign pressure, the Russian government under the directorship of Lenin announced the 'New Economic Policy -NEP,' which intended to provoke the incoming of foreign capital through corporate partnership with the Soviet Union. Soon, Germany approved earlier negotiations and after signing the "Treaty of Rapallo" in 1922, Germany became one of the countries that Russia re-established new diplomatic and cultural relations through economic co-operation and was approved. As a consequence, in 1921 the Constructivist artists El Lissitzky and Ilya Ehrenburg came to Berlin as unofficial cultural ambassadors of the Soviet Union in order to organize an official exhibition of Russian avant-garde art.[53] The 1922 exhibition of Soviet art held up in the Van Diemen Gallery in Berlin became the turning point for the European avant-garde where the ideals of the formation of a new functionalist, empirically engineered 'sachlich' oriented design aligned with the Soviet Suprematist and Productivist currents as well as generating ground for an international Constructivist movement.[54] In May 1922, the first issue of a trilingual art review, *Veshch/Gegenstand/Object*, was revealed which involved a photograph of a snow plough locomotive, and the basic icons of Suprematism- a black square and a black circle on its cover; thus invoking 'the *sachlich* engineered object' and the Suprematist 'non-objective' world.[55]

[52] Kenneth Frampton, "The New Objectivity: Germany, Holland and Switzerland 1923-1933," Modern Architecture: A Critical History, op. cit., 130.

[53] Ibid., 131.

[54] Manfredo Tafuri and Francesco Dal CO, Modern Architecture, op. cit., 208.

[55] Kenneth Frampton, "The New Objectivity: Germany, Holland and Switzerland 1923-1933," Modern Architecture: A Critical History, op. cit., 131.

### 4. 3. 2. "*The Neue Sachlichkeit*" Architecture of Hannes Meyer, the "ABC" Group and "The New World, 1926"

The early twentieth century witnessed an increasing approach towards "objective" tendency in design process, aiming to "dispense entirely with everything in the architectural language that might suggest subjective communication."[56] Centred on the issue of the reorganization of production by technological developments, this tendency constituted political commitment for the overall reconstruction of life influenced by technological advances for a while. Without diverging from the ongoing attempt to reconceptualize architecture as an aspect of technical-productive organization, this new tendency endeavoured to provide a politico-institutional base for the projects by associating with the German and French Communist parties that expected "working in cooperative organizations, and designing and teaching in the Soviet Union."[57] This affinity revealed itself via the "ABC" assembly, which was founded in 1925 as a left-wing group centred on Basle. The group consisted of the Russian designer El Lissitzky, and the Swiss members who were Emil Roth, Hans Schmidt, Hannes Meyer, and Hans Wittwer-the architectural partner of Meyer. The members of the group had the tendency towards "the design of socially relevant buildings in accordance with scientific principles;"[58] furthermore, releasing their views in architectural magazine called "ABC."

In 1926, Meyer strengthened his "*Neue Sachlichkeit*" stance via the article, "The New World,"[59] where he revealed his socially[60] based ideas structured in architectural discipline. "The New World" should be better understood as a manifesto proposing the changing perceptions and visual indexes of our life under technological invasion, hence envisioning the reorganization of production, and administrative systems referring to the internationalization of culture.

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[56] Manfredo Tafuri and Francesco Dal CO, Modern Architecture, op. cit., 166.

[57] Ibid., 168.

[58] Kenneth Frampton, "The New Objectivity: Germany, Holland and Switzerland 1923-1933," Modern Architecture: A Critical History, op. cit., 132.

[59] John Willet, Art and Politics in the Weimar Period: The New Sobriety, 1917-1933, op. cit., 121.

[60] Here "social" should be understood as a left-wing political stance.

In "The New World" Meyer argued that, as a consequence of the improvement of science, the technological developments changed the criterion of the sensation of our world; thus the establishment of a new reality would be enabled through the emerging conditions. Being the fruit of human reason, scientific knowledge was a victory that man gained over "amorphous" nature. "This new (scientific) knowledge" as Meyer declared, should "undermine and transform existing values," thus, "giving our new world its shape."[61]

Meyer directed attention to the changing time-space conceptions that occurred as a result of the mechanization of the world. The improvements on travelling agencies such as motor cars and aeroplanes had wide impact on the sensation of our belonging to a specific place by decreasing the distances on the world, and through the communication tools the awareness of simultaneity occurred. As Meyer argued, this realization that occurred via mechanization led to the disruption of the distinctions of nation, class, and race; thus a new social organization would re-emerge through the consciousness of community and internationalism.

> Motor cars dash along our streets bursting open the core of the town obliterating distance and effacing the boundaries between town and country. Aircraft slip through the air widening our range of movement and the distance between us and the earth; they disregard national frontiers and bring nation closer to nation… The simultaneity of events enormously extends our concept of "space and time", it enriches our life. We live faster and therefore longer. We have a keener sense of speed than ever before, and speed records are a direct gain for all…Borrough's calculating machine sets free our brain, the dictaphone our hand, Ford's motor our place-bound senses and Handley Page our earthbound spirits. Radio, marconigram and phototelegraphy liberate us from our national seclusion and make us part of a world community. The gramophone, microphone orchestrion and pianola accustom our ears to the sound of impersonal-mechanized rhythms… Our homes are more mobile than ever. Large blocks of flats, sleeping cars, house yachts and transatlantic liners undermine the local concept of the "homeland". The fatherland goes into a

[61] Hannes Meyer, "The New World," trans. in Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., 91-95.

> decline. We learn Esperanto. We become cosmo-politan.[62]

Meyer argues that the technological development also affected the visual perception thus leading a change in the forms of the material world. The forms derived from the technique became the dominating indexes of our visual vocabulary.

> The steadily increasing perfection attained in printing, photographic and cinematographic processes enables the real world to be reproduced with an ever greater degree of accuracy. The picture the landscape presents to the eye today is more diversified than ever before; hangars and power houses are the cathedrals of the spirit of the age. This picture has the power to influence through the specific shapes, colours and lights of its modern elements: the wireless aerials, the dams, the lattice girders: through the parabola of the airship, the triangle of the traffic signs, the circle of the railway signal, the rectangle of the billboard; through the linear element of transmission lines: telephone wires, overhead tram wires, high-tension cables; through radio towers, concrete posts, flashing lights and filling stations.[63]

There may also be found in the proclamation of Meyer the sign of "*zeitgeist*," the pervading sense of the epoch of modernization. The concept of "*zeitgeist*," meaning "the sprit of the age" is a form of understanding that connotes the necessity of acting in accordance with the demands of the age. Hence, through the significance given to present day, the aimed "break up" with tradition and history would be achieved. As Meyer declared,

> Each age demands its own form. It is our mission to give our new world a new shape with the means of today. But **our knowledge of the past is a burden that weighs upon us**, and inherent in our advanced education are impediments tragically barring our new paths. The unqualified affirmation of the present age presupposes **the ruthless denial of the past**.[64]

The aim is apparent: the disruption of all the ties with the past including institutions, forms, social life and leisure habit etc,. Now it is time for the

[62] Ibid., 91.
[63] Ibid., 91.
[64] Ibid., 93.

construction of the new values suitable to the circumstances of the present age that demand the rational, and the economic. All the new forms, "industrial fairs, grain silos, music halls, airports, office chairs, standard goods" Meyer proclaimed "are the products of a formula**: function multiplied by economics**."[65] The new forms are not "works of art," where,

> art is composition, purpose is function. **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 our house is a living machine. Retention of heat, insulation, natural and artificial lighting, hygiene, weather protection, car maintenance, cooking, radio, maximum possible relief for the housewife, sexual and family life, etc. are the determining lines of force. The house is their component.[66]

The building, as Meyer argues, is the organization of the functions it demands for comfort and the new materials that suit best for its purpose.

> Today we have new building materials at our disposal for building a house: aluminium and duralumin in plates, rods arid bars, Euböolith, Ruberoid, Forfoleum, Eternit, rolled glass, Triplex sheets, reinforced concrete, glass bricks, faience, steel frames, concrete frame slabs and pillars, Trolith, Galalith, Cellon, Goudron, Ripolin, indanthrene paints, etc. **We organize these building elements into a constructive unity in accordance with the purpose of the building and economic principles.**[67]

As Meyer argued, architecture in the conditions of the age of technology should break up with the role it played conventionally as "an agency continuing the growth of tradition" or as the expression of a particular social stratum. Instead it should turn towards "pure construction" where "individual form, building mass, natural colour of materials and surface texture come into being automatically." Thus the "functional conception of building" would lead to "pure construction" which is, as Meyer asserted, "the characteristic feature of the new world of forms." Moreover,

[65] Ibid., 93.
[66] Ibid., 93.
[67] Ibid., 93.

this "constructive form," constitutes internationality for its roots belongs to human reason which is absolute irrespective of time, and place.

As argued above, Meyer had the belief that the new world order would rise from the collective culture where standardization would be the key process of it. "The surest sign of true community," Meyer proclaimed, "is the satisfaction of the same needs by the same means." Hence the outcome of such a "collective demand" would be the "standard product," that would supply the "freedom of movement, economies, simplification and relaxation," which is essential in the life of modern man.

> The standardization of our requirements is shown by: the bowler hat, bobbed hair, the tango, jazz, the Co-op product, the DIN standard size and Liebig's meat extract…The folding chair, roll-top desk, light bulb, bath tub and portable gramophone are typical standard products manufactured internationally and showing a uniform design. They are apparatus in the mechanization of our daily life. They are manufactured in quantity as a mass-produced article, as a mass-produced device, as a mass-produced structural element, as a mass-produced house…The degree of our standardization is an index of our communal productive system.[68]

The priority given to standardisation reveals the dominance of collective culture upon the individual. The stance of Meyer should be back-grounded with the socio-political circumstances during his trainee as an architect for its better understanding.

The vast industrial expansion of the second half of the 19th century had given rise to urban concentrations where living conditions in the towns had deteriorated due to the consequences of the increasing gravity of urbanization problems.[69] The rising problems of hygiene focused attention to the necessity of putting environmental health issues at the centre of design issues and resulted in the idea that architecture would have to be rethought in terms of town-planning. Realizing that town-planning was no longer dominated by a concern with its aesthetic, landscape or monumental

[68] Ibid., 93.
[69] Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., [19].

aspects, Meyer turned towards a tendency where economic, social, political and legal factors play the utmost part in the design process. It was the time of the development of modern town planning. Ebenezer Howard had published "Tomorrow in 1898, a year later the "Garden City Association" was formed in London and Patrick Geddes brought out his "City Development" in 1904.

Between 1912 and 1913, Meyer went to study the garden cities of Letchworth, Bourneville and Port Sunlight. He studied the co-operative movement in London and Birmingham. At the outbreak of World War I, Meyer's training as an architect and town-planner was complete. Meyer arrived at a conviction that was to be his stance for the rest of his architectural profession: architecture and town-planning are to be treated as social problems where,

> The modern architect and town-planner had no longer to gratify the wishes of a few privilege people but to satisfy the needs of the masses; they could no longer confine themselves to satisfy the needs their work as technicians but had to play their part in establishing social relations better fitted to an industrial civilization.[70]

The turn toward rational design principles for Meyer is the demonstration of the fulfilment of the necessities for a world that has to be reorganized for the betterment of living conditions of the masses especially the proletariat. After the First World War, as a consequence of the rising capitalism and the counter ideology of Soviet Socialist Revolution, there emerged organizations for the protection of the rights of the "working class" in the form of co-operations. Meyer's political tendency was towards socialism affected by the Russian revolution. As he proclaimed,

> Trade union, co-operative, Ltd., Inc., cartel, trust and the League of Nations are the forms in which today's social conglomerations find expression, and the radio and the rotary press are their media of communication. Co-operation rules the world. The community rules the individual.[71]

At the end of the World War I, Meyer was involved in his first garden city

[70] Ibid., [19]

[71] Hannes Meyer, "The New World," trans. in Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., 93.

experience in Germany.[72] For two years he worked at Essen in Krupp's welfare office where "paternalism" and "pseudo-romantic" conception of housing schemes maintaining the petit bourgeois way of life dominated the design of the housing estates. Between the years of 1919-1921 Meyer got the chance of designing a housing estate in Basle for the Swiss co-operative union which was the first full-scale co-operative in Switzerland. Designing and building the Freidorf Siedlung became a turning point for Meyer for the establishment of his politically incorporated architectural ideas. (Figure 1-8)

In the siedlung Meyer not only designed the buildings, but in close collaboration with the originator, Dr. Bernhard Jaggi, he also searched for all the questions raised by the co-operative life of the estate dwellers.[73] The progress towards the social embodiment of architecture in the Freidorf Siedlung however did not occurred in the architectural language of the estate with its classicist compositional approach. As in the garden city model of planning, Freidorf housing plans were based on Palladian proportional systems. Meyer proclaimed,

> At the age of 27, when I was engaged on large scale housing schemes for a big German industrial concern, I used my free time to draw all Palladio's plans on thirty standard sheets of paper (size 420/594) in a common scale. **This work on Palladio prompted me to design my first housing scheme, the Freidorf estate, on the modular system of an architectural order.** By means of this system all the external spaces (squares, streets, gardens) and all public internal spaces (school, restaurant, shop, meeting rooms) were laid out in an artistic pattern which would be perceived by those living there as the special harmony of proportion.[74]

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[72] Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., [19].

[73] "Collective ownership of the houses and land; inheritable tenancies; co-determination by assigning all adults to seven working groups for education, management, safety, finance, health, maintenance and entertainment; self-administration of the estate by the co-operators themselves on a basis; obligation to help in carrying out communal works without pay; joint purchase of all articles to cover the daily requirements of the estate dwellers; co-operative arrangements for life insurance, savings and current money fro all members; primary education in the estate's own eight storey school; continuation classes in the co-operative seminar." Ibid., [19]

[74] Hannes Meyer, "How I work," in Architectura CCCP, Nr. 6, 1933, Moscow. (Manuscrip in German), trans. in Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., 19-21.

Hays argues that the "proportional harmony" is an instrument for the "architecturalization" of the "harmony of socialism."[75] Moreover, in this early project of Meyer architecture is constituted as an agent of "collective perceptual change." The standardization and the seriality incorporated within the Palladian system are used to install a "collectivity" in the social, perceptual experiences of the dwellers.

> All the building elements used at Freidorf were standardized and these standard elements conferred a certain unity upon each type of house. At the start there were no Swiss standards for building with standardized elements and in this important field of house building we had to start from scratch, it was in this way that Freidorf standards came into being: dimensions, shapes and materials for framing timbers, mouldings and balusters, for four types of window and three types of door, for the house entrance, staircase and veranda, central stove and animal hutches. Although the co-operators no doubt appreciated the economic aspects of this standardization, it mostly ran counter to their sense of beauty. In regard to architectural simplification, the Freidorf standards go to the utmost limits of what the individualistic Swiss will tolerate in matters of taste and any further paring away of "architecture" will be branded as "prison and barrack" building and meet with an almost unbroken front of public resistance...(the co-operative hall) Both inside and outside it has yielded to the law of uniformity governing the estate and only the double scale on which everything is built marks the public building. Man looks small once he enters the temple of the community. Even the layman, faced with the interplay of wall surfaces and window apertures, becomes dimly aware of the influence of an all-dominating module, and the slender vertical lights plainly intimate the southern home of the architecture...In this communal house the commune gathers for instruction, for a lecture, for a banquet, or for skittles, and the household gods —love, work, and joy — can enter the sanctuary of the co-operative.[76]

[75] K. Michael Hays, Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, op. cit., 86.

[76] Hannes Meyer, "Freidorf Housing Estate Near Basle, 1919—21," trans. in Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., 13.

Hays argues that Meyer uses the repetitive module in order to integrate the reiterative, serial building system of a collective society into architecture.[77]

During the years 1921-1925, Meyer travelled through Germany, France, Belgium, Holland, Scandinavia, and Finland. His studies during this period provided him to get into contact with the avant-garde movements in Europe and the Soviet Union. His embodiment into the elemantarist, constructivist, and producitvist theories aiming to "link artistic activity directly to material-social production," integrated with his earlier involvements to co-operative institutions. "The social commitment of his first efforts took the form of a new consideration of the revolution in human activities induced by technological progress;"[78] thus initializing a new phase in Meyer's architectural practice.

In the progress to "unfold architecture into the exteriority of mass technology and standardization,"[79] Meyer would convey his "Neue Sachlichkeit" stance, revealed in the essay "The New World," in the *Petersschule* and the League of Nations project, where in the *Petersschule*, as Hays asserts, "the fundamental harmonizing principle of the Freidorf Siedlung would be exploded by modernity and the machine."

### 4. 3. 3. The Avant-gardism of Meyer: *Petersschule* project for *Basel* of 1926-1927

In an attempt to re-analyse the early twentieth century "modern architecture," within the framework of "avant-garde modernism" introduced by Bürger, Hays makes a distinction between the architectural practice of Le Corbusier embedded in the discourse of *L' Esprit Nouveau*, and of Meyer's "Neue Sachlichkeit" tendency.[80] As Hays argues, Le Corbusier's main theme in the *L'Esprit Nouveau* is "the tension between the values of industrialization and those required to practice his classically conceived art, between standardized mass culture and the traditional conception of

[77] K. Michael Hays, Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, op. cit., 87.
[78] Manfredo Tafuri and Francesco Dal CO, Modern Architecture, op. cit., 168.
[79] K. Michael Hays, Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, op., cit., 87.
[80] Ibid., 99.

the auratic object." In the relentless effort to distinguish and sustain the "cult of genius" in the humanist tradition of art, Le Corbusier attempted to reconcile the "fact of machine technology the signs of industry, their representation and rearrangements in photographs, advertisements, paintings, and buildings" with the "auratic" work of art.

As Hays argues, referring to the "hierarchies of production among art, architecture, and other technical and cultural practices," Meyer's stance departs from Le Corbusier's; Le Corbusier "maintained a distinction between the practical-technical role of the engineer and the artistic-poetic role of the architect in order to preserve the humanist autonomy of the latter." In the attempt to reorganize the architectural practice via new productive methods, Meyer wanted to abolish the "traditionally conceived art altogether in favour of pure technique and the technical organization of a building in a collaborative enterprise." As Meyer proclaimed,

> the new building is a prefabricated building for site assembly; as such it is an industrial product and the work of a variety of specialists: economists, statisticians, hygienists, climatologists, industrial engineers, standardization experts, heating engineers. . . and the architect?.., he was an artist and now becomes a specialist in organization![81]

For Meyer, the "process of building is a conscious patterning of the socio-economic, the techno-constructive and the psycho-physiological elements in the social living process."[82] The architect is, thus an "organizer" of the specialists without being a specialist himself!"

Meyer while aligning architecture along the industrial achievements also attempted to dismantle the privileged position of the architect in the bourgeois society and its claims of artistic creativity. For Meyer, architecture is not an "individual act performed by an artist-architect" embodied with "emotions" but a "collective act" where technicians play a significant role in the patterning of the building process; and the architect is the "organizer" of all the processes taking part

[81] Hannes Meyer, "Building, 1928," Programs and manifestoes on 20th century architecture, op. cit., 117-120.

[82] HannesMeyer, "The education of the architect," trans. in Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., [55].

in the act of building. It may be asserted that the distinction between the "practical-technical" role of the engineer and the "artistic-poetic" role of the architect is rejected. The conception of the architect as one of the specialists foregrounds the idea of the equality of mental and technical production. These arguments brought forth by Hays, supports **the main argument of the book, which is the displacement of the subject from the centre of creative act constituting the presumed "posthumanist" turn in the early twentieth century "modern architecture."**

Meyer's refusal of the reconciliation of the hierarchy of 'art' and techniques of mass production is explicit. 'The New World' announces:

> Art has an undisputed right to exist provided the speculative spirit of mankind has need of it after the graphic-coloured, plastic-constructive, musical-kinetic overthrow of its philosophy of life... This new creative work can only be done on the basis of our time and with the means of our time. Yesterday is dead; Bohemia is dead. Dead are atmosphere, colour values, burr, mellow tones and random brush-strokes. Dead the novel: we have neither the suspension of disbelief nor the time to read. Dead picture and sculpture as images of the real world: in the age of films and photos they are a dissipation of effort and the endless "beautification" of our real world through the interpretations of "artists" is presumptuous. **Dead is the work of art as a "thing in itself", as "art for art's sake'': our communal consciousness will not tolerate any individualistic excesses.**[83]

These words demonstrate the denial of bourgeois individualism in artistic creations and the idea of creative genius expressed in stylistic manifestations in art. The bourgeois "autonomy of art" as the function that art conveys in society released via the dictum "art for art's sake'' and the art objects' "autonomy" in other words its being "an end-in-itself", is negated. As it is vital for the avant-garde, art is seen as an apparatus for the aimed change of society in a revolutionary sense. The dictum of the avant-garde "art's sublation into life" finds life in the vision of Meyer for the establishment of a communal society. In the proposed system art would be "the fruit of incisive thinking and inventive genius," produced in the artist's studio in the form

[83] Hannes Meyer, "The New World," trans. in Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., 93.

of "a scientific and technical laboratory." The new work of art would not be for the individual- in the form of an investment or a piece to be displayed in the museum, but would be for masses.

Referring to Hays, Meyer's "denunciation of art" has been criticized "as a naïve empirico-critical positivism, an instrumentalization of architecture that implies his work in a purely technocratic and administrative economy."[84] But Hays argues that his "subordination of aesthetic autonomy to positivist instrumentality" is a conscious response that Meyer gave to the dismantling of the "authorial autonomy and artistic purity" by Dadaism after 1913 and by Soviet constructivism and productivism until the time of Meyer's own work. For Meyer it was an historical reality where the technological, social, and political changes conditioned that dismantling and resulted in the blocking of certain kinds of aesthetic apprehension.

For what Hays argues, Meyer's usage of technology, his "scientification" of architecture should not be understood as "autonomous technology overtaking design" but rather be evaluated as an effort to transform architectural practice in the way that socio-technological constituents demand. Meyer recognized that industrial production should be brought into service for other forms of society; meaning that it should be instrumentalized for the benefit of society via design.[85]

Hence the first attempt for the realization of the "scientification" of architecture was the *Petersschule* project in Basle he designed in collaboration with the architect Hans Wittwer. In the scarcity of land for open space and light, Meyer's proposed solution for the *Petersschule* was;

> The school itself is raised as far as possible above ground to a level where there is sunlight and fresh air. On the ground floor there is only the swimming bath and the gymnasium in an enclosed space. The remaining area of the playground is released for public traffic and parking. Instead of a playground two open spaces (suspended platforms) and all the flat roofs of the building are assigned to the children for recreation, providing a total area of 1250 sq. metres of sunny space

[84] K. Michael Hays, Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, op. cit., 103.
[85] Ibid., 103.

away from the old town.[86]

Hays argues that the *Petersschule* is the successor of Le Corbusier's Maison Citrohan of 1920-1922, El Lissitzky's "*Wolkenbügelhochhaus*" ("cloud hanger high rise") for Moscow, and a 1922 *Vkhutemas* project from N. A. Ladovsky's studio for a restaurant suspended from a cliff over the sea published in "*ABC"* in 1925, in terms of both its volumetric typology and its emblematic status as a reproducible unit.[87] (Figure 9-11) The Maison Citrohan is an outstanding symbol of the standardized building working like a "machine," with its "standardized monolithic concrete frame, comprising a simple volumetric unit with a single major light source, a roof terrace, an exterior stair, and, in a version raised on pilotis, a balcony wrapping around its volume."

> Open and glazed staircases, arranged in parallel, connect the play areas and the inside rooms. The dead weight of the building is used to carry on 4 cables the unsupported steel structure of the two suspended platforms. The building is built on a steel framework resting on only 8 columns and with outside walls of this section: facing of chequered aluminium sheet — pumice concrete slabs — air space — kieselguhr slabs — air space —polished Eternit sheets. Fitting out: steel framed hopper-type windows, aluminium sheet doors, steel furniture, halls and stairs covered with rubber flooring.[88]

*Petersschule*'s basic configuration is composed of a vertical block of toilets together with the stairways, a block of classrooms, the suspended play decks, and a lower block of ancillary functions.[89] As Hays argues, the building is a result of the techniques of production and the material used in the construction. However, the usage of technique not only determines the methods of construction but also determines the spatial out coming of the building. With the technical calculations the

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[86] Hannes Meyer, "Project for the *Petersschule*, Basle, 1926," trans. in Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., 17.

[87] K. Michael Hays, Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, op. cit., 97-99.

[88] Hannes Meyer, "Project for the *Petersschule*, Basle, 1926," trans. in Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., 17.

[89] K. Michael Hays, Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, op. cit., 105-106.

preferences in the placement of the spaces are articulated. Hays argues that the volumetric building components are organized according to functional terms and to the efficiency of the light penetrations, hygiene and outdoor recreation. Moreover, the elements such as walkways, stairs and suspended platforms that are standardized are affixed onto the basic unit of the building. There exists no overarching spatial or formal principle that will give the discrete building components and materials a unity; the project disenfranchises the compositional and the visual dominant categories of architectural constitution. Hays interprets these qualities as a resistance to the "relational compositional strategies identified with the traditional art of human facture."[90] The distinction of art from objects of everyday use constituting hierarchy is dissolved by the formative principles and application of machine production. As Hays proclaimed,

> Each material is experienced as *such* and as infiltrating our everyday lives with the new concrete effects of the industrial image landscape and social field; *no distinction can be made between the content and its expression*.[91]

Hays introduces the concept of "materialism," where the hierarchies between mental and physical production is aimed to be dismantled. For Hays "materialism" is a "projective force," a conscious attempt afforded to "overcome the division of labour" of the bourgeois society. As Meyer proclaimed,

> The nine muses were long ago abducted by practical men and have stepped down again into life from their high pedestals, more humdrum and more reasonable. Their fields have been expropriated, confused and blurred. The boundaries between painting, mathematics and music can no longer be defined; and between sound and colour there is only the gradual difference of oscillatory frequency. The depreciation of all works of art is indisputable, and there can be no question that the continued utilization of new and exact knowledge in their place is merely a matter of time. The art of felt imitation is in the process of being dismantled. **Art is becoming invention and controlled reality**.[92]

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[90] Ibid., 110.
[91] Ibid., 110.
[92] Hannes Meyer, "The New World, 1926," trans. in Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., 95.

Hence as Hays asserted the "denunciation of art" for Meyer is a means of dismantling the gap between "socio-cultural fields, annulling the separation between physical and mental activity, negating the distinction between worker and intellectual, and refusing the division of labour that is fundamental to bourgeois society."[93]

"Materialism" with its "positivist" and "deterministic" connotations is also comprehended as a productivist tendency constituting close relation both to the mode of production and the actual staff of the building.

As Hays asserts, the *Petersschule* project is an assemblage of the materials that "came automatically into being and determined by life."[94] The materials that are released from their "mythical, auratic, transcendental meanings" are used as "a rhetorical form analogous to propaganda."[95] For Hays, in the *Petersschule* project each material expresses its own physical qualities and there is no other meaning attributed to the materials other than their physical existence.

As Hays argues referring to Meyer's statement in the competition project "the classroom, the decked and undecked play areas, and the toilets are the inseparable constructive units (cells) of the school building." [96](Figure 12-17) As Hays asserts,

> The toilet block, emblem of hygiene, is attached to the classrooms. Each classroom floor has direct access to its own play deck- the first and the second floors (above ground) are connected by gangways to the suspended decks; the third floor opens directly onto a lower roof terrace; the fourth floor is connected by an outdoor stair to the upper roof terrace. The gymnasium opens onto a ground level recreational space. The suspended decks are held away from the classroom block by a dimension determined by the angle of light penetrating into the gymnasium and to the playground. The entire arrangement of the basic units in this competition project can be explained in terms of the maximization of the area for outdoor creation and the amount of light penetrating into the building, these

[93] [93] K. Michael Hays, Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, op. cit., 108.

[94] Hannes Meyer, "Bauen, 1928, " trans. in Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., 95.

[95] K. Michael Hays, Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, op. cit., 109.

[96] Ibid., 105.

> coupled with the methods of its **technical** construction.[97]

Hays makes a distinction between the architectural practice of Meyer and Le Corbusier in terms of the usage of technique in design process. As Hays argues "technique normally functions in architectural design as a way of gathering up utilitarian and material demands into a significant order of individual intention, into a style" where "a particular technique gives formal consistency and unity to industrialized building processes, allowing us to see the content or intention behind the work or drawn project." Hay asserts that this tendency is explicit especially in modernism where Le Corbusier's architectural practice is an obvious example. On the other hand, technique in the case of the *Petersschule*, as Hays proclaims,

> is "a matter of diagramming potentials for occupation (spaces of learning and play) than embodying individual will to form." Scientification. Desired conditions are stated in the work and the signs of making are present to be sure, but the technique itself disqualifies certain architectural skills of composition, expressivity, and transfiguration that are the marks of a single maker.[98]

As hays argues in the *Petersschule* project the technical reproducibility and standardization and their foregrounding effect is not only a technical one. In design process, Meyer's insistence on constitution of technique rather than "inspired creation" and the conception of "architecture as industrial product" dismantles the dominant "humanist" discourse of constituting design as individual creation and the perception of the architectural object as transcendental, and as a mental construct that refers to some pre-existing idea that Le Corbusier still clung. Furthermore, this tendency allows for the destruction of the architectural work into its "material determinants and social conditions of its making" where as Hays argued "the building *just is* these determinants and conditions." Hence, it may be argued that the technical reproduction of the building has the result of dismantling the subjectivity of the individual creator. As Hays proclaims,

[97] Ibid., 105-106.
[98] Ibid., 106.

> the *Petersschule* presents the building as a reorganization of the very "thingified," *sachlich* components and materials of the everyday world. An architecture of non-consent, the effect of which is estrangement, and absences of different sorts-absence of finish or refinement or closure, absence of the self-identity and independent value of visual sign, absence of the subjective interiority of creator or viewer, absence of determinate meaning, absence of emotive depth and the myth of plenitude.[99]

Hays argues that space in the *Petersschule* is "material and temporal." It is a product of the "disjunctive building parts and materials," where it originates form the way they are combined, and "the time in which we encounter them."[100] The intruder apprehends it as he "transverses" it. Meyer's "raw materiality" releasing via thing- "the glaring brightness, the hardness, the smell, the taste"- imposes the subject a different kind of experience than the one in "humanism" with "its effort fill the void between ourselves and the world," via transferring the object into apprehended forms. "The *Petersschule*'s materialist opposition to all transcendental stabilizers of signification," introduces a new kind of experience of the world mainly constituted out of "material substances operating through automatic mechanisms (the diagrams and calculations)." (Figure 18) As Hays claims this quality while displacing the viewer from his accustomed spaces of aesthetic apprehension, initiates a "factual understanding and description of objective reality." Thus, "materiality" and the way the building is considered to be a part of a processes and diagrams diverge perception of the building from the aesthetic contemplation as a kind of mediation between the real space and the priori image of that space to refer.

> His materialism emphasizes the heterogeneous properties of things and their effect in real space and real time, and induces a play of sensuous energies in the viewer, a compulsive pleasure taken in the quiddity of the building parts, but also in the contradictions, the disruptions, the gaps and silences, all of which explodes the received social meaning of those things. The cancelling of fixed meanings, the shattering of the illusion of individual centrality, in short, the production

[99] Ibid., 107.
[100] Ibid., 111-113.

> of absence, **all organize a political metaphor: *things can be different*.**[101]

The introduction of the disjunctive organization of the "raw" material components of the building initiates a new spatial experience in the intruder. Pulling him out of the transcendental space of comprehension of reality, this new consciousness aims to set off the intended revolution via the reorganization of aesthetic dimension.

### 4. 3. 3. 1. The Comparative Reading of the *Petersschule* Project of 1926-1927 for Basel Referring to the Text "Diagrams Matter" by Stan Allen

As Hays argues the presentation of the *Petersschule* project as published in *Bauhaus* also signifies another important attitude prevalent in Meyer's modernism. (Figure 19) The layout the building-its form, its substance- covers only one third of the whole page. The rest of the page is given to the calculations of efficiency of light penetrations and the building components and the diagrammatical explanation of their dispositions. This attitude reveals, as Hays argues, the building evaluated is only a part of a large set of processes constituting the design rather than being emphasized mainly as an end product which is the utmost goal of these calculations and diagrammatic explanations. In Hays' own words the building is understood as an "instrument, a concrete instance of the diagram, part of a larger machine for the production of desired effects of light, occupation, and sensuous experience."[102]

For explaining this new attitude elaborately, Hays refers to the concept of "abstract machine" by Gilles Deleuze. As quoted from Deleuze,

> A true abstract machine has no way of making a distinction between a plane of expression and a plane of content because it draws a single plane of consistency, which in turn formalizes contents and expressions according to strata and deterritorializations. The abstract machine in itself is destratified, deterritorialized; it has no form of its own (much less substance) and makes no distinction within itself

[101] Ibid., 113.
[102] Ibid., 111.

> between content and expression, even though outside itself it presides over that distinction and distributes it in strata, domains, and territories. An abstract machine in itself is not physical or corporeal, any more than it is semiotic; it is *diagrammatic*…It operates by *matter*, not by substance; by *function* not by form. Substances and forms are of expression "or" of content. But functions are not yet "semiotically" formed, and matters are not yet "physically" formed. The abstract machine is pure Matter-Function-a diagram independent of the forms and substances, expressions and contents it will distribute.[103]

As it is explained in the quotation the "abstract machine" works diagrammatically. And as it is argued "it makes no distinction within itself between content and expression." This expression empowers the concept of materiality in the *Petersschule* project; for, we know that the materials used in the design process has no other functional or semiotical attributions than their physical materiality. This may also be regarded for the functional arrangement of the building parts as they also only signify their functional relations in the whole rather than any other *a priori* order.

The *Petersschule* project by Meyer and its analysis referring to the concept of "abstract machine" by Gilles Deleuze, and its diagrammatic explanation in the presentation of the journal *Bauen* is also interpreted in another context by Stan Allan. The following part will be an understanding of the same project in the context of "diagram architecture."

Stan Allan begins the article "Diagrams Matter,"[104] with a common quotation, Hays also uses, from Gilles Deleuze.

> An abstract machine in itself is not physical or corporeal, any more than it is semiotic; it is diagrammatic…. It operates by matter, not by substance; by function, not by form…. The diagrammatic or abstract machine does not function to represent, even something real that is yet to come, a new type of reality.[105]

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[103] Ibid., 110-111.
[104] Stan Allen, "Diagrams Matter," ANY 23, (Anyone Corporation, 1998), 16-19.
[105] Ibid., 16.

Allen argues that "the diagram is an abstract means of thinking about *organization*." In architectural context organization, disregarding the conventional dichotomies of "function versus form or form versus content," involves both program and its distribution in space. As Allen asserts,

> Multiple functions and action over time are implicit in the diagram. The configurations it develops are momentary clusters of matter in space, subject to continual modification. A diagram is therefore not a thing in itself but a description of potential relationships among elements, not only an abstract model of the way things behave in the world but a map of possible worlds…Simplified and highly graphic, diagrams support multiple interpretations. Diagrams are not schemas, types, formal paradigms, or other regulating devices, but simply place-holders, instructions for action, or contingent descriptions of possible formal configurations. They work as abstract machines and do not resemble what they produce.[106]

Hence it is understood that diagrams do not correspond to the actual building, which they produce and also they respond to the changing needs occurred within time. The building that is an outcome of a diagram is open to transformation due to the changing facts that constitute it.

As Allen argues, architecture is a discipline that moves between the virtual and actual and the architect is in constant necessity of "moving from one medium to another, transcoding from virtual to actual and vice versa."[107] As an instant for it Allen underlines the act of moving from drawing or writing to building and also the reverse of it. As Allen asserts a diagrammatic practice locates itself between the actual and virtual.

> A diagram architecture does not justify itself on the basis of embedded content, but by its ability to multiply effects and scenarios. Diagrams function through matter/matter relationships, not matter/content relationships. They turn away from questions of meaning and interpretation, and reassert function as a legitimate problem, without the dogmas of

[106] Ibid., 16.
[107] Ibid., 16.

> functionalism…*Meaning is located on the surface of things and the materiality of the discourse*.[108]

The diagram architecture defined by Allen referring to Toyo Ito, as Allen argues, "is critical both of the social institutions of architecture and of exaggerated mythologies of personal expression." It is argued that

> Ito imagines an architecture in which the process of conversion is minimized; consequently, architecture's traditional claim to transform its material (the last vestige of architecture's connection to magic and alchemy) is undermined as well. No complex mysteries to untangle, no hidden messages to translate, no elaborate transformational process to decode. [109]

The architecture that Ito describes will give priority to "the immediacy and directedness of procedures." It will be an architecture that would display "its constraints" and will be "comfortable with the limitations imposed by forces of market economy, codes, or the shifting field of the contemporary city."[110] As it is argued the complex real world constraints will be transformed as architectural material through the use of diagram.

Allen argues that the imprint of working procedures of the architect on realized building is foreign to the logic of the diagram. Instead,

> a diagram architecture is an architecture that behaves like a diagram, indifferent to the specific means of its realization. It is an architecture that establishes a loose fit of program and form, a directed field within which multiple activities unfold, channelled but not constraint by the architectural envelope. It is an architecture of maximum performative effects with minimal architectural means, characterized at times by indifference and at times by exquisite restraint, but always by deference on the part of its author to the impersonal force of the diagram.

Within the framework of diagram architecture explained above Allen re-reads Michael Hays' argument of abstract machine in reference to Hannes Meyer's *Petersschule* Project of 1926-1927 for Basel. Allen argues that Hays' bringing forth

[108] Ibid., 18.
[109] Ibid., 18.
[110] Ibid., 18.

the feature of the representation of the project, which was composed of a single-page layout dominated by diagrams and calculations, and the fact that building's being only one component of the total architectural apparatus enables Hays to extricate Meyer from the conventions of functionalist logic. Allen asserts that, in reference to what Hays suggests, "it is possible to see the *Petersschule* as only one of many possible instances of the diagrams presented," instead of seeing the individual building "as the result of generic calculations-the application of technical norms."[111] For Allen, Hays' usage of the term "abstract machine" signifies the "assemblage of social and technical forces that are actualized in multiple forms by multiple agents, among them the specific instance of Meyer's project. As Allen argues, in the realized project, the changing of the forces would reactivate the life of the building and changes would occur with time as "the notion of the abstract machine sees the building as a component in a larger assemblage that can be recontextualized according to the progressive rearrangements of the other components in this social/technical/urbanistic machine."[112]

As discussed in the context of Hays' thoughts, the disjunctive agreement of a building's components, as Allen argues, would increase the capacity of their constant recontextualization in response to the changing external forces.[113]

### 4. 3. 4. The Bauhaus Under the Directorship of Hannes Meyer 1928-1932

Early in 1928, Gropius appointed Meyer to the directorship of the school after his resignation.[114] Under the directorship of Meyer the work of the Bauhaus turned towards a more "socially responsible" design programme placing emphasis on "social rather than aesthetic considerations," while "the education of the building section tended towards "the economic optimization of plan arrangements and to

[111] Ibid., 18.
[112] Ibid., 18.
[113] Ibid., 19.
[114] Kenneth Frampton, "The Bauhaus: The Evolution of an Idea," Modern Architecture: A Critical History, op. cit., 126-128.

methods for the precise calculation of light, sunlight, heat loss/gain, and acoustics."[115] .

Meyer's insistence on "productive work" aligning with the dictums of the manifestation of "The New World" increased the conflict between art and practical activity enduring throughout the Bauhaus's lifetime.[116] Moreover, the Bauhaus faced an internal problem while moving toward its aim of "accomplishment of practical needs of the time." "The search for a new visual culture, a new language of form" evolved into a "formalism," where a "Bauhaus style" emerged which showed itself by "the smooth surfaces, transparency, immateriality, and pure colours, breaking down of the object into elementary geometric volumes, the effect of contrasts between the masses,"[117] thus emanating "anesthetisation of technology."[118] Meyer, grasping that "the problem of quality in the objects forming the background of our everyday life was not merely a formal one," set himself enthusiastically against the "formalism" existing there.[119] And thus, he argued for the creative artists' requisite of satisfying the "popular needs" of the masses in order to take on an "effective social role" in the revolutionary transformation of society. Meyer's furthest aim was to provide an actual "social content" to the work of the Bauhaus. The whole issue went along with the abandonment of the idea of "artistic creative genius," thus; "artistic speculations forming the special reserve of a small number of initiatives" was outmoded for the "standard product."

Meyer re-organized the Bauhaus workshops in four sections: the building department (building administration, building office), the advertising department (photo workshop, graphic workshop, and printing), the interior department (wall painting, metal workshop, and joinery), and the textile department (dyeing, weaving, and tapestry).[120] (Figure 20, 21) Restructuring the school, he also initiated radical changes in the curriculum and the methods of work. The education leaned towards actual working conditions and gradually the workshops involved into real jobs, leaving behind the imaginary projects.

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[115] Ibid., 129.
[116] Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., [43].
[117] Ibid., [41].
[118] Ibid., [43].
[119] Ibid., [43].
[120] Ibid., [47].

Teaching of the building department shifted attention to "systematic research" to supply the basis for the structuring of plans. As a method of work, a careful study of "the needs, behaviour patterns, user's relations with neighbours and the physiological and psychological factors at play" were investigated for designing.

However, the Bauhaus was in scarcity of the knowledge of "exact sciences" for the efficient application of this method. Meyer was the first to realize the importance of scientific knowledge in the training of a designer, thus his most significant innovation in the Bauhaus was the introduction of the courses of scientific and technical fields into the curriculum; thus initiating new motives in teaching theory. (Figure 22, 23)

Further more, several German and foreign scientists of world-wide reputation were assigned and an introductory course on Gestalt psychology had been envisaged for the winter of 1930/31. Meyer was himself involved in education as the head of the department; Anton Brenner was the head of the building studio, and Ludwig Hilberseimer was the head of the course of instruction in building. Hans Wittwer, as the chief draughtsman, gave lectures on acoustics, light and heat engineering, installations, Edward Heiberg on housing estates; Mart Stam was a visiting lecturer in town planning and for the elementary building course, and Alcar Rudelt was involved in the courses of statics, strength of materials, mathematics, reinforced concrete and steel structures, costing, building construction; Wilhelm Müller on building materials, and Carl Fieger on drawing.[121] Meyer foresaw the role of the designer consisting of not only "finding for the object a form which primarily satisfied aesthetic requirements" but also consisting in "meeting a complex of social needs bound up with the general conception the product." Moreover, he has the conviction that only science and technology could satisfy the needs of an industrial civilization effectively. The application of methodological study embracing the "factual knowledge" of the work prevented the evolution of the design process into the subjectivity of a designer.

> Thus Meyer not only aimed at the effectiveness that goes with the possession of factual knowledge; he also saw the educational significance of a method which

[121] Ibid., [47].

> inculcated clarity, fairness and modesty- qualities which he opposed to the vagueness of utopianism, the arbitrariness of aestheticism and the arrogance of pseudo-rationalism. Meyer was accused of trammelling the personality of the creative artists whereas, in the actual fact, he was emancipating it and restoring to it its real powers.[122]

Along with these achievements the Bauhaus was engaged in exhibition design, and established practical connections with industry; thus it was in 1928 that some of the best known Bauhaus light fittings began to be produced by the firms Körting and Matthiessen and an agreement was attained for wallpapers to be designed for the firm of Rasch.[123] The students were involved in the designing of the Siedlung at Törten-Dessau and the school of the General German Trade Unions (ADGB) of 1928-1930 at Bernau near Berlin. (Figure 24-38)

As the workshops gradually involved in the economic life of the country, they rapidly developed into "autonomous production centres."[124] The reorganization of the workshop activities enabled to form "vertical bridges," where students from differing levels got together in the "spirit of mutual aid and joint responsibility;" hence allowing the students to participate in a "collective" work in favour of engagement on an individual task. The "vertical bridges" became the domains where the problem for the preparation of the students for teamwork was handled for the first time since the foundation of the school. It may also be argued that the "collectivity" of the "design brigade" set against the humanist conception of design, against the idea of genuine creativity founded form in the subjectivity hence in the individuality of the artist/designer.

The new program characterized by the insistence of the "social mission of the Bauhaus, the higher proportions of exact sciences in the curriculum, the suppression of the painters' influence, the co-operative development of the workshop units, vocational training based on the actual job, the development of types and standards for articles of popular consumption, the democratization of study and closer co-

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[122] Ibid., [47].

[123] John Willet, Art and Politics in the Weimar Period: The New Sobriety, 1917-1933, op. cit., 123.

[124] Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., [47].

operation with the workers' movement and the trade unions,"[125] shifted the whole institution towards the satisfaction of the necessities of the modern, technological society that "had previously been too inbred, too remote from everyday life, too wrapped up in its own 'Bauhaus style'."[126] Instead the school was directed towards popular necessities rather than luxuries, moving away from idealism to the "controlled reality" of the industrial society.

### 4. 3. 5. The Bauhaus Under Gropius versus the Bauhaus Under Meyer: The Radical Engagement of Architecture

Meyer, during his directorship was wholly involved in the contradictions that emerged between the years 1923 and 1928.[127] In order to enhance this situation, he restructured the Bauhaus, and via his reorganization "he expressed the idea of the nexus between politics and architecture as scientific organization of the building industry." Gropius's ambitious position revealed as "an ideological reading of the relationship between art, artisanry, and industry," through the new organization, "seemed to be resolving itself in a new collective commitment directed to the scientific investigation of the real conditions prevailing in building and the building industry." Meyer attempted to bring into the school "the image of productive cycle," with the expectation of "being able to rationalize it by intervening in its organizational processes."

Under the directorship of Meyer, the school moved towards "a collectivized approach to architecture as organization of an economic cycle," instead of "the romantic experiment of Weimar, which the first Bauhaus in Dessau perpetuated." Meyer, a functionalist as his approach might be called, had never refuted his own ideological position: "the 'renunciation of imagination' had its worth as ascetic tension in making the architect into a technician in a productive organization that, in turn, was identified with social revolution."[128]

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[125] Ibid., [43].

[126] John Willet, Art and Politics in the Weimar Period: The New Sobriety, 1917-1933, op. cit., 123.

[127] Manfredo Tafuri and Francesco Dal CO, Modern Architecture, op. cit., 173-174.

[128] Ibid., 173-174.

Meyer, in the year 1929 proclaimed his ideas in an essay "The Bauhaus and Society,"[129] where the fulfilment of the necessities of the society in the design process was the central issue. Within this proclamation, one can easily detect the negation of the idea of design process in the form of "*tabula rasa*," constituting the idea of creating from scratch; thus involving into subjective, speculative intentions. Meyer, negating "formalism," anticipated the design process as a "social phenomenon": a re-formulation of the "existing" conditions given by society; thus providing solutions for human benefit. As he proclaimed,

> In every creative design appropriate to living we recognize an organized form of existence.
> Given proper embodiment every creative design appropriate to living is a reflection of contemporary society. —building and design are for us one and the same, and they are a social process.
>
> As a 'university of design" the Dessau Bauhaus is not an artistic, but a social phenomenon.
> As creative designers our activities are determined by society, and the scope of our tasks is set by society.
> Does not our present society in Germany call for thousands of people's schools, people's parks, people's houses?
> Hundreds of thousands of people's flats??
> Millions of pieces of people's furniture???
> (What are the connoisseurs' gibberings worth when set against these)
> (After the cubistic cubes of Bauhaus objectivity?)[130]

Meyer interpreted design as a process that provides the "harmonious" combination of existing conditions. His stance also negated the creation of a "Bauhaus style or a Bauhaus fashion."

> No modishly-flat plane-surface ornamentation divided horizontally and vertically and all done up in neoplastic style. We are not seeking geometric or stereometric constructions, alien to life and inimical to function. We are not in Timbuctoo: Ritual and hierarchy are not dictators of our creative designing.[131]

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[129] Hannes Meyer, "Bauhaus and society, 1929," trans. in Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., 99-101.
[130] Ibid., 99.
[131] Ibid., 99.

Meyer interpreted art as an "organization,"[132] revealing itself in the age of "classical" through "the module of the logical geometry of Euclid," of the "Gothic" in the acute angle as the pattern of passion," and in "Renaissance" though "the golden section as the rule of balance." And in the age of reason, it should be means for obtaining "solely the knowledge of a new objective organization, meant for all, manifesto and mediator of a collective society." Thus, he argued that "being an artist is no longer a profession but the vocation to become a creator of order." The Bauhaus school, being a centre where "art is a means of experimenting in objective order," gives no priority to talent; hence protecting itself from "the danger of intellectual schism: inbreeding, egocentrism, unworldliness, aloofness."

For Meyer, the new building theory is "an epistemology of existence," a "theory of society" that strives for the "balancing [of] co-operative forces and individual forces within the community of a people." If one sees it as a naïve stylization of technology, Meyer would reply as,

> This theory of building is not a theory of style. It is not a constructivist system; it is not a doctrine of technical miracles. It is a system for organizing life, and it likewise clarifies physical, psychical, material and economic concerns. It explores, delimits and orders the fields of force of the individual, the family and society. Its basis is the recognition of the living space and the knowledge of the periodicity of the process of living… Its creative media are — deliberately employed —the results of biological research. Because this doctrine of building is close to life's realities its theses are constantly changing: because it finds concrete existence in life, its forms are as rich in content as life itself.[133]

Hence for Meyer, within this theory, design is a process where vital needs are organized into form. The theory can also be interpreted as an open-ended procedure in building. With the changing circumstances in life, the input of the process differs. **Thus the end product- the building may be capable of enhancing the changing conditions, meaning the dissolution of the humanist ideal of formal composition via the negation of absolute unity. Meyer's theory of building via its**

[132] Ibid., 99.
[133] Ibid., 101.

**"engagement" to social phenomena also might be regarded as a counter-stance towards the "unworldly," "disinfected" character of the bourgeois art object. The involvement into worldly concerns proves us the "avant-gardism," of Meyer's theory in the form of integrating life into design practise.**

Hays argues that Meyer's attempts to "bring into the Bauhaus the related propositions of aesthetic practise as social production and the aesthetic object as an image of the productive cycle,[134] can be interpreted as a move towards "an engaged architecture, to a limit unknown at the Bauhaus during Walter Gropius's administration." [135]

As Hays argues, Peter Bürger's Theory of the Avant-Garde initiated a new positioning for the reinterpretation of the general problematic of the social engagement of architecture.[136] For Hays, Bürger's argument allowed to distinguish between "a modernism based primarily on issues of aesthetic autonomy and those 'avant-garde' practices."[137] Referring to Bürger, Hays argues that "rather than merely to change received representational conventions," the main aim of the "historical avant-garde" was the disruption of the "autonomous" status of art as an institution that does not refer to the real conditions of life; hence proposing "the sublation of art," which means, "[a]rt was not to be simply destroyed, but transferred to the praxis of life where it should be preserved, albeit in a changed form." As Bürger argues the avant-gardistes' aim to "sublate art into life" can be deciphered as an attempt to integrate art into life, where art would be practical in the sense that it should play a role in the organization of a new life praxis.

As Hays asserts, such a distinction between "high modernism" and the "avant-garde" breaks apart "the notion of monolithic 'modern movement' in architecture," hence enabling the restructuring of the differing programs within modernist practice and the "**revaluation of the routine equation of modernism with the avant-garde**."[138]

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[134] K. Michael Hays, Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, op. cit., 121.
[135] Ibid., 122.
[136] Ibid., 122.
[137] Ibid., 306.
[138] Ibid., 122.

Hays argues that Bürger's definition of the "historical avant-garde," might not be capable of differentiating "an altogether different 'avant-garde' that indeed began with a renunciation of "*l'art pour l'art*" then encompassed and absorbed other movements, sought to normalize relations with existing institutions and authorities, and came to dominate the discourse."[139] For, as Hays asserts, Bürger constructed his argument referring to the context of nineteenth-century "bourgeois aestheticism" and its prevailing transformations in the early twentieth century, for a definition of the "avant-garde that embraces social and political themes and practical, utilitarian concerns." Referring to the Bauhaus context, Hays claims, Gropius's policy might be interpreted as an attempt to find a common denominator along "the formal languages of the avant-gardes" and "the social and technological research of production art;" where constant efforts were given to "preserve the traditional, institutional, autonomy of the artist." Meyer's attack, as Hays claimed, was against this "conciliatory" stance in the works of Gropius. As Hays asserts,

> The historical destiny of the Bauhaus can then be seen within this paradigm as an ideological necessity to convert avant-garde negativity into a positive force by discovering "the Plan for the Real"- a program for social development and artistic reintegration, an overarching order for modernity- and attempting to realize that plan, to *produce* that form of reality that the pictorial avant-gardes had been able only to envision.[140]

The ideal of "the new 'unification' of art and life," during Gropius's directorship, remain as "a construction wherein the process of design is a process of creating eidetic image- a mental image of a new art, vivid and detailed, but in fact disengaged- which is to say, design remains intellectual work as such and only."

For Hays, Gropius along with accepting the transformation of the tradition, supported the "formal experiments of the avant-gardes," however he attempted to "change their social role and meaning at the same time, transferring the critical negational strategies of the immediate post-war period to an affirmative, operative level." Gropius tried to resolve "the protopolitical mechanisms of radical art," and in turn tried to prove their "availability for use in mediating between crafts and

[139] Ibid., 122-124.
[140] Ibid., 125.

industry." This transference, as Hays argued, not only indicated "a break with the anti-art and often destructive activities of the Dadaists," but also interfered with "the proposals of the *Novembergruppe*, the constructivists, and the Productivists" in the way for an "engaged architecture."

The attempt to reform the artisanal work via the adaptation of "formal research of the pictorial avant-gardes," as Hays argues, might be interpreted as an effort to constitute contacts with the Werkbund ideals and the re-integration of the artistic research into the bourgeois aesthetic tradition. As Hays proclaimed,

> The "refused destiny" of his Bauhaus, therefore, appears as the projection back over the avant-garde, whose experiments would seem to have demonstrated definitively the irreversibly changed historical conditions of aesthetic production and reception, of an earlier episteme of the master craftsman and the *Gesamtkunstwerk*, with the result that the forms and signs produced by the one were conceived in terms of the practice and structural hierarchies of the other, as if in an attempt to recoup aesthetic investments already liquidated.[141]

Gropius's reorganization of the craft production with the newly introduced formal strategies of the industrial society can be interpreted as an illusory innovation for the craft institution still conveyed the traditional conceptions of design with respect to the relation of the creative subject and the produced object. Hence, his attempt turns out to be a relentless effort to preserve the artistic ideals of humanist production.

[141] Ibid., 126-127.

# CHAPTER V

# THE "COGNITIVE PROJECT" OF HUMANISM VERSUS THE "COGNITIVE PROJECT" OF THE "*NEUE SACHLICHKEIT*" ARCHITECTURE

In the context of analysis here, Hays would introduce a comparative reading of the League of Nations competition project; the entry of Le Corbusier in which "form is still viewed as autonomous and the subject thereby remains at the centre of meaning" as an example of the "cognitive project of humanism" versus the entry of Hannes Meyer as a "challenge" of the former.

But to develop a further understanding of this "comparative reading" it is necessary to initiate an argument consisting of the "spatial," "constructive" and "iconographic" dimensions of these two entry projects referring to the text "The Humanist versus The Utilitarian Ideal"[1] by Kenneth Frampton.

## 5. 1. The Problem of Idealism versus Utilitarianism

The competition projects by both Le Corbusier and Meyer are direct transformations of the requirements of the program into architectural form and the organization of the complex as a whole, revealing functionalist commitment to the accommodation of the program. Coming up directly from the competition brief, the projects have common mass/volume organization where each project consists of a "distorted H-plan Secretariat block, linked by *passerelles* to a large, free standing Auditorium building."[2] Constituting similarities in the general "*parti,"* the projects constitute differences in these respects:

[1] Kenneth Frampton. "The Humanist versus the Utilitarian Ideal," Architectural Design 38 (1968): 134-136.

[2] Ibid., 134.

> Firstly, in their sitting and in the **attitude taken by their authors to land-scape** and nature in general; secondly, differences as to the **principles adopted in the manipulation and ordering of space**; thirdly, differences as to the **selection and application of structural modules and their relation to space**; fourthly, differences as to the **selection and application of circulation systems and service devices**; fifthly, differences as to the **selection and application of materials** and finally, fundamental differences as **to iconography and prototype**.[3]

Frampton argues that in terms of the attitudes to the "context" and to the "*genius locus"* of the site, the projects of Le Corbusier and Meyer fundamentally diverge. In the case of Meyer, the positioning of the building solely depended on the "upshot of the traffic diagrams, artificial illumination diagrams and natural lighting diagrams,"[4] alienating from its surrounding topography. As the design process, for Meyer, is the application of functional-technical means, the building challenged the notion of constituting a compositional continuity with its environment. As Meyer declared,

> This building does not seek an artificial link with its park-like setting through the art of landscape gardening. As a deliberately contrived work of man it stands in legitimate contrast to nature. This building is neither beautiful nor ugly. It asks to be evaluated as a **structural invention**.[5]

In the case of Le Corbusier, the site was of the utmost importance. Le Corbusier was deeply concerned to relate the artifact to the site via providing an "occasional and processional route into the complex."[6]

Le Corbusier's satiation of the volumetric components of the building displaying horizontality constitutes an aim to integrate the complex with the land, especially with the "macro scale of both the lake and the Alps." This deliberate positioning of the building led to greater internal horizontal circulation in the

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[3] Ibid., 134.

[4] Hannes Meyer, "Project for the Palace of the League of Nations, Geneva, 1926—27," trans. in Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., 25.

[5] Ibid., 25.

[6] Kenneth Frampton. "The Humanist versus the Utilitarian Ideal," op. cit., 134.

Secretariat whereas in the Meyer project the achievement of efficiency of circulation constituted in the 21- to 24-storey Secretariat gave way to a strong "formal vertical contrast to the natural environment."

Le Corbusier applied the concept of "hierarchy" as the main principle of his spatial ordering.

The concept of "hierarchy" can be found in the several positioning of the spaces such as in the spatial gathering of the assembly hall and in the processional entrance of the building in the form of an "architectural promenade."

Meyer resists the idea of "hierarchy," manifested by the application of a "processional space" in the form of an "architectural promenade." Moreover, he further expressed his "egalitarianism" through the "repetition of a standard structural module, part of an infinite field of coordinates." The dimensions of the volumetric components are arranged according to the structural grid and the spatial relations are determined by the program. As Meyer proclaimed,

> **Our League of Nations building symbolizes nothing.**
> — Its size is "automatically determined" by the dimensions and the conditions of the programme.
> As an "organic" building it expresses unfeignedly that it is intended to be a building for work and co-operation.[7]

This proclamation is important for it becomes the manifestation of Meyer's "posthumanist" stance in architectural discourse. The humanist tendency of design process constituting mythical attributions of meaning, centrality of the architect comprising the notion of creation is abandoned via carrying out the design process on the principle of the structural grid. The structural grid and functional necessity became the controlling mechanism above the will of the architect. Design evolved into an "automatic determination of an empirical problem" constituting controlled randomness.

The aim to achieve "automatic assembly of spatial elements" is consistent throughout the project. As Frampton argued,

> The asymmetric plan forms of Meyer's two structures

[7] Hannes Meyer, "Project for the Palace of the League of Nations, Geneva, 1926—27,"trans. in Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., 25.

> are, at least in part, due to the agglomeration of commission rooms adjacent to the two main foyers of the Secretariat and the Auditorium…The stepped plan profile to the perimeters of these two structures arises largely out of automatic superimposition of the scheduled room areas on a regular planning grid. The resultant plastic effect appears random and inconsequent.[8]

For Meyer, the "platonic element" was the structural grid whereas for Le Corbusier, it was the "resultant volume and mass." Meyer, having a constructivist tendency, was dedicated to "building method" as the very basis of creation. Le Corbusier gave priority to the "volume, mass and space" components of architecture. For him the "means" of architecture –referring to the building method of Meyer- were less important than the "ends." Hence, in the case of Le Corbusier, the spatial arrangements are open to derivations according to the desired consequence of architectural aesthetics, constituting humanist creative authority and subjectivity. Whereas in Meyer's project the" inherent spatial hierarchy" is achieved without changing the structural scale provided by the grid. As Frampton declared,

> Most of his spaces irrespective of their size are ordered by the 9 by 4.5 metre structural grid. Only the top-lit meeting room is an exception. Even the large roof of Meyer's egg-shaped auditorium is carried on hyperbolic concrete ribs at 4.5 m intervals; while the elliptical plan of the same space is related closely to the incremental square set backs of a 4.5 m grid…Le Corbusier varied the structural grid of his Palais according to the different volumetric demands of the programme, thus the Secretariat and library were based on a 7.5 by 3.5 metre bay, and the assembly hall under croft on a 7.5 metre square bay increasing to 15 metres or larger where the scale of adjoining public spaces demanded an increased span. The free facade and free plan permitted further modulations to these basic variations. The ultimate contrast between the two schemes is to be found in the roof structure of the respective auditoria, Meyer proposing a two way ribbed, semi-hyperbolic structure based on his standard grid, Le Corbusier, two 70-metre half-arch lattice spans, carrying three cross girders simply supported at

[8] Kenneth Frampton. "The Humanist versus the Utilitarian Ideal," op. cit., 134.

> their ends. **The homogenous is, once again, in contrast to the hierarchial**.[9] (Figure 39-41)

The concept of "hierarchy" in Le Corbusier's proposal is replaced, in the case of Meyer, by the notion of "classification" through the organization of the entry system both to the site and the building itself. For further analysis, it is necessary first to comprehend the system of entry to the site in both of the projects.

In Le Corbusier's project the entry by car is an unavoidable, almost "embarrassing necessity," where the pedestrian movement across the site is a priority. Conversely Meyer discouraged the pedestrian movement on the site; "the car becomes essential to the building's workability." Idealizing the car the site is overwhelmed with vehicle entry via the lowered belly of his auditorium. Meyer uses the mechanical access to classify the various types of people arriving at the building. Personnel, journalists, public and delegates alike are separated out though the vehicular medium into their respective parking lots before entering the building as pedestrians. As Frampton declared,

> [they] may enter the Secretariat from the uncovered Secretariat park or the auditorium building from three classified parking lots, located under the *piloti*, adjacent to their appropriate entry foyers situated on three separated sides of the auditorium.[10]

Meyer using the "dynamic agency of the machine" not only uses the car for distribution but also for classification. As a consequence of the classification of people by parking pattern at ground level, the project primarily depended on a vertical mode of access. The positioning of various elevators at strategic points in the plan provided direct vertical access to the irregular foyers located between the wings of the Secretariat or around the periphery of his egg-shaped auditorium. More depend on mechanical circulation. As Frampton declared,

> In his Secretariat there are six elevators and two paternosters, rising 27 floors to the level of the radio station and observation deck. This is in addition to two service hoists and two sets of escalators that rise through the first 20 floors of the Secretariat itself and

[9] Ibid., 134.
[10] Ibid., 134.

> the two book lifts serving the 11-storey book stack. In his assembly building there are a further 16 elevators rising to a height of 6 floors -10 for the public, 4 for the journalists and 2 for the delegates... In his assembly building, we find 10 elevators assigned primarily to connect the public foyers at the ground level with the public tribune of the hall situated four floors above.[11]

In the case of Le Corbusier's project, the concept of "hierarchy" used to compose the spatial ordering of the complex can be further elaborated metaphorically via the "primal universal myth of 'sacred' and 'profane' space," thereby finding an architectural expression in the project through the "approach route and the act of entry."[12] As Frampton argued,

> The peristyle and the related architectural promenade of Le Corbusier's 'high palace', create a context in which the rite of passage from profane to sacred space may be enacted. This act of entry initiates a progression which culminates both literally and metaphorically in the ideal centre of the world—the chamber of international assembly.[13]

Moreover, Le Corbusier's proposal refers to a Renaissance palace as a "prototype," where "the form is an expression of a hierarchy of values eventually distinguishing the valued from the less valued." in the case of Meyer's 'building' the reference is the "Crystal Palace: the industrialized reiteration of structural invention with no content other than itself." As Frampton declared,

> It is significant in this context that Meyer faces his building in 'eternit', on essentially modern material, implying a non-hierarchical structure, while Le Corbusier faces his palace in polished granite, the traditional material of monumental architecture.[14]

The iconography of Meyer's Palais des Nations consisting of the glazed elevator shafts of the Secretariat block, the radio aerial and sky sign which echo the imagery of the *Pravda* project designed by the Vesnin brothers in 1923 maintains a resemblance of the early utilitarian socialist architecture evolved in Russia

[11] Ibid., 134.
[12] Ibid., 136.
[13] Ibid., 136.
[14] Ibid., 136.

immediately after the revolution. Le Corbusier chooses to form his architectural typology substantiated by the past, regarding constructivism "vague" because "it contains too much," and arguing that "it neither limits an aesthetic, nor a category of human production." As Frampton proclaimed,

> The house/temple/palace syndrome is seen by Le Corbusier as the ultimate archetype of the human world. On this ancient ideal, inherited via Utopian Socialism from a Classical past, Le Corbusier superimposes a rich metaphorical culture; a mythology compounded from the ancient past and the major technological innovations of the nineteenth and twentieth centuries. To this end he pairs—after Consideront—in a sequence of sketches, a classical palace with an ocean liner; parallels subsequently being drawn between the liner, his Palais des Nations Secretariat and skyscraper.[15]

The emerging "dichotomy between idealism and utilitarianism" through the comparative analysis of the competition projects of Le Corbusier and Meyer leads to a conclusion as such: in Le Corbusier's project "hierarchial" notions of design and its forms of architectonic expressions qualify the humanist ideal which "demands a system of values and the creation and maintenance of mythology," whereas in the case of Meyer's it is this condition which is attempted to be dismantled via the structural and spatial constituents.

### 5. 2. The "Cognitive Project" of Humanism

Hays' introduction of a comparative reading of the League of Nations competition projects by Le Corbusier and Meyer referring to the text "Transparency: Literal and Phenomenal,"[16] by Colin Rowe and Robert Slutzky sustains the argument of "cognitive project of humanism," where "form is still viewed as autonomous and the subject thereby remains at the centre of meaning." Conversely the comparison endows Meyer's proposal standing "as a challenge to the cognitive project of humanism by problematizing the cognitive status of autonomous form as well as the

[15] Ibid., 136.

[16] Colin Rowe and Robert Slutzky, "Transparency: Literal and Phenomenal," Transparency, (Birkhauser Verlag: Berlin, 1997), 21-53.

subject for which that form is a metaphor,"[17] via redirecting the "attention to those processes of modern life that lie beyond the individual subject. And, we can detect this critical attitude within the forms themselves."

Before going further into the analysis of the "cognitive project of humanism," proposed by Hays for explaining Le Corbusier's League of Nations project, it is necessary to comprehend what is connoted by the concepts of both "literal" and "phenomenal" transparency that the argument is structured upon.

### 5. 2. 1. The concept of "Literal" and "Phenomenal" Transparency

"Transparency" being a concept rather used in the comprehension of art works is defined in reference to a text from Gyorgy Kepes' book Language of Vision.[18]

> If one sees two or more figures overlapping one another, and each of them claims for itself the common overlapped part, then one is confronted with a contradiction of spatial dimensions. To resolve this contradiction one must assume the presence of a new optical quality. The figures are endowed with transparency; that is they are able to interpenetrate without an optical destruction of each other. Transparency however implies more than an optical characteristic; it implies a broader spatial order. Transparency means a simultaneous perception of different spatial locations. Space not only recedes but fluctuates in a continuous activity. The position of the transparent figures has equivocal meaning as one sees each figure now as the closer now as the further one.[19]

This definition reveals the quality of "transparency" in an "esoteric" context where "the transparent ceases to be that which is perfectly clear and becomes instead that which is clearly ambiguous." the sentence of "transparent overlapping planes," announces a sense complicated than a simple physical transparency condition.[20]

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[17] K. Michael Hays, Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, op. cit., 153-154.

[18] Gyorgy Kepes, The Language of Vision, (Chicago: Paul Theobald, 1944), 77.

[19] Colin Rowe and Robert Slutzky, "Transparency: Literal and Phenomenal," op. cit., 22-33.

[20] Ibid., 23.

Therefore, to initiate an inquiry into "transparency," an establishment of a basic distinction is obligatory. The argument is twofold: the "transparency" may be an "inherent quality of substance," such as in a glass curtain wall revealing the "**literal**" transparency, whereas a "**phenomenal"** transparency is an "inherent quality of organization."[21]

Differentiating the "literal" and "phenomenal" transparency, the argument develops into an investigation of the architectural corollary of the concept of "phenomenal" transparency in an art work.

### 5. 2.2. The Investigation of "Phenomenal" Transparency in Architecture: The "League of Nations Building" of 1927 in Geneva by Le Corbusier

In the architectural context the fact of spatial reality introduces confusions in the maintenance of "phenomenal" transparency whereas in a pictorial context the quality of simulation of physical reality enables it to attain. For the reason that architecture has physical three dimensionality, "phenomenal" transparency is a hard issue to be achieved and the issue of transparency is substituted by a context referring to the transparency of materials, maintaining the "literal" one.[22]

In the architectural context "phenomenal" transparency is attained by "spatial stratification,"- possibility of a reading of space by layers- and by "alienating architecture from its necessary tree-dimensional existence through the exaggeration of "the frontal view point.[23] This characteristic of "phenomenal" transparency is the "contradiction of spatial dimensions" constituting "a continuous dialectic between fact and implication," where "the reality of **deep space** is constantly opposed to the interference of **shallow space.**" Via "resultant tension, reading after reading is enforced," constituting "fluctuations of interpretation."[24]

> The possibility of penetrating a stratified space which is defined either by real planes or their imaginary projections- the observer has the possibility of

[21] Ibid., 23.
[22] Ibid., 33.
[23] Ibid., 38.
[24] Ibid., 41-42.

> experiencing the conflict between a space which is explicit and an other which is implied.[25]

Defining "phenomenal" transparency in the architectural context, the argument focuses on Le Corbusier's League of Nations project where the usage of the long "narrow block" defined a "system of striations," constituting the expected transparency.[26] (Figure 42-46)

In the proposed project the two principle wings of the secretariat containing the library and book-stack area are characterized by "lateral extension," and this laterality is further emphasized by the entrance quay and the foyers of the General Assembly Building and the auditorium itself where the introduction of glazing along the side walls disturbs the normal focus of the hall upon the presidential box introducing the same transverse direction. The statement of "deep space" is mainly asserted through the main axis, which is the *cour d'honneur;* it passes through the General Assembly Building whose approach roads are outlined by a projection of the auditorium volume. But the indication of depth inherent in this form is consistently withdrawn. Comprised of a series of parallel longitudinal spaces running perpendicular to the main east-west access of approach, presumably an intruder, moving towards the assembly building along the axis of the *cour d'honneur,* goes through a series of "shallow striated" spaces which is defined by planes that either planted or built, repelling visual attention of the visitor to the lateral views of the lake and surrounding foliage. The centre of vision however, would naturally remain focused on the assembly hall and the space before the advancing spectator would alternately compress frontally and expand laterally, creating a perceptual ambiguity. Finally, "through a series of positive and negative implications, the whole scheme becomes a sort of monumental debate, an argument between a real and ideal space."[27]

> We will presume the Palace of the League of Nations as having been built and an observer following the axial approach to its auditorium. Necessarily, he is subjected to the polar attraction of its principal entrance. But the block of trees which interjects his vision introduces a

[25] Ibid., 43.
[26] Ibid., 48.
[27] Ibid., 48-50.

> lateral deflection of interest, so that he becomes successively aware, first, of a relation between the flanking office building and the foreground parterre, and second, of a relation between the crosswalk and the courtyard of the Secretariat. And once within the trees, beneath the low umbrella they provide, a further tension is established: the space, which is inflected toward the auditorium, is defined by, and reads as, a projection of the book stack and library. While finally, with the trees as a volume behind him, the observer at last finds himself standing on a low terrace, confronting the entrance quay but separated from it by a rift of space so complete that it is only by the propulsive power of the walk behind him that he can enabled to cross it. With his arch of vision no longer restricted, he is now offered the General Assembly Building in its full extent; but since a newly revealed lack of focus compels his eye to slide along this façade, it is again irretrievably drawn sideways, to the view of the gardens and the lake beyond…If the observer is a man of moderate sophistication, and if the piercing of a screen or a volume of tress by a road might have come to suggest to him that the intrinsic function of this road is to penetrate similar volumes and screens, then by interference the terrace on which he is standing becomes not a prelude to the auditorium, as its axial relationship suggests, but a projection of the volumes and planes of the office building with which it is aligned.[28]

These spatial stratifications offered by Le Corbusier's project and the consequent transferences of perception constitute the essence of that "phenomenal" transparency which has been noticed as characteristic of the central postcubist artistic traditions.[29] Rowe's and Slutzky's reading of Le Corbusier' League of Nation project constitutes a vigorous example of the "cognitive project of humanism," while the opposition it induced between the "reality of deep space" and the "implication of shallow space," leads to a conceptual realm in which architectural form is

[28] Ibid., 51-52.
[29] Ibid., 52.

comprehended through "a continuous dialectic between fact and implication." [30] As Hays asserts,

> Rowe and Slutzky demonstrate that the brute facts of physical organization can be presented with a significant, inherent ambiguity such that those facts may be read in terms of competing or oscillating mental constructs. Through the "argument"- the continuous fluctuation between alternative spatial discourses- the building is experienced not as an inert, mute object, but as a topos of meanings constituted by a process of cognitive differentiations.[31]

Hays argues that a "transcendent autonomy" is the expected condition of the humanist readings of architecture, where "perception is practised as the detection of various sorts of idealized, conceptual grids hidden within or hovering above the work."[32] This kind of "cognitive project" reveals a division between the "real, unmediated object in time and space" and the "virtual object of the mind." Moreover, the comprehension of the project is subjected to the particular "capacity of the viewer," where the viewer will reconstruct the "idealized meaning" and the "transcendental object" depending on his individual "transcendental ego."

The physical forms that are involved in their own "contemplation," will constitute "an ideated, unified form." The intent is obvious: "to avoid any of the worldly, circumstantial, or socially 'contaminated' content of history, for such material grounding would impinge upon the subject's interpretive freedom and the ultimate projection of the work toward some specialized aesthetic experience or formal categorization."[33]

Hence, Rowe and Slutzky's reading of Le Corbusier's competition project of the League of Nations, as Hays argues, is a cogent example of the "cognitive project of humanism," where "form is still viewed as autonomous and the subject thereby remains at the centre of meaning."

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[30] K. Michael Hays, Modernism and the Post Humanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, op. cit., 153.

[31] Ibid., 151-152.

[32] Ibid., 151-152.

[33] Ibid., 151-153.

### 5. 3. The "Practice of Negation" As the "Operative Technique" in the "Cognitive Project" of "*Neue Sachlichkeit"* Architecture

Analysing the "cognitive project of humanism," the argument evolves into an inquiry of Meyer's proposal standing as a "challenge" to the former. Meyer while redirecting the "attention to those processes of modern life that lie beyond the individual subject" introduces new a "operational technique" that problematized "traditional formal conventions" via production of "ruptures and discontinuities," and the denial of both the "individual author as the originator of meaning" and the "viewing subject of a space apart from life in which the mind is free to dream, to escape."[34]

The "operative technique" in the "cognitive project" of Meyer's "*Neue Sachlichkeit"* architecture is the "practice of negation" which is an "active construction of a new perception" through form. As understood from his statement the argument will reanalyse the formal and constructive constituents of the project as the medium where the practice of "negation" is installed.

To begin with, it is vital to figure out the prior design decisions of Meyer's proposal for the comprehension of reasoning of the spatial organizations. As Meyer proclaimed,

> As a supranational organization, the League of Nations is a novelty and without precedent. First and foremost on its program is the aim of the League of Nations to fight against the practices of an outworn nationalism elimination of the underhand methods of obsolete secret diplomacy and their replacement by the public debate of international questions in an open assembly of the representatives of all the member nations and to strive to give the comity of nations a new form in an inter-state organization serving specific purposes.[35]

As it is explicit, Meyer gave utmost importance to the building program for his proposal of the League of Nations. His structural "egalitarianism" providing homogeneity of spatial arrangements is a deliberate design decision taken a kind of

[34] Ibid., 154.

[35] Hannes Meyer, "Project for the Palace of the League of Nations, Geneva, 1926—27," trans. in Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., 25.

an “operational” agency to overcome the symbolic idealizations connoting hierarchy throughout the nations. As Meyer argues, the architectural medium in which this kind of a “supranational” program will be contained cannot be the “traditional” architecture signifying hierarchies and mythologies via the established formal agencies.

> Any attempt to give architectural expression to such a body must presuppose that it is nerved by the will to attain truth — if the intentions of the League of Nations are sincere, then it cannot possibly cram such a novel social organization into the straitjacket of traditional architecture. No pillared reception rooms for weary monarchs but hygienic work rooms for the busy representatives of their people. No back corridors for backstairs diplomacy but open glazed rooms for the public negotiations of honest men. The buildings of the League of Nations will be designed with their purpose in mind and not as an exercise in stylistic composition.[36]

Instead Meyer proposes an architecture that is shaped by the programmatic input via structural necessity and material components. As Meyer proclaimed,

> Such a philosophy requires the assembly hall to be constructed as an enclosed space whose features depend primarily on acoustic factors and on calculations based on scientific principles while the building containing the hall is envisaged as a concourse for 3000 persons (on the upper floors) with accommodation for 600 cars (on the ground floor). The building housing the secretariat will be in the form of a structure containing 550 office “cells” arranged on a common vertical traffic axis of lifts and escalators, with the length of the building and the number of floors depending on office organization, and with the height of each storey determined by the lighting coefficients of the work surfaces, etc.; the shape of the building will be determined by its statics and the structure by the material used. Even the position of the building on the site is simply the upshot of the traffic diagrams, artificial illumination diagrams and natural lighting diagrams.[37]

[36] Ibid., 25.
[37] Ibid., 25.

Meyer's proposed League of Nations building consists of a building system where the application of the structural grid ends up with the "reiterative spatial and constructional cells" as being "part of an open-ended, non-hierarchical field of spatial and structural coordinates."[38] The structural grid as the determinator of form via introducing limitations on spatial dimensioning resists the idea of having been "manipulated or mediated by a particular artistic personality." Moreover, this constructional system together with the priority given to functional necessity in the spatial configuration interferes with any attribution of representation in the "traditional, mimetic sense" along with the idea of "deformation" of space due to "autonomously conceived formal necessity." (Figure 47-62)

Along with the structural grid system as the basic "operational" tool for achieving the task of "negation," Meyer further arranges a number of sub-strategies to "redirect the cognitive project away from the production of ideated figures or formal unities."[39]

The first one is the vehicular provision envisaged both around and through the building. The whole complex and the mass of the Assembly Hall, which is raised on pilotis accommodating car park, are arranged according to the vehicular access into the site. As argued before this system of mechanical approach is utilized not only to classify the entry system according to its specific users but also to over come the issue of "processional space" in the form of an "architectural promenade," connoting a "monumental unity."

Moreover the mechanical agency is installed inside the circulation of the building via the usage of multiple elevators and escalators and service shafts. Meyer applied a system of "classification" of the user by the parking pattern and this issue enabled him to organize the entry according to the space bound identities of specific users via installing various shaft of elevators at "strategic points in the plan," hence giving "direct access to the vestibules located between the wing of the secretariat or around the periphery of the auditorium." Moreover, pushing the circulation system of the building to the periphery of the assembly hall where it is transparent to the

[38] K. Michael Hays, Modernism and the Post Humanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, op. cit., 154-155.

[39] Ibid., 160-162.

outside via the surrounding glazing becomes a sub-system whereby the main design attitude is sustained.

Choice and assembly of the materials also sustains the "negational" stance of Meyer's proposal. For materials such as "eternit" (an asbestos cement cladding used in place of a more honorific material like stone), steel, concrete, and glass, with rubber flooring, cork slab walls, and aluminium sheet ceilings on the interior conveys the building's attempt of being a part of the industrial production process. Especially, as Hays argued, the usage of the **glass** which is a **"material without aura- cold, sober, the enemy of the secrets, and the enemy of property"** becomes the manifestation of Meyer's negational stance.[40]

Analysing the structural and material constituents of the project the argument focuses on the concept of "*factural indexicality*" through which Hays introduces a new "negational operation" for the disruption of the humanist way of comprehension and signification.

### 5. 3. 1. The Status of "*Factural Indexicality*" As a "Negational" Strategy

Hays argues that the radical quality of Meyer's approach which is "an aggression toward the architectural object's status as high art" and its being a "metaphor" for the individual or a class, comes out in the status of "*factural indexicality*" as a negational strategy.[41]

The concept of "factural indexicality" is an analogous interpretation of the Soviet avant-garde's concern for an "indexical and textual *faktura."* In the case of Meyer's League of Nations project the concept finds expression via "material congruence of the building system" and in the process of the "signification of the work."

Meyer's deliberate inhibition of introducing "physical notations that can produce a transcendental object (the virtual object of a humanist reading)" disables the project to be comprehended in "a secondary level of aesthetic meaning" outside "the physical traces of rationalized building technique," where the architectural

[40] Ibid., 165.
[41] Ibid., 158.

elements articulate a "reproductive *system"* rather than a "self-involved" object. The building "with its incorporation of the technical means of its facture into the form of the object itself," convey "a trace or direct registration of those materials and procedures of reproduction from which it is constructed." As a logical consequence of this quality, the project "tends to resist assimilation in ideational terms, remaining obdurately external to subjective, aesthetic comprehension," where, "the subject must rather think through the causal structures and processes operating behind the forms."

Hence, the status of "*factural indexicality*" via which the work indicates the "(reproductive) processes of its making" enables the project to generate its own "representation without authorial mediation," interfering with "any aesthetic contemplation from a distance."[42]

In the development of the "productivist" architectural avant-garde, Hays argues that "*factural indexicality*" announces "more than an emphasis on the formal self-referentiality of architecture, more than a coming to terms with its 'medium' or its 'constituent facts'." [43]The indexical status of Meyer's project not only connotes a denial of the "transcendental" conception of the architectural object but also incorporates architectural practice into "worldly" processes. Architectural medium becomes a "material intervention" and an "organizing force," through which the architect involves in "social processes," "materials," and "standards of production." This engagement in the social-productivist medium in turn identifies itself with social revolution through the reconstruction of social processes via aesthetic means experienced in avant-garde practices, such as constructivism and Dadaism.

### 5. 4. Architecture as a Reproducible Medium and the Relocation of the Source of Meaning

Meyer's project unlike Le Corbusier's project with its central axis and stratification of spaces as the prerequisite of "phenomenal" transparency constituting the "cognitive project of humanism" is "decentred" and "dissymmetrical" dislocating

[42] Ibid., 154-155.
[43] Ibid., 155.

any compositional system.[44] The discreteness of the secretariat tower and assembly hall constituting the two main volumetric components of the project announces the lack of an "underlying" system to provide spatial or formal unity. As a general design attitude, the building system tends toward an "atomization of tectonic parts belonging to larger but indeterminate whole" where it is developed and supported by a secondary level of architectonic elements such as the agglomerations of sky lighted commission rooms, lecture rooms, offices, a restaurant, and a library; movement systems like the glazed stairways, elevators, and "toboggan" emergency ramps; and information-disseminating devices like radio antennae and illuminated sky signs. Hence, the building is experienced as the direct architectural transformation of the "tension, contradiction, and difference" resonated through the distinctive formal constituents of the same "tectonic system," where "we conceive the building not as an integral formal organism but as an **assemblage** of architectural particularities, a **montage** of discourse, each part clashing with the rest, defined wholly in terms of their separate functional and material life."

Although one can detect local symmetries and unities both in elevation and plan, they nevertheless display disjunctive relationships to one other. Moreover, the articulations within the general scheme of the elevations are arranged according to the plan arrangement referring to the functional necessity. The plan developed in relation to programmatic curriculum exhibits a "stepped" profile constituting an "open-ended" system where the architectural elements can be detached and rearranged into a new whole.

The League of Nations project of Meyer as a negational task against the formal unities of humanist architecture also reverberates repudiation of the autonomous subjective centrality of the architect in the process of design. Meyer's introduction of priorities such as the organizing structural grid and the direct transformation of the architectural program into mass announce his "polemical ambition" that is the "automatic transcription of the socially determined, empirical program into the built form."[45] Although the substantial formal decisions have been

[44] Ibid., 162-164.

[45] Hannes Meyer, "Project for the Palace of the League of Nations, Geneva, 1926—27," trans. in Claude Schnaidt, Hannes Meyer: Buildings, Projects, and Writings, op. cit., 25.

made by the architect, he is only a "switching mechanism" who initiates the "processes of assembling an object made up of use values and visual codes already consolidated by society and structured by continual self-production;" thus "negating the controlling action of the artist as the determination of the architectural signification."

> The unstable syntax of these elements is determined by their specific functional relations, "automatically" superimposed on the general system; their semantics arise from the mass-cultural, industrial city itself- plain factory like, porous, unyielding.[46]

His repudiation of traditional representational forms **does not reject meaning altogether** instead; Meyer initiated an inquiry into the logic of the "source of meaning." In his architectural practice he foresighted meanings "arising from the multiple forces of social practice rather than the formal qualities of the auratic art object."[47]

Meyer's League of Nations project displays an incited consciousness of the incompatibility of neither "the individual subject nor subjective attempts to recover the authenticity of the object" within the industrialized city conveying "the realm of mass culture as a socioeconomic totality ordered by tactility, use, and distraction," which conflicts with "the realm of optical, contemplative inner experience."[48] Thus his project initiates a search of a new sphere of sense within the reality of metropolis, further than the subjective interiority.

> Moreover, history is posited as the driving force of this system. This disprivileging of a preordained, static, aesthetic ideal in favour of a nexus of the relationships between modes of production and changing human needs means shifting architecture's meaning to the outside (process of signification), so to speak, where structure is no longer predicated on private, psychological space but rather on public, cultural space.[49]

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[46] Ibid., 25.

[47] K. Michael Hays, Modernism and the Post Humanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer, op. cit., 160.

[48] Ibid., 158.

[49] Ibid., 159.

This relocation of the source of meaning provides base from time, where the constant change of the social-constructional era finds form via the proposed reproducible, open-ended architecture.

### 5. 5. The Notion of "Exteriority" and the "Analogy" with Dada

Hays in the context of the argument proposes an "analogy" for the architectural practice of Meyer referring to the artistic avant-garde movement Dadaism. This analogy constitutes itself a basis via the "reiterative building system" of Meyer's League of Nations proposal with respect to the Dada photomontage. As Hays argues both Meyer's building system and the Dada photomontage introduces a perception that signifies the condition of "exteriority."[50]

As Hays argues, generally and especially in the humanist tradition of architectural discourse, meaning –the signification of the architectural object or a pictorial surface– is maintained by attributing some sense from the outside world via assigning a "reality" to artistic form. This process of signification enables the subject to construct "a unified, integral image of that world within the object or on the surface" where it becomes for the perceiving subject a "metaphor for the integral self."

Whereas in "Dada photomontage," as Hays suggests, the experience exceeds the quality of "a unified surface or a pictorial whole;" instead it introduces "fissures and gaps between disjunctive representations, and the interferences between signs from different systems."

The Dada surface does not permit any attribution of "formal unity," that enables cognition of interior subjectivity; rather it isolates each of the "intruder objects," thus holding them within a condition of "separateness and difference." This condition of the "atomization of material" constitutes a status of meaning which is "extra objective," for the meaning is extruded from the subjective inner

[50] Ibid., 168.

consciousness of the self. Moreover, like the Dada photomontage, the building process is apprehended as a "procedure" rather than completed self-involved [51]

The more is issued in the comparison. As Meyer asserted,

> The medium of photomontage exactly suffices dada's destructive, negational task. It draws its material from those enunciative formations-such as advertising, journalism, and mass production- that were already consolidated by society, just as Meyer uses mass-produced constructional ready mades widely available for building. Dada photomontage exaggerates the chance accretion of fragments of manufactured experience, just as Meyer exaggerates the "automatic" accumulation of diverse functions. By showing reality sequentially and as decomposed- one thing after another and one thing external to another- **Dada destroys the image of simultaneous presence that is a metaphor for the integral psyche.** Dada montage exhausts, overwhelms the individual subject by constituting another place, another history, another way of thinking beyond the self, more powerful than the self.[52]

Then, the status of "exteriority" is the "displacement of sense outward" where it finds physical form in the dada photomontage as a kind of "a topos of negation and estrangement."[53] In the case of Meyer's League of Nations project the notion of "exteriority" exhibits a more abstract version of the Dada photomontage as the architectural medium is comprehended as a "construct encoding socio-political and economic processes and functions in the real world that are wholly in place before either the architect or the viewer encounters them, reproduces them for the benefit of the world and according to conditions set by and in the world."

> Meyer's functional markings come to us as a succession of units, as if from the unreeling of those larger cultural processes, a serial progression of separate integers whose differences are not mediated by composition but rather revealed by an architecture conscious of the irreducibility of its disjunctions. Like the dada photomontage, Meyer's building presents itself **less as an object than as a multilayered field of**

[51] Ibid., 168-170.
[52] Ibid., 170.
[53] Ibid., 170.

> **convergence for the forces and signs of the mass-industrial city**. [54]

As a consequence of physical engagement in the socio-economic and political systems exceeding the individual subjectivity, the building is appreciated in a medium where it is seen as a "marking or trace of a larger, more complex totality-dense, quotidian, aleatory, exceeding individual, intuitive grasp" prohibiting the "reduction of the complex form to a simple, unified diagram or parti."

The "analogy" that Hays suggests between Meyer's architectural attitude in the League of Nations and the artistic avant-garde practice of Dada does not simply derive from the formal congruence of these diverging issues, on the other hand, both the work of Meyer and the Dadaists convey a consciousness of the "normative humanist subject" and of the "humanist ideology of autonomy" they attempted to renounce. As Meyer argues,

> Just as the Dada photomontage adheres to the bourgeois artistic convention of presenting a unique, fabricated, rectangularly framed object even as it subversively injects into the singularity of that object the reproduced and dispersed images of bourgeois culture, so Meyer is driven toward conventional ways of architectural sense-making that are at once unacceptable and inescapable, vestiges of humanist perceptions that have become progressively empty but continue to exert their force.[55]

As a last issue to comment, as Hays argues, the radical quality of Meyer's modernism is associated with "the difficult truth that *things are just what they are,* utterly shorn of any metaphysical illusions of artistic authenticity, unity, or depth." The status of questioning the "subjectivity and the **unified whole** in which subjectivity affirms itself," the League of Nations project is a concrete counter stance against the idea of an "autonomous work of art, a refusal of the very possibility of the architectural masterpiece existing in and for itself."

> With the renunciation of the organizational value of a purely internal formal necessity, the concept of the work as a self involved object is shattered. The work no

[54] Ibid., 170-171.
[55] Ibid., 171.

> longer represents an unbroken and homogeneous appearance, no longer stands complete and suspended, as it were, against the world, but rather falls into the world, becoming one worldly thing **(*Sache*)** among others.[56]

Through Meyer's practice of "negation," the boundaries between the facts of modern society and aesthetic production are broken up; the production descended into any of the other social practices. The "traditional, hegemonic repertoire of traditional representational form," is destroyed by formal fragmentation and dissonances, where in turn the contemplative humanist subject's traditional artistic sublimation is dismantled.

[56] Ibid., 171-172.

# CHAPTER VI

# CONCLUSION

The early twentieth century witnessed a radical change in the "episteme" where consistency of "humanist" centrality of the subject which is directly associated with Enlightenment ideals, was questioned.[1] The dominant humanist "episteme" based upon the philosophical discourse of "Cartesian rationalism," which identified and classified things in the world via the agency of the human intellect, was replaced with a new *one* that in turn gave priority to the organizing force of the socio-economic structures above the subjective centrality of man. This tendency appearing first in literature drew wide interest in the aesthetic realm where the prevailing formal agencies of composition and unity that found corollary in the psychological realm of man were questioned by the negational strategies of the modernist avant-garde art.

To launch the issue correctly the exact identification of the framework of the modernist avant-garde is crucial. Referring to Bürger, in the modernist tradition the evolution of the avant-garde necessitated the existence of the "high" modernist art with its claims of the art object's social "autonomy" and formal "self-referentiality." The modernist avant-garde, then is identified with the tendency of the disruption of the institutional function of art constituting "autonomy": the individual object's assertion of being "an-end-itself," subjectivity of the creative genius, and the object's comprehension in a "contemplative" inner psychic realm.

The aim was explicit; the integration of artistic production into the socio-productive cycle of the industrial society and in turn to relocate the artistic object in the disprivileged world of daily use objects. Further the avant-garde attack involved a

[1] Michel Foucault, The order of Things, (New York: Routledge Classics, 2002).

redefinition of the productive subject via dismantling the claims of subjective creativity.

The avant-garde's attack on the status of "high" modernist art occurred in a context of technological investments and of the reorganization of the socio-economic life under capitalism. The industrial mass production techniques initiated the questioning of the art object's "autonomous" status distinct from the mass produced daily use objects and its economic value as an "authentic" object. The attempt of the avant-garde thus can be interpreted as a critic of this status of the art object's functioning in society and in turn be regarded as an attempt to relocate the art object in the socio-economic and productive systems prevailing in modern society.

As Alan Colquhoun asserts in the text "Response to Michael Hays," the ideological framework that Hays reconceptualizes "modern architecture" displays "a Marxist critique of culture," which collapsed into "poststructuralist theory, with its critique of the logocentric philosophical tradition and the centrality of the subject."[2] This diachronic inquiry into the early twentieth century "modern architecture," initiates new positions and insights to the historicity and theory of architectural discourse. Hays' reinterpretation of the early twentieth century "modern architecture" within the framework of "avant-garde modernism" introduced by Bürger can be taken as an attempt to draw the architectural discipline to the limits of avant-garde practice; thus initiating a new definition of "architectural modernism" via the framework of posthumanist avant-gardism. This study of Hays on the *Neue Sachlichkeit* architecture of Meyer within the framework of avant-garde modernism enables to understand the issues on modern architectural object's production and reception processes and its political utopian character.

Regarding the German and Russian context, "modern architecture" constituted a socialist revolutionary attitude on the issue of reorganization of life under the industrial modernism. The main forcing mechanism of this tendency was the need to develop the living quality of the working class. Moreover, the capitalist reorganization of society was also important for economic reasons. Hence, the

[2] Alan Colquhoun, "Response to Michael Hays," Architectural Production, ed. By John Ockman and Beatriz Colomina, (New York: Princeton Architectural Press, 1988), 213.

efficiency of production and enhancement of the quality of living conditions became the main issues of "modern architecture," where standardization with serial production was installed instead of individual production. Being one of the German avant-garde architects Hannes Meyer developed a "materialist" and "productive" practice where the priority was given to technique and standardization. Moreover, reproduction became the key word to understand the "open-ended" architecture of Meyer. Meyer's practice did not just convey a functionalist attitude to design, however the organization of the structural system and spatial configurations enabled to reorganization over time. Regarding the progress of "modern architecture" the reorganization of material conventions under industrial production, the application of technology to design, betraying its revolutionary social concern to increase the quality of life was assimilated by capitalism's concern for maximum profit.

Pointing out to the absorption of revolutionary stance of "modern architecture," it is necessary to analyze the avant-gardism of the *Neue Sachlichkeit* architecture of Meyer, for these two are inseparable tasks. However, first the artistic avant-garde act will be inquired.

Regarding the context of modern art the avant-garde initiated a new comprehension of the art object where the humanist ideologies of unity and representation are dismantled. The avant-garde art's incorporating the technical means of production discredited the authenticity of individual production; in turn questioned the status of art in bourgeois society. The aim was to utilize art for social revolution via integrating it into socio-productive cycle. The dismantling of the gap between art and life constituted importance for the revolutionary aim of modernism in the sense that the comprehensibility of provocative act would accelerate progression towards change. On the other hand, this annulment of distance displayed negative consequences. Referring to the postmodern context this new form of art work mainly utilized for the controlling of the maximization of sale in the form of advertisement. Hence it may also be argued that the avant-garde act is also assimilated for means of capitalist economy. Moreover, the dismantling of this gap decreased the critical distance that art displayed within society.

The avant-garde aim to relocate the art object into the socio-productive systems also questioned the art objects' value status via negating the uniqueness of

art work expressed in its authenticity. The avant-garde also aimed to displace the art work from the museum as an institution where its uniqueness is acknowledged. This also coincided with the aim of disrupting the "autonomy" of art as a bourgeois institution. Referring to Bürger, the avant-garde act, the means of production of the art work for the provocative revolutionary aim, was in turn became the object of display in museum. Hence, it might be argued that the avant-garde act was also institutionalized and became a means for the continuation of the "autonomy."

Although the avant-garde's revolutionary attempt to dissolve the "autonomy" of art is institutionalized in the aesthetic domain, the proposed change both in the representation system and in the signification process of the art work may be interpreted as the innovatory achievement of the historical avant-garde. The inquiry into the role of the artist in the signification process and the questions that the "historical avant-garde" aroused in the process of representation of the reality initiated the reorganization of the artistic practice beyond the humanist ideals of the Enlightenment, hence in turn brought into realization the supposed break of the classical "episteme."

The "posthumanist" turn occurred in several disciplines at the beginning of the twentieth century constituted the "break" with tradition and initiated a new realm of material and artistic associations. Regarding the concept of modernity including the ideal of "break," the "historical" avant-garde via changing the category of art work realized the modernity in artistic practice. This thesis study aims to develop an inquiry into the history of "modern architecture" in order to analyse whether the early twentieth century architectural practice realized this posthumanist shift.

Referring to Hays argument the "modern architecture," as it is commonly institutionalized by the works of Le Corbusier, Mies Van Der Rohe, and Walter Gropius, is incapable of realizing this shift. Referring to the distinction developed by Bürger that is between the "humanist" bourgeois "high" modernism and the "posthumanist" avant-garde modernism, the issue of "break" with tradition should be comprehended with respect to the production and reception of the artistic/architectural work.

As a consequence of the technological developments and the changing production techniques, a new realm of "machine" aesthetics was developed where

the visual signs of industrial age dominated the vocabulary of the architectural language. In the context of the argument proposed by Hays, within the architectural practices of the outstanding figures of the discourse of "modern architecture," the incorporation of technology into the building realm became merely visual indexes, for the reason that architectural construction and signification still conveyed the "humanist" traditional ways of production. Whereas, the "productive" stance of Meyer, his incorporation of the socio-economic realm into the building process exceeding the subjective authority of the individual, becomes the domain where Hays suggested the posthumanist affiliations into his architecture.

This reanalysis attributing posthumanist affiliations to the "Neue Sachlichkeit" stance of Meyer enables us to re-comprehend the "modern architecture's" ideal of break up with tradition. Although Meyer did not convey a deliberate shift from humanism to posthumanism, his practice includes revolutionary arrangements into the practice of architecture, in turn constituting the ideal of "break" up with tradition.

Moreover, referring to Hays, Meyer's posthumanist practice might be regarded as the historical precursor of the post60's posthumanist turn in the postmodern architectural discourse. However, the agents to dislocate the subject from the centre of architectural production in the case of the contemporary differs from the ones in Meyer's practice. For instance, in the case of Bernard Tschumi, referring to the Parc De La Villette project, the agents are the concept of event, change, and superimposition, etc. Moreover, the implications of the historical "avant-garde" might also be detected throughout the concepts developed within the postmodern architectural productions. Without discrediting the authenticity of these works, it might be argued that the claim of historical connectedness is a valid argument in this context of analysis.

As a last comment on work, the argument develops into the validness of posthumanist subject in artistic/architectural domain.

Regarding early twentieth century industrialization process, the disruption of the artistic creativity was a necessary attack for reorganizing the production of the objects of daily use under industrial modernism. This reorganization is successfully

developed into a modern aesthetics based on the materiality of the object and the rational means of construction.

In a general context the decentralization of the human agency is a misleading issue for the intellectual production. As production of material and conceptual production is a consequence of human reason, there is no way to dismantle the authoritive centrality of man. Moreover, as man defines and transfers the virtual sphere of his intellect into reality via representations, the claims of disruption of subjectivity of production turns into an unreasonable issue. For, as its nature, representation displays subjectivity.

## REFERENCES


Allen, Stan."Diagrams Matter." ANY 23. Anyone Corporation, 1998. 16-19.

Buchloh, Benjamin H. D. "From Faktura to Factography." October 30 (Fall 1984): 82-119.

Bürger, Peter. Theory of the Avant-Garde. Trans. Michael Shaw. Minneapolis: The University of Minnesota Press, 1984.

Colquhoun, Alan. "Response to Michael Hays." Architectural Production. Ed. John Ockman and Beatriz Colomina. New York: Princeton Architectural Press, 1988. 213-216.

Eisenman, Peter. "Post-functionalism." Architectural Theory since 1968. Ed. K. Michael Hays. Massachusetts MA: The MIT Press, 1998. 234-239.

Foucault, Michel. The order of Things. New York: Routledge Classics, 2002.

Frampton, Kenneth. "The Humanist versus the Utilitarian Ideal." Architectural Design 38 (1968): 134-136.

Frampton, Kenneth. "The Deutsche Werkbund 1898-1927." Modern Architecture: A Critical History. 3rd ed. New York: Thames and Hudson Ltd., 1992. 109-115.

Frampton, Kenneth. "The Bauhaus: The Evolution of an Idea." Modern Architecture: A Critical History. 3rd ed. New York: Thames and Hudson Ltd., 1992. 123-129.

Frampton, Kenneth. "The New Objectivity: Germany, Holland and Switzerland 1923-1933." Modern Architecture: A Critical History. 3rd ed. New York: Thames and Hudson Ltd., 1992. 130-141.

Frampton, Kenneth. "The New Collectivity: Art and Architecture in the Soviet Union 1918-1932," Modern Architecture: A Critical History. 3rd ed. New York: Thames and Hudson Ltd., 1992. 167-177.

Gropius, Walter. “Programme of the Staatliches Bauhaus in Weimar, 1919.” Programs and manifestoes on 20th century architecture. Ed. Ulrich Conrads and trans. Michael Bullock. Massachusetts: MIT Press, 1970. 49-53.

Gropius, Walter. “The Principles of Bauhaus Production [Dessau] (excerpt), 1926.” Programs and manifestoes on 20th century architecture. Ed. Ulrich Conrads and trans. Michael Bullock. Massachusetts: MIT Press, 1970. 95-97.

Habermas, Jürgen. “Modernity- An Incomplete Project.” The Anti-Aesthetic: Essays on Postmodern Culture. Ed. Hal Foster. Seattle: Bay Press, 1983. 3-15

Hays, K. Michael. Modernism and the Posthumanist Subject: The Architecture of Hannes Meyer and Ludwig Hilberseimer. Cambridge: MIT Press, 1992.

Lodder, Christina. Russian Constructivism. New Heaven and London: Yale University Press, 1983.

Manifesto. “Work Council for Art: Under the Wing of Architecture, 1919.” Programs and manifestoes on 20th century architecture. Ed. Ulrich Conrads and trans. Michael Bullock. Massachusetts: MIT Press, 1970. 44-45.

Meyer, Hannes. “Freidorf Housing Estate near Basle, 191 9—21.” Trans. in Claude Schnaidt. Hannes Meyer: Buildings, Projects, and Writings. Teufen: Verlag Arthur Niggli, 1965. 5-15.

Meyer, Hannes. “Project for the *Petersschule*, Basle, 1926.” Trans. in Claude Schnaidt. Hannes Meyer: Buildings, Projects, and Writings. Teufen: Verlag Arthur Niggli, 1965. 17-24.

Meyer, Hannes. “The New World, 1926.” Trans. in Claude Schnaidt. Hannes Meyer: Buildings, Projects, and Writings. Teufen: Verlag Arthur Niggli, 1965. 91-95.

Meyer, Hannes. “Project for the Palace of the League of Nations, Geneva, 1926—27.” Trans. in Claude Schnaidt. Hannes Meyer: Buildings, Projects, and Writings. Teufen: Verlag Arthur Niggli, 1965. 25-37.

Meyer, Hannes. “Bauen, 1928.” Trans. in Claude Schnaidt. Hannes Meyer: Buildings, Projects, and Writings. Teufen: Verlag Arthur Niggli, 1965. 95-98.

Meyer, Hannes. “Bauhaus and society, 1929.” Trans. in Claude Schnaidt. Hannes Meyer: Buildings, Projects, and Writings. Teufen: Verlag Arthur Niggli, 1965. 99-101.

Meyer, Hannes. “The education of the architect.” Trans. in Claude Schnaidt. Hannes Meyer: Buildings, Projects, and Writings. Teufen: Verlag Arthur Niggli, 1965. [53]-[57].

Rowe, Colin and Robert Slutzky. “Transparency: Literal and Phenomenal.” Transparency. Birkhauser Verlag: Berlin, 1997. 21-53.

Schnaidt, Claude. Hannes Meyer: Buildings, Projects, and Writings. Teufen: Verlag Arthur Niggli, 1965.

Tafuri, Manfredo and Francesco Dal CO. Modern Architecture. Trans. from Italian by Robert Erich Wolf. New York: Electa / Rizzoli, 1986.

Taut, Bruno. “A programme for architecture, 1918.” Programs and manifestoes on 20th century architecture. Ed. Ulrich Conrads and trans. Michael Bullock. Massachusetts: MIT Press, 1970. 41-43.

Willet, John. Art and Politics in the Weimar Period: The New Sobriety, 1917-1933. New York: Pantheon Books, 1978.

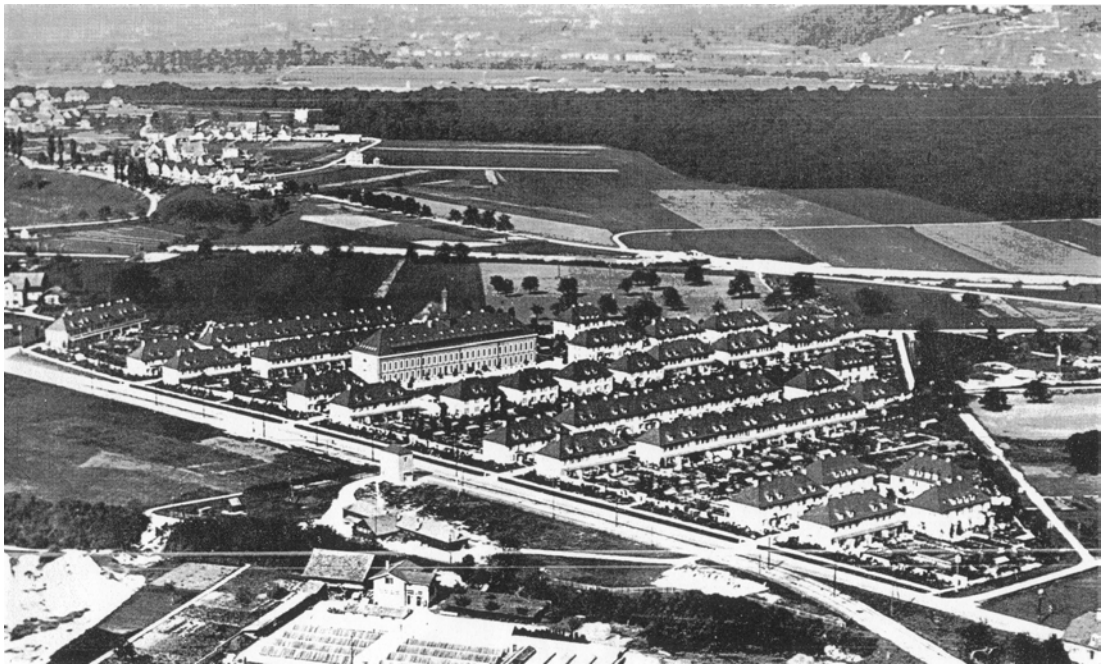


Figure 1 The Freidorf Siedlung- Aerial view

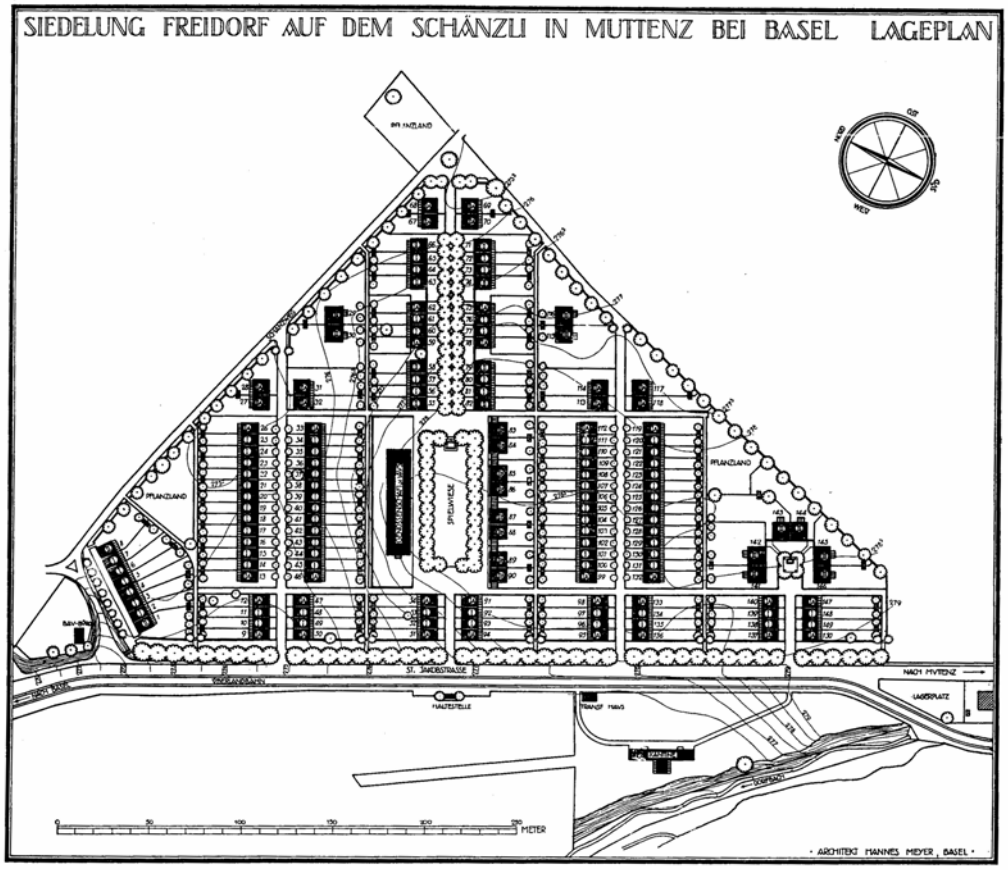



Figure 2 The Freidorf Siedlung- Site Plan

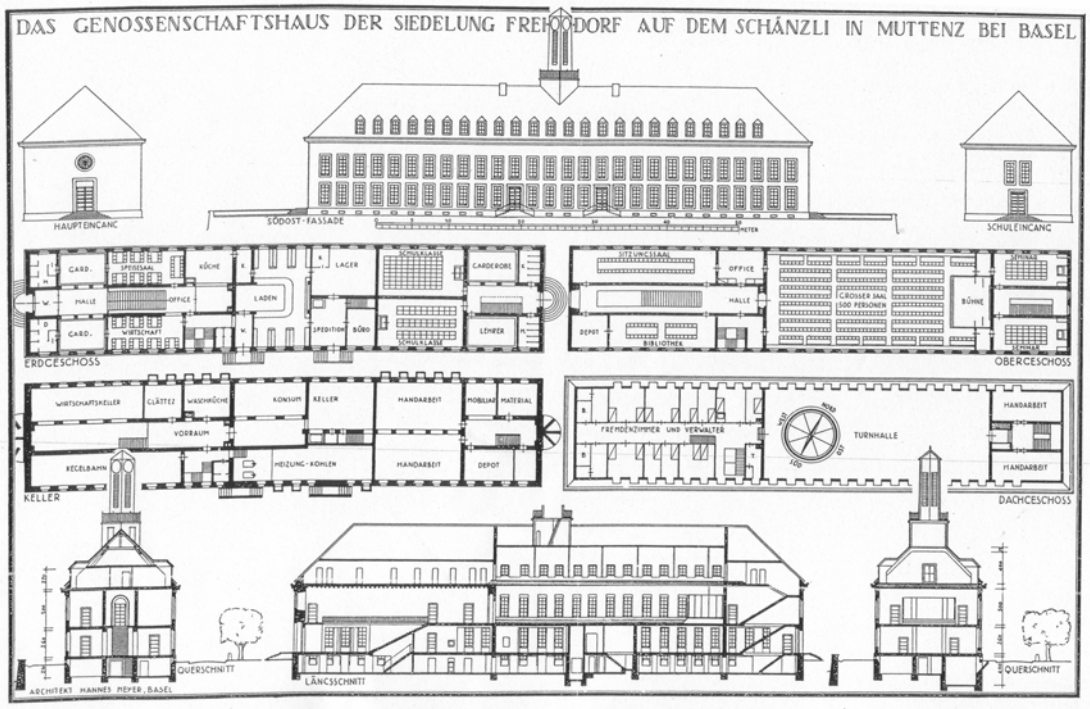



Figure 3 The Freidorf Siedlung- Plans and Elevations of the Co-operative Hall

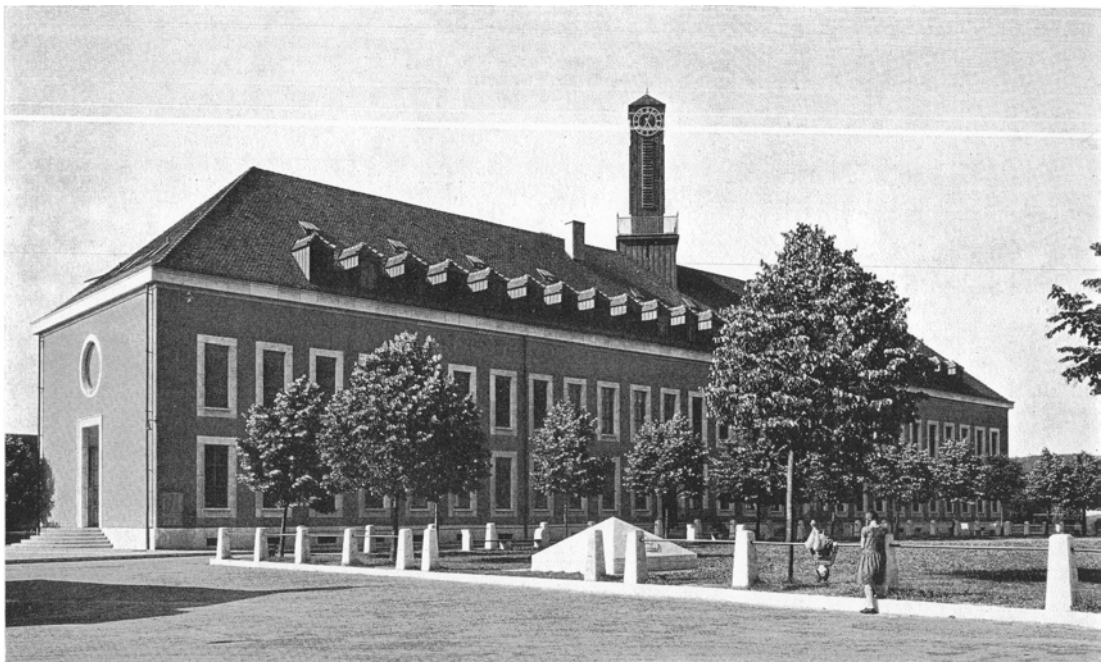


Figure 4 The Freidorf Siedlung- Co-operative Hall

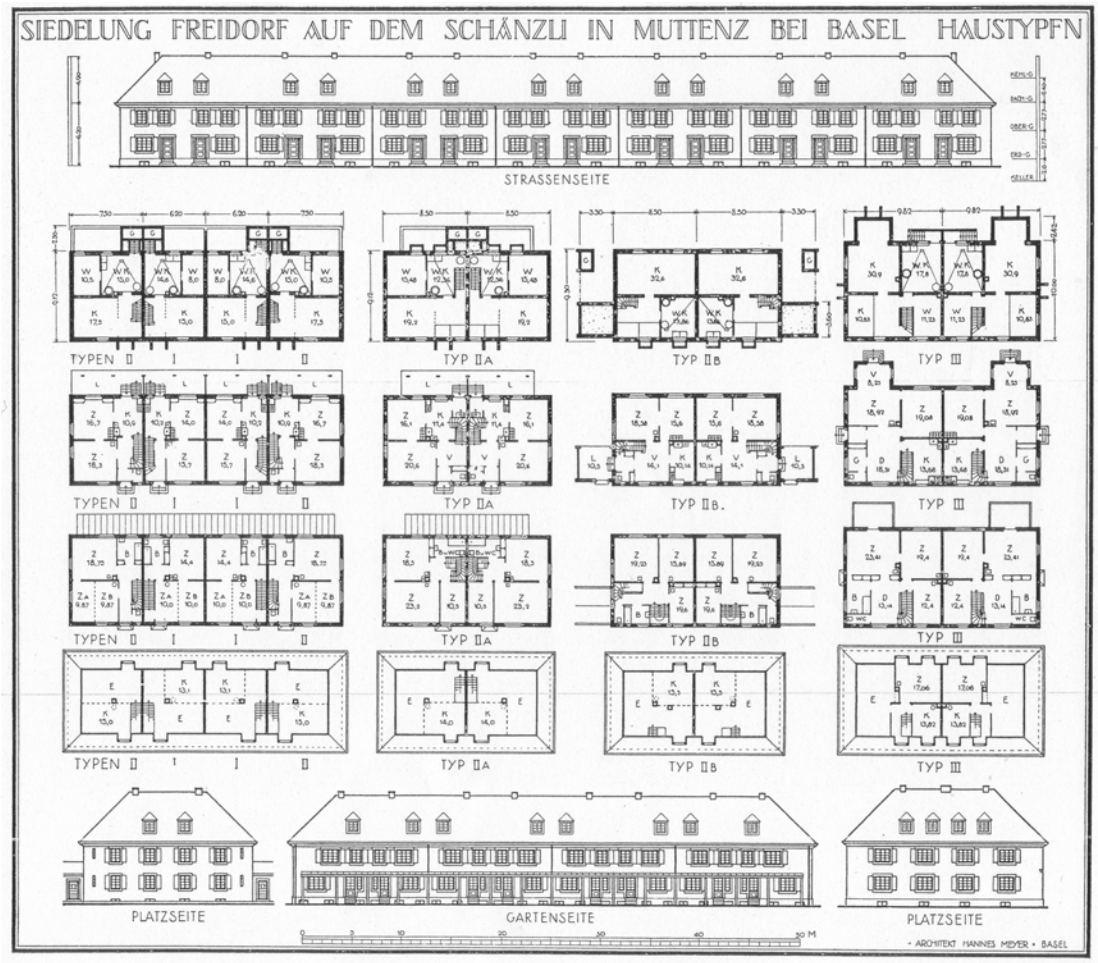



Figure 5 The Freidorf Siedlung- House Plan Types

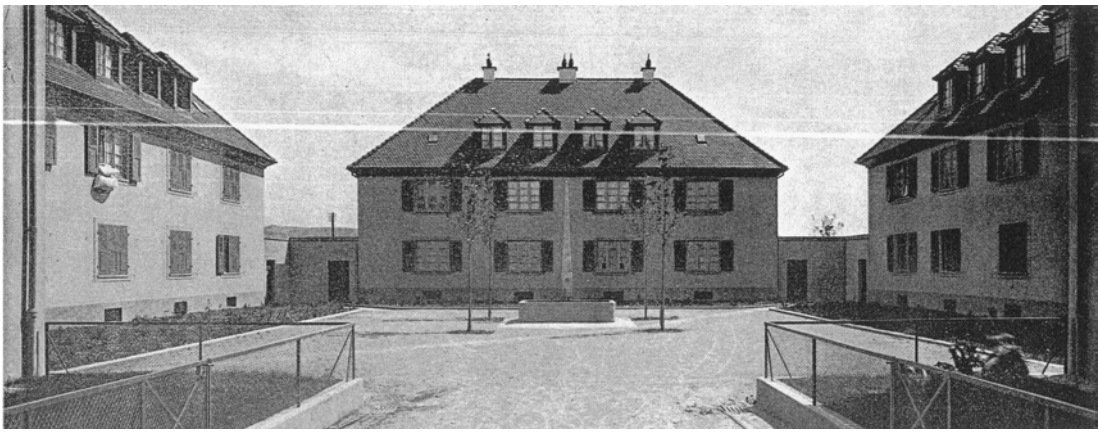


Figure 6 The Freidorf Siedlung- House Type III

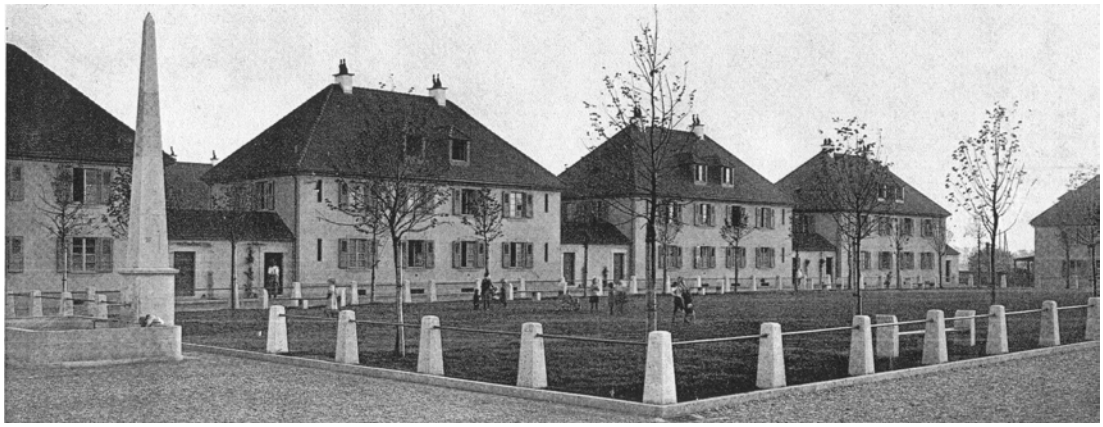


Figure 7 The Freidorf Siedlung- Green in the Background Houses of Type II B

Figure 8 The Freidorf Siedlung- Row Houses of Type I Seen from the Street, in the Background Houses of Type II A

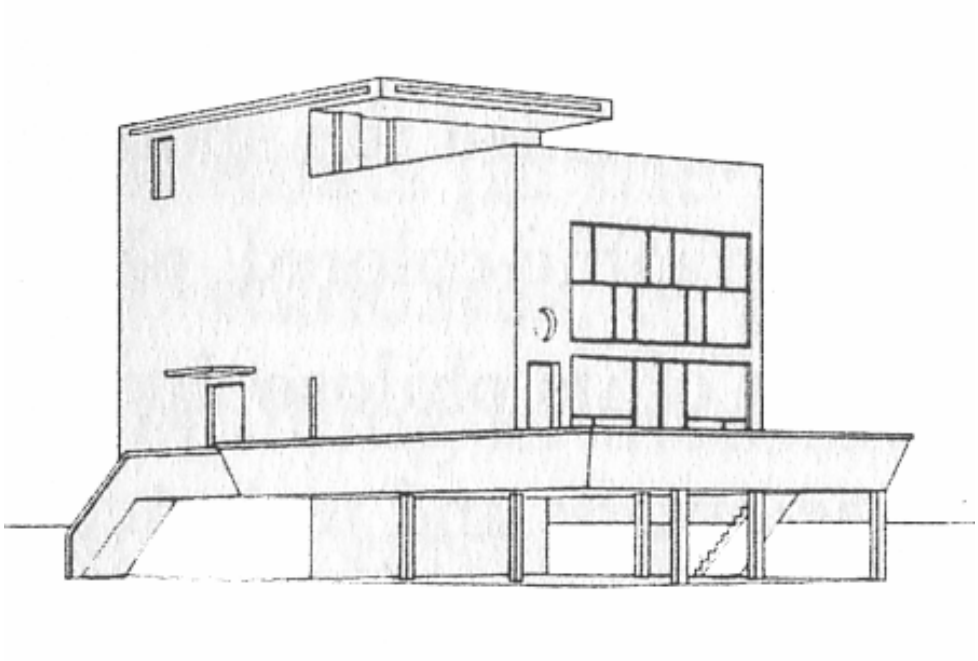


Figure 9 Le Corbusier, Maison Citrohan, 1922

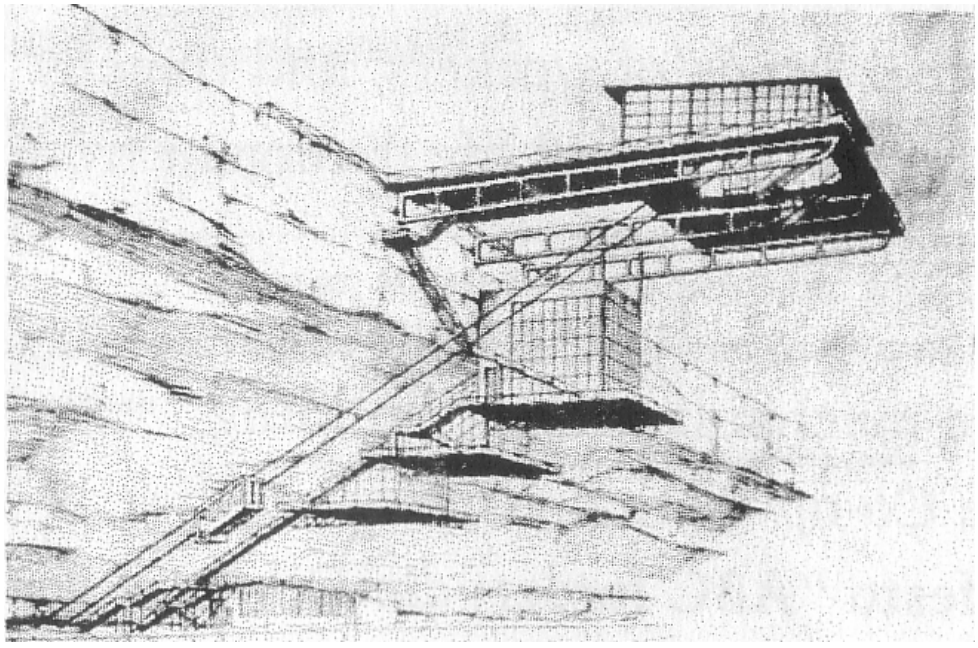


Figure 10 *Vkhutemas* (N. A. Ladovsky's Studio) Project for a Restaurant Suspended from a Cliff Over the Sea, 1922-1923

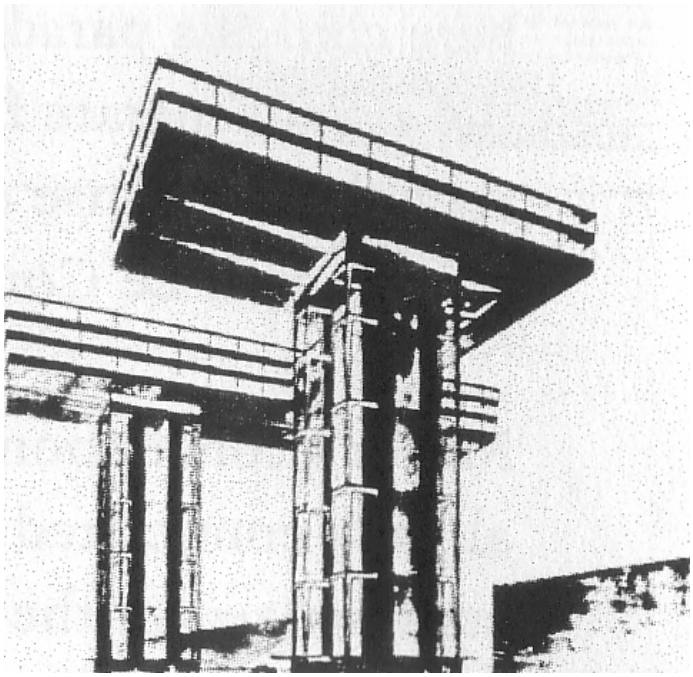


Figure 11 El Lissitzky, "*Wolkenbügelhochhaus*" for Moscow

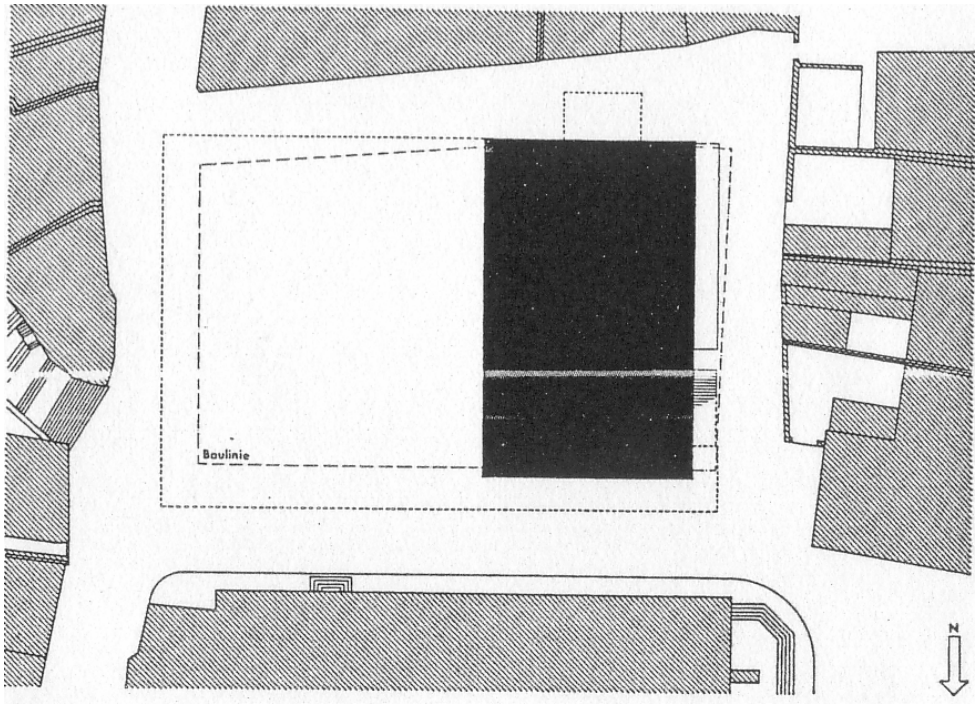



Figure 12 The Petersschule Project, Basel, 1926-1927- Site Plan

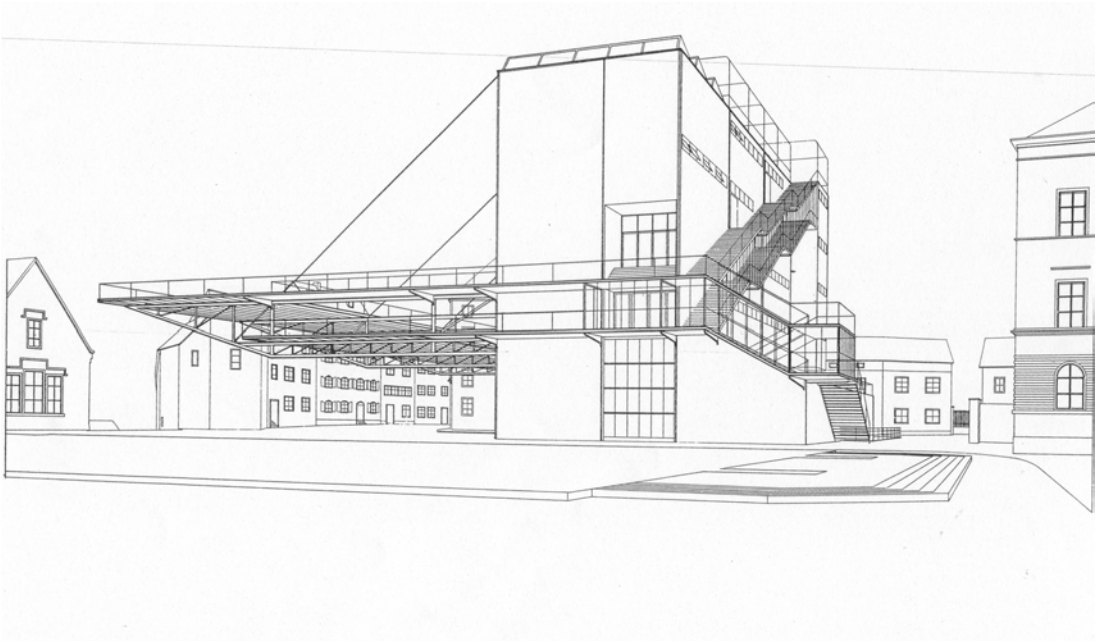


Figure 13 The Petersschule Project, Basel, 1926-1927- Preliminary Study, Perspective Sketch from the North West

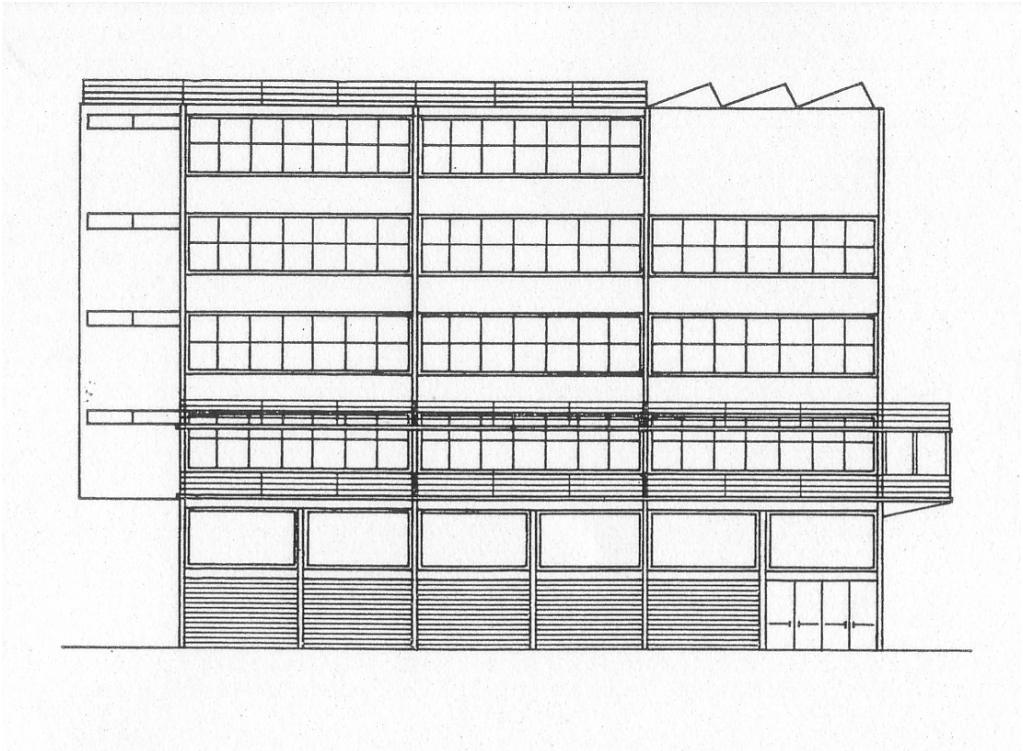


Figure 14 The Petersschule Project, Basel, 1926-1927- Elevation from East

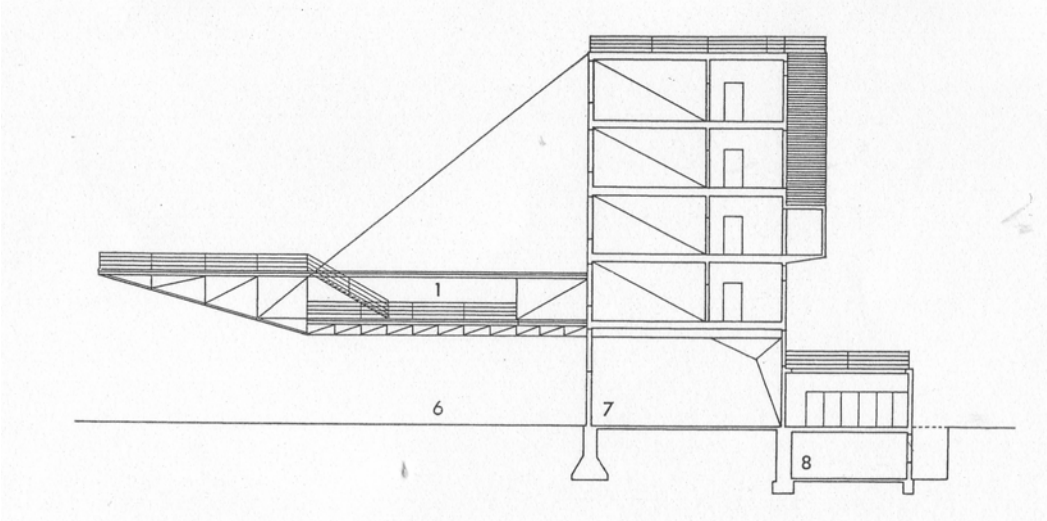



Figure 15 The Petersschule Project, Basel, 1926-1927- Section

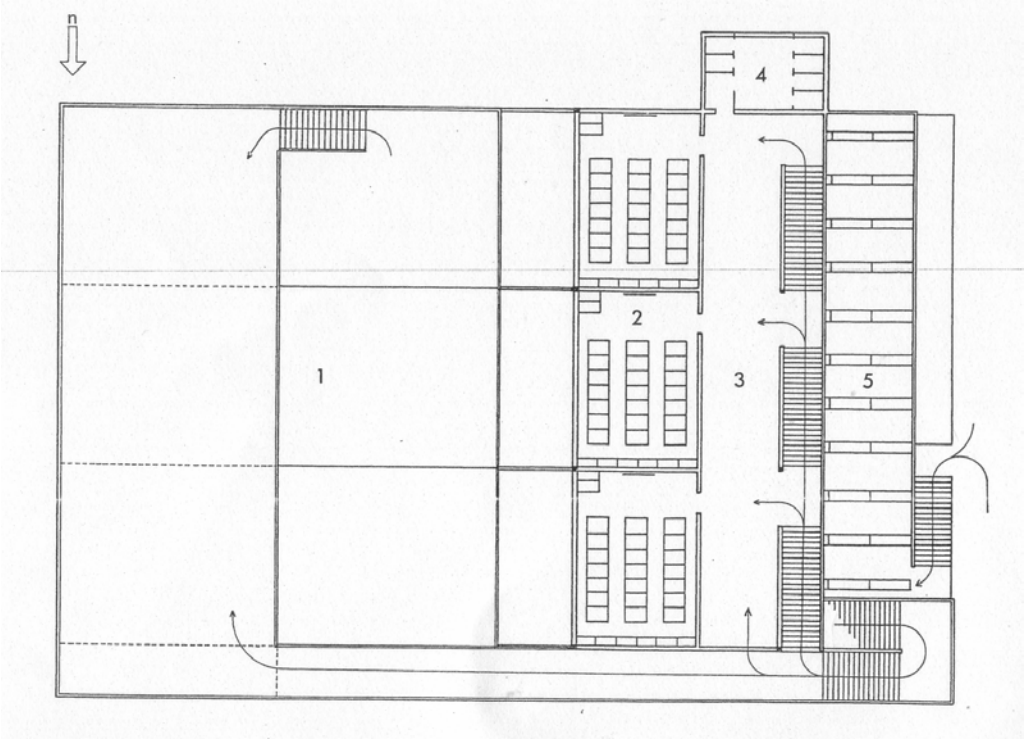



Figure 16 The Petersschule Project, Basel, 1926-1927- Key to Plan and Section: 1 Play Area, 2 Classroom, 3 Hall, 4 Lavatories, 5 Terrace, 6 Free Circulation, 7 Gymnasium, 8 School Kitchen

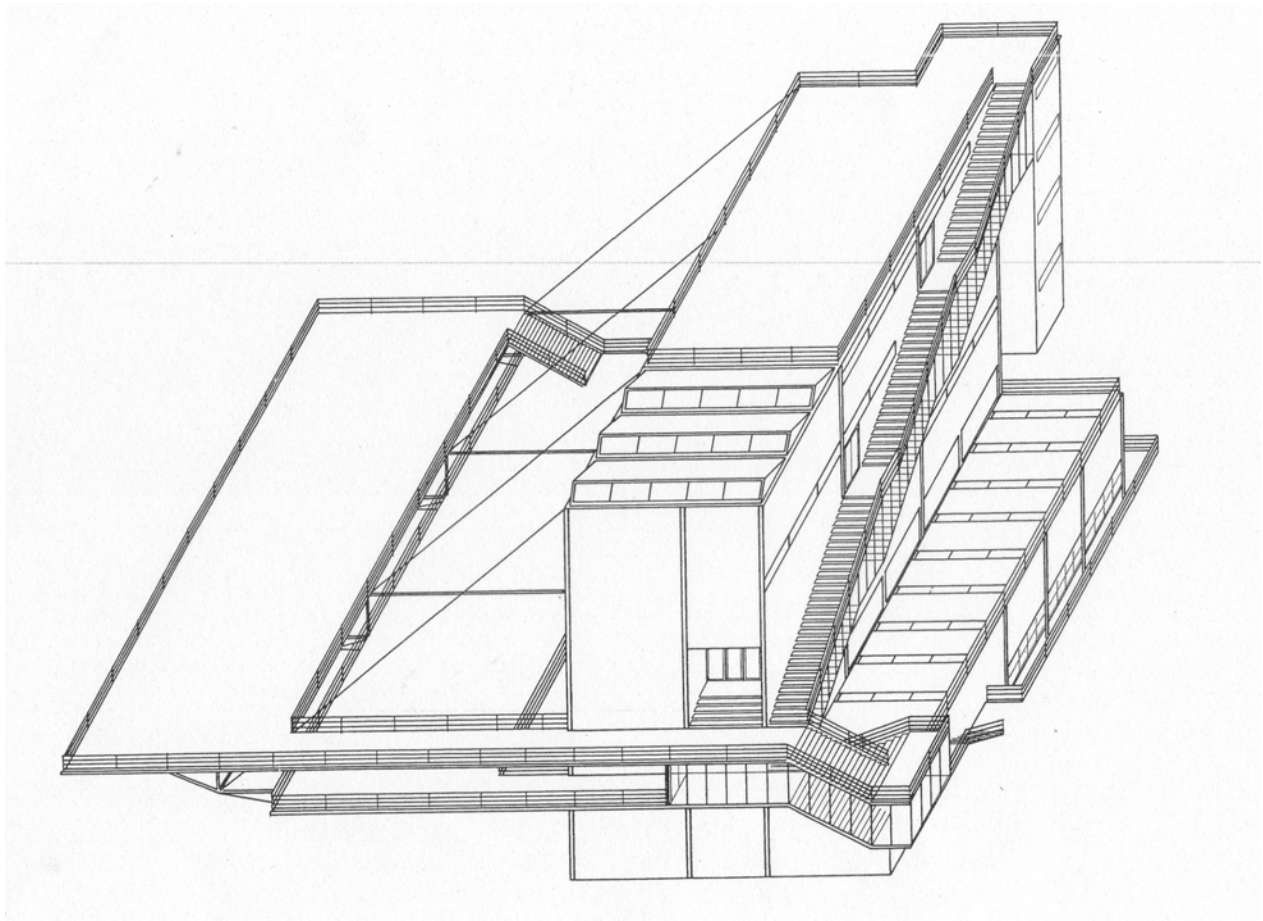
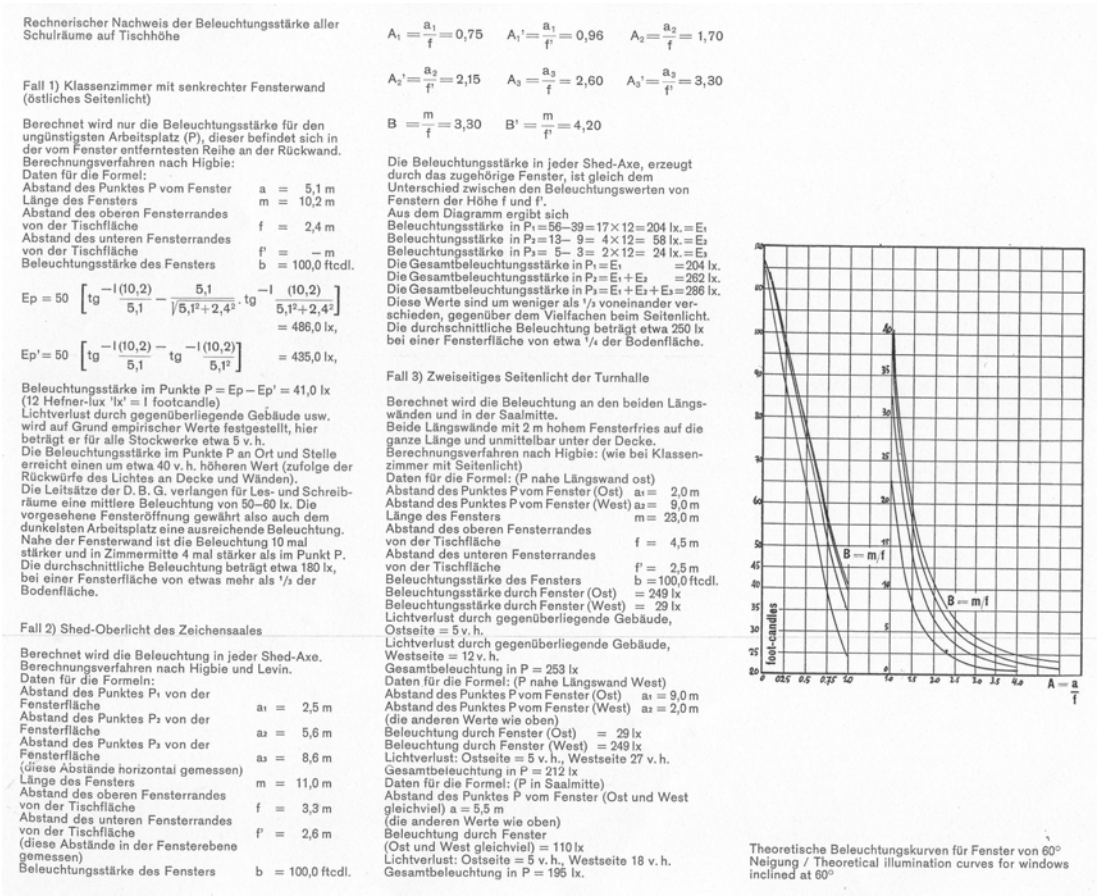


Figure 17 The Petersschule Project, Basel, 1926-1927- Axonometric View



Rechnerischer Nachweis der Beleuchtungsstärke aller Schulräume auf Tischhöhe

Fall 1) Klassenzimmer mit senkrechter Fensterwand (östliches Seitenlicht)

Berechnet wird nur die Beleuchtungsstärke für den ungünstigsten Arbeitsplatz (P), dieser befindet sich in der vom Fenster entferntesten Reihe an der Rückwand.
Berechnungsverfahren nach Higbie:
Daten für die Formel:
Abstand des Punktes P vom Fenster a = 5,1 m
Länge des Fensters m = 10,2 m
Abstand des oberen Fensterrandes von der Tischfläche f = 2,4 m
Abstand des unteren Fensterrandes von der Tischfläche f' = – m
Beleuchtungsstärke des Fensters b = 100,0 ftcdl.

$$Ep = 50 \left[ tg \frac{-1(10,2)}{5,1} - \frac{5,1}{\sqrt{5,1^2+2,4^2}} \cdot tg \frac{-1(10,2)}{\sqrt{5,1^2+2,4^2}} \right] = 486,0 \text{ lx},$$

$$Ep' = 50 \left[ tg \frac{-1(10,2)}{5,1} - tg \frac{-1(10,2)}{5,1^2} \right] = 435,0 \text{ lx},$$

Beleuchtungsstärke im Punkte P = Ep – Ep' = 41,0 lx
(12 Hefner-lux 'lx' = 1 footcandle)
Lichtverlust durch gegenüberliegende Gebäude usw. wird auf Grund empirischer Werte festgestellt, hier beträgt er für alle Stockwerke etwa 5 v. h.
Die Beleuchtungsstärke im Punkte P an Ort und Stelle erreicht einen um etwa 40 v. h. höheren Wert (zufolge der Rückwürfe des Lichtes an Decke und Wänden).
Die Leitsätze der D. B. G. verlangen für Les- und Schreibräume eine mittlere Beleuchtung von 50–60 lx. Die vorgesehene Fensteröffnung gewährt also auch dem dunkelsten Arbeitsplatz eine ausreichende Beleuchtung. Nahe der Fensterwand ist die Beleuchtung 10 mal stärker und in Zimmermitte 4 mal stärker als im Punkt P. Die durchschnittliche Beleuchtung beträgt etwa 180 lx, bei einer Fensterfläche von etwas mehr als 1/3 der Bodenfläche.

Fall 2) Shed-Oberlicht des Zeichensaales

Berechnet wird die Beleuchtung in jeder Shed-Axe.
Berechnungsverfahren nach Higbie und Levin.
Daten für die Formeln:
Abstand des Punktes $P_1$ von der Fensterfläche $a_1$ = 2,5 m
Abstand des Punktes $P_2$ von der Fensterfläche $a_2$ = 5,6 m
Abstand des Punktes $P_3$ von der Fensterfläche $a_3$ = 8,6 m
(diese Abstände horizontal gemessen)
Länge des Fensters m = 11,0 m
Abstand des oberen Fensterrandes von der Tischfläche f = 3,3 m
Abstand des unteren Fensterrandes von der Tischfläche f' = 2,6 m
(diese Abstände in der Fensterebene gemessen)
Beleuchtungsstärke des Fensters b = 100,0 ftcdl.

$A_1 = \frac{a_1}{f} = 0,75$ $A_1' = \frac{a_1}{f'} = 0,96$ $A_2 = \frac{a_2}{f} = 1,70$

$A_2' = \frac{a_2}{f'} = 2,15$ $A_3 = \frac{a_3}{f} = 2,60$ $A_3' = \frac{a_3}{f'} = 3,30$

$B = \frac{m}{f} = 3,30$ $B' = \frac{m}{f'} = 4,20$

Die Beleuchtungsstärke in jeder Shed-Axe, erzeugt durch das zugehörige Fenster, ist gleich dem Unterschied zwischen den Beleuchtungswerten von Fenstern der Höhe f und f'.
Aus dem Diagramm ergibt sich
Beleuchtungsstärke in $P_1$ = 56–39 = 17×12 = 204 lx. = $E_1$
Beleuchtungsstärke in $P_2$ = 13– 9 = 4×12 = 58 lx. = $E_2$
Beleuchtungsstärke in $P_3$ = 5– 3 = 2×12 = 24 lx. = $E_3$
Die Gesamtbeleuchtungsstärke in $P_1 = E_1$ = 204 lx.
Die Gesamtbeleuchtungsstärke in $P_2 = E_1 + E_2$ = 262 lx.
Die Gesamtbeleuchtungsstärke in $P_3 = E_1 + E_2 + E_3$ = 286 lx.
Diese Werte sind um weniger als 1/3 voneinander verschieden, gegenüber dem Vielfachen beim Seitenlicht.
Die durchschnittliche Beleuchtung beträgt etwa 250 lx bei einer Fensterfläche von etwa 1/4 der Bodenfläche.

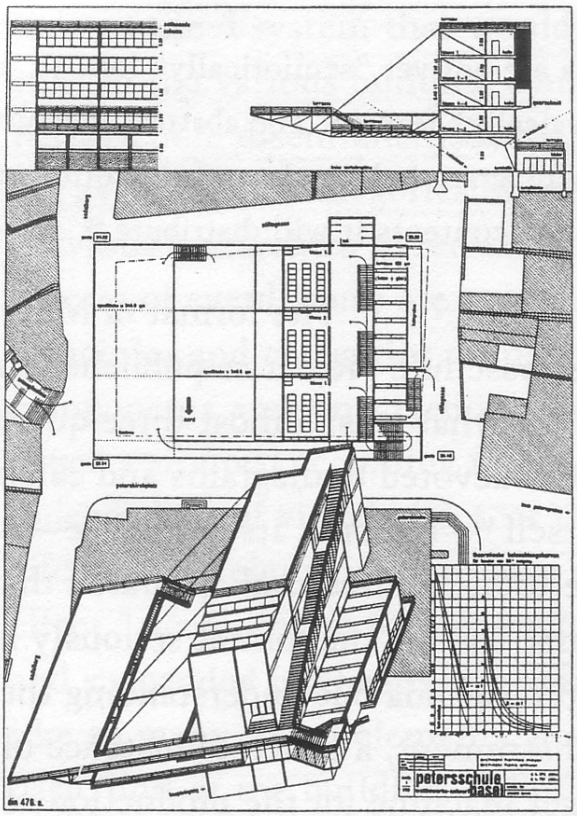
Fall 3) Zweiseitiges Seitenlicht der Turnhalle

Berechnet wird die Beleuchtung an den beiden Längswänden und in der Saalmitte.
Beide Längswände mit 2 m hohem Fensterfries auf die ganze Länge und unmittelbar unter der Decke.
Berechnungsverfahren nach Higbie: (wie bei Klassenzimmer mit Seitenlicht)
Daten für die Formel: (P nahe Längswand ost)
Abstand des Punktes P vom Fenster (Ost) $a_1$ = 2,0 m
Abstand des Punktes P vom Fenster (West) $a_2$ = 9,0 m
Länge des Fensters m = 23,0 m
Abstand des oberen Fensterrandes von der Tischfläche f = 4,5 m
Abstand des unteren Fensterrandes von der Tischfläche f' = 2,5 m
Beleuchtungsstärke des Fensters b = 100,0 ftcdl.
Beleuchtungsstärke durch Fenster (Ost) = 249 lx
Beleuchtungsstärke durch Fenster (West) = 29 lx
Lichtverlust durch gegenüberliegende Gebäude, Ostseite = 5 v. h.
Lichtverlust durch gegenüberliegende Gebäude, Westseite = 12 v. h.
Gesamtbeleuchtung in P = 253 lx
Daten für die Formel: (P nahe Längswand West)
Abstand des Punktes P vom Fenster (Ost) $a_1$ = 9,0 m
Abstand des Punktes P vom Fenster (West) $a_2$ = 2,0 m
(die anderen Werte wie oben)
Beleuchtung durch Fenster (Ost) = 29 lx
Beleuchtung durch Fenster (West) = 249 lx
Lichtverlust: Ostseite = 5 v. h., Westseite 27 v. h.
Gesamtbeleuchtung in P = 212 lx
Daten für die Formel: (P in Saalmitte)
Abstand des Punktes P vom Fenster (Ost und West gleichviel) a = 5,5 m
(die anderen Werte wie oben)
Beleuchtung durch Fenster (Ost und West gleichviel) = 110 lx
Lichtverlust: Ostseite = 5 v. h., Westseite 18 v. h.
Gesamtbeleuchtung in P = 195 lx.



Theoretische Beleuchtungskurven für Fenster von 60° Neigung / Theoretical illumination curves for windows inclined at 60°

Figure 18 The Petersschule Project, Basel, 1926-1927- Theoretical Illumination Curves for Windows Inclined at 60˚

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architekt hans wittwer basel

## die petersschule basel

(wettbewerbsentwurf **1926**)

**die aufgabe:**

neubau einer 11 klassigen mädchen-volksschule mit turnhalle, zeichensaal, schulbad und suppenküche etc., 528 schülerinnen. sinnwidriger traditioneller schulhaus-bauplatz im altstadtgebiet von basel, im schatten hoher randbebauung, schlecht belüftet und im hinblick auf das umfangreiche bauprogramm mit 1240.0 qm gesamtfläche erheblich zu klein. übliche überbauung ergibt max. 500 qm schulhof, mithin 1.0 qm tummelfläche pro schulkind.

**das ziel:**

**keine schulkrüppel!** anzustreben wäre ausschließliche oberlichtbeleuchtung aller schulräume (vergleiche die resultate von fall 1 und 2 der beleuchtungsberechnung) und die bestimmung eines neuen baugeländes nach maßgabe planvoller stadtentwicklung. gegenwärtig erscheint die verwirklichung solcher forderungen aussichtslos, und es ergibt die auseinandersetzung mit dem alten schulhaus den umstehenden kompromiß.

**der vorschlag:**

größtmögliche entfernung des schulbetriebes von der erdoberfläche in die besonnte, durchlüftete und belichtete höhenlage.

im erdgeschoß nur schulbad und turnbetrieb im geschlossenen raum. die verbleibende hoffläche wird dem öffentlichen verkehr und dem „parking" freigegeben.

an stelle eines hofes sind 2 hängende freiflächen und alle oberflächen des gebäudekörpers der jugend als tummelplatz zugewiesen, im ganzen 1250 qm sonnige spielfläche, der altstadt entrückt.

freitreppe und verglaste treppe verbinden, parallel geführt, spielflächen und innenräume.

das eigengewicht des hauskörpers ist nutzbar verwendet und trägt an 4 drahtseilen die stützenlose eisenkonstruktion der 2 schwebenden freiflächen.

die gebäudekonstruktion als eisenfachwerkbau auf nur 8 stützen und mit diesem außenwand-querschnitt: aluminiumriffelblechverkleidung — bimsbetonplatten — luftlamelle — kieselgurplatten — luftlamelle — glanzeternitplatten.

bautechnische ausstattung: eiserne kippfenster, aluminiumblechtüren, stahlmöbel, flure und treppen mit gummibodenbelag.

## rechnerischer nachweis der beleuchtungsstärke aller schulräume

fall **1**) östliches seitenlicht aller klassenzimmer.
fall **2**) shed-oberlicht des zeichensaales.
fall **3**) zweiseitiges seitenlicht der turnhalle.

**berechnung der beleuchtungsstärke auf tischhöhe**

fall **1**) klassenzimmer mit senkrechter fensterwand. (östliches seitenlicht.)

berechnet wird nur die beleuchtungsstärke für den ungünstigsten arbeitsplatz (P), dieser befindet sich in der vom fenster entferntesten reihe an der rückwand.

berechnungsverfahren nach higbie:

daten für die formel:

| | |
|---|---|
| abstand des punktes P vom fenster | a = 5,1 m |
| länge des fensters | m = 10,2 „ |
| abstand des oberen fensterrandes von der tischfläche | f = 2,4 „ |
| „ „ unteren „ „ „ | f′ = — „ |
| beleuchtungsstärke des fensters | b = 100,0 ftcdl. |

$$Ep = 50\left[\operatorname{tg}^{-1}\left(\frac{10{,}2}{5{,}1}\right) - \frac{5{,}1}{\sqrt{5{,}1^2+2{,}4^2}}\cdot\operatorname{tg}^{-1}\left(\frac{10{,}2}{\sqrt{5{,}1^2+2{,}4^2}}\right)\right] = 486{,}0\ \text{lx},$$

$$Ep' = 50\left[\operatorname{tg}^{-1}\left(\frac{10{,}2}{5{,}1}\right) - \operatorname{tg}^{-1}\left(\frac{10{,}2}{5{,}1^2}\right)\right] = 435{,}0\ \text{lx},$$

beleuchtungsstärke im punkte P = Ep − Ep′ = 41,0 lx
(12 hefner-lux / lx′ = 1 footcandle).

lichtverlust durch gegenüberliegende gebäude etc. wird auf grund empirischer werte festgestellt, hier beträgt er für alle stockwerke etwa 5 v. h.

die beleuchtungsstärke im punkte P an ort und stelle erreicht einen um etwa 40 v. h. höheren wert (zufolge der rückwürfe des lichtes an decke und wänden).

die leitsätze der D.B.G. verlangen für les- und schreibräume eine mittlere beleuchtung von 50—60 lx. die vorgesehene fensteröffnung gewährt also auch dem dunkelsten arbeitsplatz eine ausreichende beleuchtung. nahe der fensterwand ist die beleuchtung 10 mal stärker und in zimmermitte 4 mal stärker als im punkt P. die durchschnittliche beleuchtung beträgt etwa 180 lx, bei einer fensterfläche von etwas mehr als $^1/_3$ der bodenfläche.

fall **2**) shed-oberlicht des zeichensaales.

berechnet wird die beleuchtung in jeder shed-axe.

berechnungsverfahren nach higbie und levin.

daten für die formeln:

| | |
|---|---|
| abstand des punktes $P_1$ von der fensterfläche | $a_1$ = 2,5 m |
| „ „ „ $P_2$ „ „ „ | $a_2$ = 5,6 m |
| „ „ „ $P_3$ „ „ „ | $a_3$ = 8,6 m |
| (diese abstände horizontal gemessen) „ | |
| länge des fensters | m = 11,0 m |
| abstand des oberen fensterrandes von der tischfläche | f = 3,3 m |
| „ „ unteren „ „ „ „ | f′ = 2,6 m |
| (diese abstände in der fensterebene gemessen). | |
| beleuchtungsstärke des fensters | b = 100,0 ftcdl. |

$A_1 = \frac{a_1}{f} = 0{,}75$, $A_1' = \frac{a_1}{f'} = 0{,}96$, $A_2 = \frac{a_2}{f} = 1{,}70$,

$A_2' = \frac{a_2}{f'} = 2{,}15$, $A_3 = \frac{a_3}{f} = 2{,}60$, $A_3' = \frac{a_3}{f'} = 3{,}30$,

$B = \frac{m}{f} = 3{,}30$, $B' = \frac{m}{f'} = 4{,}20$.

die beleuchtungsstärke in jeder shed-axe, erzeugt durch das zugehörige fenster, ist gleich dem unterschied zwischen den beleuchtungswerten von fenstern der höhe f und f′.

aus dem diagramm ergibt sich

beleuchtungsstärke in $P_1$ = 56 − 39 = 17 × 12 = 204 lx. = $E_1$
„ „ $P_2$ = 13 − 9 = 4 × 12 = 58 „ = $E_2$
„ „ $P_3$ = 5 − 3 = 2 × 12 = 24 „ = $E_3$

die gesamtbeleuchtungsstärke in $P_1$ = $E_1$ = 204 lx.
„ „ „ $P_2$ = $E_1 + E_2$ = 262 „
„ „ „ $P_3$ = $E_1 + E_2 + E_3$ = 286 „

diese werte sind um weniger als $^1/_3$ voneinander verschieden, gegenüber dem vielfachen beim seitenlicht. die durchschnittliche beleuchtung beträgt etwa 250 lx bei einer fensterfläche von etwa $^1/_4$ der bodenfläche.

fall **3**) zweiseitiges seitenlicht der turnhalle.

berechnet wird die beleuchtung an den beiden längswänden und in der saalmitte.

beide längswände mit 2 m hohem fensterfries auf die ganze länge und unmittelbar unter der decke.

berechnungsverfahren nach higbie: (wie bei klassenzimmer mit seitenlicht).

daten für die formel: (P nahe längswand ost).

| | |
|---|---|
| abstand des punktes P vom fenster (ost) | $a_1$ = 2,0 m |
| „ „ „ P „ „ (west) | $a_2$ = 9,0 „ |
| länge des fensters | m = 23,0 „ |
| abstand des oberen fensterrandes von der tischfläche | f = 4,5 „ |
| „ „ unteren „ „ „ „ | f′ = 2,5 „ |
| beleuchtungsstärke des fensters | b = 100,0 ftcdl. |

beleuchtungsstärke durch fenster (ost) = 249 lx
„ „ „ „ (west) = 29 lx

lichtverlust durch gegenüberliegende gebäude, ostseite = 5 v. H.
„ „ „ „ „ westseite = 12 v. H.

gesamtbeleuchtung in P = 253 lx.
daten für die formel: (P nahe längswand west).

| | |
|---|---|
| abstand des punktes P vom fenster (ost) | $a_1$ = 9,0 m |
| „ „ „ P „ „ (west) | $a_2$ = 2,0 „ |
| (die anderen werte wie oben). | |

beleuchtung durch fenster (ost) = 29 lx
„ „ „ (west) = 249 lx
lichtverlust: ostseite = 5 v. h., westseite 27 v. h.
gesamtbeleuchtung in P = 212 lx.
daten für die formel: (P in saalmitte).
abstand des punktes P vom fenster (ost und west gleichviel) a = 5,5 m
(die anderen werte wie oben).
beleuchtung durch fenster (ost und west gleichviel) = 110 lx.
lichtverlust: ostseite = 5 v. h., westseite 18 v. h.
gesamtbeleuchtung in P = 195 lx.

Figure 19 The Petersschule Project Published in *Bauhaus* 2 (1927) with "Mathematical Proof" of the Lighting System's Effect

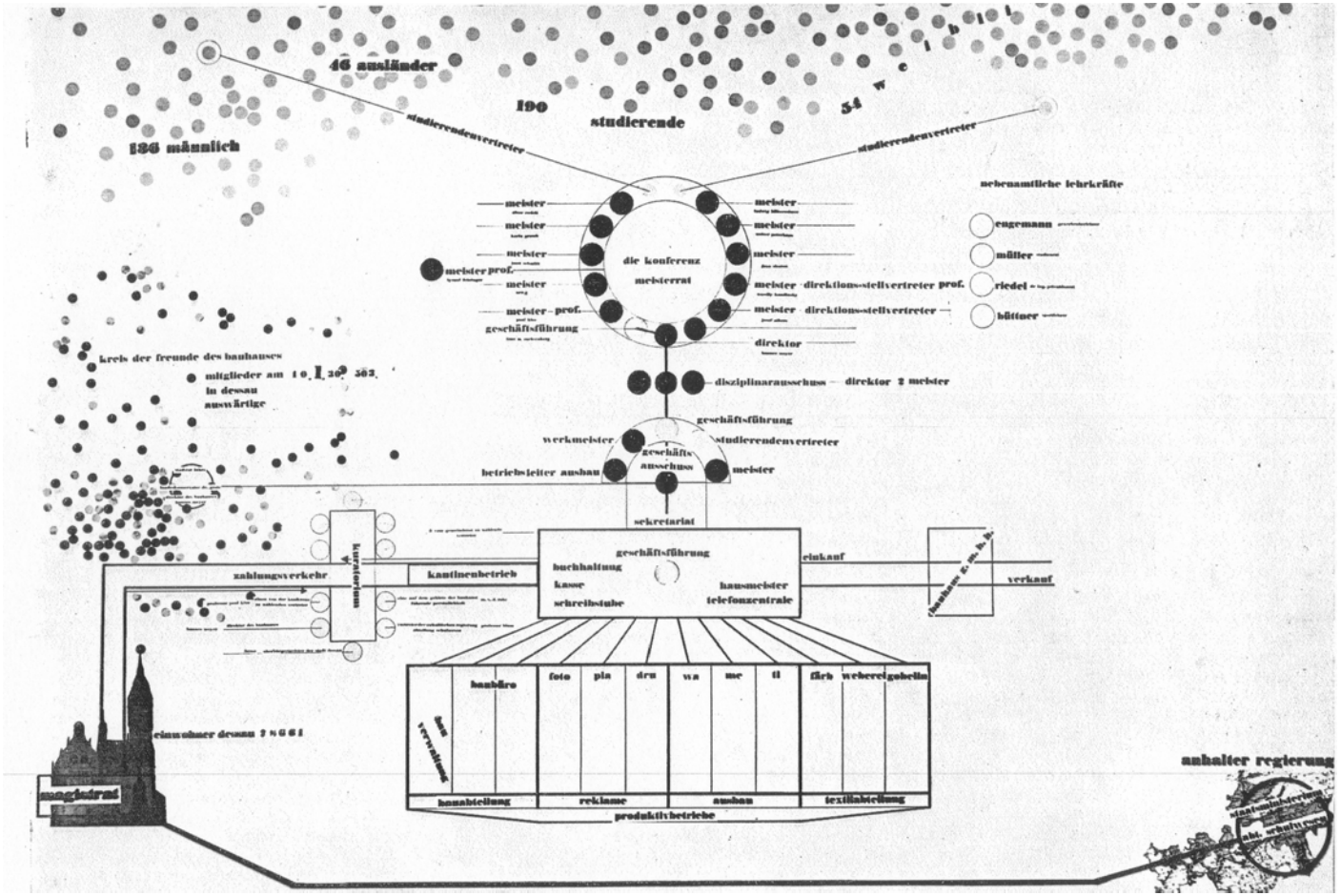


Figure 20 Organization Plan of the Bauhaus While under the Directorship of Hannes

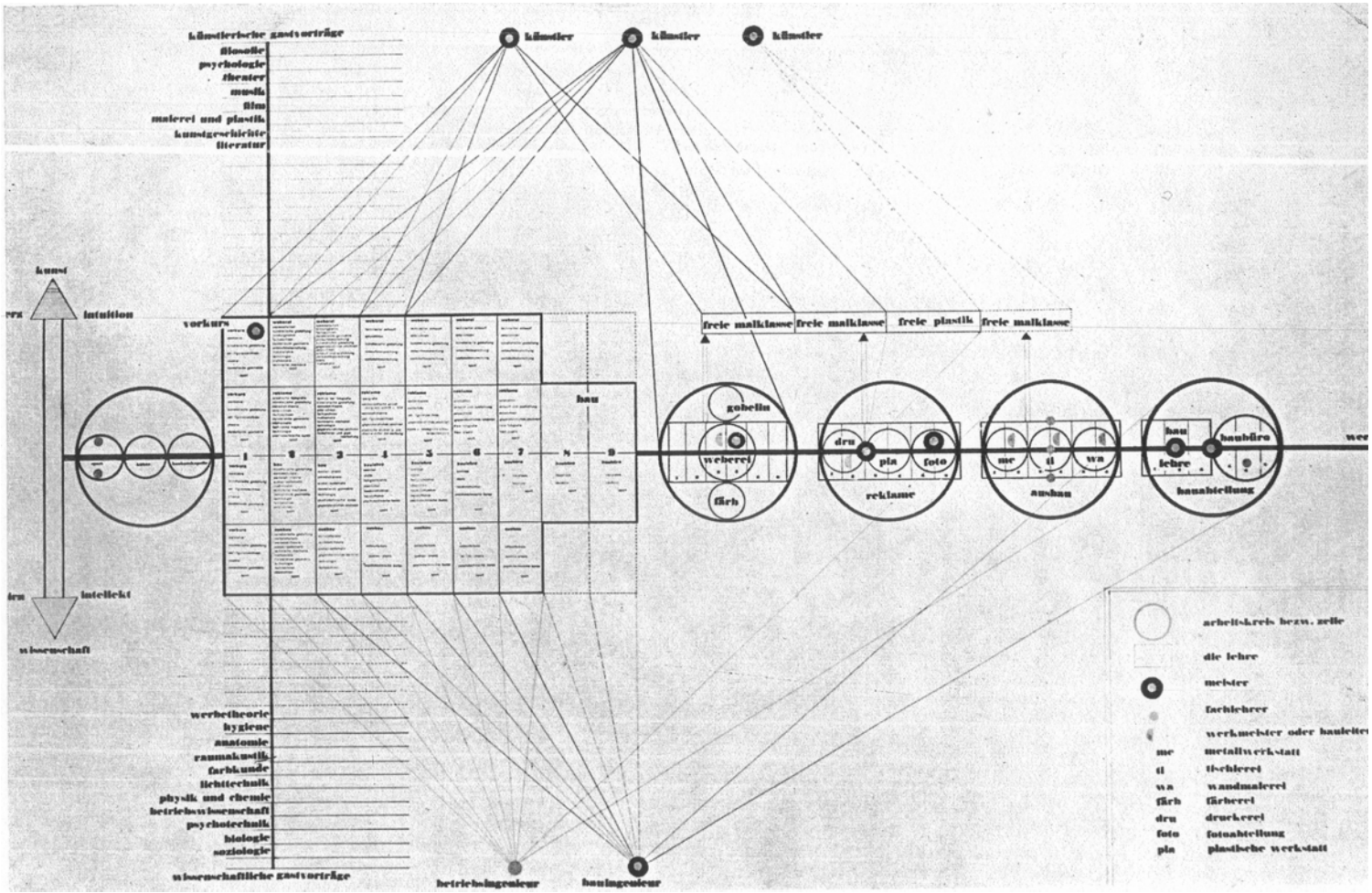


Figure 21 Plan of the General Curriculım while under the Directorship of Hannes Meyer

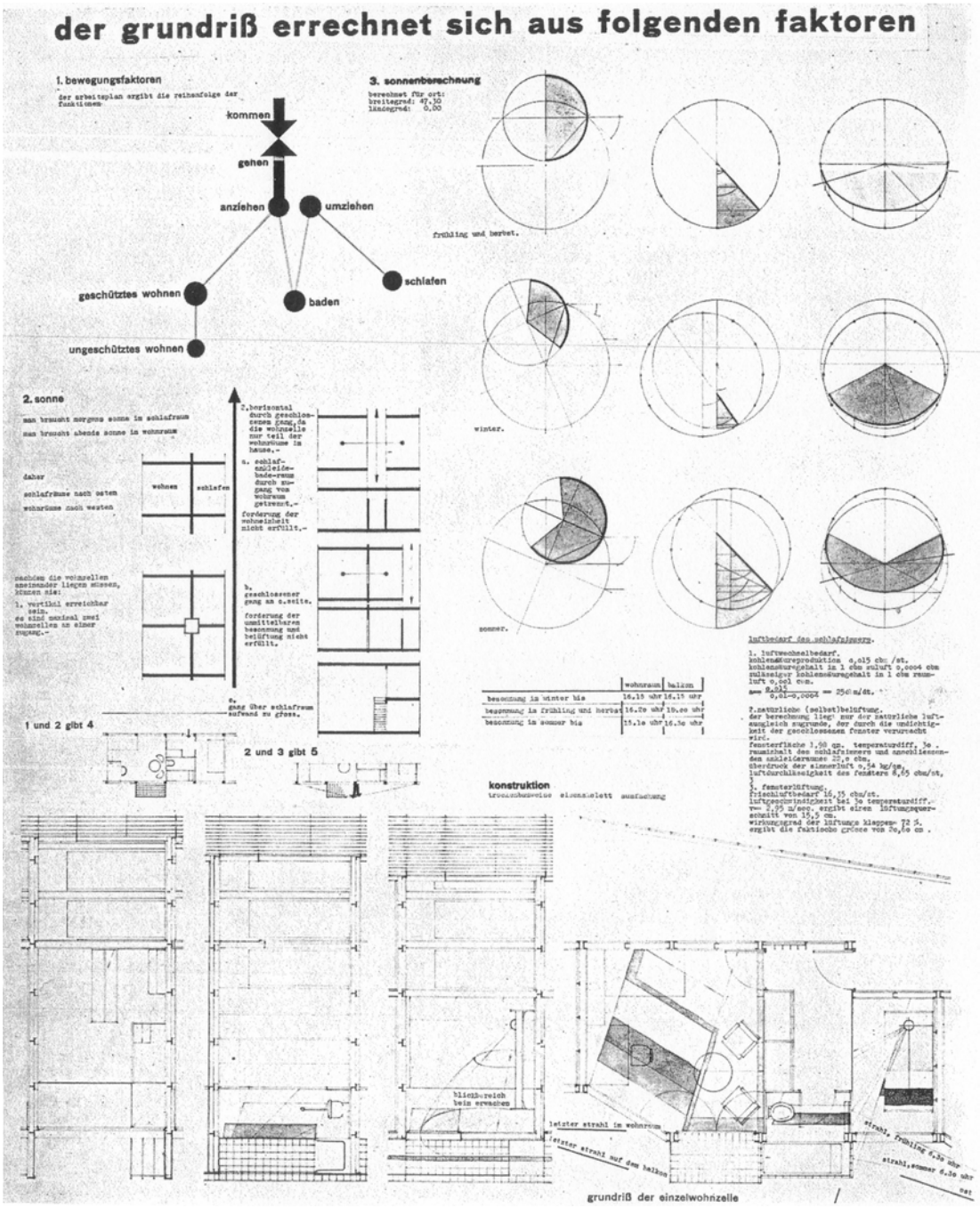


Figure 22 Introduction Course for Building by Hannes Meyer: Factors Determining a Plan

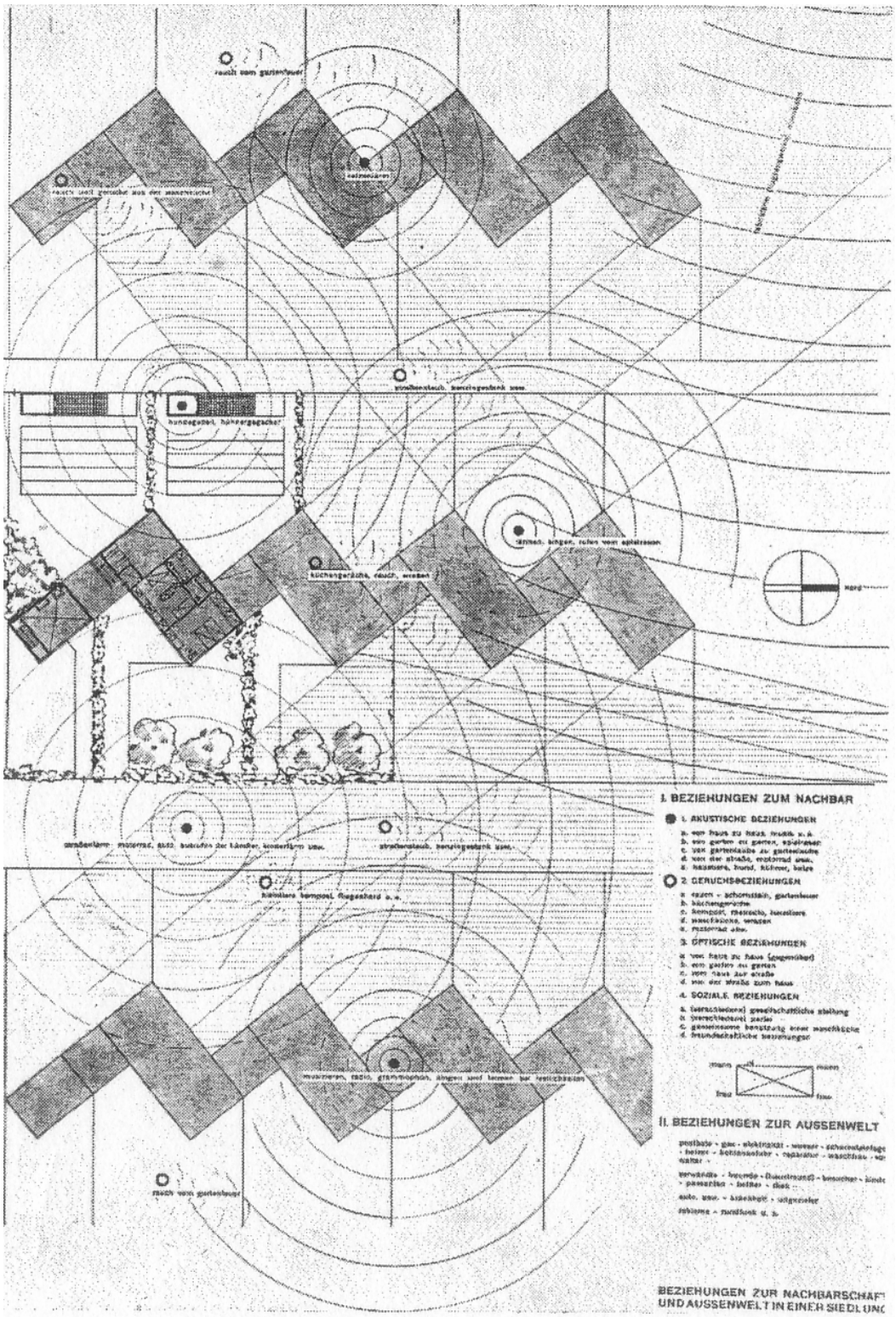


Figure 23 Introduction Course in Building by Hannes Meyer: Relationship to the Neighbourhood and the External World within a Housing Development

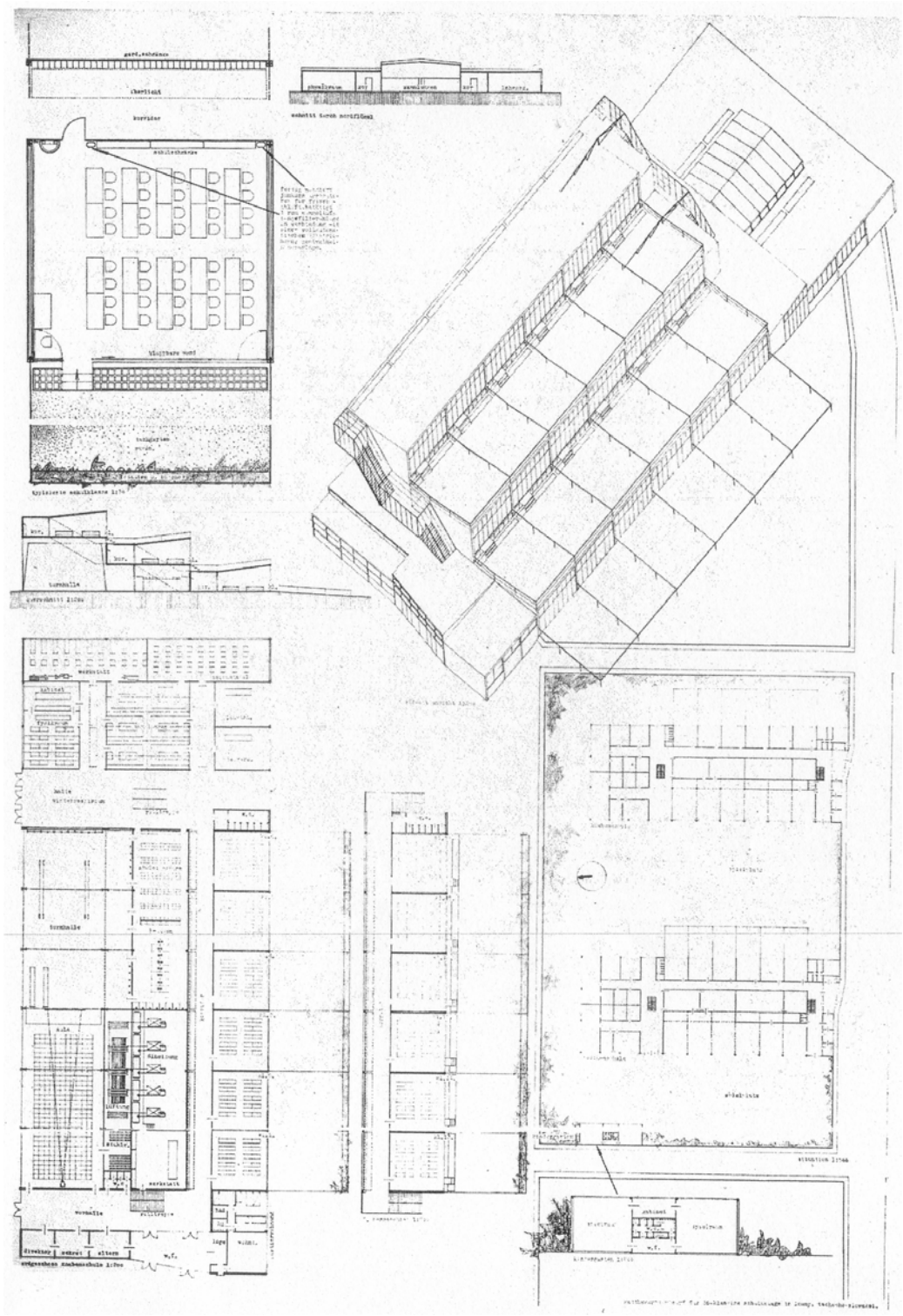

Figure 24 Project for a School with 36 Classes Around 1929 Designed by Students of the Bauhaus Building Department

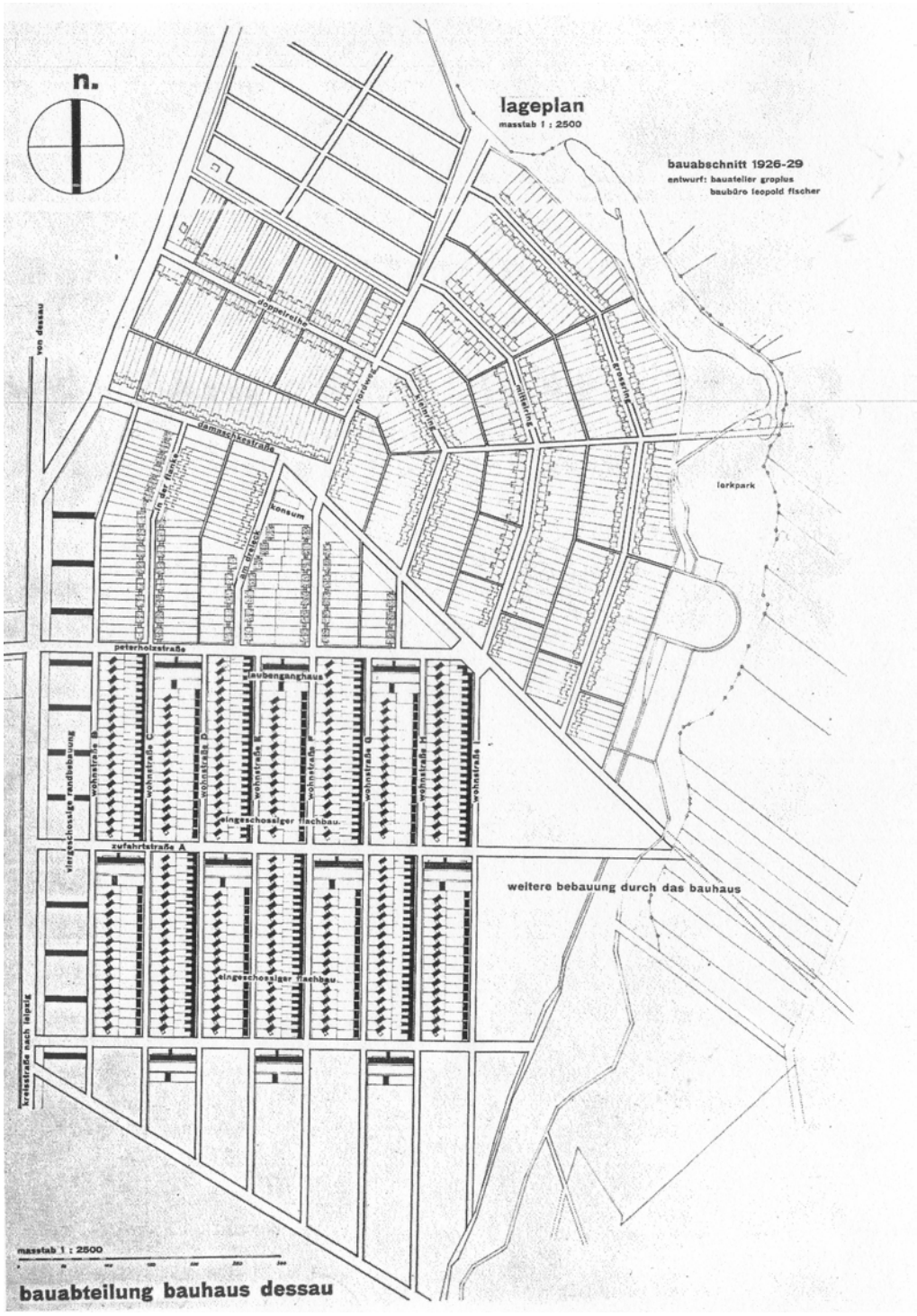


Figure 25 Siedlung Törten, Dessau, 1928-1930- Site Plan

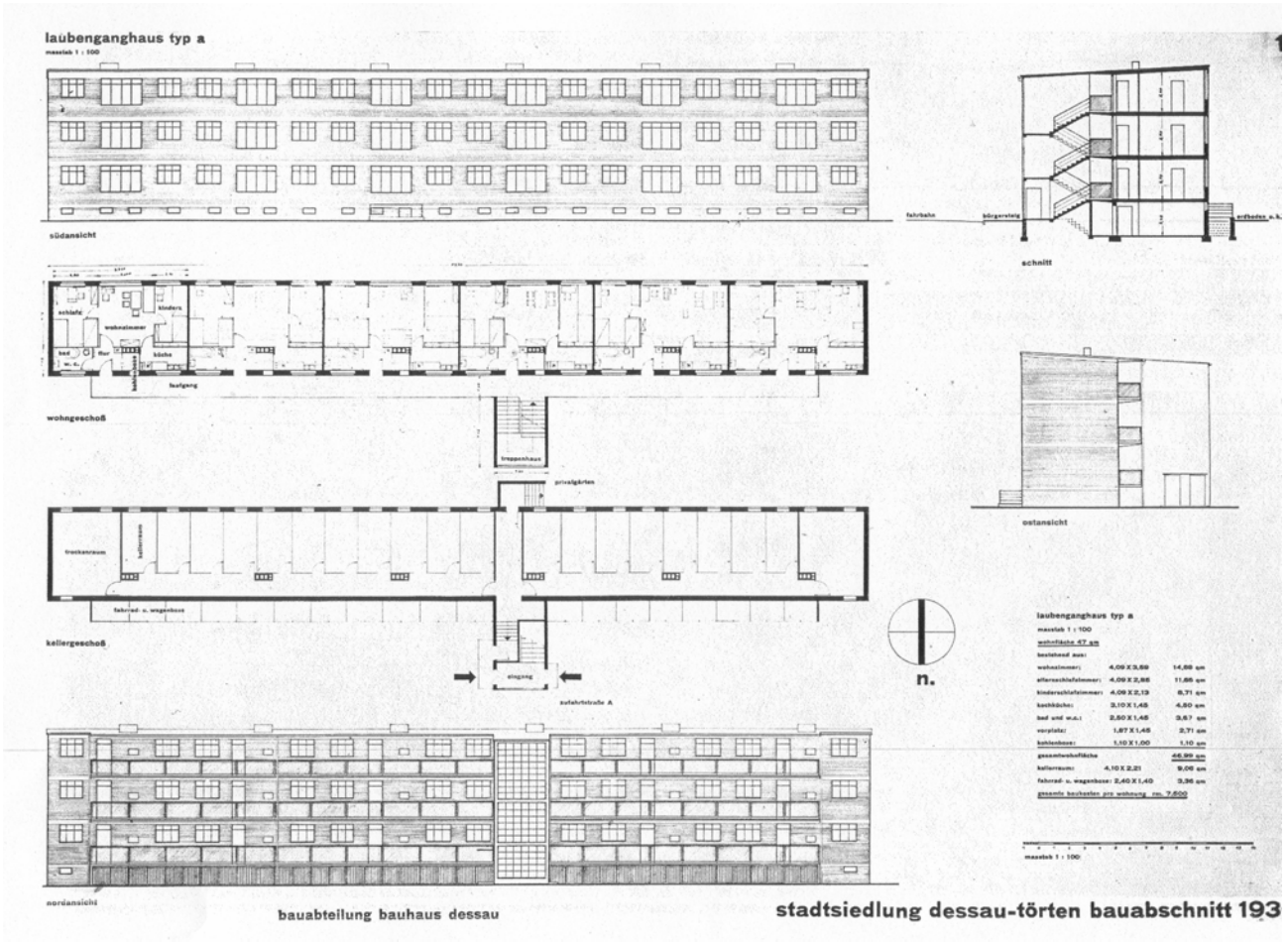


Figure 26 Siedlıng Törten, Dessau, 1928-1930- Plans, Sections and Views of the Balcony Houses

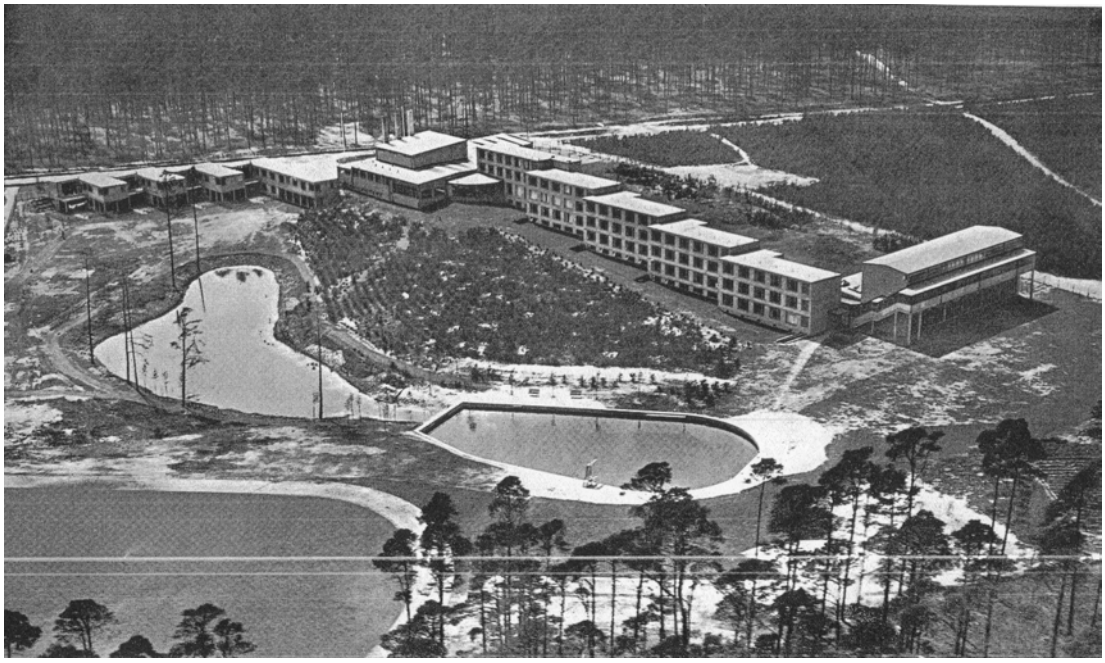

Figure 27 Federal School of the German Trade Unions Federations, Bernau near Berlin, 1928-1930


Figure 28 Federal School of the German Trade Unions Federation, Bernau near Berlin, 1928-1930- Site plan

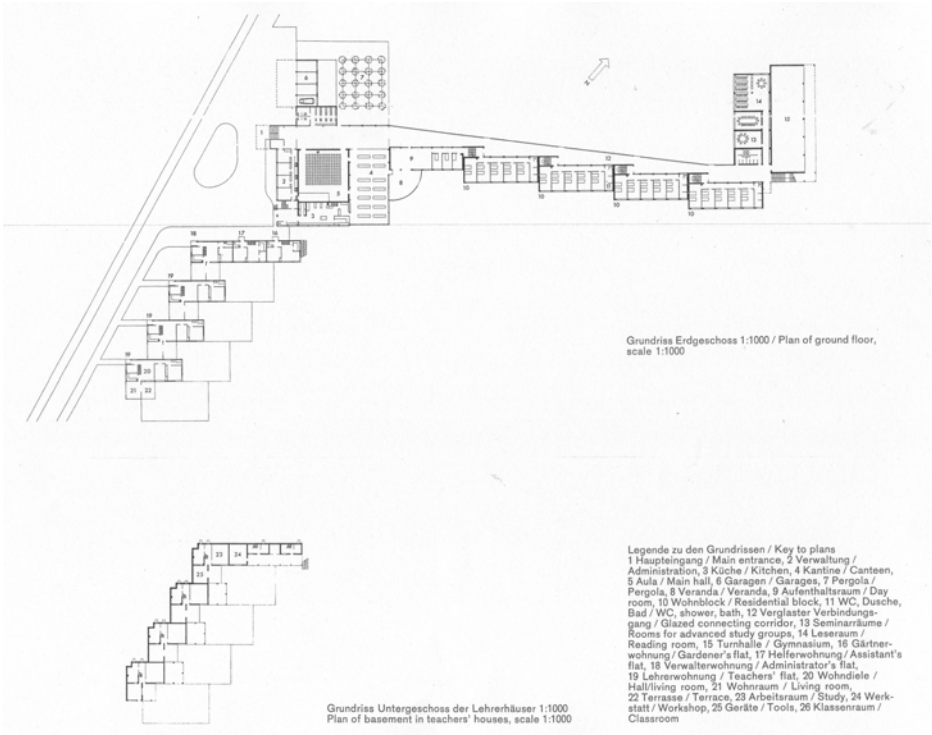


Figure 29 Federal School of the German Trade Unions Federation, Plan of Basement in Teachers' Houses

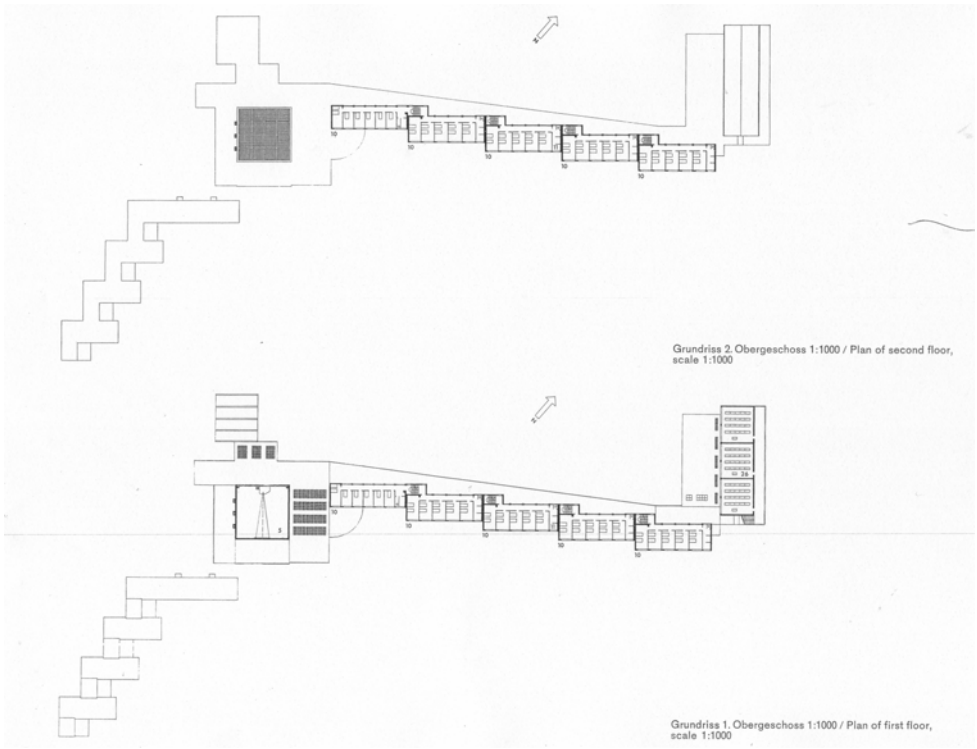


Figure 30 Federal School of the German Trade Unions Federation, First and Second Floor Plans

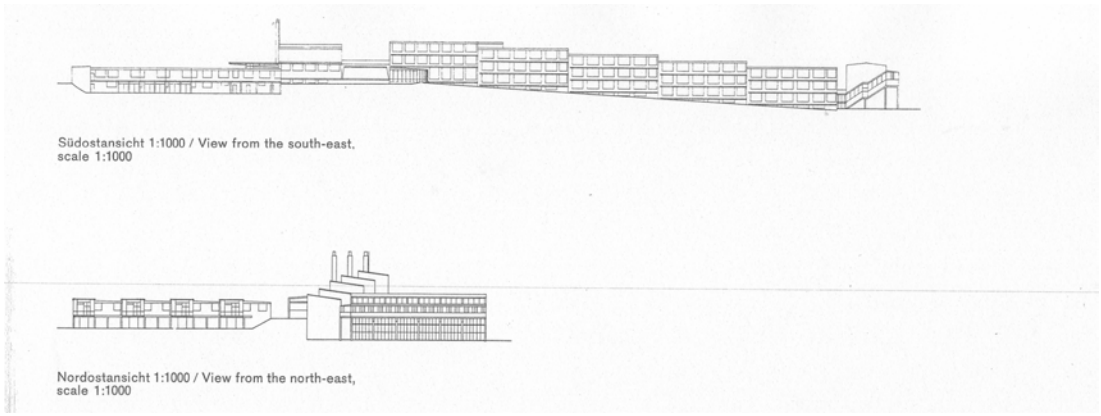


Figure 31 Federal School of the German Trade Unions Federation- Views from South East and North West

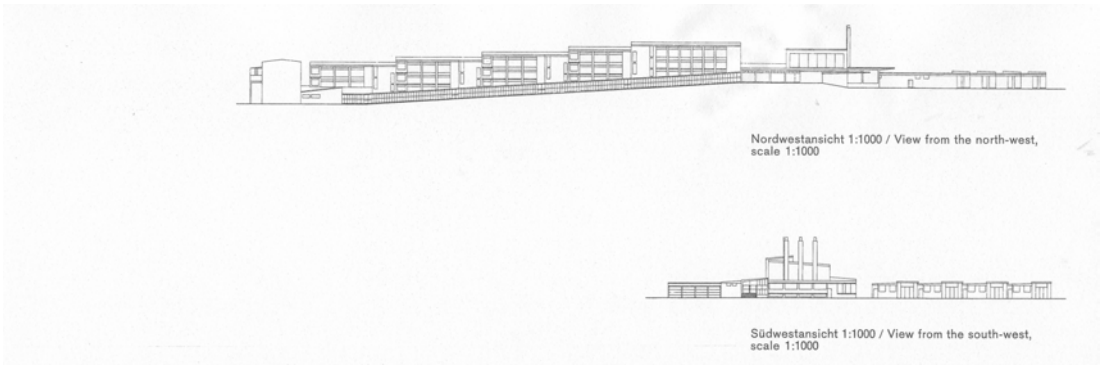


Figure 32 Federal School of the German Trade Unions Federation- Views from North West and South East

Figure 33 Federal School of the German Trade Unions Federation- Aerial View of the Overall Site from the North West

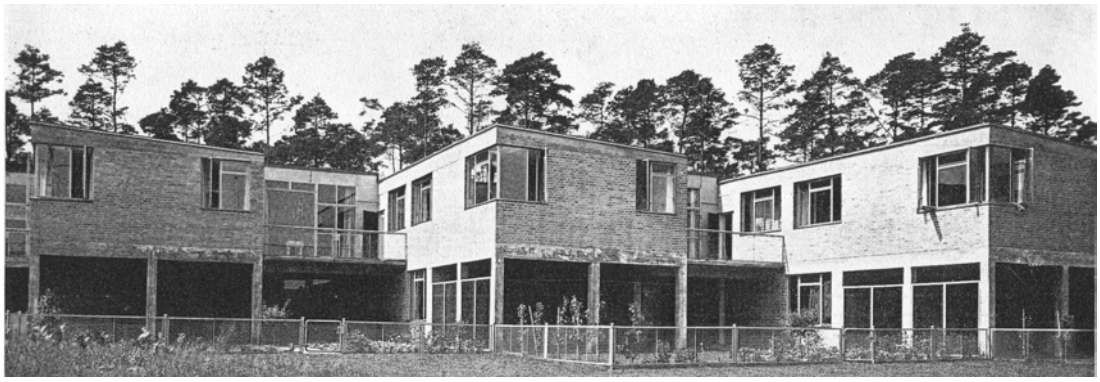

Figure 34 Federal School of the German Trade Unions Federation- Teachers' Houses

Figure 35 Federal School of the German Trade Unions Federation- Teachers' Houses, Community Building and the Residential Blocks from the South

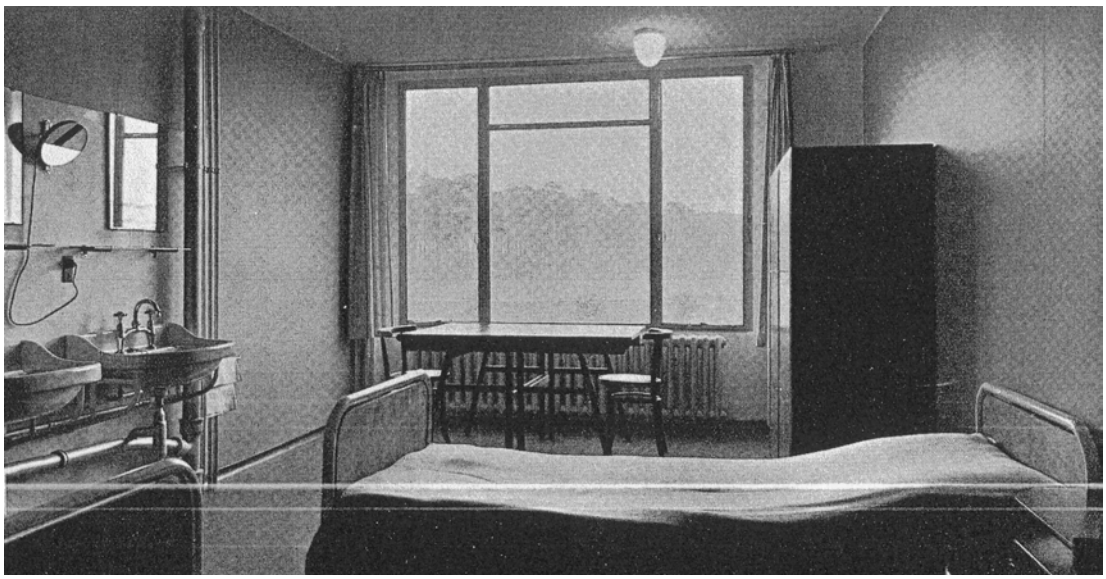

Figure 36 Federal School of the German Trade Unions Federation- Typical Room for Two Students

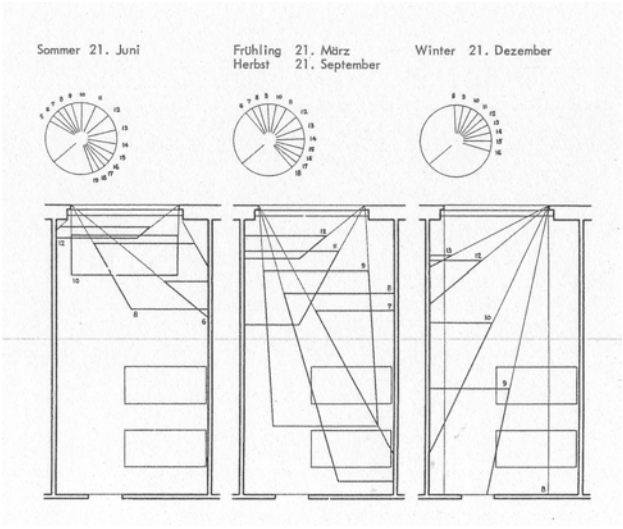


Figure 37 Federal School of the German Trade Unions Federation- Exposure of Students' Rooms to Sun Light

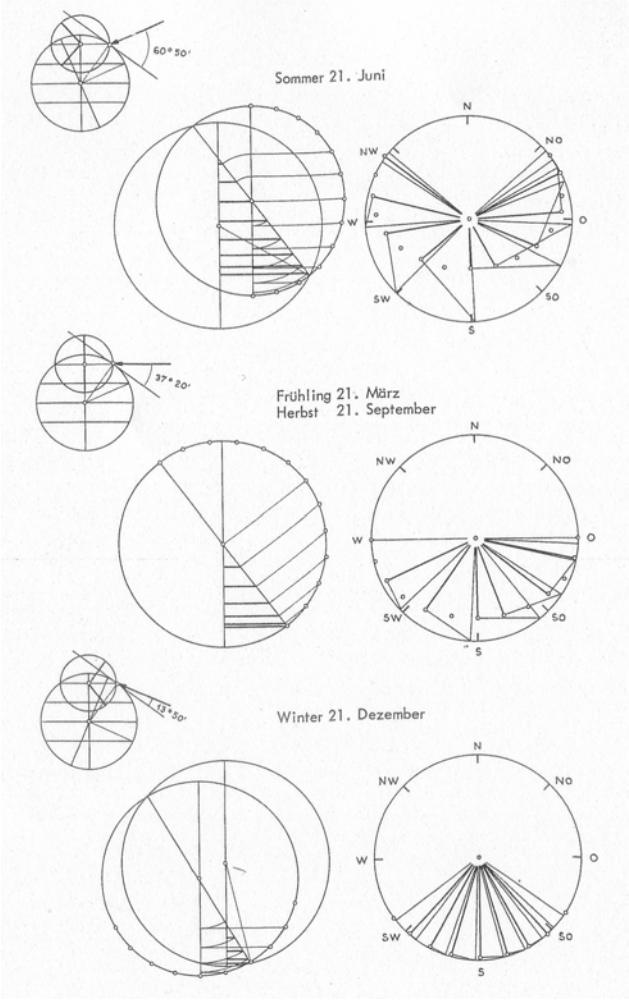


Figure 38 Federal School of the German Trade Unions Federation- Sun Diagrams

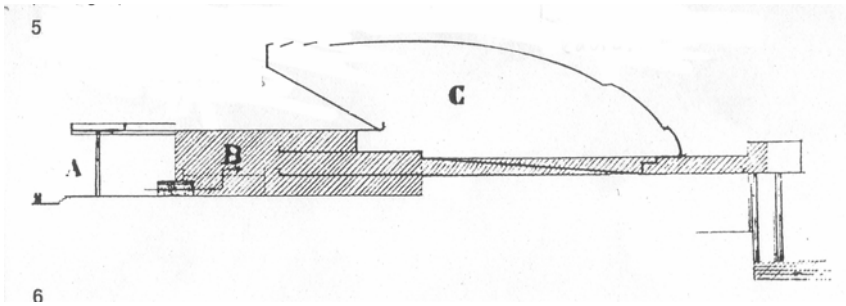


Figure 39 The League of Nations Project, Le Corbusier- Spatial Procession in the Section of the Auditorium

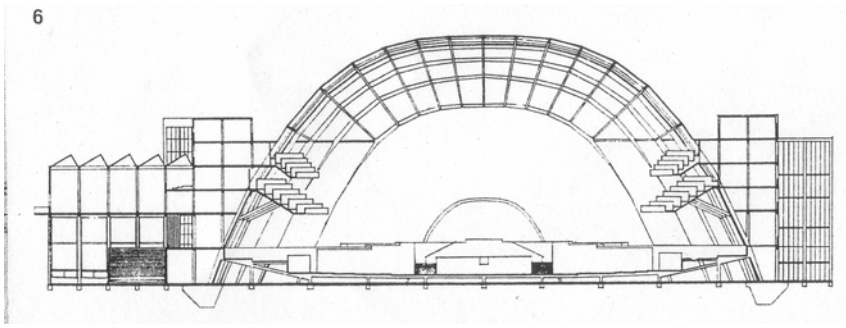


Figure 40 The League of Nations Project, Hannes Meyer- Section of the Auditorium

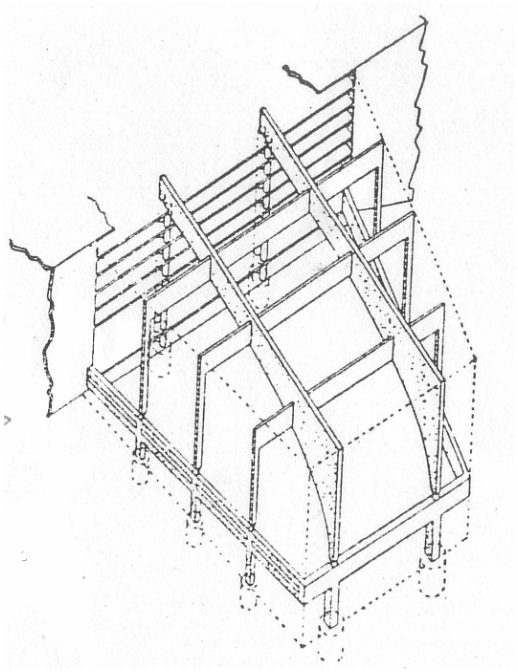

Figure 41 The League of Nations Project, Le Corbusier- Constructional System of the Auditorium

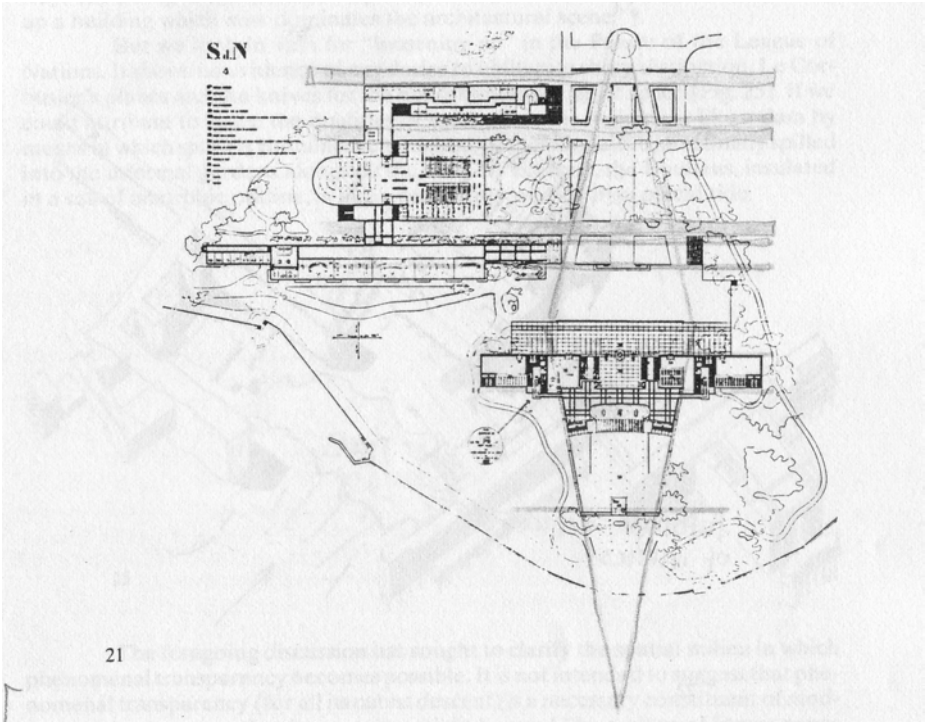


Figure 42 The League of Nations Project, Le Corbusier- Main Axis: The *Cour d' Honneur*

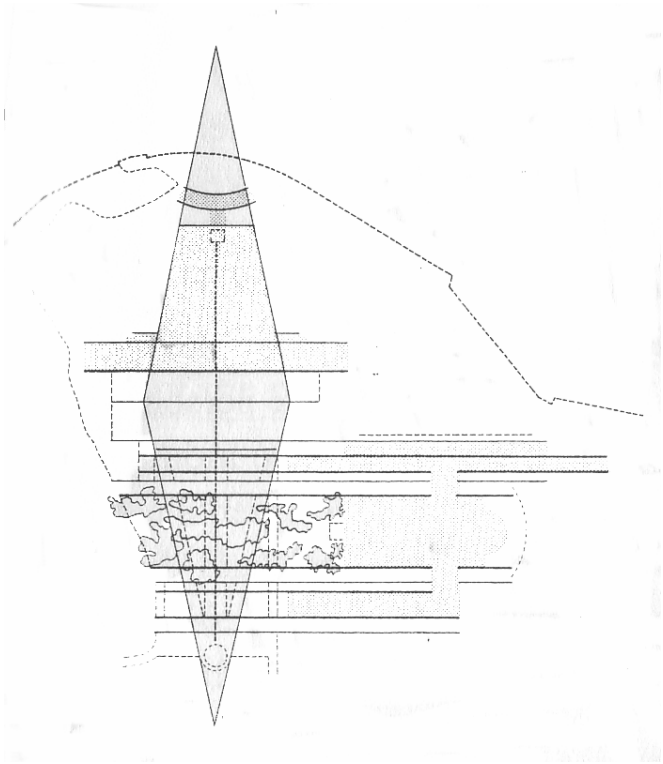

Figure 43 The League of Nations Project, Le Corbusier- Diagram by Colin Rowe and Robert Slutzky

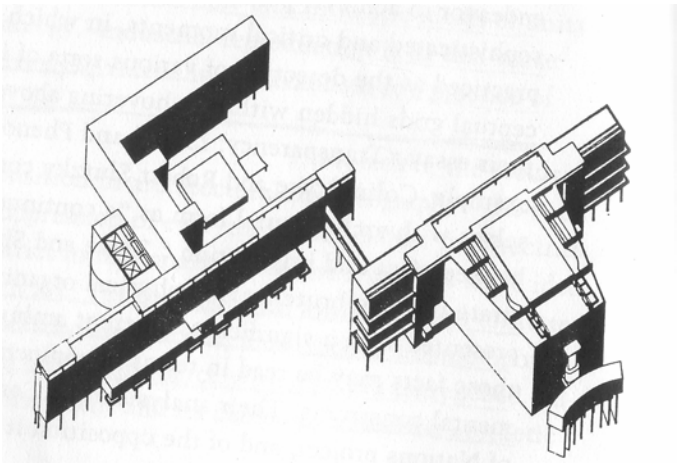

Figure 44 The League of Nations Project, Le Corbusier

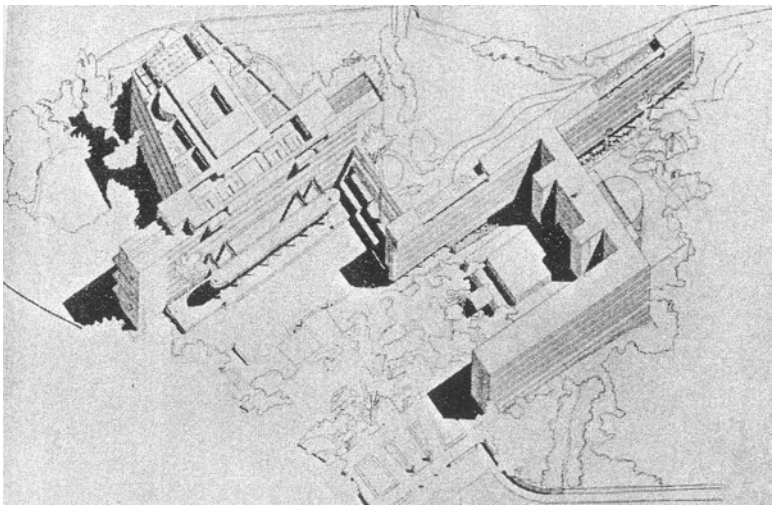

Figure 45 The League of Nations Project, Le Corbusier

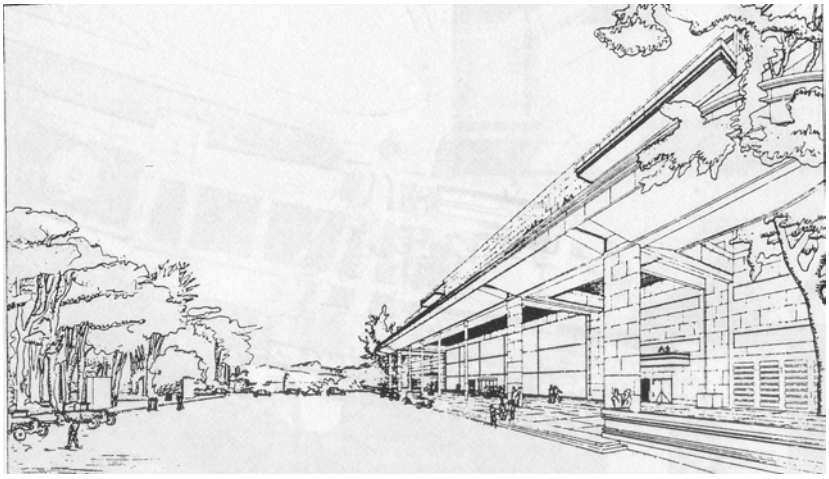

Figure 46 The League of Nations Project, Le Corbusier- Entrance of the Auditorium

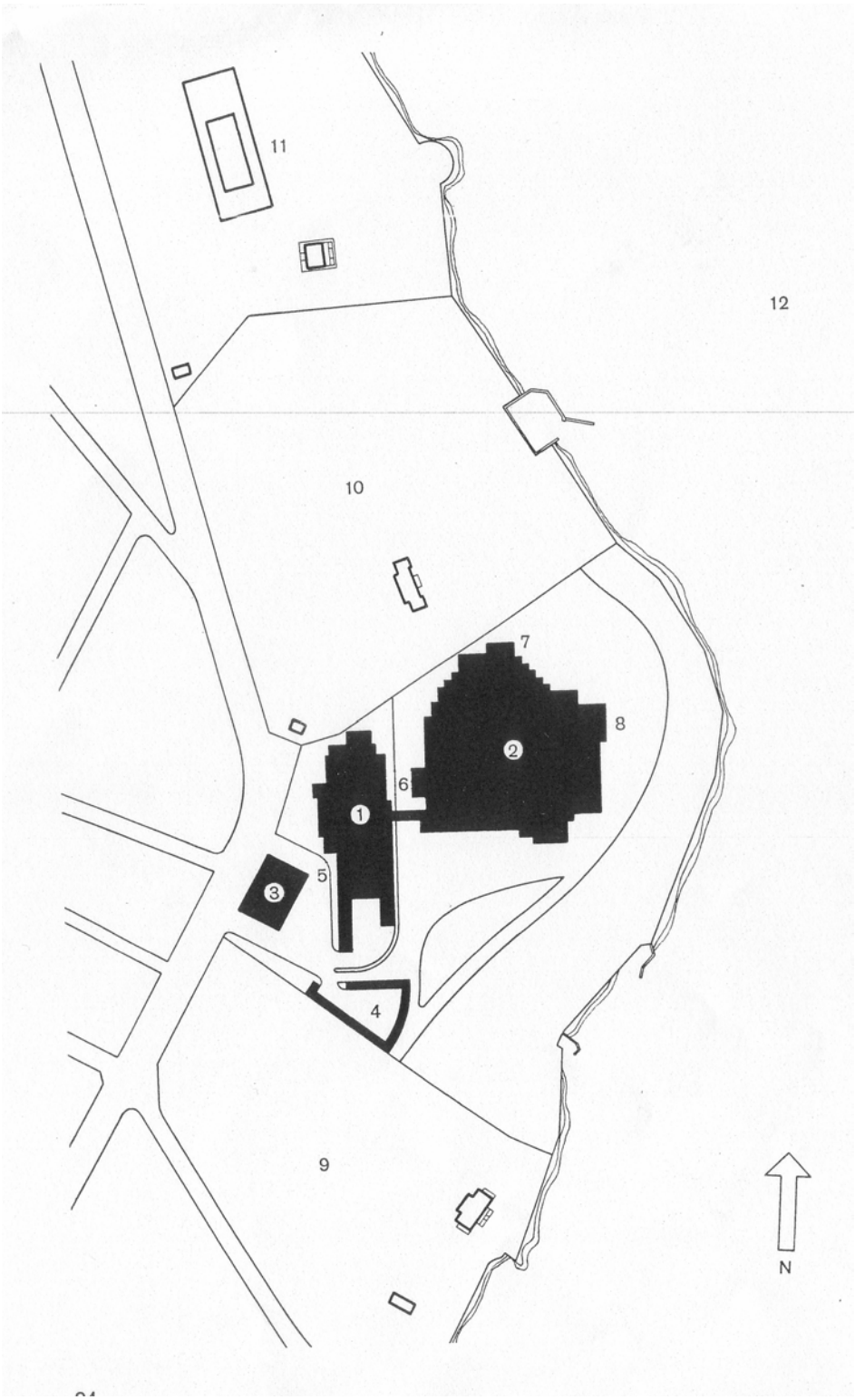


Figure 47 The League of Nations Project, Hannes Meyer- Site Plan

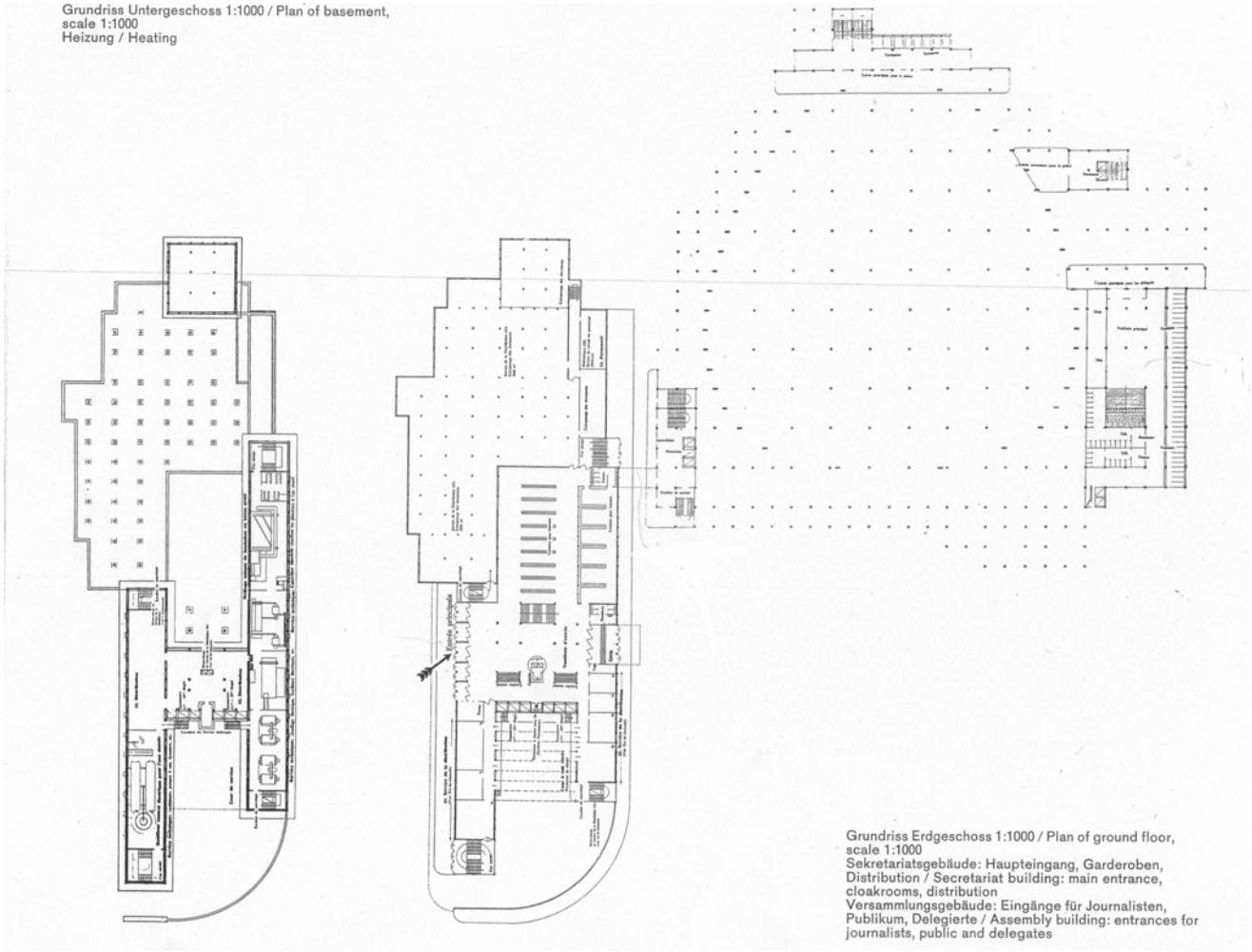


Figure 48 The League of Nations Project, Hannes Meyer- Plan of Ground Floor

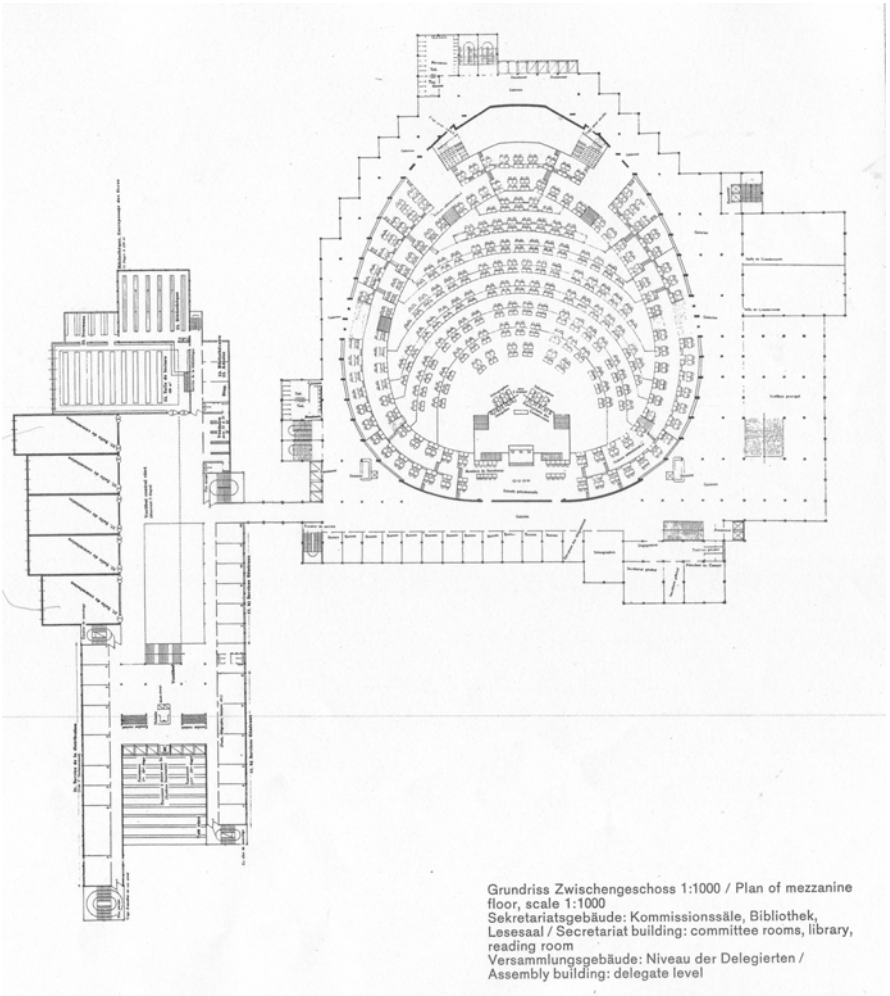


Figure 49 The League of Nations project, Hannes Meyer- Plan of Mezzanine Floor

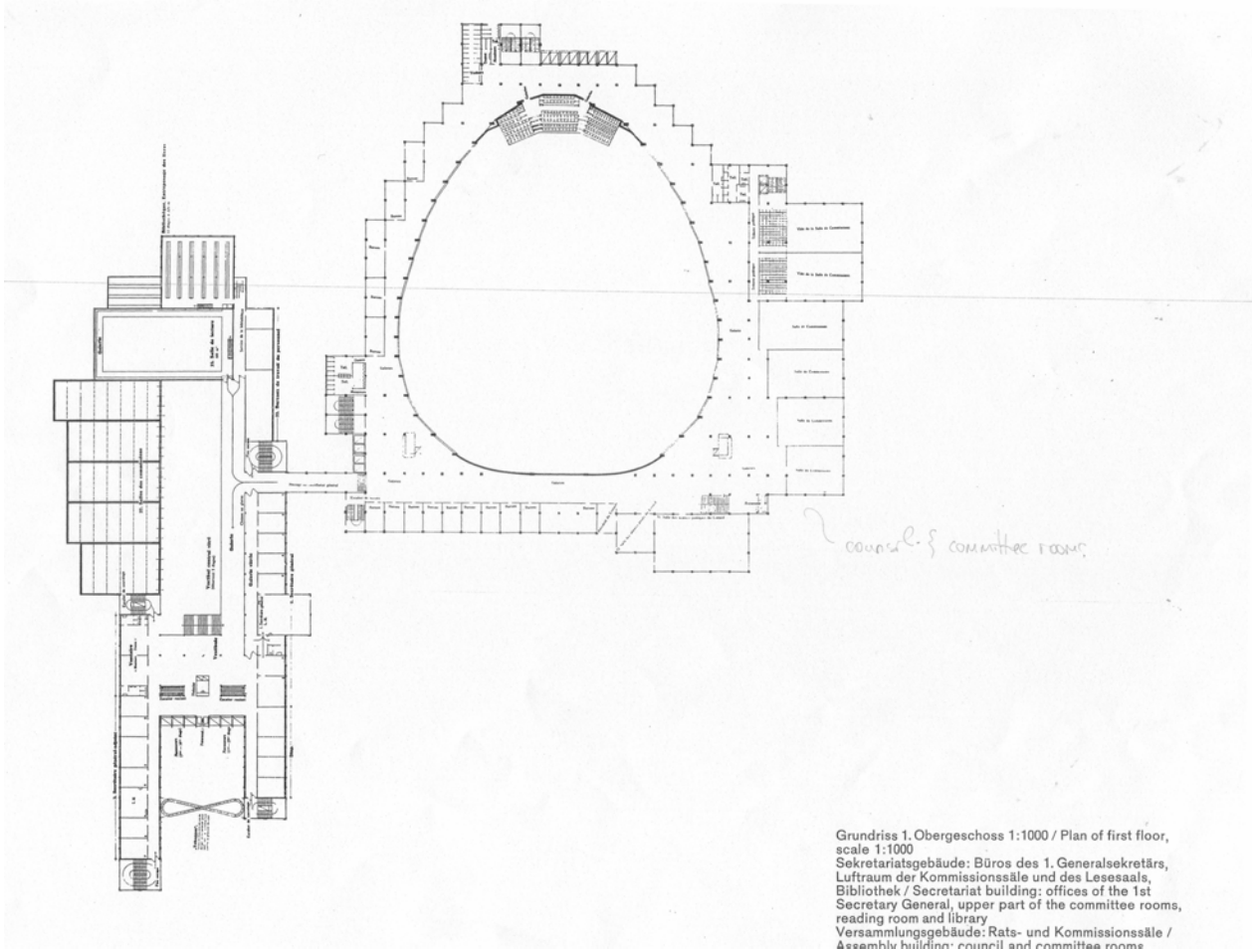


Figure 50 The League of Nations Project, Hannes Meyer- Plan of the First Floor

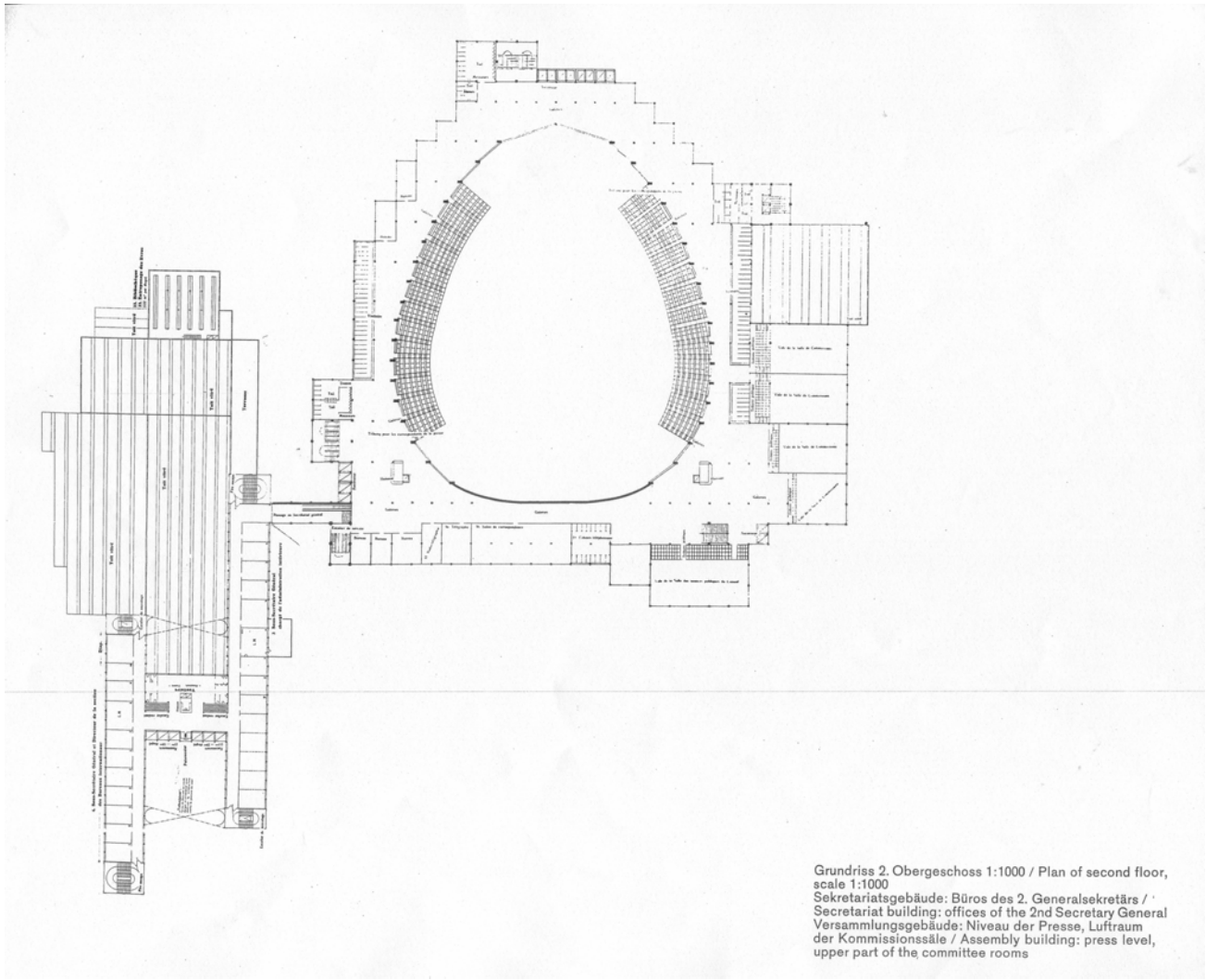


Figure 51 The league of Nations Project, Hannes Meyer- Plan of the Second Floor

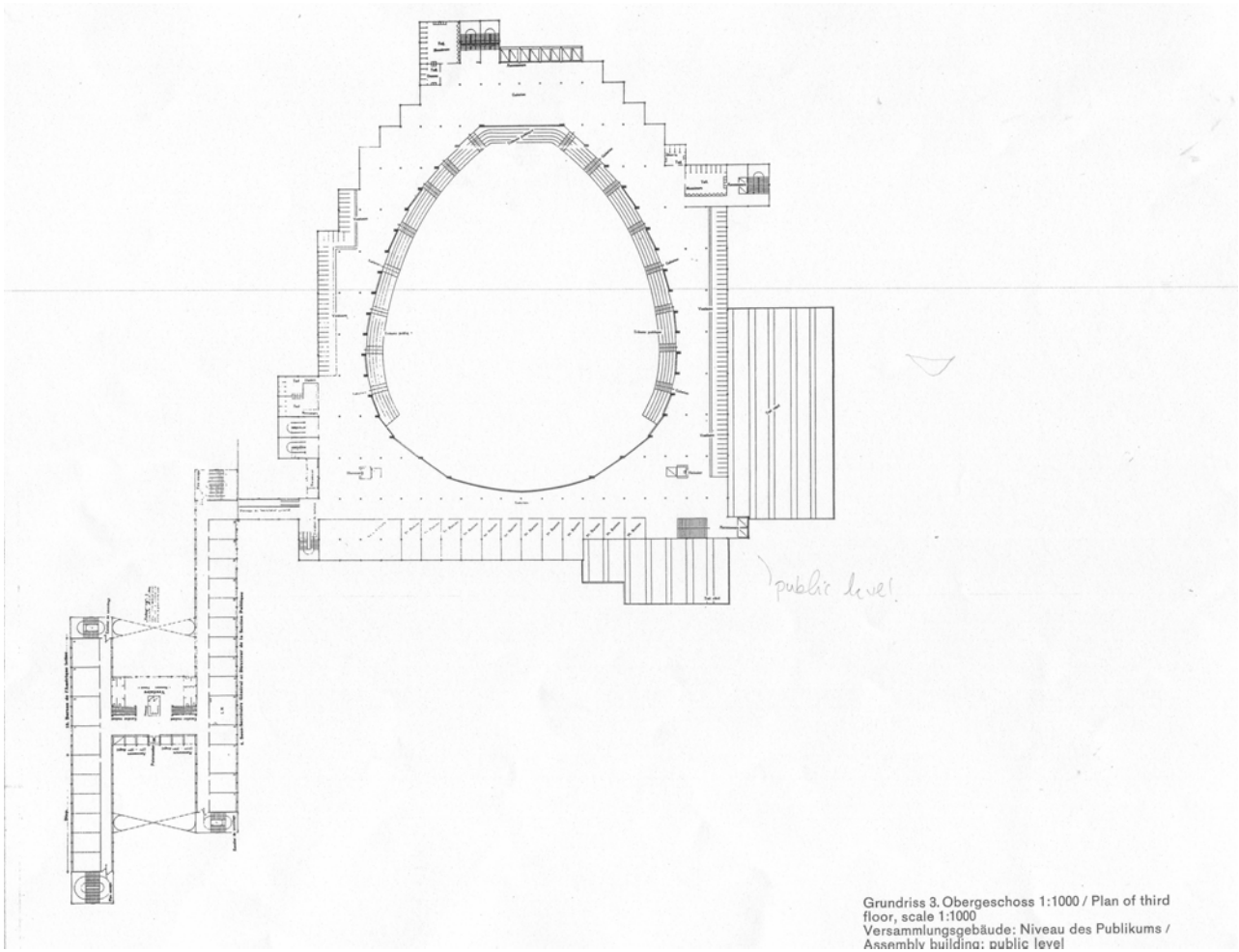


Figure 52 The League of Nations Project, Hannes Meyer- The Plan of Third Floor

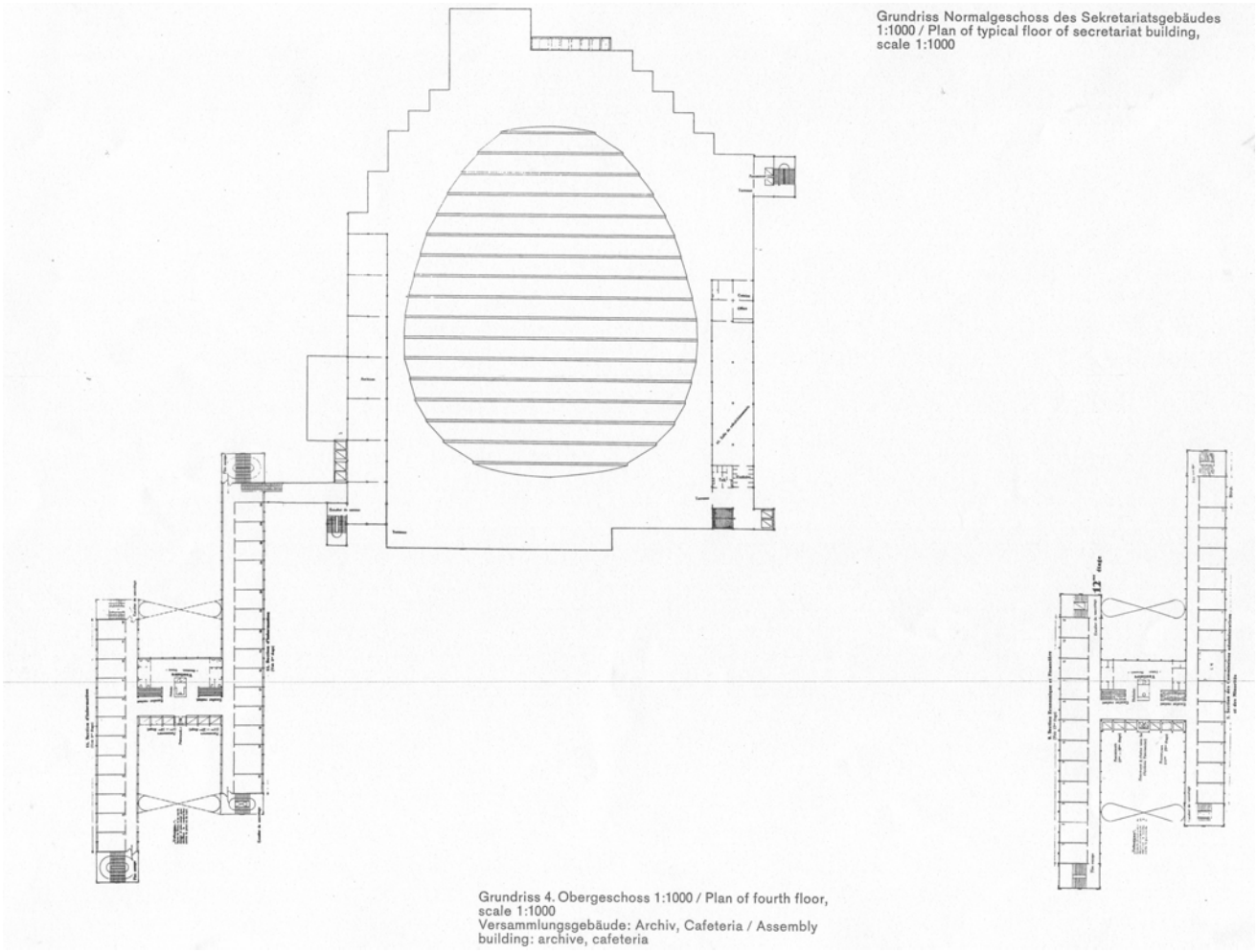


Figure 53 The League of Nations Project, Hannes Meyer- The Plan of the Fourth Floor and the Assembly Building: Archieve, Cafeteria

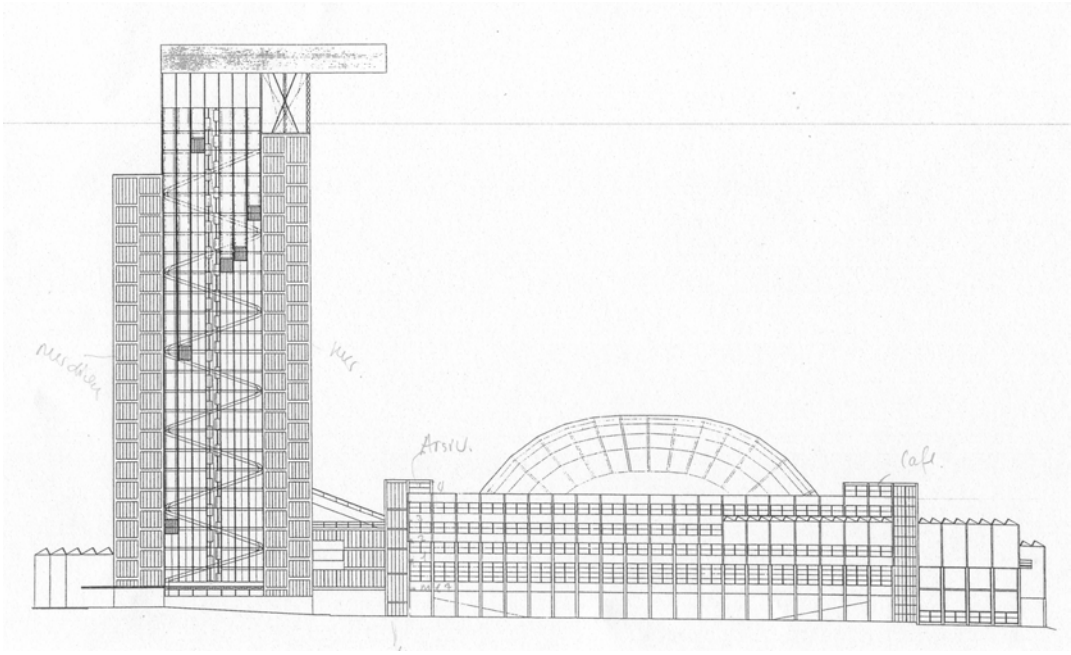

Figure 54 The league of Nations Project, Hannes Meyer- Southern Elevation

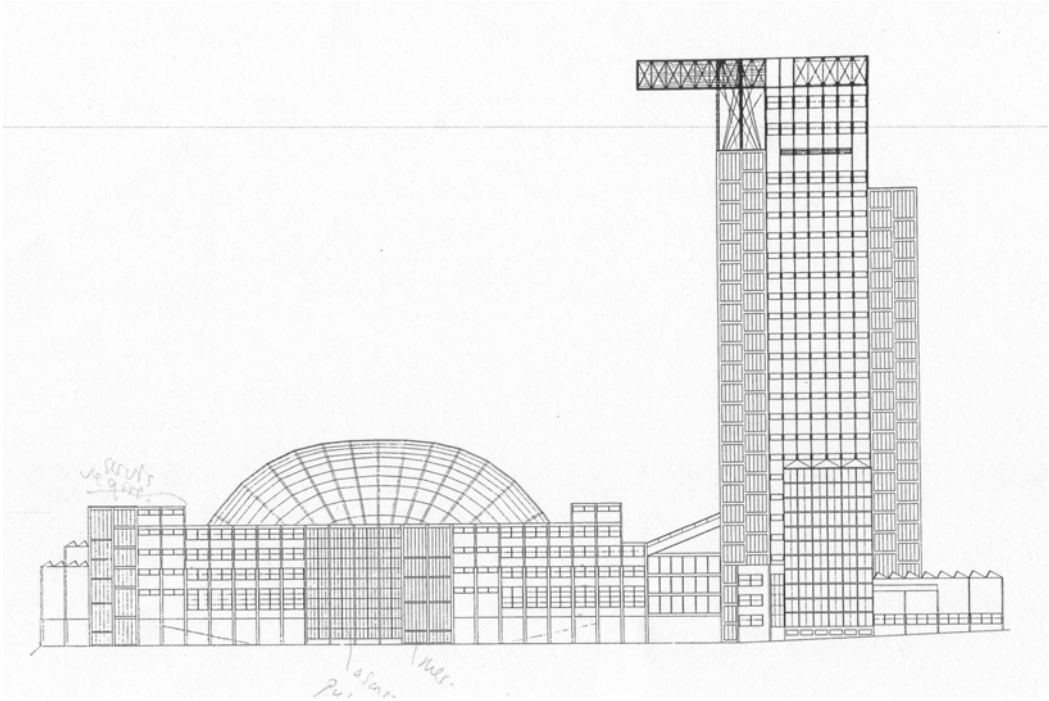

Figure 55 The league of Nations Project, Hannes Meyer-Northern Elevation

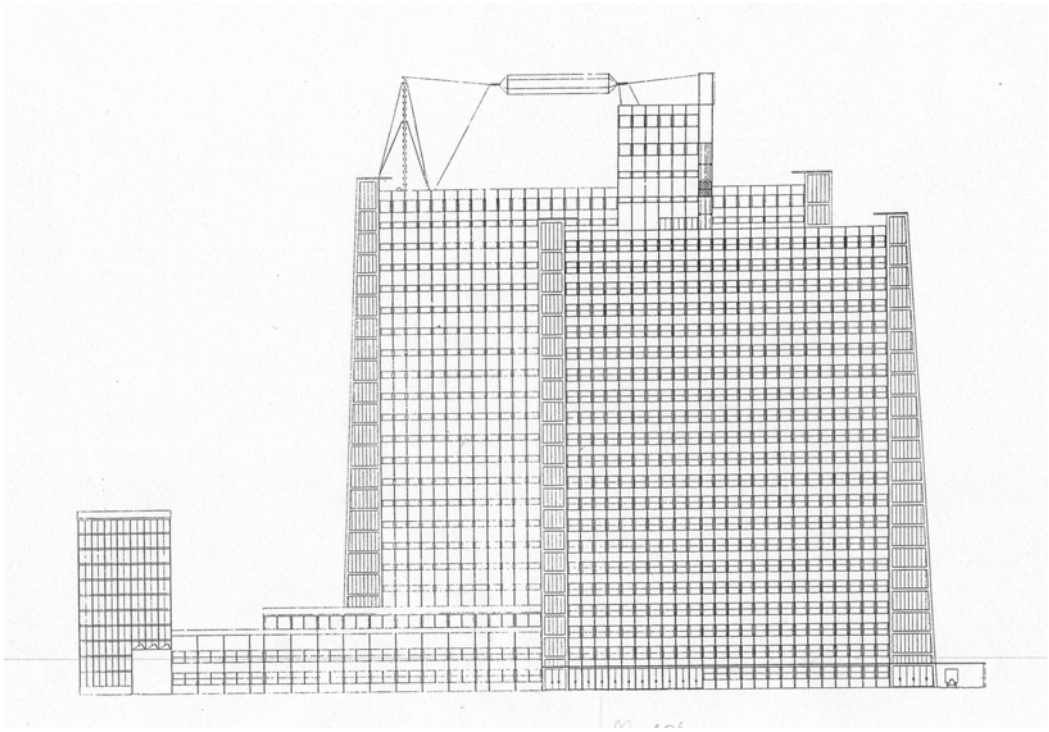

Figure 56 The League of Nations Project, Hannes Meyer- Western Elevation

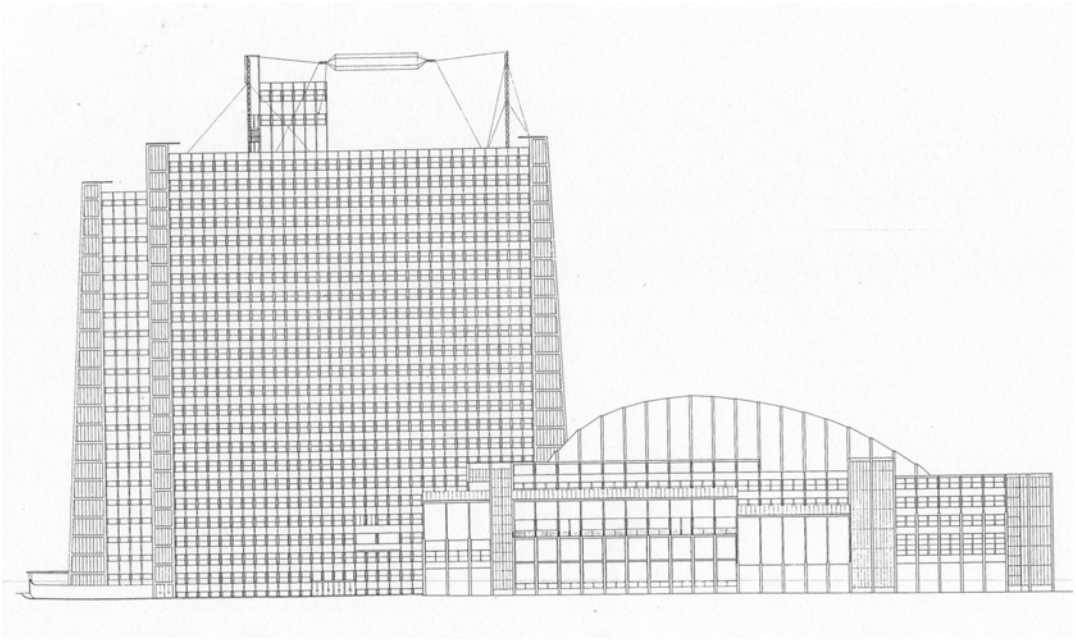

Figure 57 The League of Nations Project, Hannes Meyer- Eastern Elevation

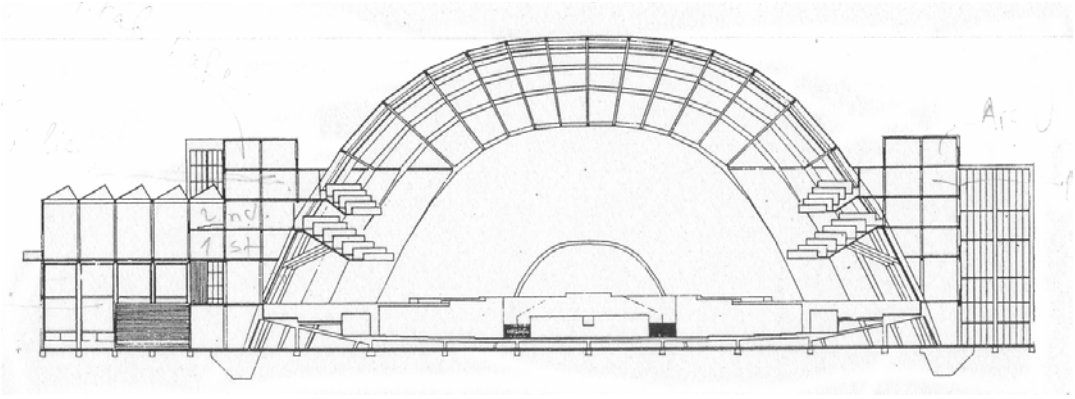

Figure 58 The League of Nations Project, Hannes Meyer- Transversal Section through the Assembly Building

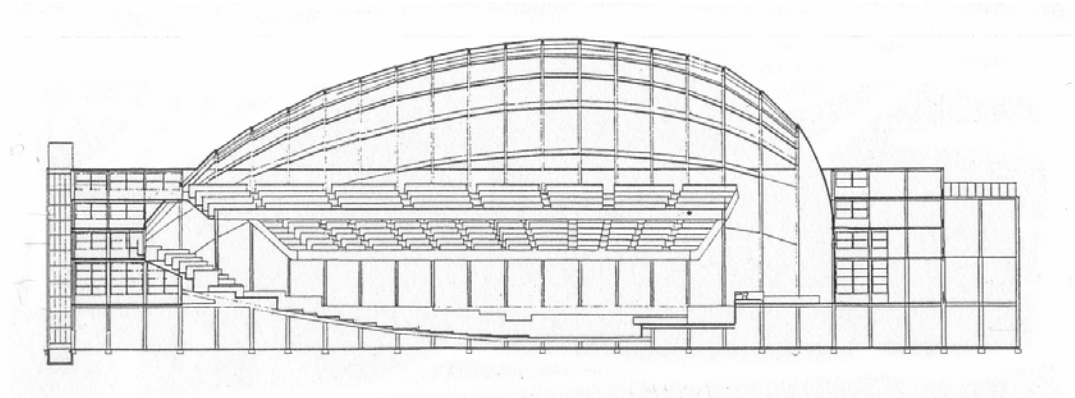

Figure 59 The League of Nations Project, Hannes Meyer- Longitudinal Section through the Assembly Building

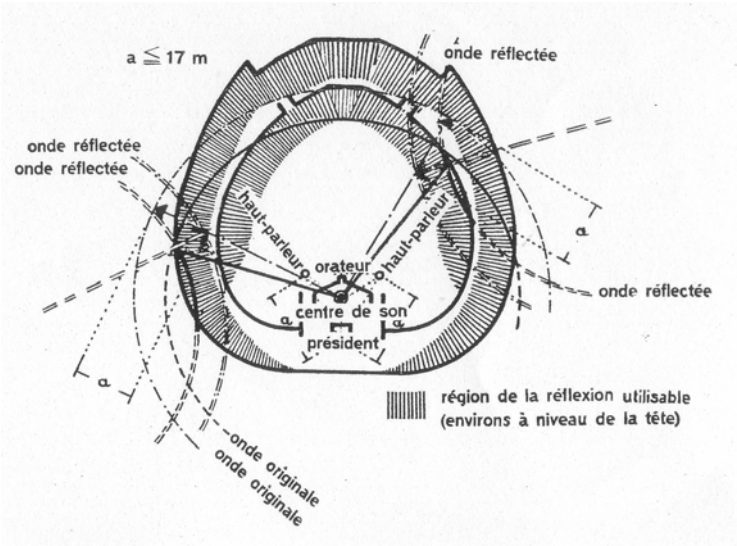


Figure 60 The League of Nations Project, Hannes Meyer- Drawing to Determine the Amount of Useful Sound Reflected at the Level of the Acoustic Center

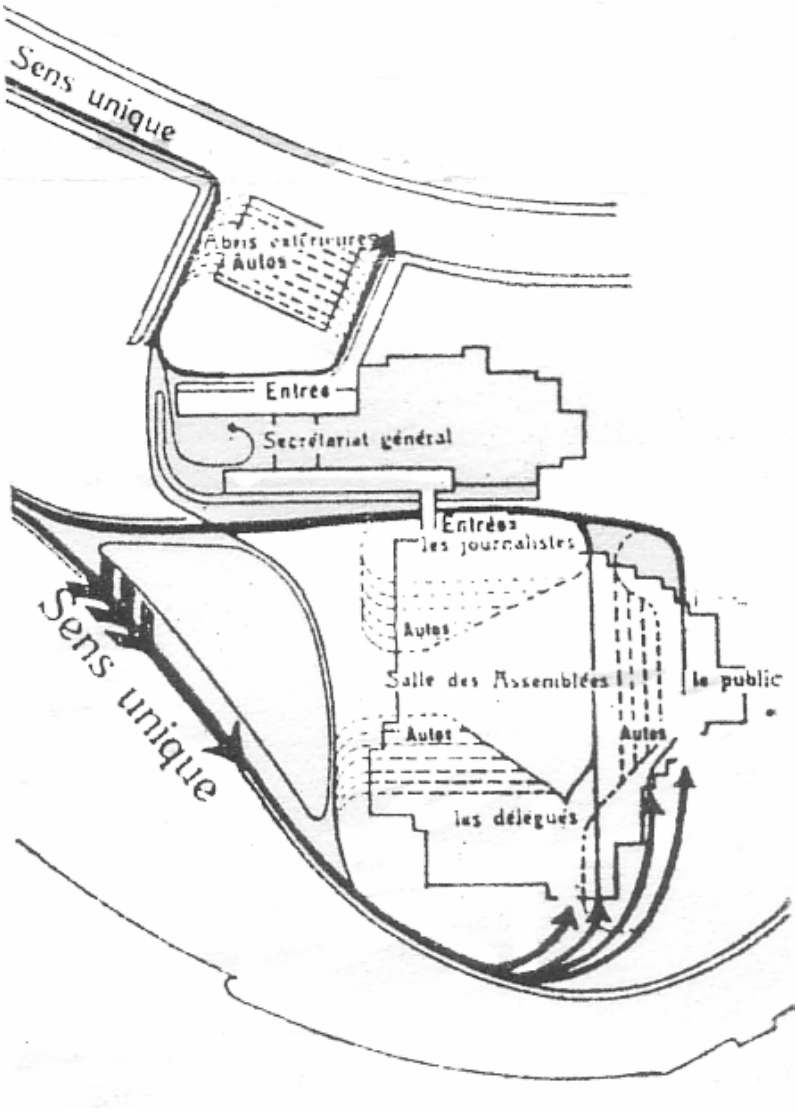


Figure 61 The League of Nations Project, Hannes Meyer- Car Access and Distribution Diagram

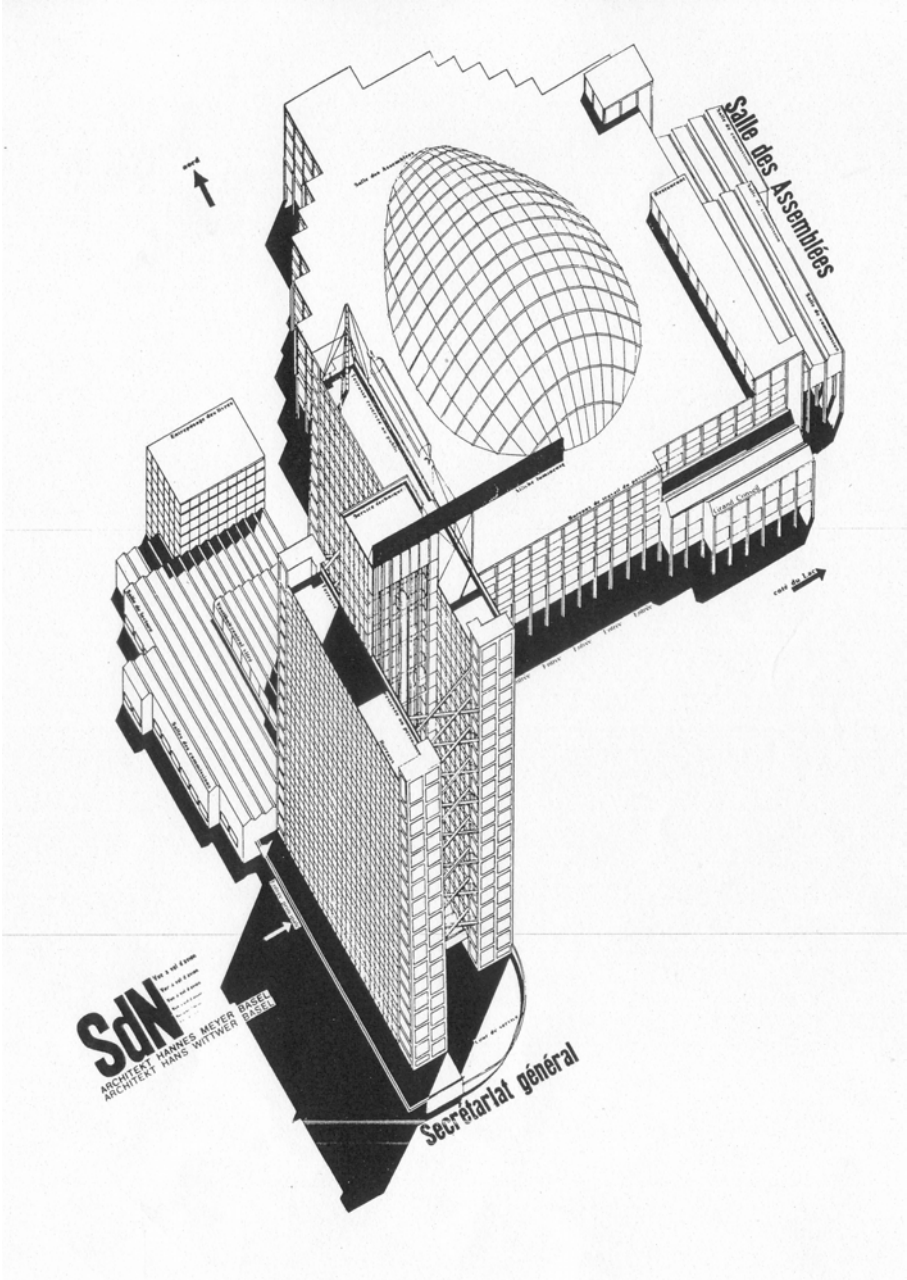


Figure 62 The League of Nations Project, Hannes Meyer- Axonometric View

## APPENDIX A

### Hannes Meyer, The New World, 1926

The flight of the "Norge" to the North Pole, the Zeiss planetarium at Jena and Flettner's rotor ship represent the latest stages to be reported in the mechanization of our planet. Being the outcome of extreme precision in thought, they all provide striking evidence of the way in which science continues to permeate our environment. Thus in the diagram of the present age we find everywhere amidst the sinuous lines of its social and economic fields of force straight lines which are mechanical and scientific in origin. They are cogent evidence of the victory of man the thinker over amorphous nature. This new (scientific)knowledge undermines and transforms existing values. It gives our new world its shape.

Motor cars dash along our streets. On a traffic island in the Champs Elysées from 6 to 8 p. m. there rages round one metropolitan dynamicism at its most strident. "Ford" and "Rolls Royce" have burst open the core of the town obliterating distance and effacing the boundaries between town and country. Aircraft slip through the air: "Fokker" and "Farman" widen our range of movement and the distance between us and the earth; they disregard national frontiers and bring nation closer to nation. Illuminated signs twinkle, loud-speakers screech, posters advertise, display windows shine forth. The simultaneity of events enormously extends our concept of "space and time", it enriches our life. We live faster and therefore longer. We have a keener sense of speed than ever before, and speed records are a direct gain for all. Gliding, parachute descents and music hall acrobatics refine our desire for balance. The precise division into hours of the time we spend working in office and factory and the split-minute timing of railway timetables make us live more consciously. With swimming pools, sanatoria and public lavatories, hygiene appears on the local scene and its water closets, faience wash-bowls and baths usher in the new line of sanitary fittings in earthenware. Fordson tractors and v. Meyenburg cultivators have resulted in a shift of emphasis in land development and speeded up the tilling of the earth and the intensive cultivation of crops. Borrough's calculating machine sets free our brain, the dictaphone our hand, Ford's motor our place-bound senses and Handley Page our earthbound spirits. Radio, marconigram and phototelegraphy liberate us from our national seclusion and make us part of a world community. The gramophone, microphone orchestrion and pianola accustom our ears to the sound of impersonal-mechanized rhythms: "His Master's Voice", "Vox" and "Brunswick" see to the musical needs of millions. Psychoanalysis has burst open the all too narrow dwelling of the soul and graphology has laid bare the character of the individual. "Mazdaism", "Coué" and "Die Schönheit" are signs of the desire for reform breaking out everywhere. National costume is giving way to fashion and the external masculinization of woman shows that inwardly the two sexes have equal rights. Biology, psychoanalysis, relativity and entomology are common intellectual property: France, Einstein, Freud and Fabre are the saints of this Iatterday. Our

homes are more mobile than ever. Large blocks of flats, sleeping cars, house yachts and transatlantic liners undermine the local concept of the "homeland". The fatherland goes into a decline. We learn Esperanto. We become cosmopolitan.

The steadily increasing perfection attained in printing, photographic and cinematographic processes enables the real world to be reproduced with an ever greater degree of accuracy. The picture the landscape presents to the eye today is more diversified than ever before; hangars and power houses are the cathedrals of the spirit of the age. This picture has the power to influence through the specific shapes, colors and lights of its modern elements: the wireless aerials, the dams, the lattice girders: through the parabola of the airship, the triangle of the traffic signs, the circle of the railway signal, the rectangle of the billboard; through the linear element of transmission lines: telephone wires, overhead tram wires, high-tension cables; through radio towers, concrete posts, flashing lights and filling stations. Our children do not deign to look at a snorting steam locomotive but entrust themselves with cool confidence to the miracle of electric traction. G. Palucca's dances, von Laban's movement choirs and D. Mesendieck's functional gymnastics are driving out the aesthetic eroticism of the nude in painting. The stadium has carried the day against the art museum, and physical reality has taken the place of beautiful illusion. Sport merges the individual into the mass. Sport is becoming the university of collective feeling. Suzanne Lenglen's cancellation of a match disappoints hundreds of thousands, Breitenstrater's defeat sends a shiver through hundreds of thousands. Hundreds of thousands follow Nurmis race over 10000 meters on the running track. The standardization of our requirements is shown by: the bowler hat, bobbed hair, the tango, jazz, the Co-op product, the DIN standard size and Liebig's meat extract. The standardization of mental fare is illustrated by the crowds going to see Harold Lloyd, Douglas Fairbanks and Jackie Coogan. Grock and the three Fratellini weld the masses — irrespective of class and racial differences, — into a community with a common fate. Trade union, co-operative, Ltd., Inc., cartel, trust and the League of Nations are the forms in which today's social conglomerations find expression, and the radio and the rotary press are their media of communication. Co-operation rules the world. The community rules the individual.

Each age demands its own form. It is our mission to give our new world a new shape with the means of today. But our knowledge of the past is a burden that weighs upon us, and inherent in our advanced education are impediments tragically barring our new paths. The unqualified affirmation of the present age presupposes the ruthless denial of the past. The ancient institutions of the old — the classical grammar schools and the academies — are growing obsolete. The municipal theatres and the museums are deserted. The jittery helplessness of applied arts is proverbial. In their place, unburdened by classical airs and graces, 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. The composition of a dock seems to us a nonsensical idea, but the composition of a town plan, a block of flats...?? 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 our house is a living machine. Retention of heat, insulation, natural and artificial lighting, hygiene, weather protection, car maintenance, cooking, radio, maximum possible relief for the housewife, sexual and family life, etc. are the determining lines of force. The house is their component. (Snugness and prestige are not leitmotifs of the dwelling house: the first resides in the human heart and not in the Persian carpet, the second in the attitude of the house-owner and not on the wall of the room!) Today we have new building materials at our disposal for building a house: aluminum and duralumin in plates, rods arid bars, Euböolith, Ruberoid, Forfoleum, Eternit, rolled glass, Triplex sheets, reinforced concrete, glass bricks, faience, steel frames, concrete frame slabs and pillars, Trolith, Galalith, Cellon, Goudron, Ripolin, indanthrene paints, etc. We organize these building elements into a constructive unity in accordance with the purpose of the building and economic principles. Architecture has ceased to be an agency continuing the growth of tradition or an embodiment 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 forms. Constructive form is not peculiar to any country; it is cosmopolitan and the expression of an international philosophy of building. Internationality is a prerogative of our time.

Today every phase of our culture of expression is predominantly constructive. Human inertia being what it is, it is not surprising that such an approach is to be found most clearly at first where the Greeks and Louis XIV have never set foot: in advertising, in typographical mechanical composition, in the cinema, in photographic processes. The modern poster presents lettering and product or trademark conspicuously arranged. It is not a poster work of art but a piece of visual sensationalism. In the display window of today psychological capital is made of the tensions between modern materials with the aid of lighting. It is display window organization rather than window dressing. It appeals to the finely distinguishing sense of materials found in modern man and covers the gamut of its expressive power: fortissimo = tennis shoes to Havana cigarettes to scouring soap to nut chocolate! Mezzo-forte = glass (as a bottle) to wood (as a packing case) to pasteboard (as packing) to tin (as a can)! Pianissimo = silk pyjamas to cambric shirts to Valenciennes lace to “L’Origan de Coty”!

In Esperanto we construct a supranational language according to the law of least resistance, in standard shorthand a script with no tradition. The constructive mode of thought is most urgently needed in town planning. Unless we approach problems of town planning with the same impartiality as the factory engineer, we shall throttle the social life of the modern city through monument worship and uncritically accepted ideas about street axes and viewing points. The city is the most complex biological agglomeration, and it must be consciously regulated and constructively shaped by man. The demands we make on life today are all of the same nature depending on social stratification. The surest sign of true community is the satisfaction of the same needs by the same means. The upshot of such a collective demand is the standard product. The folding chair, roll-top desk, light bulb, bath tub

and portable gramophone are typical standard products manufactured internationally and showing a uniform design. They are apparatus in the mechanization of our daily life. They are manufactured in quantity as a mass-produced article, as a mass-produced device, as a mass-produced structural element, as a mass-produced house. The standard mental product is called a 'hit". Because of the standardization of his needs as regards housing, food and mental sustenance, the semi-nomad of our modern productive system has the benefit of freedom of movement, economies, simplification and relaxation, all of which are vitally important to him. The degree of our standardization is an index of our communal productive system.

Art has an undisputed right to exist provided the speculative spirit of mankind has need of it after the graphic-colored, plastic-constructive, musical-kinetic overthrow of its philosophy of life. (We are deliberately refraining from mentioning in this connection the individual experiments of isolated artists, the "isms"; one of the best, Piet Mondrain, recently characterized what has been achieved so far as a substitute for the better achievement that still has to be achieved). This new creative work can only be done on the basis of our time and with the means of our time. Yesterday is dead; Bohemia is dead. Dead are atmosphere, color values, burr, mellow tones and random brush-strokes. Dead the novel: we have neither the suspension of disbelief nor the time to read. Dead picture and sculpture as images of the real world: in the age of films and photos they are a dissipation of effort and the endless "beautification" of our real world through the interpretations of "artists" is presumptuous. Dead is the work of art as a "thing in itself", as "art for art's sake'': our communal consciousness will not tolerate any individualistic excesses.

The artist's studio has become a scientific and technical laboratory, and his works are the fruit of incisive thinking and inventive genius. Like any product of its time, the work of art today is subject to the living conditions of our age, and the result of our speculative dialogue with the world can only be set down in a precise form. The new work of art is a totality, not an excerpt, not an impression. The new work of art is an elemental creation made by primary means. (El Lissitzky's "Story of 2 Squares" is still an illusion of a spatial excerpt conjured up by the draughtsman's art; it is not a primary creation. Willy Baumeister's "Mauerbild" (a kind of impasto) makes use solely of the media of a "Mauerbild", viz. planes of color, and is created from primary elements, forming a totality, an independent whole). The new work of art is a work for all, not a collector's piece or the privilege of a single individual. The revolution in our attitude of mind to the reorganization of our world calls for a change in our media of expression. Today is ousting yesterday in material, form and tools, Instead of the random blow with an axe, we have the chain mortiser. Instead of the scumbled line of the charcoal pencil, we have the clean-cut line produced with the T-square. Instead of easel-work, we have the drafting machine. Instead -of the French horn, the saxophone. Instead of a copy of light reflections, we use light itself to create with (as a photograph, a light organ, projected cinematography, picture photography). Instead of the sculptural imitation of movement, we have movement itself (the synchronized film, illuminated advertising, gymnastics, eurhythmics, dancing). Instead of lyrics, we have the sound poem. Instead of the novel, the short story. Instead of color tone, we have value of the color in Iuxes. Instead of sculpture,

we have constructions Instead of caricature, photosculpture. Instead of drama, the sketch. Instead of opera, the revue. Instead of frescos, the poster. Instead of painted material, the color of the material itself. ("Painting without a brush" in itself calls for picture construction for manual reasons). The nine muses were long ago abducted by practical men and have stepped down again into life from their high pedestals, more humdrum and more reasonable. Their fields have been expropriated, confused and blurred. The boundaries between painting, mathematics and music can no longer be defined; and between sound and color there is only the gradual difference of oscillatory frequency. The depreciation of all works of art is indisputable, and there can be no question that the continued utilization of new and exact knowledge in their place is merely a matter of time. The art of felt imitation is in the process of being dismantled. Art is becoming invention and controlled reality. And personality? The heart?? The soul??? Our plea is for absolute segregation. Let the three be relegated to their own peculiar fields: the love urge, the enjoyment of nature, and social relations.

## APPENDIX B

### B. Hannes Meyer, Building, 1928

All things in this world are a product of the formula:
(function times economics)

So none of these things are works of art:
all art is composition and hence unsuited to a particular end.
All life is function and therefore not artistic.
The idea of the "composition of a dock" is enough to make a cat laugh!
But how is a town plan designed?
Or a plan of a dwelling? Composition or function? Art or life?????

Building is a biological process. Building is not an aesthetic process. In its basic design the new dwelling house becomes not only a piece of machinery for living in but also a biological apparatus serving the needs of body and mind.

— The modern age provides new building materials for the new way of building houses:

| | | |
|---|---|---|
| ferroconcrete | wire glass | aluminium |
| synthetic rubber | cork composition | euböolith |
| synthetic leather | synthetic resin | plywood |
| foam concrete | synthetic horn | gum elastic |
| wood's metal | synthetic wood | torfofeum |

| | | |
|---|---|---|
| silicon steel | ripolin | asbestos |
| cold glue | viscose | acetone |
| cellular concrete | eternit | casein |
| rolled glass | goudron | trolit |
| xelotekt | canvas | tombak |

We organize these building materials on economic principles into a constructive whole, thus the individual shape, the body of the structure, the color of the material and the texture of the surface come automatically into being and are determined by life.

(Snugness and prestige are not leitmotifs in house building.)
(for the first, one looks to the human heart and not - -the wall of the room...)
(the second comes from the manner of the host and not his persian carpet!)
Architecture as an "embodiment of the artist's emotions" has no justification.

Architecture as "continuing the building tradition" means being carried on the tide of building history.

Thinking of building in functional and biological terms as giving shape to the living process leads logically to pure construction: these constructive forms have no native country, they are the expression of an international trend of architectural thought. Internationality is a virtue of the period. Pure construction is the basis and characteristic of the new world of forms.

1. sex life
2. sleeping habits
3. pets
4. gardening
5. personal hygiene
6. protection against weather
7. hygiene in the home
8. car maintenance
9. cooking
10. heating
11. insolation
12. service

These are the only requirements to be considered when building a house. we look at the daily routine of each person living in the house and this gives the function diagram for father, mother, child, infant and other occupants. we examine the interactions between the house and its occupants and the world outside: postman, passer-by, visitor, neighbour, burglar, chimney-sweep, washerwoman, policeman, doctor, charwoman, playmate, gas inspector, tradesman, nurse, and errand boy. We examine the ways in which human beings and animals are related to the garden, and the reciprocal effects that human beings, pets and domestic insects have on one another. We calculate the annual fluctuations in the-temperature of the soil and with these data work out the loss of heat through the floors and the depth of the foundation blocks. — The geological nature of the garden subsoil determines its capillarity and decides whether water will percolate away or whether land drains are required. We calculate the angle of the sun's incidence in the course of the year and in relation to the latitude of the site, and with this knowledge we determine the size of the shadow cast by the house in the garden and the amount of sun admitted by the window into the bedroom, we work out the amount of daylight falling on the working area of the interior and we compare the heat conductivity of the outside walls with the humidity content of the outside air. we are already familiar with the movement of air in a heated space. the optical and acoustic relationship with the neighbouring house is arranged with the utmost care, knowing the atavistic preference of the future occupants for our building woods, we accordingly select for the interior furnishings of the standardized prefabricated house grained deal, stout poplar, exotic okumé or satiny maple. For us color is merely a means of deliberately influencing the mind or else a signpost. Color is never used to simulate all kinds of material. Variegated color is anathema to us. Paint for us is a means of protecting materials, where color seems psychologically indispensable, we include its light reflecting value in our calculations. We avoid a pure white finish for the house: we consider the body of the house to be a storage cell for the heat of the sun...

The new house is a prefabricated unit for site assembly and, as such, an industrial product and a work of specialists: economists, statisticians, hygienists, climatologists, industrial engineers, standards experts heat engineers…and the architect?. . . he was an artist and has become a specialist in organization!

The new house is a social enterprise.

It gets rid of partial unemployment in the building industry during the off-season, and it does away with the odium attaching to unemployment relief projects. By putting housework on a rational basis it saves the housewife from slavery in the home, and by putting gardening on a rational basis it saves the householder from the dabbling of the small gardener. It is primarily a social enterprise because, like every DIN standard, it is the standardized industrial product of a nameless group of inventors.

Moreover, as one of the final forms in which the welfare of the nation is to be realized, the new housing estate is a purposively organized work which engages the energies of all and in which co-operative effort and individual effort join forces in a common cause. This estate is modern not because of flat roofs or a vertical and horizontal division of its facades but because of its direct connection with human existence. In it the tensions of the individual, the sexes, the neighbourhood and the community and the geopsychical relationships have been deliberately patterned.

building is the deliberate organization of the processes of life.
building as a technical procedure is therefore only a partial process. the function diagram and economic programme are the main guiding principles in a building scheme.
building is no longer an individual task in which architectural ambition is realized.
building is a joint undertaking of craftsmen and inventors, only he who can himself master the living process in working jointly with others... is a master builder.
building has grown from being an individual affair of individuals (promoted through unemployment and housing shortage) to a collective affair of the nation.

Building is only organization: social, technical, economic, psychological organization.

## APPENDIX C

### Hannes Meyer, Bauhaus and society, 1929

In every creative design appropriate to living we recognize an organized form of existence.

Given proper embodiment every creative design appropriate to living is a reflection of contemporary society. —building and design are for us one and the same, and they are a social process. As a 'university of design" the Dessau Bauhaus is not an artistic, but a social phenomenon.

As creative designers our activities are determined by society, and the scope of our tasks is set by society. Does not our present society in Germany call for thousands of people's schools, people's parks, people's houses? Hundreds of thousands of people's flats?? Millions of pieces of people's furniture??? (What are the connoisseurs' gibberings worth when set against these) (After the cubistic cubes of Bauhaus objectivity?) Thus we take the structure and the vital needs of our community as given. We seek to achieve the widest possible survey of the people's life, the deepest possible insight into the people's soul, the broadest possible knowledge of this community. As creative designers we are the servants of this community. Our work is service to the people. All life is an urge towards harmony. Growing means striving after the harmonious enjoyment of oxygen + carbon + sugar + starch + protein. Work means our search for the harmonious form of existence. We are not seeking~a Bauhaus style or a Bauhaus fashion. No modishly-flat plane-surface ornamentation divided horizontally and vertically and all done up in neoplastic style. We are not seeking geometric or stereometric constructions, alien to life and inimical to function. We are not in Timbuctoo: Ritual and hierarchy are not dictators of our creative designing. We despise every form which is prostituted into a formula. Thus the ultimate aim of all Bauhaus work is to bring together all vitally creative forces so as to give harmonious shape to our society. As members of the Bauhaus we are seekers: We seek the harmonious work, the outcome of the conscious organization of intellectual and spiritual forces. Every human work is directed to an object and the world of its creator is apparent in it. This is his life-line. Thus our work collective in aim and embracing the broad masses in its scope becomes a manifestation of a philosophy of life.

Art?!

All art is organization.

The organization of the dialogue between this world and the other, the organization of the sense impressions of the human eye, and accordingly subjective, bound to the person, and accordingly objective, determined by society. Art is not a

beauty aid, art is not a discharge of affect, art is only organization. Classical: in the module of the logical geometry of Euclid, gothic: in the acute angle as the pattern of passion, renaissance: in the golden section as the rule of balance. Art has always been nothing but organization. We of today long to obtain through art solely the knowledge of a new objective organization, meant for all, manifesto and mediator of a collective society. Thus a theory of art becomes a system of organizing principles and indispensable to every creative designer. Thus being an artist is no longer a profession but the vocation to become a creator of order. Thus Bauhaus art is also a means of experimenting in objective order.

The new Bauhaus school as a centre of education in shaping life makes no selection of the gifted. It despises the imitative intellectual mobility of talent; it is alive to the danger of intellectual schism: inbreeding, egocentrism, unworldliness, aloofness. The new building school is a place for testing aptitude. Everyone has an aptitude for something. Life refuses no one. A capacity for symbiosis is inherent in every individual. Hence education for creative design engages the whole man. Removes inhibitions, anxiety, repression. Eliminates pretence, bias, prejudice.

It unites the liberation of the designer with the capacity for becoming identified with society.

The new theory of building is an epistemology of existence. As a theory of design it is the song of songs of harmony. As a theory of society it is a strategy for balancing co-operative forces and individual forces within the community of a people. This theory of building is not a theory of style. It is not a constructivist system, it is not a doctrine of technical miracles. It is a system for organizing life, and it likewise clarifies physical, psychical, material and economic concerns. It explores, delimits and orders the fields of force of the individual, the family and society. Its basis is the recognition of the living space and the knowledge of the periodicity of the process of living. Spiritual distance is as important to it as the distance measured in meters. Its creative media are — deliberately employed —the results of biological research. Because this doctrine of building is close to life's realities its theses are constantly changing: because it finds concrete existence in life, its forms are as rich in content as life itself. "Richness is all". Finally all creative action is determined by the fate of the landscape which for the man with roots there is peculiar and unique, his work is personal and localized. If a floating population lacks these roots its work easily becomes stereotyped and standardized. A conscious experience of the landscape is building as determined by fate. As creators we fulfil the fate of the landscape.

## APPENDIX D

### Hannes Meyer, My Dismissal from the Bauhaus, 1930

Open letter to Oberbürgermeister Hesse, Dessau

Sir,

At the same time as I received your letter dated August 1,1930 containing my dismissal without notice as the Director of the Bauhaus, I saw in the Berlin papers that a servant girl had been dismissed by her employers without notice because she had dared to perform her duties without stockings, that is with bare legs. I am ready to side with her, for, when all is said, I also owe my dismissal to my habit of baring not my legs but my ideas. I would ask you as my erstwhile superior to allow me to indulge my peculiar habit in this letter. —

What has happened?

On April 4,1927 I was appointed Bauhaus master of architecture at this University of Design by Professor Dr.-lng. Walter Gropius, the founder of the Bauhaus at Dessau. On April 1, 1928 I took over his post as Director after it had been declined by Mies van der Rohe. Thus I became a stop-gap and the insignificant successor of a great predecessor.

Herr Oberbürgermeister! Allow me to introduce the Bauhaus and myself to readers of "Das Tagebuch". I am Swiss, 40 years of age, married, living apart from my family; 5 ft. 9 in. tall, hair flecked with grey, eyes grayish blue, nose, mouth and forehead are (according to my Swiss passport) "medium", special characteristics: external none. Now the Bauhaus itself: as the

"Bauhaus Dessau" it is an institution belonging to the City of Dessau with an annual grant of RM 133000. — and as a "University of Design" it is answerable to the government of Anhalt. The annual budget is RM 167000.—there are 171 students, including 41 foreigners, 13 full-time and 4 part-time teachers, and Paul Klee, L. Feininger and W. Kandinsky as artists with a world-wide reputation.

What did I find on my appointment?

A Bauhaus whose reputation had vastly outrun its power of achievement and which was the object of unprecedented publicity. A "university of design" which made the shape of every tea-glass a problem in constructivist aesthetics. A "cathedral of socialism" in which a medieval cult was practiced with the revolutionaries of pre-war art aided by a rising generation who were casting sly looks leftwards and yet hoped at the same time to be canonized one day in the same temple.

Every path to a school of design which would satisfy the normal needs of life was barred by inbred theories. The cube was all the rage and its sides were yellow, red, blue, white, grey, black. This Bauhaus cube was given to children to play with and the bright young things of the Bauhaus to trifle with. The square was red. The circle was blue. The triangle was yellow. They sat and slept on furniture like colored geometry. They lived in houses like colored sculpture. What lay on the floor as carpets were the mental complexes of young girls. Everywhere art had a stranglehold on life. This resulted in the tragicomic situation in which I found myself: As Director of the Bauhaus I was fighting against the Bauhaus style.

I fought constructively under my motto: all life is a striving after oxygen + carbon + sugar + starch + protein. Therefore, all design must be anchored in this life. Building is a biological and not an aesthetic process. Building is not the embodiment of an individual passion but a collective action. Building is the social, psychological, technical and economic organization of the processes of life. Building is a demonstration of a philosophy of life and strongly held opinions are inseparable from strong work. I taught the students the connection between building and society, the path from formal intuition to scientific buildin9 research and the precedence of the people's needs over luxuries. I taught them to despise the multi-fariousness of idealist reality and together we strove to attain the sole reality that can be mastered —that of the measurable, visible and ponderable.

It became my aim to place design on a scientific basis and there were some fundamental changes in the curriculum of the institution. The constructional engineer joined forces with the industrial consultant. The new appointments to the Bauhaus staff indicated the course that had been set: the socialist -- -architect L. Hilbersheimer, Berlin, the mathematician and photographer W. Peterhans, Berlin, the Norwegian architect and critical philosopher E. Heiberg. I wanted to guard against the danger of our activities becoming pseudo-scientific by steadily building up the courses given by visiting lecturers, and with the preposterous sum of RM 3000. — At my disposal, I engaged personalities like Dir. 0. Neurath, Vienna, K. von Meyenburg, Basle, Dr. Dunker, Berlin, Dr. H. Riedel, Dresden, Dr.R.Carnap, Freiburg, Dr. W. Dubislav, Berlin, Dr. E. Feigl, Vienna, Stadtrat Dr. L. Schmincke, Neukolln, Count Durkheim, Leipzig, Karel Teige, Prague, Dr. H. Prirtzhorn, Frankfurt, etc. and then, as "light relief" Hermann Finsterlin, Hans Richter, Ernst Toiler, Disga Werthoff, Piet Zwaart. — I remedied the proverbial collective neuroses of the Bauhaus (the result of a one-sided emphasis on brainwork) by introducing physical training: a ‘‘university without physical exercise~~ seemed to me an absurdity. The weekly time-table took into account the variability in the capacity of the students to learn and the focal point of the week was three eight-hour days of workshop work. It was decided that there should be an introduction to gestalt psychology in the winter of 1930/31 in conjunction with Professor Felix Kruger, Leipzig, and his circle, a basic course in sociology was prepared and I had plans in mind to remedy the omission of lectures in social economics from our curriculum. All of which shows how unsuited I was to be the subordinate business manager of the "aera gropii". I had views of my own and I put them forward as plainly as I

could.

The external success of this two-year period of Bauhaus work is well known to you, Herr Oberbürgermeister. The annual production of about RM 128000, — (1928) has been almost doubled. The number of students increased from 160 to 197 and we could control the intake only by fixing a limit to admissions. The international "Circle of Friends of the Bauhaus" increased its membership from 318 to over 500. In the last business year, RM 32000, — was paid out to students by way of wages and this enabled those who were less well off to study there. A Bauhaus travelling exhibition publicized our ideas in Basle, Breslau, Dessau, Essen, Mannheim and Zurich. As the Director of the Bauhaus I preached my lectures in Vienna, Breslau, Basle, Prague, Dessau, Nuremberg, Mannheim, Essen, Bonn, etc. industrial firms came along with urgent requests, engaged Bauhaus students on their staffs, and concluded license agreements for Bauhaus fabrics, lamps, standard furniture, and wallpapers. We were given important assignments to design exhibitions for the aircraft, chocolate and canned goods industries. Within a year 4000 dwelling units were hung with Bauhaus wallpapers. There was thus every prospect of our finances being improved in future in the only really sound way, namely through self-help. My private commission to build the Federal School of the "General Trade Unions Federation of Germany" at Bernau near Berlin indirectly engaged the efforts of Bauhaus students and sometimes the Bauhaus itself. There was a study group working on the general development plan for Dessau, one was engaged on four experimental houses while another erected 90 workers' flats: two groups began to supply new furniture adapted to the environment of the child and persons living alone. The people seemed to have broken into our ivory tower. The production of consumer goods became the dominant theme and the last of the art students went to mix paints for the wallpapers.

Throughout this period of collaboration we were united in our concern at the threat of politics being brought into the Bauhaus. To you, Herr Oberbürgermeister, the threat seemed to come from within the Bauhaus; for me, it came from outside. I still remember that morning in March when Comrade Paulick, Duke of Anhalt and the German Socialist Party, entered my study unannounced to attempt his first encroachment on the autonomy of our university. How revealing was his soft baritone voice when he said that 'the Oberbürgermeister was my superior in form, whereas he was my superior in fact". Because I am against the Bauhaus becoming involved in politics, I acted in my capacity as Director and dissolved the communist cell among the students of the Bauhaus. You informed the Government of Anhalt of this step. Thus, when in July 1930 a false report appeared in the local Dessau press in connection with a voluntary collection made by some Bauhaus students for the "International Workers' Aid" and stated that there was still a local group of the German Communist Party in the Bauhaus Dessau, the Government of Anhalt very properly requested that this contradiction should be investigated. You were unable to give effect to this request, for the cultural reactionists had long ago arranged in secret for a lust murder to be committed during the Bauhaus vacation.

Herr Oberbürgermeister! On my return from the opening of the Bauhaus

travelling exhibition in Zurich, I came to see you on July 29, 1930. There was great excitement in Dessau. The 90 workers' flats in the Dessau-Törten estate, the first project to be jointly designed by our building department, were ready for occupation. Thousands flocked to see them. Unqualified recognition in every newspaper. A $2^1/2$-room flat with a kitchen, bathroom and amenities for RM 37.50 per month rent! At last an achievement in keeping with the role of the new Bauhaus. The job had been done under my guidance but was actually carried out by a group of young students. I stepped into your room with a feeling of relief. You referred to the investigation of Bauhaus affairs which the Anhalt Government was demanding as a result of the false report from the town authorities — and called for my immediate resignation. The reason: it was alleged I was bringing politics into the Bauhaus. A Marxist (you said) could never be the Director of the Bauhaus. Immediate cause of dismissal: a voluntary contribution as a private person to the International Workers' Aid Fund for helping the distressed families of miners on strike in the Mansfeld coalfield. It was no use my reiterating that I had never belonged to any political party. It was no use explaining that a "Bauhaus Dessau" group of the German Communist Party was impossibility from the party organization point of view, no use my assuring you that my political activities were of a cultural and never a party character. You cut me short and interpreted my nervous smile as agreement.

And so I was liquidated from behind. Just when the Bauhaus was closed for the vacation and all my intimates in the Bauhaus were far away from home. The Bauhaus camarilla rejoiced. The local press of Dessau was overcome by a moral delirium. The Bauhaus condor Gropius swooped down from the Eiffel tower and pecked at my directorial body, and, reassured, W. Kandinsky stretched out on the Adriatic beach: It is finished.

Herr Oberbürgermeister! A hundred years ago my compatriot Lavater racked his brains in Dessau trying to penetrate the inscrutability of the Anhalt physiognomies. As an amateur botanist I will try to understand you, the democratic reed swaying in the party winds. In spite of the injustice you have done me, I believe that your personal honour is unimpugned. I can appreciate the unpleasant duties sometimes devolving upon you in your role as Lord Chamberlain of the Dessau Town Hall. "How embarrassing", sang the choir in Paul Hindemith's opera "Neues vom Tage" last winter at the Dessau theatre, when the lady lay there in her bath. "How embarrassing" that it should be you of all people who have to kill me, the guileless one, in the very midst of my work of building up the Bauhaus. How embarrassing, Herr Oberbürgermeister, how embarrassing!

Zoological gardens, museums and race courses are forms in which the municipal urge to count for something finds expression. Besides "Wörlitz" and 'Junkers" Dessau has acquired a Bauhaus. Instead of keeping exotic animals, it keeps those egregious men whom the world admires as great artists. It is one of my deepest convictions that art cannot be taught. The clover field of young Bauhaus painters, cultivated by the most extraordinary painter individualist, will lie fallow in our age when social upheaval and the collective shortage of vital necessities are at their greatest. Moreover, it is a crime to give young people who are to be designers in the

society of tomorrow the stale pabulum of obsolete art theories as nourishment. This is the heart of the matter. You are flirting with your culturally bolshevist institution and at the same time you forbid the inmates to be Marxists. For the camarilla concealed behind you the Bauhaus is an object of political megalomania and professorial vanities and an aesthetic amusement joint. For us in the Bauhaus it is a place where life is given a new shape. Municipal politics wants you to provide resounding Bauhaus successes, a brilliant Bauhaus facade and a prestigious Bauhaus Director. We in the Bauhaus are more and more content with the anonymity of our collective work. We believed that increasing specialization in the Bauhaus was in tune with the times in which we live and the Director was a comrade among comrades. Your Bauhaus glitters outside, ours glows inwardly. — What is to be done? Do we give up or do we instill a new spirit? Are we to have an art school or a Bauhaus?

Herr Oberbürgermeister! Fame is the sum of all the misunderstandings attaching to a name. Let us hope that my dismissal without notice (this easily misunderstood official act) will add to your fame, at least in Dessau and the Free State of Anhalt. But beyond the Ascanian frontiers people will find your conduct incomprehensible, ungentlemanly and inhuman.

Herr Oberbürgermeister! It is now your intention to exorcise the spirit of Marxism from the Bauhaus I have so tainted. Morals, propriety, decency and order are to be ushered in again on the arm of the Muses. As my successor you have allowed Mies van der Rohe to be imposed upon you, on the advice of Gropius and not — as the articles prescribe — on the advice of the Bauhaus masters. My colleague, poor fellow, is no doubt expected to take his pick-axe and demolish my work in pious memory of the Moholyian past of the Bauhaus. This infamous Marxism is to be fought, I suppose, with every weapon and thus the very life shaken out of the unsullied Bauhaus. Down with Marxism! And for this purpose who should you have chosen but Mies van der Rohe who designed the memorial for Karl Liebknecht and Red Rosie! Herr Oberbürgermeister, shall I (for the last time) express my sympathy?

Herr Oberbürgermeister, my erstwhile colleague, the dismissed servant girl (with the unclad shanks) says she doesn’t understand the Bauhaus affair.

Herr Oberbürgermeister, once again I side with that girl. I can see through everything. I understand nothing.

## APPENDIX E

### Meyer, Hannes: On Marxist architecture. 1931. (Manuscript in German)

Thirteen Principles of "Marxist architecture"

1. Architecture is no longer the art of building. Building has become a Science. Architecture is building science.

2. Building is not a matter of feeling but of knowing. Hence building is not an act of composition dictated by feeling. Building is an act of premeditated organization.

3. The architect is the organizer of the building sciences. He is not himself a scientist in the strict sense of the word.

4. Since building is a process of organization the strictly scientific structure of the socialist planned economy can alone afford an opportunity for organized architecture to develop in its highest form.

5. The rudiments of Socialist architecture in a planned economy are composed of norms, types and standards. We make dimensional requirements conform to a norm so as to obtain a standard space and standard equipment. We organize these standardized elements to make up the standard organic architectural entities of practical socialist life.

6. As the socialist planned economy materializes in the sphere of building the steady diminution of the multiplicity of standard elements (equipment, building elements, spaces) is an indication of the steady socialization of life in the mass.

7. The final product of Socialist building practice is never an isolated building but part of a productive or as recreational centre in a sozgorod or agro centre. These centers of work and recreation are, as organic architectural entities, the only final objectives of socialist architecture.

8. The building system of the socialist town is elastic, not rigid. The greater the elasticity of such centers of industry, housing, education and recreation, the greater is the practical effect on the continuous process of socializing the life of the masses.

9. The artistic mission of proletarian architecture is to produce organic architectural entities which lend themselves to the most varied manifestations of proletarian art; mass cinema, mass demonstrations, mass theatre and mass sport…The building itself is not a work of art. Its size is determined by the

dimensions and functions of its programme and not by the shallow pathos of any trimmings.

10. The socialist building is neither beautiful nor ugly, it is perfect or imperfect, right or wrong. The result of a process of organization does not stand or fall by any aesthetic assessment...

11. In line with the Marxist maxim that "being determines consciousness" the socialist building is a factor in mass psychology. Hence towns and their buildings must be organized psychologically in keeping with the findings of a science in which psychology is kept constantly in the foreground. The individual sensibilities of the artist-architect must not be allowed to determine the psychological effect of the building. The elements in a building that have a telling psychological effect (poster area, loudspeaker, light dispenser, staircase, color, etc.) must be organically integrated so as to accord with our profoundest insights into the laws of perception

12. Socialist architecture calls for a radical change in the teaching of building. The socialist theory of architecture is a science which introduces into the building process the Marxist laws and the ideology of the proletariat. Out, then, with the doctrine of composition prompted by the emotions! In, then, with the doctrine of organization as dictated by the reason! The socialist doctrine of building must teach aspirants to the profession of architect the rudiments of the art in the form of a doctrine of standardization embracing technical, economic and social standards, types and norms. It must enable the student to analyze the processes of life and teach him to give organic unity to this knowledge in the building.

13. Following all this, the role of the architect in the socialist reconstruction is clear. The Leninist architect is not an aesthetic lackey and, unlike his colleague in the West, not a lawyer and custodian of the interests of the capitalist ruling class there. His opportunity to collaborate in socialist building is not an opportunity to prostitute his own private complexes of wishful emotions. The Leninist architect is an organizational assistant in the economically planned building process of socialist society. A building, whatever its kind, is for him an impersonal work whose structure is determined by mass requirements, norms, types and standards. It is typical of his work to rationalize means and processes and to avoid as far as possible the use of materials in short supply. He avoids deviating left-wards to the utopistic project and rightwards to modernism and classicism. He strives constantly and with scientific objectivity to introduce the latest results of research into the process of building. Revolutionary elasticity and scientific objectivity are the hallmarks of the Leninist architect. For him architecture is not an aesthetic stimulus but a keen-edged weapon in the class struggle.

## APPENDIX F

### Hannes Meyer, Bauhaus Dessau 1927—30, 1940

My Experience of a Polytechnical Education

Introduction

All man's creative work is influenced by the form of society and the period in which it is produced, by the material used, and by local circumstances. What was progressive and justified in its existence in Germany under the Weimar Republic from 1919 to 1933 cannot be resuscitated without modification in the situation prevailing in Mexico on the brink of the second six-year plan. That would be a denial of the dialectic of history. For this reason the items of educational experience acquired at the "Dessau Bauhaus" and recounted below for professional circles in Mexico are not intended to be slavishly imitated but rather to serve as a stimulus in the field of polytechnical education.

The Bauhaus was very much an offspring of the German Republic with which its life coincided exactly; but from the outset it was also very much a European and indeed an international centre of education. Founded at Weimar in 1919 during the post-war chaos by the architect Walter Gropius, its original form had been partly shaped by the emotionally toned Expressionism current at the time. For, although it was intended from the outset as a centre of instruction in many technical arts, its staff comprised, besides two architects, seven abstract artists including such men of calibre as the American Lyonel Feininger, the Russian W. Kandinsky and the German Paul Klee, who were later to become world-famous. There were no exact scientists at all. A majority of the students were adherents of one kind or other of "life reform". Teachers and students lived in the same building; no one had much money and they all had many worries in common. This was productive of the marked social unity of the Bauhaus, in which there were virtually no class distinctions. Radically different philosophies of life fraternized under its roof.

In 1925 the Bauhaus was forced on political grounds to leave Weimar absorbed in its classical reveries and it found a new refuge in Dessau, the capital of the Land of Anhalt (Central Germany). This was a go-ahead industrial region (aircraft, brown coal, chemicals). The local authorities generously made substantial funds available for erecting new lecture buildings and workshops, 28 student studios and large villas for the masters. The town with its population of 86000 commissioned a model housing estate and kept the Bauhaus workshops well supplied with orders. The social gap between the students and the masters was aggravated by the marked differences in their ways of life. The initial vigor and inventiveness displayed in industrial design was increasingly lost in an empty formula which, under the name of "Bauhaus style", turned the heads of the formalists. At the beginning of 1928 Walter

Gropius resigned for reasons connected with local politics and five of the masters sided with him. This marked the end of what is known as the first Bauhaus period.

The following period, during which the architect Hannes Meyer was Director, was notable for the emphasis placed on the social mission of the Bauhaus, for the increased role of the exact sciences in the curriculum, for the suppression of the painter's influence, for co-operative development of the workshop units, for making on-the-job instruction the basis of workshop theory, for developing types and standards to meet the people's needs, the democratization of the studies and for closer collaboration between the students, the workers' movement and the trade unions. This second period in the history of the Bauhaus came to an end on August 1, 1930 when a new wave of reaction led to the dismissal of the Director and the expulsion of a number of students.

The third period of the history of the Bauhaus, during which the architect Mies van der Rohe was Director, was marked by a return to a conventional system of instruction. The students were no longer allowed to have any say in the organization of the teaching. Sociological subjects and notions were banished, particularly from workshop activities. Scions of the exclusive classes appeared again amongst the students and in the workshops exclusive furniture was made from exclusive material. The first organized Nazis made their appearance among the students. Yet, for all these concessions to the spirit of the times, the Bauhaus was doomed to leave Dessau and, after a brief resuscitation in Berlin, was closed by the Hitler government in the spring of 1933.

Below the author describes the experience gained at the Bauhaus in Dessau and its achievements during this second period (1 927—1 930) for which he accepts responsibility as the Director in office at that time.

Organization

During this period the "Bauhaus" comprised the following sections:
a) Basic or preliminary training (tests)
b)Weaving and dyeing shop
c) Wall painting workshop
d) Advertising workshop (incl. department of plastic art)
e) Printing workshop
f) Photography workshop
g) Metal workshop
h) Joinery
i) Stage department with stage workshop, dancing school, jazz
j) Building department with workshop of architecture and constructional theory.

There were also 2 free painting classes (master studios). Theoretical instruction in the form of courses or lectures by visiting speakers was centered on these workshop units.

All students had to spend one six-month term in preliminary training on entering the school, and then do 6 to 7 six-month terms in the workshops and 9 six-month terms in the building department, two of which could be spent in any workshop. On the completion of his studies, the student received the "Bauhaus Diploma" of his profession; at the same time he also passed his state journeyman's examination.

First of all, a word about the preliminary training, which was elaborated by Josef Albers. Educationally, it had the function of a probationary period. Its purpose was to employ tests to discover or develop special aptitudes, inventiveness, associative capacity, manual dexterity and knowledge of materials. The students were set to make free a purposeless" constructions out of paper, wood, straw, sheet metal, textiles, aluminum, etc. without the use of any tools except knife and scissors. In this way the student became familiar with the innate qualities of the material. One pupil succeeded in ~making a light—weight construction of thin pasteboard which was capable of bearing the full weight of a man. It very frequently happened that the new students grouped themselves spontaneously according to whether their gifts lay predominantly in their faculty of invention, in their sense of method or in their sensitivity, and thus according to their preference for construction, improvisation or the exact sciences.

Parallel to the basic training, the students also attended during subsequent terms compulsory courses in which they were given a thorough grounding in the aesthetics of color, typography, aesthetics of form, photography, figure drawing, materials, and systematics.

Study through practical work more and more the actual job itself came to occupy the central position in polytechnical education at the Bauhaus during that time; it was not a question of studying an imaginary piece of work in a fictitious environment. Not a fictitious house, that is, on an imaginary plot of land but a job it was intended to carry out and put to use; in other words, a real piece of work in real surroundings. For example: a house in a small town in the Eiffel commissioned by a doctor, model houses for the lower middle classes in Dessau, blocks of flats for industrial workers — all of which were planned and constructed by the workshop community. And in the case of individual items of work, the article of furniture made expressly for some infatuated follower of "modern" fashion was dismissed from the foreground of interest. It was now the turn of standard furniture for mass consumption the product of modern large-scale manufacture, the product of a close study of the habits of the people, of social standardization, of physiological and psychological functions, of standardized production and of careful costing.

Such a philosophy of polytechnical education in which the focus was on the actual work to be carried out met with serious initial difficulties. It was not every commission offered to the Bauhaus by an outside client that was typical enough to serve as a standard work, and sorting out those which were suitable called for a great deal of thought. Sometimes a commission which was suitable in itself had to be turned down for lack of time, because it takes time to extract the educational value

from such a piece of work and there was a risk of the individual workshop becoming indistinguishable from any other factory in the same line. Preference had to be given among the orders offered to the one which promised to have the greatest universality in the problems it posed and which had the biggest contribution to make to the further development of traditional types of lamp, working chair, upholstery material, etc.

Then the individual workshops (joinery, weaving, printing, metallurgy, wall painting, photography, advertising, stage) and the building studio had to be developed more and more into economically independent working groups. For whereas hitherto the individual student had found in these workshops the instrument and the expert advice he needed for his own professional training and took pride in the result of his individual endeavours the students now grouped themselves into vertical "work brigades" to tackle a real assignment by their joint efforts. In this "vertical brigade" students in different years worked together and the older students helped the younger ones under the expert guidance of the master.

Ultimately and to an increasing extent theoretical instruction had to be shaped to meet the requirements of the working group and the problems implicit in the actual job of work it took in hand. For how could a student in the workshop form a picture of the users of his standard furniture, viz, the people in all their different strata, classes and economic categories, unless he had a knowledge of social economics? How could he be familiarized with manufacturing processes unless he improved his knowledge of industrial organization? How could he gain an understanding of functional form in terms of psychology if not by a systematic course of instruction in psychology? How often was the arcanum of art made a pretext for obscurantism when what was really needed was recourse to the closely interlinked exact sciences?

Taking an actual job as the central point of their studies made it necessary for the students concerned to come to grips with the exigencies of time and material inseparable from the execution of an order in their particular field. The group had everything to do from writing the first letter ordering the material to checking the final accounts. This was an approach which avoided the gap separating academic learning from actual practice and its occasional acrimonies. Moreover, the work done by polytechnicians within the industrially developed productive system of today involves more often than not the dovetailing of the individual expert into the team working on a particular assignment. This means that the individual must have the insight to subordinate himself to the group in a common cause. But if during his training the working group was at the same time an educational unit (in complete contrast to the individual training usually given) then he will find co-operation with others easy right from the outset. Finally, organizing the working group round an actual job of work meant that the most able could be picked out for special tasks, thus achieving a more productive division of labour. And, last but not least, this mode of study embodied a piece of practical philosophy. For if capitalistic society endeavours to prepare the individual for the professional struggle that lies ahead by putting him through a highly developed form of vocational training as an individual,

it is only logical to insist that all those working in the socialist planned economy of the future, and particularly the intellectual specialists, should have had experience of the various ways in which their profession is exercised on a collective basis.

The workshops

It was interesting to see the brisk manner in which the various workshops set about converting these abstract ideas into reality in their own particular field.

The weaving department provides an excellent example. It was equipped with about 25 looms (from the simple peasant's loom to the complicated Jacquard) and was thus fully capable of producing upholstery materials, curtaining, divan covers, carpets and prototypes for large-scale production. Evidence of the way in which scientific knowledge had affected their approach to textiles is provided by the neatly constructed fabric for the great hall of the first German Trade Unions School at Bernau-Berlin. Instead of the decorative carpets and wall hangings which were formerly so popular and embodied the artistic reveries of young ladies, an increasing number of experimental tissues were made in which such new materials as plastics, aluminum, light alloys, glass, etc. were conjured into yarn. Finally a license agreement was signed with a wholesale concern for a series of upholstery and curtaining materials which were subsequently much sought after as "Bauhaus" materials.

In the wall painting workshop discussion suddenly turned to color-organs at a popular price, these being based on psychological studies at Leipzig university. New and inexpensive processes for exterior and interior plastering were devised, and new protective varnishes for spray-painting furniture were tried out. The painting of the exteriors of a number of public buildings in Dessau afforded an opportunity to make practical use of the knowledge gained. Finally a group of young painters began to study the problem raised by wallpapers under the climatic conditions of Central Europe. There were already low-cost workers' flats built to a pleasantly practical design, but there were no plain textured wallpapers at a reasonable price for the mass consumer. The Hanover Wallpaper Factory at Bramsche, at that time one of the seven largest German wallpaper manufacturers, acquired the right to make our "Bauhaus" wallpapers, which were a great success on the building market. In 1929 alone (the year they were introduced) more than 20000 rooms in Germany and neighbouring countries were papered with them. From the educational point of view, they provided an opportunity of dealing with the problem of "color in the interior" as a general principle and also of making "hygiene in the worker's home" a reality by producing cheap washable wallpapers.

The advertising workshop obtained from the firms manufacturing all Bauhaus products under license the commission to design the entire range of their newspaper advertisements, catalogues and posters. It undertook the complete design of a complicated display lay-out for the Berlin building exhibition in 1928 on behalf of the firm of Junkers (manufacturers of aircraft and sanitary equipment). It produced an illuminated sign for the Suchard chocolate factory and another one for the Tourist

Office of the town of Dessau. Maquettes had to be made for the Dresden Museum of Hygiene and the department also saw to all the advertising matter, books and periodicals for the Bauhaus. The touring exhibition, however, called for constant new ideas, and every time the Bauhaus took part in outside exhibitions, which was often, it had to apply its advertising material anew. Finally all these commissions provided a welcome opportunity to systematize these advertising elements (form - color - light - material) in terms of their psychological effectiveness among the masses.

The photographic workshop was a new addition. Typically enough, its master, Peterhans, was originally a mathematician. He now turned to teaching photographic optics and chemistry in a three years' course for young people training to be camera reporters and advertising photographers. In this workshop the "actual job of work" was provided by, say, a series of photographs for a reportage on a topical event or constructional work, by enlargements for exhibitions, photosculpture and photomontage by a series of photographs for illustrating a scientific book, and particularly by working in collaboration with the advertising workshop.

Whereas the metal workshop had formerly concentrated on silver jewellery and formalistic lamps, it was now under contract to send a representative every week or month to Körting and Mathiessen, then the largest German lamp manufacturers in Leipzig, where he checked the entire production of this exporting firm and referred new models of lamps to the workshop for the perfection of their design. Students with an inventive turn of mind varied the rigid forms of the metal chair by adding folding, turning and sprung elements and attempted to improve the support it afforded to the body of the sitter. In this way working stools for the kitchen, working chairs, and folding seats for halls were designed for large-scale production.

It was easier to put this new philosophy into practice in the joinery workshop, for standards and types had always been respected there. It was mainly a question of relinquishing the standards of the wealthy middle classes and finding new ones suitable for large-scale consumption. Dismountable furniture was invented which could be readily assembled from single elements. The life of the masses had become more "mobile", times were harder and it was necessary to move house more often. Thus "lightweight furniture" was made from the thinnest wood; such furniture was not worth moving and could simply be written off and left behind. Relatively large deliveries of furniture were made for complete living units or even entire buildings. The design of these was based on the idea of modular units which could be used separately or in combination. The user was thus enabled to arrange the suite of furniture as he liked for any purpose he wished. Finally an agreement was signed with a joinery co-operative in Bremen for the large-scale production of the models produced by the joinery workshop. These products were marketed as "Bauhaus" furniture. For example, 60 rooms for 120 students in residence at the Federal School of the General German Trades Union Federation were fitted out with our furniture.

Even the stage workshop abandoned its abstract art and its preoccupation with the meaningless interplay of cubes, surfaces, colors and light in favour of something truly realistic. This company soon went on tour and let the people be their

own judges of the social criticism inherent in the pieces it staged in ,the people's theatres both inside and outside Germany. Repetition of the final sketch, however, was forbidden because of the attitude of the authorities: its strictures on the Third Republic were too close to the truth. Human beings had at last shaken loose from cubist formalism; from being mere lay figures they had once more become creatures of flesh and blood plunging into contemporary history with a sense of realism and their faculties as social critics all alert.

Building

It was in the building department that the results of "study through practical work" were most in evidence. Here worked an international team of architects comprising the Dutchman Mart Stain, the German Ludwig Hilberseimer, the Dane Edvard Heiberg, the Austrian Anton Brenner and the Swiss Hans Wittwer and Hannes Meyer. In our building course we developed a "functional building" which, contrary to popular interpretation, was something much more than the "purely technical". It was our hope to give added depth and richness to architecture by an analysis of the social situation and a careful study of all biological factors, special attention being paid to the mental factors involved in the way people organized their lives. The use various families made of the living space at their disposal was studied so as to give a better notion of a typical "living cell", and finally the town planning of Dessau was critically analyzed so as to reveal clearly the inadequacies of this "model" town. The workers' quarters were situated without exception in the zones where industrial nuisances were at their greatest whereas the cultural institutions were concentrated where the wealthier section of the community lived. The government of the town, however, forbade us to make the results of our investigation public!

In the architectural workshop we made a joint effort to hew a way through the difficulties which at first beset our building projects. The town government called for a tourist office, model houses for the lower middle classes, plans for housing 15000 new inhabitants, and proposals for reconstructing the town market. By outside clients we were asked to design a doctor's house in the Eifel, a tuberculosis sanatorium and an anglers' settlement near Berlin. At the beginning of 1930 a dozen architectural students built 90 workers' flats in 5 balcony houses according to our designs in the Törten-Dessau housing estate. A monthly rent of RM 27.50 made these 3-room flats with bathroom, kitchen and independent central heating some of the cheapest on the market at that time. The monthly salary of the students working on this job, however, was between RM 120—1 50.

As the productivity of the Bauhaus increased, the economic position of the centre as a whole and of its individual workshops and students rapidly improved. The economic and business side of the work was passed to a special office of management. The special expenditure incurred in connection with each assignment (material, travel, wages) was deducted from the revenue received on the completion of the work, from supplies of goods, and from licenses and fees. The gross profit remaining was divided equally between the three organizational units working on

each job. One third went to the Bauhaus, one third to the workshop in question, and one third to the working group directly involved. In the case of royalties for isolated designs or inventions licensed to industry, the designer or inventor (student) also received a third of the royalty. Each workshop team used its share of the gross profits as it saw fit. The workshop master in charge received between 10 and 15 per cent of the sum according to circumstances. In the financial year of 1929 some RM 32000 was paid out to the students as their direct share in the gross profits. A student's average monthly expenditure at that time was about RM 75, i.e. RM 900 a year. The 100 or so students financially interested in the workshop activities drew an average annual income of about RM 320 from the Bauhaus work, which was equivalent to a grant defraying 35% of the outgoings of all participants. The way to relieving students of economic hardship by productive work in the workshops became marked out with increasing clarity.

Productive work accomplished by co-operative effort in the workshops and the new conception of our mission as creative designers undertaken in the service of the broad masses and with a view to enabling students to earn while still studying brought about far-reaching changes in the internal social structure of the Bauhaus. Whereas formerly it had principally been the sons and daughters of moneyed families who had come to the Bauhaus to work individually "in the service of abstract art", many of them flaunting themselves on canvas in imitation of such famous masters as Klee, Kandinsky and Feininger, there was now an increasing number of students at the Bauhaus from all classes of society.

Representatives of the trade union movement and Marxists such as Prof. Hermann Duncker and Dr. Max Hodann, the sex educationist, came to the new centre as visiting lecturers. Noted scholars went out of their way to share as guests in shaping the background of theory. The elderly Prof. Wilhelm Ostwald, creator of a scientific chromatology, and Prof. Count Dürckheim lectured on psychology.

It became increasingly common for progressive leaders in various industries in Germany and neighbouring countries to seek contact with the Bauhaus in order to obtain new standard types for their manufacturing programmes or to secure the services of particularly well-trained specialists. The touring exhibitions of the Bauhaus, which visited various European cities, were an additional means of publicizing the results of the Bauhaus workshops in wide professional circles. This dissemination of the aims of the Bauhaus was also promoted by lectures given by the Director and the professors in almost every European city, and by a "Circle of Friends of the Bauhaus" with branches all over the world and a selected membership of five hundred, and also by a periodical. It is no mere coincidence if today, in the industrially and socially most advanced countries in the world, people trained at the Bauhaus (photographers, metal workers, advertising consultants, textile experts, people in the theatre, furniture designers, architects and builders) are either practicing or teaching their particular skill.

In 1930 the practical results achieved by the Bauhaus in its activities brought in their train another wave of reaction. This was not primarily due to the defensive

posture understandably adopted by the conservative elements of the population, who saw that their classico-bourgeois culture was threatened by a world of novel forms. Certain groups of artisans such as carpenters, slaters and wrought-iron specialists conceived that their livings were jeopardized by the "new building" whose merits the Bauhaus was propagating. There were no more steep roofs covered with tiles and wire-glass spelt the end of windows embellished by the applied arts. A minority among the great art masters inside the Bauhaus felt they were being thrust against the wall by a creative method which was based on science. The government of Dessau, however, realized more and more as each month passed that workshop production was making the much-criticized institution increasingly independent of the city's budget. But this meant that the Bauhaus would elude the grasp of the local parties as a pawn in their game of power politics. So "Close it down!" was the cry.

## APPENDIX G

**Hannes Meyer, Education of the Architect: Lecture to the San Carlos Academy, Mexico, 30. 9. 1938 (Manuscript in German)**

Before proceeding to discuss the training oft e architect, we must first be clear in our minds as to the scope of the activities subsumed under the name architecture.

Architecture is a process of giving form and pattern to the social life of the community. Architecture is not an individual act performed by an artist-architect and charged with his emotions. Building is a collective action.

Society determines the contents of its own life and thus the contents of architecture within the framework of a specific social system within a specific period of time with specific economic and technical means and in a specific place in a real situation. It is therefore something closely touching the material concerns of a collective stratum, a class, a nation.

Architecture is thus a social manifestation and indissolubly linked with the structure of society at a given point of time. Once separated from the society of its age, it becomes an empty sham and a toy for the infatuated followers of vulgar fashion. Today, in an epoch of the greatest social confusion when one social system is merging into the next, we should not be surprised if architecture itself displays the heterogeneous forms of the transition.

The architect is thus a regulator and shaper of the living processes of his society. He studies its material and spiritual needs and converts them into plastic reality, he organizes the technical and structural possibilities, he is familiar with the biological prerequisites and knows the social object of his work, he understands the historical mission of the constructor, and knows how to draw upon the folkloric and cultural heritage, he unites in his work the most disparate arts, the dynamic photograph of publicity, the play of water, the elements of traffic, the arts of the gardener.

Thus the architect is an organizer.
He is an organizer of the specialists without being a specialist himself!
The architect is an artist, for all art is a matter of organization; that is, of reality shaped according to a new system...

Like all the arts, architecture is a matter of public morals. The architect is fulfilling his moral function if he analyses his assignment with single-minded truthfulness and puts it into the form of a building honestly and boldly.

The cry for an "international architecture" in this age of national self-sufficiency, of the awakening of the colonial peoples, of the common front in Latin America against imperialism, the socialist reconstruction in the Soviet Union, and of the expropriation of the railways, large estates and oil wells for the benefit of the people in Mexico, is a dream of those building aesthetes who, anxious to be thought in the forefront of fashion, conjure up for themselves a uniform world of buildings constructed of glass, concrete and steel, detached from social reality...

This brings us to the problem of content and form in architecture. The form of the building must have a social content, otherwise it is mere decoration and formalism. We condemn the exhibitionist as an antisocial element in society, and we should also condemn that type of architect for whom the building of a house is merely an opportunity to parade personal formal preferences for all the street to see. And the content of the building must be expressed with formal mastery so that there can be no doubt as to the social functions of the building. The standardized hut of the Mexican railway worker as an element of a progressive, democratic state, represents a higher form of housing than the hut in a labour camp in present-day Germany, although they are both exactly the same in construction and appearance.

We would call the process of building a conscious patterning of the socio-economic, the techno- constructive and the psycho-physiological elements in the social living process. We architects must master this task in its totality, i.e. in all the demands— biological, artistic and historical — it makes upon us.

We must find a dialectic solution to the problems of building (i.e. in the novel context of a given time). We must find a differentiated form for them (i.e. in the novel functional form of a given time)

It is crucially important that the public should play a part in the training of the architect...

Here in Mexico I am struck by the way in which architectural circles are isolated from the people whereas fresco painting enjoys a unique popularity! In 1931 in Prague a group of young architects made an analysis of living conditions in the beautiful Czech capital. It caused such a stir that the police had to close the modest exhibition in which it was presented.

In Oslo in 1932 a co-operative of young architects made a camera reportage on the housing in the old town which forced the newspapers of every political persuasion to take up the question of housing and bring it out into the open.

The upshot of both cases was that broad masses of the population began to concern themselves with the idea of architecture as a means to hygienic living conditions...

Why is it that here in Mexico, where there is a vigorous trade union movement, a workers' university, and an awakening peasantry, there is no way of

associating the people with the business of giving architecture its shape in co-operation with the architects?

If we accept the conception of architecture described here, the following conclusions can be drawn concerning the training of the architect:

a) He must be trained as an analyst, he must be able to grasp reality in all the different forms in which it appears. Since he is concerned throughout with a socio-economic reality, he must have a knowledge of sociology (without being a specialist sociologist). How otherwise will he be able to work in, say, Mexico where so many social systems (pre-feudal, feudal, capitalist and a system in transition to socialism) are intermingled? How will he be able to understand the forms housing takes in these four sets of social conditions?

It is not enough for him to have some glimmerings about the co-operative or the trade union movements in general, he must be able to grasp the differences between co-operative and trade union life.

b) He must train to be a creative inventor who helps to bring the new architecture into being through exact and analytical thinking (he is not a formalist artist). He must be conversant with biological sciences (without becoming a specialist biologist!). For without hygiene or climatology or the science of management he will have no functional diagrams, i.e. no data on which he can elaborate his architectural forms.

c) As an artist he must be a master of the various ordering systems and the artistic orders. By these I do not mean the Corinthian or Doric orders, with which he will naturally be acquainted as a matter of architectural history. I mean more particularly the psychological orders of lines, planes and solids. I mean the tensions between various materials, their surface structure, division, proportions: their effect in a group or singly . . . in brief the wherewithal for a deliberate psychological shaping and patterning of material.

d) His technical and constructional training should include above all standardized forms. (For in special cases he will need the help of the specialist engineer!)

He should be familiar with the standardized building methods on which both the handicraft and the highly industrialized building concerns are based. But he must also be conversant with old methods of building. (If he is not, how can he possibly carry out renovations or reconstructions and understand the history of architecture?)

e) He must be a master of architectural history not as an empty theory of building forms but as a record of the relationship between style and the form of society. Only if he grasps, for instance, the co-operative character of the mediaeval guilds and their desire to be masters of their own fate, will he be able to understand the multitude of functional forms which were new to the Middle Ages in Europe

(I am thinking of staircases, oriels).

He must learn to understand that the rhythm of Doric columns changes with the rhythm of social life, and that a repressed people can never create free orders of columns. He must be capable of appreciating folklore as something more than textiles and decorated pottery; namely, as a translation of the imaginative world of nature and religion into such functional media as plant fibres, wool, clay, etc. The colourful story-telling of Mexican textiles would be quite unimaginable in a gloomy environment!

f) He must have a knowledge of town-planning (without being an urbanist).

How else will he be able to fit his building into the general framework of the town?

How will he be able to study structural forms in town planning, particularly the distribution of accents, the skyline, parks and verdant zones, unless he has some notion of the purposes of town planning? But the trained architect is not himself a town planner! ...

In conclusion let me summarize my suggestions for the reorganization of your academy of architecture:

1. Productive education in the actual field of building
2. Development of the system of work brigades
3. Development of the link with the public and social criticism
4. Economic liberation of the students and the professors
5. No status school for intellectuals! No formalism!

Development of the creative powers of the architectural inventor.

Remember:

Architecture is a weapon which at all times has been wielded by the ruling class of human society. In Mexico you are living in a state which is one of the most progressive democracies in the world. Fight for the truly progressive architecture of this state