



Delft University of Technology

Delft Lectures on Architectural Design 2017/2018

Komossa, Susanne; Gramsbergen, Esther; Schreurs, Eirene; Spoormans, Lidwine; Teerds, Hans

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Delft University of Technology

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Komossa, Susanne; Gramsbergen, Esther; Schreurs, Eirene; Spoormans, Lidwine; Teerds, Hans

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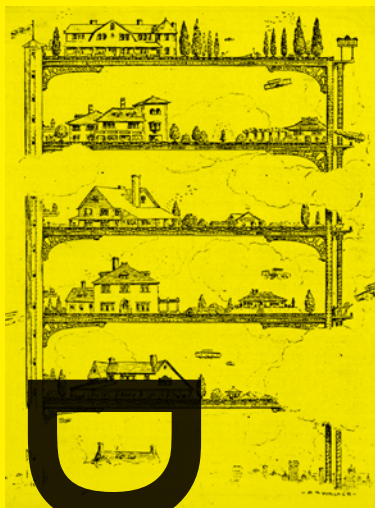
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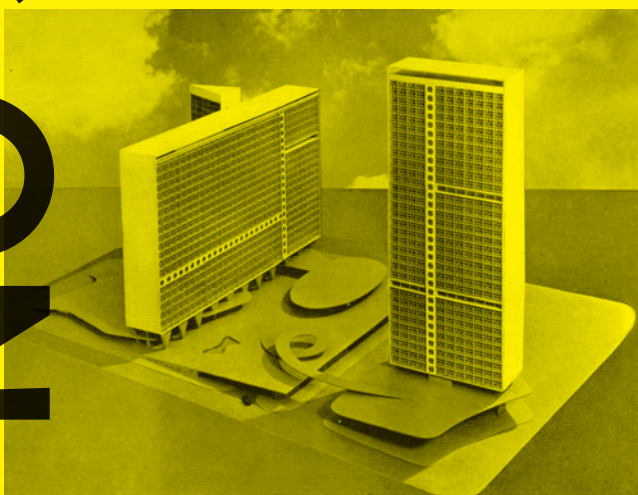
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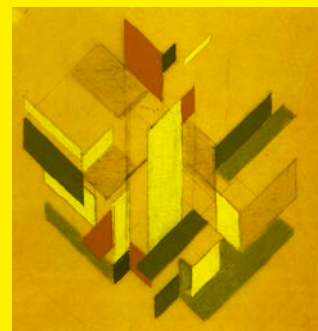
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'If the term 'architects of reason' has any meaning, I believe it must relate to the experience in architecture (and hence in building, the city, its assessment in the light of history and so on) that specifically led to an analysis and construction of architecture in rational terms, in other words making use of techniques peculiar to reason.

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Preface — Delft Lectures on Architectural Design

The idea of this lecture series is to enable various full professors, associate professors and researchers to present their positions held in architectural design within the faculty's master track in architecture. Next to their collaboration in the actual lectures, the faculty staff each has handed in a contribution to this reader, in which the lecturers reflect upon both contemporary key problems within the field of architecture, and/or their own sources of inspiration and illumination.

Hence, the audience and target group of the lecture series and reader are MSc1 students. Since this student group has diverse educational backgrounds, like bachelor students from Delft, college students, Erasmus students and International Master students from all over the world, this series offers what actually 'forms' the Delft Master program on architecture for both an informed and un-informed public. For the students the series renders thus an introduction to the MSc architecture programs & design studios, which are offered by a variety of architecture chairs located within the faculty. For the outside world – other architecture faculties, academic researchers, professional practice and interested lay(wo)men – the reader might be of interest as well, because it provides insight into the current stances of the Delft school of A+BE vis-à-vis architectural design.

The *introduction* of the reader illuminates the way in which certain approaches to research and design evolved at the Delft Faculty of Architecture as a consequence of student revolts after 1968. It traces the roots of what today might be considered part of the 'Delft DNA' and as such, could be considered specific for the Delft approach to architecture if compared to other schools across Europe.

We arranged the contributions to this reader according to the structure of the department of Architecture and the department of Architectural Engineering and Technology. Within these departments we distinguish the chairs, headed by professors representing a specific field. So, for Architecture there are six chairs: Architectural Composition & Public Building, Architecture & Dwelling, The Architecture of the Interior, Complex Projects, Methods & Analysis and The Why Factory. From the department of Architectural Engineering and Technology, the chairs of Architecture & Engineering and Heritage & Architecture are involved. For each chair

a short introduction addressing the chair's main field of research and education is to be found. Considering that the students just enter their master education at our faculty we hope this structure will help them to orient themselves and to provide insights that facilitate the choice of design studios.

The full professors, associate professors and researchers of the Delft Faculty of Architecture address in the collected texts key contemporary topics, investigating historical models and theoretical arguments while discussing the latest architecture projects as well prototypical cases. Moreover, diverse contributions present contemporary positions in architectural practice and theory against the background of the modern era (1750-today) as characterised by the conditions of the historical avant-garde, (post)modernity, and its various moments of crisis and critique. Through the series of articles presented here, a broad range of questions and themes thus is addressed and explored.

Notwithstanding the broad focus of the reader, the lecture series concentrate each semester on a specific theme. In the academic year 2017-2018 the lectures series is composed around the theme of *Architecture and the City*. The series is organized to challenge the students to see the possibility of positions that could be taken within the field and how they affect the actual (design) approach to architectural projects. The central theme is first addressed from an academic perception, by giving the floor to two more or less theory-oriented lecturers. The subsequent lectures then offer the floor to professors who are extensively involved in design practice, in order to reflect upon the theme using their own practice as exemplary. The series concludes with a final debate in which the theoretical positions and practical approaches are confronted. This debate will make students aware of the urge to reflect upon their own position. Underneath this approach is the conviction that reflection is a necessary part of architecture: without discussion there only is 'building', no architecture!

– The editors August 2017

**FORMAT FALL 2017
AND SPRING 2018:**
7 Lectures (2 x 45 minutes)
held by full professors,
associate professors and
researchers. The lectures are
concentrated in the first half
of the semester. The coordina-
tors are present to introduce
the speakers and the topic,
and subsequently to moderate
questions and debate.

EXAMINATION:
The digital exam with open
questions based on the content
of this reader, additional texts
supplied and recordings of the
lectures on collegerama . Exam-
ples of the kinds of questions
and correct answers expected
are provided on the website
section accompanying the
course. The exam will be taken
halfway and at the end of both
fall and spring semester..

We thank the Faculty of Archi-
tecture and the Built Envi-
ronment and all lecturers for
their efforts and contribu-
tions. In particular we would
like to thank Hans Gremmen,
Amsterdam, who designed this
edition.

INTRO- DUCTION

Susanne Komossa

Introduction – Different architectural positions, process as a common ground

INTRODUCTION

The Faculty of Architecture, Delft University of Technology is renowned around the world for its open and innovative approach to architecture in general and architectural design especially. Considerable numbers of Erasmus and International students join every year the master's programme.

Due to student revolts of the early 1970s (and the faculty's engineering background) studio teaching focuses foremost on the design process within the so-called 'project education', which the student and later on, the practising architect, subsequently and decisively follows. Within this process the consistent argument is considered more important than the actual architectural form. Or in other words, 'style' of whatever master architect is not the central issue, but instead the question how the student of architecture is able to develop a coherent position based on a working method of relentless enquiry and investigation, elaborating this into attractive and challenging design proposals and ultimately how to find ways in which s/he is able to link this to developments in society and the actual practice of architecture¹. The focus on process also enhances the idea of continuous change, innovation and transformation. Starting with this assumption architectural models and design are not fixed or static entities but subjected to an ongoing process of questioning and change. In the words of Jane Jacobs 'Truth is made up of many bits and pieces of reality. The flux and change in itself is of the essence. Change is so major a truth that we understand process to be the essence of things.'²

A PROCESS ORIENTED APPROACH
AS A COMMON GROUND

This open, process-oriented approach could be regarded as leading to a 'architecture without qualities'³. It carries a double-faced nature. On one hand it made it very easy to relate teaching architectural research and design to practise heading for several aims. For example, during the 1980s, findings developed within the Architecture faculty were directly implemented into the planning and design practise of urban renewal in Amsterdam and Rotterdam. Districts (or neighbourhoods) like the Oude Westen in Rotterdam were considered as 'laboratories', where a variety of methods and approaches could be tested in terms of typo-morphological research in particular and based on the rediscovery of the historical city as the actual body of architectural knowledge and instruments. Later on, during the 1990s municipalities working on the restructuring of former harbour and industrial areas, but also in the case of the development of suburban Vinex sites⁴, also carried out this tradition of experiment and renewal, as represented by the work of Dick van Gameren for the Vinex site of Ypenburg for instance. Moreover, within this framework, other commissioners, like school boards and professional real estate developers acted likewise having an eye for experiment and innovation.

Additionally, this whole development during the 1980s and 1990s was accompanied by broad discussions in public and architectural magazines, architectural and urban design competitions organized for example by the Rotterdamse Kunststichting resulting in the Architecture International Rotterdam, AIR competition for De Kop van Zuid and the Müller Pier in Rotterdam, and the Oostelijke Havengebieden in Amsterdam.

1

See also: Henk Engel, Susanne Komossa, Erik Terlouw, *Architectuurfragmenten 2; De vraag naar stijl*, Publikatieburo Bouwkunde, TUD, Delft 1995

2

Jacobs, Jane; *Systems of survival; A Dialogue on the Moral Foundations of Commerce and Politics; Vintage/Random House*, New York 1994

3

The term refers to Ulrich, the main figure in Robert Musil's famous novel 'Der Mann ohne Eigenschaften' (1930), who because of too many possibilities is not able to dedicate himself to a single one.

4

'Vinex' is the abbreviation of 'Vierde Nota Ruimtelijke Ordening Extra', a document dating from 1993 in which the Dutch Government decided to allow provinces and municipalities to define extension areas for new building within the vicinity of the existing cities. Basically the Nota's focus is on the planning of dwellings and new neighborhoods.

The ambition was to build in total between 1993 and 2015 up to 635.000 new dwellings, preferably low rise housing in high density.

The results of these discussions, competitions, experiments and voluptuous program of extending the existing housing stock rendered the Netherlands, i.e. Dutch architecture and specifically its architects once again⁵ important, if we think of the architectural practises and designs of OMA/Rem Koolhaas, Neutelings Riedijk, KCAP, MVRDV, Mecanoo and their colleagues.

On the other hand, being so practical, operative and applied, methods of architectural research and design were never extensively theoretically underpinned and assessed in a comprehensive and critical way during the last two decennia.

One might state that this consistent and free and open-ended approach to architectural design seems to be challenging. However, in order to keep up the Delft and Dutch architectural design reputation in an *international*, even global academic environment, practising architects, researchers and educators at the Delft Faculty of Architecture need to write *theory*⁶, in order to underpin and make their approach in a theoretical and methodological sense more explicit.

ARCHITECTURAL POSITIONS; CURRENT DELFT APPROACHES

This short historical overview forms the background of the current *architectural design positions* to be distinguished at the Delft Faculty of Architecture. In fact, the architectural approaches outlined within this introduction have highly influenced architectural theory, history and design at the faculty not only during the past, but also as we can register them today. If we look at and study the architectural positions presented in 'Delft Lecture Series on Architectural Design' it becomes evident that the Faculty of Architecture has panoply of approaches with regard to its research and education in the design studios of the Bachelor and Master program.

THE MODERNISTS

To begin with, we can distinguish the group of researchers and designers who intend to critically investigate the *Project of Modernity*. The Twentieth century avant-garde has gained a central role in the faculty's history of teaching architecture. This tradition started with the appointment of Jo van den Broek, representing pre- and as well post-war Modernism, as a professor from 1947 to 1964.

Combining this initially functionalist/modernist approach with the Architecture faculty's engineering tradition matched well. Subsequently, Jacob Bakema in 1964 and in 1966, Aldo van Eyck, Herman Hertzberger et-al. followed him. They were members of Forum and TEAM X who had entered from the 50's onward into a critical evaluation of CIAM principles. Van Eyck and Hertzberger developed during these years the *Structuralist* approach to architecture.

Additionally, during the 1970's and 1980's Max Risselada (and Bernhard Leupen) re-evaluated these legacies for example with studies like 'Raumplan versus Plan Libre'⁷, books on Hans Scharoun, the Smithons & Team X, the famous 'Plannenmappen' and exhibitions on the work of architects, which were considered to represent central positions in modernist architecture and its revision. Risselada developed plan analysis as a technique for selecting, documenting, describing, analysing and interpreting architectural designs.⁸ Plan analysis as a method of documentation and analysis allows designs to be compared. Usually it focuses on *prototypical* designs or oeuvres of specific architects. *Plan analysis* as developed in Delft usually centers on those aspects of the architectural design that also arise during the actual design process as relatively independent 'layers of design' because they can be developed as separate layers within that process. These coordinated 'layers' together are assumed to form the architectural design. Aspects that form part of the design are: the nature and ordering of the *functional* program; the *material ordering* of the design in relation to *systems of measurement*, strength and tactile *properties of materials*, routing and *spatial* sequences. Additionally situation analysis seeks to determine how the design is embedded in a specific location, as well as how interaction between the specific location and the design is shaped.⁹

As said, this distinct line of thought in the Delft tradition of plan analysis represented by Max Risselada and Bernhard Leupen¹⁰ mainly focuses on the constituent 'layers' in architectural designs. In the 1970s and 1980s this group devised a variety of techniques for unraveling designs and making them readable — not only drawing techniques,¹¹ but also construction of scale models, exhibition concepts and layout

techniques. In architecture practise Erik van Egeraat (EEA), Francine Houben (Meccano) and Dick van Gameren are off-springs of this 'school'. In the academic setting Christoph Grafe, Tom Avermaete¹² and Dirk Van den Heuvel subsequently continue Risselada's work within the architecture research program 'Revisions: Changing Ideals and Shifting Realities, *The European Welfare state Project*'¹³.

THE (NEO)RATIONALISTS

Two other distinct lines of thought fuelled the second Delft position. On one hand, there is the group that establishes a (*neo*)*rationalist* position under influence of Italian thinking of Manfredo Tafuri, Aldo Rossi and Georgio Grassi focussing on the relative autonomy of architecture by applying typological research of basic building and typo-morphological studies for urban analysis. Instead of proto-typical designs and oeuvres it addresses the *paradigmatic* architectural and urban models. In Delft this line centres in the research and teaching of Carel Weeber, Leen van Duin, Umberto Barbieri¹⁴ and Henk Engel¹⁵. At the end of the 1970's Leen van Duin, formerly related to the sector 'design methods and functional analysis', introduced the notion of 'typology' and 'typological research' into studio teaching. This approach¹⁶ also focuses on the various layers of the architectural design in the sense of *analysis* and *design(ing)*, but follows Tafuri¹⁷ by including *typology* (the way in which the design is linked to similar plans and predecessors and, for example, large and small spaces are ordered, the architectural knowledge carried by types and the like), the architectural *composition* of the parts of the building and spaces, the *tectonics*, i.e. the 'image' projected by the building into the situation and *urban analysis*, in fact the morphological research¹⁸ on the form of cities, buildings and blocks.

Context in the broad sense of the term was never part of classic plan analysis. However, in order to devise architectural theories and concepts, as well as to develop 'operational criticism' the rationalist school takes also into account the socio-economical and political context in which theory and design arise and are put into practice. By doing so, *Operational criticism* has given university research a new socio-political and critical dimension and platform for acting.

5

After the local rationalism of Berlage, the Modern Movement during 1920ties and the 1950/60ties of van Eyck, Bakema and van Tijen

6

'Faced with this huge tsunami of unknown urban substance, the most important thing architects can do is to write new theory', Rem Koolhaas, 'In search of authenticity' in: Burdett, Ricky, Deyan Sudjic, *The Endless City, The Urban Age Project* by the London School of Economics and Deutsche Bank's Afred Herrhausen Society, London / New York, Phaidon 2007, p.320

7

Max Risselada, *Raumplan versus Plan Libre*, DUP, Delft 1987

8

Max Risselada, Voorwoord in: Frits Palmboom, Doel en Vermaak in het Konstruktivisme, 8 Projekten voor Woning- en Stedebouw OSA-Sovjet Unie 1926-1930, Nijmegen, Sunschrift 142, SUN, 1979, p. 8. In his 'Voorwoord' Risselada lists Henk Engel, Jan de Heer, Frits Palmboom and Anna Vos as students (student assistants) that collaborated with him in the Werkgroep (seminar), which developed the initial Delft approach to plan analysis.

9

The idea of division into various 'design layers' was further developed at Delft University of Technology's Faculty of Architecture by Leen van Duin, Henk Engel and others, and applied during the 1980s and 1990s in a series of lectures and publications entitled *Architektuurfragmenten (Architectural Fragments)* and *Architectonische Studies (Architectural Studies)*.

10

For example, Leupen, later Gräfe et al., *Ontwerp en analyse*, 1993 and see also: Heuvel, Dirk van den, Madeleine Steigenga, Jaap van Triest; *Lessons: Tupker/Risselada*; a double portrait of Dutch architectural education 1953/2003 – lessen: Tupker/Risselada, dubbel portret van het Nederlands architectuuronderwijs

1953/2003; SUN, Amsterdam 2003

11

See the various files of plans and *Raumplan versus Plan Libre* (1987), compiled and published by Max Risselada, often in collaboration with students or student assistants.

12

Though not educated at DUT, but at KU Leuven, Tom Avermaete's work fits this program well, for example his PhD thesis (*Another Modern, the post-war architecture and Urbanism of Candilis-Josic-Woods*, Rotterdam, NAI 2005).

13 'Revisions: Changing Ideals and Shifting realities in: TUD Research Portfolio Architecture 2005 – 2011, p. 44 -51 and 62-64 and 71-73.

14

(currently all emeriti professors of the res. Chair of 'Design Methods', 'Typology' and 'Architectural Composition')

15

In 1984 Henk Engel initiated and wrote the postscript for the Dutch translation of Jean Castex, Jean Charles Depaule, Philip Panerai, *Formes Urbaine: de l'ilot à la barre*, Paris, Bordas 1977 under the Dutch title 'De Rationele Stad, Van Bouwblok tot Wooneenheid', Nijmegen, SUN 1984. As a member of the Vakgroep Woningbouw en Stedenbouwkundige Vormgeving and the Sectie Architectuurtheorie of the Projectraad, Faculty of Architecture in Delft he worked together with Henk Hoeks and Jan Hoffmans (editors/translation). The study was initially conducted at by the authors within the framework of Association de Recherche de l'Ecole d'Architecture en d'Urbanisme de Versailles (ADROS-UP3) that focused on 'the relation between spatial organisation and societal practises (ruimtelijke organisatie /maatschappelijke praktijk)' p. 8. Including this relationship was new at the time and was later further developed in Susanne Komossa, Han Meyer, Max Risselada, Sabien Thomaes, Nynke Jutten, *Atlas van het Hollandse*

On the other hand, the second line of architectural thinking within this group is influenced by a very special approach to architecture. Within this line, especially Vincent Ligtelijn and Rein Saarieste have to be mentioned. As former assistants of Jacob Bakema and Aldo van Eyck they took the *Revision of Modernism* into a different direction than Max Risselada et al. by not re-evaluating the historical avant-garde of the 1920ties and its after-war heirs, but by turning back to the early modern of the nineteenth century and begin of the twentieth. In a way they can be depicted as the Dutch followers of Colin Rowe as a former student of Rudolph Wittkower. Within this approach, which dates back to the *speculative*¹⁹ tradition of the Warburg Institute, the past is critically questioned with regard to its relevance today. Unlike Rowe's approach as presented in *Collage City*²⁰, architectural composition, as such and the *material qualities* of architecture were especially stressed in publications, excursions and weekly studio lectures and the like. These activities, which centred on the work of early modern architects like Gaudi, Jujol and Plecnik, Greene & Greene, Goff addressed foremost the specific, a-typical, sometimes idiosyncratic of the project. Looking back one could say that Ligtelijn and Saarieste used the *phenomenological* approach of van Van Eyck to move out of structuralism in order to enter into a broader and more international approach. Additionally they paved a way to a *postmodern* position, which founds itself on regional material cultures and political identities developed within the Arts and Craft Movement / Jugendstil at the beginning of the 20th century.

This unorthodox *postmodern position* of Saarieste's and Ligtelijn's²¹ was for Delft 'avant-la-lettre'. It was their group of students that invited Rem Koolhaas in the early 1980ties via the history department, Jan van Geest, to lecture on his book 'Delirious New York' and operate as their graduation tutor. With his lectures, Koolhaas additionally introduced Dali's Paranoid-critical method to the Architecture faculty. 'Created in the early 1930's by Dali himself, the "Paranoid-Critical" method is a Surrealist method used to help an artist tap into their subconscious through systematic irrational thought and a self-induced paranoid state. By inducing this paranoid state one can forego one's previous notions, concepts, and understanding of the world and reality in

order to view the world in new, different and more unique ways.'²² And so they did.

Usually students that were subject to Saarieste and Ligtelijn's design education would end their Architecture Master's before actually graduating in the studios of Leen van Duin and later Umberto Barbieri, which acquainted them with the *neo-rationalist position*. This amalgam of *speculative* and *rationalistic* is still informs part of the *architectural design education* in Delft. In a certain sense Michiel Riedijk and Winy Maas can be considered a followers of this 'school'. In architectural practise this amalgam informed the education of currently well known architects like Kees Christiaanse (KCAP), Frits van Dongen (ArchitectenCie.), Paul de Vroom/Herman de Kovel (DKV), Joris Molenaar (Molenaar & Co), Lars Spuybroek and others.

In both positions within the faculty²³ the development of plan analysis and the latter typo and typo-morphological research coincided with the period in which re-examination of the 'relative autonomy of the discipline' of architecture was a key part of the fundamental criticism of functionalism. There was a wish to emphasise the independence of architecture as a profession with rules all of its own. Moreover, in the university setting the development of architectural theories, concepts and plan analysis were both very much in line with efforts to treat architecture as an 'objective science'.

The studio and design teaching during that period was paralleled by architecture history and theory courses of Kees Vollemans who introduced French critical thinking, for example Michel Foucault, Gilles Deleuze and Luce Irigaray to the Faculty of Architecture in Delft. In fact, this enhanced the approach the *rationalistic* and *speculative* approach, which could also be labelled 'deconstructive' and 'phenomenological' at the same time.

ARCHITECTURAL PRECEDENTS & MODELS, DESIGN AND HISTORY

The word 'precedent' is generally understood to mean a prior ('preceding') example of best practice. Architectural precedents are usually *architectural models*, from a recent or distant past. Castex *et al.*,²⁴ define the *architectural model* as the actual architectural project, based on specific rules, concepts and techniques. Various projects may share the same rules and techniques resulting in distinguishable architectural or urban planning models. One could say, in each plan and design, forms and operations are expressed that structure their composition, which refer to a set of concepts, references and specific techniques that serve as the basis for the design. Subsequently with regard to the relation between social and societal aims, the architectural model and history Castex *et al.* state: 'The term 'architectural model' makes clear that the development of form is not directly related to the translation of a social aim, but that during the development of the design form mediations are used that are specific to architecture and whose history has yet to be written. In the distance between this specific history of mediation and the more general history of society lays the potential input of the discipline of architecture, but also its limits.'²⁵ This implicates that studies of architectural or urban models are not architectural *history* studies, for they do not set out to construct (or reconstruct) history in the sense of establishing causal links on the basis of written sources and archive material. Nor are they architectural *theory* studies of the coherence and development of various design theories and ideas. Basically, they form the 'collective memory' of the discipline of architecture, which contains its body of knowledge and experiences. It forms 'the stuff' to work with.

However, the reason to study architectural precedents and architectural models, let say the *prototypes and paradigms*, is the assumption that we cannot look at the future without looking back, without knowing about the architectural models and their qualities of the past. Or to put in other words, architects cannot produce satisfactory designs for the future without knowing their precedents. This also implies that architectural models, together with the various associated typologies, are understood as the vehicles and the core of

maatschappelijke praktijk)' p. 8. Including this relationship was new at the time and was later further developed in Susanne Komossa, Han Meyer, Max Risselada, Sabien Thomaes, Nynke Jutten, *Atlas van het Hollandse Bouwblok* (English edition: *Atlas of the Dutch Urban Block*,) Bussum, Thoth (2003/2005) and Susanne Komossa, *Hollands Bouwblok and Publiek Domein, Model, regel en ideal* (English edition: *The Dutch Urban Block and the Public Realm; Models, Rules, Ideals*), Nijmegen, Vantilt, 2010.

16 See Barbieri and Boekraad, *Kritiek en ontwerp*, 1982, Van Duin and Barbieri, *A hundred years of Dutch architecture 1901-2000*, 2003 (originally published in Dutch as *Honderd jaar Nederlandse architectuur 1901-2000*, 1999), and the journal *OverHolland*, edited by Henk Engel and published by SUN Publishers in Amsterdam (since 2000 this has appeared in cahier form).

17 The development of the plan analysis technique at Delft University of Technology's Faculty of Architecture coincided with the reception and Dutch translation (in 1978) of Tafuri's *Progetto e utopia*, 1973 (translated into English as *Architecture and utopia* in 1976). The intended purpose was 'operative criticism': a form of architectural or urban research that was an 'attempt to actualise history, to turn it into a supple instrument for action (i.e. design)' (from Tafuri's *Theories and history of architecture*, 1980, originally published in Italian as *Teorie e storia dell'architettura*, 1968, and quoted in Claessens, *De stad als architectonische constructie*, 2005, p. 42)

18

For morphological analysis techniques in the fields of landscape and urban planning, see Reh, *Arcadia en Metropolis*, 1996, and Hooimeijer, Meyer *et al.*, *Atlas of Dutch water cities*, 2005.

19

In Latin the Nomen 'speculator' enhances the guardian, messenger, look out, spy, but also the investigator and explorer. The verb 'to speculate' in English means to see, to meditate on a subject and to engage in a course of reasoning based on inconclusive evidence, Concise Oxford English Dictionary, 2006.

20

Rowe, Colin, Fred Koetter, *Collage City*, Cambridge Mass., MIT Press 1978. Initially *Collage City* was published as a special issue of *The Architectural Review* in 1975.

21

See for example: Ligtelijn, Vincent, Rein Saariste; Joesep M. Juiol; 010, Rotterdam 1996

22

(<http://www.tufts.edu/programs/mma/fah188/clifford/Subsections/Paranoid%20Critical/paranoid-criticalmethod.html>)

23

Which's developments can be traced in the thematically shifts and focuses of OASE, *Tijdschrift voor Architectuur / Journal for Architecture* from 1980 till today.

24

Jean Castex, Jean Charles Depaule, Philip Panerai, *Formes Urbaine: de l'ilot à la barre*, Paris, Bordas 1977. Translated into Dutch under the title 'De Rationele Stad, Van Bouwblok tot Wooneenheid', Nijmegen, SUN 1984. The English edition: *Urban Forms: The death and life of the Urban block*, was published under the title *London*, Architectural Press 2004

25

ibid. Dutch edition p. 222

architectural knowledge. Additionally, by carrying *knowledge* and the *history of mediation*, they are not value-free.

At the end of this postscript to the reader of the *Delft Lecture Series on Architectural Design; Different architectural positions, common approach* it does not come as a surprise that when addressing the question how the history of the precedent is linked to the present, or even future, once again different positions can be distinguished.

ZEITGEIST

Kees Kaan and Henri van Bennekom are following Ludwig Mies van der Rohe's use of the idea of *Zeitgeist*, which assumes that every period in history carries a specific idea(l) that has to be incorporated and expressed by works of art and architecture. According to the Encyclopedia Britannica this notion derives from Hegel's philosophical reflections on aesthetics 'The stages of art were identified by Hegel with various stages of historical development. In each art form a particular *Zeitgeist* (i.e. 'Spirit of the time') finds expression, and the necessary transition from one art form to its successor is part of a larger historical transformation ...'²⁶. In the work and position of Kaan and van Bennekom the notion of 'Zeitgeist' is linked to the notion of context. According to them, each epoch has own ways of producing architectural designs and building technologies of constructing edifices. It is the architect's role to 'express' this context through his/her work.

WORKING HISTORY

The typological and morphological approaches, of Henk Engel et al. use the idea of *la storia operante* — literally 'working history', which assumes that the past realises itself in the present. To cite again Castex reflecting on the designs and morphological research of Saverio Muratori²⁷: 'The concept of *la storia operante* was borrowed from the ideas of Benedetto Croce, no longer proclaiming the strength of contrasts but the need to allow distinctions. In contrast to the excesses of abstraction, this called for a 'transfigured intuition', a way of thinking that linked up the distinct elements. Perhaps *la storia operante* could be rendered as 'history at work in the present', the analysis ('reading') and the design being identical. Muratori was an absolute historicist; like Croce, he thought of history 'as *thought* and as *ac-*

tion.'²⁸ Though recognising the complex thought underlying this argument, it becomes clear within the typo-morphological approach that the notion of historical continuity and constant transformation holds a central position. Basically it assumes, there is only history and therefore architectural models transform continuously, differ and are distinct but are always carrying elements from the past. Consequently, within this approach to history and design the 'tabula rasa', here called 'contrast' or the completely new referred to as 'abstractions', is not an option.

PHENOMENOLOGY

Last but not least, with reference to the *phenomenological* and more *speculative* approaches to architectural design Walter Benjamin's notion of past and present comes to mind. His notion especially appeals to architect's fascinations as gatherers and hunters of ideas and inspirations, as *collectionneurs* and *bricoleurs* at work with the 'divinatory gaze of the collector'. 'The "afterlife of works" is Benjamin's central term... for the historical object of interpretation: that which, under the divinatory gaze of the collector, is taken up into the collectors own particular time and place, thereby throwing pointed light on what has been. Welcomed into a present moment that seems to be waiting just for it — "actualized," ... the moment from the past comes alive as never before. In this way the "now" is itself experienced and preformed in the "then"... The historical object is reborn as such into the present day. This is the famous "now of recognizability" (*Jetzt der Erkennbarkeit*), which has the character of a lightening flash. ... Here ... is the *ur*-historical, collective redemption of lost time, of the times embedded in the spaces of things.'²⁹ Basically Benjamin uses mimesis³⁰, not the notion of analogy like Aldo Rossi, in order to mirror past and present, and vice versa. Benjamin's notion potentially describes the way in which architects pick up things and objects, ideas from all kinds of fields including art, but also architectural precedents and models. By doing so, they select, document and interpret the objects of the past and shed new light upon them. In that sense, architectural design means that at every time something new is recognised, collected, experienced and accordingly to the collector's fascination, reworked and reshaped and therefore — 'rescued from the redemptory

IN CONCLUSION

To end, the purpose of this overview is as already noted, to acquaint the 'outside world', our guests and Masters students of Architecture with the different Architectural Positions held at Delft Faculty of Architecture and the Built Environment. Moreover, it attempts to encourage students as future architects to be critical of the ideals implicit in particular positions, approaches, precedents & models, prototypes and paradigms. In essence, architectural models, precedents and history do not automatically provide starting points for new designs. The architectural position must be reformulated and researched afresh for each new design within the context of the specific project and the associated questions and formulation of new ideals, in order generate knowledge and information for the design process leading to 'adequate' designs.

of lost time' — never disappearing from history, but mirroring it again and again. Today, for this approach the architectural position of Mark Pimlott and Klakse Havik serve as an example. Additionally we can recognise the phenomenological tradition in the work of the Saariste/Ligtelijn/Koolhaas descendants, who focus in their designs on the material character of buildings, for example on colour and ornament.

26

<http://www.britannica.com/EBchecked/topic/656301/Zeitgeist>

27

Jean Castex Saverio Muratori (1910-1973), *The City as the only model*, A critical study, a century after Muratori's birth, unpublished manuscript Muratori Centennial / EAAE-ISUF New Urban Configurations Conference, Delft, October 2012, p.16

28

Ibidem: From Pigafetta, G., *Saverio Muratori architetto: teoria e progetti*.

29

Translators' Foreword in: Benjamin, Walter, (Howard Eiland, Kevin McLaughlin transl.); *The Arcades project*; Cambridge, Harvard University Press 2002, p.XII

30

'Die Ähnlichkeit (ist) das Organon der Erfahrung' (Resemblance (is) the Organon of Experience' Walter Benjamin, *The Arcades project*; Cambridge, Harvard University Press 2002, German edition: *Das Passagenwerk*, Frankfurt a. M. 1982. See also 'Mimesis, imitatie, spel: esthetische denkfiguren in de architectuurtheorie' in: Hilde Heynen, André Loeckx, Lieven de Cauter, Karina van Herk (eds.), *Dat is architectuur, sleutelteksten uit de twintigste eeuw*, Rotterdam, 010 2004



DEPARTMENT OF ARCHITECTURE

Departement of
Architecture

ARCHITECTURAL COMPOSITION & PUBLIC BUILDING

The Public Building design studios examine and address the present and future of public territory and places of (ex)change in an urbanized society, 'where strangers meet'. In this, the chair focuses on the processes and transformations of modernisation in regard to their impact on the design of public buildings and places.

The program positions the architect as a crucial agent in the conception and production of buildings as public constructs. The studios focus on how we can conceive and develop new models, typologies, programs, and design strategies of architecture in order to meet public needs and challenges on different levels

The design studios offer a variety of research and design methods, both conventional and experimental, in order to provide enriching design strategies and investigation. The Chair implements and augments the public position through specific attention to the techniques, instruments, and contents of architectural research and design.



Michiel Riedijk (Geldrop, 1964) and Willem Jan Neutelings are the founders of Neutelings Riedijk Architects, Rotterdam. Since the founding in 1992 Neutelings Riedijk Architects has realized multiple iconic private and public buildings like the City History Museum MAS in Antwerp, the Netherlands Institute for Sound and Vision in Hilversum, the Shipping and Transport College in Rotterdam and recently the Rozet Culturehouse in Arnhem and the Eemhuis in Amersfoort.

Neutelings Riedijk is currently working on various projects including the Spuiforum Concert hall in The Hague and the Naturalis Biodiversity Museum in Leiden. Projects by Neutelings Riedijk have been published in numerous architectural magazines around the world. Books about the office include 'At Work' 2006 and monographs by El Croquis from 1999 and 2012. The office has been awarded with several international awards including the Oeuvre Award of Excellence of the Dutch Architectural League.

Michiel Riedijk lectures and teaches regularly at universities, academy's and cultural institutions worldwide. In September 2007 he accepted professorship at the Chair of Public Building & Architectural Compositions of the Architectural Faculty of Delft University of Technology.

He published *Architecture as a Craft* (2010) and together with Willem Jan Neutelings, *Neutelings Riedijk 2003-2012, Convenciones e identidad, conventions and identity* (El Croquis 159, 2012). Michiel Riedijk heads and teaches in the master's program of the Chair of Architectural Composition / Public Building.

Michiel Riedijk

Raw steak on the drawing board;
On conventions and identity in Architecture

CONVENTIONS

Claude Lévy-Strauss¹, the celebrated French thinker, once asserted that raw steak on a coffee table would offend our social and cultural conventions, whereas the same piece of meat on a butcher's block would surprise no one. The perception that raw steak does not belong on a coffee table derives from our ingrained sense of hygiene and with customs that impart certain obviousness and structure to daily life. The example confronts us with the power and self-evidence of conventions. Antitheses like the coffee table versus the butcher's block, smooth or rough, elegant or coarse, fresh or rotten, raw or cooked, reveal the many conventions in daily life. The firm handshake, the jovial slap on the shoulder, the charm of the compliment, the buttoning up of your shirt or the knotting of your tie, are all conventions that say something about manners, character or upbringing.

Conventions embody social codes. The way people greet one another reveals a lot about the background of people who have just met for the first time. Familiarity with conventions makes it possible to recognize social codes or to interpret behavior. It gives structure to our daily life, without being immediately aware of this. Even deliberate flouting of everyday conventions is a conventional code: it signals that we are dealing with an independent spirit. Conventions are an inextricable part of our functioning and shape the way we treat one another. Conventions offer an appropriate form for many situations in which a person may find himself. Conventions provide the contemporary city dweller with room to behave like a chameleon: sometimes he plays the business partner in formal attire, at other times the flamboyant bon-vivant in a loud floral shirt, all depending on the situation and the expectations within a specific social context.

Conventions are in part an expression of your identity: should the flamboyant behavior and clothing of the architect as inspired artist cease to work, you can present yourself as a sound and reliable architect behind the cool professionalism of a grey suit. Conventions help the architect, our 'Der Mann ohne Eigenschaften'², to navigate the complex world.

1

Claude Lévy-Strauss, *La pensée sauvage*, Paris, Pron, 1962.

2

Robert Musil, *Der Mann ohne Eigenschaften*, Berlin, Rowohlt, 1930.

NECESSITY

Architecture, thanks to its millennia-long existence, has many conventions, implicit customs and ingrained habits. These conventions are visible in the profession, in the craft of designing, in the buildings and in the position of the architect within the design and construction process. Over the many centuries of building production, conventions provided certain ‘givens’. Window openings should be one above the other, and columns in a straight line. The central paradigm of architecture appeared to be the pursuit of the most efficient realization of spaces with the available means and techniques. The role of the architect, his relation with his client and the position of the designer within the division of labor in building production—for centuries based on a direct relationship of trust between architect and client—was embedded in the aforementioned conventions. The architect drew only what was strictly necessary: the overall scheme and the important exceptions in the architectural design. All the other details were worked out on the job, without any direct instruction from the architect, based on tradition and customs. The profession of architect and the craft of building were still closely connected.

ABSTRACTION

In the profession there are a number of conventions and habits so deeply rooted that we are scarcely aware of them. Every design task calls for abstraction and encoding: because a life-size building simply does not fit on a manageable sheet of paper, we are used to abstracting every design decision to a smaller scale and to a set of codes, line thicknesses and hatching, which indicate for example whether something should be in stone or in glass. This process of abstraction and encoding creates a distance from the eventual sensory sensation of the material on the building site. In the design drawing, the physical reality is pared back to a determination of place and size, encoded with a line thickness. Smell, texture, reflections or the warmth of the stone surface in the midday sun cannot be and are not conveyed within the evolved conventions of the architectural drawing. At most, the model may conjure up a fraction of the spatial experience of the future building in all its richness and variety.

Through the reduction of the task to a very much smaller scale, the future design is made manageable and literally tangible in study models. This enables the architect to comprehend colossal quantities of cubic meters as a demand for the beauty of the little object in his hand. The seductive little models that balance on the palm of your hand can, through the jump in scale, turn the quantitative demand for built volume into a qualitative demand for simple compositions. The scale model has no details; it does not show reality, but represents an abstracted and encoded future reality. Only the elements that matter in the design are visible at this scale. The request for a building of staggering size becomes a qualitative desire for an elegant image, a future that has yet to become reality, encapsulated in a jewel, cradled in your hands.

The reduction renders the task comprehensible and enables the designer to form a qualitative judgment about the design. Reduction and encoding are architectural conventions whereby the complexity of reality can be converted into elegant principles and simple solutions to which, during the execution of the design, new details and layers of meaning can be added. The convention provides for a search for principles whereby the design process progresses from general to specific, from overall scheme to detail.

Adolf Loos, *Ornament und Verbrechen* (1908), *Sämtliche Schriften 1887-1930*, Wien/München, Herold, 1962.

REVERSAL

The precision of computer drawing has radically reversed the architectural convention of reduction and encoding in the design process. To begin with, it is even more difficult to apprehend the size and scale of the building on a computer screen, simply because screens are many times smaller than the old drawing boards. Furthermore, the system of the drawing programs imposes a merciless precision on the designer; everything has to be laid down with millimeter accuracy within a system of coordinates with X, Y and Z axes, even if virtually nothing is as yet known about the design. This has led to a complete reversal of the design process, as we once knew it. The design no longer evolves from general to specific, from main outline to detailed elaboration, but starts from the specific detail, from an intangible, tiny digital point in a virtual space, reproduced on a gently glowing picture plane.

The consequences of this reversal in architectural conventions should not be underestimated. It entails a thinking process in which the specific and exceptional precede the general and the everyday. Furthermore, the weight of a block of granite is more intangible than ever in the illuminated rectangle of the computer screen. The convention of digital drawing has increased still further the distance from the physical structure and appears to have initiated new customs: only the exception counts. The reversal brought about by computer drawing has pushed the order and logic of architectural thinking into the background. First comes the exception and only then the rule. The paradigm of architecture, the making of a logical composition based on an economy of means, has shifted to the trade in images on the market of urban seduction.

MIMESIS

The computer has introduced a new convention: architectural projects all over the world are presented in a similar manner. Dazzling, slick renderings of buildings with lively twenty-some things in the foreground, preferably on roller skates, in the radiant splendor of a digital sunny spring morning, represent our built future. The buildings appear glassy, transparent and translucent, as if there is nothing to hide anymore. The images are redolent of a Potemkin village: a homogenized facade behind which the true reality must be concealed. The designs are presented as realistically as possible, the implication being that the representation of the design is real and true. This simulation of reality denies the projective power of the architectural project. The design is after all a projection of a future that has yet to become reality, rather than a simulation of a known petit bourgeois Arcadia. Bad weather, local identities, the distinctiveness of culture or climate are given no expression by this new global convention. The film noir of the modern metropolis, the surrealism of the everyday vanishes from thinking because the representations of new projects convey only the oppressive predictability of the already known. The computer presentation is the new convention to which everyone seems inevitably to conform. An attempt to elucidate one of our office's designs by means of small Styrofoam models, met with blank amazement on the part of various clients, as if we had put a raw steak on the table instead of a beautiful proposition encapsulated in a lucid study model.

Buildings start to resemble one another because of the software used to generate the images. The renderings look like the result of global group pressure as to how buildings should manifest themselves, so that the architectural presentations seem confined to expressing the marketing identity: the dazzling seconds of an advertising video. The idea that the architectural project will bring about a transformation in the near future disappears because of the simulation of the known behind a panacea of uniformity. With the computer-conferred illusion of authenticity, we try in vain to reconcile the productive tension between the architectural project, which exists solely in drawings and models, and the built reality.

ORNAMENT UND VERBRECHEN

In 1908, Adolf Loos wrote his much-quoted essay 'Ornament und Verbrechen'²³, in which he explicitly hypothesized the relation between architectural expression, social conventions and identity. Loos developed an argument around conventions, based on analogies with the tattooed savage and the 'decadent aristocratic degenerate' versus the modest well-dressed gentleman. Following on from this, he discussed the architectural expression of his own day. First of all, Loos argued that every right-thinking person is aware that tattoos detract from the beauty of the human body and are an expression of a lack of refinement. Modern human beings dress simply and plainly because they are so self-assured that they do not need to express themselves through their clothing. In short, refinement needs no ornament in order to stand out. A second argument used by Loos is of an economic nature. Products, from writing desks to shoes, are made unnecessarily expensive by ornament and decoration that the consumer has not asked for. The absence of ornament and decoration as a model of good taste and inner refinement is linked to the economic argument of efficiency and logical production. Loos's double argument functions as a two-edged sword. When you use an ornament it is both a sign of a lack of refinement and an unnecessary waste of money. This position led to a paradigm shift in architecture: all buildings designed by refined people were stripped of ornament and decoration, otherwise the architect in question was either a 'dégénéré' or a spendthrift.

The effect lives on in architecture today: architects are no longer capable of using an iconographic element to express the nature and meaning of the building. Whereas up until the nineteenth century there was an iconographic system whereby the nature and importance of a building could be conveyed in friezes and architraves, on wall planes and piers, after Loos this became well nigh impossible. The distinction between office buildings, law courts, factories or schools could no longer be made on the basis of ornament or iconography, but only through volumetric differences. It was left to the composition, the silhouette and the expression of the basic shape of the volume to convey the essence of the building. The many wall surfaces remained bare and empty, stripped of effigy or signification. Loos rejected the Viennese conventions and the architectural expression of his time; yet, as a consequence, his paradigm became the new convention of the architectural profession.

GLOBALIZATION

In contemporary architecture the demand for an appropriate form or for an expression of the architectural volume is still relevant, even if it appears that there is no longer any shared convention to guide the expression of our buildings. Some contemporary buildings look like train crashes, space ships, fragments from a meteor shower or organically curved drops. The buildings try to ignore the architectural conventions; the coding behind these outward manifestations seems to be saying that these are truly exceptional buildings.

However, the purpose or the function of the building is not clear from the unusual shape. Indeed, these buildings often house nondescript office-like functions which all, the world over, under pressure from market conformity, converge in the same mediocre working conditions. The triumph of artificial lighting and air conditioning is celebrated with these 'iconic' buildings. Buildings with an expressive shape or a spectacular silhouette are popping up all over the world. From Amsterdam to Abidjan, from Seattle to Shenzhen, buildings are being constructed that are characterized by their 'iconic', spectacular appearance, which is more readily described in sculptural terms than in the language of architecture.

The ostensible triumph of City Branding leads to a paradox: by articulating the identity of a particular place with the same kind of icons all over the world, everything becomes the same. The quest for a specific identity turns back on itself and leads to global uniformity. The buildings are part of a global visual culture that seems to be detaching itself from specific circumstances. Climatic characteristics such as the position of the midday sun in the heat of summer, the prevailing direction of the cooling evening breeze, or the depth of the winter snowpack are systematically denied in many 'iconic' contemporary buildings; the air conditioning is just turned up another notch. The distinctiveness of local production conditions no longer seems to figure in architectural thinking: in many parts of the world, the Siren call for 'transparency' means that only a thin curtain wall, an insubstantial and vulnerable membrane, forms the meager transition between outside and inside, public and private. The architectural layering of the transition to the interior world, which results in an appropriate staging of the passage from public life to the private domain, is becoming ever poorer under the pressure of market conformity: in the world of curtain wall

buildings with an expressive shape, the selection of the revolving door will soon be the only thing left for the architect to do. 'Transparency' is an alibi for indifference. Since everything is 'visible', there is no need to add anything to the public domain. The glass shell, as a hard impenetrable screen around the interior, leads to the erosion of the public. In the absence of any articulated difference between public and private, both aspects vanish into meaninglessness. The curtain wall and mirror glass seem to spell the end of urbanity as we know it; buildings no longer form a public domain but swim in the nondescript residual spaces generated by the exuberant shapes of the built mass and parking lots.

URBANITY

Architecture cannot be seen in isolation from the city and city life. The place and role of a building in its immediate context should also reveal something of the nature of the building in question. The architecture of public buildings gives expression to the collective and shapes public life. However, these ambitions are less and less self-evident: law courts and town halls are housed in rental office buildings, as if we might not have any need of them in the future. Both types of buildings are conceived with a neutral grid of columns and any expression of monumentality or collectivity is avoided because this would compromise the 'market conformity' and incur the wrath of voters. Because everything is subject to the demands of 'retail', it will soon be impossible to distinguish a supermarket or a library from a department store. The general public's dissatisfaction with the present-day built environment can be traced in part to this programmatic homogenization. It seems that people can no longer identify with the built environment of smooth transparent buildings that populate our public domain like Fremdkörper.

The position and form of the building in the city should abide by the conventions we attach to it: our public buildings stand on squares and special places within the urban fabric. The conventions ensure that you can relate to the building and its immediate surroundings; it creates a meaningful place and space in the public domain. The increasing alienation and disengagement of the public can be partly traced to the lack of a communally experienced public space in the city.

IDENTITY

Our office's designs can be understood in terms of a desire to shape public life. They constitute an attempt to create identity—for a place, an institute or even a community of users, neighbours or city dwellers. Monumentality and ornament are the ideal means by which to represent the significance of a building. The overall design, iconography and materiality are instruments in the construction of a local identity.

The hollows and gardens—from deep ravines to monumental ponds with steel calyxes – in the heart of our buildings, are a continuation of the public space. Familiar types of buildings are crossed with characteristic forms of public space: the museum combined with a public arcade, or the necropolis with a large inner courtyard. The designs offer both space and a counter form for the public domain. Unburdened by programmatic connotations or intentions, these voids can be understood as sanctuaries for public life. These monumental sanctuaries are our provisional response to the social quest for buildings with meaning and identity at a time when the collective meaning of buildings can no longer be defined in a self-evident way. Around these hollows we construct buildings that are not smooth but on the contrary haptic, 'strokable' and bound to the specific place where they are built. The buildings are conventional in the sense that they attempt to inscribe themselves in the urban culture of the place through their color, materiality, form or iconography. Depending on the nature of the task, they are clad in colorful vests, crisply chequered shirts or distinguished striped suits. For each building we test the legibility of the iconographic conventions. At the same time, upon completion each building constructs a new convention.

ORNAMENTATION

Sprayed concrete grooves like tectonic scars over sloping elevations, figured knobbly glass overlaid with coloured shapes, robust stone slabs with medallions and little hands, wrap-around lettering and poems, all create an identity for the building, the visitors and the users. They impart scale to the detail, relief to the volume and ensure a self-evident integration with the surrounding area. The decorations give the buildings an appropriate monumentality in which the differentiating capacity of the cladding can be separated from an expressive 'iconic' shape. At the same time, little hands, poems, pictures and lettering enable visitors to relate to the building and enter into a relationship with it, to become familiar with the newly constructed convention. As a genuine contemporary chameleon, the visitor takes part in the newly constructed identity of the place.

RAW STEAK ON THE DRAWING BOARD

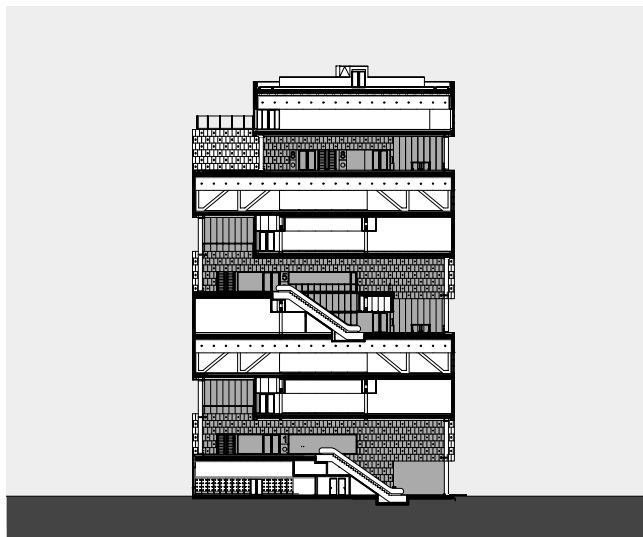
The provisional identity sets the local against the global, heterogeneity against homogeneity, diversity against uniformity, layeredness against superficiality. We look explicitly for an architecture that is tectonic and tangible, with rough plank-concrete, oversized parquet, a glass that is not flat but bumpy and colourful, or that undulates in a silicate embrace around visitors enjoying the view.

The ornament is a conscious craftsmanly intervention in the production of semi-finished articles, before they are finally assembled on the building site. The ornament creates an anchor point against the homogenization and uniformity of contemporary building production. Ornamentation makes it possible to respond directly to local production conditions, to geographic or cultural particularities. Loos's adage is abandoned: the materiality and the iconography offer identity because they can be understood both as opposing conventions and as conforming to conventions. The layeredness whereby a design is both conventional and non-conformist, both gentleman and savage, both smooth and rough, both modern and classical, is a quality we consistently look for in all our designs, based on the firm conviction that architecture must be able to shock and to please, to cherish and to reject in order to remain meaningful within the film noir of urban society. Our quest in Architecture endeavors to represent the surrealism of the everyday, like raw steak on a drawing board.

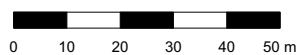


01. Museum aan de Stroom
(MAS), Antwerp,
Belgium, by day / photo:
Sarah Blee, copyright
Neutling Riedijk
Architects

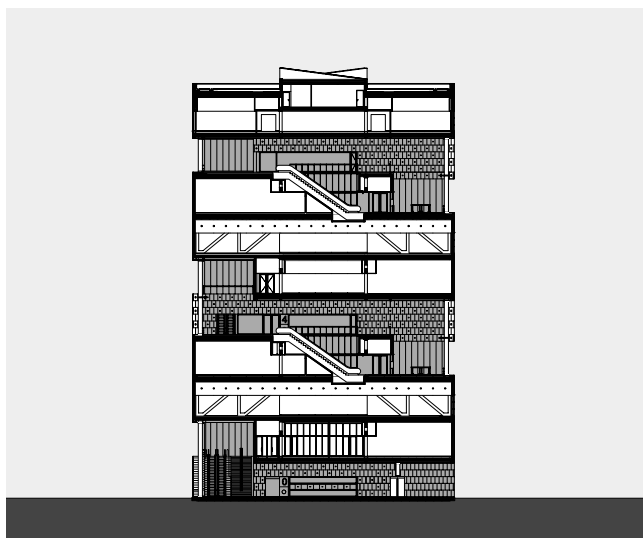
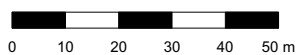
02. Museum aan de Stroom
(MAS), Antwerp,
Belgium, by evening
/ photo: Sarah Blee,
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Riedijk Architects



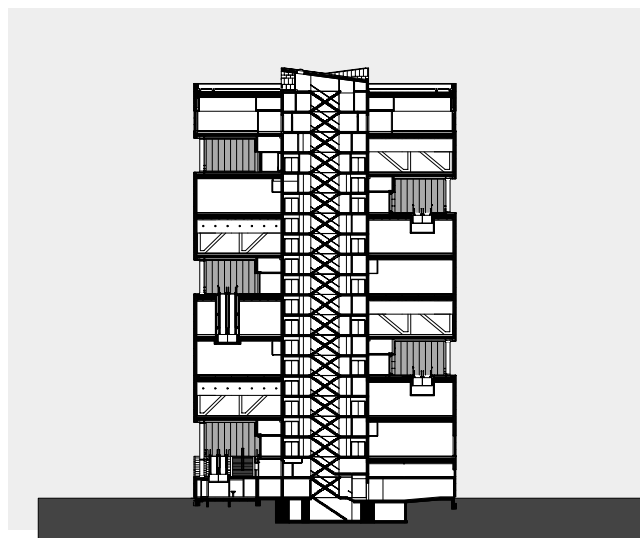
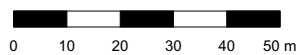
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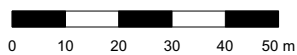
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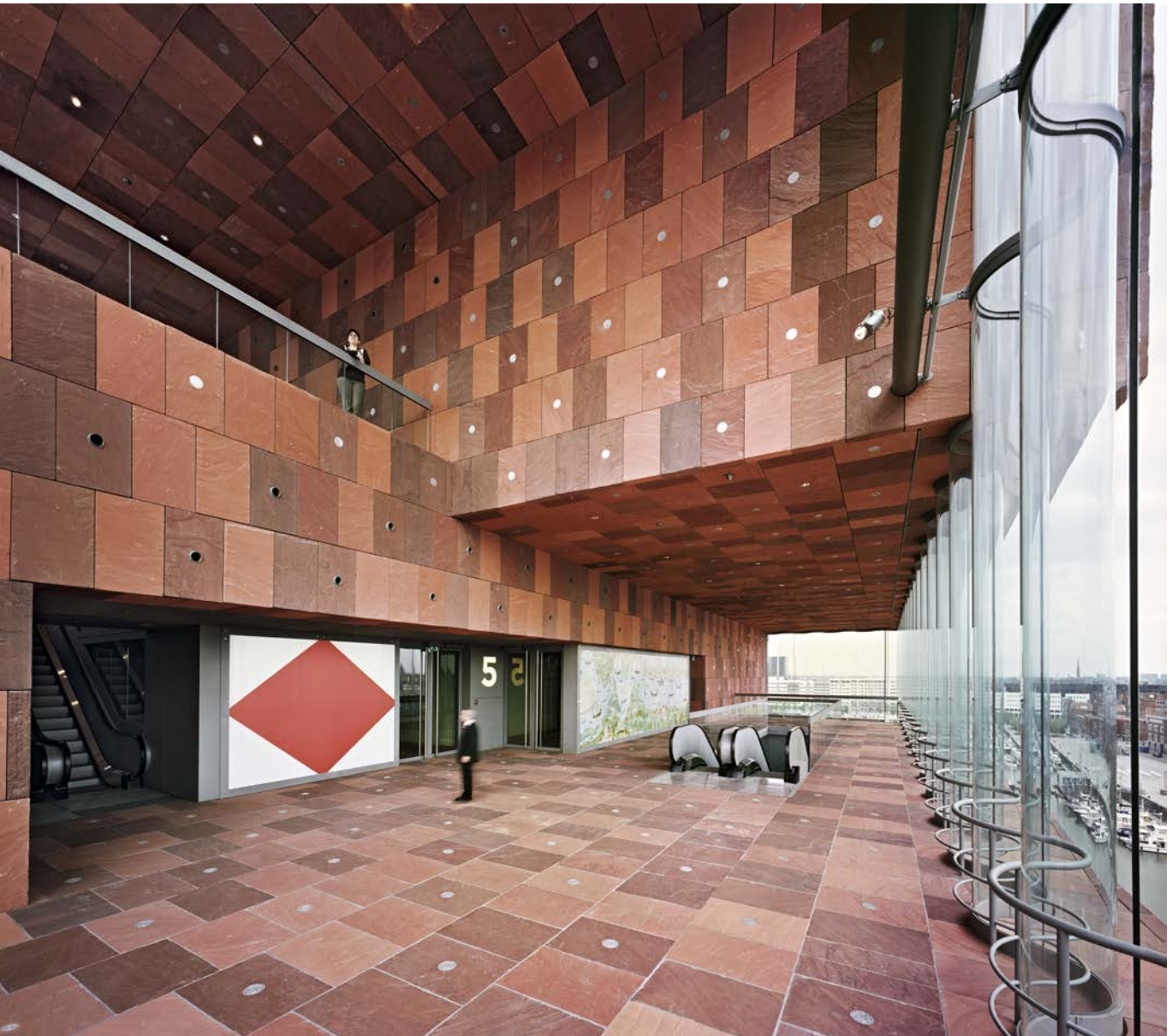


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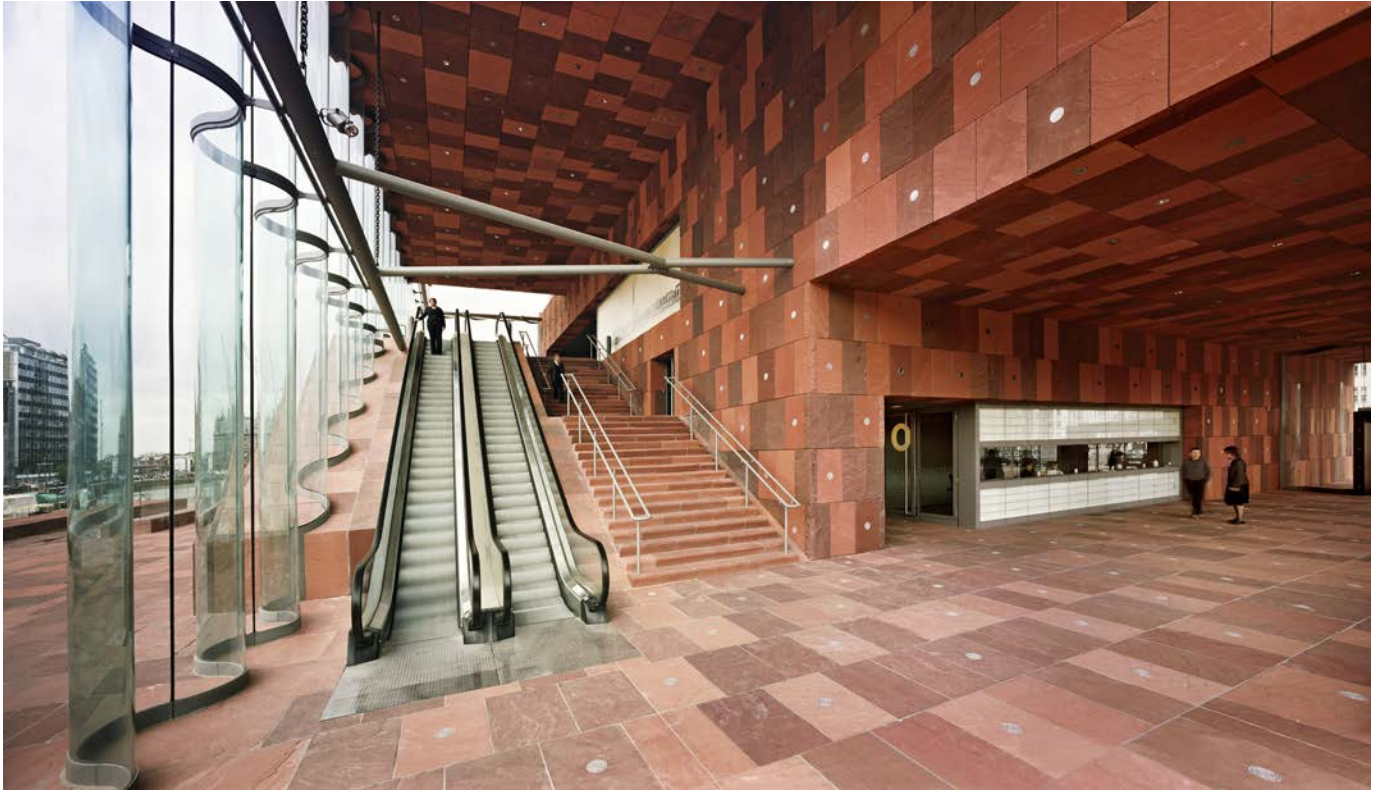


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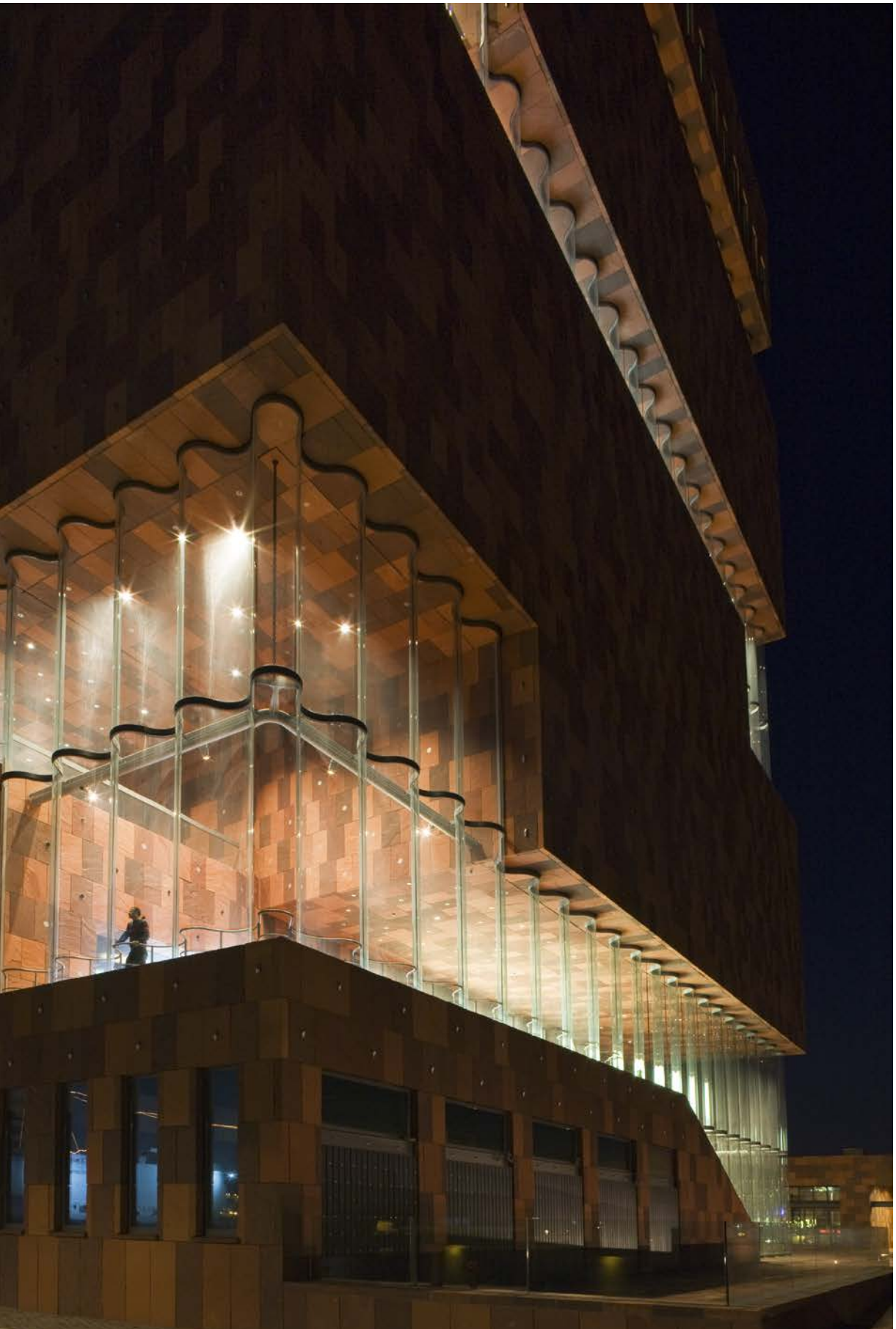
04. Museum aan de Stroom
(MAS), Antwerp,
Belgium, public gallery
/ photo: Sarah Blee,
copyright Neutling
Riedijk Architects



Lévi-Strauss, C. (1962). *La pensée sauvage*. Paris: Plon.

Loos, A. (1962). *Ornament und verbrechen. Sämtliche Schriften 1887-1930*. Wein & München: Herold.

Musil, R. (1930). *Der Mann ohne Eigenschaften* (Vol. 2). Berlin: Rohwolt.



06. Museum aan de Stroom
(MAS), Antwerp,
Belgium, exterior at
night / photo: Sarah
Blee, copyright Neutling
Riedijk Architects



Susanne Komossa (Bochum, 1956) graduated from the Delft University of Technology (1984), Faculty of Architecture where she also received her Ph.D. From 1984-2004 she worked as a practising architect and founded the Rotterdam based firm Komossa Architecten BNA. Currently she is appointed as an associate professor of architectural design, Chair of Architectural Composition / Public Building at the Faculty of Architecture and the Built Environment, Delft University of Technology. Since 2004 she is the leader of the PhD & MSc. architecture research program 'Architecture and the City', which is focussing on the role of the changing public realm within contemporary cities. Subsequently she investigates extremely condensed hybrid urban blocks. Additionally she acts as the faculty's ambassador of 'Research-by-Design' and works internationally as lecturer and reviewer.

As a (co-) editor she published 'The Atlas of the Dutch urban block' (2005), 'Colour in Contemporary Architecture; Projects, Essays, Calendar, Manifestoes' (2009), 'The Dutch Urban Block and the Public Realm; Models, Rules, Ideals' (2010), and 'De transformatie van het schoolgebouw' (2011), 'GROOT/GREAT, Tekenboek stadsgebouwen, functiestapelingen, publieke binnenwerelden, in één blok' (2011), and published together with colleagues the proceedings of the 2012 EAAE-ISUF conference 'New Urban Configurations' (2014). At the moment she prepares the publication of 'Delft Lecture Series on Architectural Design' (2015) and an international PhD program elaborating typo-morphological research in Europe.

Bachelors and Masters Teaching

- AR1A060 Delft Lectures on Architectural Design (ed.)
- AR3AP130 Seminar Research Methods Public Building Graduation studio's
- AR4AP100 Public Building Graduation Studio: Architecture & Public Buildings
- AR1AP011 Public Building MSc1 Design Studio: Architecture & Public Building
- AR1AP030 Seminar Architectural Studies
- AR1AP040 Seminar Architectural Reflections
- AR0034 – PB MSc2 Design Studio On Site: Design Research in Emerging Contexts

Susanne Komossa

Who's afraid of red, yellow and blue? Colour and identity in architectural design



01. Painting 'Who is afraid of red, yellow and blue?', Barnett Newman, 1968

INTRODUCTION

The double face of ratio and emotion, of the formal and the informal characterizes the nature of colour in architecture. Colour has always evoked extensive discussion and continues to do so today. You either believe that colour, through the use of paint or coloured materials, offers a panoply of opportunities for architectural design, or you do not. At the same time architectural knowledge of the spatial effects of colour in the built environment is not very strongly developed if compared to other aspects of architecture, like the study of programme or typology. Neither side of the double-faced nature of colour in architectural composition is easily systemised or classified. However, 'Who's afraid of red, yellow and blue?'¹ *Colour and identity in architectural design* elaborates the hypothesis that colour is architectural design's most powerful tool to establish identity. This will be underpinned by plan analyses and close-reading of three precedents. The first dates from the period of Arts and Craft/Jugendstil and is an offspring announcing early modernism, the second characterises the period of revision of the modern movement during the 1970s - 1980s and the third is an example of the way in which colour plays a mayor part in recent postmodern architecture.

THE DOUBLE-FACED NATURE OF COLOUR

The issue of colour in architecture is complex and becomes even more complicated if we consider theories dealing with architectural polychromy. There have been a wide variety of architectural theories on the use of colour or coloured materials over the past two centuries. They range from Semper and his followers' enthusiastic appreciation of painted polychromy as a path to a new style in architecture,² to its rejection as applied, not structural, and in fact 'dishonest' or 'fake' by the heirs of the Modern Movement during the 1950s and 1960s.

The discussion of whether architecture should be polychrome or not, started during the 1830s, after architects had discovered that the Greek temples of antiquity had been painted. Addressing this period of architectural history, art historian David van Zanten distinguishes between painted polychromy as a 'non-structural coating of paint' and structural polychromy as the 'use of naturally coloured materials'. If we consider contemporary polychromy in architecture, this definition appears to be too limited. Today's broad availability

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Title of a painting of Barnett
Newman 1968

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David Van Zanten, *The architectural Polychromie of the 1830s*. New York / London, Garland 1977

of naturally and artificially coloured building products fits almost every thinkable purpose and offers an unlimited range of coloured materials that can be applied to buildings in either a structural or a non-structural way. The currently very common practice of using two-shelled façades also means that almost every building inevitably ends up being 'dressed'. Today's question should be: does the application of natural or artificial colour—paint or any other coloured material—form an independent layer of the architectural design, or not? Independent in this context means: not connected to programme, internal programmatic organization or volumetric composition, but consciously applied and not reducible to any other aspect of the design of a building.

Very different from the distinction made in the 1830s between 'painted' polychromy and the 'natural' monochromy, some contemporary architectural projects are deliberately monochrome because of the availability of artificially coloured materials. For example SANAA's New Museum of Contemporary Art in New York is whiter than white. The range of white-coloured materials on the façade appears extremely artificial and is used to unify and contrast the building's volume within its 'colourful' urban context.

The difficulty of systemizing the position of colour within architectural design starts with the fact that the perception of architectural colour is a very complex phenomenon. The perception of colour is not only influenced by architectural form and the colour applied to it as paint or coloured material, but also by the texture and translucency of the coloured surface, the layering of materials, light and shadow, alternating natural and artificial light, the colours and reflections of the surrounding buildings, the combination of colours and their simultaneous effect.³ Therefore, theories of colour perception developed in laboratory conditions, for example tracing psychological impacts do not necessarily apply to the reality of architecture. Because of this complexity, discussions on the perception of colour and judgments on colour in architecture often tend to remain in the realm of abstract colour theories or personal taste.



02. SANAA, Museum of Contemporary Art, NY, 2007

In addition, colour has cultural implications and associations that can vary widely from one country or continent to another. Gae Aulenti's design for the Italian Cultural Institute in Tokyo,⁴ for example, was rejected because it was too red in its green setting, too much in contrast with the spirit of nature. Actually, this perception differs from the European perspective, where the contrast of green and red is perceived as balanced, because the colours are complementary and evoke each other.

Last but not least, colour forms an interface between art and architecture. Especially during the 1910s and 1920s, art and architecture had a direct influence upon each other. Without Expressionism and Constructivism the Agit-Prop designs of kiosks and market stalls in Moscow and Bruno Taut's experiments with colour in his private house and housing projects would have been unthinkable. The Bauhaus provided an extensive curriculum, which was led by artists like Johannes Itten, Wassily Kandinsky and Paul Klee, which studied the relation between colour and form⁵. Purism had an acknowledged influence on Le Corbusier's treatment of colour during the 1920s. De Stijl literally attempted to achieve the 'solution of colour' and the synthesis of the arts in the Maison d'Artiste Paris house design by Theo van Doesburg in collaboration with Cornelis van Eesteren. But strangely enough, despite these famous experiments colour did not acquire a permanent position in architectural design or education.

This is partly due to two historical misunderstandings, which have contributed even more to the unstable status of colour in architecture. One is the disregard of nineteenth-century architectural theories and their influence on the Modern Movement. The followers of Modernism opposed nineteenth-century architectural thinking and it was therefore neglected for a long time, until the 1950s and 1960s. Studies like Marc Wigley's *De nieuwe verf van de Keizer*,⁶ which explicitly discusses the continuity in architectural thinking from Semper to Adolf Loos and the influence of Loos on Le Corbusier, are fairly recent. And even today, awareness of these historical continuities and transformations often seems to be absent in architectural thinking and education.

The second misunderstanding is the myth of a 'white' Modern Movement, caused by pre-colour photography or more correctly, consciously leaving aside the availability of colour photography⁷ for promoting Modern Architecture in architectural magazines in the beginning of the twentieth

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Eugene Chevreul and Johannes Itten based on Johan Wolfgang von Goethe's 'Zur Farbenlehre': 'Simultaneous contrast: when we see a given colour, our eye simultaneously calls up the complementary colour. A small neutral grey square in a larger space with a clear colour will take on the colour that is complementary to that of the larger surface. This is an illusion.' Kunstkring 'De schuine boom', Zoersel, Belgium. See <http://users.telenet.be/werner.dewree1/1%20kleur.htm>.

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<http://www.ilsegnalibro.com/weblog2/2007/02/italian-minister-defends-red-building>.

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With regard to colour theory relevant for modern art and architecture Johan Wolfgang von Goethe's 'Farbenlehre' dating from 1810 cannot be left unmentioned. He focused on the perception of colour, for example the contrast between light and dark in his *Farbenpsychologische Betrachtungen* and introduced the double triangle of the primary colours red, yellow and blue, and he secondary colours orange, violet and green as, which form together the renowned colour circle. Admittedly, though by differing interpretations, his theory was a guiding principle as well for the Bauhaus teaching as the distinction between primary colours and non-colours of the De Stijl and Van Doesburg.

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Mark Wigley, *De nieuwe verf van de keizer*, in: Oase 47, Nijmegen, SUN 1997, pp. 20-25 is an excerpt and translation of 'The emperor's new paint' in: Mark Wigley, *White walls, designers' dresses. The fashioning of modern architecture*, Cambridge / London, MIT Press 1995

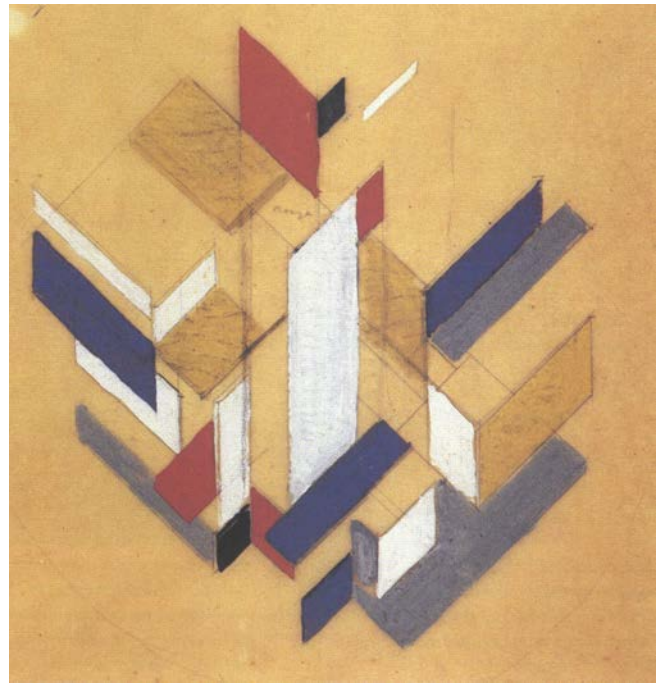
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Kees Rouw, 'The archeology of colour', in: Susanne Komossa, Kees Rouw, Joost Hillen (eds.), *Kleur in de hedendaagse architectuur: projecten / essays / tijdslijn / manifesten / Colour in contemporary architecture: projects / essays / calendar / manifestoes*, Amsterdam, SUN 2009, pp. 249/250

century. Moreover, this myth of a 'white modern' was continued during the 1950s by some heirs of the Modern Movement, who advocated ideas of 'material' honesty and disapproved of the application of colour as pure 'ornament'. This idea of 'material honesty' led to a form of chromophobia in architecture, which is still traceable.

In his book *Chromophobia*, David Batchelor comments on the rejection of colour in general, but also in architecture: 'In the first, colour is made out to be the property of some 'foreign' body—usually the feminine, the oriental, the primitive, the infantile, the vulgar, the queer or the pathological. In the second, colour is relegated to the realm of the superficial, the supplementary, the inessential or the cosmetic. In one, colour is regarded as alien and therefore dangerous; in the other, it is perceived merely as a secondary quality of experience, and thus unworthy of serious consideration. Colour is dangerous, or it is trivial, or it is both.'⁸

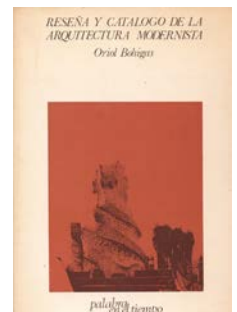
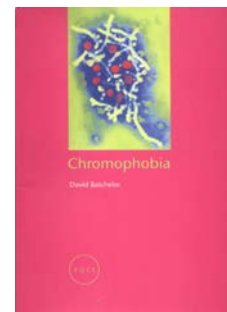
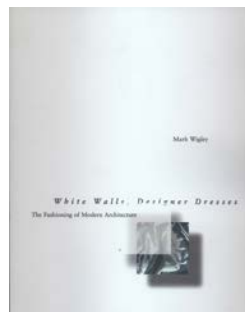
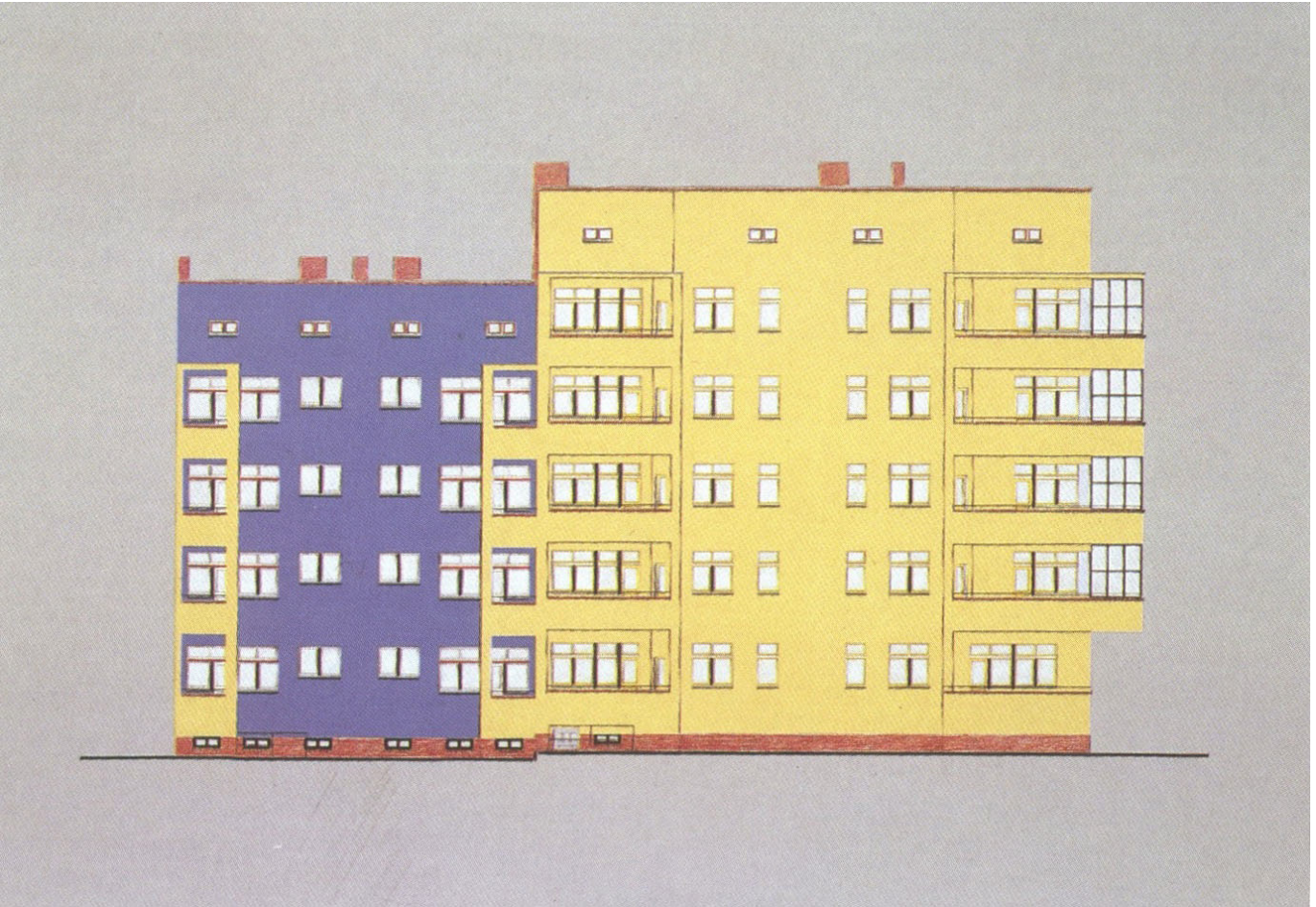
As a result, today, we still wait for the 'serious consideration' of colour as an independent layer of architectural design. This consideration should lead to a fruitful theoretical foundation on which discussions and coherent architectural theories about the relationship between colour and architecture can be based, including architectural colour's quality to establish *identity* in a globalizing world.



03. Theo van Doesburg,
Contra-Composition
Maison d'Artiste, 1923

04. A. M. Rodchenko,
Design for a Kiosk
Moscow, 1918 / S.K. e.a.,
'Colour in contemporary
Architecture, projects,
essays, calendar, mani-
festoes' p.14

05. Le Corbusier, Interior
Gallery, Villa La Roche-
Jeanneret, Paris, 1923



06. Bruno Taut, Facade
Bloc V, Wohnstadt Carl
Legien, Berlin 1918-
1930, Drawing Colour
reconstruction, W.
Brenne, 1994

- 07.
- Book cover 'Colour in contemporary Architecture, projects, essays, calendar, manifestoes' 07b.
 - Book cover 'White Fashioning of Modern Architecture'

- Book cover 'Chromophobia'
- Cover Oriol Bohigas 'Arquitectura Modernista' Barcelona 1973

ARCHITECTURAL COLOUR AND IDENTITY

Usually the relationship between the colours used for public and private buildings and local identity⁹—i.e. ‘the fact of being who or what a thing is, the characteristics determining this’—is understood as having ‘grown’ over time. In such cases, colour is connected to notions like ‘authenticity’ and ‘tradition’, to something that expresses the assumed ‘real’ character of a city, a region or a country, or that reflects its natural environment by applying local materials and colours. We’re all familiar with books and studies that describe the way colour is used on the island of Burano in Venice¹⁰ for example—studies that classify cities according to colour, Paris as the white city, for instance, that speak of national colours or develop historical colour schemes that are meant to restore a supposedly lost identity, as Canella and Cupilillo did in their work on Turin.¹¹

What is less well known is that the exterior and interior colours of public and private buildings can also have a political or socio-cultural significance, which is deliberately used to express the struggle for political recognition or socio-cultural, local identity—sometimes independence—of a particular region, area or nation at a certain moment of history. When people are seeking to establish a new identity, special applications of colour and material are developed. These applications are ‘constructed’ as it were, in order to reinforce a political and cultural position. In such a process, colour communicates the new (self)-awareness within the public domain in a way that is clearly visible, as if it were a *fait accompli*. The deviating colour and material application, and its striking appearance, stands out immediately emphasizing the new political and cultural consciousness, and as a side-product, a new architectural era.

The most interesting European examples of such use of colour date from the end of the nineteenth and early twentieth centuries. This was a time of massive economic, cultural and political change and upheaval on the eve of the First World War. Some regions, such as Catalonia in Spain, underwent rapid economic and cultural development and sought to achieve a new status in the modern world.

A whole series of these regional attempts to exhibit a new local and political self-awareness is connected with particular style variants of the Jugendstil and the Arts & Crafts¹² movements. Good examples of this strive for a local identity is the work of architect Josef Plešnik in Ljubljana, Slovenia and Eliel Saarinen in Helsinki, Finland. In Brussels the projects of Victor Horta, and in Barcelona the work of the Modernista movement (1880–1915), in which the architects Antoni Gaudí and Lluís Domènech i Montaner played a prominent part, set an example. In a certain sense, Berlage’s neo-rationalistic ‘stock exchange’¹³ in Amsterdam also belongs to this series.

Subsequently, having roots and relationships in the Jugendstil movement made it difficult to place these expressions of ‘agitprop architecture avant-la-lettre’ dealing with the local identity within the canon of the internationally orientated modern architecture during the 1920s and 1950s¹⁴. The propagandists of the Modern Movement called these examples ‘not-modern’, an insignificant local phenomenon, and the standard twentieth-century works on architecture simply passed them over. It was not until the post-war period during the 1950s to 1970s, when the Modern Movement came under revision,¹⁵ that architects and architectural students began to show renewed interest in the oeuvre of the supposed dissidents. In a quest to find the undamaged roots of early modern architecture, projects and excursions were organized at various places to study this work once again and bring it to public attention. For example, the Department of Architecture at the Delft University of Technology¹⁶ undertook such a project and started to work on the issue of colour.

Looking back today, one might say, this critical retreat to the Arts and Craft/Jugendstil and its off springs of early modernism during the period of revision of the modern movement during the 1970s–1980s, already announces the way in which colour will play a mayor role again in today’s postmodern architecture. Here I would like to discuss three projects, the Palau de la Música Catalana in Barcelona 1980, Neue Staatsgalerie in Stuttgart 1983 and Mercat de Santa Caterina in Barcelona 2005, which illustrate this development and its specific techniques to establish identity in architecture by the use of colour.

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Leonardo Benevolo, *Storia de'll architettura moderna*, Bari, Editori Laterza 1960. German edition: *Geschichte der Architektur des 19. Und 20. Jahrhunderts Band 1 + 2*, München, DTV 1978. Only 60 pages of the 1000 are dedicated to 'L'art nouveau' addressing the work of Victor Horta, Henri van der Velde, Charles Rennie Mackintosh, Otto Wagner, Joseph Maria Olbrich, Joseph Hoffmann, Adolf Loos, Hendrik Petrus Berlage and discussing the geographical spreads and influence of 'L'art nouveau' in 5 pages. Benevolo refers to Antonio Gaudi in a few lines of text, admitting that he is a brilliant architect but more or less inexplicable/positionable in the discourse of Modern Movement in architecture. Benevolo opens the chapter by stating that the stylistic and local diversity of 'L'art nouveau' make it difficult to systematize its products (p. 317). He ends the chapter by concluding: 'Die moderne Bewegung, die mit der Absicht entsteht, jene Verschiedenheit zu einen, bedient sich ihrer (i.e. L'art nouveau)'.

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Heinrich Klotz, *Die Revision der Moderne. Postmoderne Architektur 1960-1980*; München, Prestel Verlag 1984

16

Exhibition 'Kleur en Architectuur' (Colour and Architecture) chaired by Jan de Heer, Museum Boymans van Beuningen Rotterdam and Groninger Museum, 1986, and book *Kleur en Architectuur*, 010, Rotterdam, 1986. See also: Vincent Ligtelijn and Rein Saarieste, Josep M. Jujol, Rotterdam, Uitgeverij 010 1996

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Identity: 'The fact of being who or what a thing is, the characteristics determining this', Concise Oxford English Dictionary 2006.

10

Martina Düttmann, Friedrich Schmuck and Johannes Uhl, *Color in townscape*, London, The Architectural Press 1981.

11

Nino Canella and Egidio Cupolillo, *Dipingere la città, il piano del colore: L'esperienza pilota di Torino*, Turin, Umberto Allemandi, 1996.

12

Next to Jugendstil and Art Nouveau, which can be regarded as regional equivalents, other local movements like the Austrian Secession, the English Liberty style, the Catalanian modernista, and the Russian 'stil modern' share the historical period and formal aspects.

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Umberto Babieri, Leen van Duin (editors), *Honderd jaar Nederlandse architectuur, 1901 – 2000; Tendensen, hoogtepunten*, Nijmegen, SUN 1999 p.78 (English edition: *Hundred years of Dutch architecture*, 2003)



08. Church of the Archangel Michael on the Marsh (Sveti Michael na Barju), near Ljubljana (1925-1939) / Photo: Joseph Plecnik



09. Exterior Palau de la Música Catalana, manifold of colours and materials in combination with plain brickwork surfaces

PALAU DE LA MÚSICA CATALANA IN BARCELONA

One of the most surprising but lesser known examples of architecture in which colour and a special use of materials were put to work in pursuing the cause of political and cultural autonomy is the Palau de la Música Catalana by Lluís Domènech, which was opened in 1908.¹⁸ Catalonia had undergone a period of turbulent industrial development during the second half of the nineteenth century, and its struggle for political and cultural independence went back even further.

In its genesis and function as a concert hall as well as in its architecture, the Palau embodies the new self-awareness of the local bourgeoisie. Many of them were industrialists who jointly commissioned the building of the Palau and financed its construction. The use of new industrial products and rationalized construction methods is also striking. Not only were these products and methods aimed at driving the costs down. In fact, the building materials were actually supplied by companies in the Barcelona area, often owned by the new elite.

The Palau itself is rather tightly squeezed into a corner of a city block on a side street of the Via Laietana in the centre of Barcelona. Most of the exterior is red brick and is decorated with sandstone elements, majolica mosaics¹⁹ and a few sandstone sculptures. The tile decorations on the exterior and interior of the building are a colourful mishmash, if not collage of materials and production methods. Most of the tiles are painted with lavish flower motifs, some of them aflame, and they vary from tiles made especially for the Palau to leftovers and shards—that is, rubbish. There's a comparable freedom and virtuosity in the stained glass, which is used throughout the building: from ordinary clear service glass to magnificent cobalt blue, everything is effortlessly combined in decorations that always strike a balance between regularity and spontaneous variation.

It's almost impossible to take in the concert hall in its entirety from the adjacent narrow lanes. So a great many of the decorations are located on the plinth and the underside of the balcony, and in the loggia on the first floor. The corner of the city block, which can be seen from a greater distance, is expressively accentuated. Construction and cladding, regularity and exception blend together seamlessly in both the exterior and the interior. In some places the lack of space is dealt

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For a detailed description, see: Manfred Sack, *Lluís Domènech i Montaner, Palau de la Música Catalana, Barcelona*, Axel Menges, Stuttgart, 1995.

18

Majolica is the name of a robust, brittle kind of ceramic painted in bright colours. The name 'majolica' is a corruption of the Spanish Mallorca, an island in the Mediterranean Sea and the production centre for that type of pottery during the Middle Ages. The technique comes from North Africa and the Middle East. Source: Dutch Wikipedia.

19

For more detailed documentation, a timeline and the original texts of Gottfried Semper, John Ruskin and Owen Johns, see: Susanne Komossa, Kees Rouw, Joost Hillen (eds.), *Kleur in de hedendaagse architectuur: projecten / essays / tijdlijn / manifesten / Colour in contemporary architecture: projects / essays / calendar / manifestoes*, Amsterdam, SUN 2009, p.316-333, p.333-339, p.345-349.

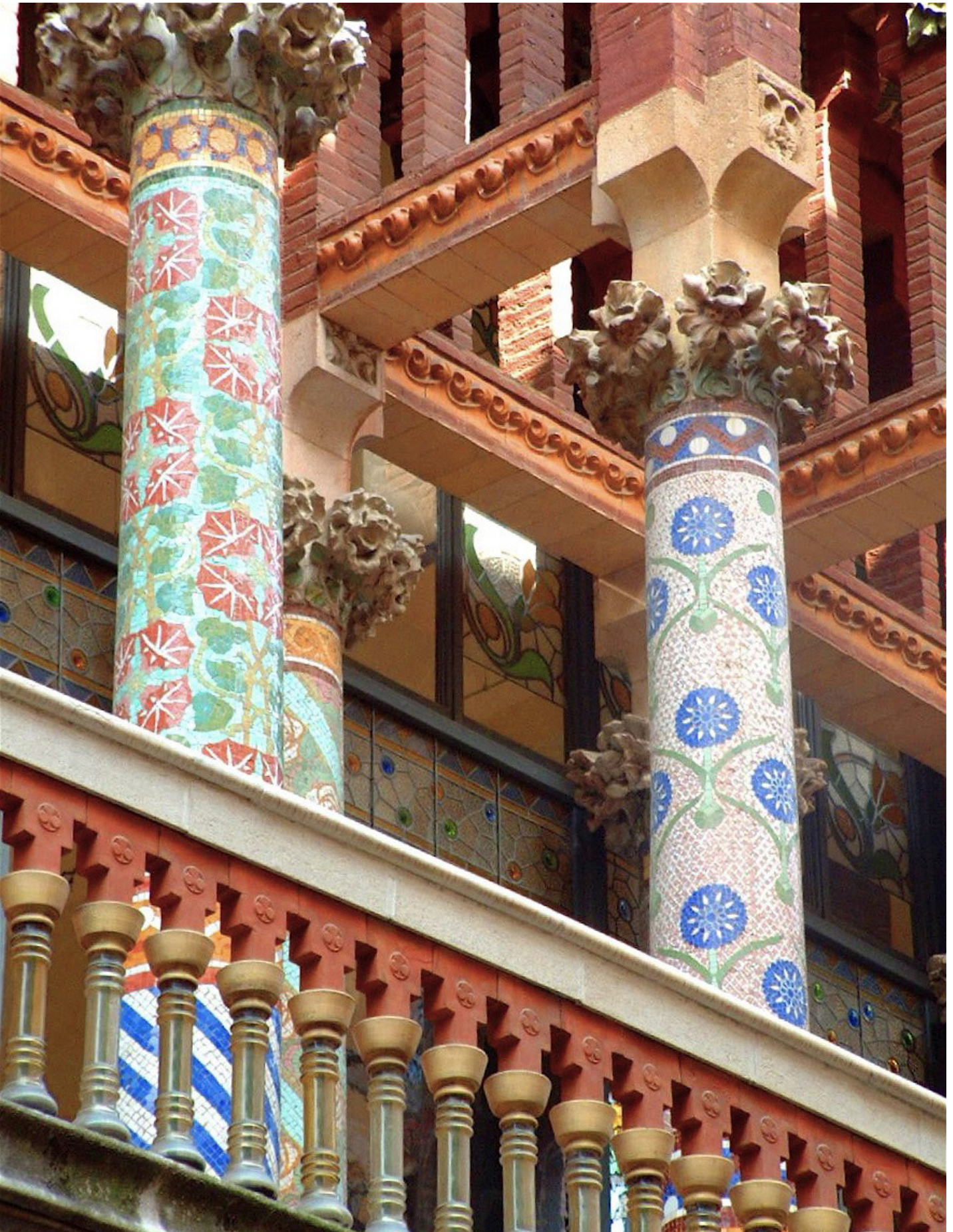


10. Side facade Palau de la Musica Catalana, rationalism pure 'sang'

11. Detail Palau de la Musica Catalana, 'street view': tiles underneath balconies

12. Side facade Palau de Musica Catalana, detail: balusters made of pre-fabricated, en masse produced, cylindrical glass elements

13. Exterior palau de la Musica Catalana, ticket sale in a column



14. Columns outer facade
Palau de la Musica Cata-
lana, majolica mosaics
and terracotta orna-
ments alluding to nature



15. Section Palau de la música Catalana showing the ingenious use of the available space



16. Concert hall Palau de la Musica Catalana, evoking the idea of a free standing building by bringing daylight in from all sides. The roof/ ceiling is constructed of iron T-sections with pre-stressed concrete elements

with ingeniously. For example, the box office for ticket sales is housed in one of the heavy brick entrance columns. Another space-saving idea was to move the concert hall, with its large volume, to the first floor, so the foyer could occupy the street floor. Every effort was made to compensate for the lack of space by letting in the daylight from the surrounding lanes and installing strategically placed skylights: the daylight, which enters the building from all sides, creates the illusion from within that the building is freestanding.

The level floor of the concert hall is constructed by means of vaults, giving the foyer below a somewhat crypt-like and ‘bodenständig’, down-to-earth character. This is reinforced by the ‘natural’ brown and beige tones of the tiles, the natural stone floor and the unpainted brown wooden door and window frames. The baroque-looking balusters on the balconies, the stairways and in the concert hall are made of prefabricated, cylindrical glass elements produced industrially en masse. They wouldn’t be out of place in a technical installation.

The colour scheme of the interior unfolds vertically upward, from earth tones to a multitude of colours on the top floor. The motifs usually refer to elements in nature, which puts them in the nineteenth-century colour tradition such as the one developed by Semper in his *Vorläufige Bemerkungen über bemalte Architektur bei den Alten* of 1834 and later by Ruskin in his *The Seven Lamps of Architecture* (1849) and Owen Jones in *The Grammar of Ornament* (1856).¹⁹

Despite the profuse decoration, the Palau building is extremely rational, modern and efficiently constructed. The floor above the concert hall, for example, which forms the roof, is a relatively light combination floor consisting of iron T-sections containing pre-stressed concrete elements about 60 cm in width.²⁰ The roof structure spans the entire width of the hall and looks quite light in the tectonic sense of the word. The concrete elements and the iron T-sections are faced with ceramics, but the structure as a whole has been left fully visible. Some of the prefabricated majolica roses were applied as ribbons, but others form a pattern in which they seem to have been freely scattered around the capitals of the columns. They form a cheerful addition that tones down the utilitarian character of the ceiling but doesn’t negate it. Fitting the roof with a trimming joint made it possible to install a large skylight, which, along with the light from the two facades,



17. Auguste Perret, Facade
Apartment Building, 24
Rue Franklin, Paris, 1904

bathes the hall in coloured light during the daylight hours. Along with the flower motifs, this reinforces the sense of 'being outside', 'being in nature' even more.

STRUCTURAL POLYCHROMY

The way in which colour and coloured materials are applied in the Palau de la Música Catalana relates to the structural application of colours and coloured material that at the end of the nineteenth century was directed at structure and filling, or both. Viollet-le-Duc was the first to advocate this approach and called for a structural rationalism with reference to Laugier's 'ideal hut' and Gothic architecture. In his interpretation of Laugier's hut, the structure is the primary element and fillings are secondary.²¹ His approach can be described as 'structural rationalism' or 'structural functionalism'. Anatole Baudot, a pupil of Viollet-le-Duc, inverted this approach. He decorated the structure and left the filling undecorated. Auguste Perret favoured an architecture that ornamented both, the structure and the paneling or filling. In his famous house at Rue Franklin 25 in Paris, built in 1902–1903, the concrete skeleton of the building is covered with ornamented materials.²² The ceramic fillings display a flower pattern that contrasts with the 'rational' cladding of the structure.

COLOUR AS DRESSING

As said, the typically 19th century tradition of colouring and ornamentation with reference to nature, the Palau's colouring and ornamentation bring to mind the theories of Semper, Ruskin and Owen Jones.

Gottfried Semper developed the theory of using paint or coloured materials as cladding or dressing,²³ which was later re-interpreted by Adolf Loos. Semper developed his theories of 'Stoffwechsel' (metabolism) and 'Bekleidung' (cladding) by analyzing the colour traces of antique temples and Moresque architecture. In his book *The Four Elements of Architecture* from 1851, Semper identifies four elements that are all related to materials but also to the metaphysical dimensions of architecture: *masonry work* (serving as the foundations), *carpentry* (the wooden structure of load-bearing walls and floors), *moulding* (the hearth and the earth as platform) and *weaving*, 'the infilling panels and walls of woven mats or textiles'.²⁴ In Semper's theory the 'cladding' or 'dressing' was much more important than the other elements. Dressing in this theoretical con-

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'The early use of an iron support structure alone is important. Indeed, the Palau appears to have been the first European building of this type – one not strictly for industrial use – along with the Ritz Hotel in London, which dates from 1905.' Oriol Bohigas, *Resena y catalogo de la Arquitectura Modernista*, Lumen, Barcelona, 1973; from the Dutch translation by Karen Rombout and Rien Pico, Delft, typescript Architecture library, 1978, p. 38. When the author of this article first visited in 1975 – Barcelona was groaning under the yoke of General Franco and many architects, including Oriol Bohigas, were under a professional ban. Notwithstanding, the Catalan national anthem was still being sung before every performance in Palau de la Música Catalana.

21

Eugène Viollet-le-Duc, *Entretiens sur l'architecture 1870/1871*. Cited by Robert Middleton, 'Farbe und Bekleidung im 19. Jahrhundert (Colour and cladding in the nineteenth century)' in: Gerhard Auer e.a., *In Farbe / In Colour*, Themanummer *Daidalos Architektur Kunst Kultur*, nr. 51 (March 1994) p.84

22

Robert Middleton, 'Farbe und Bekleidung im 19. Jahrhundert' (Colour and cladding in the nineteenth century) in: Gerhard Auer e.a., *In Farbe / In Colour*, Themanummer *Daidalos Architektur Kunst Kultur*, nr. 51 (March 1994) p.86

23 Gottfried Semper, *Vier Elemente der Baukunst. Ein Beitrag zur vergleichenden Baukunde*. Braunschweig, Vieweg 1851. English translation: *The four elements of Architecture and other writings*, RES monographs in anthropology and aesthetics, Cambridge, Cambridge University Press 1989.

24

Robert Middleton, 'Farbe und Bekleidung im 19. Jahrhundert' (Colour and cladding in the nineteenth century) in: Gerhard Auer e.a., *In Farbe / In Colour*, Themanummer *Daidalos Architektur Kunst Kultur*, nr. 51 (March 1994) p.87

text relates to everything that can be seen, felt or smelled on the surface and can thus be perceived. 'Semper, developing from Hittorf's²⁵ theories, conceived that the patterned and coloured cladding of a structure should incorporate as well as reveal all the spatial and architectural significance of the whole.'²⁶ And because of that, 'cladding had indeed become in his estimation the prime feature in architecture, the *Urmotiv*'.²⁷ The idea of *Bekleidung* derives from the theory of *Stoffwechsel*. *Stoffwechsel* (literally 'metabolism') means that the forms and decorations of the painted Greek temples were interpreted as transformations of building forms and methods used even before antiquity. As David van Zanten²⁸ explains: '[*Stoffwechsel*] was simply the idea that decorative motifs, though structural in origin, were set from primitive times and retained their original patterns when translated into other materials'. In other words: they were transformations and abstractions of a former 'primitive' reality and because of their history, they mainly refer to motives to be found in nature. Semper, like Owen Jones, especially admired the abstraction and geometric construction of flower motifs in the decoration of the Alhambra specifically and Moresque architecture in general. Jones documented this fascination extensively in his *Grammar of Ornament* (1856) in order to show and, together with Semper, even teach about how the abstracted flower motifs were geometrically constructed.

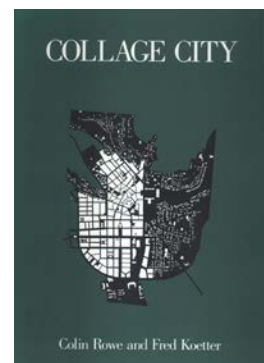
Besides the fact that they allude to nature, Semper's theories have two other strong points. Firstly, they are dynamic, if not Darwinist, because they encompass the idea that civilization transforms and progresses. In search of a new style, the idea of change is essential. Secondly, Semper's theory incorporated the art of painting, through colour and sculpture, in building design. That was intended to re-establish architecture as a realm where all the arts come together in a *Gesamtkunstwerk*. We have seen that in Semper's thinking, the theory of *Stoffwechsel* leads to the notion of *Bekleidung*. In his articles 'Prinzip der Bekleidung'²⁹ and 'Ornament und Verbrechen'³¹ Adolf Loos re-interpreted Semper's theories. In Loos' interpretation — i.e. his plea that the cladding or dressing of structures and walls should never resemble the original colour or material 'underneath' — Semper and Owen Jones' typical nineteenth-century reference to nature has disappeared. At the beginning of the twentieth century, with his coloured walls in private houses, Loos paved the way to a modern, abstract application of colour in architecture, which was derived from painting, especially the Expressionism of Oskar Kokoschka.



18. Adolf Loos, Guest Sleeping Room, Country House Khuner, Payerbach, 1930



19. Venturi Scott Brown, Facade BEST Product's building, Philadelphia, Pennsylvania alluding to paintings of Henri Matisse and Andy Warhol 10-SK Perret



20. Cover Collage City

POST-MODERN COLOUR

The post-modern use of colour has a collage-like character³¹. The technique of collage, literally meaning 'gluing things together' was successively developed in art, especially in Cubism during the 1910s, afterwards it was further developed by Dadaism and Surrealism in the 1920s, and later by Pop Art in the 1950s and further on. Basically, this character is not entirely new if we take the use of material and colour of the Palau de la Música Catalana in Barcelona into account and in fact, over lapses in time.

However, under the influence of (American) Pop Art within post-modern architecture, references came from everywhere, not only nature. Forms and colours could allude to a made-up architectural history of antiquity, the nineteenth century or the Modern Movement at the same time. But they can also incorporate the world of objects of everyday life, like advertisements, photographs, graphic design, soup cans and so on.³³ Materials and paint, natural and artificial colours, are mixed. Façade styles and patterns can also be mixed, combining elements from every historical period, the natural or artificial environment, media and the local vernacular.

All of these colour efforts have just one objective: to enable architecture to again produce meaning and identity, even monumentality, and most of all, to communicate.

NEUE STAATSGALERIE IN STUTTGART, JAMES STIRLING 1977-1983

The Neue Staatsgalerie of James Stirling in Stuttgart, Germany is probably one of the most impressive examples of using form, material and colour to establish a new socio-cultural identity of the institution of the 'museum'. Stuttgart is a German city which was heavily bombed during World War Two. After the war it developed an increasingly affluent automobile industry represented by the headquarters and factories of Daimler-Benz and Porsche. After World War Two and the subsequent 'Wirtschaftswunder' Stuttgart is a city, like Barcelona, which searched for a new socio-cultural identity due to its exceptional economical success.

Situated next to the Alte Staatsgalerie the building combines a classical set-up of a museum with wings adjacent to a frontcourt with architectural features derived from the 'route architectural', a concept developed by Le Corbusier, and the

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The architects Jacques Ignace Hittendorf and Karl Ludwig von Zanth discover traces of polychrome decorations on the temple of Empedocles in Agrigento on the island of Sicily during 1822-1824. Subsequently Hittendorf actively participated in the discussion of polychromy in architecture by his reconstruction drawings of a coloured antiquity. In 1849 he published the text 'Restoration of the temple of Empedocles at Selinonte or Polychromatic architecture among the Greeks', Dutch and English translation in in: Susanne Komossa, Kees Rouw, Joost Hillen (eds.), *Kleur in de hedendaagse architectuur: projecten / essays / tijdslijn / manifesten / Colour in contemporary architecture: projects / essays / calendar / manifestoes*, SUN, Amsterdam, 2009 p.293 and p.340-345

26

Robert Middleton, 'Farbe und Bekleidung im 19. Jahrhundert' (Colour and cladding in the nineteenth century) in: Gerhard Auer e.a., *In Farbe / In Colour*, Themanummer *Daidalos Architektur Kunst Kultur*, nr. 51 (March 1994) p.88

27

Robert Middleton, 'Farbe und Bekleidung im 19. Jahrhundert' (Colour and cladding in the nineteenth century) in: Gerhard Auer e.a., *In Farbe / In Colour*, Themanummer *Daidalos Architektur Kunst Kultur*, nr. 51 (March 1994) p.87

28

David Van Zanten, *The architectural Polychromie of the 1830s*. New York / London, Garland 1977, p. 54

29

Adolf Loos, 'Das Prinzip der Bekleidung', in: *Neue Freie Presse*, Vienna, 4 September 1898. For the English and Dutch translation see: Susanne Komossa, Kees Rouw, Joost Hillen (eds.), *Kleur in de hedendaagse architectuur: projecten / es-*

says / tijdslijn / manifesten / Colour in contemporary architecture: projects / essays / calendar / manifestoes, Amsterdam, SUN 2009, p. 350-354

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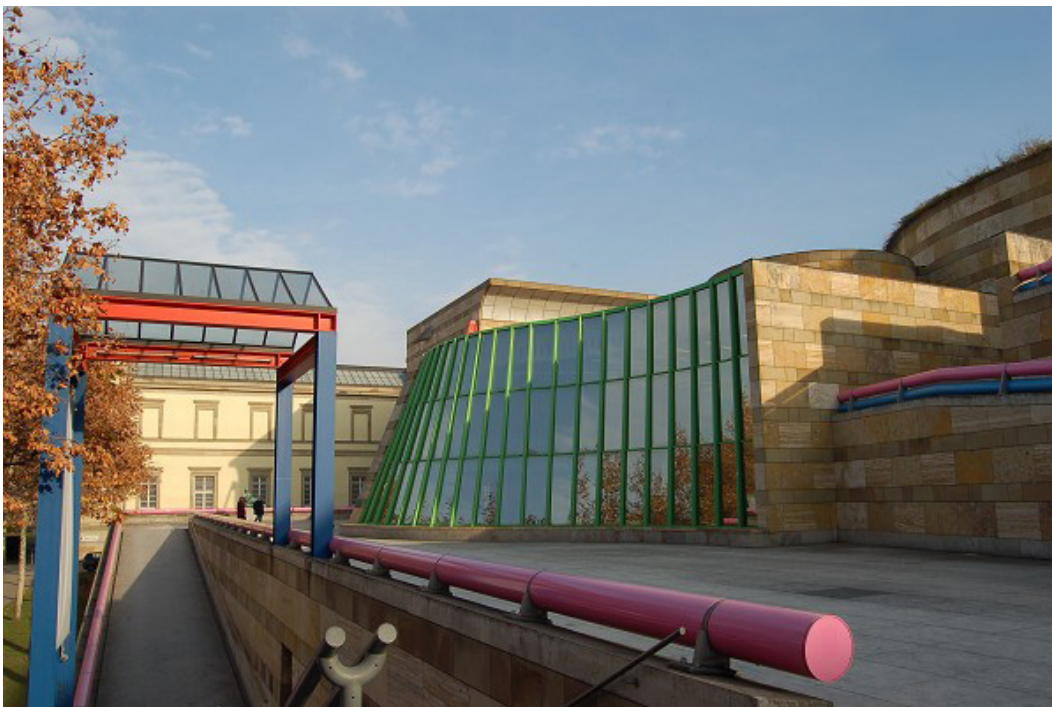
Adolf Loos, *Ornament und Verbrechen*, Vienna, Prachner 2000, original edition: 1908

31

Collage, from the French verb 'coller', to glue. A collage is made from an assemblage of different forms, thus creating a new whole. <http://en.wikipedia.org/wiki/Collage>

32

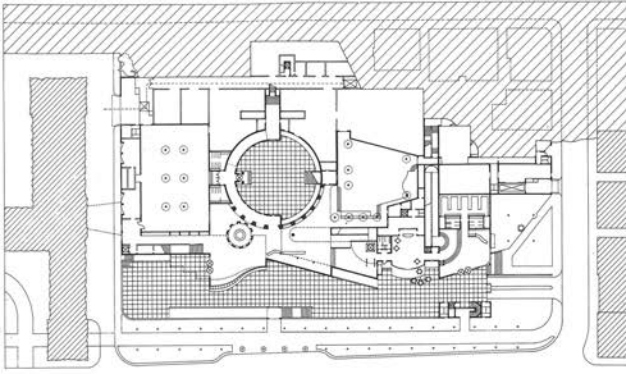
Examples: Robert Venturi, The Appel, competition entry for a building at Time Square, New York, 2000, inspired by Claes Oldenburg, the early example of Lucy the Elephant folly in Margate City (US) by James Vincent de Paul Lafferty 1881, the Tail O'The pup hot dog stand in the form of a hot dog in Los Angeles by Milton J. Black, 1938-1945 or the influential preliminary study and painting 'Promenade of Merce Cunningham by James Rosenquist', 1963. See also: Michiel Riedijk, 'Giant blue shirt at the gasoline station, Pop art, colour, and composition in the work of Venturi, Rauch and Scott Brown' and 'Colour calendar' in: Susanne Komossa, Kees Rouw, Joost Hillen (eds.), *Kleur in de hedendaagse architectuur: projecten / essays / tijdslijn / manifesten / Colour in contemporary architecture: projects / essays / calendar / manifestoes*, SUN, Amsterdam, 2009, pp. 144-171 and p.p. 289-313. 33 James Stirling, 'Architectural Aims and Influences' in: Robert Maxwell (ed.), *James Stirling, Writings on Architecture*, Skira, Milan, 1998, p. p.138-140. The text was originally published in RIBA Journal, September 1980. Address given at the ceremony of the presentation of the 1980 Royal Gold Medal.



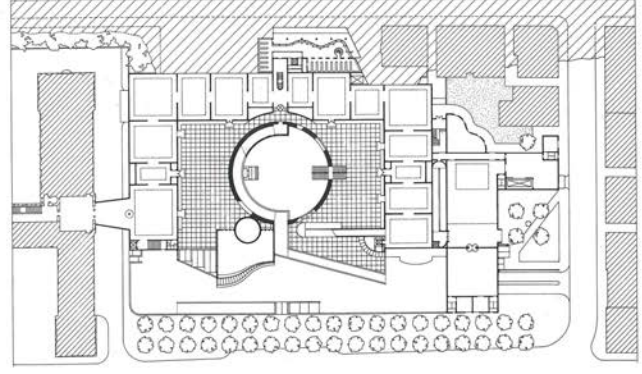
22. Site areal Neue Staatsgalerie, Stuttgart

23. Ramps leading upwards to main entrance

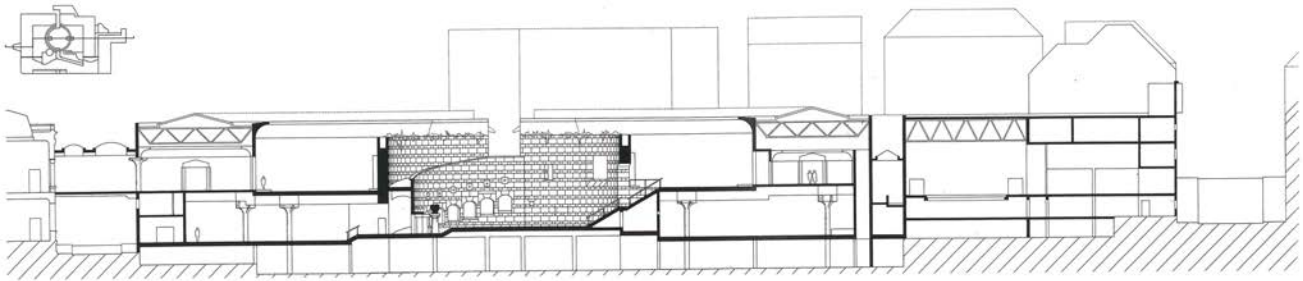
1977–83 Stuttgart: State Gallery and Chamber Theatre



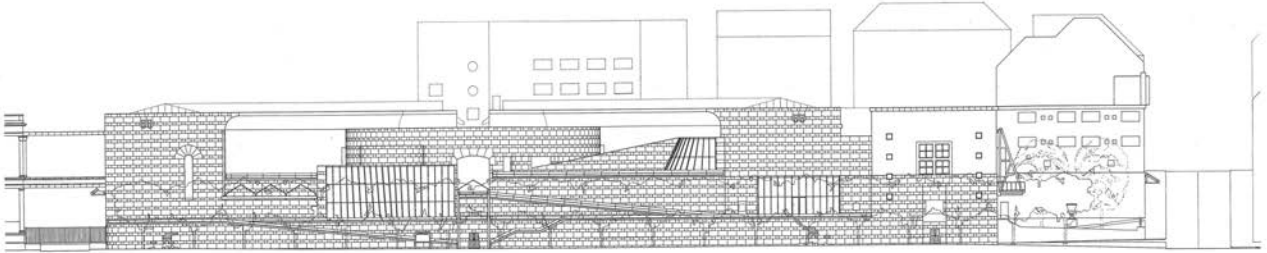
Plan at terrace level showing the entrances to the museum, the cafeteria, and the Chamber Theatre



Plan at gallery level showing the outdoor sculpture terraces

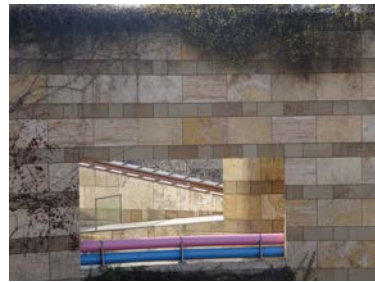


Longitudinal section through the courtyard



Front elevation to Konrad Adenauer Strasse

24. Floor plan lower entrance level, upper level, longitudinal section and front facade Neue Staatsgalerie 1977-1983





26. Detail steel baluster
rails and red wine

topography of the building site, a sloping hillside. But differing from Le Corbusier, for example the Villa Savoye in Poissy (1928–1931) in which he perfected his idea of a unifying *route architecturale*, the architectural route in Stirling's design creates picturesque moments and surprises contrasting the overall composition.

The building's overall composition is divided in two: a *formal* part, the rooms-en-suite of the museum wings on the top floor, and the *informal* route lingering through the building's interior and through its exterior court. The same can be said about lower and upper floors: the lower floors show a bricolage-like character assembling an array of different shaped rooms, while the upper floor, at least in drawing, tries to reduce the plan to a U-shaped classical court within a rotunda in its middle. The use of sand stone and the prominent position of the rotunda as structuring element call Friedrich Schinkel's Altes Museum (1830) in Berlin to mind. Or, using James Stirling's words: 'The new building (the Neue Staatsgalerie) maybe a collage of old and new elements, Egyptian cornices and Romanesque windows, but also Constructivist canopies, ramps and flowing forms—a union of parts from past and present. We are trying to evoke an association with museum, and I find examples from the 19th century more convincing than examples from the twentieth.'³³

The idea of collage and later 'bricolage' understood as 'a construction made of whatever materials are at hand; something created from a variety of available things'³⁴ is also mirrored in the use of materials and colours. On the one hand Stirling uses ochre and brown flamed sand stone and travertine in a brick-like structure to clad the main volume, but also the rotunda and deviating elements like the entrance hall, ramps and other free shaped volumes. The overall 'classical' cladding is contrasted by 'additional' elements in bright colours and materials, like 'Stirling apple green' for window frames, red and blue for constructivist steel canopies and revolving entry doors, yellow for a typical Stirling concrete column on a corner and plasterwork of an adjacent wall, and pink and light blue on the oversized steel rails of the ramps. This 'artificial' colour range is 'completed' with the colours of the vegetation on rooftops and planted in the rotunda: the green and red of diverse climbing plants and wild wine. The bright, 'artificial' colours are continued in the interior of the building, especially the entrance hall on the

lower level with its apple green rubber flooring and yellow walls. The continuation of colours and materials from the outside to the inside and vice versa form originally a very British feature developed during the 19th century. Later Adolf Loos brought this feature to perfection in his shop designs, like for Knize Men's Outfitters in Vienna (1913), in the beginning of the 20th century. Furthermore, the bright, glaring colour range evokes associations of the tradition of British interior decoration in the past but also today.³⁵ On the upper floors in the actual exhibition spaces, again a more classical use of colours, light yellow and burned sienna is used to close the circle of tradition and innovation by returning to the early 19th century architectural earthy and nature orientated colour range of Friedrich Schinkel.

Thinking of the influence of Pop Art upon Stirling's design for the Staatsgalerie, basically neither Venturi's *Complexity and Contradiction in Architecture* (1966) nor *Learning from Las Vegas* (1972) are of much help to understand his approach. In fact, it was Colin Rowe (and Fred Koetter) who addressed the theme of bricolage within architectural composition in 1975 with their book 'Collage City'.³⁶ If we take into account that Colin Rowe was the teacher of James Stirling in Liverpool University 'who sent his students to the library not to study but to crib ideas'³⁷ during the 1950s, that the famous exhibition 'Roma interrotta', which made (bri)-col(l)ages within Rome's Nolli map an edge-cutting issue and in which James Stirling participated, took place in 1978, we can assume that Stirling's Neue Staatsgalerie in Stuttgart is one of the first coherent, built examples of postmodern 'bricolage' within architectural history and that material and 'artificial' colour form a constitutional part of its design. To cite Stirling: 'We hope that the Staatsgalerie is monumental, because that is the tradition for public buildings, particularly museums. We also hope that it is informal and populist—hence the anti-monumentalism of the meandering footpath, the voided centre, the colouring and much else'.³⁸

Post-modern 'bricolage' of colour, materials and forms enable the building to establish a new 'rapport', an identity in regard to people's appreciation and the city's recaptured pride by combining the formal and the informal and by placing narrative and evocation above the modernist unitary model, which carries 'the burden of utopia'.³⁹

34
'bricolage'. Dictionary.
com Unabridged. Random
House, Inc. 30 Nov. 2011.

35
This tradition and also the
juxtaposition of panoply of
styles and approaches can
be traced from 1981 onward
on monthly bases in vol-
umes of the British maga-
zine 'The World of Interior'.

36
Colin Rowe, Fred Koetter,
Collage city, Cambridge
Mass., MIT press 1975.

37
Robert Maxwell (editor),
*James Stirling, Writings on
Architecture*, Milan, Skira
1998, p.102. Maxwell also
writes, though not surpris-
ingly: 'During his student
years Stirling developed a
crush on Mackintosh, Hoff-
mann, as well Bailey Scott
and Vosey. And Asplund.'
p. 9

38
Robert Maxwell (editor),
*James Stirling, Writings on
Architecture*, Milan, Skira
1998, p.25.

39
see: Colin Rowe, Fred Koet-
ter, *Collage city*, Cambridge
Mass., MIT Press, 1975,
p.87.





27. Front facade Mercat:
former facade structure
with new roof and win-
dow frames

28. The tiled roof scape
as artificial garden set
within its surrounding
buildings

29. Roof scape Mercat
Santa Caterina

30. Skylight within the roof
scape

MERCAT DE SANTA CATERINA IN BARCELONA

For the restoration and transformation of the Santa Caterina market in Barcelona's Barrio Gótico, completed in 2005, architects Enric Miralles and Bernadetta Tagliabue (EMBT) drew on the colour and materials of Catalan early modernism. Right up to today, the four Catalan provinces (including the Balearic Islands) emphasize their language and culture as important aspects of their autonomy within the Spanish system of government. In fact, autonomy was officially granted in 1932 to Catalonia. One aspect of that culture is Catalan cuisine (culinary products are on sale everywhere in the covered markets of Barcelona), and the people of Catalonia are immensely proud of it.

Part of the façades and wings of the old Santa Caterina market are still standing. The roof, however, with its undulating tiles and steel support structure, is new. The tiles are suggestive of the parabola-shaped structures that Gaudí developed for optimal weight distribution based on his hanging chain models. The tile pattern on the roof reveals a collage of magnified fruit, in fact a magnified photograph, with the undulating surface as the garden on which the inhabitants of the surrounding residences can gaze. Once again, nature and its fruits, with their profusion of colours and forms, are the source of inspiration combined with Pop Art's tradition of magnifying everyday objects.

In his book *Learning from Las Vegas* (1972)⁴⁰ Robert Venturi distinguishes between the 'decorated shed', which could be a simple box with a completely independently developed façade, and the 'duck', the grand form. Both decorated shed and duck help to explain the colour concept and aim of the Mercat de Santa Caterina in Barcelona, designed by Enric Miralles and Bernadetta Tagliabue. Also in the design for the Mercat the coloured façade or form of the building volume is actually developed without relation to the functional or spatial organization inside the building. Decorated façade, here the roof top, and the grand form carry foremost symbolic signs, referring to meanings, which are located outside the actual realm of architecture: in this case a fruit garden. This is comparable to Venturi's approach, i.e. the façades of Best Products Building in Philadelphia, where he applied the painting series 'Flowers', which refer to paintings and graphic work of Henri Matisse, and were produced by Andy Warhol between 1964–1970.

40

Robert Venturi, Steve Izenour, Denise Scott Brown, *Learning from Las Vegas; the forgotten symbolism of architectural form*. Cambridge Mass., MIT Press 1972.

IN CONCLUSION

It can be argued that the use of colour and materials in the Palau de la Música Catalana brilliantly expresses the spirit of the age: it's a symbiosis of modern and classic, of traditional methods and novel industrial production, of local and international, of stylistic freedom and architectonic discipline. As architects, we can only look on it with admiration and envy: will we ever be capable of creating such a successful embodiment of society's ideals? There's one thing we know for certain: in such an enterprise, colour is one of the most powerful architectonic tools.

James Stirling uses for his design of the Neue Staatsgalerie in Stuttgart the technique of 'bricolage' which allows him to juxtapose in a post modern way architectural elements, forms and colours from very different periods of architectural history in order to evoke a new present according to Benedetto Croce who states that the past is realised in the present. In the case of the Staatsgalerie this approach renders a building, which is very complex in its composition, but at the same time easily understood, recognized, identified and literally accessible for its visitors, combining art and comfort, old and new.

EMBT successfully make use of the concept of 'collage' to fit the Santa Caterina market in its actual surroundings and tradition of Barcelona, while adding at the same time the completely new feature of an artificial roof garden to be looked upon by the adjacent dwellings.

In that sense, Stirling and EMBT set valid examples for today's architectural design practise, which has to deal with issues like the construction of identity and community under a global, multi-cultural condition. A multitude of interrelations between the everyday life, the need for a well-functioning public realm in the contemporary European city as physical place where 'strangers meet'⁴¹ and the need to combine top-down and bottom-up, the formal and the informal become more evident, so not urgent.⁴²

Studying and using colour in architectural design, addressing its perceptive, structural and theoretical aspects, still appears to be an undertaking and fascination of individual architects who suffer from serious cases of 'chromo-philia'. However, these architects from past and present do not fear the 'unstable', 'dangerous' and 'superficial' character of colour in architecture, but explore its possibilities to the full.

41

Richard Sennett, *The fall of public man*, New York, Norton 1992

42

Michiel Riedijk, 'Raw steak on the drawing board', in: Ferdinando Márquez Cecilia and Richard Levene, *Neutelings Riedijk, 2003–2012. Convenciones e identidad – conventions and identity*. El Croquis 159 2012, p. 210

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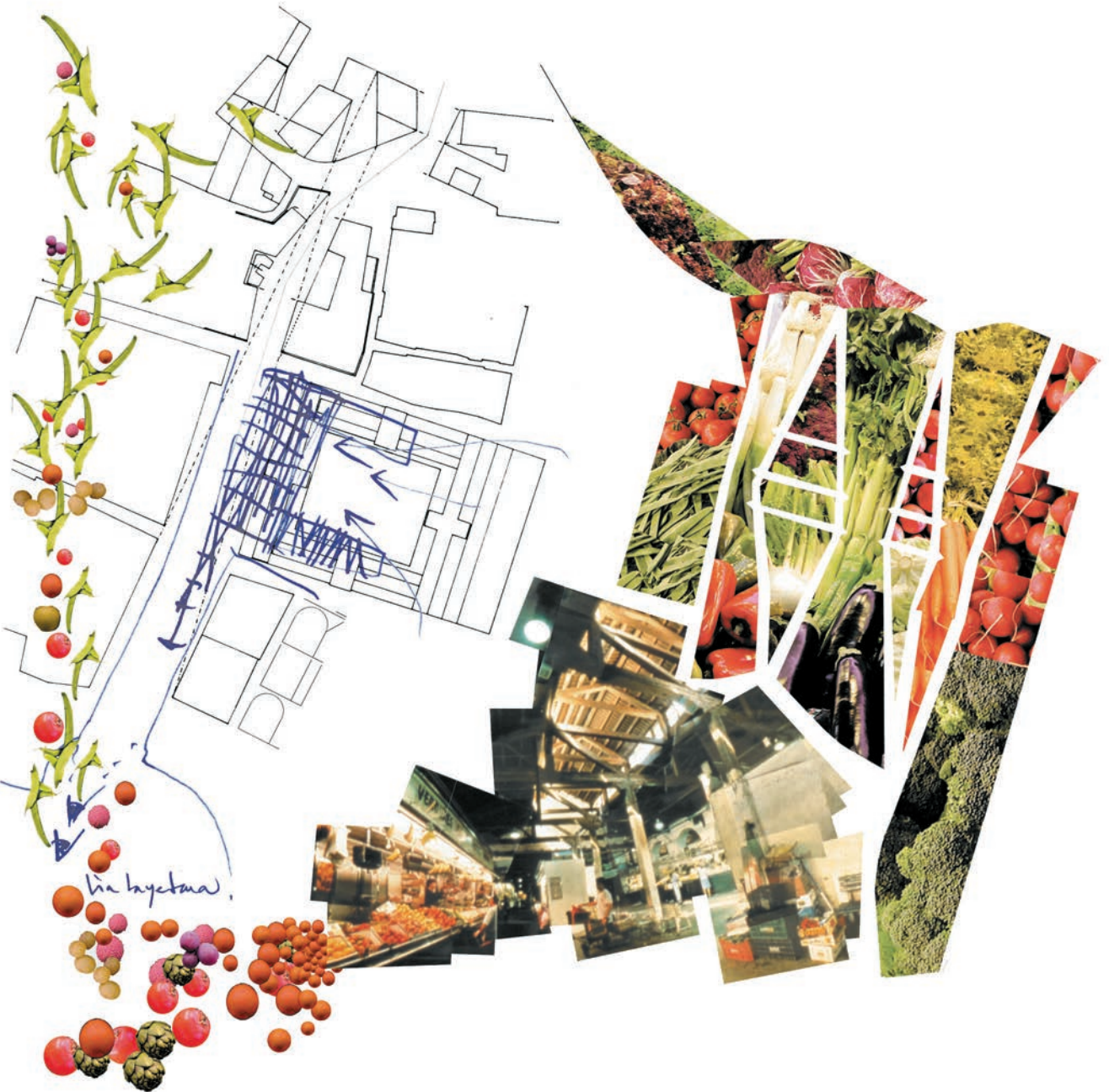
Susanne Komossa, Kees Rouw, Joost Hillen (eds.), *Kleur in de hedendaagse architectuur: projecten / essays / tijdslijn / manifesten / Colour in contemporary architecture: projects / essays / calendar / manifestoes*, Amsterdam, SUN 2009.

Michiel Riedijk, 'Raw steak on the drawing board', in: Ferdinando Márquez Cecilia and Richard Levene, *Neutelings Riedijk, 2003–2012. Convenciones e identidad – conventions and identity*. El Croquis 159 2012

Colin Rowe, Fred Koetter, *Collage city*, Cambridge Mass., MIT Press 1975.

Mark Wigley, *White walls, designers' dresses. The fashioning of modern architecture*, Cambridge / London, MIT Press 1995.

Robert Venturi, Steve Izenour, Denise Scott Brown, *Learning from Las Vegas; the forgotten symbolism of architectural form*. Cambridge Mass., MIT Press 1972.



31. Sketch/Collage of the
roof and the building
site Mercat Santa Ca-
terina, Barcelona



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He works internationally as lecturer and advisor on complex urban projects. As a (co-) editor he published 'The new City. Italia-y-2026. Welcome to Vema' (2006), 'Architecture for a sustainable territory. City and Landscape between technological innovation and tradition' (2010), 'GROOT/GREAT, Tekenboek stadsgebouwen, functiestapelingen, publieke binnenwerelden, in een blok' (2011), and published together with colleagues the proceedings of the 2012 EAAE-ISUF conference 'NewUrban Configurations' (2014). He is currently working on the new edition of "interpreting basic buildings" (2017). He is member of the Editorial Board of several international Journals.

Masters Teaching

- AR3AP130 Seminar Research Methods Public Building Graduation studio's
- AR4AP100 Public Building Graduation Studio: Architecture & Public Buildings
- AR1AP011 Public Building MSc1 Design Studio: Architecture & Public Building
- AR1AP030 Seminar Architectural Studies
- AR1AP040 Seminar Architectural Reflections
- AR3DI0020 Delta Interventions MSc3&4 Design Studio: North Sea. Landscape of Coexistence
- AR4EX300 Explorelab Thesis Project 2 ExploreLab

Nicola Marzot

**Rossi, Ungers and Koolhaas
Three positions on the relation between
Architecture and Planning**

*This text is based on the PhD thesis of Nicola Marzot, Beyond the typological discourse, The creation of the architectural language and the type as a project in the western modern city, which has been defended at TU-Delft 4 December 2014

INTRODUCTION

The persistent condition of crisis of the building market has foremost affected the western world over the last decade. Notwithstanding, this crisis seems to offer a stimulating challenge to current architectural practice by multiplying the number of vacant buildings and waiting lands in the urban “brownfields”. This increasingly constitutes an urban phenomenon that is widespread because of the internal dynamics of the Network City as a global given (Marzot, 2006). In addition, this situation potentially offers a new generation of experimental opportunities, which can be widely found in the European context and has been accompanied by a broad spectrum of interesting design initiatives (Oswalt, 2013)¹. In fact, beyond a certain temporal threshold, any crisis (from the old Greek *krin*, to choose, to take decisions) at a certain moment shifts from a temporary state into a permanent condition of structural deficiency. While the former situation turns out to be typical for existing urban form development, the latter expresses a pathological situation that affects the city’s overall systematic quality. This includes also the expected role performed by each building within the local community and within the existing urban framework. Basically, this condition of crisis leads to an irreversible loss of “commonly shared rationality”, which had been required to achieve a general agreement about what the city should be. This agreement is entirely historical and, therefore, limited in value and by space and time constraints. This becomes evident through the study of urban form and is based upon the recurrence of specific building types within clearly defined historical conditions. Not by chance the notion of ‘building type’ defines the conventional aspect of architecture, which is based upon repeatability (Caniggia, Maffei, 1979).

However, within the aftermath of the Modern legacy, the notion of ‘Planning’ as an expression of a presumed “universal rationality”, which claimed to be capable to cross harmful historical borders, had literary superseded the historical role played by the ‘Building Type’ in defining the form of the city. Moreover, Planning literary anticipated the possibility to experiment with new conditions, which was in fact the role of Building Type before Modernity. In fact the quality of the building type to become ‘convention’ always derived from an experimental process, that developed via trials and errors while experimenting with existing buildings and purposes. This exper-

imental process eventually led towards the status of a new temporary “conventional decision”, of which the former was considered the legitimating process.

In that respect, Manfredo Tafuri’s seminal idea to distinguish between *Architecture* and *Planning*, is still a crucial critical threshold to understand the condition prompted by Modernity (Tafuri, 1976). In fact, according to Tafuri, the two disciplines of Architecture and Planning, that are based on the founding principles of the European Enlightenment, are intended to be perceived as two independent domains. They respectively address private entrepreneurship on one hand and public policy management on the other; i.e. locating architecture in the public realm and understanding the urban plan as a governmental issue. This observation explains why attempts to reflect on the role of contemporary design during a period of persisting crisis should, first and foremost, assume and question the relation between “Architecture and Planning”. As a grounding premise this relationship has to be critically questioned as such.

This paper aims at tracing back the origin of this embarrassing impasse of the distinction between architecture and planning to Modern thinking. Subsequently it will discuss the formation of Urban Morphology and Building Typology as promising fields of investigation. In addition, this paper investigates the post-modern struggle of overcoming the enduring dichotomy between Architecture and Planning upon which, in fact, Modernity founded its questionable legitimacy, i.e. basing itself on premature judgment. In conclusion, this paper will demonstrate how this opposition has affected, and still affects, the possibility to reach coherent urban form transformations, especially within existing contexts (Conzen, 1969).

1

Many of them, not by chance, are present in the most congested metropolitan area, such as Berlin (the Tempelhof Airport), London (the Brick lane district) and Amsterdam (the NDSM district).

2

Modern Planning is based on the sheer distinction between infrastructure and zoning.

METHODOLOGY

The emergence of Urban Morphology and Building Typology, since 1950 onward, as a proper disciplinary field (Marzot, 2004), clearly reflects the discussion among architects on the relation between Architecture and Planning as a critical aspect that conditions any design strategy regarding the contemporary city. Not by chance the emergence of this new field was the result of the necessity to reconstruct the European cities after the Second World War's impressive damages. It was clearly on this occasion that Modern Architecture became progressively aware of its incapability to deal with the historical cities, because of the different set of rules upon which they had been built. Urban Morphology and Building Typology produced an impressive body of knowledge on the historical city's regulating systems, based on the previously mentioned conventional quality of the Building Type. This knowledge is in opposition to modern Planning's², and answers reciprocally differ in relation to the role assumed by the specific nature of the so-called "agents of change" (Marzot, 2014). Parallel to the distinction between architecture and planning this assumption justifies a very basic distinction between "object oriented" perspectives and "process oriented" ones. The former tends to emphasize the autonomous capacity of architecture to subvert the existing conditions. In fact, it mostly acts at a formal level. Basically, it substitutes an existing "architectural language" by a new one. In the latter case, it tends to postpone the critical reflection on the appearance of any disciplinary code to a necessary previous analysis of an already existing change regarding newly emerging socio-economic agents claiming a role within society. In this case, the possibility of an architectural language is in fact subject to an experimental process on the existing city and its building structures. The experimental phase is therefore fundamental. By claiming a proper space through experimentation, the agents of change have the chance to really construct their own set of rules. This gap is justified by different philosophical backgrounds in approaching the same fact, i.e. reality as a "phenomenon". The "object oriented" perspective always answers to the question "what it is a city?" by presuming, but never questioning, its existence. This implies an endless search for definitions, which remain inevitably constrained within, and limited by, the boundaries of an assumed "disciplinary field", which is grounded on

preliminary hypotheses regarding its functioning and character. Not by chance this specific way of questioning experience without emphasizing the role of the so-called "agents of change" resulted, since the very beginning, in the foundation of Architectural Metaphysics, which from that moment onward was doomed to produce logical "entities". Not by chance these were the premises of J. N. L. Durand's method of Composition. In the introduction to his *Précis* (Durand, 1809), he was in fact proud to justify the consistency of his method by arguing that it would allow all students without previous practice or experience in the field of architecture to become a talented designer. Not by chance Enlightenment's aim was to guarantee a scientific approach to every field of knowledge. But the so called "scientific approach", once applied to common matters or extended to social phenomena, is the paradoxical result of this "unconscious" prejudice. In fact, Science literary "suspends" the judgment with respect to any phenomenon, up to the end of its investigating process, by substituting subjective desires with preliminary hypotheses on the phenomenon's nature. Not by chance, Durand's above-mentioned method was intended by its author to guarantee the possibility to articulate a architectural proposal for any possible geographical setting without having any knowledge about it and its societal setting. Accordingly, this assumes a pre-formulated explanation model to be applied, i.e. "projected", onto the analyzed real. Only if the reaction from the real confirms the preliminary hypotheses, these are recognized as "law" and then accepted by the scientific community as part of the discipline. If not, they are rejected, and the process starts again with new hypotheses to be tested. The Functional city is an example of this process. In that respect, Le Corbusier's *Manière de penser l'urbanisme* (Le Corbusier, 1945) is the result of the sheer application of scientific principles to the discipline of Urban Design. It assumed that the city performs according to functional specializations and, even more, that the quality of architecture had to be subject to this planning principle. With other words, the author projected the model extracted from these hypotheses onto the 'modern' city, testing its reaction. Of course, no one cared about the resistance to this application, since the reaction itself is considered part of the procedure and its implicit "scientific quality". As a consequence, when using this 'scientific' method, it is not possible even to question the relation between "Ar-

chitecture and Planning” as such, since the two expressed “entities” are implicitly presumed to exist prior to any research. Additionally, even the use of the coordinating preposition “and” unconsciously states that the two categories belong to the same level of knowledge, i.e. the rational one.

The “process oriented” perspective, on the opposite side, avoids any preconceived definition by simply answering the question “why to build a city?”. Doing so, this horizon of investigation never presumes to know who is doing what, why, when and where, which are usually considered the basic aspects of any consistent research. This is made explicit by Urban Morphology and Building Typology when investigation is addressed to the analysis of the city’s transformation prior to the Enlightenment. In fact, the city’s existence is continuously put under discussion through the elucidation of its lifecycle guided by experimentation on its existing architecture with the aim of achieving new forms of conventional building types (Aymonino, C., Brusatin, M., Fabbri, G., Lena, M., Lovero, P., Lucianetti, S. and Rossi, A., 1970). Even more, this processual perspective envisions that all aspects of this analysis will be reciprocally defined by testing conflicting positions and by assuming failure and/or success as a simple possibility, or “event”. Even more, experimentation takes place before the possibility of the city’s existence, emphasizing the role of singular and collective responsibility in taking decision, starting with the very beginning of the process of experimentation. The most impressive case history regarding this perspective is the coming into existence of the medieval city immediately after the IV century A.C., i.e. the possibility of experimentation within the roman city, once it had fallen into ruins (Muratori, 1959/60 and Muratori, 1963).

To clarify this fundamental antagonism between architecture and planning, between process and object orientated perspectives we will compare three canonical texts dealing with the architectural quality of the city and its transformation in space and time. We will describe and explain the argumentation, which has been developed in these texts, in order to find out the implicit position of the three authors. Finally, we will try to extract a clear position vis-a-vis the relation between Architecture and Planning to see whether or not this could fulfill the expectations of a critical design approach when confronted with the existing situation. At the same time this offers the opportunity to raise a discussion on eventually missing aspects that have to be further investigated.

FORMING PROCESSES.

THREE CANONICAL POSITIONS

The architecture of the city (Rossi, 1966), *Architecture as a theme* (Ungers, 1982), and *Delirious New York* (Koolhaas, 1978) are the three texts selected for this experiment. The reason of this critical selection can be explained as follows: these texts were all written by architects and theoreticians operating in the field of architecture and urban design. Their shared aim was to trace back the history of urban form not dealing with abstract and prejudicial theories and/or hypotheses of Modernism but to find within this history the compelling premises to support their own intentional and operative design strategy. These premises tend to remain latent within the initial part of the books’ content of these three authors; however, they are finally made more explicit in the course of the authors’ narrative. Furthermore, all three were interested in questioning the role of Architecture in the definition and construction of the City, as the book titles already indicate, superseding the prejudice addressed towards Architecture’s inability to handle complexity caused by the overwhelming power of Urbanism and Planning, which, not by chance was not existing before Modernity (Aureli, 2011). To achieve this result, all three were aware of the importance of Urban Morphology and Building Typology. In that sense, they all are clearly post-modern, and in accordance with the cultural climax of which they were part, they judged the results of Modernity from the perspective of its evident failure. However, looking closer, mutual differences emerge emphasizing the “untold” and the “un-thought” of their author’s position. Here lies the aspect we are interested in vis-à-vis the Architecture and Planning debate, that also affects their design strategy.

3

The reference to De Saussure's linguistic approach is explicitly addressed in the introduction to the first Italian edition of the book at pag.6. Moreover, it is finally elucidated within the introduction to the second edition, published in 1970. On that occasion Rossi fully declares his intention as "...to establish a theory of architectural design where the elements are predetermined, formally identified, but the significance which emerges at the end of the operation is the authentic sense, unexpected and original, of the research..". This definition pays respect to De Saussure's definition of the *Langue*. Rossi finds evidence of his belief not only in the transformation processes of urban form, investigated through urban analysis, but also in painting, especially in the genre of the so-called "capriccio", leading him to define the theory of the Analogous City.

THE AUTONOMY OF ARCHITECTURE IN ALDO ROSSI

Aldo Rossi's text acquires a special value by virtue of the extensive dissemination of the ideas brought together inside it through numerous translations. It can legitimately be maintained that the significance of the work lies in the motives behind it. These do not seem to have changed over the years, as the author himself recalls in his various introductions, and this means there was never any call for him to bring the text itself up to date.

His essential idea is to question the theory of what can be called "ingenuous" Functionalism, which reduces architecture to the pure representation of its utilitarian functions through a one-way relationship of a causal kind. Rossi counters this principle with that of architecture as an autonomous discipline, endowed with a code of values independent of the indisputable pressures of an economic, political and social kind, based on the permanence of certain principles constantly verifiable in the course of history. These the author defines as the "form" of the urban "artifacts", to distinguish their general aspects - and their implicit validity - as compared with their concrete manifestations revealed in precise conditions of space and time.

The purpose of his argument thus becomes to bring out, through reference to situations, which have really occurred and are historically founded, the existence of closely correlated systems of laws and characters in order to try to create a theory of the city, an urban science. This science is intended to take Saussure's linguistic theory as its methodological model. This explains the implicit identification between the city, understood as a system of rules to which every building and architectural manifestation conforms, and *Langue*, as defined in precise terms by De Saussure himself³. The text is divided into four sections: the structure of urban artifacts; the primary elements and the concept of area; the individuality of urban artifacts; architecture; the evolution of urban artifacts.

The first section clarifies the hypothesis underlying the entire work. The city is considered as an artifact, a work that grows in time in accordance with a logic of continuous adaptations of the existing building patrimony to changing needs. In this way, the city is modified in keeping with criteria of an artisanal kind, namely by piecemeal adjust-

ments made in real time. Hence it is essential to recognize the individuality and uniqueness of urban artifacts as the starting point for any reflection on the future of the city and its transformation.

Nevertheless, we can succeed in defining the constituent modes of every individual architecture or urban manifestation only through a series of successive abstractions from the data with which the book starts, namely the concreteness of urban artifacts. Rossi defines the result of these operations as the “type”. The “type” for Rossi is therefore a constant, namely the underlying “form” of urban artifacts. Surprisingly, this derivative process identifies with the fall into decay of a well-established community, which tends to reveal the emergence of the “type” as a “relict”⁴. In Rossi’s interpretation of the city there thus co-exist a Platonic image, the idea of the city, and an Aristotelian vision, the whole set of urban facts in their concrete materiality as an occurrence, and these factors are always closely correlated, to the point where, out of respect for Saussure’s linguistic formulation, the urban artifacts become the “words”, or “speech act” through whose historical sedimentation “languages” are renewed. Seeking to define architecture as an autonomous discipline⁵, Rossi identifies it with Composition, out of respect for the cultural-revolution that had begun by the Enlightenment. As the art of composition, architecture is pure rationality; it has its own lexical elements and its own rules of syntactical-grammatical articulation. These elements and rules do not belong to history but to the world of forms revealed by the superseding of history made possible by its conscious crisis. Subsequently, morphology is concerned with concrete urban artifacts, while typology with their constructional logic. The “analogue city” concept introduced by Rossi to support this hypothesis displays concrete artifacts under decay- the theatres of Arles and Nîmes, the fortress of Split, the Palazzo della Ragione in Padua, etc. – to express idea of the recurrence of elements and relationships which underpin the city and its architecture, independently of the use made of them in any given conditions (Fig.1). However his recognition of the existence of “types”, understood as schemes with a meta-historical validity, does not follow from a processual analysis of the reasons for their existence, i.e. does not derive from critically answering the question “why do we need to build a city and, eventually, choosing a way more than another?”. This is not

by chance. In fact Rossi’s search for a dialectical relation between the universality of form, i.e. its inner logic deprived of any conventional value, and its specificity, i.e. its ever-changing interpretation made possible by the unique materialization of its logical premises, is always in favor of the author’s self-satisfaction regarding the “un-productive role” of the crisis as such, which confirms his subtle compliance with Modernity and its disruptive attitude in “transcending” any kind of specificity (Biraghi, 2013).

This position is shored up by Rossi’s decision to apply the architectural concept of the “type” to the building and the city, rejecting the humanistic distinction of the “scale” of the project. Doing so, the “type” becomes the unifying factor of a logical kind, which ties up all built manifestations, regardless of their dimensions and the complexity of their interrelations. Rossi identified the type with *Langue*⁶, so superseding certain ambiguities present in the definition given by Saverio Muratori and his school, which apparently prevented the concept from acquiring an analogous unifying function. In practice, they limited the term “type” to defining the historically ascertained concept of the house⁷. The analysis of urban artifacts, hence of urban morphology, confirms the existence of logical principles, namely “types”, which transcend morphology while comprehending it. The general validity of these principles is not undermined by the fact that they are embodied in widely different situations (Fig. 2). In fact, this constitutes the foundation of their truth. This same fact jeopardizes the functionalist assumption of form as an organ which is developed and modified in relation to its function. The concept of the house as a utensil is a slogan that does not do justice to the permanence of specific organizational principles in strongly differentiated programs. If anything, says Rossi, it is the type that is the organizational model of this function. In reality, the modern concept of Function subtlety hides the existence of new values, derived from the emergence of the industrial society based on standard and mass production, translating the scientific method application from the field of natural source exploitation to that of the human one.

Function does not lend itself to becoming an effective parameter for the analysis of reality, though the Modern Movement made excessive use of it. Other parameters that had a considerable success were those that had an economic



Fig. 1.

Engraving of Arles' roman amphitheatre after the Roman Empire fall, XVIII century. Aldo Rossi finds archeological evidences of the survival of Form, calling it Type, after processes of functional disposal and successive abandonment of already existing public monuments of the past. Assuming this permanence, beyond historical epochs, as the grounding principle of the architectural practice, and naming it Composition, it becomes the "natural environment" into which architecture establishes its valuable horizon. As a consequence, neither the character of architecture is questioned nor its necessity. The dualism between the idea and its materialization duplicates, in the disciplinary field of architecture, the Enlightenment one between rationality and its sheer application.

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Not by chance, in the introduction to the first Italian edition, at pag. 6, he declares that "...permanent elements could be identified as pathological elements.."

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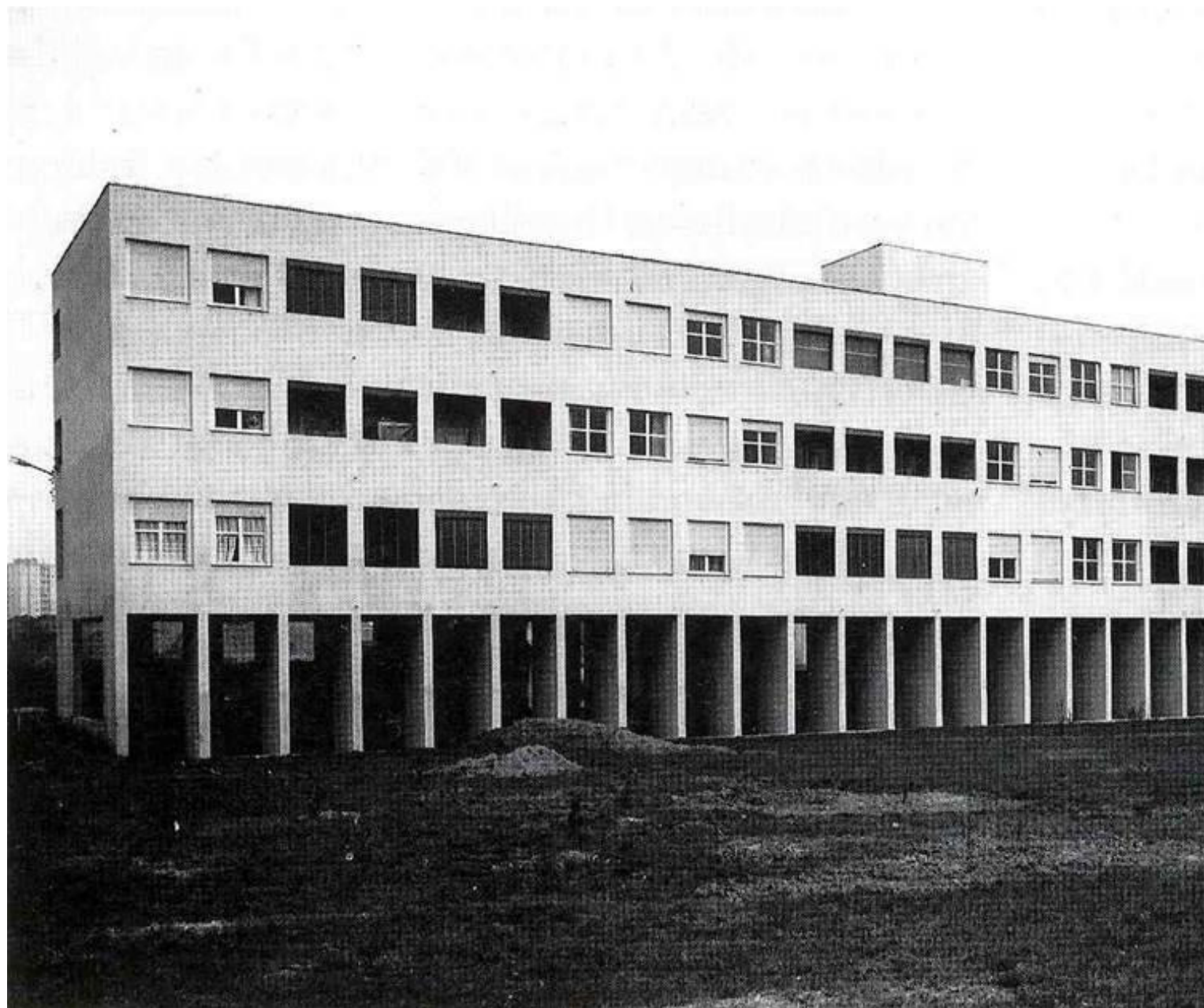
The reference to Autonomy and to the scientific approach is emphasized in the introduction to the second Italian edition.

6

According to De Saussure's the *Langue* refers to synchrony and justify the existence of clearly defined elements, whose internal relations are unpredictable, since the elements can be selected and combined according to the author's changing intentionality. However, to define the *Langue*'s structure, we do need to start from the *Parole*, which refers to a diachronic process. Rossi fully developed De Saussure's program by analyzing "Urban Fact", i.e. the architectural *Parole*, to extract from them "Types", which correspond to the *Langue*.

7

This point was explored in a paper I presented at the seventh IASTE conference held at Trani from 12 to 15 October 2000. The paper is published in the Working Paper Series n° 136 under the title *The Dialectic Between Tradition and Innovation in the Italian Typological Studies*.



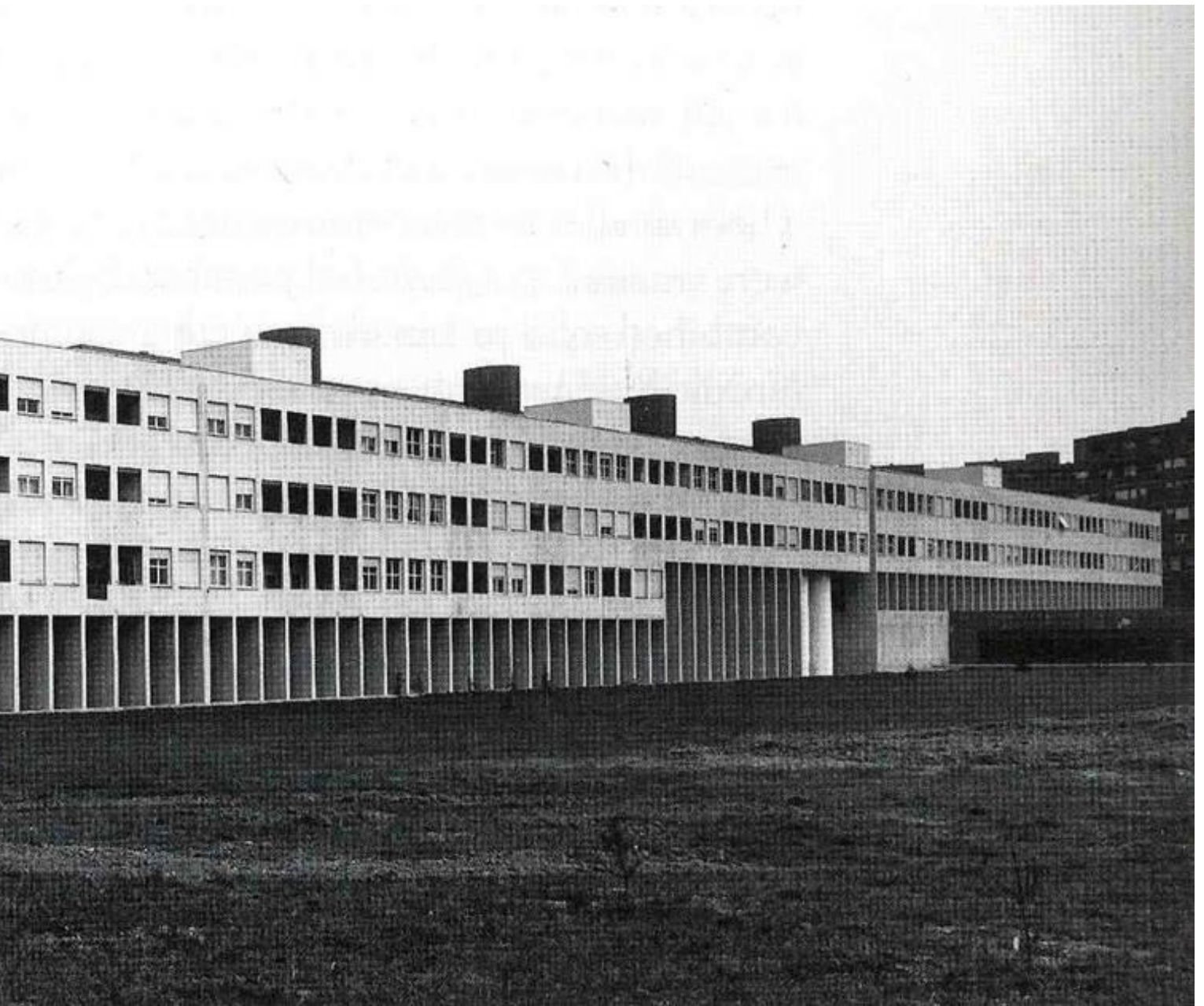


Fig. 2.

Aldo Rossi, Residential Unit, Gallarate District, Milan, 1968-1973. The building stands out as the poetic interpretation of a viaduct's relict, which remains to the background as the implicit permanence of Architecture, beyond any functional or conventional value. The origin of the hidden precedent remains unquestioned as well as the role of the personal manipulation of it, intentionally dissimulating any kind of subjectivity, its possible aim and expected desire.

nature and social content. Though these analyses helped comprehend important aspects of Morphology, they are not capable of explaining it in its entirety. The city by its nature defies any all-encompassing interpretation which excludes recognition of the existence of purely formal categories endowed with their own behavioral autonomy. Only Marcel Poëte (Poëte, 1929) and Pierre Lavedan (Lavedan, 1926) introduced as criteria of analysis the identification of persistent elements in the urban organization that are capable of penetrating the form of the urban artifacts from a morphological point of view. For example, verification of the existence of elements of the plan of the city which retain their force through successive urban transformations, and which may actually consolidate it, is a confirmation of the autonomous validity and effectiveness of the principles regulating them. Rossi, however, never doubted that the persistence of these phenomena was not necessarily a synonym of choice but rather the effect of an inertia to change, due in part to the nature of the materials employed. Would the destiny of the theatres of Arles and Nîmes, in the early Middle Ages, have been the same if they had been built of wood and not stone? Couldn't respect for certain alignments be explained simply as less laborious than their alteration or cancellation? This would help understand why the *cardo* and *decumanus* of Roman cities are better preserved than all the other signs of lesser importance. It is therefore difficult to interpret the preservation of material elements as an implicit recognition of the validity of their underlying principles. It seems not possible to solve this aporias if not bringing to the fore the subjective position, its intentionality and its role in judging what is doomed to be abandoned and what is worthy to be subverted through subtle manipulation, for the sake of a newly emerging possible society, which implies to focus on a process oriented perspective.

OSWALD MATHIAS UNGERS: ARCHITECTURE AS A RHETORICAL DEVICE

This text is located historically at the end of a long period of reflection on the form of the city. It addresses the city's formation and transformation in the course of time and its relationship with architecture and the consequence of this theoretical output in the construction of urban space. As such this text is a fundamental contribution to the comprehension of part of the state of things in which we still live.

Ungers' principal objective is to stress the importance of architecture as an autonomous language, capable of expressing ideas, that is themes, which precede it and condition it in its choice of elements and its rules of inner articulation. In particular, those "themes" are derived from urban form transformative process careful analysis, to emphasize the importance to derive a consistent body of knowledge from the specific appearance of the "urban facts". In this way Ungers seeks to express his criticism of ingenuous Functionalism and the consequent subordination of architecture to purpose, technology and the reasons of the economy, which have made it an applied art. This urge to attribute a communicative capacity to architecture, regardless of the question of functioning inter-disciplinarily was typical of the 1960s⁸. It was also consistent with the reflection regarding the principles of scientific research, in which the initial working hypothesis defines the direction of thought in the analysis and quality of the results obtained. Themes, precisely because they are not natural or spontaneous aspects but the result of conscious choice, are partial. It only as such that they succeed in ensuring architecture has the linguistic function which the author seeks to attribute to it. But for the same reasons the choice of these aspects, to be widely shared, a collective choice and not a personal poetic inaccessible to most people, should possess a historicity of their own: i.e. they should clearly represent central aspects of the cultural debate at a specific time, a question that the author seems not to grasp unequivocally.

As the immediate result of choices not shared, the language of architecture will prove in various cases to be conditioned by the nature of the theme, so being translated into a catalogue of codes, meaning strongly specialized languages. The fact that the different themes/languages can coexist within the work of a single author reveals

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Nothing to say that this urge had a twofold premise: to reevaluate the autonomous capacity of architecture, via the project, to construct a clear idea of the city, and to subordinate the Planning to unfold this autonomous capacity, subverting the Modern prejudice towards architecture. This urge became unavoidable after the second world war reconstruction and was boosting the emergence of Urban Morphology and Building Typology as an autonomous research field, to rehabilitate the lost role of architecture to define the form of the city. Within the Modern legacy, only Le Corbusier and Hilberseimer tempted somehow to forecast the possibility of a new city made of architecture.

its partiality and that it belongs to the field of the poetic. The '80s thus opened under the aegis of linguistic “particularism”, following the heroic season of the '60s and '70s, which sought to re-found architectural language on more solid bases which could be widely shared through emphasis on aspects of active participation in its formation. The individual was thus the author and beneficiary of the choices made. With Ungers, individuals delegate a brief to the architect who, by virtue of his poetic abilities, succeeds through his mediation in finding a form for the needs of the community. Notwithstanding the evidence of a Meta-Narrative attitude, according to which architecture indirectly reflects on what its purpose should be, not taking it into a proper action, however Ungers has the merit to indicate a new research line capable of developing Aldo Rossi's premises, substituting the former's negative dialect with a positive one.

“The theme of transformation or the morphology of the Gestalt” is defined by Ungers in a multiple way. It can be understood as the expression of endless individual variations by which it is possible to express a general concept like “entrance” (by analogy with the distinction made in linguistics between the “Act of Speech”, corresponding to the French definition of *Parole*, which are endless and unrepeatable, and the French definition of *Langue*, which expresses the finite system encompassing the grammatical rules and the linguistic components). But the theme can also express the transition from a state of order - the layout of a planned city - to its abandonment because of a change in the general context, which seemingly alludes to a state of chaos. An example is the early medieval city, which developed on the earlier system in continuity with its most elementary aspects. Finally, the theme can be expressed through a continuous transition from the natural element to the artificial and vice versa, hence by simulating a clear change of state. Each of these strategies, says Ungers, makes it possible to clarify the theme of transformation through the language of architecture, making architecture the language of transformation, enhancing the idea of a possible variety within the unity of the system. Ungers supports this thesis with the examples of the projects for the Museum Morsbroich in Leverkusen, the student residence at Enschede and Grünzug-Süd in Cologne.

"The theme of the assemblage or coincidence of opposites" enables Ungers to remind us that Western culture has educated us to consider a lack of unity in the whole as a limitation for the attainment of beauty in a work. His purpose, on the contrary, is to show that the composition of contrasts is sometimes the only strategy available for coping with a design problem and, as such, it may be the source of aesthetic reverberations. The theme of fragmentariness is also taken as an act of freedom from the often-dogmatic imposition of unity. Aldo Rossi's conception of the "city by parts" emerges clearly from these words and Ungers demonstrates to be aware of it. The city lives by the richness of discontinuities, of contradictions, unlike the village, which emphasizes unity. This passage is perhaps one of Ungers' most important observations, as it prompts reflection on one of the principal themes of criticism of the bourgeois city in the late nineteenth century. Discontinuity, complexity and specialization have become synonymous with the modern condition and the big city in particular. The ideas contained in the model of the garden city were defined in opposition to them. But the theme of the assemblage also becomes a metaphor for the language of contemporary architecture as the place of the fragmentation. If architecture is the visualization of an idea, which by virtue of its partiality enables it to be communicative, the simultaneous presence in the same space and time of opposed themes, i.e. of fragments that are not composed into a single whole, becomes the expression of a Babel of co-occurring codes. This is due to the fact that architecture as a language presupposes specialization, a drastic reduction of its semantic potential by emphasis on a single aspect. But this very choice in practice decrees its rapid obsolescence. Codes, by definition strongly specialized languages, afford less flexibility to change of context. To confirm his thesis, Ungers cites the projects for the Tiergarten Museum in Berlin (significantly the ideal context to emphasize the theme of fragmentation, at which Daniel Libeskind has recently tried his hand), the Stadtsparckasse in Berlin, the Wallraf-Richartz Museum in Cologne, the restructuring of the Frankfurt trade fair and the Berlin courthouse.

"The theme of incorporation, or *the doll inside the doll*", is the description of an approach that can be developed, according to Ungers, in two directions, formal and conceptual. The first approach entails the existence of compositional analogies

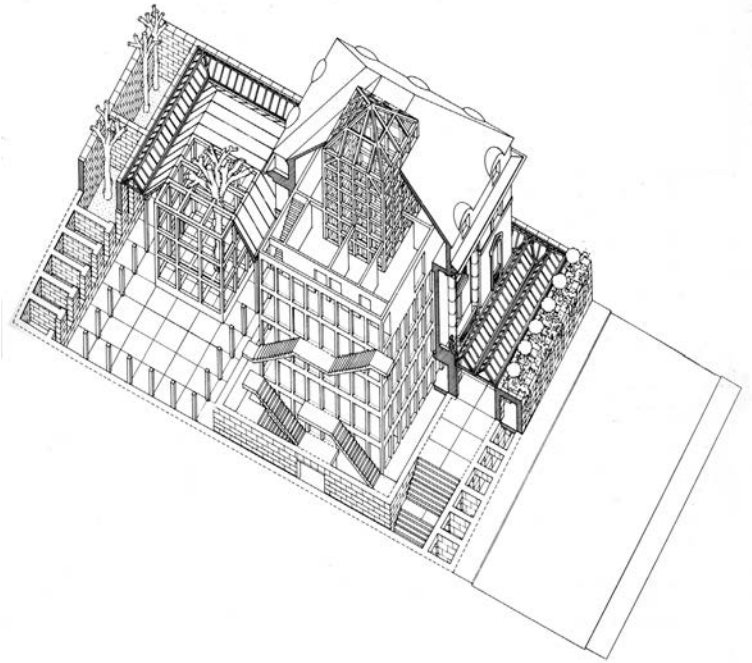


Fig. 3.
O.M. Ungers, Deutsches Architekturmuseum, Frankfurt am Main, 1978 (of *Das Deutsche Architekturmuseum*). Through the theme of "inclusion", interpreted as a rhetorical "figure of speech", architecture displays, and let it perceive, a narrative dealing with the reprogramming process of the existing complex building, a bourgeois urban villa dating back to the second half of the XIX century, to its grounding elementary premise, offered in the metaphorical shape of the primitive hut. If architecture becomes a discourse on itself, or a meta-language, its words explicitly refer to its underlying practice. Notwithstanding architecture cannot exceed the limitation of its system, intended as a *Langue*, because it remains circumscribed by its set of rules, according to Ungers it can at least elucidate its premises and foundation, ambiguously swinging in between the practical and the conceptual level.

between objects on different scales, which for this reason are comprised one within the other - like the relations that existed in the mediaeval city between the town wall and its contents, squares and inclusions, the city lot and the building within it – and have close points of contact with the idea of the “analogue city” already fully developed by Aldo Rossi. The second is with the existence of simple organisms, unicellular by nature, which remain incorporated in more complex spatial structures by a process of growth, as in the case of the ancient Greek temple in which the *naos*, the innermost cella accessible only to the priests, is the operative memory of the primitive form of the temple.

This theme is of particular interest because, in his various explanations, Ungers seems to be suggesting that in the processes of future transformation of the architectural object it is essential to recover the original matrix and begin again from this to find a new meaning in the work, suited to the changed contextual conditions. This hypothesis is confirmed by the projects for the Landstuhl Solarhaus, the Deutsche Architekturmuseum in Frankfurt (Fig.3) and a hotel in Berlin.

“The theme of assimilation or adaptation to the *genius loci*” was definitely the one most fully developed in the debate in the ’70s, and is the most difficult one to define and systemize. In absolutely general terms it represents the idea that architecture, to be translated into a language, should draw its references unequivocally from the location in which it is set, and that the old and the new should therefore become reciprocally interdependent elements in the organization of existential space. So, the way the subject is interpreted not only varies from context to context, but should explicitly state this differentiation as its distinctive trait. With certain clear references to the concept of the “analogue city”, but much more highly specified, adaptation to the context seems to allow for the citation of elements of local architecture, though they are embedded in an original system of relationships, which bears witnesses to the evolution of the times. Seemingly implicit in Ungers’ arguments is the idea that architecture can be translated into language only if it recovers elements of the tradition by relating to them in keeping with rules of transformation. The significance of the innovation emerges from a comparison between what pre-exists the architecture and what is added within that interval. Innovation and tradition are therefore complementary. The context is therefore fundamental to any understanding of the significance of a work.

From these considerations derives an important observation: in order to alter the existing state of things, architecture has to “comprehend”, in the twofold etymological sense of the word, firstly as understanding through analysis and secondly as assimilation/inclusion through the operation of the project. The emphasis on syntax should not make us lose sight of the relationship with the existing structures, understood as a rich repertory of reciprocally interrelated forms. In that respect Ungers takes the distance from Rossi’s search for an anonymous and universal language, putting the basis for understanding the unique specificity of the historical evidence of precise and definite historical languages⁹.

Modern architecture therefore has to include traditional architecture within itself, if it is to supersede it with full awareness, in such a way that this superseding can be not just felt but also seen. Architecture is above all a language in images, or a metaphoric expression. Even though Ungers does not tackle the issue explicitly, it seems we can say that the idea of architecture as a language presupposes its being rooted in a context, and that every form of distancing, including a conceptual distancing, from this position, entails shifting the question to the criteria of the formation of languages, i.e. on a syntax and a vocabulary so general that it offers a level of abstraction which makes it an instrument applicable to different contexts. But it is necessary to remember that this level of generalization is not a language, but only a “generative grammar” which seeks to provide a rational explanation for the variety of languages, which is not negated by starting from a basis in rules that are common, since these are innate, hence not a product of culture. To confirm these hypotheses Ungers cites the project for a group of homes at Marburg, the project for the residential area on the Schillerstrasse in Berlin, that for the Badische Landesbibliothek in Karlsruhe, the project for the restructuring of the Hildesheim Marktplatz and the project for a building in the Braunschweig Schlosspark.

Ungers interprets “the theme of the imagination or *the world as representation*” in two different ways. The first is implicit in the general title of the text. It holds that we can talk about architecture as a language only if we decide to analyze it in accordance with an interpretation which will govern its transformation subsequently. The way we understand the world, and so build it, clearly depends on how we perceive it. The nature of the parameters or themes chosen is decisive in relation to the results eventually obtained. The second significance of the theme is that the language of architecture is language by images, a figurative language. In other words, there exists a rhetorical use of architecture, which is related to the use of “figures” analogous to the literary figures - metaphor, allegory, metonymy, hyperbole, etc. - which sometimes help to say what on a purely conceptual level (perhaps here we glimpse an attempt to move beyond the iconoclastic Structuralist positions of the ’60s and ’70s) it is impossible to convey in a specific historical period.

In this respect, some Enlightenment experiences clearly attempt to express new impulses, which were not possible to be conveyed in the language of the *Ancien Régime*. Among these “figures of speech”, synecdoche (the part for the whole or the whole for the part) and metaphor have been the most widely used in the history of architecture. In particular synecdoche seems to offer the possibility of verifying the quality of a form which, through a condensation or rarefaction of the image, leads to a new expression not contained in the original. This reflection is present in the projects for a house at Berlin-Spandau, the construction on Welfare Island in New York and in the project for the Fachhochschule in Bremerhaven.

This also justifies Ungers's more explicit interest, in the description of city's transformative processes, about the role driven by agents of change.

THE DELIRIOUS ARCHITECTURE AND THE HYBRID CITY OF REM KOOLHAAS

Although there has never been a clearly demonstrated relationship between *Deconstructivism* and the successful book *Delirious New York*, written by Rem Koolhaas and first published in 1978, in the writer's view it contains a series of extremely interesting critical reflections that exhaustively examine the post-modern condition with the additional merit of an essentially architectonic/town-planning perspective.

The author considers Manhattan Island to be the clearest expression of 20th Century town-planning culture, a collective work that he refers to as the "culture of congestion". Nevertheless, though he demonstrates an ability to systematically document the genesis and development of continuing practices that are analyzed with a comprehensive historico-critical approach, Koolhaas acknowledges that they lack supporting theory. In an age that seems to have firmly repudiated the avant-garde, which, since the start of this century has developed through the radical rethinks of the 1960s and early 1970s, the author's controversial intent is to propose a retroactive manifesto to justify a programme that is so at odds with the culture of modernity that, if its proposals were openly declared, it could never be implemented: In the author's words: "...This book is an interpretation of that Manhattan which gives its seemingly discontinuous - even irreconcilable - episodes a degree of consistency and coherence, an interpretation that intends to establish Manhattan as the product of an unformulated theory, *Manhattanism*, whose program - to exist in a world totally fabricated by man, i.e., to live inside fantasy-was so ambitious that to be realized, it could never be openly stated."¹⁰. Noting that choice of subject matter can determine the ultimate aim, the author justifies awareness of the theoretical project and his position regarding the risks and limitations of a more tested a posteriori critical and historical reconstruction.

Although the premises of this relatively unknown theory can be recognized in some technological innovations tested and presented at the Exhibition in Manhattan in 1853, such as the lift invented by Elisha Otis, Koolhaas states that we should not underestimate the role played by some archetypal structures, such as the tower and the sphere, which first appeared on occasion of this exhibition and took form in the *Latting Observato-*

ry and the *Crystal Palace*, as well as the acclaimed grid-like infrastructure that had given plan and order to the island since 1811: "...The needle and the globe represent the two extremes of Manhattan's formal vocabulary and describe the outer limits of its architectural choices. The needle is the thinnest, least voluminous structure to mark a location within the Grid. It combines maximum physical impact with a negligible consumption of ground. It is, essentially, a building without an interior. The globe is, mathematically, the form that encloses the maximum interior volume with the least external skin. It has a promiscuous capacity to absorb objects, people, iconographies, symbolisms; it relates them through the mere fact of their coexistence in its interior. In many ways, the history of *Manhattanism* as a separate, identifiable architecture is a dialectic between these two forms, with the needle wanting to become a globe and the globe trying, from time to time, to turn into a needle - a cross-fertilization that results in a series of successful hybrids in which the needle's capacity for attracting attention and its territorial modesty are matched with the consummate receptivity of the sphere..."¹¹.

But the culture of congestion, which was to use technological innovation and the archetypes of the grid, the tower and the sphere to justify its own existence, historically finds its first major manifestations in Coney Island. To quote Koolhaas: "...Coney Island is the incubator for Manhattan's incipient themes and infant mythology. The strategies and mechanisms that later shape Manhattan are tested in the laboratory of Coney Island before they finally leap toward the larger island..."¹². Although Coney Island, with its unspoiled natural beauty and relative inaccessibility, had represented an ideal place to shrug off the stresses of daily life since New York City's earliest days, during the city's rapid development into a metropolis between 1823 and 1860 the urge to escape became ever more pressing, and the growth of transport infrastructure between Manhattan and Coney Island - first the railway in 1865, followed by the opening of Brooklyn Bridge in 1883 - led to the island's beaches becoming the most crowded in the world, within easy and affordable reach of the proletarian masses. According to Koolhaas: "...This invasion finally invalidates whatever remains of the original formula for Coney Island's performance as a resort, the provision of Nature to the citizens of the Artificial. To survive as a resort - a place offering contrast - Co-

ney Island is forced to mutate: it must turn itself into the total opposite of Nature, it has no choice but to counteract the artificiality of the new metropolis with its own Super Natural. Instead of suspension of urban pressure, it offers intensification."¹³. Such a response translated into the realization of an endless series of amusements - Loop-the-Loop, the Roller Coaster, Shoot-the-Chutes, the Inexhaustible Cow, Electric Bathing - leading finally to the first amusement parks, such as Peter Tilyou's *Steeplechase*, where mechanical horses that anyone could easily control ran around an enclosed track; the *Lunar Park* of Frederic Thompson and Elmer Dundy, where visitors took a spectacular imaginary journey to the moon, ascending to 300 feet above the ground; and the mythical *Dreamland* of William H. Reynolds, the first true amusement park, organized in such a way as to resemble a coherent town plan. Koolhaas' interest in this entertainment project, in a scale greater than any previously seen, arose from the desire, coherently and gradually achieved, to provide experiences capable of satisfying dreams and the imagination and giving them greater solidity, far from the humdrum reality of daily life, through a calculated intensification strategy of spatio-temporal opportunities, beyond the offerings that could be experienced in the real city. The quest for the supernatural, in which Coney Island had deliberately placed its hopes of survival in the face of mass society and its secret rituals, thus took coherent form. Dreamland also represented the first amusement park devised for all social categories, overturning the previous logic of entertainment reserved for the proletarian masses. As Koolhaas recalls: "...Dreamland is located on the sea. Instead of the shapeless pond or would-be lagoon that is the center of Luna, Dreamland is planned around an actual inlet of the Atlantic, a genuine reservoir of the Oceanic with its well-tested catalytic potential to trigger fantasies. Where Luna insists on its otherworldliness by claiming an outrageous alien location, Dreamland relies on a more subliminal and plausible dissociation: its entrance porches are underneath gigantic plaster-of-paris ships under full sail, so that metaphorically the surface of the entire park is "underwater: an Atlantis found before it has ever been lost..."¹⁴. By applying the same technologies that allowed Manhattan to become the world's most important metropolis and organizing ¹⁵ different thematic areas in a horse-shoe pattern around a shoreline cove, Reynolds

managed to artificially reproduce an event space closely resembling the present post-modern condition, in which individual events take place in a totally unconnected way, with no past and an unpredictable future. Of the episodes that drew the most admiration and interest, we may recall *Liliputia*, the miniature city, a faithful reconstruction of the Venice canals, a simulation of the Swiss landscape, the eruption of Vesuvius, and Fighting the Flames, a set that repeatedly simulated a fire in a city block and the consequent arrival of fire fighters who successfully extinguished it. Koolhaas comments: "...Ostensibly seeking to provide unlimited entertainment and pleasure, Tilyou, Thompson and Reynolds have in fact alienated a part of the earth's surface further from nature than architecture has ever succeeded in doing before, and turned it into a magic carpet that can: reproduce experience and fabricate almost any sensation; sustain any number of ritualistic performances that exorcise the apocalyptic penalties of the metropolitan condition (announced in the Bible and deeply ingrained since in the anti urban American sensibility); and survive the onslaught of over a million visitors a day. In less than a decade they have invented and established an urbanism based on the new *Technology of the Fantastic*: a permanent conspiracy against the realities of the external world. It defines completely new relationships between site, program, form and technology. The site has now become a miniature state: the program its Ideology; and architecture the arrangement of the technological apparatus that compensates for the loss of real physicality..."¹⁵. Despite the concern expressed by the defenders of well-meant town planning, i.e. the ideology of Modernity applied to urban form, who would have replaced the city of entertainment with a more decorous urban park, Coney Island has consolidated its success over time, becoming known for extraordinary construction initiatives of remarkable impact. In fact, an advertisement announcing the launch of the Globe Tower building project, the largest that the world had seen, appeared in a New York newspaper in 1906. To raise the vast sum required to finance the project, all New York residents were invited to invest in this adventure. This building attracted interest because of its many formal and programmatic features. The schematic sketch illustrating the Globe Tower's features showed that it represented a compromise between the archetypal structures of tower and sphere, which, as

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Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.10.

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Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.27.

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Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.130.

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Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.133.

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Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.45.

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Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.62.

noted earlier, had made their first appearance at Manhattan in 1853 with the Latting Observatory and the Crystal Palace. Although in the Illuminist culture, the sphere had represented a secular alternative to the role of the cathedral, in this case it was stripped of any metaphorical adjectivation and, very pragmatically, reduced solely to its earning potential: "...It is the American genius of Samuel Friede, Inventor of the Globe Tower, to exploit the Platonic solid in a series of strictly pragmatic steps. For him the globe, ruthlessly subdivided into floors, is simply a source of unlimited square footage. The larger it is, the more immense these interior planes; since the Globe itself will need only a single, negligible point of contact with the earth, the smallest possible site will support the largest reclaimable territory. As revealed to investors, the tower's blueprints show a gigantic steel planet that has crashed onto a replica of the Eiffel Tower, the whole "designed to be 700 feet high, the largest building in the world with enormous elevators carrying visitors to the different floors..."¹⁶. As planned, the tower was to occupy a small corner of Steeplechase, rented by Tilyou to Friede, and would contain Steeplechase, Luna Park and Dreamland enclosed within a single volume, each situated autonomously on its own floor. With a total floor space 5000 times greater than its actual footprint, the Globe Tower was an explicit example of the skyscraper's potential to admit other worlds. A single planning exercise, providing an elementary plastic/volumetric solution, made it possible to restore the appropriately condensed and intensified complexity that the experience of an extensive area offered. By resorting to the artifice of construction, it was possible to concentrate the meaning of an entire conversation in a single word. A new era of architecture and town planning opened up with little sign, as yet, of any full and conscious awareness. Although this initiative turned out to be fraudulent, with even the foundations never being completed, once Dreamland was destroyed by fire in 1916 the experience gained in creating the first city of entertainment was to prove essential to understanding the developments that had been under way in Manhattan since the turn of the century. If the experimental and extravagant "Technology of the Fantastic" defines the unconscious premise of a possible new urban era, further developments of the "Culture of Congestion"

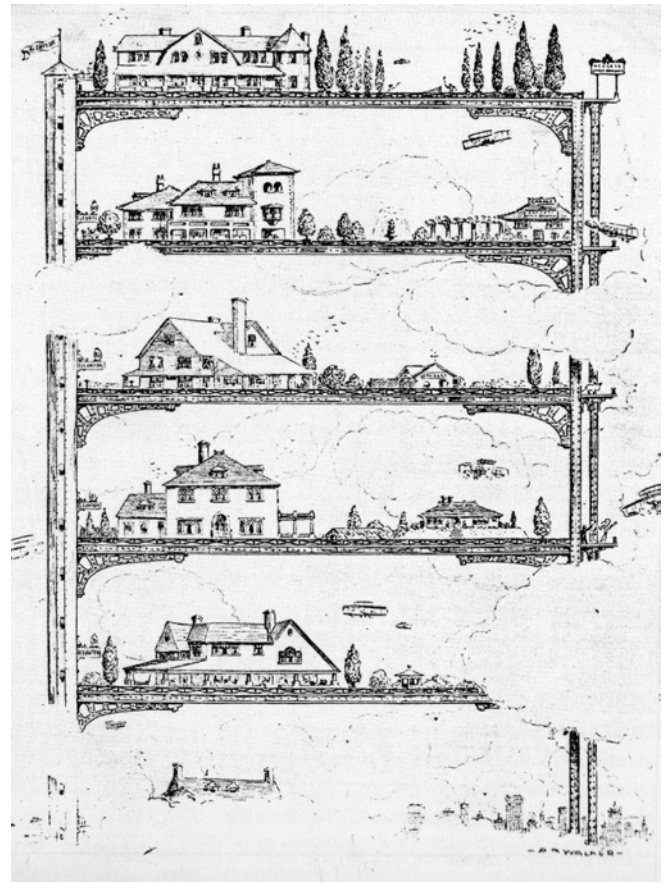


Fig. 4.

Life, advertise of the Skyscraper, 1909. The skyscraper identifies the City with its Architecture, dooming Planning to ratify *ex-post* an already manifested legitimating process of an entrepreneurship emerging through a continuous process of experimentation. In such a way practice envisions unprecedented social, economical, technical and also political possibilities, thus becoming *ex-ante* a theory by itself, then transformed into a "retroactive manifesto". Architecture is not simply a representation of new driving forces, claiming a role in the society, through a great Gesture, but, even more, its operational institutionalization.

leading to the skyscraper were linked to the convergence of three factors: the possibility of reproducing the world artificially, assimilation of the archetype of the tower, and the triumph of the city block, in other words, identification with Manhattan's infrastructure grid model, to encompass it within a new architectural entrepreneurship. Each of these aspects played an essential role, naturally taking account of the contribution of technological innovation, which made it possible to exploit to the maximum the potential of buildings of predominantly vertical development: "...In the era of the staircase all floors above the second were considered unfit for commercial purposes, and all those above the fifth, uninhabitable. Since the 1870s in Manhattan, the elevator has been the great emancipator of all horizontal surfaces above the ground floor. Otis' apparatus recovers the uncounted planes that have been floating in the thin air of speculation and reveals their superiority in a metropolitan paradox: the greater the distance from the earth, the closer the communication with what remains of nature (i.e. light and air). The elevator is the ultimate self-fulfilling prophecy: the further it goes up, the more undesirable the circumstances it leaves behind..."¹⁷. It was also clear that the lift, through synergy with the steel load-bearing structure, could almost indefinitely repeat the space corresponding to the reference parcel. This perspective is clearly outlined in a 1909 comic strip, in which the potential performances of the skyscraper are clearly identified (Fig.4). A steel framework supports 84 floors, each of which retains the dimensions of the original plot. Each floor contains accommodation that differs in style and social aspiration with no interference whatsoever from adjoining floors. There is clear paradox in the idea of a single building whose life is in reality fragmented into a countless series of incompatible episodes while the steel structure guarantees a minimum of unity without interfering with the intended use of the individual buildings it houses. The latter can be continually updated without the need for any work on the structural framework. The town planning consequences of such potentialities are immediately underlined by Koolhaas: "...In terms of urbanism, this indeterminacy means that a particular site can no longer be matched with any single predetermined purpose. From now on each metropolitan lot accommodates - in theory at least an unforeseeable and unstable combination of simultaneous activities, which makes architec-

ture less an act of foresight than before and planning an act of only limited prediction..."¹⁸. The skyscraper became a factor in the promotion of a new approach to urban planning. The technology of the fantastic employed in Manhattan was then translated into a technology of pragmatism at the service of property investors to be immediately exploited through a sheer act of Architecture, weakening Planning as a discipline and dooming it to play an edge role for the time being.

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Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.71.

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Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.82.

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Rem Koolhaas, *Delirious New York*, New York, The Monacelli Press, 1994, p.85.

CONCLUSION

In Aldo Rossi's thinking, it seems to be evident how urban transformation becomes a simple pretext to define the "form" (from the old Greek *ἵδω*, *eidos*) as the grounding principle of the city and its architecture. The so-called "primary elements" are trans-scalar configurations, or logical principles, that preserve their inner stability independently from any "urban fact", change or programmatic substitution which have become all-encompassing universal aspects affecting human behavior. However, the evidence of "primary elements" results from 'real' traces of architectural "reprogramming", due to the falling into decay of the so-called "urban facts", being consequently doomed to abandonment. This disinterest for the subjective responsibility of the entire process is a quite contradicting aspect. Furthermore, the author neither questioned the possibility of having architecture and the city, nor doubts the intentionality underlying its process of recycling. In such a way, Rossi implicitly assumes the existence of any "form/type" as a "metaphysical entity", assimilated to something that is already given, independently from the existence of the subject. Thus, this becomes the ambiguous "environment", derived from De Saussure's definition of an all-encompassing *Langue*, into whose horizon the possibilities to act of the subject are already somehow "inscribed" and of which, even more, the "artifacts/morphologies" are simple interpretations¹⁹. Form, therefore, becomes independent from any transient aspect regarding the urban phenomenon, whether it is material or functional. In that perspective, it replaces the role Planning was claiming through its zoning principles and the myth of functionalism, intended as the unavoidable premise of Modernists' architectural strategy. Paradoxically, the subject, or the "agent of change" seems to be alienated from a supposedly universal set of rules which is preexisting, intended as a rational "natural equipment" to operate with, not being responsible at all of its coming into existence.

On an apparently similar horizon, Ungers focuses on the "life of form", investigating its dynamics through space and time. However, we would not give justice to his position if not considering the emphasis put on the identification between "form" and the level of representation. In that perspective, architecture intentionally becomes a rhetorical exercise, which is clearly allusive to something else, happening prior to the

existence of a proper language, and the so-called themes act as its "figures of speech". This statement seems therefore a major achievement with respect to the ambiguity prompted by Aldo Rossi, where form tends to identify with nature, paying a direct homage to the culture of the Enlightenment and, even more, to Platonism. In fact, on a closer watch at the character of the selected "themes", forms play with practice, as well concepts seem to derive from a related experience, more implicitly focusing on drivers of change. If architecture is therefore intentionally intended as a "discourse" on something built, in Ungers' terms that "something" refers to the birth of the language as such, whose truth seems to be buried in the etymology of the used words/figures. In both cases, however, the prejudicial search for an enduring rationality, is inherent to form itself. It is not questioned at all, nor leaving space for any critical discussion about the valuable role of conventionality in design and its intentionality, but simply transferred from the Planning activity to the architectural one, always affected by an "object oriented" perspective. Furthermore, Ungers seems to be more interested on "what architecture should tell" than about "what architecture tells", overemphasizing its meta-narrative quality.

In Rem Koolhaas' position, paradoxically, Coney Island represents the "real" field of endless exploration of possibilities that are inhibited in the "fictional" Manhattan by the prejudicial overwhelming control of the Grid and its *zoning* principles. In that respect, the former manifests the "urban unconsciousness" which doesn't inhabit anymore the latter's abstract rationality. To let experimentation to take command again in the New York Island, it is necessary to hide the promoter's real intentions. "Lobotomy" is therefore the strategic "Troian Horse", instrumental to graft back life into the hollow body of the existing city, not being explicit about his intentions.

In such a way life is expected to progressively consume form within the fictional representation of New York, substituting its role through a deliberately "delirious" architecture, constantly exceeding its preconceived role and limitations, ultimately becoming a city in itself. Life and Form are, therefore, contradicting but complementary aspects of the same urban phenomenon. According to Rem Koolhaas, Form emerges as the temporary ideal state of the endless becoming of urban life, which is always unpredictable in its appearance, while stability is the self-reflective re-

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Aldo Rossi, by stressing the importance of the autonomy of architecture in the definition of the city's form, tended to underestimate the role played by the drivers of change, somehow leaving it apparently implicit. We do consider that, by emphasizing the latter aspect, it would improve the consistency of Rossi's approach, casting on it a new light.

sult of the programmatic instability of any experienced phenomenon (Fig.5). *Manhattanism* becomes the way through which the disappearance of the “processual quality” of life, because of Modernity, is therefore finally avenged, resulting the grounding principle of Form itself. In that respect, we can assume that Rem Koolhaas' thinking is clearly a “process driven” perspective of investigation of the city. As such, it can still be used nowadays as a promising device to critically intervene within existing material conditions, as it had been happening before. It supports the traditional local “common rationality”, socially instituted, which later has been confronted with the “universal rationality”, “naturally instituted” by the modern criticism on the bourgeoisie society and embodied by the Plan.

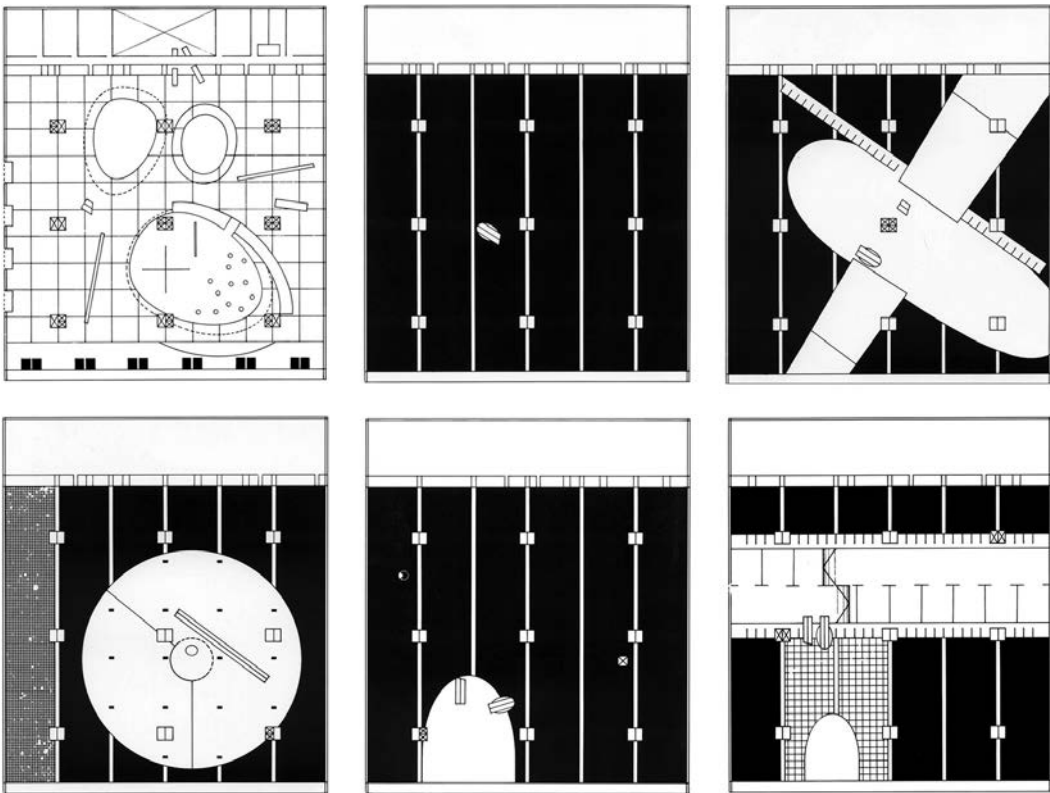


Fig. 5.

OMA/ Rem Koolhaas, competition for the Très Grande Bibliothèque, Paris, 1989. Sequence of plans. Through *Bigness* all scales, or relational level of complexity, blur into an intentional state of indeterminacy, where fragments of an ideal “bubble diagram”, operational metaphor of a Functionalism reduced to a “landscape of ruins”, are glued together through the sheer repetition of floors and walls. The reference to the Córdoba's Mosque is evident, but turned inside out. In fact there, the Islamic space for worship is polarized and re-oriented by the construction of a Christian Cathedral, and then transformed into its sheltered “sacratum” or churchyard. Christian supremacy is established by subverting the existing and not by removing it. Here, the intentionally isolated parts are framed into an ever-changing tridimensional isotropic system, with respect to which they potentially tend to become floating islands.

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ARCHITECTURE & DWELLING

The chair aims to investigate the architecture of dwelling against the background of changing lifestyles and new technologies, which make up our everyday environment. Topical issues which are addressed in both our research and education programmes are the creation of diversity by the mixing of functions, research into high density schemes, sustainability in relation to spatial configurations, the rethinking of the quality of our suburbs and the interrelations between the private realm of dwelling and the public spaces of the city.

The study of historical precedents forms a natural component of our research work, since we assume that most questions of today and tomorrow originate from the long processes of modernization, to which our cities and society have been subjected. Together with contemporary practices, the historical production thus represents a vast body of knowledge for the architecture discipline.

Parallel discourse analysis allows us to trace the development of concepts and ideas involved and how these have been and are still interacting with the material practices of architectural design.



Over the last 20 years, Dick van Gameren (Amersfoort, 1962) has initiated a wide range of projects, varying from exhibition buildings to urban master plans. Winning the Archiprix in 1989, the international European II competition in 1991 and the Charlotte Köhler Award of the Prins Bernard Cultuurfonds in 1995 proved to be the start of an impressive career in architecture. Van Gameren started his own firm in 2006, which resulted in winning the Aga Khan Award in 2007 for his design for the Dutch Embassy in Ethiopia and the title of BNA Building of the Year in 2012 for the sustainable transformation of Villa 4.0 in Naarden. Alongside his career as an architect, Dick van Gameren became professor at the TU Delft in 2006, leading an internationally orientated education and research network, focusing on the problems and possibilities of affordable housing.

Recently he joined Mecanoo architects in Delft as a partner/associate architect. He published with Bjarne Mastenbroek: *Prototype > experiment* (2001), *Revisies van de ruimte, Gebruiksaanwijzing voor architectuur* (2005,) *Obstakels en Openingen* (2006) and is member of the editorial board of *Dash, Delft Architectural Studies of Housing*. Theme editions were for example *De woningplattegrond / The Residential Floor Plan Standard and Ideal* (2010) *Het woonerf leeft / The Woonerf Today* (2010).

Bachelors and Masters Teaching

- AR3AD132 Dwelling Graduation Studio: Global housing studio
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Dick van Gameren

Revisions of space; Positioning and repositioning space in and around buildings

The relation between space and movement in architecture, like the relation between mass and space, should not be understood as opposites, but as a complementary one. Although Adolf Loos claimed that the origin of architecture is the creation of space only, he was of course right when he said that more attention is usually paid in architecture to the form of the mass than to the form of the space. Loos criticised architects who, in his view, only created mass.

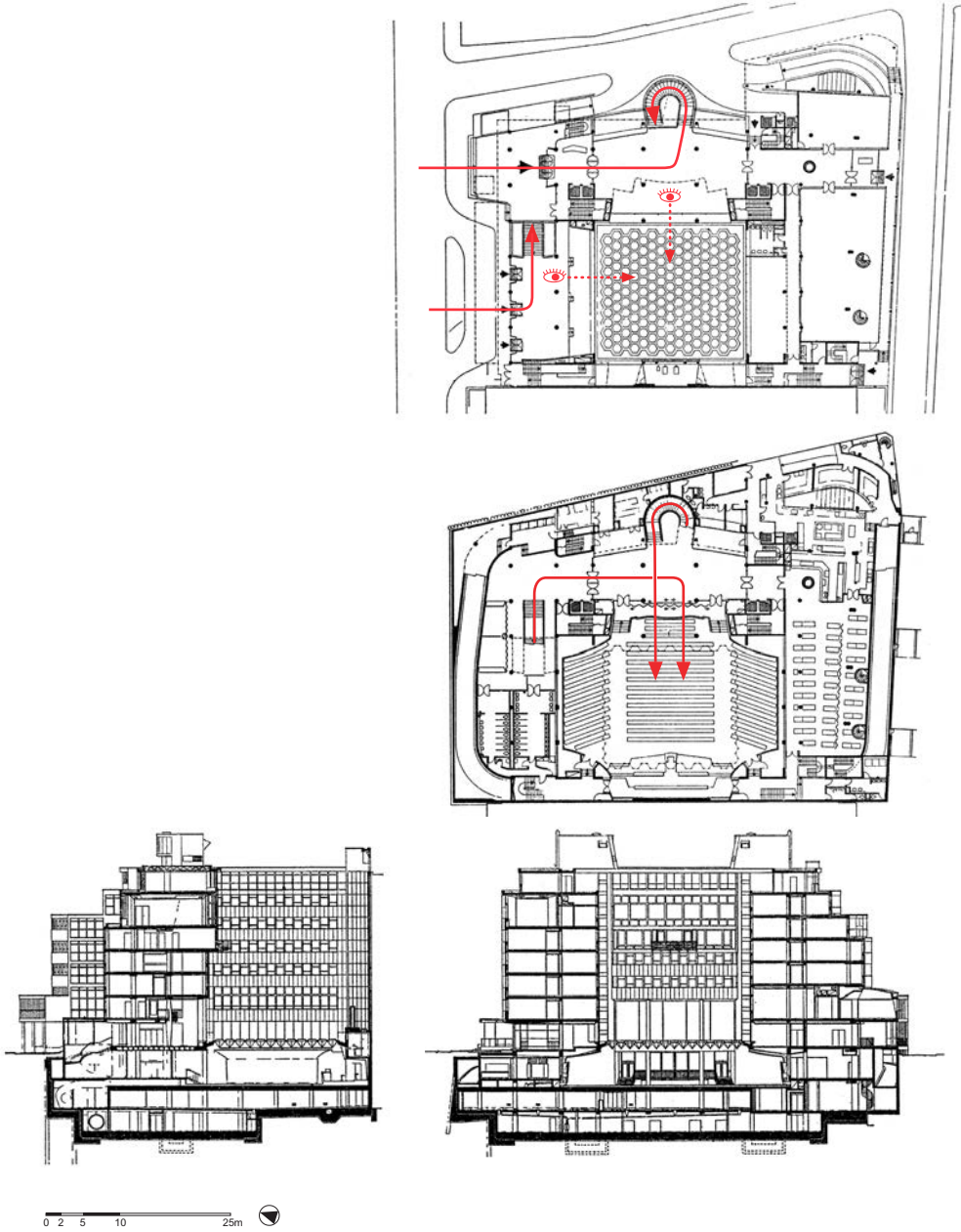
Mass allows space, and space enables movement. Never the less it might be a commonplace that architecture arises from this interaction between mass, space and movement, but the design of the movement seems to play a minimal role in a considerable number current designs, resulting in buildings that are little more than a sculpture or a three-dimensional functional arrangement.

The history of architecture is usually not considered from this perspective either. Within the discourse of architectural history, attention paid to the form of the mass generally prevails above elaborations on the form of space. Notwithstanding, taking a serious look at the actual movement through space, allows us as architects insights into buildings that are otherwise valued for other reasons or even ignored.

Addressing movement through a building can be used in the design(process) as the basis for a clear coherence between spatiality and functionality. Additionally, designing the circulation within and around the future building carefully enables us to structure the relation between a building and its immediate surroundings. Similar principles of connection and separation appear to be operative here too, except that not the link between the circuit and the rooms is primary, but the link between public and private, outside and inside.

Basically and crucial for the connection and distinction between the building and its surroundings are the nuances and complexities that arise in case the distinction between inside and outside does not coincide exactly with the distinction between public and private. The issues of visual and actual accessibility of a building, the continuation of the inside outside and of the outside inside the building, all touch on elementary issues of privacy, diversity and density.

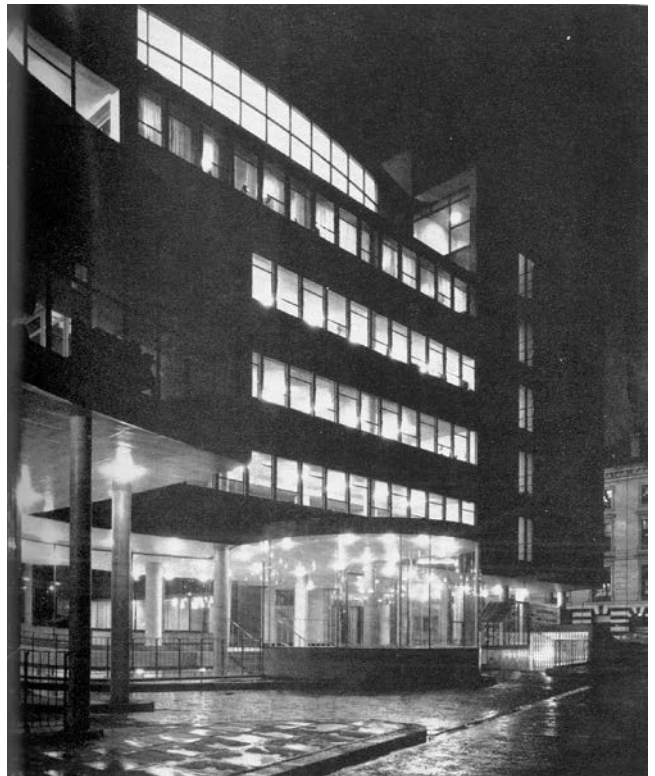
Within the framework of this research topic a series of buildings, from medieval times till the 1980's, was studied to understand how movement is able to define the positioning of a building in its surroundings. Most prominent are buildings from the heydays of post-war Modernism. Modernist Architects were actually trying to reconcile the vision of a pure, freestanding building in a continuous landscape with a completely new idea of the meaning of context and of local traditions. Central to this architectural position was the idea to structure and connect the future building through the precise design of movement, often developed in innovative and brilliant ways.



1. Plan groundfloor

2. Plan souterrain

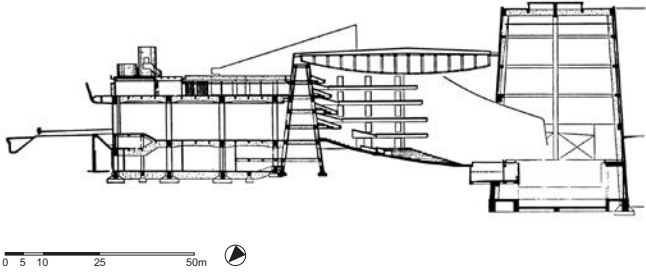
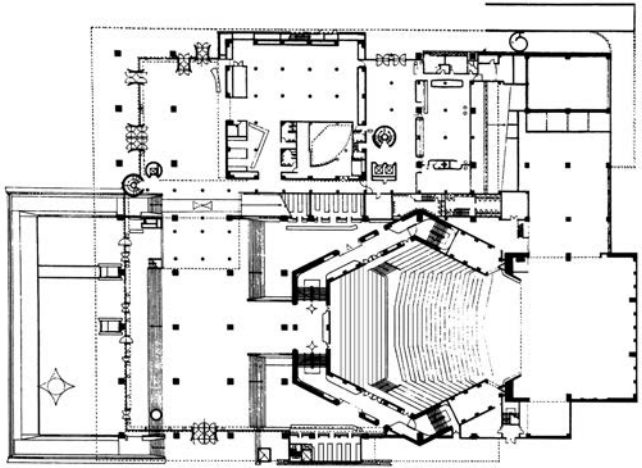
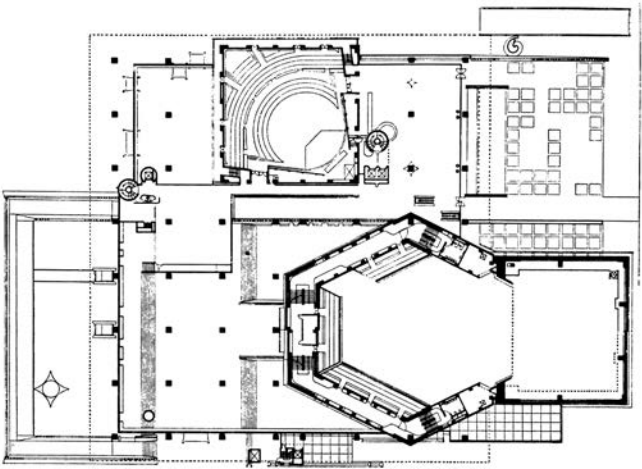
3. Section



4. Entrance of the
conference hall

5. Main entrance with
staircase for parking
garage

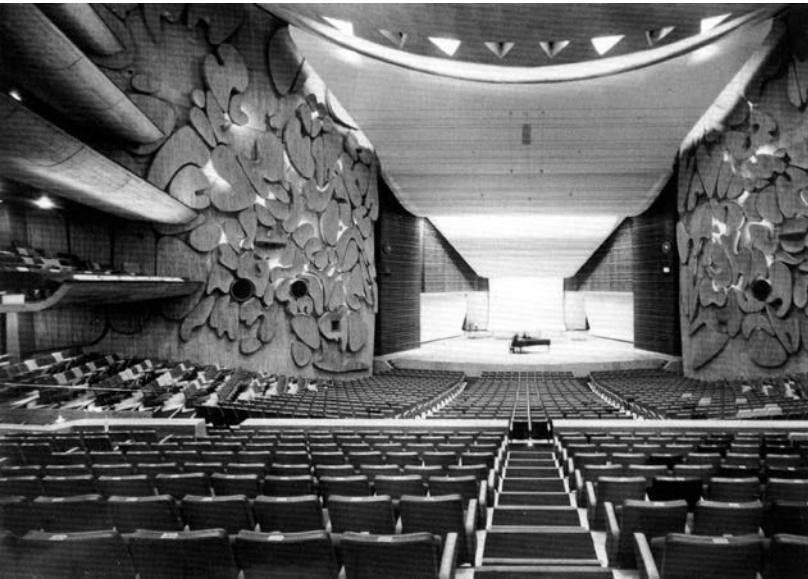
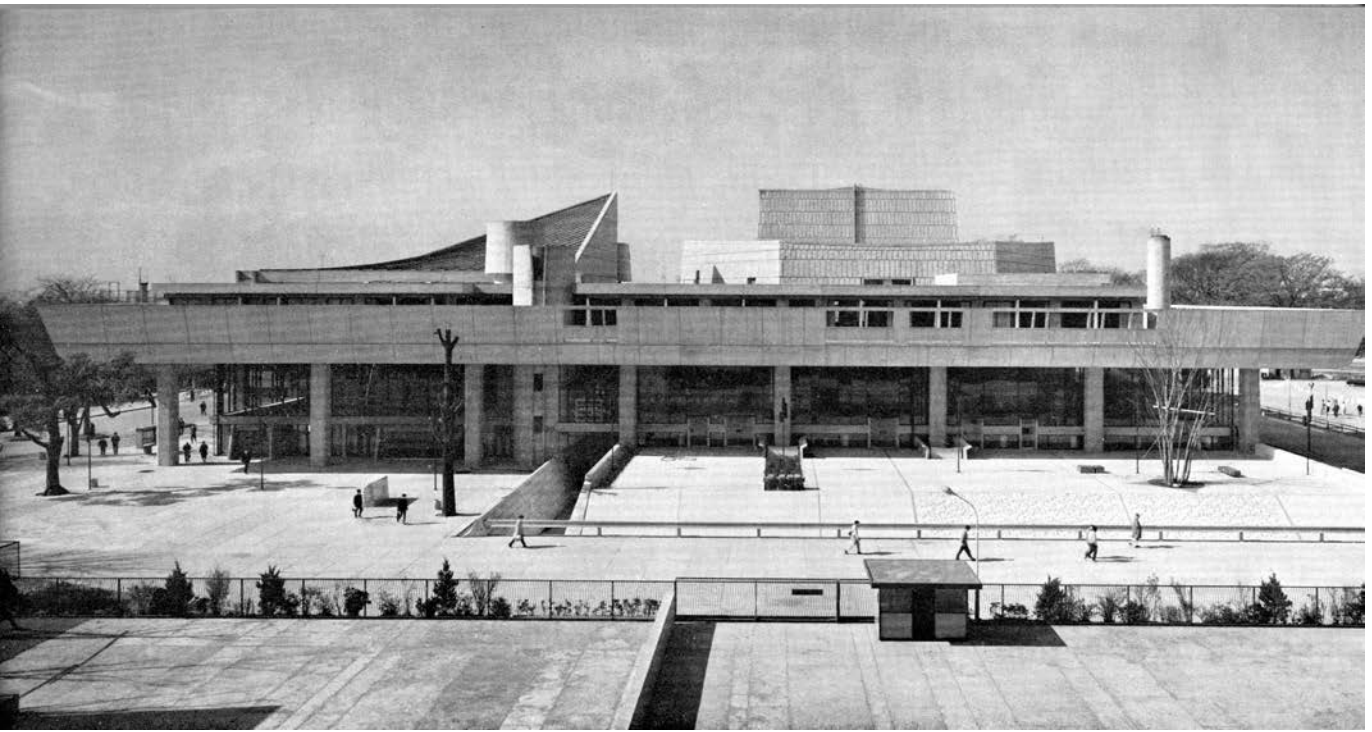
6. Side facade



7. Plan first floor

8. Plan ground floor

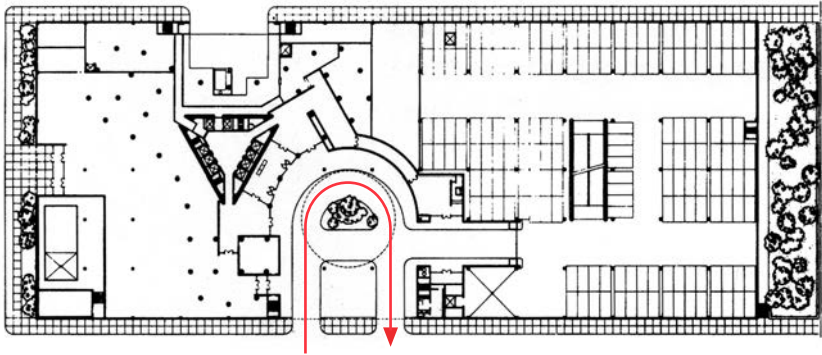
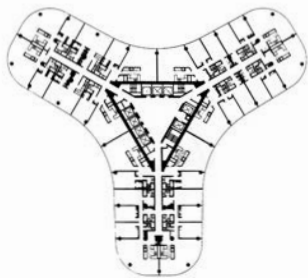
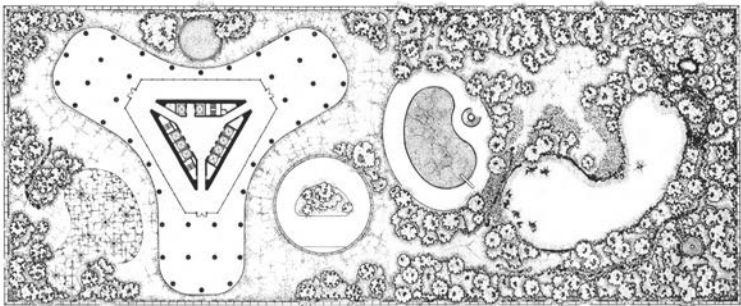
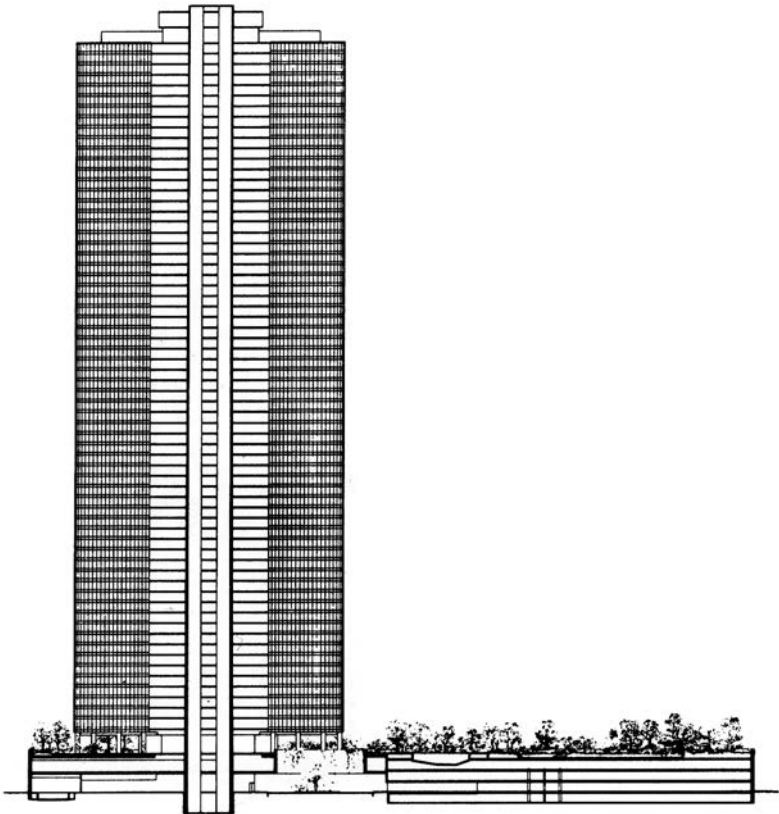
9. Section



10. Facades of the foyer and
terraces

11. Auditorium

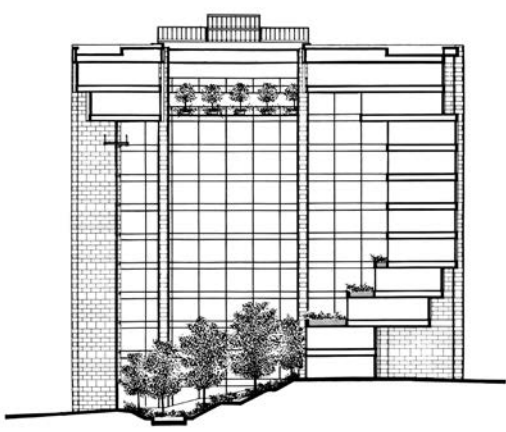
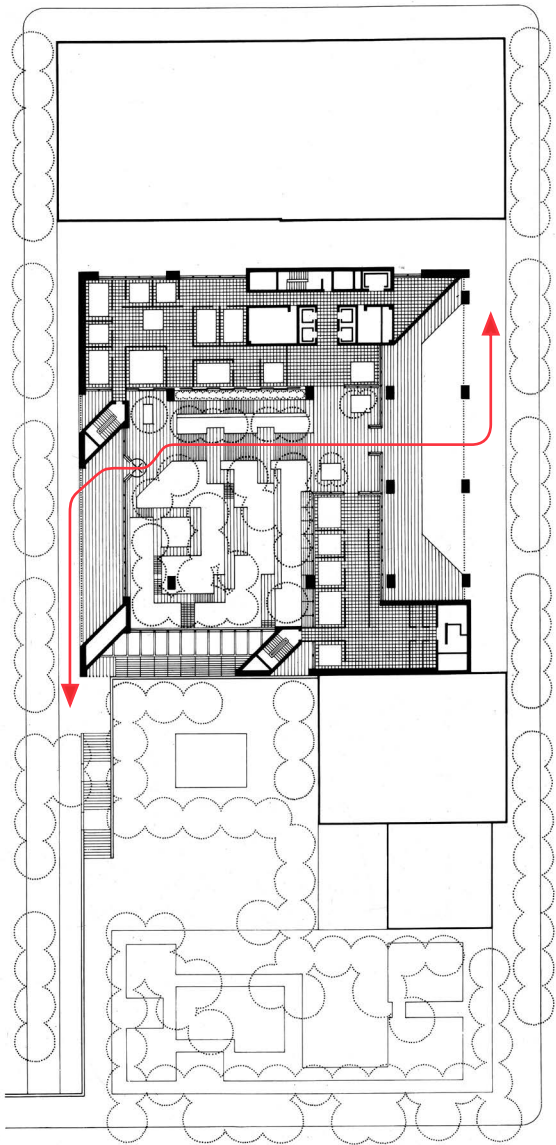
12. Foyer



13. Section 14. Roofgarden 15. Floor with Dwellings 16. Ground floor plan



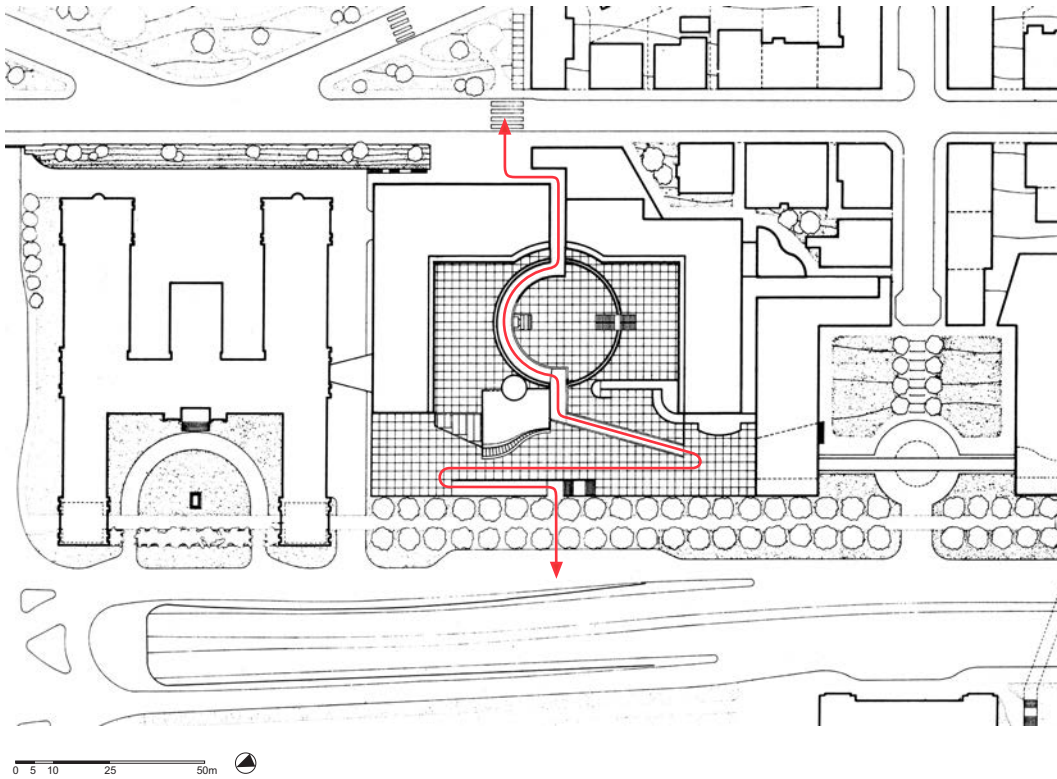
17. Birds eye view



18. Groundfloor

16. Section





21. Floor with outdoor spaces

22. Building and route



23. Frontside
building

24. Rotunda view
from museum



25. Route on
backside

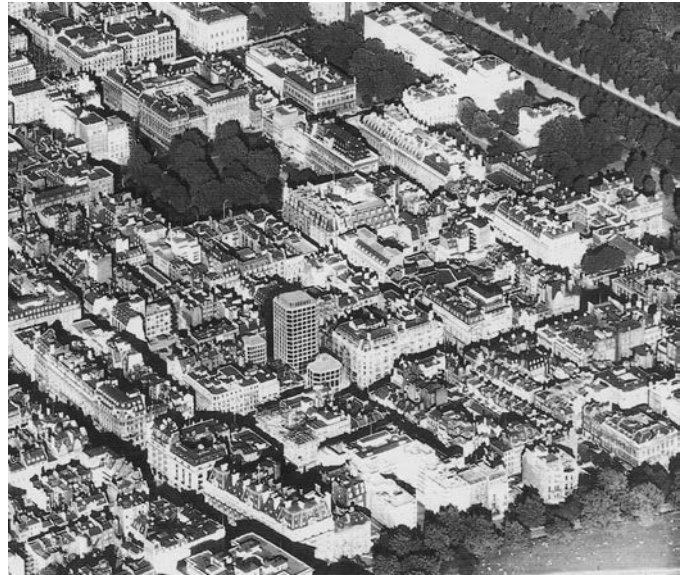
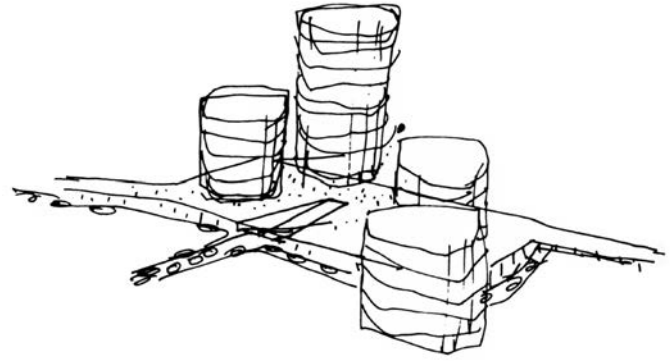
Revisions of space; Positioning and repositioning
space in and around buildings

CASE STUDIES

A compelling first example of this period is the Trade Union Congress Memorial Building (TUC) from 1956 — 1957, located in the heart of London close to the British Museum. The architect Richard du Rieu Aberdeen won the design competition for this building eight years before with a concept that is a combination of a trade union congress building and a war memorial. The courtyard, above the roof of the sunken auditorium, contains a sculpture by Jacob Epstein on a base and pedestal in front of a high wall covered with green marble.

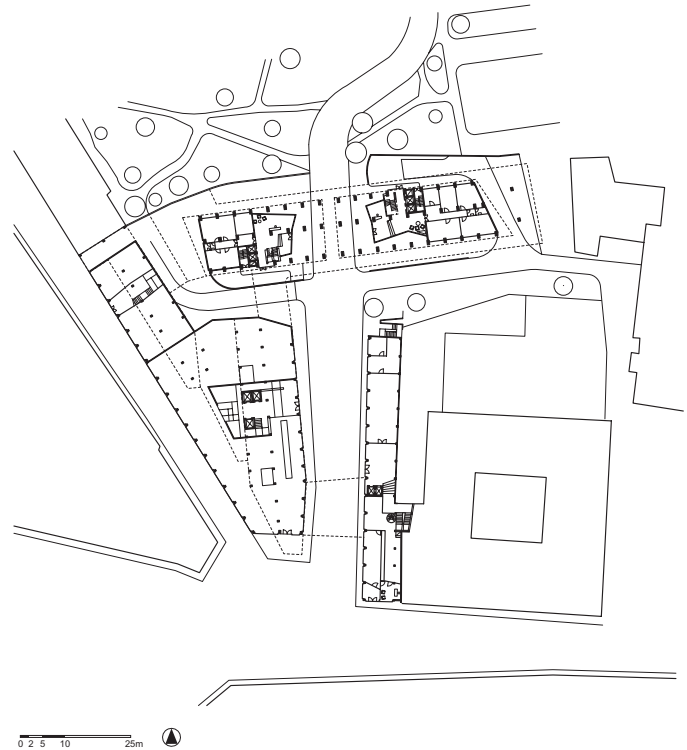
The TUC is built in a pre-war, Corbusian style. Thanks to the meticulous composition of the volumes and the use of a variety of durable materials (granite, bronze frames, ceramic tiles), the TUC, which renders three facades facing adjacent streets, fits almost imperceptibly into its surroundings of big, introverted neo-classical buildings. The ground floor is almost entirely designed in a transparent way. This transparency is perfectly in line with the democratic ideals of the trade union, and, additionally allows a view from the street of the large courtyard with the war monument. Between the glass fronts and the street a complex transitional zone is introduced in which stairways, ramps and landings visualise the movement towards and inside the building. The most striking feature is the large semicircular staircase that emerges in the side street, between the entrance and exit of the underground car park. This zone can be interpreted as a twentieth-century interpretation of the pavement zones of London during the eighteenth and nineteenth centuries, in which sunken intermediate areas with stairs separated the formal entrance of a house from the entrance for domestic use. In the design for TUC building transparency and a strong sculptural quality are used to address the question of the distinction between inside and outside.

The distinction is even more blurred in a building that was constructed at roughly the same time: the Tokyo Metropolitan Festival Hall (1957–1961). An earlier design by the architect Kunio Maekawa consisted of a number of pavilions linked by passages. When the available surface area was considerably reduced in size, he combined the series of pavilions underneath a large roof, recalling traditional Japanese temple roofs. At ground floor level one can find a far-reaching intertwining of the public space around



26. The Economist Building, St. James Street, London, UK, Architect: Alison and Peter Smithson, 1959- 1964. Sketch urban complex

27. The Economist Building, St. James Street, London, UK, Architect: Alison and Peter Smithson, 1959- 1964. Birds eye view



the building and the parts of the building, which are open to the public. The large foyer is accessible from various sides including the surrounding park. Adjacent to the foyer a number of outer areas are situated, which visually form a part of the park as gardens, but are not directly accessible from the park. Dry ditches and retaining walls form the partition. In this way, the building is intrinsically connected to the park. In fact, it contrasts sharply with the museum building opposite by Maekawa's mentor, Le Corbusier, which looks like a closed box that has just landed somewhere.

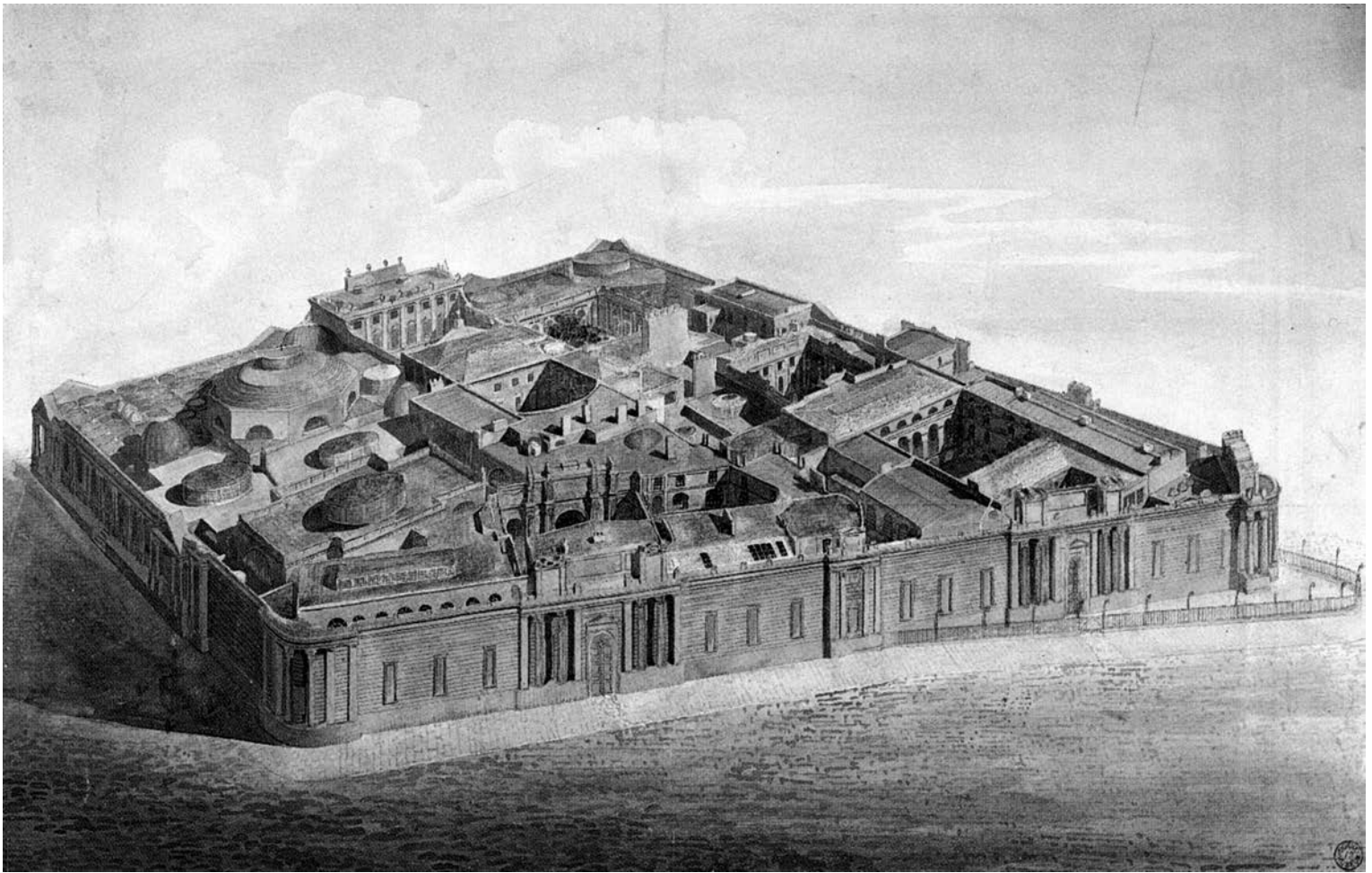
Linking large blocks of apartments to the ground level often raises problems. Interesting solutions have been found in Chicago, the city where high-rise dwelling was invented. Lake Point Tower (1965) by Schipporeit-Heinrich Associates and Graham, Anderson, Probst and White, is connected with its surroundings in a remarkable way. From a distance, the colossal bronze-coloured glass tower looks like a meteorite that has crashed into a strip of land extending into Lake Michigan, a former navy pier. In fact, the tower does not stand directly on the ground, but on a flat volume that fills the entire urban block and is as high as the surrounding harbour buildings. There are openings at ground level in the brick-work façades of this volume. The short side facing the city has an opening leading to the commercial area behind. On the south side one finds a large opening in front of a semicircular forecourt that is partly roofed. Drivers and pedestrians enter this area to reach the lobby or the car park. This forecourt connects the tower block with the public space in a spectacular way; the circular opening enables a dizzying vista of the sixty-storey tower block. Besides commercial areas and a car park, the pedestal box also contains shared facilities: the roof houses a large garden with a swimming pool and ponds.

A closer connection with the public space can be achieved by directing a route that is open to the public through a building. The Ford Foundation building (1963–1968) in midtown Manhattan by Kevin Roche and John Dinkeloo is a prototypical example of this. The Ford Foundation is a robust cube between 42nd and 43rd Street. The northern and western sides of the volume contain twelve storeys of offices; the rest of the space is a large atrium intersected by a path that links the two streets to one another. The path contains a number of large steps to bridge the difference in gradient between the streets. The inner walls of

28. Corso Italia, Milano, Italy,
Architect: Luigi Moretti,
1949- 1956. Sketch

29. Corso Italia, Milano, Italy,
Architect: Luigi Moretti,
1949- 1956. Sketch

30. Corso Italia, Milano,
Italy, Architect: Luigi
Moretti, 1949- 1956.
Ground floor plan



31. The Bank of England,
London, UK, Architect:
John Soane, 1788- 1833.
Birds eye drawing



32. The Bank of England,
London, UK, Architect:
John Soane, 1788- 1833.
interior 1920

33. The Bank of England,
London, UK, Architect:
John Soane, 1788- 1833.
view through two court-
yards

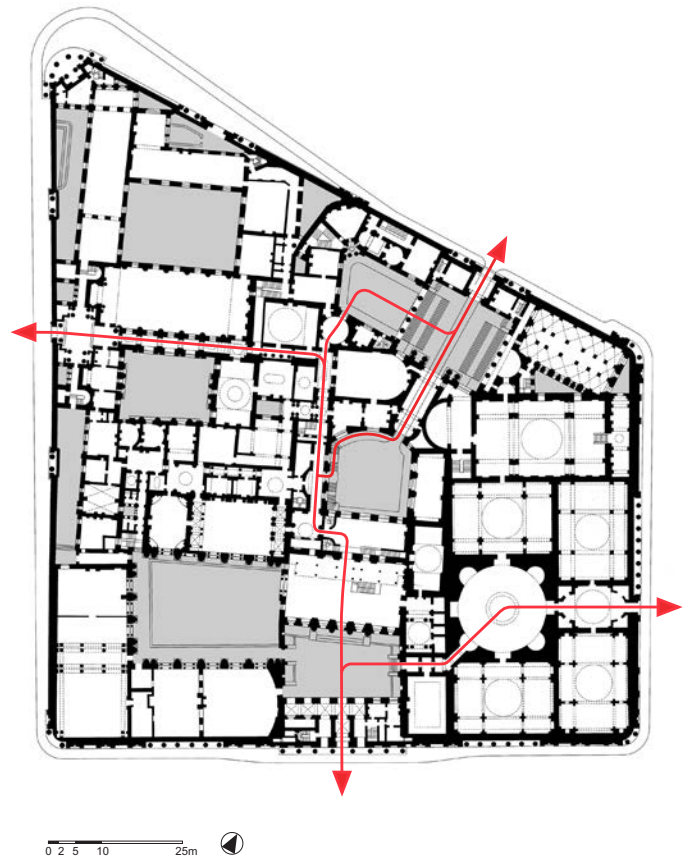
the atrium form a neutral background for the vegetation, which follows the slope before growing upwards passing a number of terraces.

The public route through the Neue Staatsgalerie in Stuttgart (1977) by James Stirling is more complex than of the Ford Foundation. The appearance of this museum building is characterised by a large number of quotations from the history of architecture. Ironically enough, this made the architecture of this building to look rather dated instead of timeless. Stirling's penchant for citations also diverts attention from the brilliant way in which he solved the spatial puzzle.

The museum is built on a slope. The difference in topographical levels allowed a route that runs straight through the museum to link the front with the rear and at the same time, to intersect with the internal routes of the museum without any conflicts. Although the public space is organised along the central axis of the symmetrical museum building, the external route only coincides with that axis at a few points.

The route leading upwards over a series of ramps connects a number of terraces on the slope and is accessible through a gateway to the open rotunda in the middle of the complex. Visitors who reach this spot have the idea that they are in the museum itself, but the works of art remain inaccessible and are only visible by coincidence. The route continues to move upwards along the wall of the rotunda and intersects the roofs of the museum rooms. The route ends at the services' building, a separate volume on the same level as the other buildings beside the street at the rear. There is a major contrast between the monumental start of the route and the almost nonchalant end in the street at the rear. This contrast underlines the fact that the importance of this route lies not in connecting the two parts of the city between which the building is situated, but in establishing a subtle link between the public space and the museum.

Public routes through buildings make the architecture subservient to the city, because part of the public space is taken over by these buildings and additionally compensated for by new public routes. A much clearer example of this approach compared to Stirling's museum in Stuttgart is the complex for The Economist in London (1959–1964). At the end of a closed block, Alison and Peter Smithson designed three buildings hosting different functions: an office tower block, a bank, and a block of apartments. The three buildings



34. The Bank of England,
London, UK, Architect:
John Soane, 1788- 1833.
ground floor plan

follow the building line of the block and combine with the adjoining Boodle's Club to form the corner points of an open intermediate space that is linked to the neighbouring streets. This intermediate space is slightly raised, and mediates between the different street levels on both sides of the complex.

In The Economist building, the newly formed public space is a means of achieving density. The sixteen-storey office block towers rises way above the surrounding buildings.

The Economist adds public space of the city without disturbing the continuity of the street, but by establishing new links. In this respect the complex differs from the way in which public space was added to cities in the US during the same period by designing plazas in front of buildings. One of the most famous examples of the American approach is Mies van der Rohe's Seagram Building. His plazas are virtually autonomous 'loci' in spatial terms, and they break up the block structure of the grid city. In the case of The Economist, the space around the buildings is not autonomous, but forms a part of the street areas surrounding the complex. Sketches and photomontages indicate that the designers viewed The Economist as a prototypical fragment of the separation of pedestrians and car traffic. Such a separation of traffic might work on a large scale (although there are countless examples from the 1960s and 1970s in which raising the pedestrian level has led to unfortunate and only moderately functional solutions), but The Economist is too small for that. Still, as a monumental empty space among the crowded streets of London, this raised area does provide a welcome relief.

Another project in which the introduction of new intermediate spaces has enabled a densification of the building is Luigi Moretti's complex beside the Corso Italia in the centre of Milan (1949–1956). The sculptural complex, that replaces a number of destroyed buildings, contains shops, offices and apartments. It consists of several volumes, which are precisely aligned with the existing buildings and the original building lines. Slightly bringing back the building line beside the Corso where several streets intersect has produced a small square. A sharp overhang six metres above the pavement still indicates the building line. This canopy is the pointed tip of a highly articulated volume, which balances upon a lower section like a battleship.

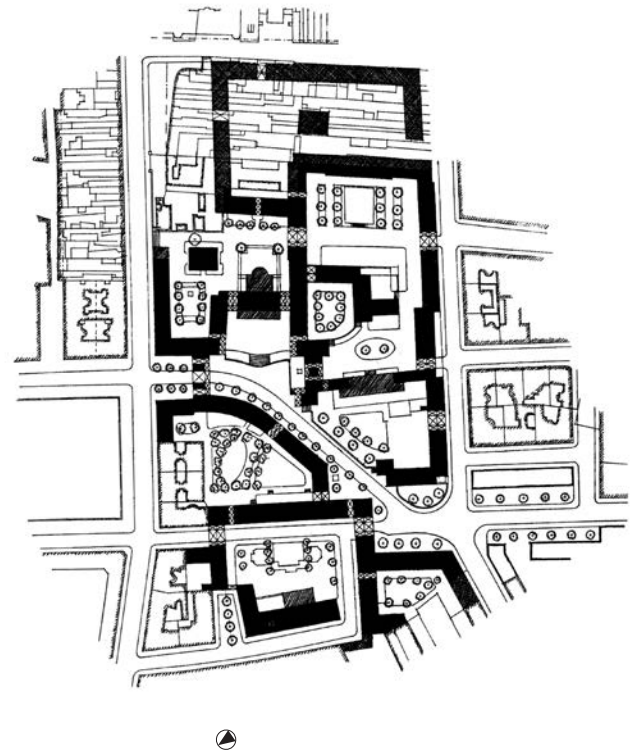
The main intervention is to the right of this battleship: a partly roofed street has been created at right angles to the Corso Italia which makes the tall volume behind it on the plot both visible and accessible. An enormous incision that divides the top seven storeys of this volume into two marks this new street, which continues beneath the building on columns to the gardens behind the building. Ramps on the left and right side lead down to the car park, thereby detaching the large volume even more from the ground level. The formal and functional complexity of Moretti's building is not an isolated phenomenon, but is closely connected with the desire to turn the design of the complex into a part of the network and let it add to the space and activity of the city.

An unusual, much earlier example of a building as 'active' part of the urban network is the Bank of England complex, which was created between 1788 and 1833 as the result of a series of renovations and renewals designed by John Soane. Except the outside façade, all of these interventions and additions were brutally replaced around 1920 by a less complex and rather dull new building.

Soane's Bank occupied an entire block in the City of London. It comprised a labyrinthine complex of buildings, linked by corridors and courtyards. A continuous outer wall held the labyrinth of fragments together. Four gateways, one in each street wall, gave access to a system of connections that pervaded the entire building. The passages and courtyards had an unprecedented complexity, deliberately designed by Soane to allow persons traversing the complex by passing a constantly changing array of spaces and light.

As the national bank, the building had to express the solidity of an impregnable fortress, but behind the closed walls an open structure was inserted and in which the city's network of streets and squares was continued.

The principle of understanding buildings not as isolated elements, but as spatial and functional parts of a larger whole, was elaborated in different ways in two large-scale housing complexes from the 1920s and 1950s: the Rabenhof in Vienna, and the Conjunto Juscelino Kubitschek in Belo Horizonte. The design of these complexes provided a large degree of differentiation, which has been achieved by intertwining the building and public space and to add besides public outdoor spaces, also collective ones.



35. Rabenhof, Vienna, Austria, Architect: Heinrich Schmid; Hermann Aichinger, 1928- 1930. Street intersect the court

36. Rabenhof, Vienna, Austria, Architect: Heinrich Schmid; Hermann Aichinger, 1928- 1930. Ground floor plan

The Conjunto Juscelino Kubitschek (1951), a plan by Oscar Niemeyer, extends over two blocks in the characteristic diagonal grid of Belo Horizonte: a regular square block, and an irregular, smaller block, situated at one of the large intersections. Initially the idea was to include a large number of commercial and cultural facilities in the complex as well as offices and apartments, but the final result was based on a much simpler programme.

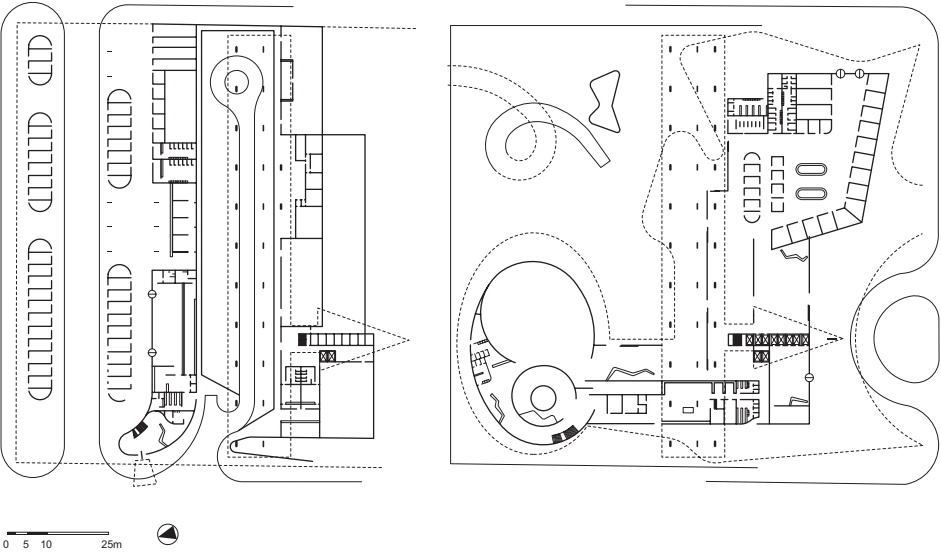
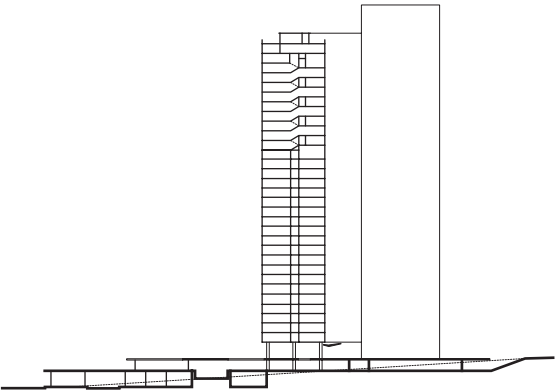
The articulation of the building is organised vertically. By making use of the difference in gradient of topography, Niemeyer has designed three ground levels on top of one another, each of which is connected with the city surrounding it.

The lowest, ground level is directly adjacent to a square and contains shops in a number of freely formed clusters. The clusters are roofed by an enormous surface that resumes the contour of the block. This roof is a large collective outdoor area for the apartments. The form implemented is furnished with vegetation and tennis courts. Again, the programme was less extensive than in the original design.

The entrance hall to the building is also situated at this level. The roof of the entrance forms a third level, which is public and consists of a square offering a view of the city, overseeing the collective outdoor area.

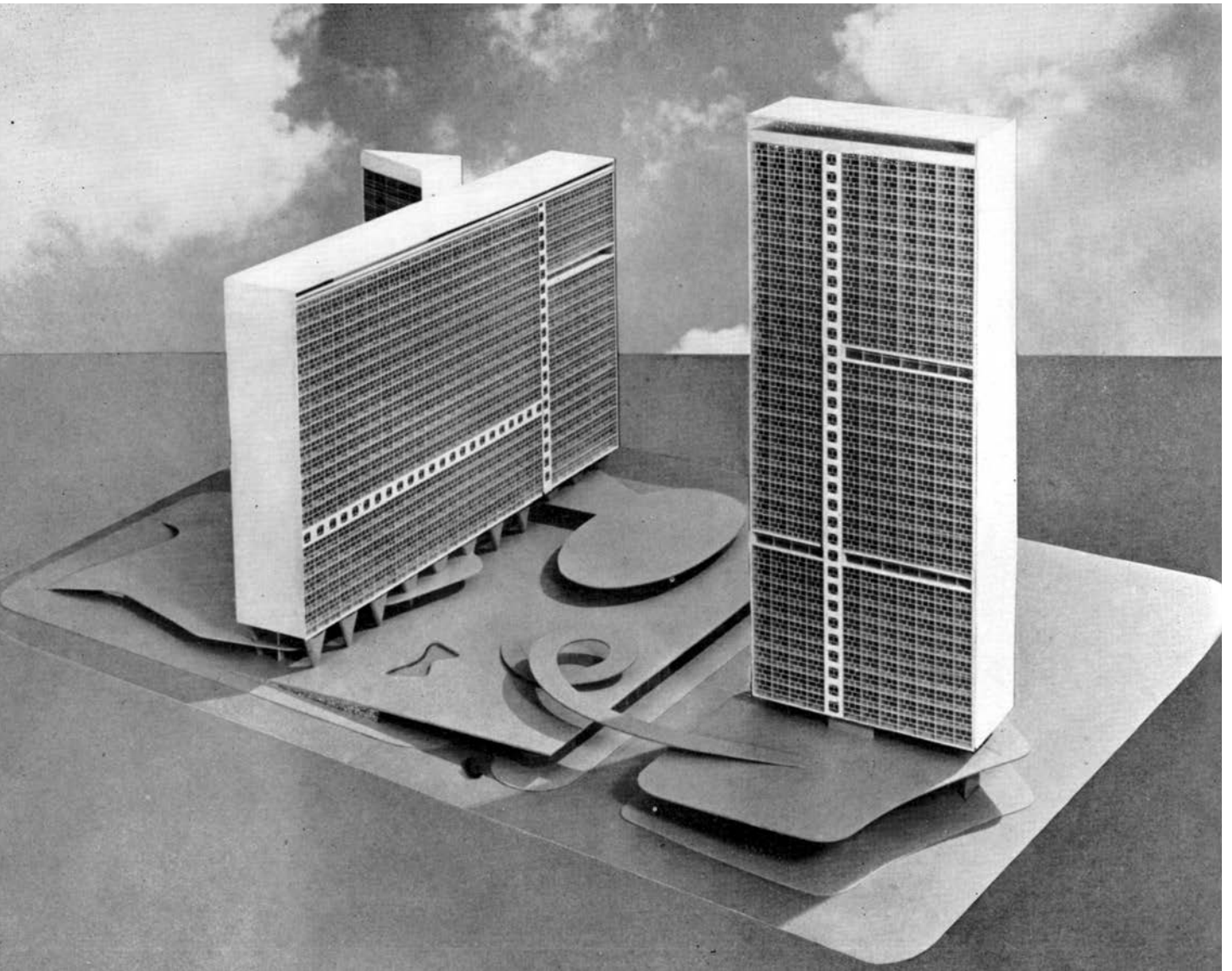
Rabenhof (1928–1930) by the architects Heinrich Schmid and Hermann Aichinger, is one of the famous superblocks of Vienna. The complex contains 1,100 apartments, 38 shops, and a large number of collective facilities. The plan differs from many other blocks, such as the Karl-Marx-Hof by Karl Ehn, because it is not an isolated complex, but is linked to the existing buildings and road patterns. Rabenhof's blocks closely follow the existing building lines, but gradually change shape to form a successive series of public and collective areas. The distinction between street and courtyard is thereby abolished: all of the space is part of a continuous network that, in spite of the large scale of the new buildings, brings differentiation and articulation to the city.

Rabenhof resembles the network of the Inns of Court in London, which display a particularly successful example of the intertwining of public space and building, and of collective and public areas. The Inns of Court, which was developed between the fourteenth and the twentieth century, mark the transition from the City of London to the City of Westminster. They consist of a num-



37. Section

38. First Floor with
collective

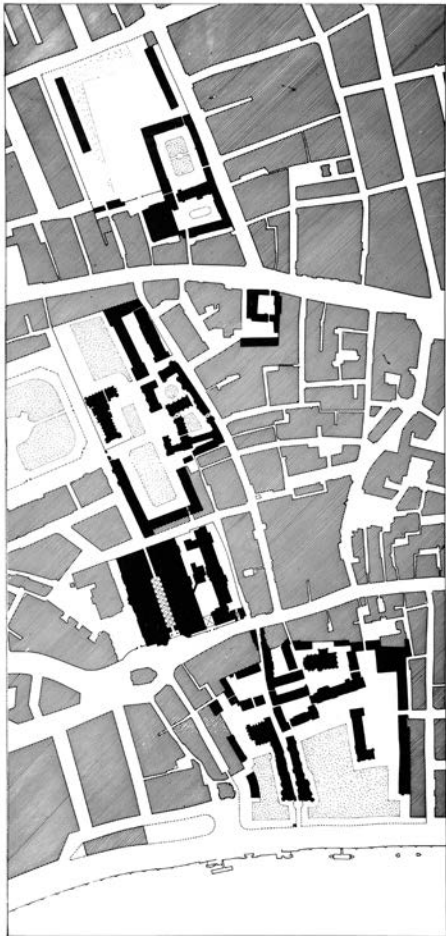


39. Model of the
design

40. Birds eye view
buildied work



41. The Inns Court, London,
UK, since 14th century.
Gray's Inn, the Walks



0 25 50 100 200m

42. The Inns Court, London, UK, since 14th century. Overview plan with Gray's Inn, Staple Inn, Lincoln's Inn, Law Courts, the Temple.

ber of complexes of buildings with a typology virtually identical to the colleges of Oxford and Cambridge, but which in this case accommodate members of the legal profession. The Inns are situated in an almost uninterrupted series, concealed behind the buildings that line the city streets with a predominantly east-west orientation. The buildings of the Inns are grouped around internal streets, squares and gardens, making it possible to reconcile diverse programmes with one another in a high density.

The streets and squares of the Inns are directly connected to the city around them, but they can be closed off from it too. These closable public areas in turn contain closable collective areas: in many cases the green lawns in the Inns are fenced off and are only open to the public for a part of the day at most. The route from Gray's Inn in the north to the bank of the Thames in the south comprises a diverse and changing series of spaces, although at many points one has to turn a blind eye to the mass of (often very expensive) lawyers' cars parked there in order to appreciate the variety of spatial nuances to the full.

CONCLUSIONS AND APPLICATIONS

A building, which is not linked to its surroundings, will form an obstacle. Spaces and movements establishing a link between a building and its surroundings are essential. Public spaces, areas that are accessible to the public, or collective areas that are carved out of the building mass enhance the interface between the building and its surroundings and prevent the city from being reduced to uniform public space and equally uniform closed building masses. Besides forming a spatial link between the building and its surroundings, such transitional areas and intermediate spaces absorb different -potentially conflicting- functions and enable higher building densities. The connecting space organises the relation between the building and the city, just as the space for circulation regulates the relation between the areas and rooms inside a building.

The introduction of these spaces, and the architectural articulation of the movement through them, is a constantly recurring theme in my own projects.

Such a connecting area can render itself in a variety of guises. In several apartment buildings collective open spaces establish a link between home and public space. In larger housing ensembles a more complex transition from public to private is developed; a succession of open and covered spaces define a system of public routes through the ensemble, and collective routes leading to the private spaces of the dwellings. A careful juxtaposition of these routes makes the buildings accessible without disturbing the privacy of the residents, and links them simultaneously to the surrounding city or territory. Similar strategies have been followed to design buildings and groupings of buildings with mixed programs.

Four examples, with different programs and on different scales illustrate this.

For a competition for the central part of a new housing district in Huizen, east of Amsterdam, we proposed an ensemble of three buildings with mixed typologies. Garden walls link the three volumes to form a whole. Three gateways in the garden walls provide access to a path that is open by day and can be closed off at night. This path forms a link right through the block, connecting the dwellings to the collective gardens inside the block, and the surrounding neighbourhood outside. Despite the limited building height of three storeys, a density of seventy housing units per hectare has been achieved, which is twice as much as conventional in expansion districts.

In the residential care centre in Diemen, the big linear hall with adjacent terraces and patios functions as a mediator between the different departments and services in the building, on the one hand, and between the building and its setting, on the other hand. The Laakhaven office and apartment complex in The Hague has a virtually entirely open ground floor level. It contains a variety of public spaces and areas that are open to the public, which regulates the accessibility of the complex itself and the surrounding area.

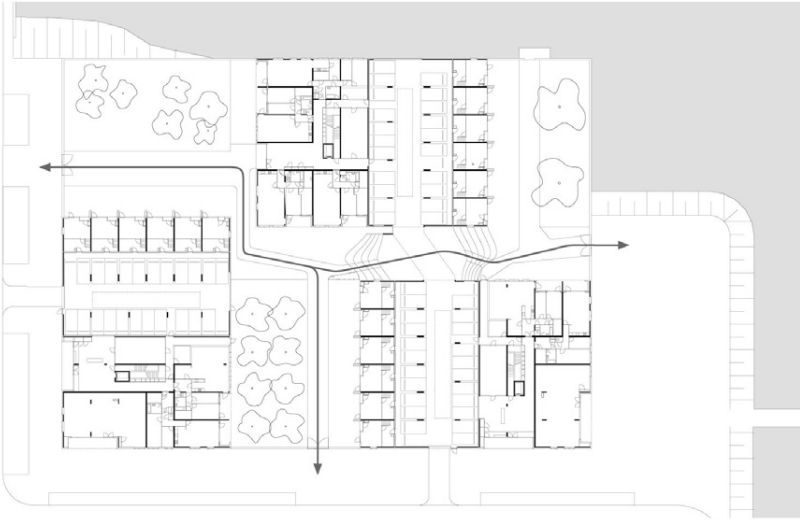
The master plan for a large development in the IJ-River in the heart of Amsterdam translates the theme to a larger scale. Five large volumes with a variety of functions are positioned in such a way that they act together as one coherent ensemble of buildings, at the same time making links to the surrounding city by taking up existing patterns of open spaces and view lines. A route for pedestrians and cyclists is carved out of the ensemble, creating an amazing space for movement in and around the buildings.



43. Dwellings Huizen, Netherlands, Own work, Dick van Gameren Architecten 2006. Model

44. - 47 Dwellings Huizen, Netherlands, Own work, Dick van Gameren Architecten 2006. Built work

situatie



eerste verdieping

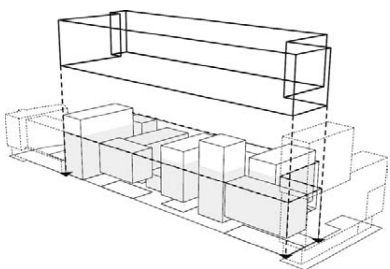


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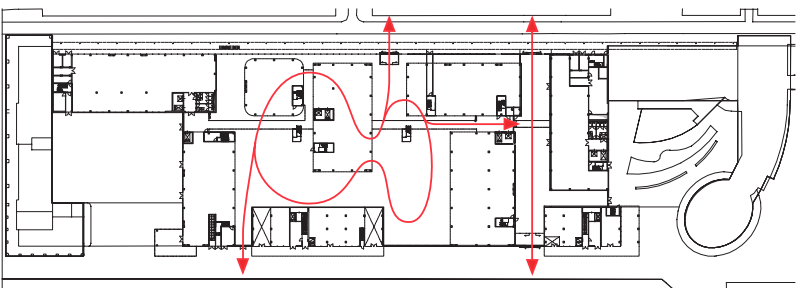
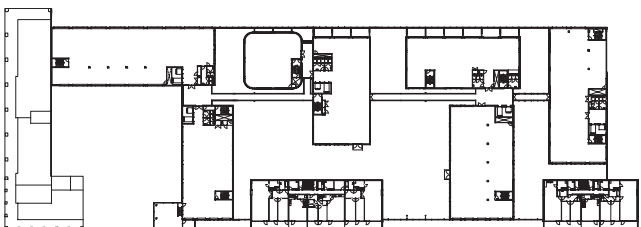


48. Dwellings Huizen, Netherlands, Own work, Dick van Gameren Architecten 2006. Ground floor plan

49. Dwellings Huizen, Netherlands, Own work, Dick van Gameren Architecten 2006. Scheme



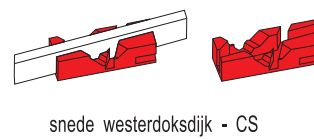
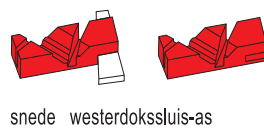
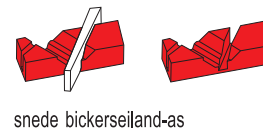
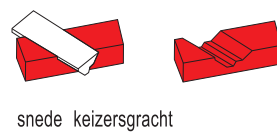
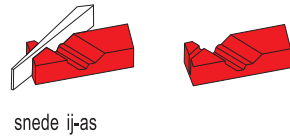
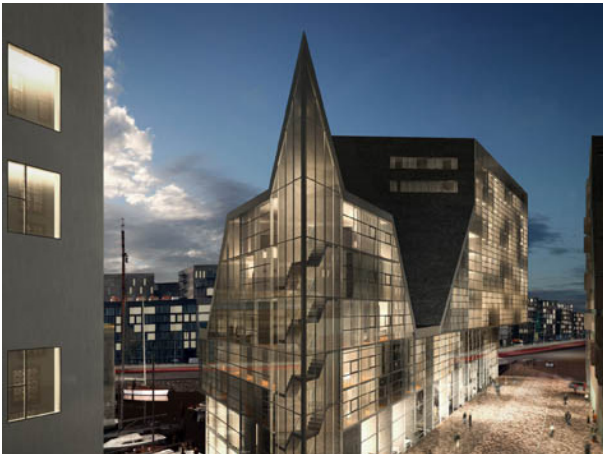
volumes in envelop



begane grond en tweede verdieping

50. Residential Care center
Berkenstede, Diemen,
Netherlands, Own work,
Dick van Gameren Archi-
tecten, 2006. Streetview

51. Residential Care center
Berkenstede, Diemen,
Netherlands, Own work,
Dick van Gameren Ar-
chitecten, 2006. Plans
and schemes



52. - 55. Masterplan IJ-Dock, Amsterdam, Netherlands, Own work, Dick van Gameren and Bjarne Mastenbroek. View from river IJ

56. Masterplan IJDock, Amsterdam, Netherlands, Own work, Dick van Gameren and Bjarne Mastenbroek. Schemes of building volume

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Publishers.



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His publications include the books: *Architecture and the Welfare State* (Routledge 2015, with Mark Swenarton and Tom Avermaete), *Team 10. In Search of a Utopia of the Present 1953-1981* (NAi Publishers 2005, with Max Risselada) and *Alison and Peter Smithson. From the House of the Future to a House of Today* (010 Publishers 2004, with Max Risselada). Together with Madeleine Steigenga and Jaap van Triest he authored 'Lessons: Tupker / Risselada. A Double Portrait of Dutch Architectural Education' (2003). He is an editor of the publication series *DASH. Delft Architectural Studies on Housing* (nai010publishers) as well as of the online journal for architectural theory *Footprint*. He was also an editor of the Dutch journal *OASE* (1993-1999). He has worked as an architect for the offices of Neutelings Riedijk Architecten and De Nijl Architecten.

Bachelors and Masters Teaching

- AR1AD030 Seminar Architectural Studies
- AR3AD020 Tutorial Graduation Studio
- AR1AD040 Seminar Architectural Reflections
- AR3AD010 Research Seminar Graduation Studio
- AR3AD131 Dwelling Graduation Studio: Dutch Housing Studio

Dirk van den Heuvel

**As Found Aesthetics;
Notes on the formation of the context debate
in architecture**



01. 'Parallel of Life and Art' installation, Alison and Peter Smithson together with Nigel Henderson and Eduardo Paolozzi, 1953

02. 'Patio & Pavilion' installation, Alison and Peter Smithson together with Nigel Henderson and Eduardo Paolozzi, 1956

INTRODUCTION

Context is a hotly debated issue within architecture. The usual complaint is that architects don't consider the context of their designs, that their buildings don't fit their context, that they are an intrusion and disruption of the existing cityscape. The Hungarian-Swiss theorist Ákos Moravánszky has stated that the context debate in architecture is paradoxically preoccupied with the forging of identities and fictional narratives, and not with an empirical investigation of the actual reality in which architects are operating.¹ This essay aims to unravel some of those narratives and to demonstrate the paradoxes at play. Usually, the context debate and its origins are situated within Italy, but I'd like to shift the focus to the British discourse as developed there from the late 1940s onward, most notably to the positions of the architects couple Alison and Peter Smithson and the historian Colin Rowe.² The 1970s and the rise of Post-modernism are also part of the web of exchanges to be mapped. In so doing some of the paradigmatic tensions at work within the discourse on modern architecture will become clear, tensions which are still unresolved and haunting current architectural practice and its critique.

ANOTHER SENSIBILITY

In 1972 Peter Smithson delivered a lecture at Cornell University at the invitation of Team 10 fellow Oswald Mathias Ungers.³ Smithson's lecture was titled: 'Architecture as Townbuilding. The Slow Growth of Another Sensibility',⁴ addressing issues of historical continuity and renewal and the way technology transforms cities and their communities, and hence the premises for city planning. One of the key notions he used was that of 'context', by then in the 1970s quite a fashionable topic, and until then not quite explicitly used by the Smithsons in their writings. Yet, Smithson claimed:

'When I was teaching in a school of architecture in the mid-fifties the school's syllabus was reorganised in a very simple way to induce what I then called "context thinking"—that a new thing is to be thought through in the context of the existing patterns. In the context of the patterns of human association, patterns of use, patterns of movement, patterns of stillness, quiet, noise and so on, patterns of form, in so far as we can uncover them; and it was taught that a design for a building, or building group, could not be evolved outside of context.'⁵

1

In a lecture at the Faculty of Architecture, Delft University of Technology, as part of a series on the theme of context, 20 September 2007.

2

For an excellent discussion of the issue of context see Adrian Forty, *Words and Buildings. A Vocabulary of Modern Architecture*, Thames & Hudson, London, 2000.

3

Team 10 was a group of younger European architects who disbanded the CIAM organisation in 1959; see also: Max Ris-selada, Dirk van den Heuvel (eds.), *Team 10. In search of a Utopia of the present (1953–1981)*, NAI publishers, Rotterdam, 2005. Oswald Matthias Ungers was the chair of the School of Architecture, and during the winter and spring of the academic year 1971–1972, he organized a very extensive Team 10 seminar.

4

Typoscript from the Smithson archive, most of which is integrated in the Smithson publication *Without Rhetoric* of 1973.

5

Ibidem; Smithson's claim is substantiated by a one page statement in the *Architectural Association Journal* of January 1961, called 'Education for Town Building' which described assignments for "context of building" studies'.

Yet, it must be noted, too, that the term context in those early years didn't imply quite the same, as it did when it re-appeared in the writings of the Smithsons in the early 1970s. In the 1950s the idea of context was connected to the biological idea of 'environment', to an idea of 'ecological urbanism', and of course, to the concept of 'Habitat', which haunted the CIAM debates and ultimately led to its demise.⁶ By the 1970s, however, context had come to mean historical context in the first place, whilst being re-fashioned as typo-morphological orthodoxy. It was linked to the new issue of urban renewal that grew to dominate the agenda of politicians, architects and town planners, and it was appropriated by anti-modernists who would soon advocate the advent of postmodernism from the mid-1970s onward. Historical context was to be the medicine against the perceived loss of identity and sense of place.

However, fierce dispute about the issue of loss of identity and a sense of place under the threat of modernization was not new in itself. Already at the reunion congress of CIAM in 1947, Aldo van Eyck famously launched his attack on routine functionalism and the pseudo-rationalist dogma of the Functional City, which were then about to be deployed to build the large scale welfare state projects in Western Europe. Alison and Peter Smithson too, would consistently emphasize the importance they attached to the issue of context, speaking of 'specificity-to-place', and 'the building's first duty is to its context'.⁷ They themselves would date this concern for context as early as the Doorn Manifesto of 1954, also known as Statement on Habitat.⁸ In retrospective notes on Team 10 and the manifesto, notes which Peter Smithson kept revising between the years 1993 and 2001, we find his characterization of this emerging sensibility:

'A long-after-afterthought on this Manifesto reveals what I now believe to be the main direction of Team X's effort, in a word, towards particularity. The Doorn Manifesto—which, seen retrospectively, is the founding statement of Team X—shifts the emphasis away from the "four-functions" of C.I.A.M. onto "human associations". In its second paragraph the Manifesto says "To comprehend these human associations we must consider every community as a particular total complex." The word underlined in the manuscript was total, but it was the particular that was to be critical to Team X thought.'⁹

This balanced attempt to revise the history of Team 10 gives a succinct indication of the trajectory travelled by the Smithsons with regard to the relation between architecture and urban planning as developed by them over the years. Among other things this trajectory meant a continuously moving back and forth between the quality of the whole and the specific, and leaving behind the totalizing and unifying concepts of CIAM and the generation of modern architects of the heroic period. However, in the case of the Smithsons, and Team 10 in general, the value attached to specificity-to-place and context-building leads to quite the opposite of an historically grounded, typo-morphological orthodoxy. It would bring a re-appreciation of functionalism, an expanded functionalism that aimed to include existentialist notions of identity and belonging.¹⁰

AS FOUND

As mentioned, the post-WWII discourse in Great Britain was one of the formative moments in the context debate, next to the Italian discourse. Blessed with the possibility of looking back, one can already detect in the 1940s and early 1950s the various positions that will grow to dominate the debate in the 1970s: such as the ones of the specific British version of populism and interest in low culture and local vernacular, and the neo-Palladian and Picturesque revivals, which seem to foreshadow the later postmodernist turn. Many of those elements, if not all, could be found in the pages of *The Architectural Review*, where they were to be blended with the functionalist tradition as redefined by its editor Nikolaus Pevsner, who together with J.M. Richards aimed to arrive at a specific British version of the Continental avant-garde experiments of the pre-war period, suited to the British identity. Pevsner and Richards called this approach the New Empiricism, which recognized in the Swedish welfare state a planning model for the British post-war future.¹¹ Gordon Cullen's idea of Townscape should be mentioned here as well. It would supersede the New Empiricism in the late 1940s and direct the many campaigns of *The Architectural Review* to arrive at a better planned built environment. Cullen's drawings were didactic in teaching *The Review's* readers to view the chaotic landscape of historic cities, the suburbs and the industrial revolution of the nineteenth century as an intricate web of Picturesque accident and variation with a special role for urban decoration such as

iron fences, neo-Victorian advertisements and shop windows. Englishness and regionalism were domineering ingredients of this re-appropriation of the modern tradition.¹²

The younger generation of British architects, among which the Smithsons, but also James Stirling and Colin St. John Wilson, both absorbed and contested the policies of The Architectural Review. Together with artist-friends and critics they would gather as the Independent Group at the London Institute of Contemporary Arts. The ICA enabled the group to organize lecture series and exhibitions to investigate its own interests, which included a wide array of topics: from popular culture, sci-fi novels, film, cybernetics and early communication theory to advertising and fashion to the continuation of avant-garde practices such as those of Dada (Schwitters), Surrealism (Duchamp), and Bauhaus (Klee and Moholy Nagy). The New Brutalism and British Pop Art in particular are said to be born from those contestations.¹³ It was here that Alison and Peter Smithson collaborated with their artist-friends the photographer Nigel Henderson and the Sculptor Eduardo Paolozzi on the exhibitions 'Parallel of Life and Art' (1953) and 'Patio & Pavilion' as part of the 'This is Tomorrow'-show of 1956.¹⁴ From these collaborations the Smithsons developed their idea of an 'As Found aesthetics', which one might argue held the seeds for their contextual approach to architecture and city planning.

The Smithsons would go as far as to state that Nigel Henderson in particular taught them a whole new way of looking at things around them. He did so with his photographs of street life, his collages and the walks they undertook together in the working class neighbourhoods of East London, where Henderson resided because his wife Judith was involved in a sociological project 'Discover your Neighbour' to survey the lives of the working class. The Smithsons in 1990 said:

'In architecture, the "as found" aesthetic was something we thought we named in the early 1950s when we first knew Nigel Henderson and saw in his photographs a perceptive recognition of the actuality around his house in Bethnal Green: children's pavement play-graphics; repetition of "kind" in doors used as site hoardings; the items in the detritus on bombed sites, such as the old boot, heaps of nails, fragments of sack or mesh and so on.'¹⁵

6

For a history of CIAM see Eric Mumford, *The CIAM Discourse on Urbanism, 1928–1960*, The MIT Press, Cambridge / London, 2000

7

It should be noted that these are retrospective statements made in the context of the ILAUD summer schools organised by Giancarlo De Carlo, and published in the ILAUD year book series and other ILAUD publications. A first compilation of these Smithson texts in English is: *Italian Thoughts*, Stockholm, 1993.

8

Published at various places, among others: Alison Smithson (ed.), *The Emergence of Team 10 out of CIAM*, The Architectural Association, London, 1983; reprinted in: Joan Ockman (ed.), *Architecture Culture 1943–1968*, Columbia Books of Architecture, Rizzoli, New York, 1993, 2005 edition, p. 183.

9

Peter Smithson, 'Team X in Retrospect', manuscript, dated 1 October, 1993, revised March 1994, October 1995, April 1999 and May 2001, 10 pages. Underlining and italics are as in original.

10

See for instance the interview with Aldo van Eyck in: Risselada, Van den Heuvel, 2005.

11

Related key publications are J.M. Richards, *The Castles on the Ground*, The Architectural Press, London, 1946, with illustrations by John Piper, and Nikolaus Pevsner, *The Englishness of English Art*, The Architectural Press, London, 1956. The 1951 Festival of Britain and its exhibitions played a crucial role, see for instance: Reyner Banham, 'Revenge of the Picturesque: English Architectural Polemics, 1945–1965', in: John Summerson (ed.), *Concerning Architecture, Essays on Architectural Writers and Writing present-*

ed to Nikolaus Pevsner, Alan Lane the Penguin Press, London, 1968, pp. 265–273; see also Alan Powers, 'The Re-conditioned Eye, Architects and artists in English Modernism', in: *AA Files*, no. 25, Summer 1993, an illuminating piece on the wider debate in Britain around WWII. Powers mentioned the magazine *Punch* as one of the re-defining platforms for such concepts as Englishness, the popular and the vernacular.

12

Gordon Cullen, *Townscape*, The Architectural Press, London, 1961; much better than the widely distributed, abridged re-edition: *The Concise Townscape*.

13

See for a history of the Independent Group: David Robbins (ed.), *The Independent Group: Postwar Britain and the Aesthetics of Plenty*, The MIT Press, Cambridge / London, 1990.

14

Dirk van den Heuvel, 'As Found: The Metamorphosis of the everyday. On the Work of Nigel Henderson, Eduardo Paolozzi, and Alison and Peter Smithson (1953–1956)', in: *Oase*, nr. 59, 2002, pp. 52–67; Dirk van den Heuvel and Max Risselada (eds.), *Alison and Peter Smithson – from the House of the Future to a house of today*, 010 Publishers, Rotterdam, 2004.

15

Alison and Peter Smithson, 'The "As Found" and the "Found"', in: Robbins, 1990, pp. 201–202.



67. ECONOMIST BUILDING. 30-1-64.



83. ECONOMIST BUILDING. 21-5-64.



93. ECONOMIST BUILDING. 30-10-64.

03. Alison and Peter Smithson, Economist Building, London 1959- 1964, under construction

04. Alison and Peter Smithson, Economist Building, London 1959- 1964, under construction

05. Alison and Peter Smithson, Economist Building, London 1959- 1964, after completion



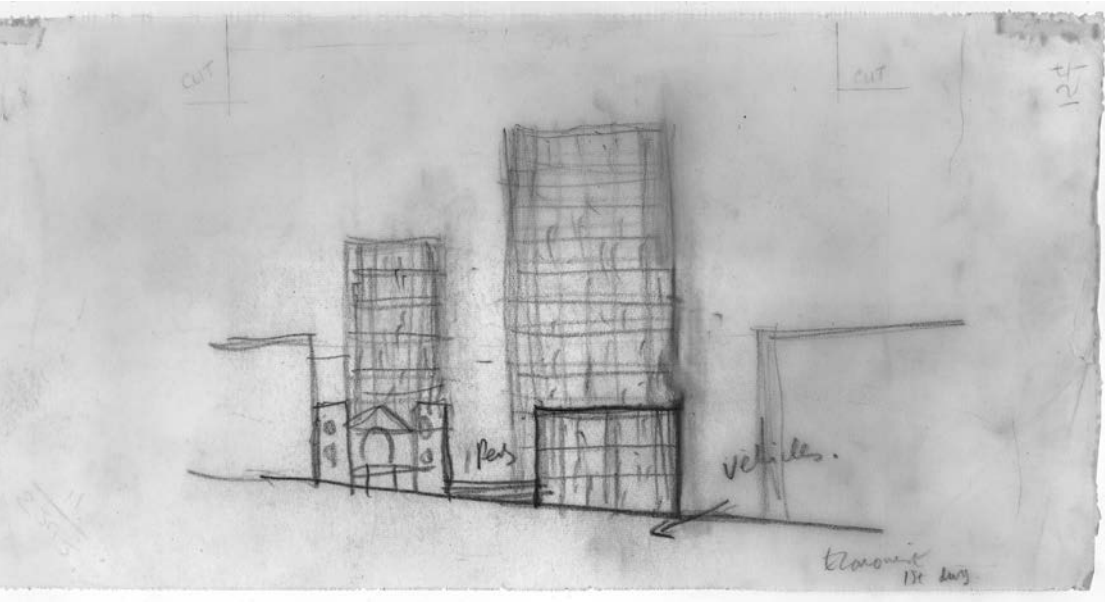
06. Alison and Peter Smithson, Economist Building, London 1959- 1964, view from Bury Street

07. Alison and Peter Smithson, Economist Building, London 1959- 1964, St James Street



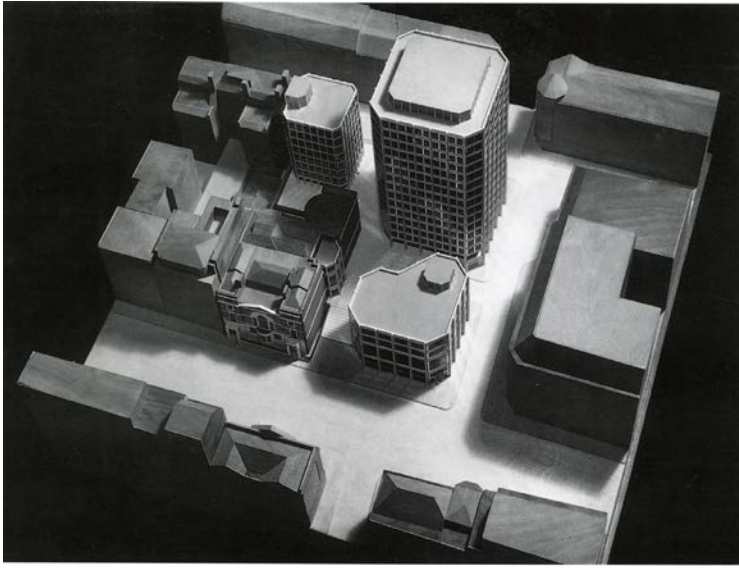
08. Alison and Peter Smithson, Economist Building, London 1959- 1964, plaza

09. Alison and Peter Smithson, Economist Building, London 1959- 1964, interior of Bank



10. Alison and Peter Smith-
son, Economist Build-
ing, London 1959- 1964,
sketch

11. Alison and Peter Smith-
son, Economist Building,
London 1959- 1964, situ-
ation



12. Alison and Peter Smithson, Economist Building, London 1959- 1964, model of first design

13. Alison and Peter Smithson, Economist Building, London 1959- 1964, street view

16
I Ibidem.
17
Ibidem.

And explaining the 'As Found' as both critical and generative, they stated:

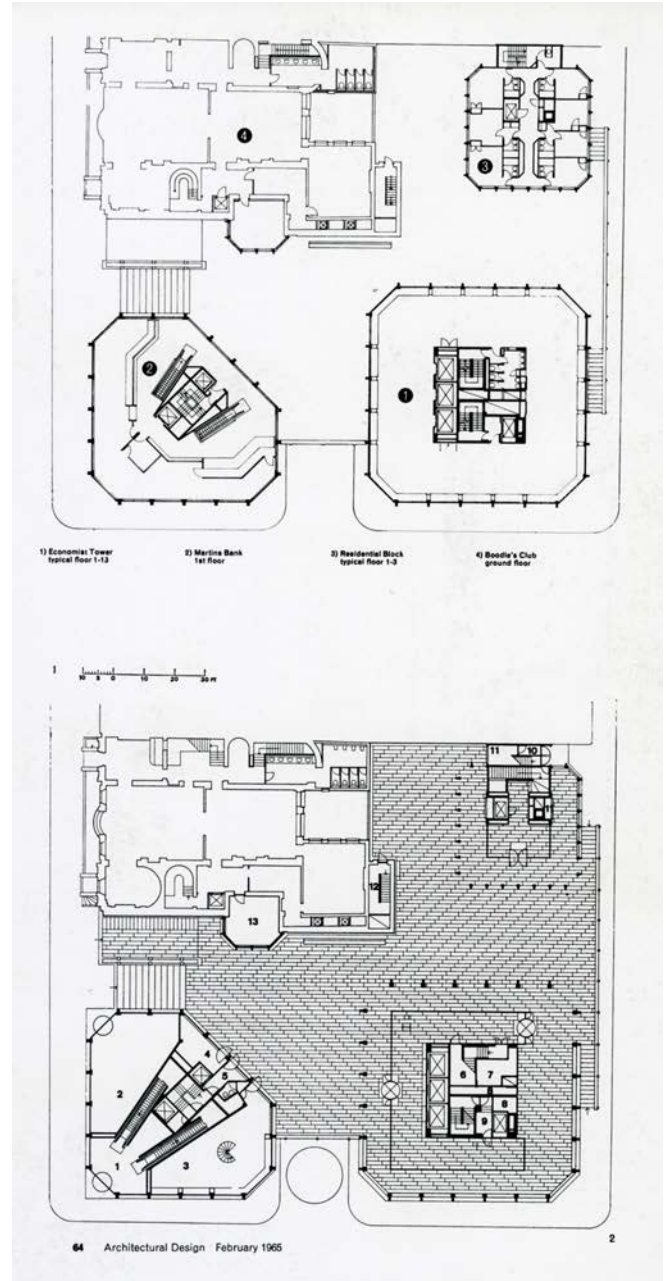
'... the "as found" was a new seeing of the ordinary, an openness as to how prosaic "things" could re-energise our inventive activity.'¹⁶

The trauma of war, the austerity of the 1950s when food was still rationed just as building materials were short in supply, the socio-anthropological approach to the built environment against the background of the promise for a new, more egalitarian consumer society, this was all behind the Smithsons' lifelong interest for the ordinary and everyday life. This interest also covered their view on the notions of place and identity as the outcome of historical processes and events:

'Setting ourselves the task of rethinking architecture in the early 1950s we meant by the "as found" not only adjacent buildings but all those marks that constitute remembrancers in a place and that are to be read through finding out how the existing built fabric of the place had come to be as it was.'¹⁷

COLLAGE CITY

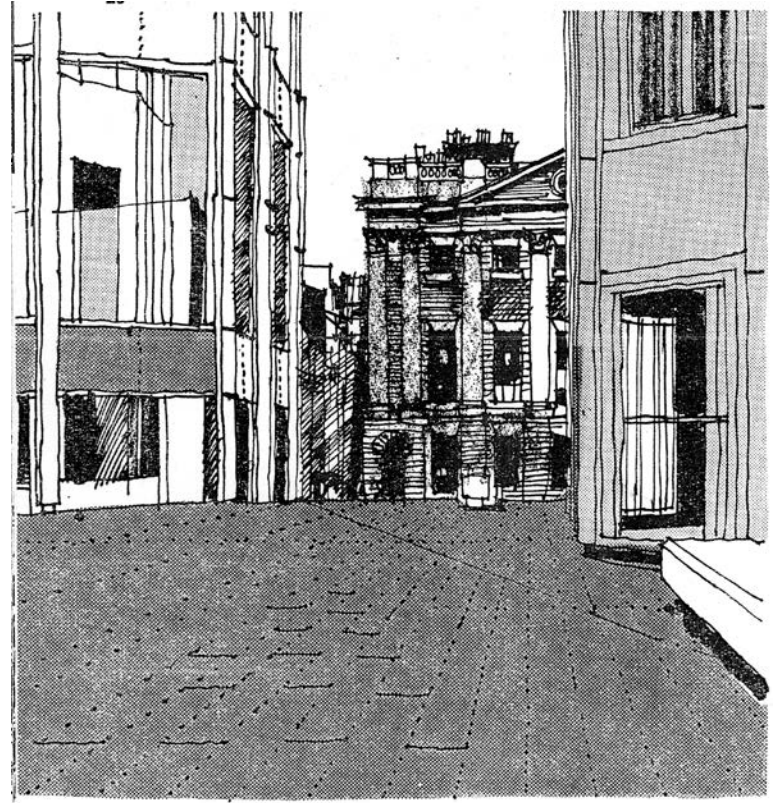
To better understand the Smithsons' interest in the ordinary as a source for inspiration and their idea of 'context thinking' we might look at another, most articulate position within the British debate, namely the one of Colin Rowe, who was not quite part of the Independent Group circles, but who was certainly close to Stirling, Sandy Wilson and Alan Colquhoun. With regard to the unresolved predicament of context and its paradigmatic tensions, a comparison between the positions of Rowe and Smithson is rather illustrative. The couple and the critic seem to occupy the far ends of the context debate: the Smithsons saw the issue of context and 'context thinking' as the natural extension of the tradition of modern architecture, whereas Rowe used the idea of contextualism for his devastating attacks on that very same tradition. The difference is even more striking, since looking from the outside the three seemed to have shared similar interests and attitudes: among others a candid and fierce criticism of the failures of modern architecture, combined with a lifelong admiration and love for the work of Le Corbusier and Mies van der Rohe, Scandinavian modern architecture as represented by Aalto, Asplund and Lewerentz, as well as a passionate interest in the history of architecture, especially of ancient Rome and Greece, and Renaissance ideals.



14. Alison and Peter Smithson, Economist Building, London 1959- 1964, plans of street level and plaza

Rowe developed his argument for contextualism through among others his teachings at Cornell University.¹⁸ The publication of 'Collage City' in 1975 as a special issue of *The Architectural Review*, and in 1978 as a book, can be regarded as the most condensed summary of the ideas developed within the Urban Design studio.¹⁹ Rowe, together with Fred Koetter, starts off with a frontal attack on the idea of utopia as a programme for actual social reform, as proclaimed and supported by modern architects, as well as on the idea of architecture being subjected to Zeitgeist and Hegelian telos. The second chapter paints a succinct overview of positions of the postwar decades. Then, in the third chapter, tellingly called 'Crisis of the Object: Predicament of Texture', Rowe and Koetter launched their attack on modern architecture for being responsible for the 'disintegration of the street and of all highly organized public space', partly due to the 'rationalized form of housing and the new dictates of vehicular activity', and partly due to the 'fixation' of modern architecture on the ideal of a building as a free standing object without any impact on the continuum of free flowing, open space that was characteristic of the modern city.²⁰ They reproached modern architects, with Le Corbusier as the most prominent one, and their vision for an 'absolute detachment, symbolic and physical, from any aspects of existing context which has been, typically, envisaged as a contaminant, as something both morally and hygienically leprous.'²¹

From here on Rowe and Koetter founded their argument for a Collage City on a combination of two elements. First, their appropriation of the 'figure-ground phenomenon' from Gestalt theory resulted in the now famous, black-and-white analyses of urban space. These diagrammatic drawings quite simply consisted of reducing the complexity of the city to the opposition of 'solid and void': Rowe and Koetter's version of the classic example of the Nolli-map of Rome, as developed within the Urban Design studio. The strong rhetorical power of the diagrams served to demonstrate how traditional cities provided a rich and versatile 'supporting texture or ground', unlike the modern city, which was diagrammed by way of black spots of free-standing 'solids' drifting in a white sea of 'void' designating undifferentiated 'space'. Le Corbusier's plan for St. Dié (1945) was strategically placed opposite the inner city of Parma, and a double spread of the modern master's



15. Alison and Peter Smithson, Economist Building, London 1959- 1964, sketch by Gordon Cullen

Plan Voisin (1925) communicated at a single glance the horrid disaster that would have hit Paris if the plan had ever been executed.²²

The second element of Rowe and Koetter's argument for a collage city was related to the nature of the 'texture' that constituted the city. Referring to the examples of imperial and papal Rome, London squares and terraces, and the Munich of Leo von Klenze, this texture, or ground, was defined by Rowe and Koetter as a multitude of fragments of (neo-)Classical architectural models.²³ This texture was the outcome of 'cross-breeding, assimilation, distortion, challenge, response, imposition, superimposition, conciliation,'²⁴ in short a process of 'bricolage' mediating and negotiating between the platonic ideal, technological progress and the pragmatic situation at hand.²⁵

Looking back in his 1995 introduction to the documentation of the work of the Urban Design studio, Rowe described the studio atmosphere as follows:

'If not conservative, its general tone was radical middle of the road. It believed in dialectic, in a dialectic between the present and the past, between the empirical and the ideal, between the contingent and the abstract. (...) Its ideal was a mediation between the city of Modern architecture—a void with objects—and the historical city—a solid with voids.'²⁶

However, re-reading *Collage City*, as well as considering other writings by Rowe of the 1970s, such as his introduction to the English translation of Rob Krier's *Urban Space*, of 1979, this paradoxical proposition for a 'radical middle of the road' seems hardly credible. *Collage City* concluded with a collection of poetic and inspiring examples, 'an abridged list of stimulants, a-temporal and necessarily transcultural' according to the authors.²⁷ Yet, this 'Excursus' actually reads as a collection with a rather clear, cultural bias, namely a desire to resurrect the finest of Western humanist tradition, which also becomes evident from the positioning of Michelangelo's Piazza del Campidoglio as the final image to the *Collage City* argument, and opening the collection of selected examples. Modern Architecture apparently does not belong to this tradition at all. Of the fifty-five projects included there is only one that can be classified as 'Modern', namely Van Eesteren's design for Berlin's Unter den Linden, under the category of 'Memorable streets'.²⁸ Moreover, going through the collection of architectural 'stimulants', the 'objets trouvés' ready to

18

See Forty, 2000, and for Rowe's teachings: Colin Rowe, *As I Was Saying*, The MIT Press, 1996 (Three Volumes).

19

Colin Rowe and Fred Koetter, *Collage City*, The MIT Press, Cambridge / London, 1978.

20

T Ibidem, pp. 56-58.

21

T Ibidem, p. 51.

22

I Ibidem, 1978, pp. 62-63, and 74-75.

23

FThe distinction between neo-Palladianism and neo-Classicism is not always easy to make; Colin Rowe seems to have a clear preference for the more generic, imperial neo-Classicism, whereas Rudolf Wittkower seems terribly fond of the more British inclined neo-Palladianism; see for more on this: Rudolf Wittkower, *Palladio and English Palladianism*, Thames & Hudson, London, 1974.

24

Ibidem, p. 83.

25

Ibidem, pp.102-103..

26

Rowe, 1996, Vol. III, p. 2.

27

Rowe and Koetter, 1978, p. 151.

28

Ibidem, p.154.



16. Alison and Peter Smithson, Upper Lawn weekend home, Tisbury, 1959- 1962, after completion, garden view

17. Alison and Peter Smithson, Upper Lawn weekend home, Tisbury, 1959- 1962, after completion, exterior



18. Alison and Peter Smith-
son, Upper Lawn week-
end home, Tisbury,
1959- 1962, the new
house is build around
old chimney and on the
existing garden wall

19. Alison and Peter Smith-
son, Upper Lawn week-
end home, Tisbury,
1959- 1962, the old cot-
tage

be used for a practice of ‘urbanistic collage’, Rowe and Koetter’s preference for the (neo-)classical is all too obvious. It seems fair to say that Rowe’s pursuit of neo-Classicism is also dominant in the Collage City argument, rather than the ‘radical middle of the road’.

This assumption is supported by the (re-)publication of Rowe’s seminal double essay on ‘Neo-“Classicism” and Modern Architecture’ in 1973, in the first issue of the *Oppositions* journal, a text which was already written in 1956–1957.²⁹ Here, Rowe’s second main contribution to the revision of the discourse of modern architecture must be stipulated, namely the concept of autonomy of the architectural discipline.³⁰ The revisiting and propounding of neo-Classical ideals by Rowe served the forging of what he called the ‘architectural equivalent of the rule of law’, an autonomous authority transcending the modernist claims that architecture was to be subordinated to the imperatives of *Zeitgeist*, programme and technology.³¹ To elucidate his case Rowe strategically used the development and shifting position of Mies van der Rohe.³² Rowe reached a superb level of analytic and rhetorical genius, here, taking a modern master and the development of his ideas over the years all in order to dismantle some of the central tenets of the beginnings of the modern tradition, in particular the ones of early functionalism. Considering Rowe’s writings of those years, the 1970s, it becomes apparent that he succeeded in firmly establishing the concept for an autonomy of architecture, quite paradoxically by building his argument on internal developments within modern architecture itself and on the idea of urban contextualism.³³

Yet, it is also here, both at the issue of architectural autonomy and neo-Classical idealism, and at the reconstruction of the tradition of modern architecture, that Alison and Peter Smithson took a principally different position with regard to context and town building, or urban design. It is here I believe that we start to understand the profound differences between the British contemporaries.

In the already mentioned 1972 lecture ‘Architecture as Townbuilding’, after having stated that ‘a design for a building or building group could not be evolved outside of context’, Smithson explained why this idea would be such a major distinction that one could speak of ‘another sensibility’, he said: ‘This sounded easy. But it cut against all inherited post-Renaissance tradition. A tradition of “ideas”, a tradition of “abstraction”, a tradition of buildings as simple mechanisms, and it cuts against the simple force of fashion.’³⁴

Unlike Rowe, Smithson understood ‘context thinking’ as fundamentally opposed to the neo-Classical tradition and any attempt at its resurrection. To him the neo-Classical tradition was not unlike the International Style, a detached tradition of pattern books and forms to be imitated without consideration of local specificity. To the Smithsons ‘context thinking’ was part and parcel of an architecture which was the ‘result of a way of life’, a ‘rough poetry’ dragged out of ‘the confused and powerful forces which are at work’,³⁵ something the Smithsons had started to understand as the unfolding of long term processes, of what they called the ‘slow growth of another sensibility’.³⁶ It is also in this sense that the Smithson position and the New Brutalism must be understood as an attempt to regenerate the idea of functionalism, of design as a ‘finding process’, that is a working method free from any predetermined idea regarding form, quite like Hugo Häring’s idea of *Form Findung*. Form was to be derived from first principles only and not pattern books, from the specific context and assignment. To find the appropriate form always concerned an ethical imperative to move beyond any sort of formalism.

29

Reprinted in: Colin Rowe,
The Mathematics of the Ideal Villa and Other Essays,
1976, pp. 119-158.

30

The autonomy concept
was of course already pre-
pared for by Emile Kauf-
mann in his 1933 book Von
Ledoux bis Le Corbusier.

31

The phrase 'architectural
equivalent of the rule of law'
comes from Rowe's analysis
of Mies van der Rohe's de-
velopment, see: The Mathe-
matics of the Ideal Villa and
Other Essays, p. 132.

32

Next to Rowe's analysis
of Mies van der Rohe's
position, Fritz Neumeyer's
groundbreaking study into
Mies van der Rohe's writing
Das kunstlose Wort should
be mentioned.

33

The rise of the autonomy
concept was a specific
strand within the postmod-
ernist discourse, concurring
with the idea of so-called
'neo-rationalism', which
would unite such diverse
positions as those of Aldo
Rossi, Peter Eisenman, and
Oswald Matthias Ungers.

34

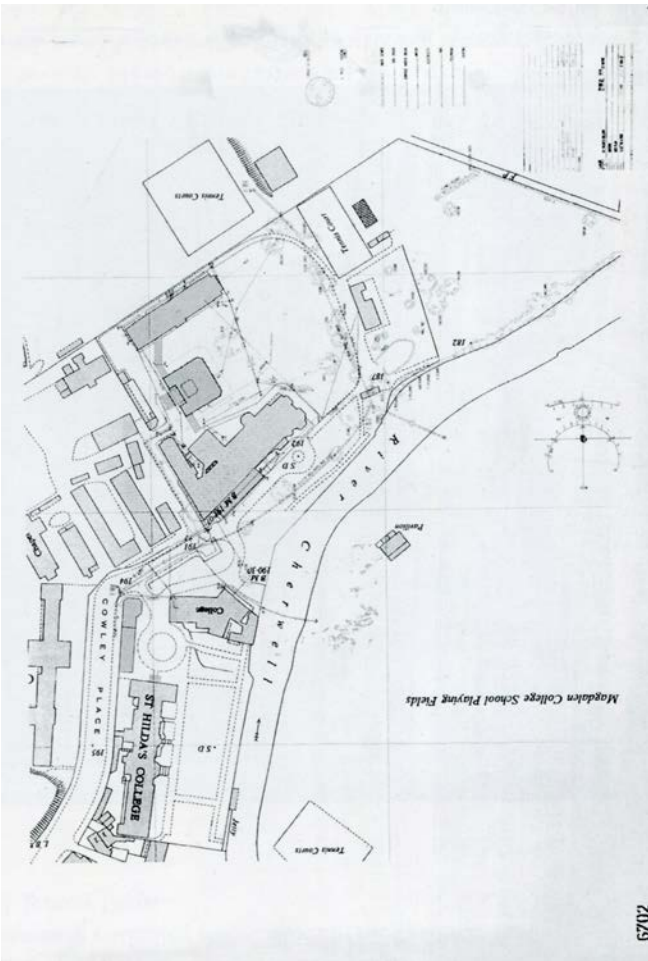
Smithson, typescript of
1972 lecture.

35

These Smithson quotes
originate from the begin-
nings of the New Brutalist
debate see their editorial
statements in: Architectural
Design, January 1955, and
their untitled comments in:
Architectural Design, April,
1957, p. 113.

36

The phrasing points to an
affinity with Raymond Wil-
liams, in particular his 1961
The Long Revolution, which
discusses the long term ef-
fects of the Industrial Revo-
lution on British society.



20. Alison and Peter Smith-
son, St Hilda's College
Dormitory Building,
Oxford, 1967-1970, situ-
ation

21. Alison and Peter Smith-
son, St Hilda's College
Dormitory Building, Ox-
ford, 1967-1970, exterior

ACTS OF CONTINUITY AND REGENERATION

So, at the time, in 1972, twenty years later, when Peter Smithson came to Cornell to deliver his lecture 'Architecture as Townplanning', and re-appropriated the issue of context as he thought fit, his proposition might be considered a provocation. Context and contextualism had been re-discovered as a 'new' topic then, as demonstrated by the publication of one of Rowe's students, Thomas Schumacher, in *Casabella*, only one year earlier. Under the heading of 'Contextualism: Urban Ideals + Deformations' the essay discussed many of the ideas that would later be fully elaborated by Rowe himself in 'Collage City'.³⁷ On the other hand, there is no record of any debate surrounding Smithson's visit and his ideas on context – may be due to the fact that Smithson was invited by Ungers and not Rowe, or may be simply because the postmodernist polemic hadn't fully started yet.³⁸

Smithson illustrated his argument for 'context thinking' by relating it to his and Alison's own practice, he said:

'In our own design work—the "context" is a main centre of effort. It is not exactly a question of "fitting-in", but of re-materialising, re-focusing—the words are difficult. The context may demand a totally invisible building or no building, a "counter-geometry" or a "continuation geometry". In a way like decorating, re-arranging and "preparing" a room, for a real homemaker, a real restaurateur or inn-keeper it is more than a question of taste: it is an act of both continuity and re-generation.'³⁹

To Smithson this combination of continuity and regeneration is key for a context-responsive architecture. The difficult task for architects would lie in the bringing together of the 'qualities of continuity and newness'. Peter Smithson mentioned the Economist building (1959–1964) as an example for the 'struggling with the idea of continuation and re-generation'. He also showed the projects for St.Hilda's college in Oxford (1967–1970) and their weekend home, the Upper Lawn pavilion (1959–1962).

The Upper Lawn pavilion was the Smithson weekend home in the region of Wiltshire, a 150 km southwest of London. It entailed the transformation of a dilapidated cottage and its walled garden into a modest, balloon frame box that rested on the existing wall and a Corbusian concrete support of two free-standing pilotis. One of

the old chimneys of the partly demolished cottage formed the core of the box thus clearly defining the spaces on both the upper ground floors. The outside terrace too, derived its size and dimensions from the former cottage, thus continuing the specific scale of the place, making it tangible, while adding new spatial qualities. Existing windows of the cottage were also integrated into the design, creating new relationships between the way of living that comes with a weekend home and the surrounding landscape. The material qualities of the old, natural stone wall were combined with the usage of bare concrete, the aluminium clad timber box, pine timber on the inside and on the ground floor the teak doors that can open up completely to the walled garden.⁴⁰

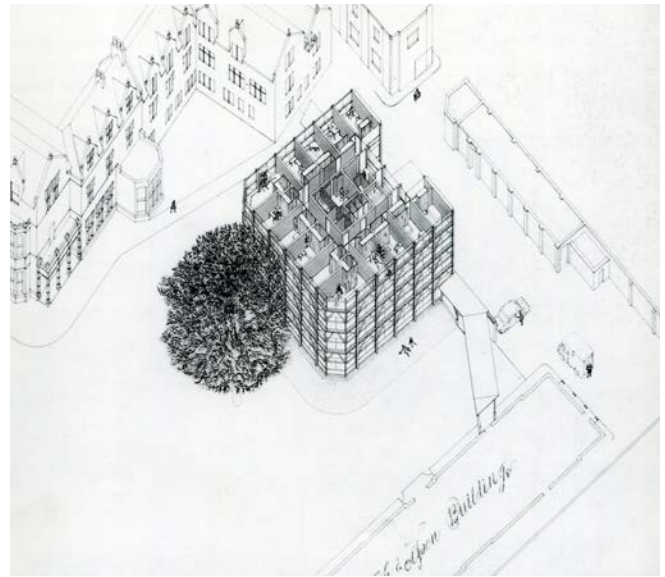
The dormitory building of St.Hilda's college could also be described as a pavilion in a garden. It is a simple volume with the student rooms organized around a core with service facilities. Its contextual qualities concern the organization of the back and front of the whole complex of college buildings that was the result of accidental planning. The specific ambition of the Smithsons was to enhance the qualities of the existing gardens. Therefore, the Smithsons inserted the new dormitory between the two existing main buildings and added a garden wall that connect the buildings with a passage-way while separating the garden from the service alley thus ensuring its quiet and picturesque character. All student rooms look out over the gardens. A monumental copper beech tree was preserved, and the façade design mimicks the pattern of its branches by way of an oak timber lattice frame added to the volume, which also veils the rooms from too much exposure. At the alley side the façade is made of yellow stock brick, the local, ordinary clay brick typical of southwest England.⁴¹

In many ways St.Hilda's dormitory building was a variation of the earlier Economist project of Alison and Peter Smithson in the chique district of St.James's in London. The Economist is an ensemble of three volumes on a slightly raised plaza. At the time, it was built to house the Economist offices, a bank building and a dormitory building that served the neighbouring Boodle's club.⁴² The bank building sits on the corner of the plot at St.James's Street; it continues the row of façades, including the height variations and the facade materials. The bank is entered from the corner where an escalator takes you up to the proper bank lobby for its clients and transactions,

which is an extra high inner space as a piano nobile, in order to emphasize the public character of the banking hall, which is flooded with daylight through the immense glass facades and its then state of the art illuminated ceiling. The higher office tower is situated at the back of the plot and hence, hardly has an impact on the streetscape. In addition to this, the Economist buildings are all clad in Portland stone. Thus the whole ensemble more or less merges into the historical, predominantly nineteenth century streetscape. In contrast with this, when approaching the project, the plaza visually opens up the block and creates new vistas, not monumentally axial ones, but more informal sightlines that indicate the entrance of the main tower block of the Economist offices. The plaza also creates a new informal route connecting St. James's Street with the narrow Bury Street at the back. Just as in the other two projects the manipulation of size, scale, movement patterns and materialization are key in striking a balance between 'continuity and regeneration'.

At the time, Kenneth Frampton criticized the Economist for being an American appropriation while pointing out the influence of the architecture of SOM and Mies van der Rohe's work in the USA. The Smithsons acknowledged this influence in their many writings. During the late 1950s Peter Smithson travelled twice to the States to visit precisely the architecture of SOM and Mies van der Rohe. But quite remarkably, Smithson always discussed these projects in terms of local culture and context. In his Cornell lecture he also included the American work of Mies van der Rohe in his argument for a context-responsive architecture, calling the New York Seagram building 'a clear, simple and easily read context-conscious urban form'. It is remarkable to us, since we have come to understand the Seagram as the apotheosis of the ideas of negation, absence and autonomy after the Italian and American post-structuralist readings of Mies van der Rohe's work.⁴³ Yet, to Smithson Mies' 'context-consciousness' was a clear 'question of sensibility':

'... it is not a question of continuing Mies' space and meanings that I am talking about—it is being aware of his space and meanings when making further buildings and spaces. A question of sensibility. As Mies was sensible not only of the Racquet Club, but of the flanking buildings, the "net" of New York, the nature of Park Avenue as an urban chasm—all as parts of his decision on how to build in that particular place. Mies's



22. Alison and Peter Smithson, St Hilda's College Dormitory Building, Oxford, 1967-1970, axonometric

37
Tom Schumacher, 'Contextualism: Urban Ideals + Deformations', in: *Casabella*, no. 359-360, 1971, pp. 79-86.

38
As is well-known Ungers and Rowe were not on speaking terms. Rowe mentioned the incompatibilité des humeurs in the introduction to 'As I Was Saying', Volume Two 'Cornelliana', 1996.

39
I Peter Smithson, typescript of 1972 lecture

40
The Upper Lawn pavilion is documented quite extensively by the Smithsons themselves, see: *Upper Lawn Solar Pavilion*, 1986 and *Changing the Art of Inhabitation*, 1994; see also Van den Heuvel, *Risselada*, 2004.

architecture at its marvellous best—for example at Lake Shore Drive or the early buildings on the IIT campus, to use American examples of his work, is itself a sign of the growth of a sensibility about cities.

As I have said elsewhere there has been, in this Century, a slow-growing sensibility of the machine-served city. A seeing that its very existence and continued and continuous maintenance is a miracle, and that how delicate is its fabric.⁴⁴

To recapture: for the Smithsons the ‘newness’ of the ‘machine-served society’—the technology and market driven consumer society, the alleged resulting loss of sense of place and community—was a central and constitutive part of the problem of a context-responsive architecture. This was quite unlike Colin Rowe’s proposition, even though Rowe would start from an observation similar to that of the Smithsons that modernization, modern planning and modernist ideology exercised a ‘disregard for context, distrust of social continuum’, used ‘symbolic utopian models for literal purposes’, and held ‘the assumption that the existing city will be made to go away.’⁴⁵ Rowe aimed to solve the problem with an autonomous apparatus containing formal strategies of typology, composition and transformation to be deployed in a ‘bricolage’ way in order to revitalize the existing city fabric. Apparently, a ‘contextualist’ architecture as proposed by Rowe did not consider newness, machines or other aspects of modernization to have a particular relevancy to architectural discourse and the development of any architectural language or tectonics. On the contrary, the two single references to contemporary technology that were included in the ‘Excursus’, the selection of inspiring examples for the Collage City practitioners, were ironically positioned under the heading of ‘Nostalgia-producing instruments’.⁴⁶

VI

Naturally, there are many more things to say on the issue of context and the historic development of the discourse. The whole context debate and the idea of a context-responsive architecture is phenomenally riddled with paradoxes, and perhaps that is why it seems dormant now, or simply a hopeless ambition—think of Koolhaas’ exasperated ‘Fuck context’ statement.⁴⁷

Within the field of architecture, the 1970s context debate was eventually won by historicist-formalists, not by a new generation of environmentalists – or ecologists, sociologists, structuralists et cetera, let alone the generation of Team 10. It was James Stirling, rival of the Smithsons and student of Rowe, who would be hailed as the ultimate champion when his competition entry for the Stuttgart Neue Staatsgalerie (1977–1983) was chosen to be built. A clever exercise in mixing pop art techniques with typological transformation and historic quoting, the building became the ultimate expression of the postmodernist fashion of the time, quite in the vein of Rowe’s plea for a new mannerism, of ‘cross-breeding, assimilation, distortion, challenge, response, imposition, superimposition, conciliation.’ Surprisingly, it was Kenneth Frampton who would recognise and praise the contextualist tendencies in Stirling’s work, already in 1976, when he discussed Stirling’s competition entry for the Düsseldorf Kunstsammlung Nordrhein-Westfalen while highlighting the ‘neo-classical intent’ in the work.⁴⁸ It was not before 1983 when Frampton formulated an alternative to Postmodernism when he made a plea for a Critical Regionalism – a term he borrowed from Alexander Tzonis and Liane Lefaivre, but which may be also considered a late fruit of the English discourse on the New Brutalism, neo-Palladianism and the Picturesque.

However, it would be the other student of Colin Rowe, Peter Eisenman, who thought Rowe’s project to its ultimate consequence. In the work of Eisenman the process of bricolage, imposition, superimposition and so on, was elaborated from post-functionalism into deconstruction, and one might add, de-contextualization. More than anyone else Eisenman succeeded in radicalizing Rowe’s ideas, thus not only demonstrating the paradox of Rowe’s project to construct an universal, humanist tradition that actually seems quite a-historical and detached from historical context, but also by moving beyond that same humanist tradition. Whereas Eisenman thus opened a new

41

For an excellent review see Robin Middleton, 'The Pursuit of Ordinairness', in: *Architectural Design*, nr. 2, 1971, pp. 77-85.

42

Both the Boodle's club and the Economist make still use of their building, the bank building is rented out for different programmes, among others a restaurant.

43

Il am thinking here of the writings of Francesco Dal Co and K. Michael Hays, in particular.

44

Smithson, typescript of 1972 lecture; the 'elsewhere' he is referring to was Berlin, where Peter Smithson was invited, again by Ungers, to lecture for students; the topic was technology and the 'machine-served society', the title of the lecture 'Without Rhetoric' – an implicit criticism of Archigram's futuristic fervour, and Banham's preference for Italian Futurism

45

Rowe and Koetter, 1978, p. 38.

46

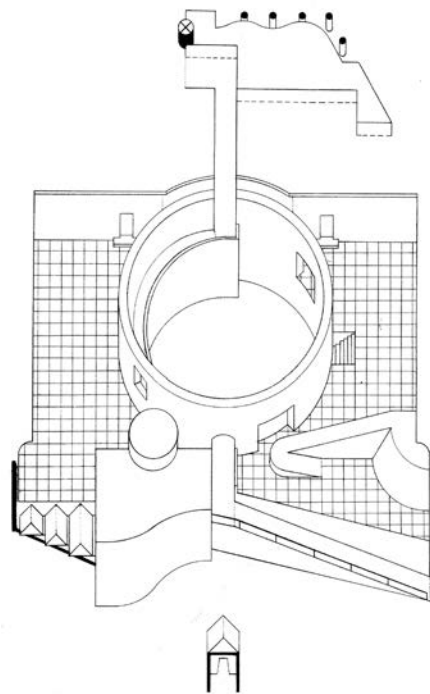
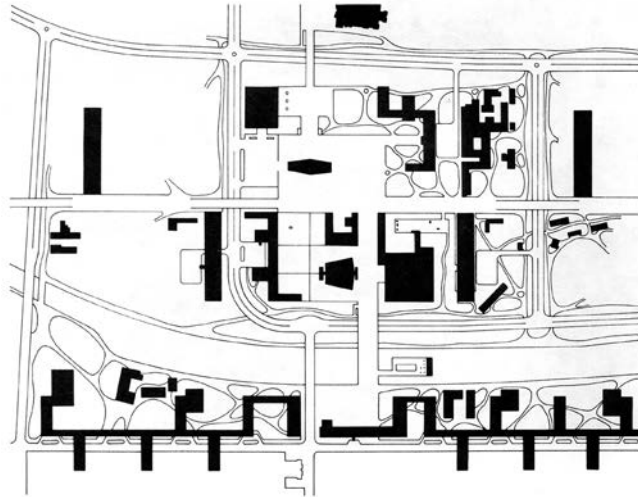
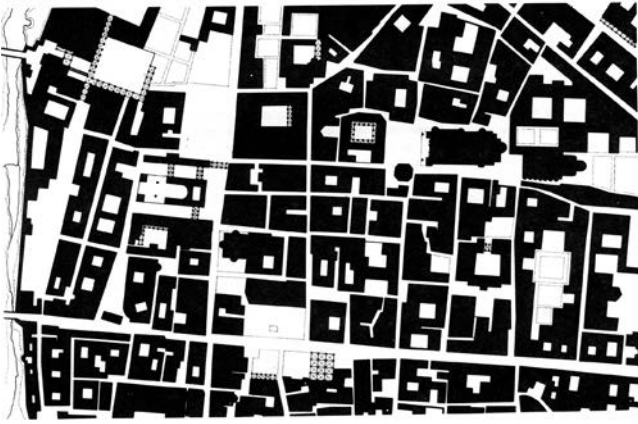
Ibidem, pp. 172-173; Cape Canaveral, and an unidentified oil rig.

47

IlIn S,M,L,XL when discussing the design of the TGB, Paris.

48

Kenneth Frampton, 'Stirling in Context. Buildings and Projects 1950-1975', in: *RIBA Journal*, March 1976, pp. 102-104.



Schematic down view of the entrance hall and rotunda

23. Colin Rowe and Fred Koetter, *Collage city*, 1978, comparative urban diagrams of Parma and St Die

24. Colin Rowe and Fred Koetter, *Collage city*, 1978, comparative urban diagrams of Parma and St Die

25. James Stirling, *Neue Staatsgalerie, Stuttgart*, 1977- 1983, axonometric of public route

discourse, very different from the English one on modern architecture, Alison and Peter Smithson had moved into the margins of the international debate ‘gone swimming’ as they themselves put it.⁴⁹ There they would develop their idea of a ‘conglomerate order’, a redefinition of the New Brutalism and Team 10 urbanism aimed at the creation of inviolate fragments as safe havens in the larger fabric that is the modern, global society. Looking back it reads as quite in the vein of Frampton’s plea for a Critical Regionalism, one of its characteristic being: ‘Its salient cultural precept is “place” creation; the general model to be employed in all future development is the enclave that is to say, the bounded fragment against which the ceaseless inundation of a place-less, alienating consumerism will find itself momentarily checked.’⁵⁰

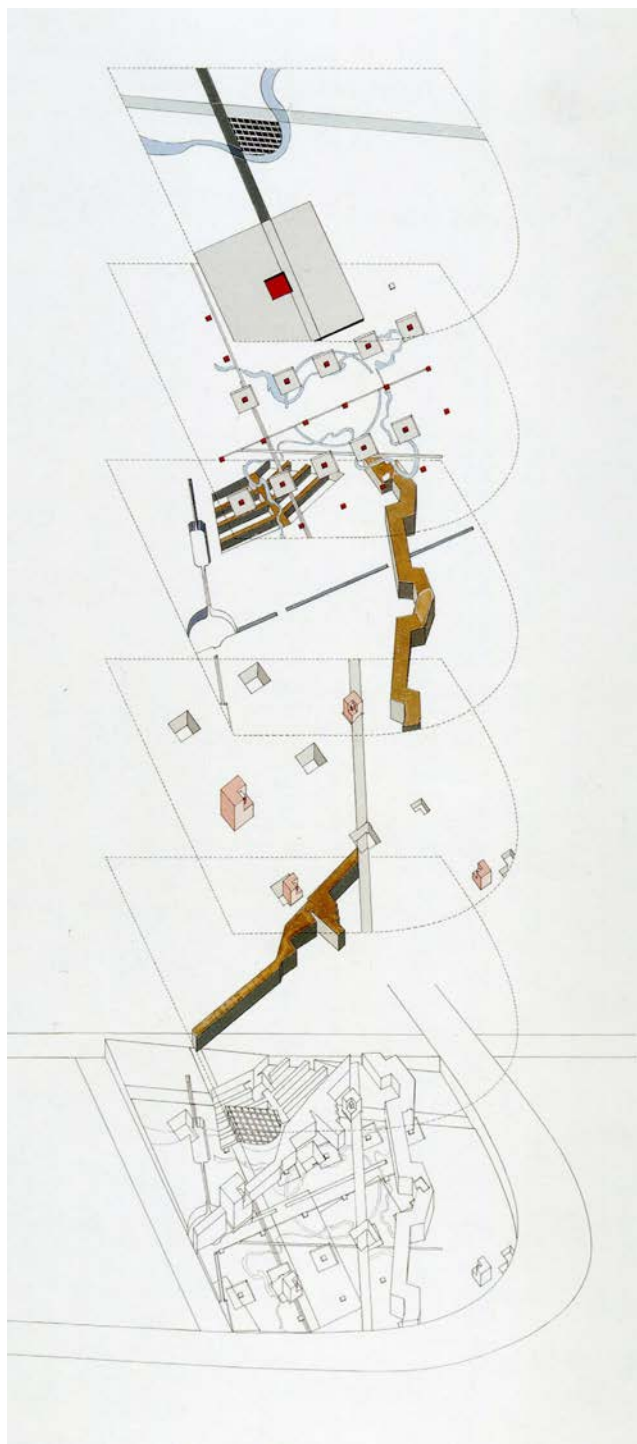
The emphasis on enclaves and fragments is perhaps the most lucid demonstration of one of the most paradoxical propositions in the context debate: that it would be possible to be both contextual and critical. Criticality, or critique is a key modern concept that belongs to the core of Enlightenment philosophy and its positivist ideology. It presumes an outsider position by definition, or at least an outsider’s look. Although hardly new, this might be still the key question for architecture practice: how to negotiate between autonomy and full engagement?

49

Alison Smithson, ‘The Smithsons gone swimming’, typescript dated 2 July 1978, from the Smithson archive; a typical line reads: ‘Now it is the era of the ragpickers and the antique dealers. So be it; it is no joy to fight the zeitgeist.’

50

Kenneth Frampton, ‘Prospects for a Critical Regionalism’, in: Kate Nesbitt (ed.), *Theorizing a New Agenda for Architecture. An Anthology of Architectural Theory 1965–1995*, Princeton Architectural Press, New York, 1996, p. 482.



26. Peter Eisenman, La Vilette, Paris, Competition entry 1987, exploded axonometric

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THE ARCHITECTURE OF THE INTERIOR

The Architecture of the Interior focuses on the public interior: those interior spaces whose scale, complexity, positions and uses within the extended urban environment render them part of the public realm. These spaces can be made for the benefit of a conscious, self-aware public and society, and furthermore, can be sustainable, well functioning, user-oriented and beautiful.

An architect with expertise in the interior is increasingly important in the making of contemporary architecture, given the characteristics of the economy, the emergence of new building programmes and the need to adapt existing structures. Graduates will be familiarised with and trained in understanding essential aspects of complex interior environments, and made familiar with the diverse issues, agents and strategies involved in their making.

The course considers architecture of the interior, its spatial qualities and historical and social contexts in detail. It provides education regarding the processes and involvement of the many varied disciplines, agents and partners involved in a complex interior architectural project. Studios are supported by courses in history, design analysis, technical studies and research studies that provide knowledge and experience of technical issues, research methods and skills of practical implementation. Subjects: historical design studies, social and anthropological research on users and user behaviour, architectural and technical studies regarding the transformation of existing structures, construction, environmental (climate) design, interior materials and detail, and interior-specific design.

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Daniel Rosbottom



Daniel Rosbottom

Towards a Congruent Architecture

This essay was the introduction to a keynote lecture 'Distant Relatives', on the work of DRDH, for the 2011 Antwerp Design Seminars and Lectures (ADSL) conference, which engaged with the theme of Congruence. The conference was hosted by the Artesis Hogeschool Antwerpen, Belgium 7 February 2011



CULTURAL QUARTER STORMEN IN BODØ, NORWAY

Won in competition in 2008 and constructed between 2011 and 2014, Stormen is the new cultural quarter of the Norwegian city of Bodø, a city of 60,000 inhabitants situated 100km inside the Arctic Circle. A National Norwegian Project, its two buildings, a city library and a multi venue theatre and concert hall, together represent the largest investment ever made by the city of Bodø in its public infrastructure. In response, beyond their programmatic functions, the two buildings take their social, cultural, physical and environmental responsibilities seriously and aspire to be good neighbours and accommodating hosts for present and future generations.

1.

Colquhoun, Alan, 'Regionalism 1 (The Concept of Regionalism)', in *Alan Colquhoun: Collected Essays in Architectural Criticism*, Black Dog Publishing London, 2009, P.284

Contemporary architecture is often incongruous. For some architects this dislocation is a necessary consequence of prevailing cultural conditions. For others it is expressive of an overriding individual creativity. In large measure though it seems the resultant condition of an ungrounded architecture, consumed by complexities of programme and an increasingly universal and globally regulated infrastructure of building procurement.

The critic Alan Colquhoun has noted that given the “world wide and almost instantaneous dissemination of technologies and codes, which results in an underlying similarity of all Western and most Eastern countries at any one moment... modern post industrial culture is more uniform than traditional cultures, because the means of production and dissemination are standardised and ubiquitous.”¹

With that thought in mind, it is perhaps imprecise to suggest that the architecture that results from such conditions is ungrounded. It is rather that the ground that has been prepared for it is the leveled, graded resultant of the earthmover - an abstract, universal space of optimised production, rather than a particular place, in which to dwell.

Such universalising tendencies might be understood as a logical outcome of what Kenneth Frampton has described as civilisation's focus upon instrumental reason, since the period of the Enlightenment². For architecture, this ideological trajectory, which has, in large measure, resulted in the abstraction and reduction of the building to the status of a product, accelerated enormously with the emergence and subsequent dominance of mainstream modernism, through much of the 20th Century.

For many of the primary protagonists of that movement though, the drive towards technical and functional determinacy was underpinned by social and moral concerns, within an essentially humanist discourse. Moving to the present, such concerns have been almost wholly usurped by the overwhelming economic imperatives of an, at best morally neutral, globalised market.

In the immediate aftermath of modernism's apparent demise, post-modernity's loudly proclaimed rediscovery of the rich treasure trove of architecture's history, through which it was to relocate its traditional cultural role - turned out in most cases to be little more than the robbing of a tomb. History understood as signage, devoid of cultural meaning...or, as Loos said, ornament as crime.



CONTEXT

Counterpointing the objectification of many contemporary cultural projects, the primary urban intention of Stormen is to consolidate the contingent urbanity of Bodø's post-war reconstruction. Built on the last two vacant blocks of the existing centre, and mindful of the opportunities and restrictions presented by constrained sites, their nuanced forms carefully adjust in scale and expression, responding both to one another and the heterogeneous architecture of their surroundings. Establishing a new urban ground, at levels above predicted one hundred year sea level rises, they consolidate the structure of the existing urban centre, creating a new public environment for the city that encompasses and relates both interior and exterior spaces.

The existing urban grid, imposed after the decimation of the Second World War, takes little account of specific physical and environmental conditions. However the form and mass of the buildings counters this, creating places that capture sun, offer shelter from prevailing winds and frame both existing uses and views. The resulting ensemble establishes a coherent cityscape of streets and urban spaces that collectively redefine Bodø's relationship with its extraordinary landscape context.

The architecture of the two buildings oscillates between figuration and abstraction, seeking, at once, to recall classical archetypes, Scandinavian modernity and the mundane, harbour-side forms of a working port. Shallow pitched roofs reflect the lines of surrounding hills and islands while polished and washed façades of white, pre-cast concrete hold and reflect the ever-changing light of the Arctic sky. From the harbour, the buildings appear to conjoin as a single piece, announcing the city to the sea.

In reality, the underlying conditions were little changed and the reinvention of neo-classicism as kitsch façade, was not much more than a temporary mask for what has since emerged as an almost entirely technocratic construction industry, largely uninterested in architecture's role in the world, or in the traditions of culture and craft, except where they can be wholly commodified. The more recent resurgence of what might loosely be described as a reinvented modernism, but one severed from its ethical root, has made that schism transparent, often quite literally so.

Adam Caruso, of British practice Caruso St John, has written that 'mainstream practice has embraced the rhetoric of the market to make work that is infused with brand recognition. Strategies of cybernetics, phylogenics, parametrics, mapping – each strive to generate completely original forms, unusual shapes, in plan, in section, sometimes both. These bold profiles can amplify or even replace corporate logos' he says, and he wonders where this is taking us, given that 'architecture is practiced at an unprecedented global scale, and the major players seem to be egging each other on. Who will produce the largest, and most formally outlandish project?' he imagines them asking each other, 'Who will finally say stop?'³

And yet this desire to establish credibility through the increasingly incredible, an attribute apparently to be discovered in the endless objectification and reinvention of form and space, is sharply counterpointed by the sterile anonymity and banality of much of the contemporary architecture that constitutes our actual, everyday experience. Here, un-phased by shiny improbability, we are instead confronted by scale-less, place-less, ubiquitous reality.

We should not forget that this sense of displacement is not simply a result of a building's visual presence, but also of the way in which much current architecture engages, or fails to engage, our other senses. Heidegger suggests that 'The fundamental event of the modern age is the conquest of the world as picture.'⁴ As Juhani Pallasmaa and others have pointed out, it is in part this undue privileging of our visual relationship with architecture that has led us to an overbearing preoccupation with its image, reducing it from a space of encounter and reciprocal experience, which situates us in the world, to mere object. For him 'Modernist design has housed the intellect and the eye but has left the body and the other senses, as well as our memories, imaginations and dreams, homeless.'⁵

2.

Frampton, Kenneth, 'Towards a Critical Regionalism: Six Points for an Architecture of Resistance, 1. Culture and Civilisation', in *The Anti-Aesthetic. Essays on Postmodern Culture*, edited by Hal Foster, Bay Press, Seattle, 1983, P.17

3.

Caruso, Adam, 'Traditions', in *OASE Issue 65 Ornamentation*, OASE, Amsterdam, 2004, P.76–89

4.

Heidegger, Martin, 'The Age of the World Picture' (1938) in *The Question Concerning Technology and Other Essays*, New York, Harper Row, 1977, P.133

5.

Pallasmaa, Juhani, 'The Eyes of the Skin: Architecture and the Senses', John Wiley and Sons, New York, 2005, P.19



SITE

This desire to be embedded in the immediacy of the situation as it is experienced, whilst simultaneously engaging with a much deeper context of architectural history, introduces the scales of temporality that the architecture of the buildings seeks to address. In contrast to a prevalent tendency of contemporary construction, their proposed lifespan is conceived of in hundreds rather than tens of years, countering the energy embodied in their making. While the interiors, their furniture and fittings are designed to accommodate change over time and through daily use, the pre-cast façades are designed to withstand it.

This is a key part of a combined strategy to minimise the project's ongoing consumption of resources. During winter months, mechanical ventilation heat recovery is employed, whilst opening lights allow for user controlled ventilation and night purge cooling in summer. The high thermal mass of each building creates a thermal flywheel, benefitting both energy consumption and interior comfort and mitigating the effects of fluctuating usage. High performance, extra low g-value glazing reduces solar glare through South and West facing openings, minimising heat gain, whilst deep concrete fins on principal glazed facades provide shading from low sun angles in this Northern latitude. Consumed energy is supplied through carbon neutral, hydro-electric power, obviating the need for local power generation. The buildings are also prepared for future connection to a planned district heating system.

6.

Norberg-Shultz, Christian, 'Genius Loci, Towards a Phenomenology of Architecture', Rizzoli, New York, 1980, P.18

Because technology has allowed us to make everywhere equivalent, everywhere has, increasingly, become nowhere. The interiors of modern buildings are often hermetic spaces, held in a kind of technologically induced stasis where, on a deep floor-plate, permanently illuminated by a plethora of electric light fittings, one breathes filtered, climatically controlled air, of constant temperature and humidity. Such spaces feel the same, whether they are in Brussels or Beijing.

Of course, the massive energy consumptions and emissions of such buildings have, in the last few years, caused increasing alarm, given the scale of imminent environmental change to which their profligacy contributes. Paradoxically though, both the building codes put in place to respond to these concerns, and our responses to them as architects and engineers, largely seem to look for solutions in the problematisation of existing modes of thinking. Often employing further layers of technology in the form of screens, louvres, double skin glazed facades and ever higher levels of airtightness and thus further distancing the relationship between interior and exterior - the body and the world.

Such instrumental, technologically driven strategies might indeed have positive effects in energy use terms, yet their physical attributes only seem to exacerbate the disconnection and de-scaling of a building relative to its surroundings – often ignoring the potentially positive contributions of local topography and climate, or the form and character of existing built fabric. Given these concerns, might not another unintended effect of such strategies be to actually increase the lack of empathy between the inhabitant of a building and their wider environment? This question should concern us all.

In 1974 the Norwegian writer, Christian Norberg-Schultz wrote that 'Modern man for a long time believed that science and technology had freed him from a direct dependence on places. This belief' he suggested at the time 'has proved an illusion; pollution and environmental chaos have suddenly appeared as a frightening nemesis and as a result the problem of place has regained its true importance.'⁶



7.

Frampton, Kenneth, 'Towards a Critical Regionalism: Six Points for an Architecture of Resistance, 3. Critical Regionalism and World Culture', in *The Anti-Aesthetic. Essays on Postmodern Culture*, edited by Hal Foster, Bay Press, Seattle, 1983, P.20

Forty years on, this assertion seems optimistic but no less critical. What remains striking in his statement is the suggestion that it is contemporary society's displacement that is both a primary cause and an ongoing concern in tackling the challenges that face it. As architects therefore, whilst it goes without saying that we should enthusiastically adopt whatever appropriate opportunities technology offers us - in order to understand what might be appropriate, we first need to conceive of and compose a building that is contingent upon its place. Establishing a reciprocity, where each is able to define, or reinforce, the character of the other.

The thought was echoed by Kenneth Frampton, ten years later, when he called for a critical architecture 'which distances itself equally from the Enlightenment myth of progress and from a reactionary impulse to return to the architectonic forms of the pre-industrial past.' An architecture which instead 'has the capacity to cultivate a resistant, identity giving culture whilst at the same time having discrete recourse to universal technique.'⁷

Drawing these statements into dialogue, is an understanding, from Heidegger, that the place is architecture's share of truth, the concrete manifestation of man's dwelling. One might then say that man's identity depends on him belonging to places. If that is so, then any determination of appropriateness must first consider the manner in which form, material, structure, scale, proximity, topography, orientation and threshold can each draw out or consolidate the latent or manifest qualities of a given site. Whilst ameliorating, as far as possible, its negative aspects. Only when these conditions have achieved a particular and optimised equilibrium, does recourse to technology become legitimate.

Here, we must distinguish the idea of a building's tectonic presence from its technological resultant. Whereas technology offers a solution to a material problem, tectonics can be considered as having a far more encompassing role - that of making place manifest through the physicality of architecture. This pre-empts technology, ordering the inter-relationships of material, constructional and spatial structures, with respect to inhabitation and situation.



The interplay between these factors is complex, across many scales and it is unlikely ever to result in an identical outcome, without the imposition of some kind of universalising technique. Of course such processes of rationalisation have always been necessary and are often highly beneficial in determining a building's successful outcome. As we have already discovered, it is only in the overbearing nature of such impositions, whether they are internal or external to the building itself, that modernity has undermined our sense of place.

That being said, history tells us that 'typical' outcomes do emerge. They might be morphological, in response to local conditions, i.e. the vernacular, or develop as a consequence of wider practical or cultural usage. The typical forms, scales and proximities that emerge as a result of these common concerns must equally be considered as essential components in determining the resultant character of a place, constructed by culture, in response to nature.

The idea of building 'type' again needs to be distinguished, this time from the postmodern appropriation of typology that we touched upon earlier. The latter addresses purely formal concerns, through an abstract, instrumental and reductive relationship to the history of architecture. A 'type' on the other hand might be understood as a paradigm to be developed through creative, interpretive actions, in response to history - rather than as a literal model, to be copied.

Drawing these thoughts together, as Frampton succinctly puts it 'the built comes into existence out of the constantly evolving interplay of three converging vectors, the topos (site), the typos (type) and the tectonic.'⁸

The issues and concerns I have outlined thus far are well rehearsed. Colin St John Wilson and others have long championed 'the other tradition' of modern architecture, exemplified in the work of architects such as Aalto and Lewerentz, and characterised by exactly the balance of relationships between the universal and the particular; the tectonic and the technical; the poetic and the pragmatic or culture and nature for example - that I have referred to. Indeed such debates have been occurring since at least the birth of modernism. St John Wilson recounts Hugo Haering at the very first meeting of CIAM, calling for an architecture 'that would not impose a regime of pre-ordained geometrical forms on the one hand, nor the mass produced models of industrial technology on the other,' but would evolve through 'a less pre-judged enquiry into the way things 'wanted to be.'⁹

8.

Frampton, Kenneth, 'Studies in Tectonic Culture', MIT Press, Cambridge MA, 1995, P. 2

9.

St John Wilson, Colin, 'The Other Tradition of Modern Architecture: The Uncompleted Project', Academy Editions, London, 1995, P.7



10.

Norberg-Shultz, Christian, 'Genius Loci, Towards a Phenomenology of Architecture', Rizzoli, New York, 1980, P.5

Unfortunately, such practice has remained marginal and it is with increasing difficulty that the contemporary architect achieves anything like such a sense of balance. In fact, the concern in any such discourse is that when one attempts to apply it within an actual situation it appears, to a greater or lesser extent, as a romantic idealisation, out of touch with the pragmatic and contingent realities of day-to-day practice - a sense that crystallises as projects grow in scale and complexity.

Let us refer back to Norberg Schultz, for example, and his assertions that 'Man dwells when he can orientate himself within and identify himself with an environment' and following on that 'the task of the architect is to create meaningful places whereby he helps man to dwell.'¹⁰

Underlying these statements is a strong sense that the architect needs to be able to identify with the place in which he builds, to an extent at least equivalent to the person or community for whom he is building. Yet the reality, as we noted earlier, is that architecture has become an increasingly global enterprise. Other concerns, which might be understood as equally valid, such as economic and political transparency or equality of opportunity, have led instead to trans-national systems of procurement that deliberately invite the architect to work in unfamiliar territories. How then is it possible for him or her, within the commercial restrictions of a given project, to attain sufficient knowledge to be able to offer a meaningful interpretation of place?

To take another example, Frampton concretises how one might manifest a situated architecture, in ways that initially seem self evident - through the establishment of responsive topographic and tectonic relationships. Yet how does one negotiate the tension between the desire for a building to acknowledge the irregular topography of its site, as he suggests, and the ever-multiplying panoply of regulations that govern fundamental issues such as disability access or, at another scale, flood management. The wholly legitimate prioritisation of such concerns often denies the opportunity to work with existing topographies or to form 'natural' relationships with a building's surroundings. Indeed often, contemporary strategies of urban planning and regeneration result in a reconstruction of a site's topography and character that is almost total, prior to the architects' arrival.

Similarly, the complex inter-relationships of legislation, economics and liabilities, which inevitably govern performance criteria, product



MATERIAL AND PROGRAM

Extending the material concerns of the façades, a palette of engineered, pressed, recycled and recyclable materials is utilised to establish an array of calm but richly spatial interiors. While they utilise a similar palette, the two buildings offer contrasting spatial strategies. The 11,200m² concert hall is conceived of as a series of enfilade, room like space incorporating four performance venues: 'Kammersal' a 100 seat recital room; 'Sinus' an amplified music venue for 480 people; 'Lille Sal' a 260 seat auditorium and 'Store Sal' a 944 seat auditorium. Each is designed to be flexible and technically innovative, whilst retaining a specific character. Typologically radical, 'Store Sal' transforms, spatially and acoustically, from proscenium theatre to full symphonic hall. Acclaimed for its acoustics, the design of the auditorium nonetheless remains cognisant of its responsibilities to the wider community and comfortably accommodates events as diverse as cinema, conferences and university degree ceremonies.

The 6,300m² library is arranged as an interaction of more landscape like levels and spaces which together support and enrich everyday, community life through their accommodation of a diverse array of functions, including children's, youth and adult libraries, a café, public meeting rooms, education and exhibition spaces. These are organised around the space of a grand central stair. Linking entrances to both city and harbour, this rises to a generous reading room that addresses sea and mountains through a large glazed façade. It culminates at the children's library, nestled beneath an undulating ceiling and organised around an external play space. This position, overlooking the reading room, looking across to the foyer of the concert hall and looking out to magnificent views of the landscape, places the children at the heart of the project as a whole. Their small story telling theatre is a precursor to the experience of the larger auditoria within the Concert Hall opposite. Culture is placed at the root of experience and in response to situation, allowing the buildings to play their part in the building of community life.

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specification or procurement systems, restrict the architect's ability to have free-rein in establishing tectonic relationships - relative to, say, local materials or traditional construction methods. As David Leatherbarrow has wryly suggested 'The orders of contemporary architecture are not types of column, but purchase agreements for the production of shop made elements'¹¹

Conversely, misunderstandings or oversimplifications of how the character of a place can be enhanced could be seen as equally problematic. How does the architect negotiate the uncomfortable 'fit' between an overly restrictive, typologically driven local plan, which might seek to establish local rules on heights, roof pitches and materials for example, relative to contemporary programmatic needs that require a sensitive adjustment in scale, or a different, emergent type?

One could go on and on...and thus we arrive at a dilemma. We have understood the pressing need for contemporary architecture to re-situate itself in response to place. Clearly though, if we are also to understand it, in St John Wilson's terms, as a 'Practical Art' then we cannot ignore the myriad opportunities, benefits and restrictions offered by an increasingly rationalised, global infrastructure, nor our lack of intimate knowledge, as international architects. In identifying criticality with the regional, Frampton inadvertently allows its dismissal as some kind of mythic nostalgia. Perhaps instead, we need to find the means to critique from within this globalising condition?

This suggests that his apparent condensation of 'topos', 'typos' and 'tectonic' into a kind of trinity, a concrete set of conditions to be systematically addressed, might be better understood as a looser constellation of inter-related, emergent concerns - both determinate and indeterminate. As architects, our approach to such a constellation might have to oscillate, metaphorically, between the precisely calibrated observations of astronomy and the figurative, mythic narratives of astrology - constructing a common ground from which to build, that lies somewhere between a physical site and the site of the imagination.

Appropriating the words of Vittorio Gregotti, we might describe such an architecture 'as a system of relations and distances, as the measurement of intervals rather than isolated objects'¹². We might call such an architecture 'congruent.'

11.

Leatherbarrow, David, 'Uncommon Ground', MIT Press, Cambridge MA, 2002 Pg. 120

12.

Greggotti, Vittorio, Territory and Architecture, in *Theorizing a new agenda for architecture: an anthology of architectural theory 1965-1995*, edited by Kate Nesbitt, Princeton Architectural Press, NY, 1996, P.342







Mark Pimlott (Montréal, 1958) is an artist, architectural designer and writer. Mark Pimlott's practice encompasses installation, photography, film, art for public spaces and interior design. He studied architecture at McGill University, Montréal and the Architectural Association, London, and visual arts at Goldsmiths' College, University of London. Notable works include Neckinger Mills interiors, London (1988; 1994); Red House interiors, London (2001; 2004; 2011; 2013); Guinguette, Birmingham (2000); La scala, Aberystwyth (2003) and restaurant Puck, The Hague (2007). World, a public square at BBC's Broadcasting House in central London (2013). Solo visual arts exhibitions include Studiolo and 1965 (Todd Gallery, London (1995; 1998); Ich bin der Welt abhanden gekommen, (NAi, Rotterdam, 2005) and All things pass (Stroom, The Hague, 2008). The installation Piazasalone (in collaboration with Tony Fretton) was shown in the section curated by Kazuyo Sejima at the 12th Biennale internazionale di Architettura di Venezia (2010). He curated the exhibitions Continental drift (RIBA, London, 1993) and Not nothing (Todd Gallery, London, 1997).

He has taught architecture and visual arts since 1986. He was appointed Professor in relation to practice in Architecture at Delft University of Technology, the Netherlands (2002-2008), where he is now assistant professor in Architectural Design/ Interiors, and Leader of the course The Architecture of the Interior. His articles and essays have been published in numerous journals of architecture. He is the author of *Without and within: essays on territory and the interior* (2007) and *In passing: Mark Pimlott photographs* (2010).

He has recently written 'Modern anachronism: Trades Union Congress Memorial Building, London' for the forthcoming publication *Twelve Public Buildings* (Tom Avermaete, Salomon Frousto, Max Risselada, eds.). He is currently writing a PhD dissertation 'The heart of Montréal's ville intérieure: prototype for the very large, extensive, complex interior' at Delft University of Technology.

Bachelors and Masters Teaching

- AR1AI035 The Architecture of the Interior Msc1 Fundamentals 2
- AR3AI045 The Architecture of the Interior Msc3 Graduation Studio
- AR3AI050 The Architecture of the Interior Msc3 Studio Specific research 1
- AR4AI120 The Architecture of the Interior Msc4 Graduation Project
- ARB104 Design Master Class (Berlage)

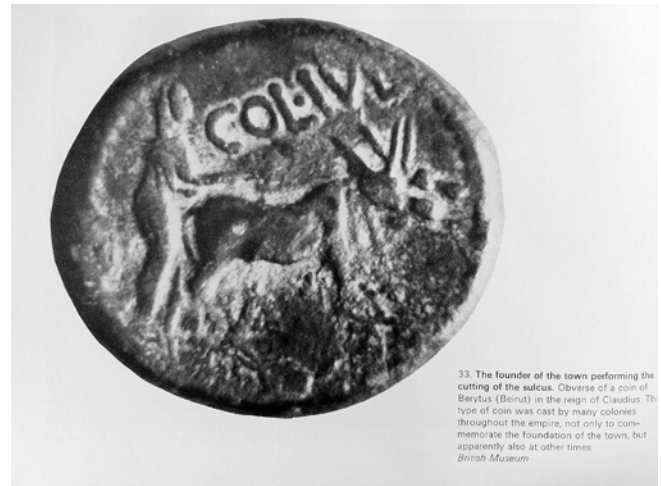
Mark Pimlott

Fiction and significance in the public interior

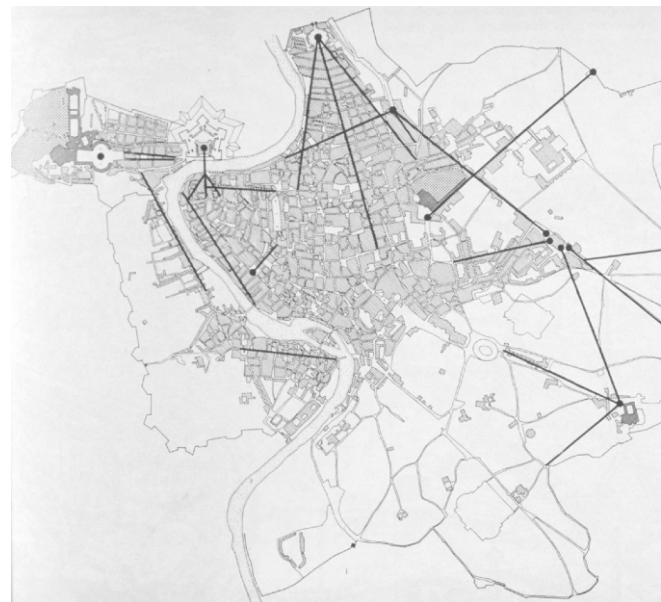
This lecture is one of a series about attitudes and approaches to architectural design. Architectural design is a much more complex matter than the organisation and distribution of programme, the arrangement of space, articulation of materials and light, mastery of techniques of construction or the composition of appearances into functional (or expressive) entities. Architectural design has the capacity to articulate ideas about the world and being in the world. The interior is especially concerned with this, for it is at once set apart from, and simultaneously situated within the world, a condition integral to its very constitution, its history, its language and its ideas.

This lecture concerns public interiors in particular and the proposition that they have been and continue to be driven by fundamental ideas embedded in culture. By understanding such ideas and their origins, it is possible to arrive at more profound understandings of the environments we imagine and construct, and how we, as designers, might make work that is more completely embedded in our world, our culture and its ideas.

When I speak of the public interior, I refer to that constructed place or environment that is used by many, and *taken to be* public by its users. It is an environment shared by people who feel as though they are able to be themselves in public, and conscious of themselves and others—both like and unlike themselves—as individuals all together, as a public.¹ Historically, the public interior has provided the most compelling environments in Modernity, offering what may be described as an ideal state of association, and simultaneously, individual freedom through expanded consciousness of the environment and others. This state is found in stories of our origins, in which ideas about our place in the world are central. The interior begins, therefore, with the assertion of *place*.



33. The founder of the town performing the cutting of the sulcus. Reverse of a coin of Berytus (Beirut) in the reign of Claudius. This type of coin was cast by many colonies throughout the empire, not only to commemorate the foundation of the town, but apparently also at other times.
British Museum



01. Cutting the sulcus of a Roman settlement (from *The Idea of a Town*) British Museum, London

02. Sixtus V's plan for Baroque Rome from Pier Vittorio Aureli, *The possibility of an absolute architecture*

CONSCIOUSNESS, PLACE AND INTERIOR

One begins to define a place, an interior, a *somewhere*: that somewhere is a piece of ground, a clearing, that has been demarcated, claimed from and set apart from the World, accorded special status and rendered significant, both within the World and surrounded by it. Joseph Rykwert's *The Idea of a Town* (1976)² describes the making of Roman settlements, and the separation of the space of a town from everything else: transforming a field or *campus* into a *templum*

: a significant clearing, demarcated by the act of ploughing the earth for the foundations of a wall distinguishing the space of the town (its interior), from the World. The interior embodies the act of its distinction from and setting within the World. (*Illustration 1*)

The architect, and the architect of the interior, must be willing to approach the appearances, arrangements and artefacts of environments with the most complete attention possible, so that they may be met, in order to allow them to speak of themselves. Architecture contains this aspect of meeting or mediation in its formation and constitution, speaking—consciously or unconsciously—about ideas of its beginnings and its relation to the World: ideas that, superfluous to necessity, are manifest through the history of our Western culture, its music, art, literature and philosophy. The interior, particularly characterised by its distinction from the world, engages these ideas repeatedly. These ideas are likewise essential to the making of public interiors, embedding their spaces into the fabric and the culture of their settings, rendering them legible, communicative, potent and significant.

The city is perpetually involved in the act of making itself, and so, beginning. This act is related to those of the origins and rituals of foundations of towns, which set ritualised procedures in relation to environments that were not yet known. The making of the city is necessarily a reflective process that requires constant modification of its organisation, forms and expressions. Consciously and unconsciously, the city deploys fictions as it arranges, builds and represents, recounting the story of its coming into being, and drawing images and references from external influences and other places that allow it to imagine itself to be both itself and some other city, elsewhere. This way, Rome as it built itself in the baroque period imagined itself to be a re-embodiment of imperial Rome (*illustration 2*); at the turn of the twentieth century, Chicago imagined itself to be Hauss-

1

"Stanford Encyclopædia of Philosophy, <http://plato.stanford.edu/entries/arendt/#ActPowSpaApp>, consulted 04/03/2014:

The *polis*, properly speaking, is not the city-state in its physical location; it is the organization of the people as it arises out of acting and speaking together, and its true space lies between people living together for this purpose, no matter where they happen to be" (HC 198) Thus the famous motto: "Wherever you go, you will be a *polis*" expressed the conviction among the Greek colonists that the kind of political association they had set up originally could be reproduced in their new settlements, that the space created by the "sharing of words and deeds" could find its proper location almost anywhere. For Arendt, therefore, the *polis* stands for the space of appearance, for that space "where I appear to others as others appear to me, where men exist not merely like other living or inanimate things, but to make their appearance explicitly."

2

Joseph Rykwert (1976), *The Idea of a Town*: the anthropology of urban form in Rome, Italy and the ancient world (Princeton NJ: Princeton University Press): 65 The boundary was significant in the act, or rite that made it. Essential to the founding ceremony of the settlement of the town was the cutting of the boundary furrow—or sulcus—by an ox and cow yoked to a bronze plough, the ox to the outside, the cow to the inside.

mannian Paris; or, the 1960s, a piece of Łódź in Poland imagined itself to be some international city, a Manhattan. (*illustration 3*)

Throughout the city, such fictions are found in the representations of architecture, places and interiors. The city's public interiors can be regarded as stages upon which the city's fictions are played out; where the city uses imagery to tell its stories—fact, fantasies, myths—back to itself and its citizens.



FICTIONS OF THE PUBLIC INTERIOR

There are various frameworks through which one can look at the public interior: one might look at them in terms of function or type or typology; as spaces of display, sociability or instrumentality (interiors that instruct or form people's behaviour); or in terms of fundamental ideas, motifs or themes. This last framework reveals how manifestations of architecture gather around particular, resonant themes—useful fictions—regardless of the historical period in which they are made, and point to how we as designers might find deep material to draw from in our designs for even modest tasks.

In consideration of a broad range of exemplary public interiors, it is apparent that there are few essential themes or motifs that run through the culture of their design: I suggest these themes as the Palace, the Garden, the Ruin, the Shed, the Network, and the Machine. This is a personal assessment: by no means authoritative nor exclusive, its categories are useful. The Palace, Garden and Ruin are openly lyrical and romantic as frames of reference for describing, imagining and making the public interior, particularly suited to the period leading to Modernism; while The Shed, Network and Machine share rather more pragmatic or functional aspects that reflect typical tendencies within Modernity toward process, systemisation and instrumentality. (Even these have long and substantial histories.) Rather than attempt to describe and characterise all public interiors, I shall concentrate on one particularly potent theme, which I will use to stand for the consideration of them all.

In addressing the notion of essential themes, one inevitably turns to the moment of their appearance, and their origins, wherein their significance resides. The interior begins at the moment when a space (within) is set apart from the world (without); the interior comes into being through the making and representation of this space—now a place—within the world. The 'origins' of the interior, and the public interior as whole, are particularly present in the theme of the Garden.

THE GARDEN

A public interior we might all recognise is the Galleria Vittorio Emanuele II in Milan, designed by Giuseppe Mengoni, and built in 1865–1877. (*illustration 4*) Straightforwardly, it appears to be a street crossing under glass and iron vaults. The buildings that compose this crossing are delicately decorated; the ground is not an ordinary crossing of cobbled or asphalted roads and pavements, but a floor covered with an elaborate pattern of mosaics. The material realisation of walls and floor is enabled by the glass roof, which preserves the idealized urban scene proposed in the Galleria in the manner of a specimen under glass. The Galleria is a hypertrophied conservatory whose own architecture depends on references to pergolas, arbours, bowers and the arcades of trees provided by nature and managed by man to form primitive shelters against the elements. (*illustration 5*) From the sheltered and brilliantly illuminated scene of the Galleria, one looks out to the city beyond: to the Piazza del Duomo, a large clearing to the south; to the Piazza della Scala, another clearing gracefully introduced by the Galleria's structures to the north; to adjacent streets to the east and west, exposed to the sky, sun, wind and rain. The Galleria is a realised image—a stage set—of an idealised city scene poised in the midst of the real city, which it regards, and, to some extent, resembles. The public interior here represents the city as it dreams itself: a fabulous specimen (buildings and citizens alike) at the centre of the world. Inscribed in this image is the architecture of the conservatory and its sylvan legacy.

In the public interiors I describe as forged with the idea or theme of the Garden, one is asked to imagine that one is not really inside at all—but that the interior has miraculously absorbed or assumed the attributes of the garden, and specifically, the original garden.³ This is nature as it lives in the ideas of Man: a garden whose deep history is found in the biblical Garden of Eden, depicted throughout the history of literature and art, resplendent with animals, trees, fruits and flowers. Every creature, including Man, lives there in harmony. Eden's bounty represents the completeness of creation on Earth, its perfect state. It represents the original place of Man, the place of knowledge and language,⁴ the site of Man's original state of grace, and that perfect condition from which he is cleft and exiled. (*illustration 6*) Man's Fall—or the idea of such an event—initiated a never-ending search for redemption, and recovery of this ideal condition and state of being.

The return to this original garden, completeness with creation and a state of complete consciousness is a motif that arises again and again in the fictions of architecture and the public interior. The Garden is an ideal that is sought reconstructed and called upon so that a kind of redemption might be imagined.

THE PRIMITIVE HUT (MARC-ANTOINE LAUGIER)

The original place, the Garden representing our complete, redeemed being, is perpetually one to which we try to return, through allusions, representations and environments that attempt to reconstruct it. This impulse affects our first shelters and dwellings, and pervades the first conscious constructions, the first architecture. These first acts, or origins, are the bases for the fictions regarding architecture and its role in mediating between ourselves and the World; a world which has come into being at the moment of the expulsion from Eden, the Garden. Our environments have tried to bridge that gap between the World and Eden, in order to redeem ourselves. Architecture begins—fictionally—as a kind of defense against the World, hewn out of the living material provided by nature, suggesting those elements that will form the basis of architectural language. For example, we have the story of the origins of architecture in the Abbé Marc-Antoine Laugier's (1713–1769) 'Essai sur l'architecture' (1753) encapsulated in its frontispiece's depiction of a primitive hut. The setting is a primæval wood; constituent elements of a seminal architecture, such as columns, beams, rafters and roof, are formed or coaxed out of the material of the forest. These are set against the same elements as formed in constituent parts of classical architecture, set at the feet of an attendant goddess, as ruins. Laugier suggests that nature is embodied in the forms of classical architecture, as is seen in depictions of the origin of the Corinthian order and the acanthus leaf; and that the dwelling itself is entwined with this condition of the Garden, and that it is bound to recall it in its overall form and its elements. (*illustration 7*)

3

Mark Pimlott (2007), Without and within: essays on territory and the interior (Rotterdam: Episode publishers). The nineteenth-century city, the burgeoning metropolis and fortified town alike, embraced the idea of the promenade along larger urban infrastructures: along the tops of decommissioned fortifications and allées emanating from the centre to the woods, and the grands boulevards, separating and joining one part of the city to the next (cf Paris). By making an urbanized nature, whether in linear promenades or naturalistic parks (cf Central Park, New York), a supremacy over nature – the space of the other – could be imagined. The incorporation of nature was the ultimate mastery, inspiration and tool in self-justification.

4

“One of biblical Eden’s most important aspects was knowledge, language and names: in particular, God assigned to Adam the task of naming the beasts.” (Barker-Banfield, Bodleian Library Oxford); By disobeying God, and eating the forbidden fruit of the tree of Knowledge, Adam and Eve acquire wisdom against God’s word (for all knowledge was to reside in God) and so are cast out of Paradise and into the World, to weave and delve (to plough the earth).



06. Nicolas Poussin, Et in Arcadia EGO 1637-38, Louvre, Paris



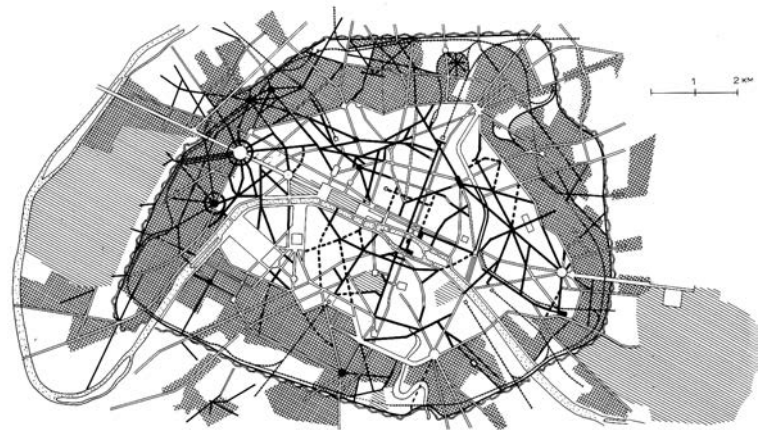
04. Giuseppe Mengoni, Galleria Vittorio Emanuele II, Milano 1861-1877 / Photo: Marius Grootveld

05. Jan Breugel the Younger, Paradise on Earth c1620, Prado, Madrid

ARCADY, ARCADIA AND GARDENS

In pre-Christian Western culture, the wilderness carries connotations of being the realm of both the unknown and of knowledge. In ancient Greece, Arcady in Pelopónnisos was the home of Pan, whose name signified 'everything': Pan was the keeper of knowledge. The word panic derives from Pan: his realm is that of panic, of uncontrollable *everythingness*. Its inhabitants were considered to be the original people or autochthons, grown from the Earth, and older than the Moon.⁵ Its legacy is its image as Arcadia, which, particularly in painting, came to represent pastoral innocence, peace and simplicity, and the fecundity of Nature. (illustration 8) Such a 'garden' is original and wild: it is simultaneously a world that might be returned to, or a domain of original, primal others that must be controlled.

We should note how frequently the control of the hinterland—of wilderness and autochthonous otherness—has been essential to the exercise of power, and how this was represented. In Baroque gardens such as at Versailles (1664–1789), or Vaux-le-Vicomte (1661), nature was subdued by clearings through the woods, marked with geometrically arranged paths, planting, pools and fountains and allegorical statuary. These clearings were projections representing hegemonic culture (embodied in individuals) that distanced the wilderness and its otherness, keeping its uncertainties and terrors at an entertaining distance, and supplanting them with its own achievements, miracles and entertainments. Re-stagings of this confrontation with nature were frequent, assuming forms as diverse as terrifying, wild Arcady such as the private parks of Bomarzo, near Viterbo (1552) and Désert de Retz (1772–1784) (illustration 9); as exotic Edens, such as the landscape of Stoke Park (1792) by Capability Brown and Humphry Repton in England; or as playful artificial landscapes, as in the Vauxhall Pleasure Gardens in London (c1660–1859). It is worth noting that Laugier refers to the city as a kind of forest, and its streets as paths cut through it.⁶ The streets bear the imprint of nature that they have banished, which is kept present as antagonist and protagonist.



79 - Esquema de los *percements* efectuados por Haussmann; en blanco las calles ya existentes, en negro las abiertas durante el Segundo Imperio; en cuadrícula los nuevos barrios; en rayado las zonas verdes.

07. Abbe Marc-Antoine
Laugier, Frontispiece to
Essais sur l'architecture

08. Desert de Retz, outside
Paris 1772-1784

09. Baron Georges Eugene
Haussman, plan for the
routes through Paris
1850- 1875

THE GARDEN AND THE METROPOLIS

The fascination with the Garden intensified in European cultural life at a moment precisely coincident with the onset of modernity, from the mid-eighteenth century through the entire nineteenth century: the period when the idea of the enfranchised individual—as opposed to a feudal subject—was being articulated and developed. That new individual emerged in parallel with the rise of the philosophy of science, the flowering of the study of the natural sciences, and, of course, in advances in technology that yielded new structures, new spaces, and the new metropolis. (*illustration 10*)

In the metropolis, itself a nineteenth-century phenomenon, the Arcade was a constructed parallel to private and public parks and pleasure gardens. Johann Friedrich Geist describes their development—taking as his example the arcades or *passages* of Paris—as derived from the bazaars of the middle East; but the principle of making little shopping streets that connected other busy streets depended on their difference from ‘normal’ streets and their artificiality, an effect achieved by placing the streets under glass roofs and harmonizing their architectural expression.⁷ A ‘perfect’ interior architecture was sustained under glass, which, due to its double layering, offered ‘studio’ lighting conditions for the interior. The arcaded space, as an architectural device, is derived from a structural interpretation of a pergola: an open frame that is made to accommodate climbing flowering or fruiting plants, in order to evoke a natural bower, and induce a state of peacefulness and pleasure. The word derives from Latin, indicating a bow or arch. The image of the pergola immediately calls to mind the image of the primitive hut provided by Laugier. The first of these arcades (the *Galérie de Bois*, or *Wooden Gallery*, in Paris) (*illustration 11*) appear at the end of the eighteenth century, and develop through Paris, as little interior streets running through city blocks, connecting to other streets like an informal, ‘natural’ system; and then all over Europe, particularly in metropolitan centres, right through the nineteenth century, (*illustration 12*) arriving at monumental scale after the singular event of the construction of the Crystal Palace. The architecture of the arcade allowed a kind of perfection and contained a quality of artificiality, that, however distant from the natural bowers that inspired them, related them to both natural shelters and an interiorised nature.

5

Simon Schama (1995),
Landscape and Memory
(London: Harper Collins)

6

Manfredo Tafuri (1973),
*Architecture and Utopia:
design and capitalist devel-
opment* (Cambridge MA:
MIT Press)



Fig. 11. — Galeries de bois (ancien camp des Fartorel), au Palais-Royal (1825).



Fig. 12. — Galeries de bois au Palais-Royal, en 1828. Vue prise du palais, d'après une aquatinta anglaise de l'époque.

10. Galerie de Bois, Paris
from Johann Friedrich
Geist, *Passagen, en
Bautyp des 19. Jahrhun-
derts*

The atmosphere of the arcade was reinforced, complemented and extended by contemporary developments of the conservatory, itself inspired by explorations of faraway lands—colonies of European powers—in Africa, the Americas and Asia, which excited the fashion for the importation and conservation of exotic plants. The gathering and cultivation of exotic plants in conservatories signified an Eden brought home. The plants signified the reach of colonial Empires redeemed by their claims upon Eden. The plants—in effect, trophies—were sustained in artificial environments, greenhouses, glass houses and conservatories at various scales, from little glass caskets that could sit in a room, with a small collection of plants, to larger structures attached to houses, properly known as conservatories, to garden structures such as greenhouses and then free-standing monumental structures, Palm Houses and the like attached to botanical gardens—institutions of the natural sciences—that would become public interiors. The collection of exotic plants became common, and the specific forms that accommodated them transformed architecture. A delicate architecture of glass and iron emerged that sustained totally artificial interior environments in the city and fantasies of Eden at home.



12. Galerie Saint-hubert, Bruxelles / Photo: Marius Grootveld

13. Sir Joseph Paxton, The Crystal Palace, London 1851, Victoria and Albert Museum, London

THE CRYSTAL PALACE

The greatest manifestation of the arcade and conservatory—fused into a single, significant figure—was the Crystal Palace (1851), designed by the gardener Joseph Paxton (1803–1865), which was situated within Hyde Park in London, which had just been made completely accessible to the public by decree. Britain's imperial power was represented in a monumental conservatory—the largest ever built—that was continuous with the landscape of the park. Nature was pictured, possessed, contained and controlled; Hyde Park, a public realm, was incorporated within the construction in the form of a giant oak tree. The figure of the Crystal Palace, capable of accommodating the fantasy of elsewhere, became the pre-eminent figure of public interior architecture. Its structure suggested indefinite extendibility, broad wide adaptation and universal application, industrially produced, which could include or infer nature. In parallel with the development of large-span glass shelters for railway stations and markets, it became representative of the metropolitan project as a whole. (*illustration 13*)

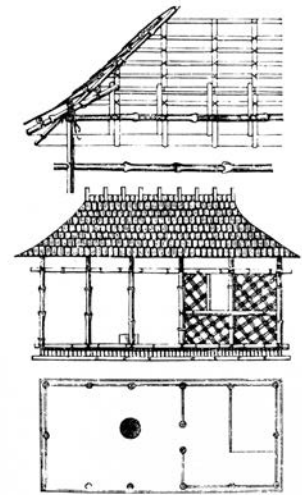
The Crystal Palace's construction—likened to an iron and a glass tablecloth by Paxton—inspired further speculations about the origins of architecture. Gottfried Semper (1803–1879) wrote, among other things, about the crafts attendant to the making of building and their representation in architecture. A 'Caribbean hut' displayed in the Crystal Palace confirmed his thesis about the fundamental elements of architecture, their making and their meaning, the nature and constitution of building and its representations contained within the 'first' primitive constructions, which would become represented in architecture. (*illustration 14*) His 'Four Elements of Architecture' (1851) proposed the making of architecture as a series of acts, each of which was associated with a craft, and made in response in relation to the World. We are meant to understand this primitive hut as occupying an original condition, one hewn out of nature. In this narrative, architecture is contingent upon the condition of nature, which becomes the garden through man's transformative presence. One can appreciate how the convergence of architectural theory and certain exemplary projects would have profoundly affected the culture of architecture in this period. The Crystal Palace has been rightly singled out for its wide impact on many other building types, ranging from the train station to the museum,⁸ all of which are imbued

7

Johann Friedrich Geist (1978), Passagen, ein Bautyp des 19. Jahrhunderts (München: Prestel)

8

Siegfried Giedion (1941), Space, Time and Architecture: the growth of a new tradition (Cambridge MA: Harvard University Press)



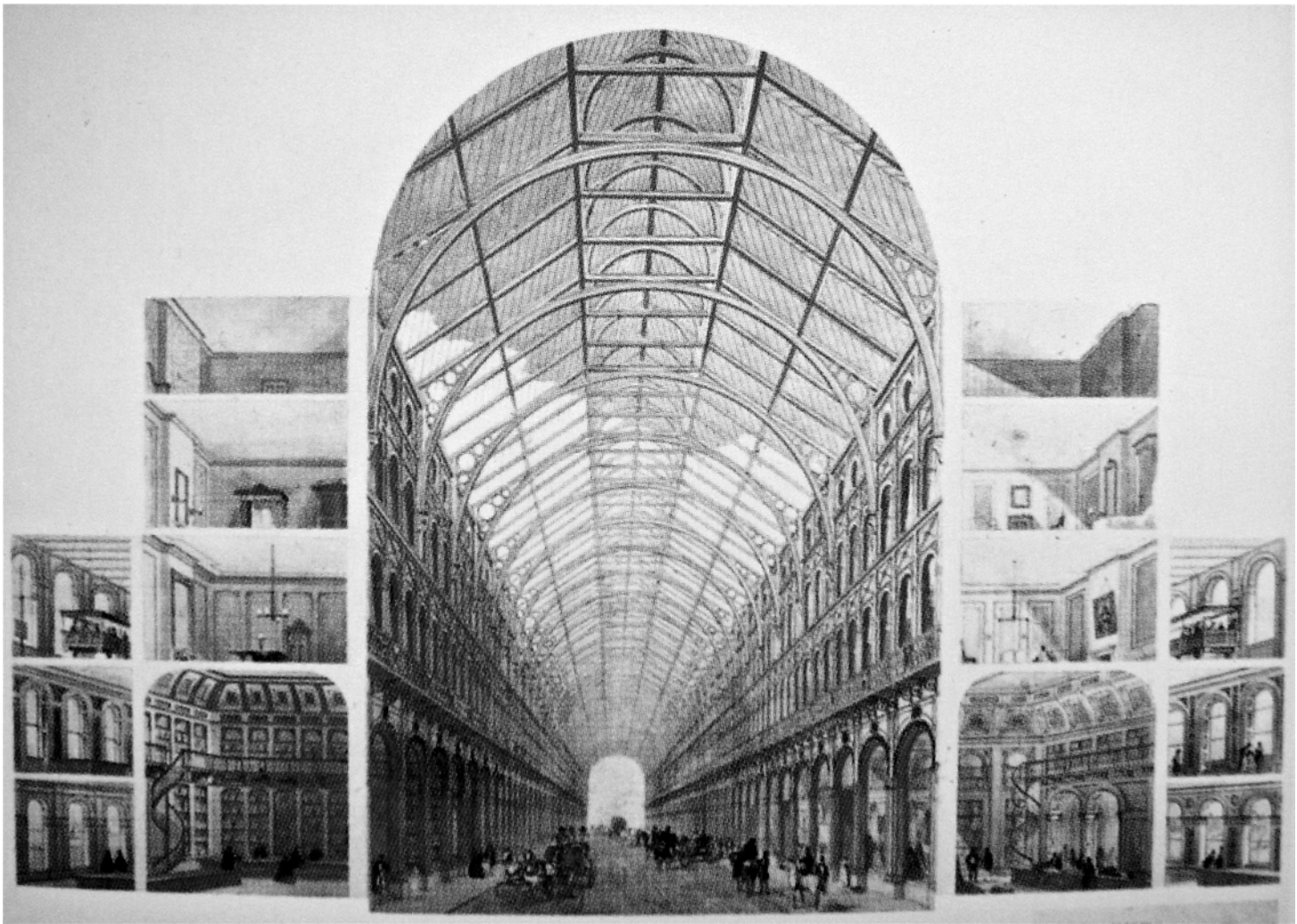
14. A Carribean hut, exhibited at the Crystal Palace 1854 from Gottfried Semper, *Der Stil* 1851

with the image of the garden. It was through its influence that arcades grew in dimension and scale. Exemplified by the Galleria Vittorio Emanuele II in Milan, entire street networks could be understood as conserved specimens of metropolitanism under glass vaults, and part of the great complex chain of man's creations hewn from the natural world. Paxton elaborated this idea in his proposal for a roughly circular arcade around the periphery of urban London—a megastructure, in effect—forming a continuous interior boulevard that would share associations with promenades around decommissioned ramparts that had become common in fortified European centres from the early part of the nineteenth century. (*illustration 15*)

The motif of the monumental conservatory was transformed and applied in the design of museums. The Natural History Museums of London and Oxford are examples, by Alfred Waterhouse (1867) and Deane and Woodward (1860) respectively: their glazed courtyards, evoking nature through their filigree structures, were appropriate devices for museums studying life and the 'work' of Creation in evolution. The same motif directly inspired the first department stores—*grands magasins*—that elided acts of consumption with those of wandering through gardens of earthly delights, such as Aristide Boucicault's Au Bon Marché in Paris (1874) designed by Louis Auguste Boileau and Gustave Eiffel. (*illustration 16*) The theme carried on to the conservatory-based salons of grand hotels—another nineteenth-century phenomenon—such as the Ritz in London (1901) by Mewès and Davis; and was useful for spaces of exchange and trade, such as the Beurs in Amsterdam designed by Henrik Petrus Berlage (1903), as well as great train stations in Europe and America, such as Pennsylvania Station (1910), designed by McKim, Mead and White. It is worth noting that these epic glass conservatories frequently relied upon a supporting or framing architecture of masonry and iron, whose style, whether gothic or classical, evoked the ruins of great works of earlier (sometimes imagined) civilisations.

A GARDEN EVERYWHERE

The motif or theme of the great glass conservatory as the ultimate public interior seems to reach its apotheosis in Ebenezer Howard's thesis for 'The Garden City of To-Morrow' (1901), a network of cities imagined as completely integrated with the countryside, at the centre of each was to be a torus-shaped Crystal Palace—a continuous shopping arcade—surrounding a Central Park. Here, as in so many projects that follow—probably unconsciously—the suggestion of Howard's idea, the opposition between man and nature is simultaneously negotiated and reconciled, thereby legitimating the metropolitan project. The monumental conservatory, bearing the message of the Garden, was therefore burned upon the consciousness of the metropolis, its interiors and its citizens. (*illustration 17*)



15. Sir Joseph Paxton, The
Great Victorian Way,
London 1855 Victoria
and Albert Museum,
London

16. Louis Auguste Boileau;
Gustave Eiffel, Au Bon
Marche, Paris 1874 from
Sigfried Giedion, Space,
Time and Architecture

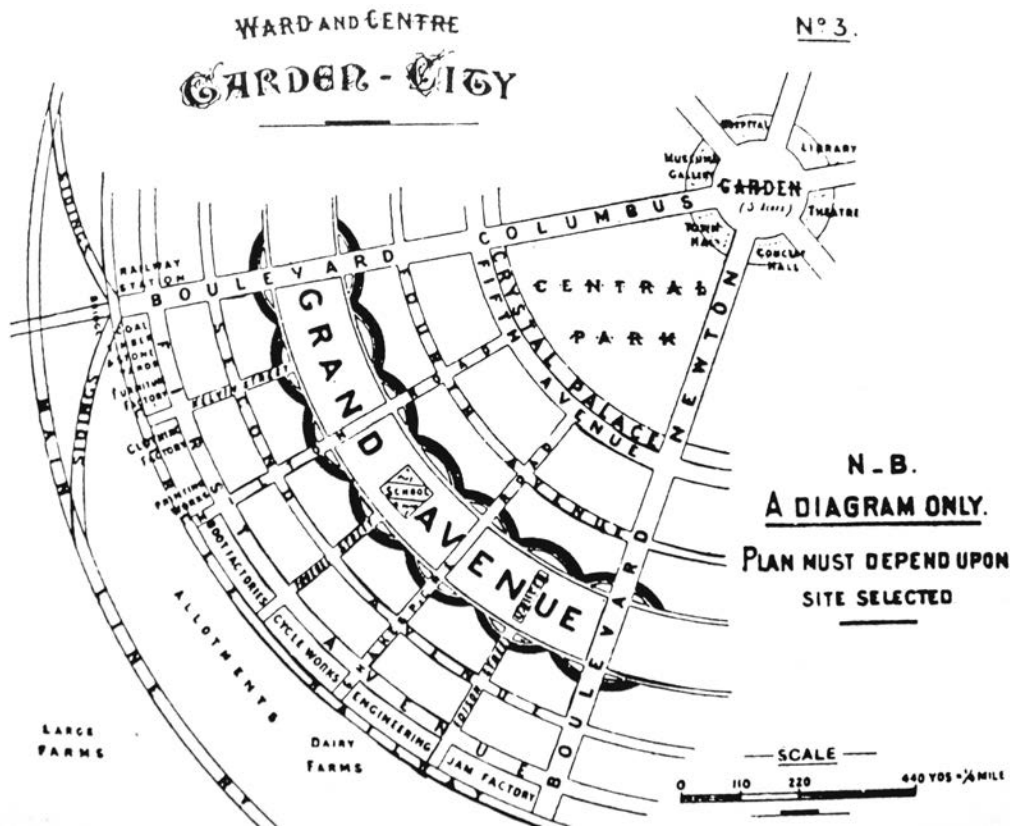
THE GARDEN, EDEN AND THE UNITED STATES

The suggestion of Howard's network urbanism, effectively replacing nature with its fusion of Garden and City was ultimately realised in the United States, at the end of a long period of confrontation, and ultimately, conquest over original nature and its indigenous inhabitants. The idea represented in Baroque gardens was realized, violently, on a continental scale. The inadvertent realisation of Howard's Garden City network was concomitant with the dispersal, standardization and repetition of urban equipment across the continental interior; an achievement whose effects have been extended and transmitted far beyond the territory of the United States. In other words, the public interior of the dispersed American city—the public interior of suburbia—has profoundly influenced the architecture of the public interior that we experience today throughout the world. One might refer to it as the pre-eminent motif of an American colonial architecture to which we all conform.

The absorption of the huge continental interior, occupied by myriad aboriginal tribes, was achieved through armed conflict and legislation: a projective programme of territorialisation called the Land Ordinance (Thomas Jefferson, 1785), which drew an abstract grid over all unknown and unseen domains. Those domains were dangerous, the place of hostile autochthonous peoples (we may recall Arcady, Pan, and Panic). The first attempts at making territory in this domain were modest. An engraving of the colony of Savannah, Georgia in 1735 shows a series of houses that we might think of them as primitive huts in a clearing, set apart from the World in the regimented manner of a Roman settlement,⁹ and typical of a colonial settlement.¹⁰ The houses show themselves to each other; they are distinct, discrete units, gathered together against the unknown and hostile World, a domain of otherness and others. (*illustration 18*) There is an aspect of this that should be important to our thinking about places, interiors, their fictions and their significance, and that is this clearing. In America, by the time of the complete domination of the continent, rendering it the American interior, this clearing occupied the entire space of the continent. The clearing was all the space; it was all 'interior'; there was only 'within'. In Martin Heidegger's notion of 'the clearing'¹¹ we are presented with a space wherein there is heightened consciousness of the

Other, who must be approached and met, causing the Self to come out of the Self, to surrender to or meet the Other. One can see that this is a space within which we appear to the Other and to each other, as a public; or in Hannah Arendt's phrase, 'a space of appearance'.

The American continental interior was gradually absorbed—territorialized—by legislation, armed confrontation and urban dispersal. This process, begun at the end of the eighteenth century, accelerated in the middle and concluded at the end of the nineteenth century, enabled in the nineteenth century first by wars and then by trains and the distribution of working parts of the city along its lines, was consolidated at a completely new scale in the two decades following the conclusion of Second World War, when the American landscape was thoroughly networked, in conjunction with the continuing scattering of the city and its reconstitution as regional phenomenon, enabled by an expansive motorway system in which roads—called parkways—bent and wound their way through a hinterland observed through the windows of speeding cars; it was accompanied by the construction of remote and very extensive suburbs, and figured by tract housing, a mass-produced housing type that occupied the vast territories, with each plot of land representing a fragment of the continental interior upon which a homestead staked its claim. (*illustration 19*) The first settlers assumed the place of the other, and replaced the other. The original nature of the West had fallen into their hands, as had its idea: Eden. The suburban dwellers that followed occupied that idea.



9

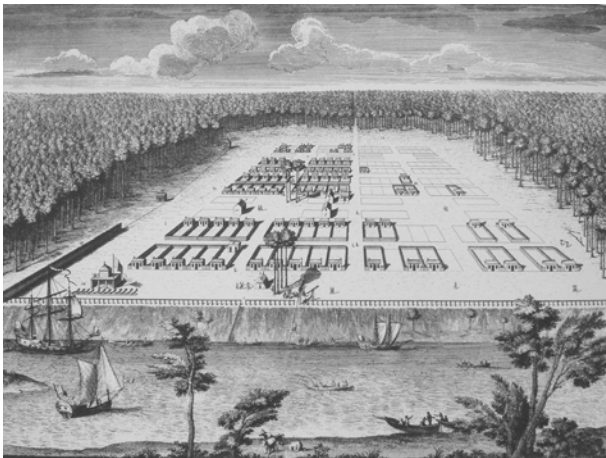
Rykwert, op. cit

10

Leonardo Benevolo (1968), *The Architecture of the Renaissance* (London: Routledge & Kegan Paul)

11

Martin Heidegger (1971), 'The Origin of the Work of Art' (1935), in *Poetry, Language, Thought* (New York: Harper & Row)



17. Ebenezer Howard, *Garden Cities of To-Morrow* 1901

18. Foundation of Savannah, Georgia 1735 Library of Congress

19. Tract housing, southern California, 1950 / Photo: William Garnett, Getty Center

EDEN, WITHIN

This Eden was alluded to in the design of special enclaves, the early suburbs, such as Llewellyn Park, Orange NJ 1853: a suburb with the Edenic dream presented both as landscape and as public space. Its fiction was ultimately reinforced, with great power, in the discovery of a valley in California, near some mines: Yosemite (photographed by Carleton Watkins, Edward Muybridge and others) (*illustration 20*) was a place of such extraordinary beauty, that it was used to justify the American settlers claim to the whole continent, as though God had ordained it. The ideology of Manifest Destiny not only banished, ideologically, the indigenous people from the landscape; it took Eden into the firm possession of the nation, with Yosemite as its mandate and its symbol, and legitimated every aspect of the American expansionist project. Yosemite naturally became the subject of protection, and became the first National Park (1865), through a campaign led by the manager of the Mariposa mine, Frederick Law Olmsted and Mariposa mines. Olmsted became America's pre-eminent landscape and urban designer, and with Calvert Vaux, the designer of Central Park, New York (1858–1873). (*illustration 21*) He went on to design many parks in American cities, in which he reconfigured fragments of nature to perform as natural infrastructures, visibly tying each city to its nature (its own fragment of Eden), and legitimating the urban project within the great American project. Eden was conscripted as the sign of America and its cities, and gave image to its public 'interior'.

The suburbs of the post-War years continued to draw upon fictions of occupying the frontier and the sacred American interior. Their development was complemented by the invention of a new kind of public interior—the shopping mall—situated at the nodes of motorway networks and notional centres of regional populations. The garden the mall was set in was not Crystal Palace's Hyde Park or the rural idyll of Howard's Garden Cities but the Garden of suburbia, which, of course, was more mythical than substantial. The first indoor, air-conditioned mall was the Southdale Center (1956), designed by Victor Gruen.¹² It was the prototype for many shopping malls to follow, in its organisation of shoppers and goods, and its interior, which elided imagery of village square (like one found on a television stage set) with that of the garden conservatory and the corporate office lobby. (*illustration 22*) This imagery was important: it was consistent with the network of complementary representations of all aspects of American life mythologized and legitimated in advertising, television and film in order to establish a common order of behaviour, expectation and consumption in American society, a significant feature of American domestic economic and social policy in the years following the War.

12

Alex Wall (2005), Victor Gruen: from urban shop to new city (Barcelona: Actar 2005); and Victor Gruen (1965), The Heart of our Cities: The urban crisis: diagnosis and cure (London: Thames and Hudson)



20. Carleton Watkins, view of Yosemite Valley from the Mariposa Trail 1865–1866. Getty Center.

21. Frederick Law Olmstead; Calvert Vaux, Central Park, New York 1863. photograph Geoffrey James, from *Viewing Olmsted* (Canadian Centre for Architecture)

THE DISPERSED CITY AND THE PUBLIC INTERIOR NOW

The evocation of Eden—in America at least—has continued to be a powerful force in shaping the image and representational motifs of the dispersed city from the second half of the twentieth century until now, yielding perceptions of the landscape, the city and its interiors that in turn have produced new kinds of interiors that have been exported worldwide. Grafted onto forms and patterns developed in Europe, these American propositions have benefitted from a degree of familiarity and recognition.

The suburban *fata morgana* of Eden was adopted within American city centres in attempts to revive them as they were abandoned in the great exodus of white workers to the suburbs from the 1950s onward, yielding another kind of public interior, the downtown atrium. The atrium was glazed and planted, and related, to our eyes, to the glazed courtyards of the nineteenth-century *grands magasins*. The Citicorp Building atrium (1974), designed by Hugh Stubbins, fused the imagery of corporate headquarters lobby with quasi-public space (it accommodated a farmers' market and a church), offering a suburban realm—green, bucolic and friendly—dressed in city attire to users of the city centre. (*illustration 23*) The imagery of the Citicorp atrium constituted a return to imagery ideal that constituted a kind of reverie about occupation of the American territory, a fiction about a relation to the World: perhaps a necessary fiction. The notion of the Garden-inspired public interior being a kind of antidote to the effects of the realities of the *laissez-faire* American urbanized environment was put forward by the Irish-born American architect Kevin Roche in his commentary upon the design of the Ford Foundation (1968) in New York, an office building for a charitable foundation. (*illustration 24*) It was intended to be a public realm, an extension of the space of the street, a peaceful environment for workers, and a suggestion of how, despite the urban conditions, what a place of association might be. The garden of this atrium, as enclosed as it is, carried along with it the fiction of the garden as the natural home of the citizen, the natural place of association, that original clearing in which there is no self and other, only all, reconciled and redeemed. The fact that this motif was deployed in office interiors in the rather debased form of *Bürolandschaft* of the 1950s and later, (*illustration 25*) and used as a tool to criti-

cally reflect upon the state of our environment in a period of global capitalism—I refer here to Archizoom's No-Stop City (1967) (*illustration 26*)—demonstrates that there remains something telling to our continual return to the Garden, as a place: of association, and of our origins.

The motif, theme or fiction of the garden as it has been realised in these last public interiors may be far away from those Edenic inspirations that filtered through the public interiors of the nineteenth century. Nevertheless the theme persists, and we can see that all these interiors promise a fiction of a return to an original state of existence or consciousness, at whose root is dwelling in the World, and being at one with the other and the World. This is an impulse that runs deep, and is significant. The public interiors shown point to an ideal condition, offered in the form of illusions. The significant fictions of the public interior, of which the Garden is pre-eminent, help us accept our experience of the city, and legitimate the city as a project to be continually believed in, as difficult, problematic, and fictional as it may be.

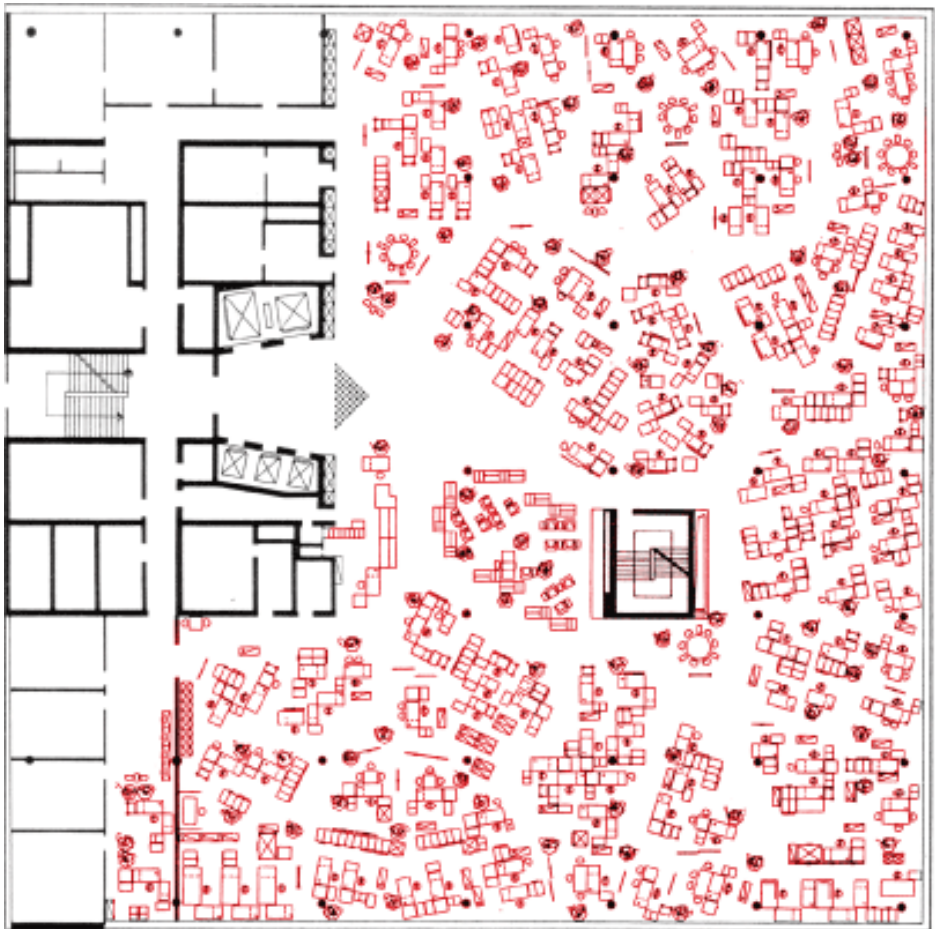




23. Hugh Stubbins and Associates. Citicorp Building atrium, NY 1976-1978 / Stubbins Associates



24. Kevin Roche & John Dinkeloo. Ford Foundation, NY 1968 / Photo: Richard Estes/ ESTO



25. Quickborner: Burolandschaft 1958 / From Van Shaik, ed. Exit Utopia

26., Archizoom. No-Stop City 1967

COMPLEX PROJECTS

Complex Projects (CP) has eliminated the antiquated and linear roles, which define the building process: Planning, Urban Design, and Architecture. Architecture is largely a practice of organizing information, of identifying and deploying patterns in our built environment. CP prepares its graduates to transcend and perhaps even ignore the scales, of these spatial and organizational patterns through the systematic development of critical thinking as well as strong vocational understanding of our profession. Architecture is of all scales.

The Chair Complex Projects is a culture saturated with intensity, energized by an environment that demands a suspicion that is manifested through debate, rigor, humor, curiosity, and youthful optimism. Our expectations are not obtainable, however, the return is high for those who attempt the Odyssey like journey. Informed by a contemporary and historical understanding of its discipline and location, Complex Projects ventures to liberate and demand a fundamental critique in the very concepts we take to be true...we demand suspicion and critical thinking.

A nonlinear trajectory of integrated design studios and seminars will expose the multiple layers that define complex projects. Employing forensics, analysis, and documentation, one will develop a methodology to separate and examine the elements that define the layers. Complex Project's is structured to produce graduates able to think, negotiate, and collaborate through all scales and mediums of intervention.

Kees Kaan



Kees Kaan (Breda,1961) Studied architecture at Delft University of Technology. As founding partner of the firm Kaan Architecten, he has built up an international range of projects among which the Netherlands Forensic Institute in The Hague and the Royal Netherlands Embassy in Maputo, Mozambique are well known. Kees Kaan takes part in many commissions: He was a member of the Quality Team Kop van Zuid in Rotterdam and a teacher at the Academy of Architecture, Amsterdam/Rotterdam from 1994 to 1998. He is a member of the professional Advisory Group of the Scott Sutherland School of Architecture in Aberdeen and is now professor at the Delft University of Technology. Kees Kaan is a board member of the Architecture Institute Rotterdam (AIR foundation) and has been a juror for many international architectural competitions. He lectures in cities all over the world, under which Barcelona, Berlin, Dublin, Madrid, Mexico City, Paris, Vienna and Tokyo.

Bachelors and Masters Teaching

- AR3CP040 Antropocene
- AR2CP010 Studio USA
- AR3CP010 Complex Projects Graduation Studio
- AR4CP010 Complex Projects Graduation Studio

Kees Kaan

The building site of modern architecture;
On Louis Sullivan in Chicago

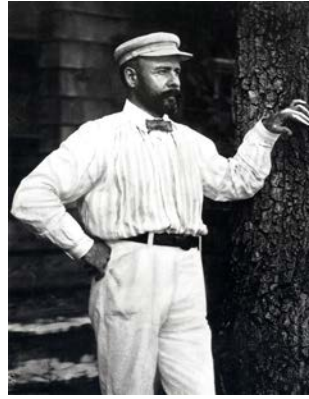
19TH CENTURY

The 19th century must have been fantastic. From Karl Friedrich Schinkel in Berlin in the first half of the 19th century to Louis Sullivan and Daniel Burnham in the second half of the 19th century in Chicago. These 100 years have been of great importance in our profession for both architecture and urban planning. Driven by industrialization, architecture was dramatically reinvented during the 19th century. It was the work of Louis Sullivan, which made me study more closely the Chicago School from 1870 till around 1910 and Daniel Burnham. I believe the 19th century deserves more credit than just being perceived as a prelude to the manifestos of the modernist heroes of the 20th century. It had its own dynamics and there were enormous changes in society, which propelled the development of Metropolitan life as a completely new phenomenon. Basically, this had a profound effect on both architecture and urban planning. Understanding one's history allows a unique perspective on continuity in architecture; the continuity of change. We are by necessity permanently inventing and reinventing our profession.

ZEITGEIST; “THE SPIRIT OF THE TIME”

It is difficult to evaluate the importance and value of contemporary work. We tend to appreciate the ‘new’, we innately appreciate innovation; however it is difficult to measure contemporary work and its long-term relevance as a critical development of architecture because with the contemporary we simply lack perspective. The historic perspective allows one to objectively observe current events independent from the influence of today's fashion and trends. Consequently the historical perspective will help us to be more critical and aware when evaluating contemporary issues. Forensically examining the past helps us understand the ‘now’ better. Moreover, it exposes to us the inherent ‘weakness’ of the ‘Zeitgeist’ to which we are confined. It makes us more critical towards our contemporary ‘heroes’.

The concept of Zeitgeist played a role in Voltaire's, Herder's and Hegel's writings at the very beginning of the modern age. It is originally an expression in German. The spirit (Geist) of the time (Zeit). In Georg Hegel's works “*Lectures on the Philosophy of History*” (1805) the philosopher argues “no man can surpass his own time, for the spirit of his time is also his own spirit” (“der



01. Sullivan Picture / Nancy Fraziet (ed.), Louis Sullivan and the Chicago School, NY, Knickerbocker Press, 1999

02. Lakefront of Chicago 1894 CCC dinner invites Burnham / Carl Smith (ed.), The Plan of Chicago: Daniel Burnham and the Remaking of American City, Chicago, University of Chicago Press, 2006

Geist seiner Zeit"). Hegel believed that art reflected, by its very nature, the time of the culture in which it is created.

Culture and art are inextricable because an individual artist is a product of his or her time and therefore by default brings that culture to any given work of art. Furthermore, he argued that in the modern world it was impossible to produce classical art. He believed classical art represented a "free and ethical culture", which depended more on the philosophy of art and theory of art, rather than being a reflection of the social construct, or *Zeitgeist* in which a given artist lives.

ZEITWILLE; MIES VAN DER ROHE'S "THE WILL OF THE TIME"

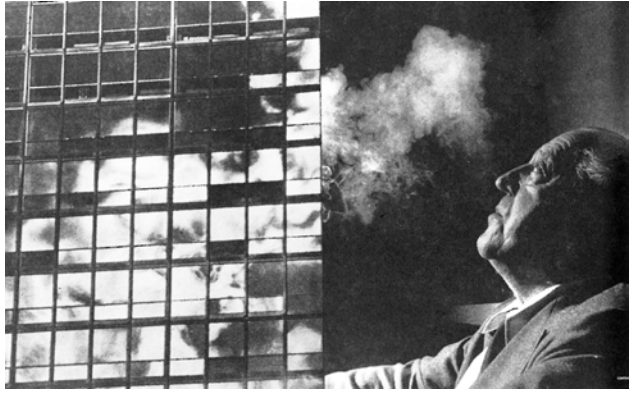
The imperative of the *Zeitgeist* became an accepted standard of modernism. The *Zeitgeist* imposed itself through style. In modern architecture it degraded to unwritten rules, telling the modern architect what he could not do, which was most things. Paradoxically, it also demanded that he should be "original".

Inspired by this Hegelian definition of the *spirit of the time* or *the spirit of the age*, Mies states that the emerging of *technology* and *aesthetic modernism* embodied the promise of *culture* suited to the *age*, one in which *form* and *construction*, *individual expression* and the *demands of the times*, as well as subjective and objective values would converge into a new identity. This concept will reappear later in this paper when I will explain the famous 'one liner' of Louis Sullivan "Form follows Function".

In the interviews that Mies gave at the end of his life he clearly opposed his contemporaries with regard to their obsession with the present. He emphasized that his constraint in this clear projection of the *Zeitgeist* (the spirit of the time) was the conscious selection, "insofar as their best work is concerned" (as Werner Graff put it) of the leading figures of the new building art. This is not to be interpreted as the "clearly defined reality" that Gropius attempted to demonstrate in a quantitative fashion.

In his manifesto of 1924 "Baukunst and Zeitwille!" "form as aim" and the "will to style", Mies rejected most categorically the "will for a new form". He always saw architecture as the expression of *Zeitwille* (will of the age). I found similarities in Louis Sullivan's writings when he is talking about Architectural Style in 1901 he states: "Architecture is an expression rather than a style and is the outcome of certain conditions in a certain civilization".

In the publication G2 of 1923 Mies presented the Concrete Country House project, the most radical expression of his view of architecture at that moment. Titled simply "Bauen", it is concerned with an understanding of this concept, "nämlich Bauen" (namely Building), outside all "aesthetic speculation", in terms of the most direct possible relation of problem and solution. The "building problem" and the "task" stand on one side, while "the most elementary expression of its solution" stands on the other. What remains, as form is not the goal, but rather "conditional" and "the result of our work"?



03. Home Insurance Building, Chicago William Le Baron Jenney / Nancy Frazier (ed.), Louis Sullivan and the Chicago School, NY, Knickerbocker Press, 1999

04. Louis Sullivan Buffalo Guaranty Building 1894-1895 / Nancy Frazier (ed.), Louis Sullivan and the Chicago School, NY, Knickerbocker Press, 1999

G

Sept. 23

II

MATERIAL ZUR ELEMENTAREN GESTALTUNG

HERAUSGEBER: HANS RICHTER, REDAKTION DIES: HEFTES: GRAFF, MIES v. d. ROHE, RICHTER, REDAKTION U. VERTRIEB: BERLIN-FRIEDENAU, Eschenstr. 7.

BAUEN

Wir kennen keine Form-, sondern nur Bauprobleme.
Die Form ist nicht das Ziel, sondern das Resultat unserer Arbeit.
Es gibt keine Form an sich.

Das wirklich Formvolle ist bedingt, mit der Aufgabe verwachsen, ja der elementarste Ausdruck ihrer Lösung.
Form als Ziel ist Formalismus; und den lehnen wir ab. Ebensovienig erstreben wir einen Stil.

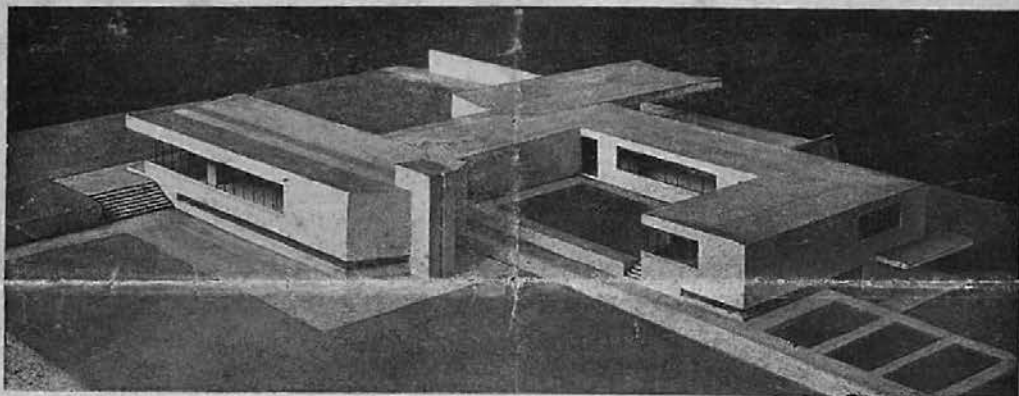
Auch der Wille zum Stil ist formalistisch.

Wir haben andere Sorgen.

Es liegt uns gerade daran, die Bauerei von dem ästhetischen Spekulantentum zu befreien und Bauen wieder zu dem zu machen, was es allein sein sollte, nämlich

BAUEN

M. v. d. R.



Der Versuch, den Eisenbeton als Baumaterial für den Wohnbau einzuführen, ist schon wiederholt gemacht worden. Meist aber in ungenügender Weise. Die Vorzüge dieses Materials hat man nicht ausgenutzt und seine Nachteile nicht vermieden. Man glaubte dem Material genügend Rechnung zu tragen, wenn man die Ecken des Hauses und die der einzelnen Räume abrundete. Die runden Ecken sind für den Beton gänzlich belanglos und nicht einmal ganz einfach herzustellen. Es genügt natürlich nicht, ein Backsteinhaus in Eisenbeton zu übertragen. — Den Hauptvorteil des Eisenbetons sehe ich in der Möglichkeit großer Materialersparnis. Um diese bei einem Wohnhaus zu ermöglichen, muß man die tragenden und stützenden Kräfte auf wenige Punkte des Gebäudes konzentrieren. Der Nachteil des Eisenbetons ist seine geringe Isolierfähigkeit und seine große Schall-Leitbarkeit. Es ist also notwendig, eine besondere Isolation als Schutz gegen Außen-Temperaturen vorzusehen. Das einfachste Mittel, den Uebelstand der Schallübertragung zu beseitigen, scheint mir darin zu liegen, alles das, was Schall erzeugt, auszuschließen; ich denke hier an Gummiböden, Schiebefenster und -türen und ähnliche Vorrichtungen; dann aber auch an eine Großräumigkeit in der Grundriß-

bildung. — Der Eisenbeton verlangt vor seiner Ausführung genaueste Festlegung der gesamten Installation; hier kann der Architekt vom Schiffingenieur noch alles lernen. Beim Backsteinbau ist es möglich, wenn auch nicht gerade sinnvoll, sofort nach dem Richten des Daches die Heizungs- und Installations-Monteurs auf das Haus loszulassen, die in kurzer Zeit das kaum errichtete Haus in eine Ruine verwandeln. Ein solches Verfahren ist allerdings beim Eisenbeton ausgeschlossen. Hier kann nur diszipliniertes Arbeiten zum Ziele führen.

Das oben abgebildete Modell zeigt einen Versuch, dem Problem des Eisenbeton-Wohnhauses näher zu kommen. Der Hauptwohnteil wird von einem vierstiligen Bändersystem getragen. Dieses Konstruktionsystem wird umschlossen von einer dünnen Eisenbetonhaut. Diese Haut bildet sowohl Wand als Decke. Die Decke ist von den Außenwänden zur Mitte hin leicht geneigt. Die durch die Schrägstellung der beiden Dachhälften gebildete Rinne ermöglicht die denkbar einfachste Entwässerung des Daches. Alle Klempnerarbeiten kommen hierdurch in Formfall. Aus den Wänden habe ich an den Stellen Öffnungen herausgeschnitten, wo ich sie für die Aussicht und Raumbeleuchtung brauche.

Mies v. d. Rohe

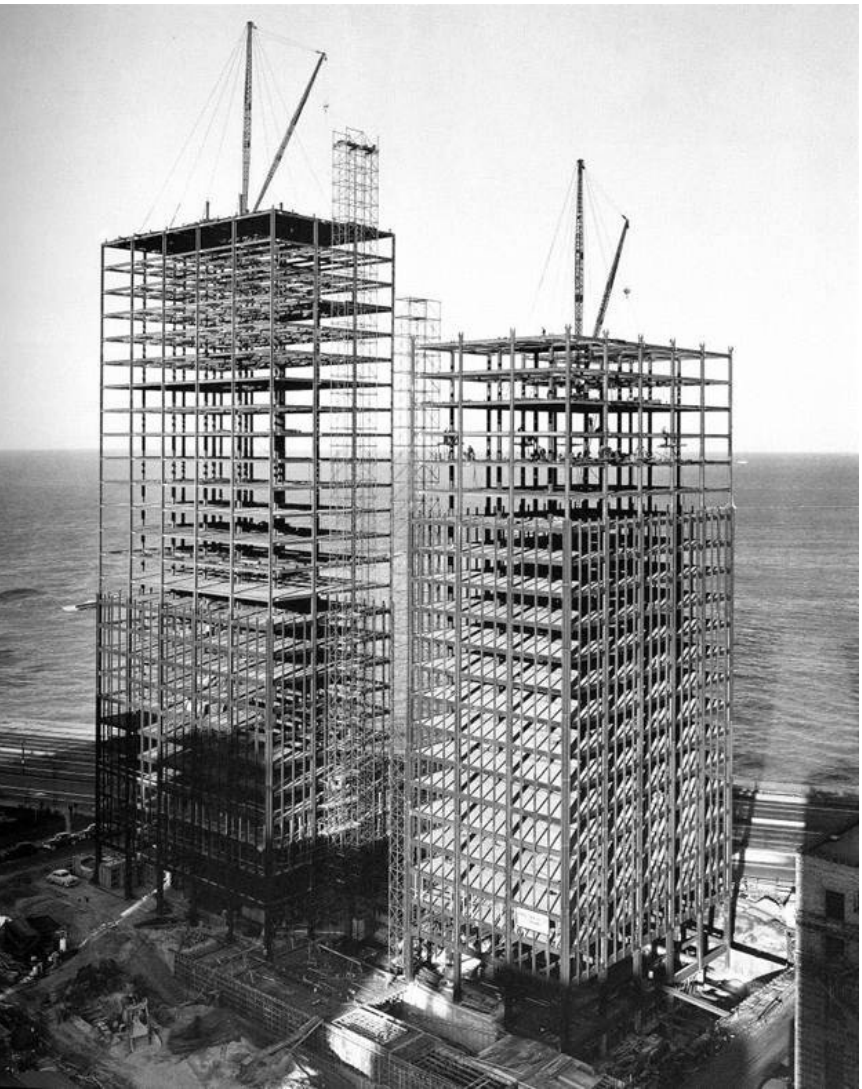
FIAT

Bau und Plan von den Herren Senator Giovanni Agnelli, Guido Fornaca und Ingenieur Matheo Trucco, Turin.

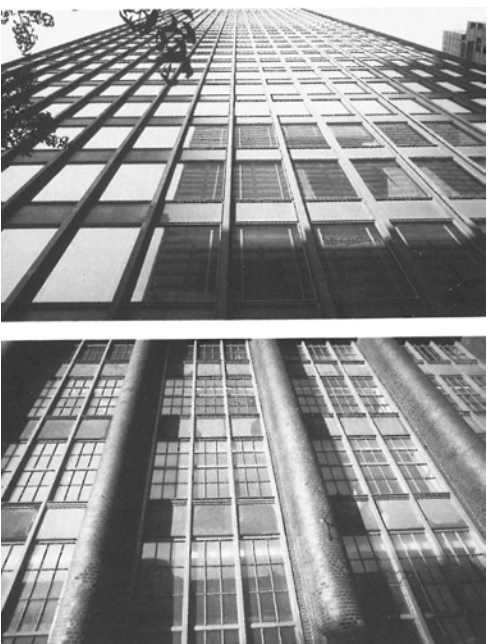
EINFABRBAHN ÜBER DER FABRIK FIAT IN LINGOTTO



Mit dem Ausbau und der Entwicklung der Automobil-Industrie entstand auch die Notwendigkeit, die Fahrzeuge vor der Ablieferung einer besonderen Probefahrt zu unterziehen, um die Sicherheit für ihre absolute Fahrbereitschaft zu gewinnen. Daher der Brauch, die Fahrzeuge auf der Straße auszuprobieren, bevor sie den Kunden ausgehändigt werden. Dieses bei einem beschränkten Fabrikationsumfang sehr einfache Verfahren schafft große Schwierigkeiten, wenn die Produktion über das Normale hinauswächst, denn es ist nicht leicht, einen zuverlässigen Stab von erfahrenen Einfahrern zu vereinigen, die, ohne einer ständigen und direkten Kontrolle unterworfen zu sein, für die volle Betriebssicherheit der Fahrzeuge, die man ihnen anvertraut hat, garantieren können. Außerdem verursacht die größere oder kleinere Entfernung zwischen der Fabrik und dem geeigneten Fahrgelände



The building site of modern architecture;
On Louis Sullivan in Chicago



0.5 Ludwig Mies van der
Rohe, Chicago, Lake Shore
Drive Apartments under
construction, 1949 – 1951

“*Great architecture and individualism* are in the end mutually exclusive. Only when the outstanding creative personality is the bearer of common ideas do his hands bring forth *timeless* buildings”, as Walter Muller Wulckow formulated in 1919.

It concerned questions of the “building art” that touch precisely on the relation between the individual performance and the whole, where this whole is understood as the expression of an entire epoch, and the epoch, in turn, is conceived not as “formal synthesis” and “harmonization”, but as something “spiritual” demanding “universal validity”. For Mies’s point of view, terms as “universal, valid and ideas shared by community” raise the question of the role and significance of the individual achievement. Of far greater importance than the question of the (resulting) style is the individual’s contribution to the *Zeitgeist*.

The question of formalism was posed once again in Otto Schubert’s *Architektur und Weltanschauung* in 1931 (Architecture and Worldview): “If the new forms are based solely on the self-assertive efforts of a few strong personalities, the sum total of their works, though certainly reflecting the struggle and inner turmoil of their time, will never reflect a unified will of the age. For all formalism is null and void insofar as it stems, as the embodiment of vanities, solely from the self-advertising ambitions of a few individuals, however strong these may be, without being the expression of the spiritual struggle of an age”.

The manifestoes, which colour the history of architecture, are not indicative of the everyday work. The Villa Savoy and the Unité d’habitation of Le Corbusier, Farnsworth House of Mies van der Rohe, Fallingwater of Frank Lloyd Wright, all these monuments of modern architecture have to be understood as exceptions, not as the *rule*. They represent the extreme prototype of manifest ideas. These projects reflect the personal motives of the Architect. Though often intriguing and inspiring they don’t represent the generic ‘conditions’ of their time, they are too specific. They show the extraordinary, not the normal.

Normal projects represent a mix of private and public interests. The everyday reality of the architect is to be part of a society that produces those buildings. Projects that can strictly be mobilised as a means for personal experiment are rare. Most normal projects have benchmark programs with subsequent targets and precise budgets, the margins are very narrow and most clients are professionals. As such, these projects mirror the culture

that produces them and they are the witnesses of our society, resulting as a cocktail of economic, political, technical and cultural ingredients within a certain timeframe. The question remains if these ‘normal’ projects are architecturally reflecting “*Zeitgeist*”? According to Mies only those that are coming from of the “conscious selection of the leading figures” of that time. This brings us back to the problem of evaluating the works of our own time.

A NEW WORLD

By the end of the 19th century cities were booming, both in Europe and in the US. Personally the study of a period like the Chicago School not only offers insights in pure architectural aspects but also and perhaps more importantly in social and cultural conditions. Understanding the enormous boom, which took place in Chicago in the 2nd half of the 19th Century, enables me to develop a unique perspective regarding the current ‘trends’ in globalization. Enormous changes took place due to the achievements of the Industrial Revolution. New building typologies were necessary and have been thus created by architects and engineers. Architects were searching for innovative ways to express the ‘new’ needs of society and to give the new buildings a proper architectural identity. Architects were also fighting for their position within the field. Moreover, during this boom, it was customary for engineers to lead the building process.

The new buildings were much bigger than ever before and had to be constructed at a speed, which the world had never witnessed. Public buildings, such as theatres, stations, stock-exchange buildings, retail warehouses, corporate office buildings and generic office buildings, skyscrapers, hotels, newspaper headquarters, academies, hospitals, industrial plants, urban infrastructure were erected, often stacked next and on top of each other.

The projects were not only bigger and taller; they were constructed extremely fast; employing new building techniques allowed providing unique programs. The rapid change in technology and typology demanded a fundamental change of the architect’s thinking. This massive boom required new approaches, new ideas, essentially questioning the elements which defined the architect. This questioning led to a fundamental change in the role of the architect. The changes of the profession of the architect were not simply

in regard to architectural aesthetics, but also directed to a building's actual place and its relation and impact on the public domain, the city, and these 'new' concerns affected the functionality of the buildings and vice versa.

Architects struggled with the new demands. The new typologies and scales, coupled with their classical training produced a confused 'style'. A Classical approach by itself could not negotiate the new demands. Very often this situation caused the production of weird propositions. Palazzos were stretched; architectural styles were mixed and literally stacked on top of each other.

Looking for the new style

The Home insurance of William Le Baron Jenny, built in 1884, was the first example of a new construction technique: a steel frame 'cladded' with terracotta. The building was partially, from the second floor up, constructed like this. The ground floor level however was still done the conventional way, its looks remained rather conventional. In fact, the building is a stretched palazzo. The Home Insurance building is a dinosaur compared to the Wainwright building, constructed only 8 years later in St. Louis in 1892. This building of Louis Sullivan is generally regarded as the first skyscraper with an authentic architectural style. The appearance of the building emphasizes its verticality; it really wants to be a skyscraper.

Though the building bears features of classical architecture, like base, shaft and pediment, it clearly moves away from the simple technique of stretching or sampling an existing style and it seeks to truly be a tall building. Sullivan defined a new language for the high-rise. He completely broke away from historical styles regarding overall conception and ornamentation. He used the ornament to emphasize his objective, in this case verticality. The building is soaring towards the sky.

Sullivan does it again four years later with the Guaranty building in Buffalo 1896. The skin of this building is totally ornamented. The exterior is lathered in décor, like a full body tattoo.

It was the Guaranty building, which caught my attention and propelled on the quest to truly understand Sullivan's notion: 'Form Follows Function'. In Delft I was taught to interpret that slogan as a functional imperative. I was confused because I was taught to believe that by applying a functionalistic approach towards the program, the result would be a pure, objective architectural form: I have to admit I was rather naïf.

As a young student I was first of all attracted by the work of Frank Lloyd Wright, intuitively I loved it. It was through Wright I found Louis Sullivan. I did not instantly appreciate Sullivan's work. It did not naturally appeal to me: I was not able to understand it contextually and formally it did speak to me. To appeal to me buildings had to look 'modern'. My perception of architecture was constructed via modernism. For me, architecture history began in 1920's. Only years later did I come to realize the actual revolution that took place during the 19th century.



05. Louis Sullivan Buffalo Guaranty Building 1894-1895 detail / Nancy Fraziet (ed.), Louis Sullivan and the Chicago School, NY, Knickerbocker Press, 1999

CHICAGO

I went to Chicago to find the traces of Sullivan. Because Chicago is a city of architecture, with a strong tradition and well organized institutes, it is easy to be quickly introduced to the period of the Chicago School and become acquainted with Sullivan's contemporaries and clients, especially Daniel Burnham, founder of Burnham and Root, and in essence, Sullivan's rival.

Chicago burns down in 1871 and within twenty years it has been rebuilt. The fire was a catalyst for the cities' economic boom. The city builds and builds and builds. If one imagines the amount of buildings constructed in the Loop during this period, it actually must have been looking like a huge building pit for those twenty years. The Loop is the old city centre, the area that is circled by the metro on the level of the first floor of the buildings. There was no doubt in the minds of the Chicagoans that they were developing one of the largest and most powerful cities in the world.

The centre of the city is a system of avenues and streets with small alleys and a underground street network for maintenance and supply. Chicago is building enormous large-scale complexes: large stations, skyscrapers, retail buildings, theatres, and the Chicago Stock exchange.



06. The great fire in Chicago in 1871 / Nancy Fraziet (ed.), Louis Sullivan and the Chicago School, NY, Knickerbocker Press, 1999

07 + 08 Visiting Chicago Railway Exchange (Santa Fe), Chicago (1903) / Photo: Kees Kaan

Tribune tower competition

The Chicago Tribune tower competition in 1922 illustrates in a convincing manner, the way in which the formerly mentioned quest led to a new expression for the new programs and demands of a rapidly changing metropolitan society at the end of the 19th century.

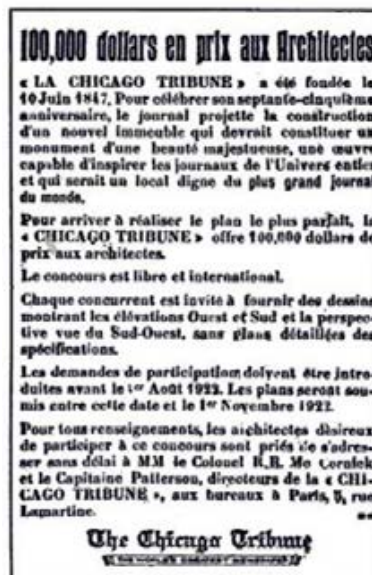
Newspapers were becoming increasingly important and powerful in the new democracies at the end of the 19th and of the early twentieth century. Perhaps one of the most powerful newspapers was the Chicago Tribune. They were offering a huge competition reward, 100,000 USD (2.5 million USD today) coupled to a brief which still would be a dream commission for ANY architect, designing the project for their new headquarters. This was not a sign of modesty. It was the first ever, world widely organized architectural competition. The newspaper wanted to identify itself with new innovative vigorous architecture.

Even more, the competition was a success. Designs for the new Headquarters were submitted from all over the world. Each entry serves, even today as a comprehensive snap shot of the 'current state of architecture' in the early 1920's. One will find many very extreme and hilarious examples. They illustrate in a humorous way the struggle of the designers with the new typology, both in scale and form. One does not have to be architect to see how hilarious some proposals were.

Clearly, modernism was already emerging in Europe, and some European submissions were illustrating the 'new' international style. Loos used the competition to deliver a clear critique.

Winner, however was the New York based firm of Howell and Hood with a beautiful neo-gothic tower, a real Gotham City project. They had clearly understood that gothic style was at that time the most suitable 'form' to express the high-rise ambitions of the Tribune.

Louis Sullivan commented on the results of Tribune Tower competition. He said that the project of Raymond Hood and John Mead Howell was based on old ideas, while the project of Eliel Saarinen was a priceless pearl. Sullivan manufactured an extensive exposure to this fact and stated, that if the objective was 'to make the most beautiful office building in the world', the ruling of the jury should be reviewed and the first prize should have gone to Saarinen.



Gazprom 2006

The economy of Russia, which is currently transforming itself from an industrial and agrarian economy into an economy of commodities, was looking for a project that announced this to the world, an icon for Gazprom on the bank of Neva River in St. Petersburg. In 2006 it also launched a not modest competition and was rewarded with the 'state of the art' of today's architecture.

The Gazprom proposition for St. Petersburg by Libeskind is as hilarious as some of the proposals for the Tribune Tower were. It seems as if history had repeated itself, architects then and now both seem unequipped to deal with the 'new' demands of their times. The Libeskind was not rewarded.

The winner of Gazprom is a conventional tower designed by RMJM like the project by Howell and Hood was for the Chicago Tribune. Apparently winners of 'innovative' competitions tend to be the conservative and safe choice.

So we see that often the winning projects are not the most visionary but the ones that confirm accepted notions of the state of the art, they confirm knowledge that is already widely accepted, they mark the end of periods, rather than the beginning of a new era.

09. Tribune Tower

Competition / Tribune Company, Tribune Tower Design Competition. The International Competition for a New Administration Building for the Chicago Tribune MCMXXII [Hardcover], (introduced by Louis Sullivan), Chicago, 1923



Dream of metropolis; Rockefeller Centre

After the booming years of Chicago, the significant advances made in the development of the skyscraper took place in Manhattan; it was Manhattan, where the dream of the 'metropolis' vertical city' became a reality. In the competition of Chicago, Hood is representing the office. At that time he is 41 years old and he wins the project. Years later, after a long design process with many revisions, Raymond Hood gets to build the Rockefeller Centre in New York. The project becomes the sublimation of the Manhattan dream. The looks of the final project remind me of the Saarinen proposal for Chicago Tribune Tower.

Since the beginning of the twentieth century New York became the most booming city in the world and it would maintain this position till 9/11/2001.

Finally, we can conclude, that all of this was the result of a worldwide boom in urbanization as a consequence of the 19th century industrialization of western economies.

Cities in Europe and the US grew from 100.000 inhabitants to millions of inhabitants.

The growth began in the first half of the 19th century, but it was the 2nd half of the Century when it really took off. The notion of metropolis became a reality: as said, new typologies of buildings were needed; train-stations; ware houses; offices; factories hospitals; infrastructure; metro-lines; everything the metropolis contains, one must realize never existed before, a new typology was demanded and needed and it was this demand which propelled the innovations. Many world-expositions were held; cities were growing fast; architects, politicians, developers, and the like were heavily involved with the question, how to cope with these issue.

In New York Hugh Ferriss sketched his dreams of the metropolis. In an artistic way, one of his series of sketches is the non-architectural representation of the Urban Zoning Laws of 1916, the 'future' envelope of the metropolis.

The sketches are beautiful, visionary, futuristic and optimistic. He presents us a future that never happened, a strange mix of Futurism and Realism.

If Blade Runner presents us a future in a décor of the past, Ferriss presents us a past in the décor of an imaginary future. People are living in enormous tower bridges; he shows monumental boulevards and enormous buildings.



11. Raymond Hood Manhattan 1950 1931 / Rem Koolhaas, *Delirious NY: A retroactive Manifesto for Manhattan*, Academy Editions, London, 1978; republished, The Monacelli Press

Mies and the Modernist tower

Between 1949 and 1951, 860–880 Lakeshore Drive were built. The two towers purely represent the new steel-glass tower. The envelope is no longer an articulation of setbacks. The towers have the same section from bottom to top, they have a strong verticality, and the façade is a curtain of steel and glass. The project becomes the prototype for a large array of modern glass towers. The skyscraper building becomes more and more an industrialized product, made of glass and steel, it escapes the zoning laws by simply having a pure shape, slim and slender, optimized and highly repetitive floor plans around an efficient core.

Today such slenderness could not be ‘feasible’: the cores have become much larger and clients require much larger floor plates as well.

FORM FOLLOWS FUNCTION

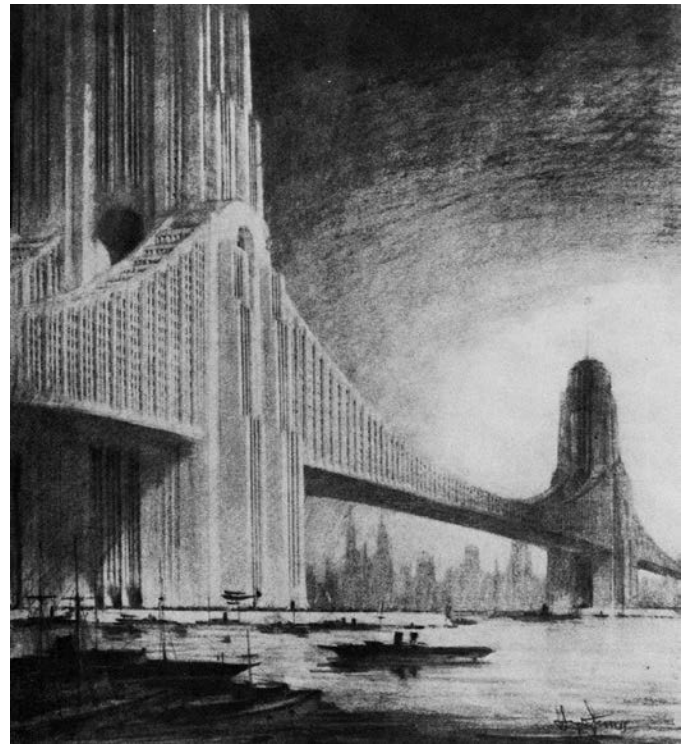
Timeline

Chicago was a key city in the development of the US transforming into a world power. This city was a laboratory for architecture and planning. Not only large quantities of buildings were produced, but also everything was really new in terms of program, size and typology. There was no precedent. This building boom coincided with the invention of many new technical possibilities that became available for application. There was the invention of electric light, the elevator, new water pressure systems and later HVAC.

The Auditorium building of Adler and Sullivan was already on the drawing board when electricity had become available, Adler had anticipated the use of electric light in the building, imagine the effect of this on the opening night.

Finally it was a ‘freak’ fire which caused the city to burn exactly at a moment it started to boom, coinciding with an enormous economical pressure, and the invention of new techniques, cultural optimism and entrepreneurial drive. Architecture did not create these opportunities, but was able to capitalize on them.

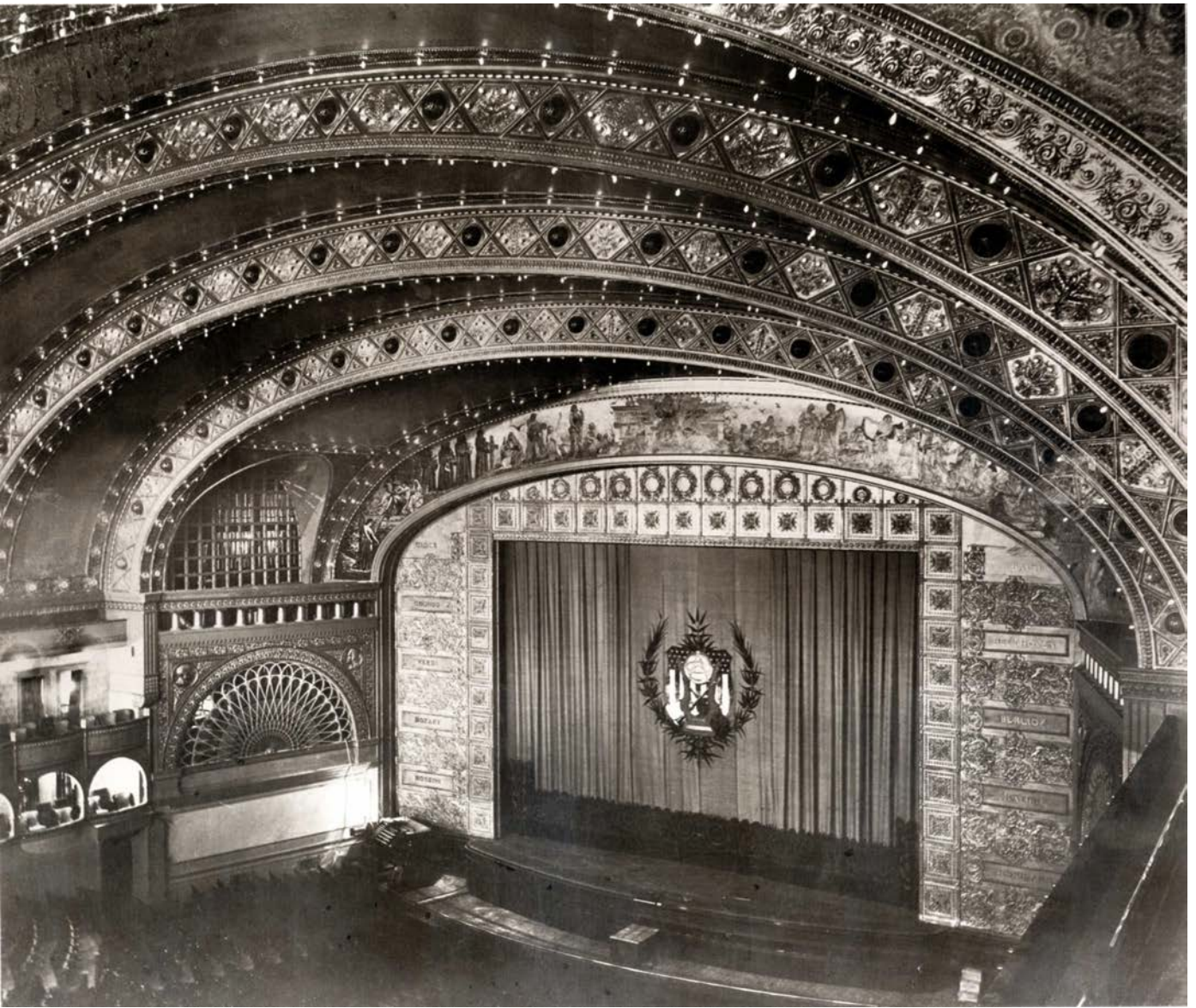
The tool of the timeline shows how events and people interacted and may have influenced each other. The Chicago school did not become a world famous and strong architectural style due to the genius of a few great architects, it was born out of this fruitful cocktail of circumstances, which become visible on this timeline. It is important for me, to precisely follow the order of events to understand how the influences can be traced back to the results.



12. Hugh Ferriss 'Appartments on bridges' / Ferris, Hugh. *The Metropolis of Tomorrow*, with essay by Carol Willis, NY Princeton Architectural Press, 1986, Reprint of 1929 edition



13. Collage if soetrak radio
city in Midtown / Rem
Koolhaas, *Delirious NY:
A retroactive Manifesto
for Manhattan*, Academy
Editions, London, 1978;
republished, The Mona-
celli Press



15. Adler and Sullivan,
The Auditorium Building, Interior / Donald
Hoffmann, Frank Lloyds
Wright, Louis Sullivan
and the Skyscraper
[Paperback], NY, Dover
Publications, 1998

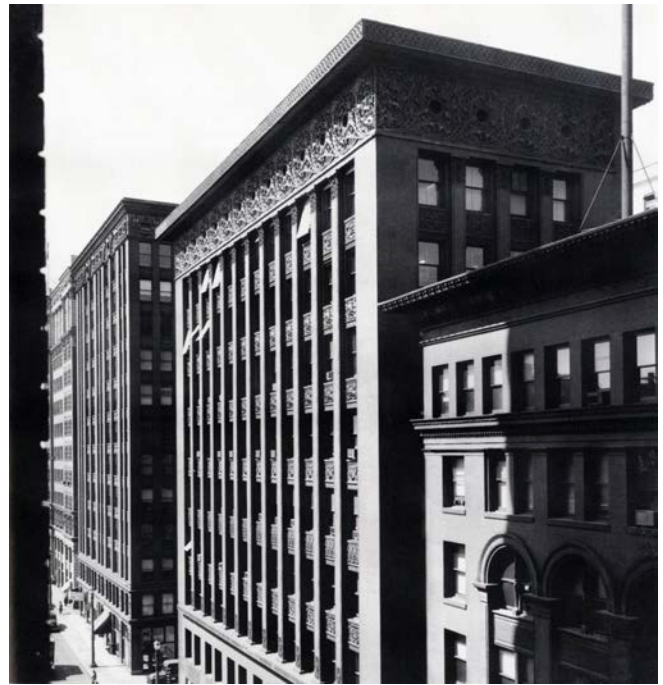
14. Inventions in the 19th
Century

The influence of Sullivan is not only important for purely architectural reasons but also to learn about the role of the architect in society, as Mies argues: “What remains in the way of form is thus not the goal, but rather *conditional* and *the result of our work*.” This is how we can come to understand *Zeitgeist*, Architecture as the expression of the spirit of the time.

Sullivan

After my first visit to Chicago I began to investigate Sullivan as I was intrigued by the apparent ‘contradiction’ between his most famous statement ‘Form Follows Function’ and the work he created.

Why did he make this statement? What does he mean stating it? Why does he say it and subsequently creates work, which is so overly decorative? Is it deliberate? Is the decoration functional? Or was it just the way things were done? He was an architect that was ‘decorating’ his buildings in an extremely ornamental way. In Europe Adolf Loos wrote ‘Ornament und Verbrechen’ in 1908. We were taught that functionalism rejected ornamentation. So the question raises, how can the most influential architect in the US, the godfather of the skyscraper, the inventor of “Form Follows Function”, the ‘Lieber Meister’ of Frank Lloyd Wright, be so decorative? This was a mystery to me, according to my modernist European way of looking. I always assumed that “Form Follows Function” was about modernism and functionalism, about austerity and pureness. Most teachers explained when I was a student the “Form Follows Function” as the slogan of functionalism. The shape of a building is the result of the optimal organization of the program. We were told that by analysis of the program and organization of space based on proper understanding we would find a form and this functionalist approach would generate a solution with architectural quality. I believed this for a long time. However I still did not understand why so many ugly buildings were made according to this *modus operandi*. Buildings had no longer ornament, which was considered sinful and not honest. Functionalism was about honesty and straight forwardness, a building had to follow the program and be functional. It seemed more like ‘Form Follows Program’ was in fact the doctrine that was preached to us.



15. Louis Sullivan, St. Louis Wainwright Building, 1890 / Donald Hoffmann, Frank Lloy Wright, Louis Sullivan and the Skyscraper [Paperback], NY, Dover Publications, 1998

16. Louis Sullivan, St. Louis Wainwright Building, 1890, detail / Donald Hoffmann, Frank Lloy Wright, Louis Sullivan and the Skyscraper [Paperback], NY, Dover Publications, 1998

Personality and character

Did Sullivan mean something else, and was his slogan misunderstood? Why would he have made this extreme decoration on the skin of the Guaranty Building? This was not because it was ‘usance’ to decorate, it was a deliberate act, he wanted it, he wanted to express something with it, the ornamentation is part of the concept; it has an intrinsic meaning.

The Wainwright is regarded as the first ever built skyscraper according to the definition of Sullivan. It really expressed in its architecture the character of the type. It has the looks of a tall building with its soaring pilaster cladding the steel frame structure. Though this is not literally true, half of the brick pilasters in the façade are empty; they were applied to emphasize the verticality and to stress the height of the building. Sullivan expressed the tallness via vertical ornamentation and for him there was no moral dilemma to add extra pilasters without a load bearing function. Wainwright is a very clear message about his work. Proportion of façade is very important. The façade expresses the tallness of the structure; this is sustained by the decorations and materialization. This expression of character is regarded as a functional aspect. “Form follows function” implies here to use these means to make clear, what the building wants to be.

Sullivan strived for authenticity and clarity is about what the CHARACTER of a structure is, not just to follow arguments of technique and economy, but about the expression of the function in its BEAUTY.

I would like to conclude with an extract from *Kindergarten Charts* by Louis Sullivan:

*FUNCTIO (IDEA, SPIRIT)
AND FORM THE
MASTER:*

*I am endeavouring to
impress upon you the simple
truth—immeasurable in
power of expansion—of
the subjective possibilities of
objective things. In short, to
clarify for you the origin and
power of BEAUTY: to let
you see that it is resident in
function and form.*

THE STUDENT:

So is ugliness, isn't it?

THE MASTER:

To be sure.

Louis Sullivan, Kindergarten Charts

Font: John Szarkowski (ed.), The Idea of

Louis Sullivan, London, Thames & Hudson, 2000

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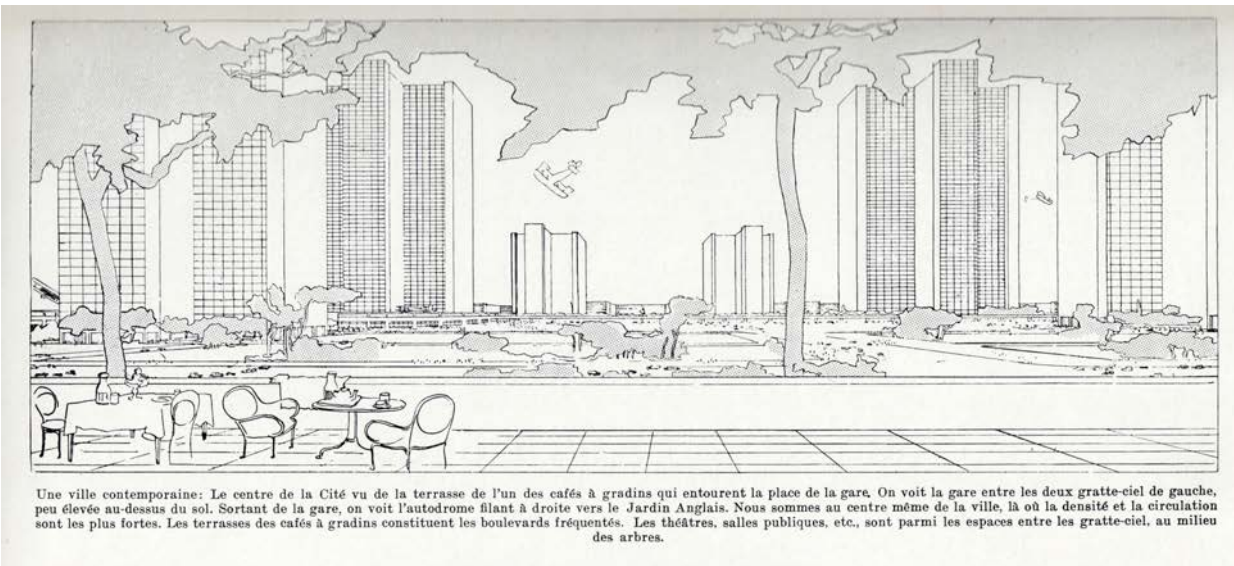
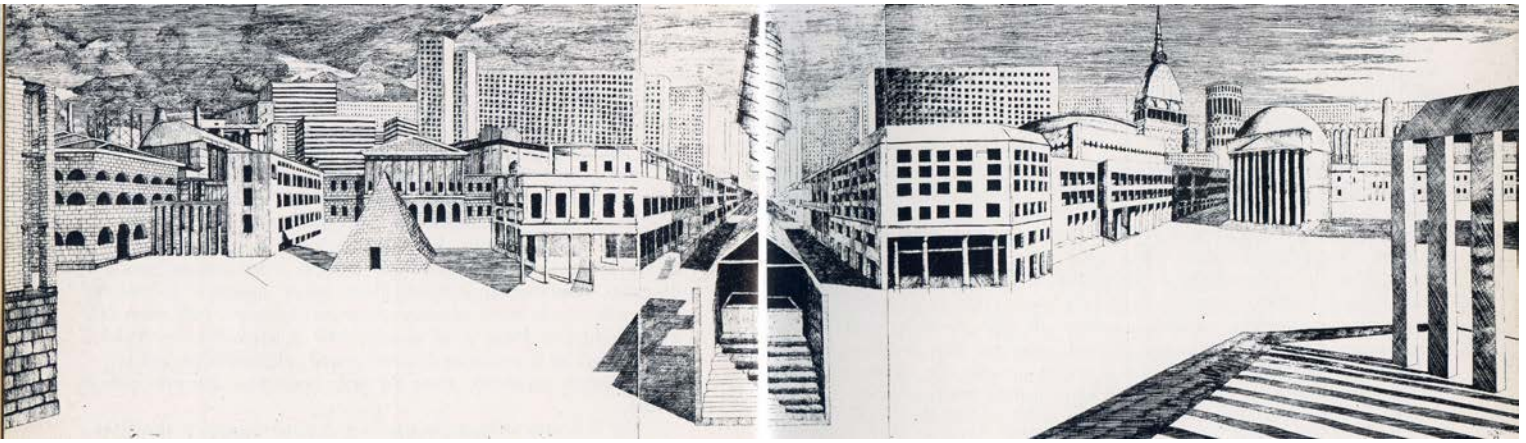
Henk Engel



Henk Engel (Den Helder, 1949) graduated as an architect from Delft University of Technology in 1981. He is at present co-director of the architecture office De Nijl Architects in Rotterdam, with three partners. In 1998 his office had an exhibition on their work at the Netherlands Architecture Institute, accompanied by the publication 'Als we huizen bouwen, praten en schrijven we' (As we build houses, we talk and we write, NAI Publishers, 1998). Engel is an emeritus associate professor of architectural design at Delft University of Technology and teaches at several architecture academies in the Netherlands. He has been a visiting lecturer in Liverpool, Milan and Pescara. He has written extensively on various topics concerning modern and urban architecture and worked on several exhibitions. He is editor of the journal *Overholland* and published François Claessens and Henk Engel (ed.), *OverHolland*, Nijmegen (SUN), 2009, 2011 and 2011.

Henk Engel

The rationalist perspective



01. Cantafora –
The Analogue City,
1973

02. Anonymous –
The Ideal City,
ca. 1475

03. Le Corbusier –
La Ville Contemporaine,
1922

‘If the term ‘architects of reason’ has any meaning, I believe it must relate to the experience in architecture (and hence in building, the city, its assessment in the light of history and so on) that specifically led to an analysis and construction of architecture in rational terms, in other words making use of techniques peculiar to reason.¹

Precisely because of the special significance of the analytical choice in this case, in the openly stated purpose of arriving at criteria of certainty and of expressing constant and general elements, precisely because of this characteristic coincidence of analysis and design in a common cognitive goal, architecture is seen here as a construction, in other words as a procedure that follows a logical series of choices.²

THE PRESENCE OF THE PAST

The return to rationalism in architecture after World War II grew out of the discussions about a new start for Modern Architecture in 1950’s and ‘60’s. In the 1950’s the debate was most lively in CIAM and in the architectural magazines in England and Italy, especially *The Architectural Record* and *Casabella continuata*. The role of ‘monumentality’, what to do with the ‘historic city centres’, the question of ‘regional traditions’; in short, the relation of Modern Architecture to history became the main topic of the debate and would, in the end, strike at the very root of the discourse of modern architecture.³ By the end of the 1970’s a complete turnover in the appreciation of Modern Architecture had taken place, summarised by the precarious concept of Postmodernism. Modern Architecture had definitely come to its end and found its final resort on history’s pile of rubbish.

In this process of decomposition—the combined effort of architectural professionals, critics and historians alike—neo-rationalism had its own peculiar place. It is good to remember that as Charles Jencks in 1977 transferred the concept of Postmodernism from the field of literary criticism to architecture, he decidedly excluded neo-rationalism from this category.⁴ In *The language of Post-Modern Architecture*, Jencks aimed at a radical eclecticism, which he placed in contrast to the purism of Aldo Rossi’s design of the housing project in Gallarate (1969–1970).⁵ Although Heinrich Klotz, in *The History of Postmodern Architecture*, proposed a broader scope for the concept, he too made a clear distinction between the stylistic pluralism of American architects like

1

G. Grassi, *La costruzione logica dell’architettura*. Torino (Umberto Allemandi & C) 19982, pp. 24-25.

2

Ibid, p. 15.

3

Eric Mumford, *The CIAM Discourse on Urbanism, 1928-1960*. Cambridge Mass./London (MIT Press) 2000. See also: Henk Engel, ‘Team X revisited’, in: *Over-Holland* no. 5. Amsterdam (SUN) 2007, pp. 115-126.

4

Ihab Hassan, ‘The Question of Postmodernism’, In: *Performing Arts Journal* 16, 1981.

5

Charles Jencks, *The language of Post-Modern Architecture*. London (Academy Editions) 1977, p. 20

Robert Venturi and Charles Moore, and the return to the rationalism of Aldo Rossi and Oswald Mathias Ungers. According to Klotz, these two tendencies should be seen as two poles in the development of Postmodernism, an American and a European one.⁶

Nevertheless, the 1970's had provided for a growing international exchange and in 1980, under the direction of Paolo Portoghesi, representatives of the two poles happily joined together in the ironic setting of the Strada Novissima at The Presence of the Past, First International Exhibition of Architecture of the Biennale in Venice.⁷ Aldo Rossi was predominantly present with his Teatro del Mondo and the Entrance Portal to the exhibition site. By then, Rossi had reached the top of international fame. Already in 1964, with the bridge and outdoor exhibition spaces at XIII Triennale in Milan, he had given the world a glance at the metaphysical architecture he was looking for. In 1966, his book *L'architettura della città* had been published and, as Rossi wrote later, the book was 'bang on target'.⁸ Translations had appeared in Spanish (1971), German (1973) and Portuguese (1978).

Neo-rationalism had been launched in the international arena at the exhibition of the Sezione Internazionale di Architettura della XV Triennale in Milan 1973. Under Rossi's direction, the exhibition had been taken as an opportunity to fit the work of a group of young Italian architects into the international context of modern architecture. *Architettura Rationale*, the book published after the exhibition, had been received as a manifesto of what since then has come to be known as the architecture of neo-rationalism.⁹ And certainly, among the many designs which illustrated the aspirations for a 'new architecture', Rossi's designs for the square in Segrate, the housing project in Gallarate and the school in Fagnano Olona were best qualified at that moment to show the intentions which were formulated by Massimo Scolari in 'Avanguardia e nuova architettura' (Avant-garde and the new architecture).¹⁰

1973 can be seen as the turning point in Aldo Rossi's career. The Milan exhibition brought him an international breakthrough. At the same time however, the perspective of neo-rationalism changed. Rossi had taken the exhibition as an opportunity to show the work of *Tendenza* as a continuation of the rationalist approach in modern architecture and in contrast with expressionist tendencies. He also showed a broad spectrum of related efforts outside Italy, represented by work of Ungers, Leslie Martin, Stirling, the Krier brothers and The New York Five (Eisenman, Graves, Gwathmey, Hejduk, Meier). Even work of Robert Venturi was present at the exhibition, although excluded from the book.¹¹ Certainly, this whole entourage was meant to be the background against which the profile of Italian *Tendenza* could be articulated. However, this was done in a rather academic manner. Once picked up outside Italy, the Krier brothers gave neo-rationalism a more radical outlook. The tone of the discourse changed from reflexion to sheer declaration.

In 1975 Rob Krier's *Stadtraum in Theorie und Praxis* (Urban Space in Theory and Praxis) was published and in London the exhibition *Rational Architecture* was organised by his younger brother Leon. The exhibition travelled to Barcelona, Vienna and Darmstadt. From its material a book was composed: *Rational—Architecture—Rationelle* 1978.¹² The Kriers came from Luxembourg. Rob had studied in Munich and worked with Ungers in the mid-1960's on the project *Grünzug-Süd*; the first design by Ungers on the basis of morphological urban analysis. At that time Leon began his studies in architecture at the University of Stuttgart, but gave it up in 1969, in order to join the office of James Stirling. There he worked on the projects Siemens AG Munich and Derby market place. 1973–1974 he continued working in the office of Josef Paul Kleihues and subsequently started a practice in London.

Contrary to Rossi and Ungers as well, the Kriers made public space the main focus of neo-rationalism. Urban analysis on the basis of typo-morphology had been introduced to establish a critical distance with respect to the new discipline of territorial planning and give ground for the claim of autonomy for the architectural significance of the singular project. The singular architectural project is always limited and well defined with respect to time and place.¹³ The Krier brothers, however, aimed at the total dissolution of 'late capitalist' planning and the resurrection of Urban Design in the spirit of Camillo Sitte's *Art of Building Cities*: 'The revolutionary element of the new architecture does not lie in its form but in the model of its social use, in its coherency, in the reconstruction of the public realm.' Neo-rationalism, in their view, had to be seen as 'a critical attempt at the Reconstruction of the European city'.¹⁴

The shift in focus, from reflection on the singular architectural project and the discipline of architecture to the postulation of restrictive rules for urban design, had serious consequences. Any continuity with 'the Rationalism of the 1920's' was denied. Like earlier in Team 10, CIAM and especially the *Ville Radieuse* of Le Corbusier were blamed for having provided the 'architectural model' for the actual destruction of inner cities and the desolate suburbs built after WO II. This position, first articulated by the Krier brothers, got substantial reinforcements at the end of the 1970's through publications as varied as *Formes urbaines: de l'îlot à la barre* (Urban Forms: The death and life of the urban block) by Castex, Depaule and Panerai (School of Versailles, 1977), and *Collage City*, the contextualist credo of Colin Rowe and Fred Koetter (Cornell University, 1978).

In the end, all of these publications simply aimed at replacing one 'architectural model' by another. And they did so with the same forms of propaganda and apocalyptic views on the development of 'the city' as Le Corbusier used to do.¹⁵ *Tendenza*, on the contrary, aimed at breaking just this vicious spell on architectural praxis and education.

6

Heinrich Klotz, *The History of Postmodern Architecture*, Cambridge Mass. / London (MIT Press) 1988, pp. 210-213. (originally: *Moderne und Postmoderne Architektur der Gegenwart*, Braunschweig und Wiesbaden (Vieweg) 1984)

7

G. Borsano (Ed.), *The Presence of the Past*. Venice (Electa) 1980. Catalogue, with essays by Paolo Portoghesi, Vincent Scully, Christian Norberg Schulz and Charles Jencks. See also: Paolo Portoghesi, *Postmodern. The Architecture of the Postindustrial Society*. New York (Rizzoli) 1983.

8

Aldo Rossi, *The Architecture of the City*. Cambridge Mass. (Opposition Books / MIT Press) 1982. Original: Aldo Rossi, *L'architettura della città*. Padova (Marsilio Ed.) 1966.

9

E. Bonfanti, R. Bonicalzi, A. Rossi, M. Scolari, D. Vitale, *Architectura Rationale*. Milan ((Franco Angelli Editore) 1973; *Controspazio*, V no. 6 (Dec. 1973). Special issue on *La Sezione Internazionale di Architettura della XV Triennale*.

10

Massimo Scolari, 'Avanguardia e nuova architettura', in: *Architectura Rationale*, see note 9, pp. 153-187.

11

Rob Krier, *Stadttraum in Theorie und Praxis*. Stuttgart 1975.

12

Leon Krier c.s, *Rational – Architecture – Rationelle* 1978. Brussels (Archives d'Architecture Moderne) 1978.

13

This position was first put forward in the debate on *Città Territorio*. See Aldo Rossi, *Nuovi problemi*, in: *Casabella continuità* no.264 (1962). English translation in: *Ekistics* no.87 (1963); Gianugo Polesello, Aldo Rossi, Luca Meda, *Locomotivo 2*, competition entry for the business centre of Turin (1962). *Casabella continuità* 278, aug. 1963. See also: Carlo Aymonino, *Città Territorio: Un Esperimento Didattico*, Bari 1964. The position is fully articulated in: Aldo Rossi, E. Mattioni, G. Polesello en L. Semerani, 'Città e territorio negli aspetti funzionali e figurativi della pianificazione continua', in: *Atti del X Congresso INU*, Trieste 14-16. 10. 65. Also in: Rossi, *Scritti scelti*, see note 13, pp. 289-297.

14

Leon Krier, 'The Reconstruction of the City', in: Krier, see note 12, pp. 38-42.

15

For the concept of 'architectural model', see: Philippe Panarai, Jean Castex, Jean Charles Depaule, Ivor Samuels, *Urban Forms: The death and life of the urban block*. Oxford (Architectural Press) 2004, pp. 134-136. Original: J. Castex, J. Ch. Depaule, Ph. Panarai, *Formes urbaines: de l'îlot à la barre*. Paris (Dunod) 1977.c

THE PROJECT OF TENDENZA¹⁶

The work of Rossi is crucial for an understanding of neo-rationalism. At the same time it is exactly the shift of perspective of neo-rationalism after the Milan exhibition, which makes it difficult to reconstruct 'the academic and didactic project' Tendenza initially stood for. Besides, with respect to Rossi, we have to differentiate between the scholar and the artist.

Along with his growing international reputation as a designer, Rossi's discourse became more and more personalized, culminating in the publication of *A Scientific Autobiography* as 'Opposition Book no. 1', in 1981.¹⁷ Subsequently, even *L'architettura della città* was framed as the testimony of a unique artist. For Peter Eisenmann, editor of *Oppositions* and director of the New York Institute for Architecture and Urban Studies (IAUS), the relevance of the American edition was not so much the book itself, its prime interest was 'the Rossi that this book anticipates.'¹⁸ In his words: 'Ultimately, The Architecture of the City, notwithstanding its attempt to place itself within a certain "scientific" writing about the city, is a very personal text.'¹⁹

In reconstructing the Project of Tendenza, and neo-rationalism in general, it is just the 'attempt to place itself within a certain "scientific" writing', which should be taken seriously. As Scolari formulated in 'Avanguardia e nuova architettura', the aim of Tendenza was no less than a re-foundation of architecture as a discipline.²⁰ Moreover, from his retrospective in 1985 we learn that on a didactic level Tendenza intended to provide 'a new design method, rational and transmittable in its articulations'. As such Tendenza had failed in his opinion. It 'turned into the most undesired but also most expectable results: formal imitation. In se, imitative processes are not particularly reproachable; major schools adopted it, and most successfully too. But in our case this was not a conscious didactic decision, but the result of a difficult personal poetics.'²¹ For Scolari, both the success and the failure of the Project Tendenza are strongly connected with Rossi's career. Even seen in this way, it is obvious that *L'architettura della città* had its primary *raison d'être* in the academic world of architectural education and research in Italy.²²

The book was based on the typological and morphological studies of the city of Padua and the lecture series started at the Istituto Universitario di Architettura di Venezia (IUVA) after Carlo Aymonino had become professor for the field of Caratteri distributivi degli edifici (Distributive characteristics of buildings) in 1963.²³ Jointly with Aldo Rossi and Costantino Dardi, Aymonino developed a theory in which the typology of buildings, the field of study of the chair, was related to the morphological study of the city.²⁴ Up until then, these two areas of study had solely been examined separately. Aymonino and his team formulated a logical relationship between these two areas and used it as a starting point for their programme: 'Each of these two disciplines studies a class of homogeneous facts. However, the building types that are realized are in fact the buildings of which the city is made up.'²⁵

As a first synthetic result of the work done in Venice, *L'architettura della città* was intended to be no more than a sketch of a 'theory of the city', 'a theory which understands the city as architecture'. At the same time, the book presented no small ambition in clearing the ground for the development of a 'science of the city'.²⁶ Also in 1966, *Complexity and Contradiction in Architecture* by Robert Venturi was published and just as Rossi's book has been crucial in the formation of European Neo-Rationalism, as Venturi's book has been in the formation of American Post-Modernism.²⁷ Although both books have been received as a critique of Modern Architecture, they operate in a completely different way. Venturi's book opens with a straightforward attack on 'the puritanically moral language of orthodox Modern architecture' and can be seen as typical for the way this European phenomenon was introduced in the US under the banner of a style: The International Style.²⁸

Rossi and Tendenza choose as their key-concept not 'style' but 'the architecture of the city', just as Oswald Mathias Ungers, and subsequently the Krier brothers and the French research group at the School of Versailles. Generally, this choice for the city as point of reference is considered to be the prerogative of Neo-Rationalism, but in fact it shared this choice with Pre World War II Rationalism. Rationalism, and CIAM in particular, had made the city prime issue on the agenda of architecture and so the discipline had made itself subservient to the processes of economic and social planning. This sounds like old stuff, but in Italy of the early 1960s exactly this became a serious question again in the debate on territorial planning.²⁹

16

La Tendenza and neo-rationalism were proclaimed by Aldo Rossi at the exhibition of the *Sezione Internazionale di Architettura della XV Triennale* in Milano in 1973. The exhibition and the book *Architettura Razionale* offered the chance to position the work of a group of young Italian architects within the international context of modern architecture. Carlo Aymonino, Costantino Dardi, Gianuglio Polesello, Aldo Rossi, Giorgio Grassi, Agostino Renna, Ezio Bonfanti, Massimo Scolari, Adriano di Leo, Antonio Monestiroli and Gianni Braghieri had already, in changing combinations, worked together on projects and competition entries. Additionally, with writings in magazines and journals they had contributed to the architecture debate. But most of all they were architecture teachers. Their work was presented as continuation of the rationalism of the inter-bellum, which opposed expressionism. At the same time the work of Oswald Mathias Ungers, Leslie Martin, James Stirling, Bruno Reichlin, Fabio Reinhart, the Krier brothers and the New York Five (Eisenman, Graves, Gwathmey, Hejduk, Meier) a broad spectrum of related initiatives outside Italy was brought to attention. See: E. Bonfanti, R. Bonicalzi, A. Rossi, M. Scolari, D. Vitale, *Architettura Razionale*. Milano (Franco Angelli Editore) 1973 and, *Controspazio*, V no. 6 (Dec. 1973), special edition addressing *La Sezione Internazionale di Architettura della XV Triennale*.

17

Henk Engel, 'Aldo Rossi, The Architecture of the City', Review of the Dutch edition in: *The Architectural Annual* 2001-2002. Rotterdam (010) 2003, pp. 18-22. See also: Umberto Barbieri, François Claessens, Henk Engel, 'Giorgio Grassi en Tendenza gezien vanuit Nederland', afterword in: Giorgio Grassi, *De logische constructie van de architectuur*. Nijmegen (SUN) 1997, pp. 212-228.

18

Aldo Rossi, see note 8, Editor's Preface.

19

Ibid, p. 11.

20 - Scolari, see note 10, p.162 and p.170.

21

Massimo Scolari, 'Impegno tipologica / The Typological Commitment', in: Casabella no.509-510 (special issue on I terreni della tipologia), 1985, pp. 42-45.

22

Carlo Aymonino, 'Facolta di Tendenza?', in: Casanella, no. 287 (March 1964); Danielle Vitali, 'Presentazione di alcuni progetti', in: *Architettura Razionale*, see note 10, pp. 253-265. See also: *Controspazio*, IV no. 5-6 (March-June 1972) and *Controspazio*, V no. 1 (June 1973).

23

The lecture series were published in: *Aspetti e problemi della tipologia edilizia*. Documenti del corso di 'Caratteri distributivi degli edifici'. Anno accademico 1963/64. Venice (CLUVA) 1964; *La formazione del concetto di tipologia edilizia*. Atti del corso di 'Caratteri distributivi degli edifici'. Anno accademico 1964/65. Venice (CLUVA) 1965; *Rapporti tra morfologia urbana e tipologia edilizia*. Atti del corso di 'Caratteri distributivi degli edifici'. Anno accademico 1965/66. Venice (CLUVA) 1966. Five lectures of Aldo Rossi were republished in: *Scritti scelti*, see note 13.

24

Carlo Aymonino, 'Über Aldo Rossi', in: Aldo Rossi, *Die Suche nach dem Gluck. Frühe Zeichnungen und Entwürfe*. München (Prestel) 2003, pp. 21-25.

25

Aldo Rossi, 'Considerazioni sulla morfologia urbana e tipologia edilizia', in *Aspetti e problemi della tipologia edilizia*. Documenti del corso di 'Caratteri distributivi degli edifici'. Anno accademico 1963/64. Venice, 1964. Republished in: *Scritti scelti*, see note 13, p. 209.

26

'Introduction: Urban Artifacts and a Theory of the City', in: Rossi, see note 8, pp. 20-27. The studies of the city of Padua were only completed and published in 1970 with remarkable essays of both Aymonino and Rossi: Carlo Aymonino, 'Lo studio dei fenomeni urbani' and Aldo Rossi, 'Caratteri urbani delle città venete'. C. Aymonino, M. Brusatin, G. Fabri, M. Lena, P. Loverro, S. Lucianetti, en A. Rossi, *La città di Padova, saggio di analisi urbana*. Rome (Officina)1970. The text by Rossi is also in: *Scritti scelti*, see note 13, pp. 379-433. For an evaluation of the urban analyses in *La città di Padova* see: Massimo Scolari, 'Un contributo per la fondazione di una scienza urbana', in: *Controspazio* no. 7-8 1971, pp. 40-47. See also: Giovanna Gavazzeni, Massimo Scolari, 'Note metodologiche per una ricerca urbana', with an introduction by Aldo Rossi, in: *Lotus* 7, 1970, pp. 40-47. For the state of the art in urban history around the middle of the 1960's, see: Oskar Händlin, John Buchard (ed.), *The Historian and the City*. Cambridge Mass. 1963; H.J. Dyos (ed.), *The Study of Urban History*. London 1968.

27

Robert Venturi, *Complexity and Contradiction in Architecture*. New York (The Museum of Modern Art) 1966.

28

Ibid, p. 22; Henry-Russell Hitchcock, Philip Johnson, *The International Style: Architecture since 1922*. New York (Norton & Co.) 1932. About the deformations resulting from this tour the force: R. Sierksma, 'INDRUKwekkend Over het codificeren van regels in de architectuur Ook wel: een alternatieve lezing van The international Style (1932)', in: *OASE Tijdschrift voor architectuur* No 42 (1995), pp. 61-86.

29

Manfredo Tafuri, *History of Italian Architecture, 1944-1984*, Cambridge Mass./ London (MIT Press)1989.

At the 10th congress of the 'National Institute for urban development in Italy' (INU, 1965) the Venetian researchers turned against the then prevailing obsession 'with the problem of "the whole"; the overall master plan of the city. In their view, architecture and urbanism had lost all sense of the singular intervention'.³⁰ Needs, political requirements, the entirety of affairs are of course the basis of every transformation process; however, the tangible reality of the transformation process, the moment of formalization, is in the preparation and in the design of the project. In the context of the most up to date open planning methods the master plan has become obsolete and, as ever before, prime significance should be given to the singular project. The work is the sign of the actual transformation, tangible and completed in edged time.

From this backdrop *L'architettura della città* was conceived. In the preface of the second Italian edition of his book (1969), Rossi states: the main interest of the book is 'to focus on the meaning of the individual project by analysing the way in which it becomes an urban fact'.³¹ The legacy of Modern Architecture is also confronted in this way. The book not simply turns away from it. In fact the theories of the Modern Movement have a major place in *L'architettura della città* and even more in Grassi's *La costruzione logica dell'architettura*. However, by taking into consideration the legacy of architecture as a whole and how it has acted as an autonomous force in determining the form of the city, Modern Architecture is seen as one episode among others. The notion that Modern Architecture is fundamentally different than all architecture before, is abandoned, just as its moral and political claims beyond the Heroic Period.

When speaking of the two fundamental town-planning models of Modern Architecture, the English Garden City and Le Corbusier's *Ville Radieuse*, their ideological outlook on the city as a whole is of little importance. What counts is their real impact on cities.³² As two competing forms of typological critique, strongly related to 'the social question' and housing in particular, both models are firmly rooted in the history of the European city and have become part of its architecture, if only in residential areas. Therefore in *L'architettura della città*, special attention is given to individual cases, mainly in Central Europe: Vienna, Berlin, Hamburg and Frankfurt am Main.

The projects of Modern Architecture realised in these cities during the Interbellum, are concrete architectural manifestations of the municipal strategies to tackle the speculative practice of the *Mietskasernen*. As such, these projects are linked with the political struggles in these cities and have to be analysed as concrete transformations of their architecture.³³ For *L'architettura della città* these projects are a confirmation of the general rule of urban growth and transformation, expressed in the notion of 'the city of parts'. This means that the architecture of a city cannot be reduced to a fixed model.³⁴ Over time, the architecture of a city is settled by means of a succession of small or large projects in which each completed work is, so to speak, an accomplished fact, which the subsequent works have to deal with.

Postulating 'a science of the city'—a science of the construction of the city over time and its processes of transformation and permanence—as Rossi did in *L'architettura della città*, shows here, in confrontation with the legacy of Modern Architecture, its critical value. It was of great help to create a point of view, which keeps the ideological content of its operative models at a distance and concentrates on the architectural syntax of the intervention. The reasons and considerations of an intervention can be manifold, but it always ends up with a work, a definite part of the architecture of a city. As such it should be valued in the first place. A science of the city would be the right instrument to do so and in that sense, postulating 'a science of the city' was also an attempt to overcome the dominant role of art history in modern architectural critique.

THE ANALOGOUS CITY

The leitmotif of the Milan exhibition was represented by a big capriccio, a scenic view of an imaginary city, painted by Arduino Cantafora. It was the first visual representation of the Analogous City. The painting shows some of Rossi's designs in the elect company of the Roman Pantheon, the Tower of Pisa, Giovanni Antolini's design for the Foro Bonaparte in Milan, a small pyramid by Friedrich Weinbrenner in Karlsruhe, Alessandro Antonelli's Mole in Turin, the AEG Turbine Hall by Peter Behrens in Berlin, the Chemical Factory by Hans Poelzig in Luban, the House am Michaeler Platz by Adolf Loos in Vienna, the Housing Block by Mies van der Rohe at the Weissenhof Stuttgart, Giuseppe Terragni's Casa del Fascio in Como, two designs by Etienne Boullée—the Municipal Palace and a Cenotaph—and some slabs from Ludwig Hilberseimer's Vertical City in the background.

Of course the painting could be seen as an actualization of 'the ideal city', represented in the famous perspective view by Piero della Francesca ca. 1550. However, taken into account the reconstruction of the Project of Tendenza so far, such an interpretation doesn't really fit. The programmatic significance of the painting becomes evident when placed next to the scenic view of the central area in Le Corbusier's 'Ville Contemporaine' (1922). Instead of a pastoral landscape with glazed skyscrapers, Cantafora's painting gives a view of the new architecture amidst the tumble of works from the past. It doesn't propose an ideal model of the city to leave history behind. In the context of the Milan exhibition, the message seems to be that 'Rational Architecture', now as ever before, can only be founded on the tangible experience of architecture in history.

Rossi introduced the concept of 'the analogous city' after *L'architettura della città* was finished.³⁵ With this concept, the focus was shifted from urban analysis to design theory. In this respect 'Architettura per i musei' (Architecture for the Museums), a lecture given in 1966 at the seminar *Teoria della progettazione architettonica* (Theory of architectural design), is a programmatic text. It deals with different aspects of the way in which design as an individual activity, including its inherent subjective element, can be thought of in relation to architecture as a collective entity, with its own history deposited in cities and their monuments, but also in unrealised designs, treatises and manuals.³⁶

30

Aldo Rossi, E. Mattioni, G. Polesello and L. Semerani, 'Città e territorio negli aspetti funzionali e figurativi della pianificazione continua', in *Atti del X Congresso INU. Trieste*, 14-16. 10. 65. Also included in: *Scritti scelti*, see note 13, p. 297. This position was first put forward in *Locomotivo 2*, the competition entry for the business centre of Turin by Gianugo Polesello, Aldo Rossi, Luca Meda. (1962) *Casabella continuata* 278, aug. 1963. See also: Aldo Rossi, *Nuovi problemi*, in: *Casabella continuità* no.264 (1962). English translation in: *Ekistics* no.87 (1963); Carlo Aymonino, *Città Territorio: Un Esperimento Didattico*, Bari 1964.

31

translation H.E., deviating from that in: Rossi, see note 8, p. 165.

32

Ibid, pp. 82-86.

33

Ibid, pp. 72-82. See also: Giorgio Grassi, 'Introduzione a L. Hilberseimer', in: L. Hilberseimer, *Un'idea di piano*. Padova 1967; Giorgio Grassi, 'Das Neue Frankfurt et l'architecture du nouveau Frankfurt', in: *Texte zur Architektur*. Zürich (E.T.H.) 1973.

34

Ibid, p. 64.

35

Rossi first introduced the notion of the 'analogous city' in connection with Canaletto's 'capriccio' of the Rialto Bridge area in Venice. Rossi had seen Canaletto's painting for the first time in 1964, while working on the design for the 'Paganini Theater' in Parma. Only after finishing *L'architettura della città*, he used the painting as an example to demonstrate the concept of the analogous city in 'L'architettura della ragione come architettura di tendenza' (1969), in: *Scritti scelti*, see note 13, pp. 370-378.

36

Aldo Rossi, 'Architettura per i musei' (1968), in: *Scritti scelti*, see note 13, pp. 323-339.

'No school of architecture can do without a theory of design, but most of the time design theory is treated as no more than the post-facto rationalisation of particular design activities.' Contrary to that practice, Rossi states that a design theory must be seen as part of a theory of architecture: 'Before we can talk about a theory of design, we have to ask ourselves what we understand by architecture and provide a definition of architecture. Then we need to consider the criteria, which an architectural design needs to satisfy, and the relationship between design and the history of architecture. In short, we have to concentrate on the things that provide us with a concrete understanding of architecture, namely the city, its history and its monuments'.³⁷

This exactly was the subject matter of *The Architecture of the City*, but the relationship between design and urban analysis as such is not dealt with in the book. Impulses for a design theory were only elaborated in the period after its completion. In 1965 Rossi became professor at the Politecnico in Milan where, in conjunction with Giorgio Grassi and other members of his staff, a new research group was formed, which functioned until he was sacked in 1971. Two key essays by Rossi from this period are 'Introduzione a Boullée' (1968) and 'L'architettura della ragione come architettura di tendenza' (1969), in which he introduced the concept of 'analogy'.³⁸ The studies of other members of the Milan group, however, are of equal interest, most of all Giorgio Grassi's *La costruzione logica dell'architettura* (*The logical structure of architecture*, 1967).³⁹ In the forewords of the new editions of *L'architettura della città*, Rossi consistently refers to the new developed notions of 'the analogous city' and 'the logical structure of architecture'.⁴⁰

Most important is the joint publication of the research group: *L'analisi urbana e la progettazione architettonica* (*Urban analyses and architectural design*, 1970) with two fundamental essays by Aldo Rossi and Giorgio Grassi, focused on the question 'How architectural analysis can be seen as part of design?'.⁴¹ In 'L'obiettivo della nostra ricerca' (*The goal of our research*) Rossi states: 'What we look for in the study of the city is the attempt to put together an "analogous city", in other words to use a series of elements linked together by the urban and territorial context, to form the basis for the new city. The analogous city uses places and monuments whose meanings are derived from history and it builds itself around those meanings while it defines its form'.⁴² In 'Il rapporto analisi progetto' (*Analysis and design*) Grassi investigates in depth the methodology implied in this statement.

By implication of the choice of a rationalistic approach, the selection and classification of the architectural elements make them part of a logical construction, which shows their value in the formal syntax of the architectural project. A logical construction allows only analytical judgment; its bond with reality is only secured by the input of architectural forms and the meanings they incorporate by virtue of convention. In this sense, the re-foundation of architecture *Tendenza* aimed at cannot simply be seen as a return to 'origins' or 'archetypes'. It summons to stick to the operational rules of architecture as a cognitive process, which provide the only ground for any speculation. Structured as 'a genealogy of references', 'the analogous city' would bridge the gap between analyses and architectural design, between the collective corpus of architecture and individual action.⁴³

Finally, Massimo Scolari must be mentioned, who in fact gave the only concise formulation of the project of *Tendenza* in his afore mentioned 'Avanguardia e nuova architettura'. Scolari defines the project first and for all as a process of clarification.⁴⁴ He states that 'Tendenza aims at a re-foundation of architecture as a discipline in terms of its autonomy as a cognitive process. That's why it refuses to see interdisciplinary work as a remedy for its actual crisis. *Tendenza* doesn't ponder over accidental political, economical, sociological and technological questions to mask its own creative and formal sterility. It only takes these contingencies into account in order to enable a clear intervention, not in an attempt to determine these, but neither to become their victim.'⁴⁵

All this makes clear that, besides its appeal to the rationalist tradition in architecture, the main reference of the rationalism of *Tendenza* was the philosophy of science initiated by the Wiener Kreis. It provided the ammunition to confront the dominant position of Benedetto Croce's philosophy in Italian culture. By allusion to Rudolf Carnap's *Der Logische Aufbau der Welt* (1928) the very title of Grassi's *La costruzione logica dell'architettura* attested of its polemical intention in this respect.⁴⁶ Special attention should be given, however, to the exceptional Marxist philosopher Ludovico Geymonat (1908–1991) who introduced the so-called New Rationalism in Italy.⁴⁷ From 1956 till 1979 he held the first chair of philosophy of science in Italy at the University of Milan. Geymonat argued that under the actual conditions of scientific work it makes no sense to talk about one uniform method and therefore philosophical rationalism can no longer pretend to reduce all human knowledge to one absolute system. It can only analyse the historical formation of the different forms of knowledge at our disposal and clarify the presuppositions of each of them.⁴⁸

37
Ibid, p. 323.

38
Aldo Rossi, 'Introduzione à Boullée', in: Etienne Louis Boullée, *Architettura. Saggio sull'arte*. Padua 1967; Aldo Rossi, 'L'architettura della ragione come architettura di tendenza', a contribution to the catalogue of the exhibition *Il-luminismo e architettura del 700 veneto*. Castelfranco 31-8 / 9-11 1969. Both texts also in *Scritti scelti*, see note 13, pp. 346-364 and pp. 370-378.

39
Grassi, see note 1.

40
The introduction to the Portuguese edition is most informative in this respect. Aldo Rossi, 'Introduzione all'edizione potoghese de L'architettura della città', in: *Scritti scelti*, see note 13, pp. 443-453. English translation in: Rossi, see note 8, pp. 169-177.

41
Giorgio Grassi, 'Il rapporto analisi progetto', in: Gruppo di ricerca diretta da Aldo Rossi, *L'analisi urbana e la progettazione. Contributi al dibattito e al lavoro di gruppo nell'anno accademico 1968/1969*. Milano (Clup) 1970. Also in: Giorgio Grassi, *L'architettura come mestiere et altri scritti*. Milano (Franco Angeli) 19895, p. 52.

42
Aldo Rossi, 'L'obiettivo della nostra ricerca', in: Gruppo di ricerca diretta da Aldo Rossi, *L'analisi urbana e la progettazione. Contributi al dibattito e al lavoro di gruppo nell'anno accademico 1968/1969*. Milano (Clup) 1970, p. 20. Translation from: Micha Brandi, 'Aldo Rossi', in: *A+U Architecture and Urbanism* no. 11, 1982, p. 20. See also Rossi's preface to the second edition of *L'architettura della città*, where he defines the concept of the analogous city as 'a logical-formal operation' in which the elements are pre-established

and formally defined, but where the significance that springs forth at the end of the operation would be the authentic, unforeseen, and original meaning of the work. Aldo Rossi, 'Prefazione', in the second edition of: *L'architettura della città*. Padova 1969. English translation in: Rossi, see note 8, p. 166.

43
Scolari, see note 10, pp. 182-184. From this perspective, it is no wonder that in the first edition of *Architettura Rationale* a second book by Aldo Rossi was announced: *La città analoga* (The analogous city). The book would have complemented *L'architettura della città*, but never appeared. Rossi's *I quaderni azzuri* 1968-1992, however, give a fair indication of how the initial plan to write *La città analoga* changed in the course of time and finally resulted in the publication of *A Scientific Autobiography* in 1981. Aldo Rossi, *I quaderni azzuri* 1968-1992. Milan/Los Angeles (Electa/The Getty Foundation) 1999.

44
Scolari, See note 10, p.160.

45
Ibid, p. 162.

46
Rudolf Carnap, *Der Logische Aufbau der Welt*. Leipzig (Felix Meiner Verlag) 1928. English translation: Rudolf Carnap, *The Logical Structure of the World. Pseudoproblems in Philosophy*. Berkeley (University of California Press) 1967.

47
Ludovico Geymonat, *Saggi di filosofie neorazionalistica*. Torino (Einaudi) 1953.

48
Ibid, p.24.

TIPOLOGY⁴⁹ AND MORPHOLOGY

The publication of *Architettura razionale* in 1973 can be seen as the end of the Milanese period. Scolari's 'Avanguardia e nuova architettura' was not only the statement of a doctrine, but also a precise demarcation with respect to the neo-avant-garde tendencies of that time, like Archigram and the Florentine groups Superstudio and Archizoom. In his view, the legacy of Modern Architecture left the young generation of architects a fundamental choice: prolongation of the utopia of the avant-garde or re-foundation of the discipline. In contrast with the revived utopianism of the neo-avant-gardes, Tendenza choose the second option.⁵⁰ Instead of producing new environmental models for the salvation of humanity, Tendenza initiated a rigorous reflection on the competence of architecture, its limits and unique capacity as well. In line with the New Rationalism in the philosophy of science Tendenza focused on the forms of knowledge specific to the field of architecture and town planning.

From this perspective, Tendenza should be placed in the wider field of academic studies in architecture and town planning during the 1960' and '70's. Its subordination under the umbrella of Post Modernism has blurred much of its position in this respect. Besides, an effort to clear up this position is confronted with some special difficulties because of the style of the writings by Aymonino, Rossi and Grassi. Contrary to most of the discourse at that time, especially in the field architecture, theirs is seldom of the sort of a straightforward polemic to make their point. Their primary aim is to construct a line of architectural studies from what is already done and not to burn down related efforts in other disciplines. In doing so, they deal with a wide range of academic studies. That is the second difficulty. To follow their argument, at least some more than superficial knowledge of other disciplines is needed.

To conclude this introduction, there is only place to give some hints to focus further study. The first is directly related with the choice to reflect on Tendenza as 'an academic and didactic project' in this introduction. As far as I can see, this is the only point of view from which the supposed critique on Modern Architecture in the discourse of Tendenza can be affirmed and shows any relevance, even today. The central problem Tendenza dealt with was the scientific claim of Modern Architecture and how it was implemented, after World War II, in the Faculties of Architecture at the Universities. As this scientific claim was identified with the concept of functionalism, Logical Empiricism became the guardian of scientific respectability in the field of architecture and town planning and a serious challenge to the common conception of how to study and design architectural form.⁵¹

In this context neo-rationalism can be seen as a reflection on what was left over to the competence of architecture in relation to the growing number of specialist empirical sciences, which invaded its domain. Two publications from the early 1960's are of special interest in this respect: Kevin Lynch, *The Image of the City* (1960) and Christopher Alexander, *Notes on the Synthesis of Form* (1964).⁵² These two studies—the first on environmental perception of the city and the second on design methods—were received as hallmarks of the new scientific approach and discussed as such, respectively, in Rossi's *The Architecture of the City* and Grassi's *La costruzione logica dell'architettura*.⁵³ Although the studies of Lynch and Alexander are only touched upon, together they show the epistemological problems in arriving at a method of description that is not only adequate with regard to the city as the context in which architecture has to operate, but also to architecture itself.

The logical way to construct such a method seems obvious. Just as the other disciplines, architecture should define the city in terms of architecture, which means as an artefact built up in time, and architecture as the art and science of building the city. That is exactly what Rossi proposed to do in *The Architecture of the City*; he labelled the city as the research object of architecture and did an effort to fix the concepts with which to describe the physical form of the city and the mechanisms of its transformation.

As a second hint, I suggest to we pay more attention to the role of Oswald Mathias Ungers in the formation of neo-rationalism in architecture, not so much because Ungers developed a special brand with an impact on younger architects unlike the Krier brothers, Rem Koolhaas and Hans Kollhoff, but because of the impulse some of his early statements might have given to the discourse of Tendenza right at the beginning. Although Klotz has marked Ungers as one of the protagonists of neo-rationalism next to Rossi, up till now the relationship between these two architects in this respect is only touched upon. Generally it is restricted to Casabella in 1960 being the first international magazine to publish some of Ungers works with an introduction by Aldo Rossi.⁵⁴ There is, however, a lot to be curious about.

It is generally accepted that the approach of Tendenza to architecture and the city must be seen in direct line with the work on urban analysis done by Saverio Muratori.⁵⁵ This seems highly questionable, however, because at that time Muratori was seen as rather conservative by the younger generation of Italian architects.⁵⁶ At least it is worthwhile to take also into account two publications of Ungers: *Zu einer neuen Architektur* (Towards a New Architecture, 1960) and his notes on the housing project *Neue Stadt* (1963).⁵⁷ Reading these texts you will find some of the key notions around which Rossi's *The Architecture of the City* is composed: 'the city as a work of art', 'the analogy of the house and the city', 'the genius locus' and, most important, 'the city of parts'.

A more detailed comparison of these short texts of Ungers and the elaborate book of Rossi, however, also shows a significant difference with respect to the concepts, which generally are taken to be basic for the discourse of neo-rationalism: morphology and typology. Whereas morphology is central to the argument of Ungers about the specific kind of architectural knowledge, this term is completely absent in the book of Rossi. In his argument for a morphological approach, Ungers made special reference to Hermann Sörgel, *Einführung in die Architektur-Ästhetik* (1918).⁵⁸

49

With regard to typology the crux of the Italian research on architectural and urban form is established by the reuse of the method of typological analysis. Typology is an instrument focussing upon the description and classification of 'what' is depicted or designed. On the contrary, style analysis tries to define the 'how', the distinctive characteristics of form as a result of an artistic procedure. Hence, typological analysis is based on the recognisability and communicative potential of forms based on (historical) experience, which forms the collective background and is shared within a specific culture. In the avant-garde milieu, where experiment and originality were considered of highest value, the style critical method surpassed typological analyses completely since the beginning of the twentieth century. See: G.C. Argan, 'Het concept van architectonische typologie', in: Leen van Duin, Henk Engel (red.), *Architectuurfragmenten*, Delft 1991, pp. 65-70. Oorspronkelijk: G.C. Argan, 'Sul concetto di tipologia architettonica', in: G.C. Argan, *Progetto e destino*, Milano 1965.

50

Scolari, see note 10, pp. 155-158. For a recent evaluation of Tendenza and the Florentine groups, see: Pier Vittorio Aureli, *The Project of Autonomy. Politics and Architecture within and against Capitalism*. New York (Princeton Architectural Press) 2008. For an assessment of the Florentines use of architectural drawings as instruments of critique, see: Emre Altürk, *Drawing Architecture Theory on the City*. Dissertation, Delft 2009.

51

For a short history of Logical Empiricism and the concepts involved: J.O. Urmson, *Philosophical Analysis. Its development between the two world wars*. Oxford (The Clarendon Press) 1956.

52

Kevin Lynch, *The Image of the City*, Cambridge Mass. (Harvard Un. Press) 1960; Christopher Alexander, *Notes on the synthesis of form*. Cambridge Mass. (Harvard Un. Press) 1964.

53

Rossi, see note 8, pp. 112-114; Giorgio Grassi, see note 1, pp. 208-212.

54

Aldo Rossi, 'Un giovane architetto tedesco: Oswald Mathias Ungers', in: *Casabella* no. 244 (oct.1960), pp. 22-35. English translation, p. VI.

55

Saverio Muratori, *Studi per una operante storia urbana di Venezia*. Rome 1959. For the further development of the theory and method of Muratorian urban analysis: Gianfranco Coniggia, Gian Luigi Maffei, *Architectural Composition and Building Typology. Interpreting Basic Building*. Florence (Alinea Ed.) 2001. (First Italian edition 1979).

56

Giorgio Ciuci, 'Gli anni della formazione / The formative years', in: *Casabella* no. 619-620 (Jan.-Feb. 1995, special issue on Manfredo Tafuri), p. 21.

57

Reinhard Gieselmann / Oswald Mathias Ungers, 'Zu einer neuen Architektur', reprint in: Ulrich Conrads, *Programme und Manifeste zur Architektur des 20. Jahrhunderts*, Berlin / Frankfurt a.M. / Wien (Ulstein) 1964, pp.158-159; O.M. Ungers, 'Zum Projekt "Neue Stadt" in Köln', in: *Werk* 1963 nr.7, pp. 281-284. English translation from: Joan Ockman (ed.), *Architecture Culture 1943-1968. A Documentary Anthology*. New York (Rizzoli) 20003, pp. 362 and 363.

58

O.M. Ungers, 'Zum Projekt "Neue Stadt" in Köln', see note 56; Herman Sörgel, *Einführung in die Architektur-Ästhetik, Prolegomena zu einer Theorie der Baukunst*. München (Piloty & Loehle) 1918.

By way of Sörgel, Ungers' concept of morphology linked up with the German *Kunstwissenschaft* (Science of Art), which had played a significant role in the early development of Modern Architecture. It is true, most modern architects spoke of their work in terms of functionalism, but when it came to questions of form and cultural value, one way or the other, all of them resorted to terms of the German *Kunstwissenschaft*.⁵⁹ Rossi instead resorted to the concept of type, defined by Quatremère de Quincy as a regulating principle, prior to form and constituting it.⁶⁰

My third and final hint is, that only with caution can the reflections of *Tendenza* on analysis and design be associated with Structuralism in other fields of study at that time. Rossi did refer to the Structural Linguistics of Ferdinand de Saussure and to Claude Lévi Strauß who gave Anthropology a new direction on basis of the methods stipulated by De Saussure.⁶¹ Besides, Scolari pointed to the relevance of Wiktor Sjkolowskij and Russian Formalism for understanding the artistic techniques used in the designs of *Tendenza*.⁶² Rossi, however, stated clearly that he didn't envisage 'a systematic development of a program of this type'. Instead, his main interest was in the 'historical problems and methods of describing urban artefacts' and in 'the identification of the principal forces at play' in the formation and development of the city.⁶³

If one wants to look for a vital connection with Ferdinand de Saussure's Course in General Linguistics, one should not dive so much into the parts concerned with 'synchronic linguistics', but into those parts concerned with 'diachronic linguistics'. The parts on 'synchronic linguistics' deal with language as a static system of signs and have become one of the sources from which structural analysis in other domains have been developed towards a general science of Semiotics.⁶⁴ 'Diachronic linguistics' studies the evolution of language. Although De Saussure's Course spent many pages on this subject, it had no impact on the foundation of Semiotics.⁶⁵ It is just there, however, one will find the concept of 'analogy', which for Rossi became the key to an understanding of the relation between the individual architectural project and the architecture of the city.⁶⁶

According to De Saussure, 'analogy' belongs to the normal functioning of language. In the use of language 'analogy' plays an active role in the conservation of language as a collective sign system, but it is also the 'creative force' par excellence in the evolution of the system. Although speaking is a rule-based practice, in fact words and sentences are created anew in every individual act of speaking.⁶⁷ Innovations are the result of changes in the practice of speaking, that is: 'the general activity that singles out units for subsequent use'.⁶⁸

In every act of speaking different associative series are involved. 'Analogical innovations' can be seen 'as symptoms of changes in interpretation'.

In this sense every architectural project should be understood as an event. If I understand him well, Giorgio Grassi goes even further. Logical analyses can clear up the possible rules of the game, but the rule as norm, as principle, shows itself only in the act of design.⁶⁹ Maybe, only by making such a clear distinction between analyses and design it is justified to speak of a new rationalism in architecture.

59

Henk Engel, Jan de Heer, 'Cityscape and Mass Housing', in: *OASE* no. 75. Rotterdam (NAi Publishers) 2008, pp. 33-57. Original: Henk Engel, Jan de Heer, 'Stadsbeeld en Massawoningbouw', in: *O ontwerp, onderzoek, onderwijs*. no. 7 (Spring 1984), pp. 10-22. The main issue of the German '*Kunstwissenschaft*' was to define a set of underlying principles – 'Grundbegriffe', as August Schmarsow (1853-1936) and Heinrich Wölfflin (1864-1945) called these – by which the art historian could discriminate between different historical styles in the visual arts.

60

Rossi, see note 8, pp. 35-41.

61

Ibid., pp. 112-114 pp. 22-23 and pp. 33-34.

62

Scolari, see note 10, pp. 184-185.

63

Rossi, see note 8, p. 23.

64

Umberto Eco, *Opera aperta*. Milan (Ed. Valentino Bompiani) 1962; Umberto Eco, *La struttura assenta*. Milan (Ed. Valentino Bompiani) 1968.

65

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66

Vittorio Savi, *L'architettura di Aldo Rossi*. Milan (Franco Angelli Ed.) 1976, pp. 107-108.

67

De Saussure, see note 63, pp. 171-173.

68

Ibid., p. 166.

69

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METHODS & ANALYSIS

The aim of the Methods and Analysis education is to understand architecture, more than a response to program or problem solving, as the development of distinct approaches and tools. The education therefore challenges the students' preconceptions about architectural methods and instruments inspire the advancement of inventive approaches, while enabling critical action in the built environment.

The late-capitalist economy of unlimited growth and ever accelerating flows seems to be making way for another perspective: one of limited resources and modesty. Simultaneously, the increasing dynamism of contemporary societies and cultures engenders complex processes that shape our territories as a novel mixture of private and public spaces. Hence, architects – and in our education the students – are challenged to find 'other ways of doing'; more informed, cultured and engaged methods of thinking and practicing architecture.

Methods and Analysis aims to be a laboratory for students who want to explore pioneering ways to analyse, understand and intervene in the built environment. These design studios and seminars explicitly question today's rapid changes, which scrutinize our existing architectural approaches. Studios and seminars ask questions such as: Which methods are appropriate to analyse our present urban condition? What approaches and instruments can inform contemporary design intervention? Can we develop a new architectural toolbox to act in the urban territory of the 21st century? And how does the increasing cross-cultural character of architectural practice influence our approaches and tools?



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Bachelors and Masters Teaching

- AR1MET010 Ways of doing
- AR1MET040 Roles of the Architect
- AR3AD132 Dwelling Graduation Studio: Global housing studio
- AR3MET010 Seminar Research Methods: Probing into Precedents
- AR3MET020 Tutorial Research Methods: Fieldwork

Tom Avermaete

From Unité to Jussieu; The Public Realm as Frame, Substance and Goal of Architecture

1

Hannah Arendt, *The Human Condition*. Chicago/London (University of Chicago Press) 1994 (1958), p.2

2

Michael Sorkin (ed.), *Variations on a Theme Park, The New American City and the End of Public Space*. New York (Hill and Wang) 1992, p.XV

3

Rem Koolhaas 'Generic City', in: Rem Koolhaas and Bruce Mau, *S,M,L,XL*, Rotterdam (010) 1995, p.1251

Since architects deal with the world, they always hold a responsibility vis-à-vis the public realm. The world, according to the philosopher Hannah Arendt, is that what we, as human beings, construct in order to make human life possible on earth.¹ We share this world, it is accessible to us and we have the possibility to democratically partake in the discussions about its present and future construction: it is our common ground, or in the words of Arendt a 'public realm'. Architects intervene in this public realm. No matter if they design public buildings or housing, architecture intervenes by necessity in this wider common matrix that can be labelled as 'public'. As a result the architect is by default a 'public figure' (even a public intellectual some claim) and his projects are 'public actors' within a wider urban condition.

Against this background, it comes as no surprise that in the last two decades a fierce debate on 'the public realm' roused within the field of architecture. The American architect and theorist Michael Sorkin, for instance, argues in his well known book *Variations on a Theme Park*, that in the contemporary American city, characterized by its segregation in walled areas like the Shopping Mall, the Historic District, the Theme Park, and the gated community, public space is in danger. Especially the democratic character of public space is in decline according to Sorkin: many places in our cities are no longer freely accessible to everyone, they are no longer stages where strangers meet and can discuss about the ways that we construct our 'world'; they are no longer a public realm.²

Sorkin and other authors have criticized this loss of the political dimension of public space; they have lamented the decrease of public spaces where people can freely enter, meet and discuss. They have sketched doom scenarios in which entire cities become privatized and only those who can pay can enter public life. Also Rem Koolhaas entered this debate and provocatively claimed that we are currently experiencing a worrisome 'evacuation of the public realm'.³ But why this interest of architects in the public realm? Can architects with their designs for buildings, infrastructures and neighborhoods affect what is happening in public spaces and with the public realm nowadays? Are architects just observers of these phenomena or are they active agents that can influence the course of events?

In this article we will probe into the longstanding engagement of architecture with the public realm. The first part of this article shows how the notion of the public has been conceptualized and theorized since the mid 20th century in a larger societal debate, while the second part clarifies how concepts of the public — understood in a variety of ways— have constantly challenged modern and contemporary architecture. This mapping will allow us to overcome the quite negative view that dominates the architectural debate and to suggest, as a conclusion to this article, an alternative perspective on the relationship between actual design approaches and perspectives on the public realm.

I.

THE MODERN PUBLIC REALM: A NEW MODE OF SOCIAL ORGANIZATION

The emergence of modern public realm is inextricably linked to the need to cope with the social ambivalence arising from modernity.⁴ The American author Marshall Berman, writes in his book *All that is Solid Melts into Air: The Experience of Modernity*: ‘To be modern is to find ourselves in an environment that promises us adventure, power, joy, growth, transformation of ourselves and the world —and at the same time threatens to destroy everything we have, everything we know, everything we are.’⁵ Modernity thus always consists of the twofold experience of longing and loss —longing for a promising future as well as unconsciousness about the loss of a guiding history. Specifically this latter experience of loss leads to a condition of social uprootedness that has been conceptualized by well-known sociologists such as Ferdinand Tönnies, Emile Durkheim, and Max Weber. Each in their own way, they illuminate the profound social changes wrought by modernity: individualization, fragmentation, differentiation, and rationalization. They describe how modernity drastically alters interpersonal relationships and patterns of social cohesion and thus installs certain ambivalence. Resisting social ambivalence seems one of the principal concerns of modernity. The Polish sociologist Zygmunt Bauman writes that ‘the effort to exterminate ambivalence’ is a ‘typically modern practice, the substance of modern politics, of modern intellect, of modern life.’⁶ The control, domestication, and regulation of social ambivalence are main features of modern life. Also the Canadian sociologist

Michel Freitag describes modernity in comparable terms, as a new way of regulating society.⁷ He characterises modernity by a new mode of social reproduction. Social codes and messages are no longer confined to traditional symbols, but are also generated and transmitted through new communications media, like newspapers, radio, television, and so forth. Modernity, in Freitag’s view, moves beyond the cultural and symbolic realms that regulated the reproduction of traditional societies, creating a political and institutional realm alongside them. Within this ‘public realm’ —that is situated in coffee houses, learned societies, and associations, in pamphlets and periodicals —citizens debate the proper organization of society and the proper form of community. Authors like Bauman, Freitag, and also the German philosopher Jürgen Habermas, who has influenced the debate in architectural theory mostly, agree that this new public realm is the most characteristic element of modernity.

JÜRGEN HABERMAS: A NEW MODE OF SOCIAL REPRODUCTION

A variety of thinkers have attempted to describe the characteristics of the modern public realm. Without a doubt, the Jürgen Habermas is one of the most important. His well-known book *Strukturwandel der Öffentlichkeit* is devoted entirely to this subject.⁸ Habermas defines the term *Öffentlichkeit*, ‘the public sphere’ as this German term consistently is translated into English, but that generally spoken has the same meaning as the above used term ‘public realm’, as ‘a realm of social life in which something approaching public opinion can be formed . . . and in which citizens can confer in an unrestrictive manner’.⁹ He describes this realm as a social domain —alongside the state and the commercial domain —in which rational discussion takes place between citizens on matters of general interest. The public opinion emerging from this rational debate formally and informally influences the organization of society.

In *Strukturwandel der Öffentlichkeit*, Habermas summarizes the developmental history of the public sphere, which he links to the rise of capitalist society in Europe. His argument stated briefly, is that the advent of the stock exchange, as a result of the march of capitalism, led around 1550 to the emergence of trading organizations that obtained political power. The result was a domain of *öffentliche* power, in which the state and the

dominant economic class were in charge. Those who did not belong to this domain had no access to it. As capitalism continued to expand and intensify, however, a new bourgeois class of doctors, lawyers, and scholars emerged, which developed a critique of *öffentliche* power. Hence, in the eighteenth century a bourgeois public sphere was born in which the organization of society was subject to critical examination: 'The bourgeois public realm may be conceived above all as the realm of private people who come together as a public; they soon claimed the public sphere regulated from above against the public authorities themselves, to engage them in a debate over the general rules governing relations in the basically privatized but publicly relevant realm of commodity exchange and social labor.'¹⁰

According to Habermas, in this new order, debates on how to organize society took place in personal discussions and in print media. The press was one medium that played an important role in the formation of public opinion (*öffentliche Meinung*), because it functioned as a forum in which citizens could discuss important social issues. Books, pamphlets, and newspapers circulated among the literate, serving as vehicles for theses, analyses, arguments, and counterarguments that referred to one another or contradicted one another. The new public spaces also included physical forums such as salons, cafés, and clubs, where members of different classes met to engage in debate, verbal sparring, and displays of rhetorical sophistication.

It would all have been unthinkable before the eighteenth century: the newspapers and periodicals, the printed evidence of the new freedom of expression that was soon to be enshrined in the law, along with the freedom of association. For Habermas the Enlightenment was the radiant, inspiring dawn of modernity, and the creation of the public sphere was one of its greatest achievements, if not its very essence. The opportunity for the public to form their own opinions, he repeatedly emphasizes, is a necessary condition of human freedom and emancipation.

According to Habermas, the bourgeois public sphere is the backbone of Western democracy, where all the public debates take place that serve as the basis for political decisions, debates that are entirely open to all citizens. *Öffentlichkeit* is the realm in which ideas can be freely expressed, exchanged, and criticized. This active formation of public opinion differs strongly from the

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For an introduction to the term 'public realm', see Arthur Strum, 'A Bibliography of the Concept Öffentlichkeit', in: New German Critique, Winter 1994, no. 61: Special Issue on Niklas Luhmann, pp.161-202.

5

Marshall Berman, All That is Solid Melts into Air: The Experience of Modernity. New York (Penguin Books) 1982, p.15.

6

Zygmunt Bauman, Modernity and Ambivalence. London (Polity Press) 2004 (1991), p.7.

7

Michel Freitag, Dialectique et société. Vol. 2: Culture, pouvoir, contrôle. Montréal (Les éditions Saint-Martin) 1986

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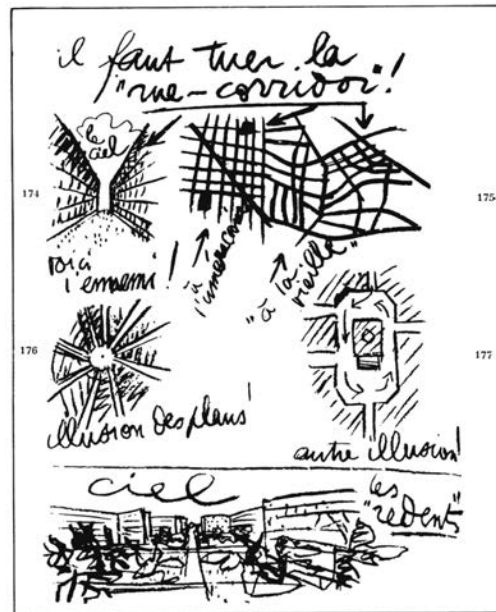
Habermas, The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society, Cambridge (Mass.) (MIT Press) 1989; For a detailed discussion of the concept of the public sphere in the work of Jürgen Habermas, see Peter Hohendahl, 'Jürgen Habermas: "The Public Sphere" (1964)', in: New German Critique, no. 3, Autumn, 1974, pp.45-48.

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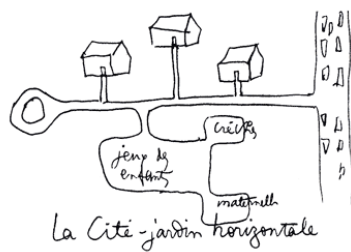
Jürgen Habermas, 'The Public Sphere: An Encyclopedia Article' (1964), in New German Critique, no. 3, Autumn, 1974, p.49

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Habermas, The Structural Transformation of the Public Sphere, p.27



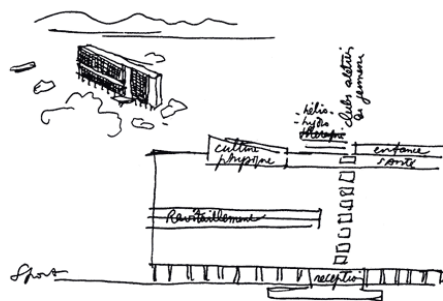
1. Le Corbusier, sketch on 'il faut truer la rue-corridor'



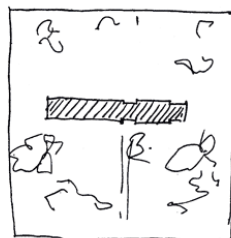
une unité d'habitation
de 1600 habitants
réclame
320 petits maisons
et
courses

200 Hectares pour 10 000 habitants

200 Ha

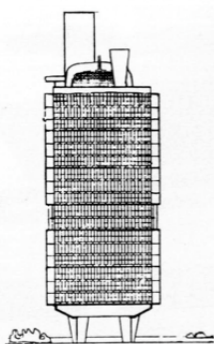


La Cité-jardin verticale

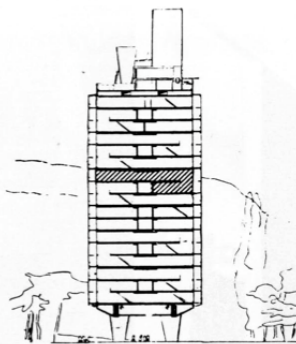


une unite d'habitation
de 1600 personnes
reclame
un seul batiment

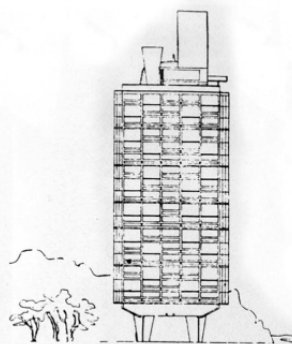
la
course
25 Hectares pour 10000
habitants.



La façade nord
North elevation



La coupe
Section



La façade sud
South elevation

2.

3.

4.

2. Le Corbusier, sketch on allotment street and Unite / Candilis Archive IFA, France
3. Aerial view of Unite / Candilis Archive IFA, France
4. Le Corbusier, section of Unite with different 'interior streets' / Candilis Archive IFA, France

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Jürgen Habermas, 'The Public Sphere: An Encyclopedia Article (1964)', p.54.

12

Habermas, *The Structural Transformation of the Public Sphere*, p.171.

13

Ibid., p.175.

traditional situation, in which public opinion was primarily characterized by its unconsidered character as well as that it was not subject to discussion and criticism. What went on in traditional communities was more like passive transmission of ideas on the social from generation to generation.

THE TRANSFORMATION OF THE PUBLIC SPHERE

Jürgen Habermas' title *Strukturwandel der Öffentlichkeit* refers to the changes that the public realm has undergone since the eighteenth century.

Habermas believes it has been in decline. In late capitalism, Habermas says, the public sphere has degenerated into a manipulated realm. The institutions that were supposed to foster and protect the public sphere — voluntary associations and the mass media — have gradually been recuperated by state and economy. Civil-society organizations and associations that previously worked to develop informed public opinion no longer have the critical distance that is indispensable to public debate. In short, 'large organizations strive for political compromises with the state and with each other, excluding the public sphere whenever possible.'¹¹ The communications media that citizens are meant to use to air their opinions, arguments, and criticism are, to a growing extent, in the service of private, commercial interests.

What could have been an institutional pillar of the public realm has degenerated into an instrument of publicity. 'The world fashioned by the mass media', Habermas says, 'is a public sphere in appearance only.'¹² The content disseminated through the media is not longer critical and argumentative in character, but reflects the promotional character of the culture of consumption. The infiltration of market principles into the mass media has, according to Habermas, transformed active, rational public debate into passive cultural consumption. As a result, 'the sounding board of an educated stratum tutored in the public use of reason has been shattered; the public is split apart into minorities of specialists who put their reason to use non-publicly and the mass of consumers whose receptiveness is public but uncritical. Consequently, it completely lacks the form of communication specific to the public.'¹³

COUNTER-PUBLIC SPHERES

The public sphere extends much further than the bourgeois sphere described by Jürgen Habermas, a fact that has been brought forward by the German philosophers Oskar Negt and Alexander Kluge. In *Öffentlichkeit und Erfahrung*, they emphasize that one of the essential features of the public sphere is that it always contains *Gegenöffentlichkeit*, counter-public spheres.¹⁴ Negt and Kluge demonstrate that at the same time as Habermas' liberal, bourgeois public sphere came into being, populated mainly by literate white men, so did proletarian, plebeian, and female public spheres. They claim that the public sphere is not an expression of the discourse within a single social class, but that more typically a variety of social groups lend their contrasting voices to the debate. The two authors stress the plurality of the public realm, in which new forms of public life are constantly emerging: 'These new forms seem to people to be no less public than the traditional bourgeois public sphere. Here and in what follows we only understand the public sphere as an aggregate of phenomena that have completely diverse characteristics and origins. The public sphere has no homogeneous substance whatsoever.'¹⁵

As Negt and Kluge see it, one of the hallmarks of the public sphere is that it makes it possible for individuals to interpret social reality and express those interpretations. In this sense, the public sphere is a 'central element in the organization of human experience'.¹⁶ A similar view is expressed by the contemporary social theorist Nancy Fraser. She too emphasizes that Habermas' notion of the public sphere excludes a variety of publics. These subaltern publics or counterpublics, as Fraser calls them, include 'such diverse groups as women, workers, peoples of color, and gays and lesbians', who are barred from the public sphere because of their class, gender, status, or race.¹⁷ In 'Rethinking the Black Public Sphere: An Alternative Vocabulary for Multiple Public Realms', Catherine R. Squires advocates an elaborate typology of the public sphere, with categories such as 'enclave, counterpublic, and satellite public realms'.¹⁸ New vocabulary of this kind will make it possible, she argues, to distinguish among a wide range of counterpublic spheres on the basis of 'how they respond to dominant social pressures, legal restrictions, and other challenges from dominant publics and the state'.¹⁹

A number of authors have also pointed out the importance of the new mass media in the



5. View of 'interior street' with delivery boxes / Candilis Archive IFA, France



6. Double-high interior street with public furniture / Candilis Archive IFA, France

formation of a counterpublic sphere. Craig Calhoun, for instance, has asserted that the mass media 'are not entirely negative and there is a certain amount of room of manoeuvre for alternative democratic media strategies'.²⁰ John Downey and Natalie Fenton have expanded on this idea in their article 'New Media, Counter Publicity and the Public Realm', in which they give various examples of how the Internet has made counterpublic realms possible—for instance in the Zapatista and McSpotlight campaigns—through 'small, alternative, non-mainstream, radical, grassroots or community media'.²¹

These perspectives echo the article that the 'Meinungsforschung und Öffentlichkeit' that the German philosopher Theodor W. Adorno published in 1964 in which he highlighted the importance of the mass media in the modern public Sphere.²² Adorno points out that the mass media plays a dual role, as both 'forums' and 'organs' of public opinion. His analysis of the mass media as simultaneously inculcating a normative concept of the public realm and acting as vehicles for public practices still seems important today as we seek to understand new counter-public spheres.

HANNAH ARENDT: THE POLITICAL DIMENSION OR THE SPACE OF APPEARANCE

Although it can be argued that it is the perspective of Jürgen Habermas that influenced the discourse in the realm of architecture on the public mostly (it was the translation of his *Strukturwandel der Öffentlichkeit* in English in 1989 that roused the debate amongst philosophers, sociologists, political theorists, a discussion that was embraced in the early nineties into the perspective of the city and public space as well), it is quite clarifying to investigate a few other takes as well. The Jewish-German-American philosopher Hannah Arendt, who we already touched upon in the introduction of this article, for instance, links in her book *The Human Condition* (1958) the concept of the public realm to political action. By the way, different than Habermas, Arendt uses both the term public realm and public space throughout her work. What she actually meant with the terms indeed has a spatial component, although it cannot be understood as the 'public space' as architects and urban designers use that term regularly. For Arendt, who never addressed the change of urban spaces as a tangible consequence of the topic

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Oskar Negt & Alexander Kluge, *Öffentlichkeit und Erfahrung. Zur Organisationsanalyse von bürgerlicher und proletarischer Öffentlichkeit*. Frankfurt a.M. (Suhrkamp Verlag) 1972; English trans.: Oskar Negt & Alexander Kluge, *Public Sphere and Experience: Toward an Analysis of the Bourgeois and Proletarian Public Sphere*. Translated by Peter Labanyi et al., Minneapolis (University of Minnesota Press) 1993. For an introduction to the thinking of Negt and Kluge, see Fredric Jameson, 'On Negt and Kluge', in: *October Autumn* 1988, vol. 46: 'Alexander Kluge: Theoretical Writings, Stories, and an Interview', pp. 151-177.

15

Negt & Kluge, *Public Realm and Experience*, p.12.

16

Ibid., p.12; See also Eberhard Knödler-Bunte, Sara Lennox, Frank Lennox, 'The Proletarian Public Sphere and Political Organization: An Analysis of Oskar Negt and Alexander Kluge's "The Public Sphere and Experience"', in: *New German Critique*, Winter 1975, no. 4, pp.51-75.

17

Nancy Fraser, 'Rethinking the Public Sphere: A contribution to the critique of actually existing democracy', in: Craig Calhoun (ed.), *Habermas and the Public Sphere*. Cambridge, Mass. (MIT Press) 1992, p.123.

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Catherine R. Squires, 'Rethinking the Black Public Sphere: An Alternative Vocabulary for Multiple Public Spheres', in: *Communication Theory*, 2002, vol. 12, no. 4, pp. 446-468, at p.446.

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Ibid., p.457.

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Craig J. Calhoun, *Social Theory and the Politics of Identity*. Cambridge, Mass. (Blackwell Publishers) 1994.

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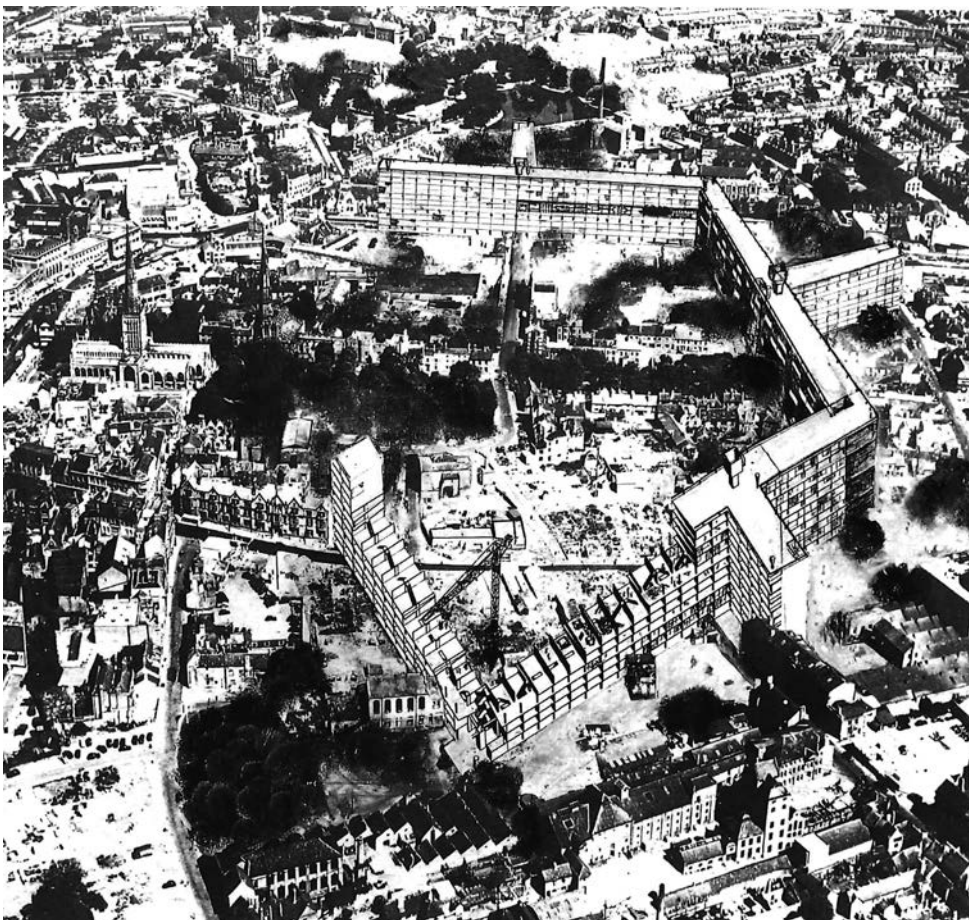
John Downey & Natalie Fenton, 'New Media, Counter Publicity and the Public Sphere', in: *New Media Society*, 2003, no. 5, pp.185-202.

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Theodor W. Adorno, 'Meinungsforschung und Öffentlichkeit' (1964), in: Theodor W. Adorno, *Soziologische Schriften I*, Frankfurt (Suhrkamp) 1972, pp.532-537; English trans.: Theodor W. Adorno, 'Opinion Research and Publicness', in: *Sociological Theory*, March 2005, vol. 23, no. 1, pp.116-123.



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7. Roof of Unite d'Habitation / Candilis
Archive IFA, France

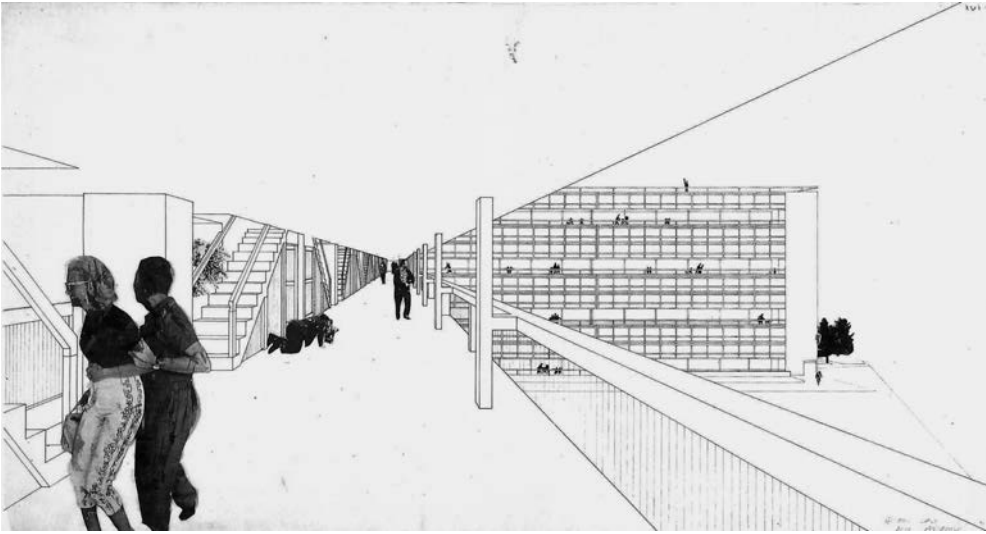
8. Alison and Peter Smithson, Golden Lane
Housing on bombed
London site, 1952 / NI
Collection, Rotterdam
Netherlands

23
Hannah Arendt, *The Human Condition*. p.198.
24
Ibid., p.7
25
Ibid., pp.28-37; 192-199

she was concerned of, the term public realm has a philosophical significance. The public realm, Arendt says, is a place where people act rather than work. This perspective she bases on an Aristotelian distinction between three forms of human activities: labour, work and action. For our perspective specifically the third is important. In opposite to labour, that is characterized by necessity and compulsion, the latter is circumscribed by freedom and self-realization. On work we will come back soon, but first our attention need to go to the activity of action. By acting and speaking —Arendt immediately adds speaking to the category of action, since acting without speaking cannot be understood, and speaking without action makes no sense —in public space, we appear to one another as free and equal individuals, and politics becomes possible, Arendt claims. She writes: ‘Action and speech create a space between the participants, which can find its proper location almost any time and anywhere. It is the space of appearance in the widest sense of the word, namely the space where I appear to others as others appear to me, where men exist not merely like other living or inanimate things but make their appearance explicitly.’²³

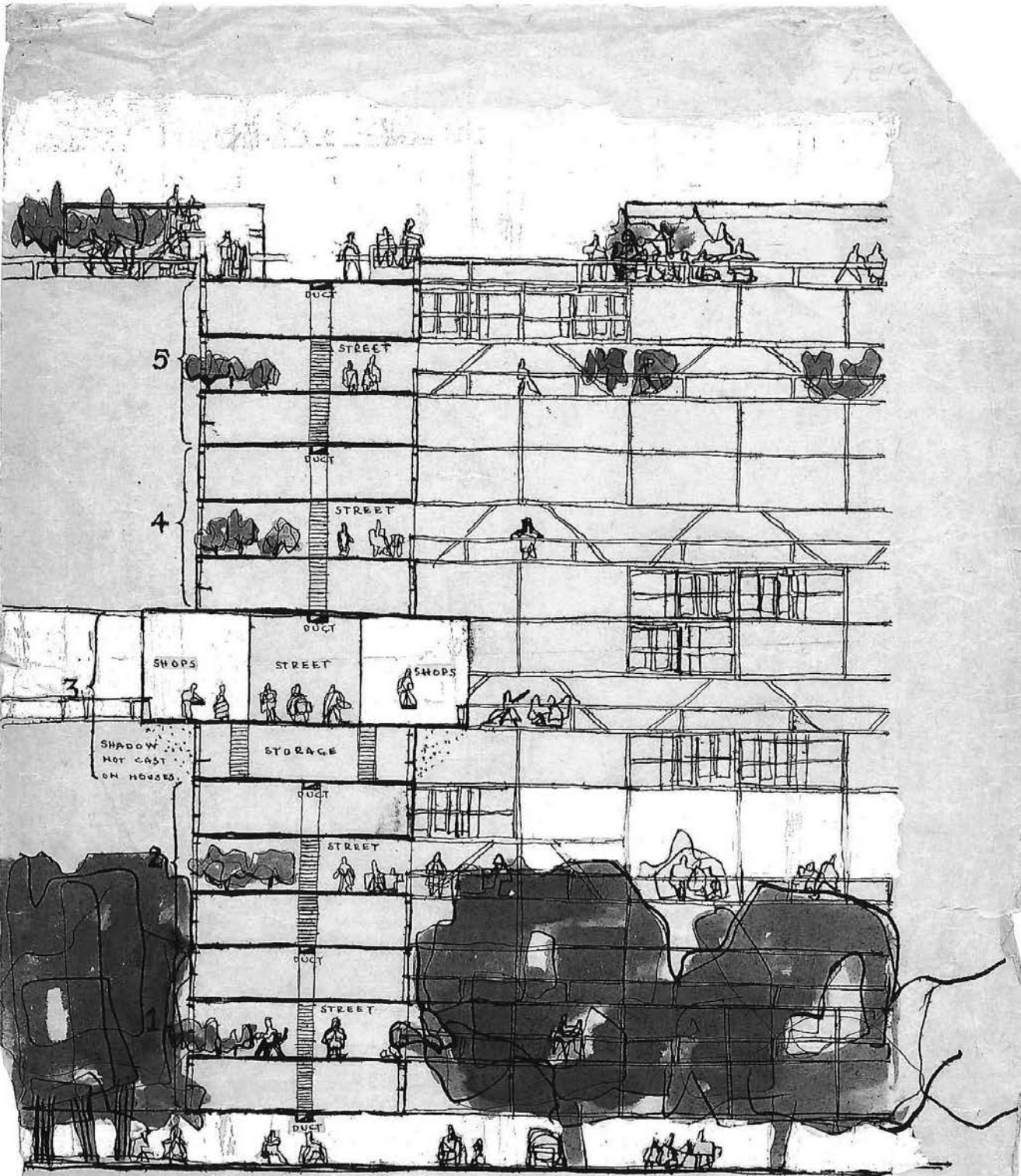
The essence of the public realm, as Arendt identifies, is to allow us to relate to one another despite our plurality, with the aim of creating a common world: ‘Action, the only activity that goes on directly between men without the intermediary of things or matter, corresponds to the human condition of plurality, to the fact that men, not Man, live on the earth and inhabit the world. While all aspects of the human condition are somehow related to politics, this plurality is specifically the condition —not only the *conditio sine qua non*, but the *conditio per quam* —of all political life’.²⁴

The space that Arendt associates with this condition and activity is public space, and she harks back to the concept of the *agora*, the marketplace of the ancient Greek *polis* (city-state).²⁵ In other words, Arendt argues that there is a specific place where people, in all their diversity, can —and must —be seen and heard. Out of this perspective, the public space is the stage on which people perform. Hence, Arendt clearly does not simply equate the public realm with the *agora*, or with any other particular public space, urban or otherwise. She believes that the public realm can take many forms. Building on a republican tradition,



9. Alison and Peter Smithson, *Street in the air* with Marilyn Monroe and Joe Dimaggio, 1952 / NI Collection, Rotterdam Netherlands

10. Alison and Peter Smithson, *Golden Lane Housing* section with 'streets in the air', 1952 / NI Collection, Rotterdam Netherlands



CAP. EMPHASIS ON SITE, CIRCULATION, HABITATION &
HUMAN PRESENCE

she sees a highly developed civic public culture as one in which citizens participate energetically in numerous associations of all sizes that offer them opportunities for 'action'. The media can potentially do a great deal to support this culture, she says. They contribute information, creating their own little public spaces — in newspapers, for example — where citizens can think about public themes together.

For Arendt, the term 'public realm' has two closely connected, but not identical, meanings. Firstly, she sees the public realm as essential to human existence. What appears in the public realm must be genuinely visible and accessible to everyone. Reality is constituted by this process of entering the public realm: 'It means first that everything that appears in public can be seen and heard by everybody and has the widest possible publicity. For us, appearance — something that is being seen and heard by others, as well as by ourselves — constitutes reality.'²⁶ Only that which is brought into the public realm and can be discussed by a broad public makes a contribution to society. Only a life lived in public can be meaningful, Arendt says. The second meaning that Arendt assigns to the term 'public realm' is 'the world itself, insofar as it is common to us all and distinguished from our privately owned place in it'.²⁷ She states that this world is constituted by the 'world of things' which is the human artifice — and which is the produce and concern of the second human activity she distinguished: work. In other words, the human work, the production of things that last, creates a durable world, which is the stage for action, for public life. Undoubtedly, Architecture is part of this world of things — and is as such a premise for public life.

Arendt, too, refers to a decline in the public realm. She sees a loss of 'commonality' resulting from the rise of mass society. What concerns her is not that there are so many people, but that the world between them can no longer connect and divide them.²⁸ According to Arendt, without this type of commonality, each individual remains suspended in his own individuality, in his own purely personal experience.²⁹

RICHARD SENNETT:

THE RISE AND FALL OF 'CIVICNESS'

Where Arendt defines the term 'polis' as the locus of the public realm, the sociologist Richard Sennett places the public clearly in the context of the rising city. In his 1977 book *The Fall of Public Man*, Sennett describes the modern city's public realm — or public domain, as he now and then calls it — as the space in which anonymous individuals interact.³⁰ The concept of 'the public' is closely connected to the emergence of modern urban life. Within this context public space was understood as the social space in which strangers meet. This space included boulevards and city parks, as well as the cafés, theatres, and opera houses where 'the public' congregated. Whoever took a stroll on the boulevard or went to the theatre was venturing out among unfamiliar people. Until that time, the theatre and opera-going public had been a relatively close circle of people who knew each other well, and when they gathered to see a performance, it was usually by invitation. In modern urban life, however, the public had increasingly become an assemblage of strangers, and tellingly, performances no longer required an invitation but the purchase of a ticket.

As encounters with strangers became more frequent, society needed new social conventions to bring order to the new domain of the public. Sennett uses the notion of 'civicness' to describe the urban social conventions that emerge in the eighteenth century. Civicness permeated every aspect of public interaction, such as language, dress, and, above all, attitude: 'Playacting in the form of manners, conventions, and ritual gestures is the very stuff out of which public relations are formed'.³¹

In eighteenth-century Paris, London, or Rome, Sennett writes, the public domain was a realm of regulated sociability. It was quite normal for passers-by in public spaces to greet one another, even if they were complete strangers. The patrons of cafés and ale houses freely debated matters of general interest without being acquainted. Personal remarks were avoided. The public domain was a safe haven, where people could trade in their private concerns for a publicly oriented cosmopolitan life.

What was true of interaction in parks and theatres was also true of public debate; whoever took part in it was entering the public domain and had therefore to obey the rules of public appearance. As dress and courteousness were to inter-

26
Ibid., p. 50
27
Ibid., p. 52
28
Ibid., p. 60
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Ibid., p. 57
30
Richard Sennett, *The Fall of
Public Man*. New York/Lon-
don (W.W. Norton & Com-
pany) 1992 (1977), p.4
31
ibid., p.29.

action with strangers in the park, so eloquence and argumentative skills were to interaction in public debate. Argument was part of civicness, as were courtesy, tact, and charm. It was the most suitable way of ensuring that disagreements between strangers did not get out of hand. Just as citizens dressed in a certain way in public to conform to social norms rather than to express their personalities, arguments were a means of persuading one's audience rather than a mode of self-expression. In this climate of tolerance and sociable interaction with strangers, public debate could flourish, says Sennett, whose argument in this respect resembles that of Habermas. Not only urban space, but also politics became public. No longer were government affairs discussed only in the select circle of the nobility and the administrative elite; instead, they became political issues, that pertained to everyone's interests and about which people formed their own opinions.

II. THE PUBLIC REALM AND ARCHITECTURE: ACCOMMODATING AND REPRESENTING THE PUBLIC

*The people want the
buildings that represent
their social and community
life to give more than
functional fulfilment.
They want their aspiration
for monumentality, joy,
pride, and excitement to
be satisfied. The fulfilment
of this demand can be
accomplished with the new
means of expression at hand,
though it is no easy task.*
— Sigfried Giedion,
José Luis Sert,
Fernand Léger,
'Nine Points on
Monumentality',
in: *Harvard
Architectural Review*,
1943

SHAPING THE PUBLIC REALM

Although it is clear that in these philosophical, political, and sociological voices 'real' spaces are present — in Habermas the coffee-house, in Arendt the Greek and Roman City State, the agora, and in Sennett the city — it also is clear that the relationship with these spaces are rather vague, not to say, lacking. The specific architecture of these spaces is not the point of attention, it even seems to be ignored. Only Sennett speaks of 'dead urban spaces' when he imagines the spaces of the modern city, characterized by an abandonment of public life. This simultaneously urges the problem at the core of their arguments: the vanishing or changing public practices, the loss of communal space of gathering, the loss of a shared understanding of (urban) life, the loss of a common world.

One might question whether this indeed is a problem of architecture as well. Architecture creates the possibilities of meeting, not the meeting itself. While the practices change, how can architecture offer alternatives? However, that precisely is what architecture has practiced in the last century. Long before the philosophers and political theorist urged the notion of the public realm, the

idea of the public was already the concern of architects and urban designers. This second part of the article actually shows through a few examples how in Western society, envisioning the public realm by means of architectural and urban form, has one of the chief aims of modern architecture. This immediately becomes clear in the housing projects developed by German architect Ernst May for *Das Neue Frankfurt*. During May's term as city architect from 1926 to 1930, Frankfurt gained an international reputation as the centre of Neues Bauen, symbolized by the public housing projects that May and his staff developed around the existing city. Within five years, May had not only provided new housing for one quarter of the population, but also arrived at a new definition of the modern public realm. The landscape and the transitions between architecture and landscape play a key role in this definition. This is illustrated in May's plan for the Nidda river valley, which he developed in collaboration with landscape architect Lebrecht Migge.³² In response to the request to develop several new housing estates (*Siedlungen*) for the city of Frankfurt, May first designed a large landscape project between the new *Siedlungen* and the existing villages. This park is a continuous system of public gardens and paths, which subtly merge with the semi-private areas and gardens of the housing estates. May's 'politics of parkland' not only provides a framework for the entire public housing programme of *Das neue Frankfurt*. Above all, it offers the expression of a modern public realm characterized by leisure time and recreation and intended to result in a *neues Leben*: 'This newly created public arena reiterated many of the movements' heroic themes at the same time that it depoliticized them. It was a modernist landscape composed of two realms: the playing fields and stadia for collective games and the spectacle, and the private allotment garden.'³³ The Nidda Valley is the embodiment of a modern pastoral conception of the public realm: a realm that is meticulously designed and therefore brings about a new form of society, typified by personal autonomy and leisure.³⁴

Towards the end of the 1920s, the idea that architecture should give shape to the public realm gained general acceptance among the adherents of Neues Bauen. Bruno Taut's 1929 book *Modern Architecture* succinctly expresses this point of view: 'The architect . . . becomes the creator of an ethical and social character; the people [will] be brought to a better behaviour in their mutual

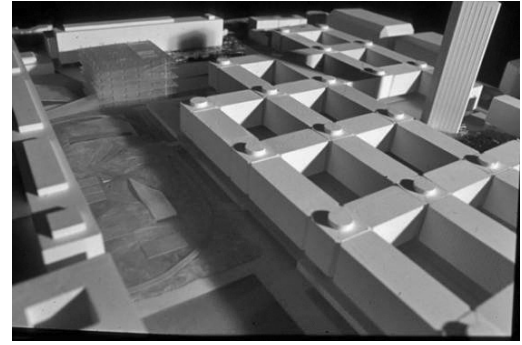
dealings and relationship with each other. Thus architecture becomes the creator of new social observances [*Gesellschaftlicher Formen*].³⁵

THE UNITÉ D'HABITATION: LAYERS OF PUBLICNESS

As a protagonist of the modern movement Le Corbusier kept its end up in the debate on the architectural articulation of the public realm. Especially in his design for the Unité d'Habitation (1947-1952), a multi-family residential housing project for the people of Marseille that were displaced after the Second World War, the French master develops an innovative definition of the public realm. Two sketches are instrumental to understand this definition. The first is Le Corbusier's depiction of a 19th century street in Paris that is given the caption 'the "corridor-street" must be killed'.³⁶ In the drawing the traditional street is emphatically crossed out. This sketch illustrates how Le Corbusier wanted to depart from a 19th century bourgeois form of the street. In the words of the 1933 Athens Charter, one of the most important manifestos produced by CIAM it reads: 'Houses will no longer be soldered to the street by the pavement'.³⁷ The other sketch depicts an allotment settlement and illustrates how Le Corbusier regarded his investigations as an attempt to overcome the dispersed urban model and its lack of public space.

It is in the spectrum between the concisely defined traditional European 'corridor-street' and the more loosely aligned 'allotment street' that Le Corbusier positions his innovative definition of public space in the Unité d'Habitation. Three layers of public space are activated. A first layer consists of the landscape. Le Corbusier had already illustrated in his prewar urban projects that he considered the landscape as the public space 'par excellence'; a civic field that was freely accessible to all individuals of modern society and that offered the possibility for diverse and uninhibited public encounters. Hence, in the Unité the living quarters begin only on the first floor and are set on huge concrete piers, turning the ground floor in an open sheltered plaza and securing the continuity of the public landscape.

A second layer consists of the so-called 'internal streets' of the Unité. Most of the 337 apartments are double height units that wrap vertically around horizontal streets that occur on levels 2, 5, 10, 13, and 16 of the building. Le Corbusier gives these internal streets a generous dimension



11. OMA, Jussieu Libraries, Paris, 1992. General overview / NI Collection, Rotterdam Netherlands

32

Susan Henderson, 'A Setting for Mass Culture: Life and Leisure in the Nidda Valley', in: *Planning Perspectives*, no. 10, 1995, pp.199-222.

33

Ibid., p.199.

34

For a discussion of pastoral and counter-pastoral reactions to modernity, see: Hilde Heynen, *Architecture and Modernity: a Critique*, Cambridge, Mass. (MIT Press), 1999, specifically Chapter 1.

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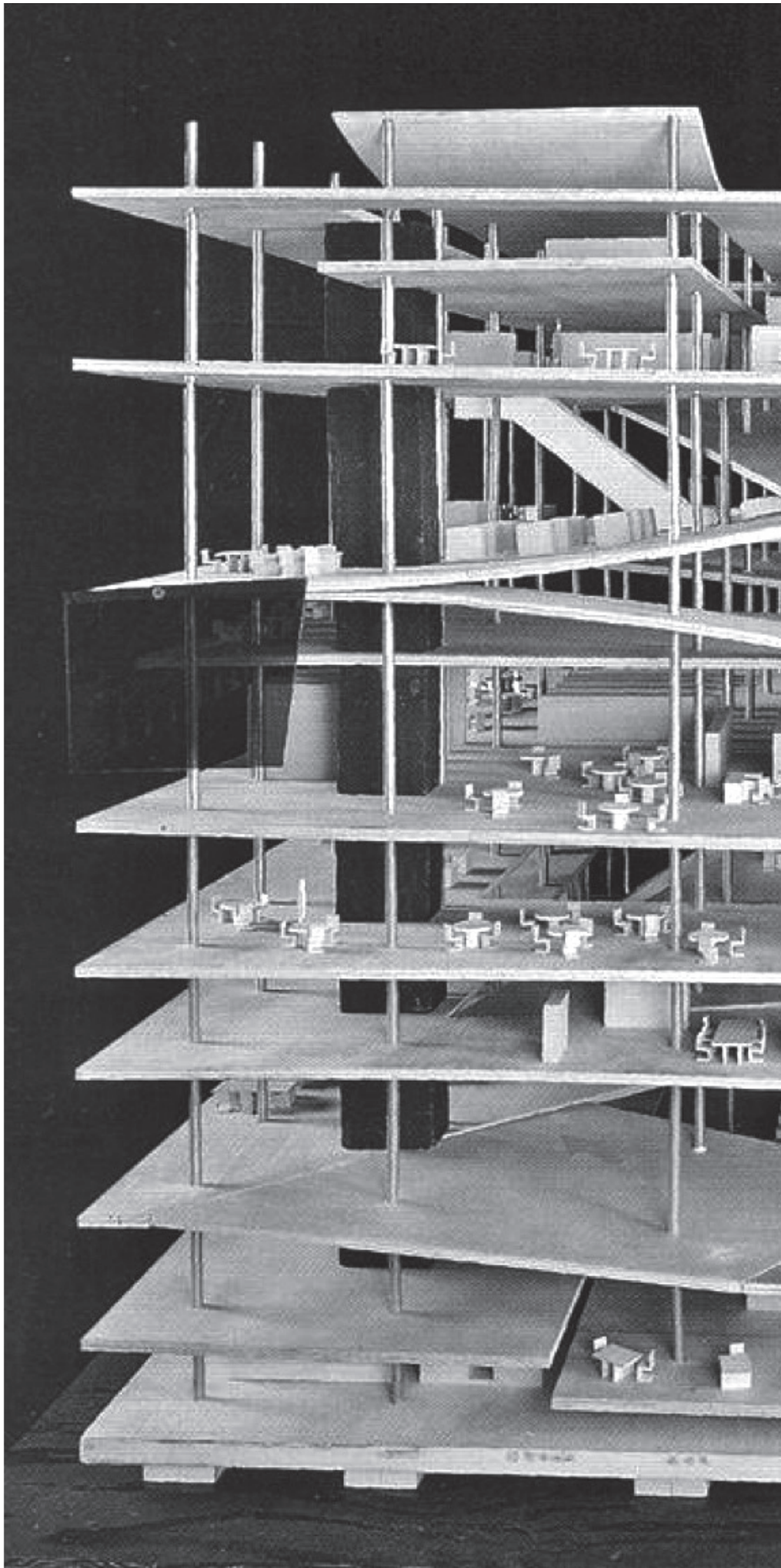
Bruno Taut, *Modern Architecture*, London (The Studio) 1929, as quoted in: Paul Greenhalgh (ed.), *Modernism in Design*. London (Reaktion Books) 1990, p.48.

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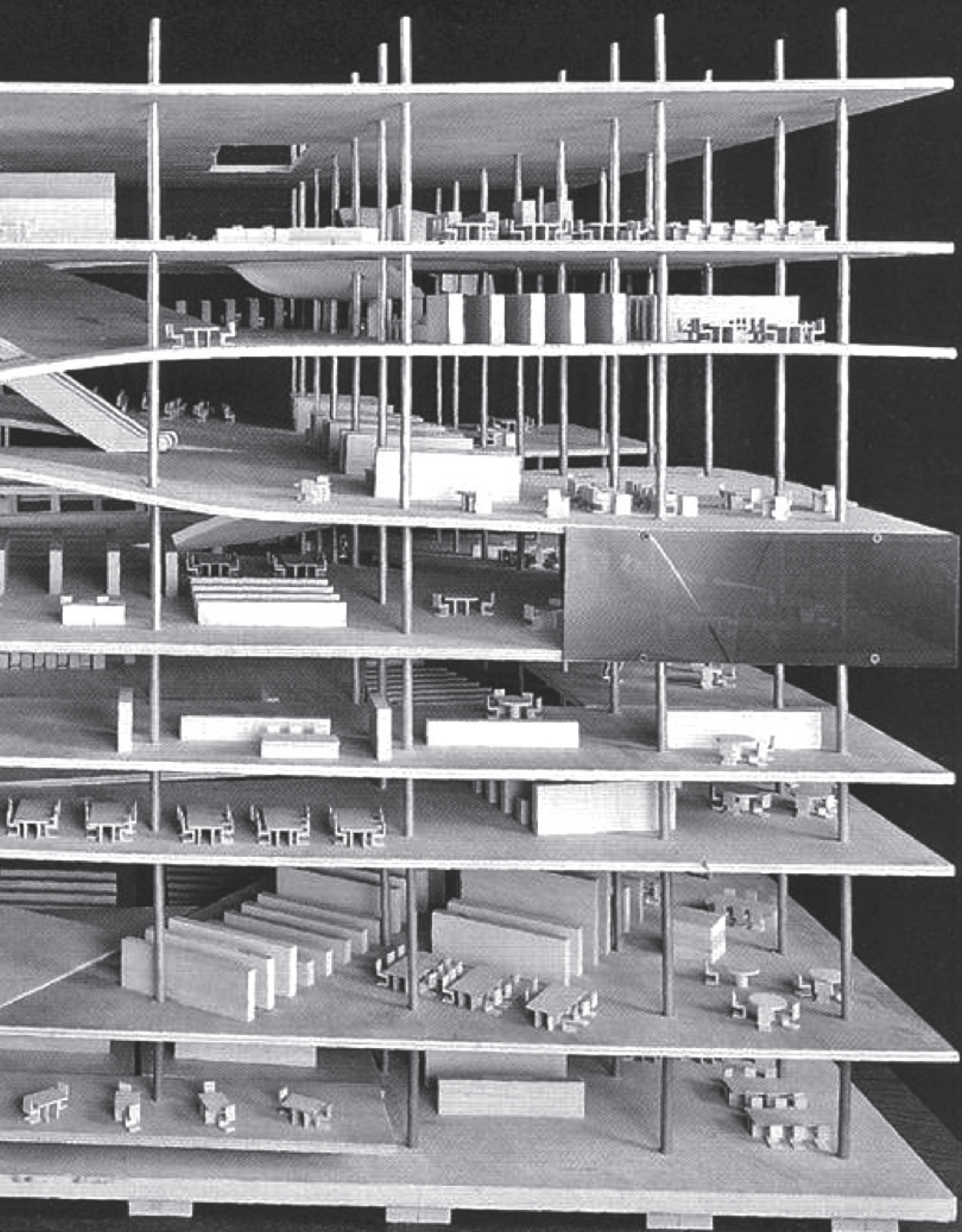
'Il faut tuer la "rue-corridor"' Le Corbusier, *Précisions sur un état présent de l'architecture et de l'urbanisme*. Paris (Editions Altamira) 1994 (1930).

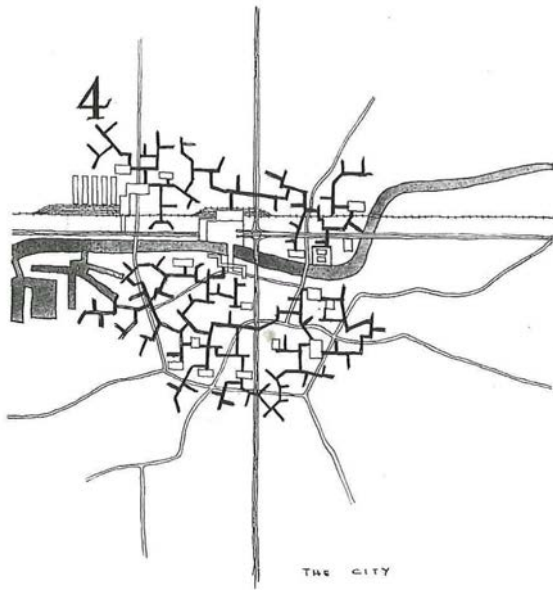
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'La maison ne sera plus soudée à la rue par son trottoir', Le Corbusier, *La Charte d'Athènes*. Paris (Minuit) 1941, p.21.

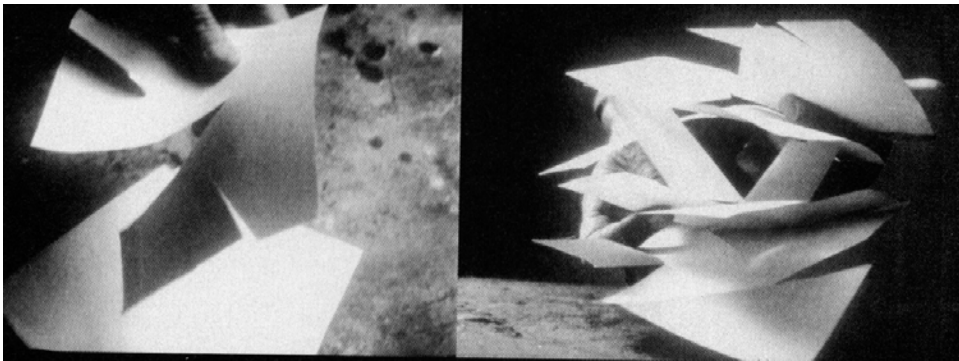


12. OMA, Jussieu Libraries, Paris, 1992. Model with warped boulevard. / NI Collection, Rotterdam Netherlands

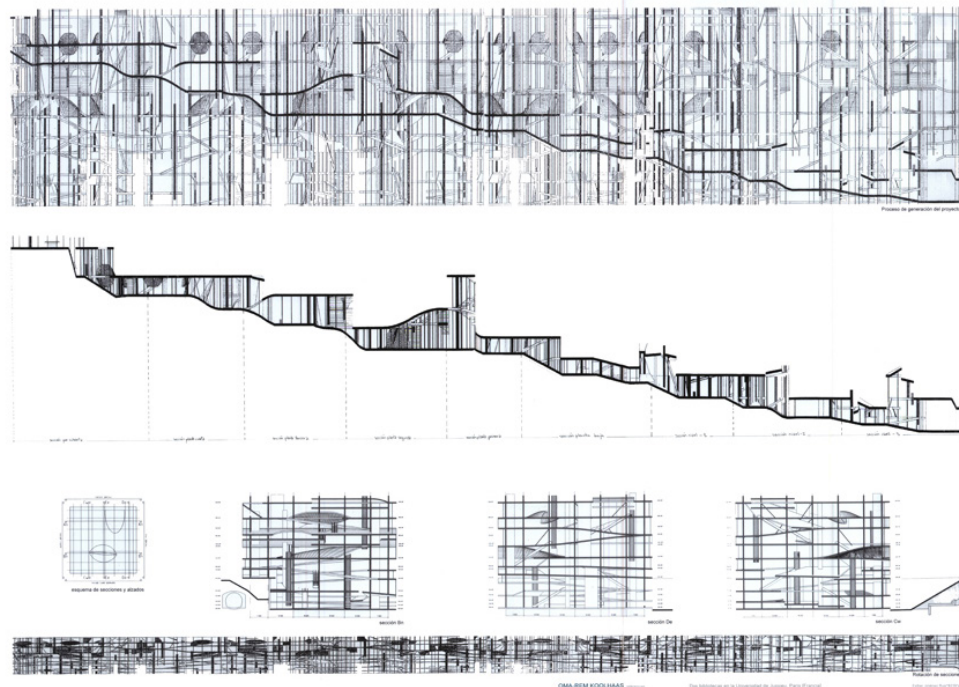




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13. Alison and Peter Smithson, Cluster of Golden Lane Housing projected on existing urban tissue of London, 1952 / NI Collection, Rotterdam Netherlands

14. OMA, Jussieu Libraries, Paris, 1992. Compositional principle of folded public landscape / NI Collection, Rotterdam Netherlands

5. OMA, Jussieu Libraries, Paris, 1992. Unfolded section / NI Collection, Rotterdam Netherlands

and articulates the different entrance doors to the apartments as full-fledged entrance portals with large doors and special delivery cases for the milkman and baker. At one instance the internal street is moved towards the perimeter of the building envelope: at the 7th floor were the double-high street is no longer the public domain of close neighbours, but of the entire “vertical garden city”. At this level Le Corbusier designs public furniture; the same benches and lamp posts as can be found on the public landscape of the ground floor. Along this public street the services for the entire neighbourhood are located: a 24 unit hotel with restaurant and bar, as well as a variety of shops including a laundry, bakery, butcher, salon, pharmacy, and real estate and commercial offices.

A third layer of public space is located at the very roof of the Unité d’Habitation. At this top floor of the building, and with the view on both the mountains and the Mediterranean, an artificial public landscape is designed. Le Corbusier articulates a sculpturous topography of public spaces that is almost entirely related to leisure and well-being: a swimming pool with children’s play area, a gymnasium, a nursery school, a solarium, an open air theater and a running track. Le Corbusier’s threefold definition of public space can be understood in a variety of ways, but it surely illustrates an understanding of public space as a matter that is multiple and that is composed of different layers and hierarchies. The Unité d’Habitation articulates these three different hierarchies and layers of public space in a figure of distance. It defines the characteristics and dimensions of the various layers without really relating them.

THE GOLDEN LANE HOUSING: CLUSTERING THE PUBLIC

The relation between the different sorts, scales and hierarchies of public space would become a main point of attention for the English architects Alison and Peter Smithson. Their well-known project for the Golden Lane (1952), a housing estate on a bombed neighborhood of London, is a clear criticism of the modern typologies for larger housing blocks that were developed during the post-war period, most notably Le Corbusier’s Unité d’Habitation. The Smithsons criticize the Unité typology in several ways. They position their ‘streets in the air’ on the perimeter of the building and thus connect them visually to the

larger public urban landscape. In such a way they comment the internalized position of the ‘interior street’ in Le Corbusier’s typology that deprived every connection to the surrounding city. In addition, the Smithsons introduce a threshold between street and dwelling in the form of a little loggia, pointing to the abrupt transition between public street and private dwelling in Le Corbusier’s approach. And finally, they also propose connections between the different ‘streets in the air’ into a new urban system of ‘clusters’. Thereby they criticize the isolation and disconnection of the interior streets in the original Unité. In other words, the Smithsons use their project for the Golden Lane in order to transform the Unité and thereby offer a sharp criticism of one of the most canonic architectural typologies of recent architectural history.

However, the Golden Lane project was not only a comment on the developments in recent architectural history, but also of the political, economical and social characteristics of the urban condition of London. Indeed, the Smithsons’ proposal for the Golden Lane can be seen as a comment on the existing structure of London that consisted of clear socio-spatial distinctions between different neighborhoods. The Smithsons literally juxtapose their clusters of ‘internal streets’ on the existing structure of the city. On top of the present urban tissue and public spaces a new system of interrelated ‘streets in the air’ is projected. The Smithsons believed that this combination of old and new urban tissue would engender a new spatial system that in its turn would accommodate new forms of collectivity and public domains. These would offer the possibility to encounter, even in the most popular neighborhoods, as well close neighbors as the cosmopolitan inhabitants of London. Hence, they visualize in their collages streets in the air that are populated by playing kids, but also by Joe DiMaggio and Marilyn Monroe. They all are part of a new collectivity; they all participate in a new urban realm. Out of this perspective, the Golden Lane appears as project that is critical of the class-structure that was still present in London of the 1950s. The Golden Lane ‘talks back’ as well to the field of architecture, as to its urban condition. It is in the relation between both that the project gets its full critical capacity.

TWO LIBRARIES FOR JUSSIEU UNIVERSITY: A CONTINUOUS PUBLIC SCENARIO

In the project for Two Libraries at the Jussieu University Complex in Paris by OMA (1992–1993) the continuity of the public realm is taken one step further. In this design for two new libraries of sciences and humanities the main compositional principle is based on an understanding of the public surface of the city as malleable and pliable, so that it is no longer specifically related to the ground and can partake in a vertical continuum. In a series of photographs Koolhaas illustrates how the composition of the project follows a strategy of lifting up of the city's fabric and its infrastructure. The surface of the city is subsequently folded into a large public topography composed of urban hills and valleys, of crossings and caves, on which the different programmatic elements can be projected. Plazas, parks, cafes, reading rooms and shops inhabit the landscape and simultaneously create an extension and intensification of urban public space.

The unfolded section of the Jussieu Libraries competition entry can be understood as a critique of the separate public layers in the Unité of Le Corbusier and the connected public elements in the Golden Lane by the Smithsons, and produces an entirely new diagram that focuses on the internal continuity of public and collective surfaces. The library is an uninterrupted but diversified public domain that accommodates the different functions and programs, while offering an endless stroll through a city of books to the visitor: "In this way a single trajectory traverses the entire structure like a warped interior Boulevard. The visitor becomes a Baudelairean 'flâneur', inspecting and being seduced by a world of books and information and the urban scenario. Through its scale and variety the effect of the inhabited planes becomes almost that of a street, a theme which influences the interpretation and planning of the Boulevard as part of a system of further supra-programmatic 'urban' elements in the interior: plaza's, parks, monumental staircases, cafes, shops.³⁸

But the 'warped interior boulevard' is more than an innovative accommodator for the public program of the libraries; it also plays a central role in the representation of the public realm of the building. Indeed, OMA decided to give the building a thin and transparent envelope, so that the silhouette of the boulevard — with its dif-

ferent programmatic entities and its users — becomes the main outside feature of the building. By turning the combination of public topography and public use into the main representational feature Koolhaas and his team introduce a new notion of monumentality in which the representation of the public realm is not achieved through an elaborate symbolic language, but by simply exposing the public domain and its use.

ARCHITECTURE AS RES PUBLICA

This short excursus into recent architectural history illustrates how a complex and layered cultural notion as the public realm has been a major occupation for architects and urban designers, long before it attracted the attention of philosophers and theorists. It might be remarkable that also architects took interest the public realm, since public space regularly is seen as the concern of urbanism. The public realm, however, is much more than just the public space: it also evokes questions of accommodating, presentation, representation and monumentality as well. All these questions were important concern throughout the twentieth century, and did give shape to actual buildings and building blocks — from the Unité to Jussieu. Surely also today the public realm is changing. New layers of publicness — amongst others related to digital encounters and exchange, but also to new forms of working and living — recalibrate the public realm. Once again the question for architects remains how to accommodate and represent this augmented public reality — an issue that demands new theories, concepts and projects. The public realm continues to challenge architecture as a profession that constructs the world — the world that is of our common concern.

38

www.oma.eu/projects/1992/jussieu-two-libraries (accessed on July 5th 2012).

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Bachelors and Masters Teaching

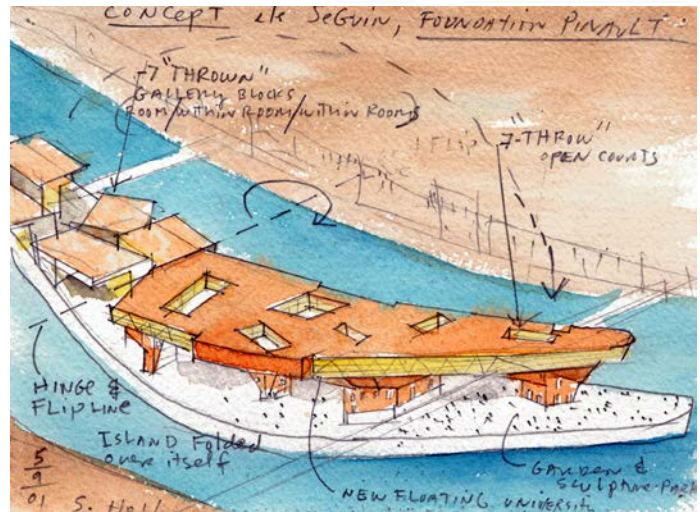
- AR1MET010 Ways of doing
- AR3MET020 Tutorial Research Methods: Fieldwork
- AR2MET010 Transdisciplinary Encounters
- AR3MET100 Methods and Analysis Graduation Studio: Positions in Practice
- BK4GR4 Grondslagen 4 De Europese Metropool

Klaske Havik

An introduction to literary methods in architectural design¹

This paper proposes a literary view on architectural design. First, evocative literary descriptions of spaces, whether in novels or poetry, often reveal an inclusive understanding of architectural *experience*. While in architecture the visual and the formal tend to be dominant, literature allows us to describe other sensory perceptions of spaces with great detail and intensity. In addition, other aspects of ‘lived’ experience that remain largely untouched in architectural discourse, such as atmosphere, mood or memory, come to the fore in literary descriptions. Second, literature provides a way to deal with the *use* of architecture. Especially when describing urban places, literary narratives often reveal the social aspects of architecture. The active relationship between writer and reader, as well as between the activities of characters and the spatial setting of the novel, deserves closer study by architects. Third, novels can be seen as sketches of another world, balancing between reality and imagination. Literary worlds can be critiques and speculations based on the existing reality, as well as explorations of possible futures. If novels present constructions of another world, architectural designs are much alike: they prescribe, as it were, a not yet existing situation. By studying the tools that writers employ in constructing their spatial imaginations, we can learn new ways to imagine architecture.

Steven Holl, Bernard Tschumi and Rem Koolhaas are architects who have, in different ways, used a literary point of view in their architectural work. In this essay, I will give a discuss some of the “scriptive” aspects present in their work. I will conclude with a brief overview of some literary tools for architectural design.



01. Competition entry for a museum at Ile Seguin in Paris

02. Knut Hamsun Center, Hamarøy, Norway, 2009, This museum is dedicated to the Norwegian writer Knut Hamsun. / Photo: Iwan Baan

03. Steven Holl, the central hall of the Kiasma Museum of Contemporary Art in Helsinki. / Photo: Paul Warchol

**STEVEN HOLL;
EMBODIED EXPERIENCE OF PLACE:
A PHENOMENOLOGICAL APPROACH**

In the 1990s, architects Steven Holl, Juhani Pallasmaa and Alberto Pérez Gomez together wrote the book *Questions of Perception*, in which they presented their phenomenological inspiration to an audience of architects.² With *Questions of Perception*, Holl intended to “explain the moment when you walk through a space when the texture, when the light, when it all merges into a single experience.”³ Drawing on phenomenological themes such as bodily experience, intertwining and chiasmatic relations in both his written and architectural work, Holl’s buildings evoke in the visitors’ perception sensitivity for light, materiality, and color. In his view, sensory perception is the core of the work of an architect:

“Architecture, more fully than other art forms, engages our sensory perceptions. The passage of time; light, shadow and transparency; color phenomena, texture, material and detail all participate in the complex experience of architecture. . . . Only architecture can simultaneously awaken all the senses—all the complexities of perception.”⁴

While watercolors rather than text are the material in which Holl crafts his evocative descriptions of places and the first ideas of projects, in many cases it is literature that inspires them. The competition entry for a museum at Ile Séguin in Paris [fig 1], for instance, was inspired by both the form and content of the nineteenth-century poem *Un Coup de Dés*⁵ (A throw of dice) by French poet Mallarmé. The poem, which addressed the issue of chance, was graphically designed in a, especially for that time, remarkable way, leaving meaningful white spaces on the page, contributing to the rhythm of the text.⁶ The competition entry is conceived as a throw of dice, causing an unexpected, slightly disordered organization of spaces. Second, the pauses in the poem, represented by the “white” in its graphic design, were translated to similar openness in design as a series of voids, patios in the continuous fabric of the building.

For the Knut Hamsun Center in Norway, realized in 2009 Steven Holl took literature as its very point of departure [fig 2]. The design for this museum, devoted to the writer who depicted Oslo and the Norwegian landscape around the turn of the twentieth century, is anchored as much in its scenic site in the far North as in the oeuvre of the writer. Empathizing with the conflictive

1
This text is an excerpt from
Havik, K (2014) *Urban Literacy. Reading and Writing Architecture*. Rotterdam:
nai010 publishers.

2
Holl, S, Pallasmaa, J, Pérez-Gomez, A (1994), *Questions of Perception: Phenomenology of Architecture*, (Tokyo: A+U)

3
Holl, S (2007) *Architecture Spoken* (New York: Rizzoli 2007), 46

4
Holl, S, Pallasmaa, J, Pérez-Gomez, A (1994), 41

5
Stéphane Mallarmé,
Un coup de dés jamais n'abolira le hasard, [A throw of dice will never abolish chance] 1897

6
Such graphic experiments in poetry later appeared in, for instance, the work of the Belgian poet Paul van Ostaïjen 1896–1928.



personality of the writer and of his characters, like the protagonist in *Hunger*⁷ who views the city from his troubled mental and physical state, the architecture offers conflicting perceptual moods—from deep dark corners, to light, open rooms with wide and open views of the Norwegian landscape. With its uncertain posture—not quite straight, slightly unbalanced—its grassy haircut and its balconies sticking out as hesitating arms, the building can be read as a body in itself, a personality. As Juhani Pallasmaa suggests in his description (evocative, indeed) of the project, the dark tower in the remote Norwegian landscape can be seen as an architectural portrait, a “description without words”.⁸

The Kiasma museum for contemporary art [fig 3, 4] is situated at the exact point in the city of Helsinki where the urban structure seems to fall apart in fragments: the early twentieth century city extension Töölö and the Töölö Lake on the North, while south of the site are the two different grids of the inner city. Steven Holl’s design for the museum is carefully positioned in this field of urban forces. The different directions of the city structure are absorbed in the main composition of the building. Steven Holl speaks of a “line of culture”, pointing from the city centre to *Finlandia Hall* through the *Kiasma* building, while a “line of nature” responds to the landscape and the lake⁹.

Inside the museum, the entrance hall is the place where both volumes, and all narratives, come together. The ramp, next to the inner wall of the curved volume, has an almost landscape-like quality, as if running in a natural curve between two mountain ridges. The filtered light coming from above, strengthening this effect. Meanwhile, the entrance hall is one of the most urban interiors of Helsinki. This hall, formed by the encounter of the two volumes, can also be seen as the encounter between the formal and the informal. The contrast between formality and informality is reflected in the formal, imposing spaces in the museum, like the entrance hall and some of the large exhibition spaces, and then again the more informal moments in the composition: the freely shaped staircase, the window facing north, and the café that presupposes an informal relation to the public. In this way, the museum has anchored itself in the city, and made the site a place of encounter, not only of volumes, but an encounter of conflicting urban forces, and

of inhabitants and art. Indeed, in *Kiasma*, details evoke an embodied experience of space. The strength of Holl’s approach might be found in this evocation, in acknowledging that architecture actively calls upon the perception of its users and visitors to become a lived part of its environment. The museum itself evokes reversibility, vulnerability and incorporation—it incorporates the narratives of the site and its history; it is reversible in its very character, both formal and informal, both urban and natural; and it is vulnerable in that it invites visitors to participate in its experience. Visitors of *Kiasma* are challenged to experience the differences in light, the sequence of perceptual frames, and to reverse the relation between formal and informal, landscape and nature, active and passive, subject and object. They are guided in this challenge by light and material, by spaces of silence and spaces where art and city speak.

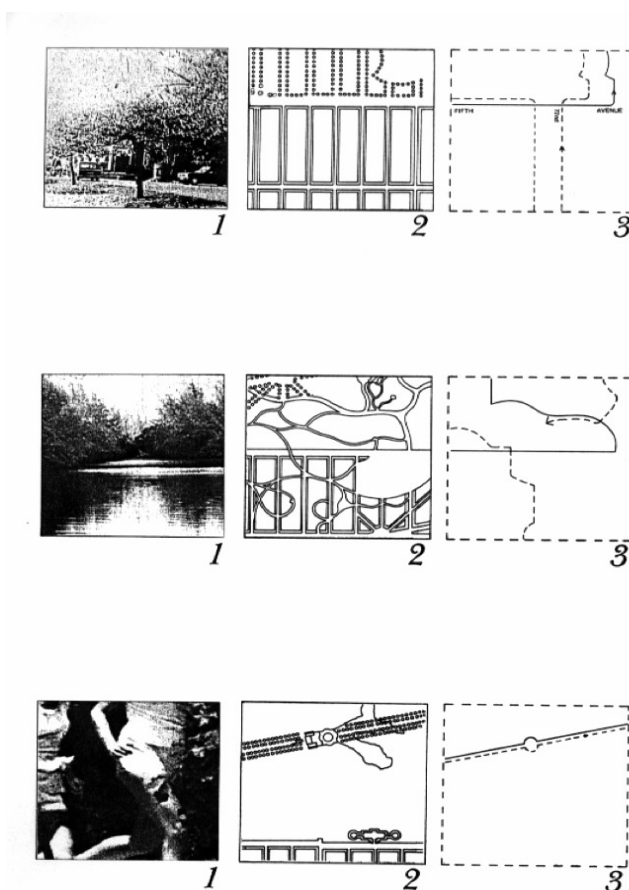
BERNARD TSCHUMI; ARCHITECTURE AND EVENT: THE MANHATTAN TRANSCRIPTS

Bernard Tschumi's approach is an experimental one, continuously questioning the limits of the field of architecture. He uses concepts from other disciplines such as literature and cinema in order to arrive at new architectural perspectives. In Tschumi's work, the idea of interactivity between writer and reader, between the architectural design and its use, plays an important role; the user of architecture is given an active role, even to the extent of violation.

Bernard Tschumi has explored how architectural spaces need events and movements in order to achieve a genuine architectural experience. Instead of aiming for a fixed image, Tschumi argues that the city only then becomes interesting when spaces, movements and events meet, and even contradict each other. Tschumi's interdisciplinary investigations have led to an architectural approach that deliberately takes into account the "inherently public nature" of architecture and its role as "something that offers a place to public events".¹⁰ In *The Manhattan Transcripts* [fig 5], Tschumi experiments with the relation between spaces, movements and events. Literary techniques such as narrative, sequences and experiments with the characters and spaces in the story result in an alternative theory of architecture.

In *The Manhattan Transcripts*, Tschumi's concern as to how architectural spaces need events and movements in order to achieve a genuine architectural experience is addressed in architectural terms. In this project, Tschumi illustrates that it is necessary to mobilize a new set of instruments to study the rhetorical relation between the social and the built. By means of a notational system borrowed from cinema, *The Transcripts* "try to offer a different reading of architecture, in which space, movement and events are independent, yet stand in a new relation to one another".¹¹ *The Manhattan Transcripts* combine architectural drawings, abstractions of newspaper photographs, maps of parks and streets, sections of towers and the movement of people and objects in order to offer an alternative "reading" of the relation between the social and the built in Manhattan. In four episodes (the park, the street, the tower/fall, and the block) a story about a murder is told. Whereas the first part starts off as a linear narrative in which the story is told in a seemingly rational manner, the following episodes eventu-

- 7
Hamsun, K. (2001[1890]) *Hunger*, Edinburgh: Canongate Books Ltd.
- 8
Pallasmaa, J. "An Architectural Portrait. between the literary and embodied metaphor", in: Langdalen, E.F. et al (2010), *Hamsun, Holl, Hamarøy*, Baden: Lars Mülller Publishers, Baden, 243.
- 9
Holl, S (2007[1996]) *Inter-twining. Selected projects 1989–1995*, New York: Princeton Architectural Press, 88-90
- 10
Hays, K.M. and Damiani, G (2003), *Tschumi*, London: Thames&Hudson, 111
- 11
Tschumi, B (1994 [1981]) *The Manhattan Transcripts*, London: Academy Editions, 7



04. Bernard Tschumi, First chapter of the Manhattan Transcripts: 'The Park' Scans from the Manhattan Transcripts 1994

ally lead to more and more conflicting situations, dislocations and confrontations between architectural spaces, the programmes and events taking place and the movement of the people involved.

The project for Parc de la Villette in Paris [fig 6] allowed Bernard Tschumi to bring the concepts developed in his theoretical explorations and experimental projects, such as *The Manhattan Transcripts*, into practice. The competition brief for the Parc de la Villette in 1982 was already an invitation for new approaches regarding the park as a public urban space for interaction. Programme, rather than form, was a dominant issue in the competition brief. It had to become an “urban park for the 21st century” with a complexity of public functions: education, leisure, gardens, culture. For Tschumi, the competition was an opportunity to bring his dynamic definition of architecture into practice: creating a dynamic, unstable place that allows architectural narratives to unfold through events. Tschumi’s design for Parc de la Villette is radically different from the traditional, picturesque idea of a park as a part of nature in the city. The design, characterized by a super-imposition of three systems (lines, points and surfaces), resulted in a new kind of public space, in which encounters and events are actively generated. The “folies”, red architectural objects spread through the park, work as what Tschumi calls “common denominators”, providing public recognition.. It has to be noted that with the *folie*, Tschumi plays a word game: the English Folly¹², for the separate object, becomes the French ‘folie’ which means madness. Here, the reference to Barthes’ and Bataille’s aspects of pleasure and erotics come again to the fore. Tschumi’s architecture has to provoke unexpected connections: violence of space, erotics, madness.¹³ As Tschumi himself noted:

“La Villette promotes programmatic instability, functional *Folie*. . . the endless combinatory possibilities of the folies give way to a multiplicity of impressions. . . . La Villette is a term in constant production, in continuous change; it’s meaning is never fixed but is always deferred, differed, rendered irresolute by the multiplicity of meanings it inscribes.”¹⁴ This multiplicity of meanings also means that the narrative is subject to change; that it is constantly re-interpreted and re-written by the visitors of the park.

Also in more recent projects, Tschumi’s ideas about architectural experience have developed into operational design concepts, which all have in common that they actively generate movements and events. The school of architecture in Marne-la Vallée, for example, is organized around “an un-programmed, event-oriented large central space . . . activated by the density around it . . . A social and cultural space.”¹⁵ In cultural centre Le Fresnoy in Tourcoing [fig 7], the most important space is the left-over space between the existing buildings and the enormous roof placed above them. This “in-between” space is where all infrastructure is organized and where users and visitors meet.¹⁶ Bernard Tschumi’s theoretical investigations have thus lead him to an approach in architectural practice that is not focused on form, but on the possibilities of space to generate extraordinary experiences, to transgress limits of expectation and to allow for encounters between people and space.



05. Bernard Tschumi, Cultural Center Le Fresnoy, Tourcoing.

13

The article ‘Madness and the combinative’, written in 1984 (when the project of Parc de la Villette in Paris was at the core of Tschumi’s practice) deals with bringing together the “unexpected and the aleatory, the pragmatic and the passionate, and would turn into reason what was formerly excluded from the realm of architecture because it seemed to belong to the realm of the irrational”. in: Tschumi, B (1996) *Architecture and Disjunction*, Cambridge, Mass./ London: MIT Press, 172-189

14

Tschumi, B “Abstract Mediation and Strategy”, in: Tschumi, B (1996), 201

15

Tschumi, B, Ibelings, H (1997) *Architecture in/of Motion*, Rotterdam: NAI Publishers, 57

16

For Tschumi’s reflections on this project, see for example the interview “Le Fresnoy” with Enrique Walker, in: Walker, E (1994), *Tschumi on architecture, conversation with Enrique Walker*, New York: The Monacelli Press, 115-122.

12

In architecture, a folly is a building constructed primarily for decoration, but either suggesting by its appearance some other purpose, or merely so extravagant that it transcends the normal range of garden ornaments or other class of building to which it belongs. In the original use of the word, these buildings had no other use. 18th century English gardens and French landscape gardening often featured Roman temples, which symbolized classical virtues or ideals. Other 18th-century garden follies represented Chinese temples, Egyptian pyramids, ruined abbeys, or Tatar tents, to represent different continents or historical eras. Sometimes they represented rustic villages, mills and cottages, to symbolize rural virtues. <http://en.wikipedia.org/wiki/Folly>

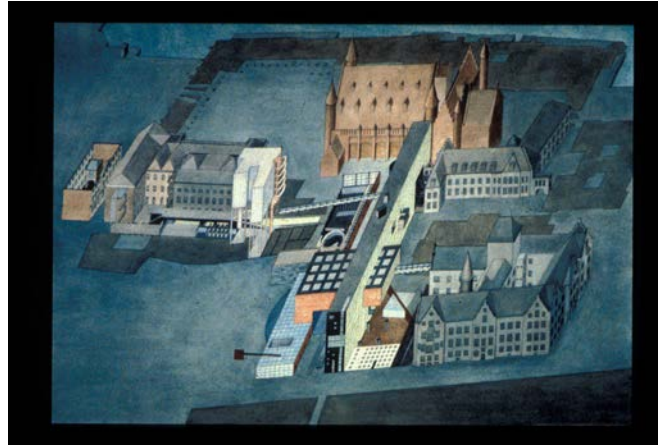


06. Bernard Tschumi, Competition for Parc de la Villette, Paris. Scheme of superimposed layers

REM KOOLHAAS; CRITIQUE AND IMAGINATION: URBAN SCRIPTS

Koolhaas was trained as a scriptwriter in Amsterdam before starting his architectural education, and worked as a journalist, editor and scriptwriter in the late 1960s.¹⁷ Asked about the parallels between scriptwriting and architecture, Koolhaas states: 'In a script, you have to link various episodes together, you have to generate suspense and you have to assemble things — through editing, for example. It's exactly the same in architecture. Architects also put together spatial episodes to make sequences.'¹⁸

Koolhaas's scriptive approach informed his explorations of New York in the 1970s. In *Delirious New York*, published in 1978 — perhaps his most extensive urban script, and the one that gave him wide international acclaim — Koolhaas calls himself Manhattan's ghostwriter.¹⁹ According to Roberto Gargiani, in his extensive study on the work of Koolhaas and OMA, *Delirious New York* is in itself a 'conceptual-metaphorical project', a script 'where the skyscrapers are the actors and Manhattan is the stage'.²⁰ In fact, Manhattan is the main character, a personality rather than a stage, while Koolhaas himself is the director, bringing the scenes, located in the past, present or imaginative future of the movie star Manhattan in an overarching urban script.²¹ By doing so, he attempted not only to describe the city, but also to prescribe it, as if to reveal a secret scenario hidden below Manhattan's skyscrapers: the doctrine of 'Manhattanism', a doctrine that not only tells the history of Manhattan, but that could also guide future developments 'as a conscious doctrine whose pertinence is no longer limited to the island of its invention'.²² The book presents a number of fictive projects for Manhattan, design studies made by Koolhaas and his early OMA co-founders Elia Zenghelis and Madelon Vriesendorp. If *Delirious New York* is a 'retroactive manifesto for Manhattan', then the projects presented in the 'fictional conclusion' of the book are the results of a retroactive imagining of what Manhattan could have become if only its doctrine were practiced to the very limits. [fig 7] In *Delirious New York*, metaphors²³ play an important role. Koolhaas argues that the metaphor could serve as a new way of urban planning: 'a vocabulary of poetic formulas that replaces objective planning in favor of a new discipline of *metaphoric planning* to



07. Rem Koolhaas, *Delirious New York* as a scriptive project by Rem Koolhaas. / Cover drawing by Madelon Vriesendorp

08. OMA, The competition entry for the 'Binnenhof' Parliament headquarters

09. Rem Koolhaas/ OMA, Kunsthall, Rotterdam (1992), montage along internal and public routes / Photo: Philippe Ruault

In *Delirious New York*, Koolhaas thus ‘wrote’ Manhattan on multiple levels by means of a number of scriptive tools: the use of characters, interpretations of surrealist methods like the paranoid critical, the use of metaphors, and the montage of fragments. For Koolhaas, literature is not only a source of inspiration, but also a mode of looking at the world. It is no coincidence that Koolhaas named his office after the metropolitan condition in which the real and the imagined take new positions. The metropolitan condition, states Koolhaas, stands for ‘reality shortage’.²⁵ The aim of OMA, then, was to embrace ‘aspects of the maligned metropolitan condition with enthusiasm, and [which] restore mythical, symbolic, literary, oneiric, critical and popular functions to large urban centers.’²⁶ Indeed, OMA’s projects frequently address such issues, critically producing new urban forms and programmes. The rational modern approach is changed for a literary one, making use of fragments, metaphors, characters, playing with the real and imagined in search of architectural and urban *merveilles*.²⁷

Already in the early design projects of the Office for Metropolitan Architecture (OMA), Koolhaas combined his experience with such *scriptive* techniques with a deep interest in the methods of surrealism. Indeed, early architectural projects, such as the *Exodus* project, conducted with Elia and Zoe Zenghelis and Madelon Vriesendorp during his study at the AA, can be seen as an urban script; reacting to the real, exaggerating the observed reality, imagining future scenarios. The *Exodus* project imagined an extreme future for London in which part of the historical city would be replaced by a megastructure, a huge strip in which various programmes were placed. Fictive characters (voluntary prisoners) would take part in rituals and events. The Strip is composed as a sequence of squares, like different scenes the characters pass through during the course of the narrative.

The surrealist game of the *cadavre exquis*,²⁸ in which each participant draws a part of a creature without seeing the previously drawn parts, was a model for teamwork in the early days of OMA, for example in the competition project for the ‘Binnenhof’ Parliament headquarters in The Hague, 1977–1978. [fig 8] In this project, according to Koolhaas, the transformative nature of both the historical ‘Binnenhof’ site and democratic institutions in general, asked for a radical gesture, a transformation that confronts the existing amal-

17
Koolhaas was involved with the Dutch magazine *Haagsche Post* as writer and editor. As a scriptwriter, his most notable works are those made with his fellow students in *Filmgroep 123*, some members of which later became successful cinematographers or directors. See also Gargiani, R (2008) *Rem Koolhaas/OMA: The Construction of Merveilles* Lausanne: EPFL Press/Routledge, 3.

18
‘Evil Can also Be Beautiful’, interview with Rem Koolhaas in: *Der Spiegel*, 27 March 2006. The interview was conducted by editors Matthias Matussek and Joachim Kronsbein. Available online at <http://www.spiegel.de/international/spiegel/0,1518,408748-2,00.html> (accessed 27 October 2009).

19
Koolhaas, R (1994 [1978]) *Delirious New York. A Retroactive Manifesto for Manhattan*, New York: The Monacelli Press, 11.

20
Gargiani (2008), 62.

21
‘Movie stars who have led adventure-packed lives are often too egocentric to discover patterns, to articulate or express intentions, too restless to record or remember events. Ghostwriters do it for them. In the same way, *I was Manhattan’s ghostwriter*.’ Koolhaas, (1994[1978]), 11.

22
Ibid., 293.

23
A recurring metaphor is that of the archipelago. The term archipelago derived from earlier discussions with German architect Matthias Ungers, with whom Koolhaas closely collaborated. The use of the notion archipelago in the work of Ungers and Koolhaas has been discussed in Pier Vittorio Aureli’s dissertation, *The Possibility of an Absolute Architecture* (Writing

Architecture) (Cambridge, MA: MIT Press, 2011). See also Gargiani, *Rem Koolhaas/OMA*, op. cit. (note 1), 45–46.

In Manhattan, each block functions, according to Koolhaas, like a separate island, independent of its neighbours. Other metaphors present in *Delirious New York* are the ‘buildings like mountains’, and the skyscraper as a ‘city within a city’.

24
Ibid.

25
Programmatical text at the founding of OMA, in: *Lotus International* no. 11 (1976), 34.

26
OMA, Koolhaas, R and Mau, B (1995) *S.M.L.XL*, Rotterdam/New York: 010/The Monacelli Press, 926, originally published at the founding of OMA, in *Lotus International* no. 11 (1976), 34.

27
It is Roberto Gargiani who, in his work on Koolhaas and OMA, uses the term *merveilles* as a common denominator for Koolhaas’s projects. Gargiani (2008)

28
A known painting, which resulted from this work, was *Cadavre Exquis*, made in 1929 by André Breton, Paul Eluard, Valentin Hugo and Tristan Tzara, collection Moderna Museet Stockholm.

gam of historical buildings with a radical modernity. OMA proposed a horizontal slab, breaching the existing complex, while connected to this axis, a number of volumes with different characters were added. Koolhaas, Elia Zenghelis and Zaha Hadid independently developed these volumes, which were then assembled by Koolhaas.²⁹

In later works, Koolhaas also makes use the assemblage of fragments—seemingly randomly in a *cadavre exquis* or consciously composed in a montage—comes back in a number of projects. The Kunsthal in Rotterdam (1992) consists of the montage of the exhibition spaces, auditorium, restaurant and other functions along two public routes on the site and the internal route in the building. [fig 9] While at first sight the building may look like a simple box, it is the scenographic assemblage of different spaces—a sloping auditorium, a dark exhibition space with trees, a glazed gallery, an open brightly lit hall—by means of sloping surfaces that generates an experiential complexity quite opposite to the initial ‘box’ appearance.

In Koolhaas’s world, buildings can be characters, such as the New York skyscrapers as depicted by the paintings of Madelon Vriesendorp in *Delirious New York*: sharing a bed, taking part in a scene of love and betrayal. Some OMA-designed buildings, like the terminal for Zeebrugge (competition, 1989) or the Casa da Música in Porto (2004), seem to be personalities, through their sculptural form proudly taking their place as strangers, just arrived in a city or at the shore. About the sculptural form of the Zeebrugge terminal, Koolhaas writes that it should provoke one ‘to free-associate with successive moods—the mechanical, the industrial, the utilitarian, the abstract, the poetic, the surreal’.³⁰

LITERARY TOOLS

Looking at architectural and urban design through a literary point of view, a set of techniques thus arises. First, the receptive attitude of the poet offers ways to pay attention to perceptual details. Written notes and sketches that take into account the multisensory experience of a site, its temperature and light, the age and haptic characteristics of its materials, are simple but effective tools to note the otherwise unnoticed aspects that constitute the very atmosphere of a place. With such observations, both in writing and in drawing, the subject-object relationship is challenged and evoked. The watercolours of Steven Holl are products of such a poetic receptivity to sensory perceptions.

The analogy, or more specifically the metaphor as a particular form of analogy, can be a powerful literary tool creating a clear conceptual point of departure for a project, which can guide design decisions. Steven Holl frequently uses metaphors in his work, which offer guidance for design as well as recognition for the perceiver of the building. For Holl, the metaphor is closely tied to perception: he states that perception is metaphorical in the sense that it renders associations, correspondences and meaning. Rem Koolhaas proposed the application of ‘metaphorical planning’ on an urban level in *Delirious New York*. The metaphor thus offers a critical and artistic tool for both analysis and design.

The literary character can be used in several ways. Not only can buildings be conceived as characters, in a metaphorical way as several projects by Holl and Koolhaas have shown, character is also a very productive tool to include the user’s perspective in architecture. For instance, a possible technique is to take on the perspective of another character, so that the designer for a moment experiences the spatial composition and materiality of the design as if he or she were a future user. From this perspective, such aspects as materiality, routing, programmatic organization, colour or sound are seen in a different light, and design decisions can be critically evaluated.

A narrative can be brought into play to confront a design with its very use. The narrative, seen as a connected sequence of events, helps to see a design in time, by exploring the possible programmes and events that it may accommodate. In the analysis of locations, existing local narratives provide insights in the ways places are ‘lived’, used and remembered by inhabitants—valuable information for the designer who

29

Gargiani (2008) Project description by OMA in: OMA, Koolhaas, R and Mau, B (1995), 278-303.

30

Ibid., 584.

is dealing with the regeneration of existing sites and neighbourhoods. A narrative can thus serve as a base for architectural composition, while it can also be a mode of investigation. For instance, through the use of narrative in *The Manhattan Transcripts*, Bernard Tschumi attempted to bring together spaces, movements and events.

Scenario is a literary tool that helps to imagine multiple possibilities by means of posing *what if* questions in regard to future developments. One can, for instance, use scenarios to test the resilience of an architectural design to accommodate different activities, or confront the design with changing circumstances. Scenario is frequently used as an instrument in urban planning as an alternative to traditional master planning, since it provides the possibility to develop multiple alternatives. Rem Koolhaas also used scenario as a tool in their urban and architectural imaginations.

The use of literary methods can be closely linked to other modes of working. Doing so more traditional tools of architecture such as plans and sections, models, collages and diagrams are used in close connection to the narratives, characters and scenarios. Hence, the literary is not merely focused on the production of text, but rather on the awareness of experience, use and imagination that literary techniques can raise. By developing storylines, by shifting perspective from one timeframe to another or from one character to another, students become aware of the narrative qualities of a place, the role of time, and of the complexity of architectural experience. Literary modes of observation allow for a more focused and perceptive ‘reading’ of a site, while narratives and scenarios provide ways to develop possible new situations. When used in design practice, literary tools thus allow us to engage with a broader set of architectural dimensions; poetic and experiential, social and programmatic, critical and imaginative.

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- Fig 1.
Steven Holl Competition project for Ile Seguin, Paris 2001, inspired by Mallarmé's poem *Un Coup de Des*.
- Fig 2.
Knut Hamsun Center, Hamarøy, Norway, 2009. This museum is dedicated to the Norwegian writer Knut Hamsun. (photo Iwan Baan)
- Fig 3.
Early sketch (1992) by Steven Holl, showing the position of the museum at the hinge of various urban and natural forces.
- Fig 4.
Steven Holl, the central hall of the Kiasma Museum of Contemporary Art in Helsinki. (Photo Paul Warchol)
- Fig 5.
Bernard Tschumi, First chapter of The Manhattan Transcripts: 'The Park'. Scans from The Manhattan Transcripts 1994.
- Fig 6.
Bernard Tschumi, Competition for Parc de la Villette, Paris. Scheme of superimposed layers
- Fig 7.
Bernard Tschumi, Cultural Center Le Fresnoy, Tourcoing.
- Fig 8.
Rem Koolhaas. *Delirious New York* as a scriptive project. Cover drawing by Madelon Vriesendorp
- Fig 9.
OMA, The competition entry for the the 'Binnenhof' Parliament headquarters, 1977–1978, was conceived as a *cadavre exquis*
- Fig 10.
Rem Koolhaas / OMA, Kunsthall, Rotterdam (1992), montage along internal and public routes (photo Philippe Ruault)

THE WHY FACTORY

The Why Factory (T?F) is a global think-tank and research institute, run by MVRDV and Delft University of Technology and led by professor Winy Maas. It explores possibilities for the development of our cities by focusing on the production of models and visualisations for cities of the future.

In present day society there is a tendency that describes a huge collective desire. The intriguing thing now is how that kind of desire effects individualism, and how it affects our cities, and if that will lead to other kinds of cities, and if that will lead to other kinds of organizations, and so on. Architects need to start looking forward again. Even the most cynical architect on the planet cannot deny that his or her architecture is constructing alternatives and that no matter how small they are, how modest they are, how local they are, even how mediocre they are, they must have an ingredient of optimism. We need to take that optimism and reclaim the future of our cities.

Education and research of The Why Factory are combined in a research lab and platform that aims to analyse, theorise and construct future cities. The Why Factory investigates within the given world and produces future scenarios beyond it; from universal to specific and global to local. It proposes, constructs and envisions hypothetical societies and cities; from science to fiction and vice versa. The Why Factory thus acts as a future world scenario making machinery. The research projects are positioned in a classical research tripod of models, views and software; of model cities, applications and storage. The model City Program speculates on possible theoretical models in the model city program. Model Cities concentrates on the conceptualization and modeling of cities, each within its own limited set of parameters that allow for maximal exploration of a specific subject in order to engage with possible futures. The applications program makes counter proposals for existing cities. The Software program stores its knowledge through an evolutionary gaming program.

Susanne Komossa

Profession architect: insight into the spatial
consequences of building and the capacity to
dream the future with a technical understanding.

– Interview with Winy Maas,
Rotterdam fall 2013



Winy Maas (Schijndel, 1958) is a Dutch architect, landscape architect, professor and urbanist. In 1993 together with Jacob van Rijs and Nathalie de Vries he set up MVRDV. Early work such as the television centre Villa VPRO and the housing estate for elderly WoZoCo, both in the Netherlands, have brought him international acclaim and established MVRDV's leading role in international architecture

He completed his studies at the RHSTL Boskoop, graduating as a "landscape architect", and in 1990 he got his degree from the Delft University of Technology. He currently is visiting professor of architectural design at the Massachusetts Institute of Technology and is professor in architecture and urban design at the faculty of architecture, Delft University of Technology. Before this he was professor at among others Berlage Institute, Ohio State and Yale University. In 1993, together with Jacob van Rijs and Nathalie de Vries, he founded the MVRDV studio (an acronym of the initials of the names of the three founders), which produces designs and studies in the fields of architecture, urban studies and landscape design. The studies on light urbanism for the City of Rotterdam, the headquarters of the Dutch Public Broadcasting Company VPRO and the Wozoco's senior citizens' residences in Amsterdam, which won the J.A. van Eyck Prize of the Dutch Architects' Association, have brought MVRDV to the attention of a vast collection of clients, giving the studio international renown. Today, the studio is actively involved in numerous projects in various parts of the world. MVRDV designed the Dutch pavilion for Expo 2000 in Hanover, the Logrono Eco-City in Spain, the

Gyre building in Tokyo and many others. Winy Maas presented a keynote address New solutions for new challenges at the inaugural Holcim Forum, "Basic Needs" at the ETH Zurich in 2004. As addition he designs stage sets, objects and was curator of Indesem 2007. He is member of the research board of Berlage Institute Rotterdam, president of the spatial quality board of Rotterdam and supervisor of the Bjorvika urban development in Oslo. He is director of the Why Factory, a research institute for the future city he founded in 2008 which is connected to the Faculty of Architecture of the Delft University of Technology.

Bachelors and Masters Teaching

- AR1TWF010 The Why Factory Design Studio: Design lab I
- AR1TWF020 The Why Factory Actualities Workshop
- AR1TWF030 The Why Factory: Future Models I
- AR3TWF030 The Why Factory: Future Models II
- AR3TWF020 The Why Factory: Future Views
- AR4TWF010 The Why Factory Graduation Studio

SK Could you tell us something about your education in Delft, your background and your teachers?

WM First of all I have done my studies at the TU Delft always part-time. After I had finished my studies of Landscape Architecture at the RHSTL in Boskoop I had to pay for my own studies since my father was rather disappointed when I decided not to work in his garden centre as a landscape architect. To finance my own studies I had several jobs in between; I worked for the Municipality of Amsterdam on the city's parks and gardens, Ashok Bhalotra invited me to work on a project with him in India, I was working abroad for UNESCO and in the end with Rem Koolhaas/OMA. So I always had the idea that I could experiment outside the university and to use the Faculty of Architecture in its pure essence, namely as a fantastic academic supermarket where I could shop around for three days a week, because what Delft offered has been really spectacular. I did all my courses as quick as possible and I almost never went to lectures but focused all my attention on studios, especially the studio of Rein Saarieste and Vincent Ligtelijn, and the work I was doing. I was always in between practice and school.

Secondly, which is important to understand how I looked at Delft, is the fact that I could skip my Propedeuse (First Year's Program) of the Bachelor in Urbanism and Landscape because of my previous study in Boskoop. Later I could also convince the dean to skip the first year of Architecture because of the way I was working, though in the beginning this seemed difficult because my technical skills would not be sufficient. So at that point I was very pleased to have the possibility to shop around in the architecture and urbanism departments of the faculty since I was always fascinated to mix these disciplines. With this idea of 'academic shopping', my intention was to get as much as possible out of the institution.

And with my half outside ness I became more engaged with society, which is in my eyes an essential role for the profession of an architect. I always encourage students to make internships everywhere, not only to be better equipped after graduation, but also to build up connections and a portfolio, which goes beyond a mere academic portfolio.

For studios I always preferred to work in a group, both for Urbanism and Landscape as for Architecture. We organized our own projects, the so-called ZOP's (Zelf Opgezet Project/Self Organized Projects) at that time. In that way we were able to set our own agendas. We ended up with our own graduation studio tutored by Rem Koolhaas, and Ben van Berkel.

The faculty was a rich environment of interesting figures. The first day I entered the school, I saw two persons presenting their graduation project on Rotterdam housing, with a full audience. It turned out that they were called Francine Houben and Erik van Egeraat, who co-founded the architecture firm of Mecanoo. They were graduating that day. I was intrigued. The second day Aldo van Eyck gave a lecture and he had a sack over his head, so you could only hear half of what he was saying, but I found it highly amusing and I was sure I went to the right place. Later he went away and Herman Herzberger took over. To maximise my 'shopping experience' I worked with different people and used their different qualities, both in school as in practice.

To others I felt less attracted. I was never attracted to the polemics of Leen van Duin, Henk Engel or Carel Weber. Max Risselada in my opinion was too much connected to Le Corbusier and Adolf Loos. In the end I experienced the polarity between Herzberger and Koolhaas. Some critics tell me that this polarity is still very visible in our work by making the conceptual slightly more humanitarian. It could also be the other way around: to make the humanitarian more conceptual.

Within the field of Urbanism, Donald Lambert who embraced the American way of approaching Urbanism taught me. The American Method is based on data and the theory of making qualities into zonings. The department of Urbanism had a nice mixture of characters, which didn't talk with each other much I guess. Rein Geurtsen was a morphologist who could stay a bit vague but in the end he just loved to define beautiful urban spaces. I share that with him and with my landscape background. Peter Dubois had sought the somehow holistic aspect within architecture.

SK When did you start to mix these different backgrounds of Landscape, Urbanism and Architecture?

WM In that sense, Clemens Steenbergen, who was able to rationalise the landscape, has been a big example for me. He did better things than he got credits for. There are different ways to understand the different notions of Landscape and Urbanism. In the French school L'École Nationale d'Horticulture everything is about the beauty of plants and the change of plantation over time. I think Clemens Steenbergen was as specific as a mathematician and showed how morphology could become a science like the Versailles school could tell which plant would survive in which conditions. He showed how infinity could be constructed in a scientific way. Infinity, as one of the most interesting, if not most important, issues for landscape architecture and philosophy, can also be a tool for architecture. This goes back to monumentality, the will of being endless and is still relevant today since sustainability plays a very important role in architecture. Infinity could be an aim or a field of study that goes beyond the space. We can also look at the way in which the 'route architecturale' has been developed by Le Corbusier and Adolf Loos. This shows one of the possible mixes of urbanism, landscape and architecture.

This mix becomes apparent in our work, the crossover of different scales from the detail to the max scale is what we pursue and take as a position in our office, even when we design a house. In that sense the blue houses in Rotterdam advocate densification and advertise to open up the city for middle class again. These three professions have continued in our practise.

In architectural terms I think the position between Herman Herzberger and Rem Koolhaas has created an historical juxtaposition or development that needed to be answered; where Herman Herzberger ultimately works on the smaller scale and becomes slightly more emotional than scientific when he works in the bigger scale, while Rem Koolhaas is a master of the overview. If they come together indeed great things can come out.

SK What is your position vis-à-vis history, present and future?

WM There is a true treasure to be found in the past. People have given their lives over the past 3000 years to architecture. To disrespect these milestones of quality they have laid before us would be rather stupid. So it helps to know them and to refer to them when needed. Sometimes when we are convincing the client of the level of abstraction and quality you want to achieve in certain projects. Sometimes the past serves as a base for development. Sometimes as an echo of the monumental and heroism. These theories are dredged throughout our work. We learned from Schinkel how to position our building the most appropriate in the landscape and how it could have the best overview over the Elysian Fields. We learn how Pompeii and Troy positioned themselves as a prototype to accept the past. We were fighting the battle of the over-simplicity and reductionism of Ludwig Mies van der Rohe and the rest after that. We can learn from Boullée's ball that 24/7 hours architecture can exist.

Somehow we can say that by referring to earlier inventions and improving or developing them, one can become 'scientific'. In the nineties there was a tendency to not refer to precedents or prototypes, but to aim at being totally original, authentic, and autonomous, and there was a super culture of newness. It didn't prove to be completely successful. Too many architects actually became the same. More blobs than ever. Etcetera. In fact the treasure of the past is very helpful, even when new technologies come in or sociologists give a new perspective on architecture. Some inventions were so strong that they could meet current agendas or demands and technologies. I call it copy paste with a smiley behind it, because it is more than literal copy pasting.

The idea is to improve prototypes, which have proven some of their qualities in the past. Taking from the past into the future but maybe in new combinations, and in different contexts. Like we used the Plan Obus of Le Corbusier, which was never built, as a prototype for Celsia in Madrid. However, now we had to build it for 800 euro per m². With the help of computer technologies we suddenly were able to make it possible. That is in itself is an innovation. We made four gardens, which are affordable nowadays. Plan Obus was a wonderful idea so let's see how it can be realised in current conditions. At the same time Plan Obus has never been built and often criticized because of its repetition factor, its monotony. Our attempt to make one road urbanism in the north of Spain in Legroño was the simple result of the lack of money; more infrastructure than this one road was just not affordable. It forced us to make high-rise along this one road. So Plan Obus of Le Corbusier as a larger plan is gratuity realised in the hills of northern Spain. This is also a way to use, develop and overcome the past. You can call it innovation.

But the future is not only about that obviously; it is very wide. We (should) want to install new prototypes as well, which can be complicated, since lots already have been done. We want and are able

to stack more landscapes now, ten years after the World Expo 2000 pavilion. Additionally, also then we had a reference to Reyner Benham, to certain examples from America, to fantasy worlds, etc. So at the one hand we have developed a prototype with that building, at the other hand this was also after other inventions had been made. The pavilion formed a part of an evolutionary chain. It could become itself a prototype on certain aspects.

SK When does a prototype become a paradigm? Or maybe stacking different paradigms produces a new prototype? Being more aware of this mechanism could help us to understand how architects work?

WM Your observation is correct, but that can also be an endless killer. The dichotomy between those two terms (although correct) doesn't mean it can help to innovate yet, in reality it is more complex. Anyway, architecture can be already a beautiful science if innovation follows the repertoire of this dichotomy. It can be for instance about super-mixing, maximising everything. Or the opposite: a hyper reductive method to test one parameter and its values in a way. It could also be by maximising parameters. All these are attempts to evoke innovation by showing how far we can go by requesting 'escapes': it is almost a law that we have to change in order to innovate, to arrive at different techniques of innovation.

SK Do you have to break the circle to bring in something new or to stress a certain aspect to move this couple a bit further?

WM Yes. Clearly history has shown 90 % of the built mass has been formulated through compromise. The mix of budget, taste and modesty has led to this 90% loss. There are techniques to escape from that and it can be important to warn for the dangers.

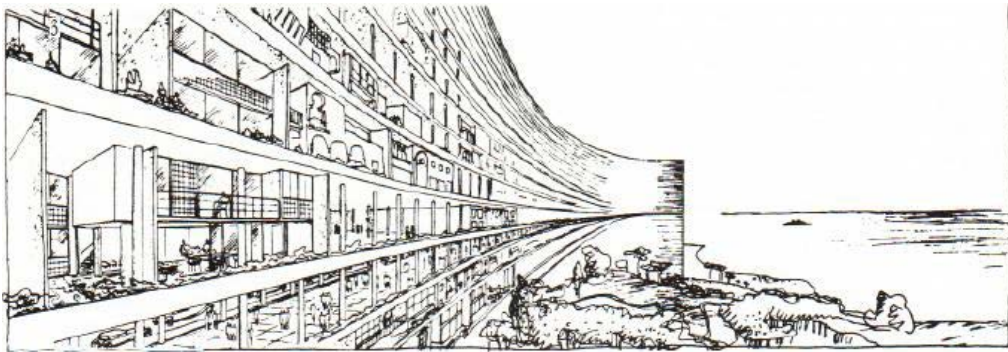
SK Are future and innovation each other's equivalents?



1.



2.



3.

1. Celosia – MVRDV

2. Eco City – MVRDV

3. Plan Obus
– Le Corbusier

which can still be connected by shared fascinations or paradigms that we think that need to be investigated. Intensity and density are such paradigms. Born in the nineties they can be seen as an answer to the club of Rome with their doom about the culture of growth and consumerism. So it can be positioned in time. Most of our designs deal with that subject in different ways. Of course they come out of the clients' demands and fascinations, but sometimes because we suggest something to sharpen that consideration. The blue houses in Rotterdam would never exist if we didn't had suggested that. To show to the later clients that they could build on top, avoiding them to move out of the city. Another one. The Almere Oosterwolde project is about hyper-free urbanism. When Arie Duivenstijn was looking for an urban designer that was able to organise this hyper freedom, I told him that his ideas were not radical enough. Subsequently I proposed to extend his ideas of architecture to urbanism. Also roads and other infrastructures can be 'free', that is: maintained by the citizens themselves. But there are more aspects or paradigms, like the desire to work within a so-called pop-zone, meaning living with participation. And other paradigms like consciously living with temporality, to question conventions, which resulted in a sort of light-urbanism. The themes are all there. Some are very long-running some rise from actuality.

WM Yes for sure. I do think the future is somehow the most interesting period to work in. The future is unrevealed, unknown. Architecture and especially urbanism and landscape architecture are about preparing for the future. The relative slowness of these disciplines is asking for it even. You design something now and maybe six years later it can be built and in urbanism this process takes even longer. I miss it in the architectural debate how to work in the future and being able to predict. The debate especially in Italy, less in the US, has been dominated by the past. We can think about the past and develop models how to deal with the future. So there are certain models like the grid (both in urbanism as well as in architecture) to maintain neutral collective ideals. Sometimes we rely too much on those models and I tried to discuss that in our Almere Oosterwold plan. In this plan we don't need a grid to facilitate hyper diversity and (semi) individuality but we want to distinguish and develop the space between individualism and the collective. How can the collective emerge from individualism? How can we deal and develop a responsibly with and for that? Sociologists clearly indicate that people have two tendencies: at the one hand people want to be free and different, on the other they cannot be alone and need each other. That is the beauty of that project because it wants to specify this as directly as possible, by developing new design laws. It is one example to study the future and to experiment with and learn from upcoming behaviour.

SK Do you have a design approach that could be called paradigmatic? Or in other words, do you use tools like morphology, typology, plan analysis or phenomenology? Do you combine them and how? Do you have a specific approach for every assignment?

WM All are paradigmatic, as they select a paradigmatic base. I could explain it best within the oeuvre itself. That can be seen as a step-by-step method based on some paradigms. We don't need to put everything in every building. We could put a certain aspect in each project,

SK One of the big qualities of MVRDV is the formulation of a good problem statement and to take the statement as a basis to work on a project. How do you formulate a good problem statement?

WM Beside the given program, another strong key figure is that we believe that everybody wants the right answer. What is a right answer? That leads immediately to many questions. It is more than the brief. When we got the assignment of the Flight Forum plan in Eindhoven for instance, situated next to the airport, the clients wanted to make an industrial area, often characterized by fenced off plots where a relatively low amount of



4.



5.

4. Urban Plan Almere
Oosterwold – MVRDV

5. Flight Forum – MVRDV

land is actually occupied by buildings. Only the first row has a high ground price and the ones behind are relatively cheap and worthless. 'Do you really want something like that?' we asked. We could also see the potential of that site, namely the fact that we could re-design the given of the planned highway. What happens if all buildings have an address on that highway and are directly accessible? Then there would be no backstreets and you achieve more quality. How to do that? This led to proposals for changing the design of the highway, to split it, to give it connections, a beautiful spaghetti. What is the thing at hand? The recipe is to fire back questions towards the commissioner, to test potential qualities and to build up a shared argumentation for improvement. And keep asking the right questions within the office.

The question goes hand in hand with the potential and is an easy way to test possible solutions quickly. After testing them, you work on the level of nuances so it can become a strong figure. Such a gesture can cover more aspects. A site wish, how can you see in the projects more problems and challenges.

Details are in that respect important premises in our work. Details can make a strong figure, they make the project recognisable and understandable and can turn it into a success. You started the question with phenomenology and terms, which were very popular in Delft at the time. With this answer, I wanted to create some clarity in the debate, offer some mark stones, within this vague terminology, which I did not understand in those days,

SK Another Delft term: Speculation – reasoning with inconclusive evidence. How do you speculate and how do you deal with the lack of evidence?

WM Good one. In our projects it is clearly visible. It is one of the techniques in the attempt of revealing the future. Many people criticize speculation and see it as a negative non-scientific term but it can be immensely useful when predicting or testing the future. In fact the popu-

lar data analysis program as SPSS, and especially the latest versions, are able to forecast future trends. SPSS statistics can analyse how certain data transgresses within time and using Gauss curves they can already (dis)cover the close future. This can be seen as a highly advanced form of speculation. Moreover speculation can deepen knowledge that cannot grow yet at the moment. For example when you are thinking about a city where you can reach everything within say 4 minutes, you can ask yourself how to achieve that. That can be clearly developed and designed. It can show the costs and the impossibilities. Such fantasies help to speculate about a fast city. You could make a model, which makes that possible and at that point it would become part of our knowledge. People recognise speculation as a potential problem solver, which is capable of shifting stagnating agendas. However you have to isolate things due to the complexity of today's issues to be able to speculate on them and then they could come back in the design.

Also comparative scenario thinking and writing is still a useful source to make incredible unknown landscapes, drawings, buildings; the 'what-if-zone' as an eye-opener. The mixture of scenarios is another one. The evolution of a scenario is yet an additional one. Yes, scenario thinking is an important tool for speculation.

SK There is a book called 'Unpacking my library' in which renowned architects present their favourite books. Which books would be your 5 favourite ones?

WM Until now I always refused to answer that question. Because you have many of these kind of questions in magazines and newspapers like this. Actually it is an impossible question to answer. We were probably the last generation to compile a library. I love the books I have read and I will never throw any of them away, both novels as technical books. So I can and will not pick one. Recent books are the ones that are just influencing you the most.



6. Evolution of agriculture
(b), infrastructure (a)
and housing (c)
— MVRDV

SK Is the tradition of engineering, which is present in Delft important for you?

WM It was my dream to find that in Delft, but I was very disappointed after 6 years. The relationship between the Faculty of Architecture and the rest of the university is so incredibly poor. There was no connection with ICT, there was no connection with Chemistry to learn more about materials and material visualisation, there was no connection with Civil Engineering to learn from constructive design, even though we were neighbours. Not only the Faculty of Architecture is accountable for the lack of collaboration, but also the other faculties have created a certain distance. The roles of the rectors were over-concentrated on some key factors and in my opinion not advanced. The philosophy professor Doorman was the only one in that time who wanted to span the enormous gaps, he was fantastic and was ready to cross that border.

If I would be the rector, my aim would be to connect better within the faculty and the rest of the university and make use of engineering capacities around us. Technologies are and will be one of the major drivers of innovations. People are very focussed on competing while better collaboration methods would enhance the collective knowledge. Eventually collaborations could even get more financial subsidies to test the different elements of the research. The task is to simply change temporarily curricula and make those kinds of research groups that would be so much more exciting. In fact, at the moment there are such clustered experiments, but they are not visible enough. There is a lot to win from that.

Besides that, maybe it seems contradictory that, specialisation is hyper needed because of complexity. Having said that, you sit in front of one of the most generic architects in the world. You cannot cover everything as a generalist. You need the specialist. In the end specialism needs to have a generic component in order to understand each other's specialisation.



DEPARTMENT OF ARCHITECTURAL ENGINEERING AND TECHNOLOGY

ARCHITECTURE & ENGINEERING

Integration of technology in architecture lies at the core of the architectural engineering chair. We bring spatial, functional, social and technical developments together in our integrated design projects. The fusion of building components into a whole and anticipation of the changing building assignment are the foundation. The chair fulfils a coordinating and initiating role within this context. Key questions include: how do you make and materialise a building, what can be technically improved, how do you research that, how do you integrate structure and climate systems into an architectural design, how do you improve these components? Given the major changes that are currently taking place in the building assignments, there are current issues that will be included in the programme in the near future. Focus areas are digital manufacturing, product design, material research, circular economy design, building physics, structural mechanics and computational modelling. The architectural engineering chair works closely with other groups within the Architectural Engineering + Technology department. The chair aims to create at a synergistic archipelago of collaborative study chairs and sections that stimulate and integrate architectural innovations into design education and research in the Master's phase. The Architectural Engineering and Heritage & Architecture studios are located in each other's vicinity, and a direct exchange of knowledge takes place.

Thijs Asselbergs



Thijs Asselbergs is professor at the Faculty of Architecture and the Build Environment at Delft University of Technology (TU Delft) as well as an independent architect in Amsterdam. He studied architecture at the TU Delft and was one of the founders of the *Items* design magazine and the international graduation price *Archiprix*. As an architect, he is a connector and strategist. As professor of Architectural Engineering he is leading a group of students and lectures who are fascinated by the innovative power of technology in architecture: INTECTURE©. Thijs Asselbergs believes in synergy as a driving force between the disciplines of physics, construction and design, but also between researcher, designer, builder and user. In this ever-changing landscape, the role of the architect also changes. From his position at TU Delft and as a practicing architect Thijs Asselbergs challenges the forthcoming generation of architects to re-act and prepare for their new role in architecture within the framework of *The New Architect* programme.

Thijs Asselbergs

The New Architect: Integrating innovation into architectural assignments; In search of a new role



This story offers a perspective on the modern architect and engineer. It includes:

A short introduction to the historical building tradition and the creation of the architectural project; An overall approach and strengthening of the ‘makeability’ of buildings; Insight into the way in which architecture and engineering can contribute to a higher quality and more technically sound architecture; The work on systems to be produced industrially; Insight into the experimental character of the graduation studio aE/intecture¹ and it addresses the new role and position of the architect in the modern building process illustrated with a few recent examples from the practice of the author.

THE NEED FOR SYNERGY

It is too crazy for words: in an airplane that moves at tremendous speed, you sit next to a thin and draught-free wall that is able to cope with differences in temperature from minus fifty to plus fifty degrees Celsius. Meanwhile, on the ground we knock together buildings with heavy, material-intensive structures, which also have all kinds of problems in terms of building physics. It seems like the construction industry has only marginally developed in the past decades.

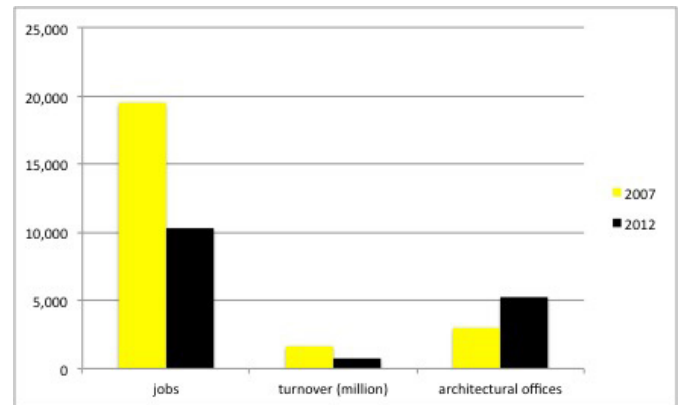
Architecture is not possible without a love of innovation. Nevertheless, anywhere in the world you only need to walk onto a building site to see that the traditional way of assembling materials – the pile-driving, hoisting, bricklaying and building – is still widespread in the construction industry. How big, for example, is this actual difference with the industrial building of an aircraft factory?

Aerospace technology, industrial designs and all kinds of high-quality temporary structures serve as a tremendous source of inspiration for architecture. The moon landing vehicle as structure, the offshore platform as architectural image, the successfully materialised, industrially-produced object as a basic model: they can inspire and help the architect in finding innovative building solutions.

As a result of the media and internet, there is an increasingly strong visual culture that makes inspiration for architecture possible. However, this visual culture also has one drawback. Namely that a strong image, an icon, becomes the guiding prin-

1

Intecture brings together spatial, functional, social design, and technical possibilities and developments. Topics such as product design, material research, building physics, structural design, informatics and model and production techniques all play an important role in architecture. In fact, architecture and engineering are inextricably linked with each other. Intecture is about the integration of technology into architecture. In addition, Intecture is about the position of the architect. Is the 21st century architect a building engineer? Intecture presents examples that can be used for inspiration, integration, innovation and industrialisation. Source www.ataindex.nl



2. Bond Nederlandse Architecten (BNA), diagram reduction of architectural offices' turnover 2007/2012

ciple in the design process. As a result of unlimited possibilities of virtual visualisation, the outward appearance has played an increasingly important role in the creation of buildings. Architects use computers to make advanced three-dimensional presentations and animations of their designs, without actually having to build. The downside of this development is that many young designers no longer know how their image has to be constructed. The architect is therefore at risk of becoming a producer of images that need to be built and materialised by third parties.

These developments led to the introduction of the phenomenon of *styling*. The architect who primarily concentrates on the 'final' architectural image will soon be reduced to an architectural stylist. The clients draw up a programme, the architect devises the style and shape of the building, and the structural engineers are responsible for the construction. In this scenario, the architectural appearance is separated from the method of construction and the function of the building.

In addition, there is the issue of the urban context. It is necessary to consciously opt for cohesion or contrast, when addressing the way in which a building reacts to the urban plan. However, if the architect is no more than a stylist, structures will arise without urban embedding. There have been many examples of this since the 1980s of the previous century. Along the periphery, a kind of shiny architectural diarrhoea was perpetrated, in which each investor demonstrates his own stylised identity. These became incoherent, poorly functioning areas in which programmes are not coordinated with each other in any way and urban cohesion is missing. Diversity in appearance and a functional monoculture are poor mediums or so it would appear.

The production of the Fourth Policy Document on Physical Planning Plus (*Vinex*)² around the turn of the century also suffered from styling. Almost all ground-level houses are variations on a theme with a house width of 5.40 metres, kitchen at the front or rear, three bedrooms and something extra on the roof. The architect indulged him/herself with frivolities in the facades and roof overhangs. This is a compromise between consumer interests and architectural expression.

But building is about more than that. It can be driven by synergy. It is about collaborating on inventive solutions in which programme, form and context reinforce each other. Maximum quality can arise if the designer forms part of a clear

structure and collaboration in which each person fulfils his or her role with insight and vigour. Unfortunately, something else is demonstrated in this practice. In many cases, the architect is forced to fight for the spatial and aesthetic quality. As a result of market forces and a reduction in government involvement, the position of the commissioning party has become so strong that there is now an enormous difference in position. The architect's room for manoeuvre is sometimes limited to such an extent that he or she is no more than the stylistic adviser for the schedule of requirements, along with an extremely tight budget as a means of exerting pressure.

BETWEEN TRADITION AND EXPERIMENT

Building and design have been interconnected for centuries. Moreover, the architect possesses a range of historical examples, because the history of building is an almost inexhaustible source of reference material. Two examples. In the city of Ise in the Japanese Prefecture of Mie, the shrines of the Jingu temple complex, which are over 500 years old, are rebuilt every 20 years. In this way, the traditional way of building is passed on with Japanese perfection to the next generation and the knowledge and craftsmanship continue to live on.

In the district of Brandevoort in the Dutch city of Helmond, buildings were designed around the turn of the last century, which were inspired by a number of age-old examples of traditionally-made houses from the typical Dutch cities. Upon closer inspection, one sees that the details and use of materials do not correspond with the historical image. The designers have attempted to approximate this, but at the same time they had to contend with all contemporary regulations that are based on modern ergonomics and building physics. The constructed result can be summed up in one word: kitsch.

Both examples say something about the sought-after desire. The first wants to ensure that tradition does not disappear in Japan. Part of the traditional manner of building is being preserved there with this simple, yet far-reaching, method. We do it differently in the Netherlands. The market determines what kind of architecture is built here and architects succumb to reinterpretations of age-old building methods. This 'super-traditionalism' makes use of the newest building technology knowledge and subsequently packages this within a historical image that is, in fact, a corrup-



3. Times Building under construction (2005), New York City, architect Renzo Piano

4. Flatiron Building under construction (1902), New York City, architect Daniel Burnham

5. WTC under construction (1973), New York City, architect Minoru Yamasaki

6. Man on the moon (1969)

tion of the original reality. It neither does justice to our building tradition nor to the progress made. This manner of building, which has frequently been applied in recent times, adds nothing to our knowledge and our insight into architecture and building.

We do not take apart a building every 20 years in the Netherlands in order to pass on our building tradition. We do, however, figure out buildings of internationally respected designers in order to obtain the tools to be able to achieve maximum architectural quality across the full scope of the field. Whoever is interested in the recent Western ways of building can consult the many good examples of innovative architects. Designers like Buckminster Fuller, Jorn Utzon, Renzo Piano, Santiago Calatrava and Jean Prouvé, and also English architects in particular, like Peter Cooke, Richard Rogers, Norman Foster, Nicolas Grimshaw and Jan Kaplicky have enriched architecture with new impulses and possibilities in terms of materials and structures.

During the last decades of the previous century, buildings were constructed, across the globe, which had a great influence on and gave expression to the desire for technological progress. The Pompidou Centre in Paris by Rogers and Piano (1977) and the Hong Kong & Shanghai Bank in Hong Kong by Norman Foster (1985) set a new course in a structural and material-technical sense.

In the first half of the 20th century Dutch architects, such as Duiker and Van der Vlugt, also made designs that had an impact on the 'makeability' of buildings and which set new developments in motion. It is no coincidence that the restored Zonnestraal in Hilversum has been canonised and the Van Nelle Factory in Rotterdam comes to mind with each large building.

In that sense, the Netherlands has an interesting tradition of lucid, idiosyncratic buildings that are praised for their (functional) appearance, even though they are often built on extremely modest budgets. Knowledge of these traditions can be an important contribution to the success of new experiments. A great deal of inspiration is drawn from the Dutch examples not only here, but also in other parts of the world. The respect for and interest in these buildings calls for further classification, research and accessibility, also on a technological level. In this way, we can acknowledge, protect and integrate the traditional value of our rich building history into our way of thinking. We are too quick to search for the new each time, while the already existing is not even understood.

BALANCES

In my own work, I seek a balance between the social and aesthetic aspects that determine the end result when designing. How do you strike the right balance between space, material and use? I use the word 'balances' to allude to that.

Balance is about what you consider important, about what to attach weight to. It is about what allows for expression, because it seems as if it can be thrown off balance at any moment. Balance can be the result of adjustments to forces by offering the right counterbalance.

Based on my own experience in the design profession, I know that designing revolves around finding a balance between the schedule of requirements, space, architectural identity, technique, budget, sustainability and a balanced appearance. It is about clarity in construction, function and space; in transparent materials like glass and steel, but also in concrete and wood; without losing sight of the 'livability' or the detail. The balance has been found when the right knowledge combined with the right insight is applied by the right advisers, all in close cooperation with the client.

The manner of materialising is, therefore, of the utmost importance. In 1988, I introduced the term 'zappi'³ in the design journal *Items*. It stands for the material that can do everything: it is weak, strong, fluid, transparent, absorbent, fire-resistant, maintenance-free, simple to process, cheap, sustainable, etcetera.

Whoever is engaged in design seeks the optimum effect, analyses and combines, puts together and throws away, influences his or her environment, determines space and use, seeks the right balance.

Is architecture the creation of illusions? Must we settle for a completely arbitrary formal language that has nothing or very little to do with what the material is capable of? Architects are mostly searching for originality. That leads to saturating our environment with all kinds of artificially varied forms.

Material-intensive main load-bearing structures are sometimes solely used to accomplish an architectural image. At a time when raw materials are becoming increasingly scarce, can you devise structures that are severely over-dimensioned purely because of the form? The basic functional form is rarely accepted as the final form. In any case, we will keep having to adapt the grammar of structures and architectural details, which are necessary for a building to function properly, to the demands of the times.

It is a permanent quest for the structural criteria and principles that make the optimal architecture. Logical architecture strives for precision, transparency and the right balance between form and material. Strip a building of its facade, analyse the main load-bearing structure and it becomes clear that the logic of mechanics and building physics is lacking in many cases. Clarity, honesty and inventiveness should be the basis of our architecture. Architecture should arise from our ideas about the way in which they will be construct, *design by thinking of the making*.

What is necessary to achieve all this? At the very least, good cooperation between the structural engineer and architect. Structural engineers must be able to make building designs in cooperation with architects, whereby the design of the structural elements is an optimised and balanced component of the object.

It is important that we realise that it is not about calculating. We can all do that. It is about the inventiveness with which the architect integrates the structural aspects in his or her thinking. ‘Design stems from consultation’ is what I wrote to Professor Arie Krijgsman in 1986, one of the ABT foremen at the time, and I was referring in that instance to the way in which the English do it⁴. Architect Richard Rogers brought all consultants, such as structural engineers, building physics consultants and installation consultants, and architects together, locked them up in a room for days, and in this way forced them to think in an interdisciplinary manner about the way in the building had to be designed.

2

Vinex is the abbreviation for *Vierde Nota Ruimtelijke Ordening Extra* (Fourth Policy Document on Physical PlanningPlus), a spatial planning policy document of the Dutch Ministry of Housing, Spatial Planning and the Environment from 1991. This policy document, a follow-up to the *Vierde nota ruimtelijke ordening* (Fourth Policy Document on Physical Planning) from 1988, contains basic principles for the building of residential development locations for the period between 1 January 1995 and 1 January 2005.[1] For a number of cities, the direction in which the new expansion could occur was indicated; formally speaking, however, it was up to the provinces and cooperating municipalities to determine the locations. These locations on the outskirts of large cities for large-scale new housing developments are often called *Vinex residential developments* or *Vinex districts*. Source: Wikipedia

3

Items, tijdschrift voor vormgeving (Items, design journal) no. 26 (1988), p. 3

4

Architectuur/Bouwen (Architecture/Building) no. (2)3 (1986), pp. 36-37

AE/INTECTURE: INTEGRATION OF TECHNOLOGY INTO ARCHITECTURE

We live in a time of constantly changing demands. Everything is shifting. Politics, the climate, humans across the earth, technology, material use and reuse, energy flows, requirements, influences of sustainability, you name it.

What do we need? What is the value of the buildings we are making? Is it possible for them to be temporary, easily assembled and disassembled, flexible, better, more considered, safer and smarter?

aE/intecture searches for spatial solutions that are in keeping with the issues of these times: densification or dilution, such as the transformation of urban areas, or dealing with contraction. We seek sustainable solutions for living and working environments, solutions for people who no longer have their own house, good integration of energy production in architectural objects.

It is no longer just about the conceptual side of architecture, but learning to think in an integrated way about the way in which something can be made. As a separate discipline, architecture and engineering has a clear and recognisable identity within the overall field of study. It merges building technology research with architectural education. It is about contemporary assignments in that we take up the challenge in terms of which technology can be used and what can be used to answer whichever current demand. aE/intecture contributes to innovation and integration of the energy issue into the design of new buildings, or buildings and environments to be reused.

Designers therefore become design-engineers with a research question that academics find refreshing and upon which research can be conducted jointly. Designers are challenged to design optimally with minimal use of materials and to employ circular thinking. It is ultimately all about inspiring, integrating, industrialising and innovating the architectural assignment.

DIGITAL FABRICATION

In addition to material development and generating energy, new methods have been under development for quite some time, which have influenced the thoughts and actions of architects, builders and consumers. A second industrial revolution is approaching. This concerns the digitalisation of new production methods and in which we make use of everything that is currently being developed in the field of 3D printing, CNC milling and 'robotisation'. As a result of integration and digitalisation of such technology, great freedom is created for designers and consumers. By linking this technology to the wishes of users and designers, we can develop (open) platforms that ultimately provide us with a lot more options. Pieter Stoutjesdijk graduated in 2013 with a digitally fabricated house that could be used as for permanent occupation following the earthquake in Haiti. The house has now become an icon for architecture that can be fabricated digitally and was displayed on a 1:1 scale in the Stedelijk Museum in Amsterdam for the exhibition *Dream out Loud* ⁵.

Stoutjesdijk recently developed the 'comfort cabin', an innovative solution to make temporarily vacant buildings habitable for refugees. The project has been frequently cited in the press and the chief government architect regularly shows it as a good example of innovation. Meantime, he has also developed 'ComfortCity', together with former aE/intecture student Anneloes de Koff, which received first prize in the competition organised by the COA (Central Agency for the Reception of Asylum Seekers) entitled *A Home away from Home* ⁶.

The 3D printing and digital fabrication of buildings components is still at a very early stage, but you can feel that enormous progress can potentially be made here in terms of process and production. A major advantage to this way of working, of course, is: flexibility and tools that can help give users as much design freedom as possible. It served as the guideline for us to come up with *mass customized building systems* (MaCuBs) ⁷.

For example, following on from her graduation project for aE/intecture entitled *Tra-Digital Hybrids*, Nadia Remmerswaal is focusing on the use of CNC milling, as part of her research *Cast Formwork System*, to be used for a new sustainable, affordable, customer-oriented and safe building system that will enable the local community of Kampongs in Indonesia to build up to four stories high in informal areas ⁸.

5

The exhibition 'Dream out Loud - Designing for Tomorrow's Demands' could be seen in the Stedelijk Museum Amsterdam from 26 August 2016 to 1 January 2017.

6

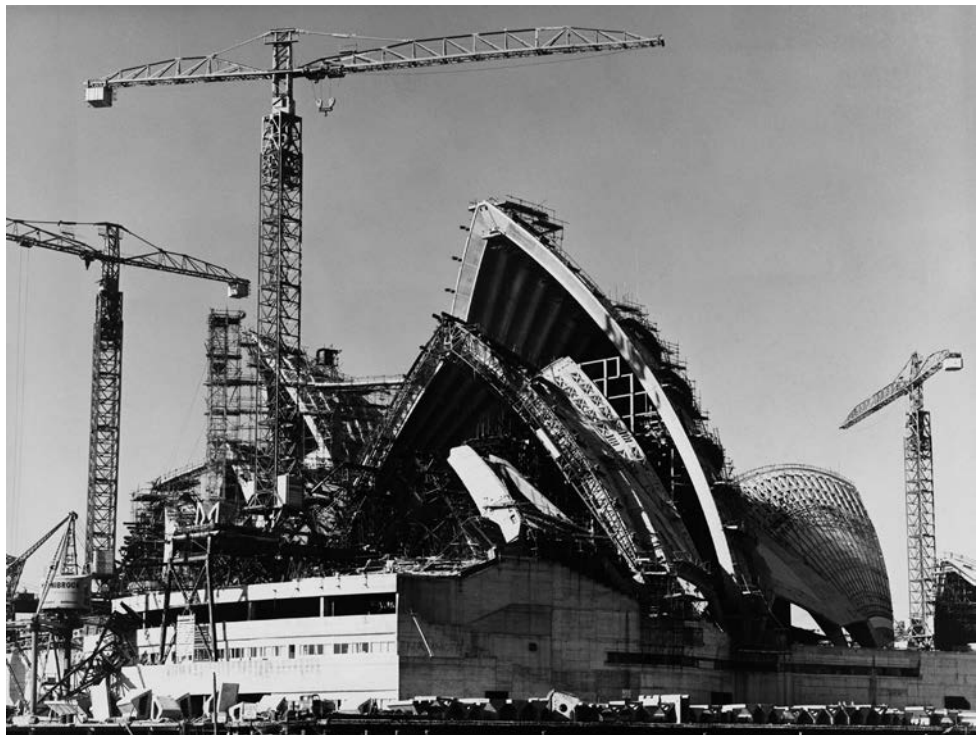
In order to respond better to the peaks of the influx of asylum seekers, the Central Agency for the Reception of Asylum Seekers (COA) and chief government architect Floris Alkemade launched the Open Call 'A Home Away from Home'. Comfort City was one of the six winners out of 366 submissions. See also www.ahomeawayfrom-home.nl

7

MaCuBs is a design-oriented research initiative that seeks solutions for mass customised building within the aE/intecture graduation studio of Delft University of Technology (TU Delft) and builds on the ideas with which Pieter Stoutjesdijk graduated in 2013.

8

See: <https://www.castform-worksystem.com>



7. Meiji Shrine temple complex, Tokyo

8. Vinex Brandevoort (2005), Helmond

9. Buckminster Fuller with dome

10. Opera House under construction (1970), Sydney, architect Jorn Utzon



11. Kunsthaus Graz (2003),
architect Peter Cook
12. Hong Kong Shanghai
Bank (1986), Hong Kong,
Foster and partners

13. Selfridges (2003)
Birmingham, architect
Jan Kaplicky (Future
Systems)

14. Centre Pompidou (1977)
Paris, architects Richard
Rogers and Renzo Piano

15. Van Nelle Factory (1930)
Rotterdam, architects
Brinkman & Van der
Vlugt

COLLABORATIONS

Talent development, searching for relationships in the business community and the government are guiding principles in order to strengthen our position in society and to examine how we can integrate this in the academic domain. For example, we created a *Stuiflab* together with the Directorate-General for Public Works and Water Management (*Rijkswaterstaat*) during the Oerol-festival on the Dutch island of Terschelling in 2015⁹. aE/intecture was also involved as adviser and inspirer in the creation of IBA Parkstad in Limburg to be completed by 2020 from the beginning¹⁰. In addition, new ideas for tackling living and working in Kampongs in Indonesia have been mapped out in the recent past, in which students have visited Bandung and the way in which it is possible to collaborate with the business community and the university there has been investigated¹¹. In the past year, students have been deployed to work on *Learning from Lowlands*, a project involving the famous annual Lowlands Festival in Biddinghuizen, examining in which way it is possible to learn from such temporary building structures¹². Meanwhile, an inspiring design relationship has been built up with the management of the *Marineterrein* in Amsterdam and the *Makerversity*¹³, so that students and researchers are given the opportunity to collaborate on the flexible city that is going to be developed at this unique location in the coming years. With our seismic project, the earthquake-related issues in Groningen, and in particular the design solutions that are being devised for this, have been made visible.

aE/intecture wants to demonstrate with such examples that architects can integrate innovative design solutions and thus contribute to the improvement of living conditions. We are following graduates in their practice to see if our approach has an influence on the changing role of the modern architect.

9

With a test set-up during the Oerol festival in 2015, the Directorate-General for Public Works and Water Management (*Rijkswaterstaat*), in cooperation with TU Delft, tested which way of building impedes the sand drift the least. Students developed new ideas for sustainable beach buildings.

10

IBA is looking for innovative, future-oriented projects that will be of long-lasting importance to the development of a town, city or region. IBA does not build itself, but manages processes. It is laying the foundation for a new orientation towards the future in which social changes are stimulated. To put it simply, IBA contributes to the improvement of a town, city or region. IBA gives it a boost. In 2020, the IBA period will end with an exhibition of the completed projects. See www.iba-parkstad.nl.

11

www.cococan.nl

12

See: <http://www.nederland-wordtanders.nl/nieuws/learning-from-lowlands/>

13

See: <http://makerversity.org/en/amsterdam/>

14

Jan Terlouw et al., '*Ontwerpen voor de industrie 1*', Wolters Noordhoff Groningen (1982)



18. Jacques Tati balancing on one leg



19. CCTV under construction (2007), Beijing, 2007, architects Koolhaas and Scheeren (OMA)

20. Japanese girl with white bulbs (image by zappi)

21. Los Angeles

22. *Haïti Huis* (2016), Stedelijk Museum Amsterdam, architect Pieter Stoutjesdijk

23. *Comfort City* (2016), A Home away from Home, architects Anneloes de Koff and Pieter Stoutjesdijk



INTECTURE | 01



24. Cover MaCuB (Mass Customized Building-Systems) booklet, aE/intecture 2017

25. Cast Formwork System (2015), architect Nadia Remmerswaal
26. *Stuiflab* (2015) Oerol Terschelling NL, architect Anna et al.

27. IBA Parkstad (logo)
28. *BrickFantasy* (2016), Groningen, architect Lu Ding (aE/intecture graduate)

29. Bald chicken without feathers
30. Milau Viaduct (2004), architects Foster and Partners

THE ENTERPRISING ARCHITECT

In the 1980s, a similar sort of development occurred in industrial design. The industry made products upon which design was, in many cases, poured over like a kind of sauce. We called that 'styling'. Examples included jazzed-up toasters and tea kettles, but also ugly-looking and poorly functioning photocopy machines. When the industry started to understand that designing the form and technology of the product could be merged, sales were suddenly much better¹⁴. Marketing, production methods, but also the appearance, were derivatives of an overall process in which form, material and construction method became a whole.

In the 1990s, the Dutch Design boom subsequently followed, self-producing designers who managed to get their own products on the market and came up with new conceptual ideas approaching material, processes and use in a different manner. In fact, they provided an enormous boost to product design culturally, economically and in terms of use. Dutch Design has become a global brand¹⁵. It is a lesson that the building industry, but also certainly the Dutch architecture world, can learn a lot from. It seemed for while that Dutch architecture could also make similar international headway at the time of the publication of the book *Super Dutch*¹⁶. That was in the 1990s, the time when the building, the environment and the design of the city was also an administrative and political task: architectural quality as assignment for the public administration¹⁷.

NEW ROLE AND POSITION FOR THE ARCHITECT

The profession of architect has evolved considerably over the centuries. It used to be the all-knowing master builder who visualised the design through drawings. He monitored his work, administratively and in terms of technical design, at the building site. The architect was, therefore, the master builder of the entire work. His relationship with the client, the future owner, was clear and the classical marriage between both stood firm until deep into the 20th century. It was only after the economic crisis, at the beginning of the 1980s, that the position of the architect as master builder began to topple. Building consultants emphatically entered the picture. Ever since, project management and budget control have been carried out or extensively influenced by advisers. This was subsequently followed by the economic crisis after the fall of Lehman Brothers on 15 September 2008. This led to a further erosion of the architect's position. For example, more than half of all jobs at Dutch architectural firms disappeared and the turnover halved¹⁸.

Today, it is increasingly common for architects to only provide a provisional and final design, and that he or she is no longer involved in the rest of the construction process. This leads us to conclude that the influence of the architect is subject to erosion. If we are not careful, this is a danger and as a consequence, the profession will be reduced to that of aesthetic adviser. *De Nieuwe Regeling* (The New Rules, DNR) which have been in force since 2005 are telling¹⁹. This so-called DNR is the agreement in which the legal relationship between architect and client is laid down. In these rules, the architect is no longer called an architect, but an advisor.

In summary, now that the master builders have lost their dominant and directive position, we will have to reflect on the way in which we shape the building process. Because how can the new-style architect still establish and guarantee the quality of his or her building design?

I will take four examples from my own recent professional practice in which the architect has created work within new forms of collaboration.

1.

Civil architect in Ruimte voor de Waal Nijmegen
(Room for the river Waal Nijmegen)



In 2012, I was invited to participate in a design & construct team with the landscape architects of HNS from Amersfoort. It concerned a large assignment in which the impact of the basic design of the municipality of Nijmegen for a plan for *Ruimte voor de Waal* (Room for the river Waal) had to be fully worked out. The extensive design included the creation of a secondary channel for the river Waal, various bridges, a new reinforced embankment and subsequently, to integrate this properly as a whole into the landscape. I took on the role of civil architect together with industrial designer Arjan Karssen. We worked through the plans from large to small scale in close cooperation, and as a team with structural engineers, various consultants, the contractors and sub-contractors, going from provisional design to working drawing and supervision of the implementation. Connections from structural elements were integrated down to the smallest detail in bridges, embankments and from newly made stairs to infrastructure. The ultimate responsibility for the quality of the design and implementation lay with the team as a whole and was meticulously assessed by a quality team that was appointed by the municipality and central government. In this way, all parties were able to guarantee overall spatial quality. The total transformation of the area was completed in 2016.

15

At the end of the 1980s, the term Dutch Design started to become popular. The term was closely associated with a group of Dutch designers who have received international recognition, especially since 1990.

16

Bart Loodsma, '*Superdutch: De tweede moderniteit van de Nederlandse architectuur*'. (SuperDutch: New Architecture in the Netherlands), SUN Nijmegen (2000).

17

Hans van Dijk et al., '*Kwaliteit als opdracht voor openbaar bestuur*', NAI Rotterdam (1991).

18

Source: Royal Institute of Dutch Architects (*Bond van Nederlandse Architecten*, BNA)

19

Legal relationship client-architect, engineer and adviser DNR 2005 *De Nieuwe Regeling* (The New Rules, DNR) contains the general sectoral conditions for clear design, advice and organisation for the built environment for client and contractor. The DNR is the successor to the Regulations governing the relationship between the client and consulting engineers (*Regeling van de Verhouding tussen Opdrachtgever en Adviserend Ingenieursbureau*, RVOI) and drawn up by NEngineers (previously ONRI) and the Royal Institute of Dutch Architects (*Bond van Nederlandse Architecten*, BNA).

16. Room for the river Waal
(2016), Nijmegen/Lent
architects HNS, Thijs Asselbergs/Arjan Karssen

2.

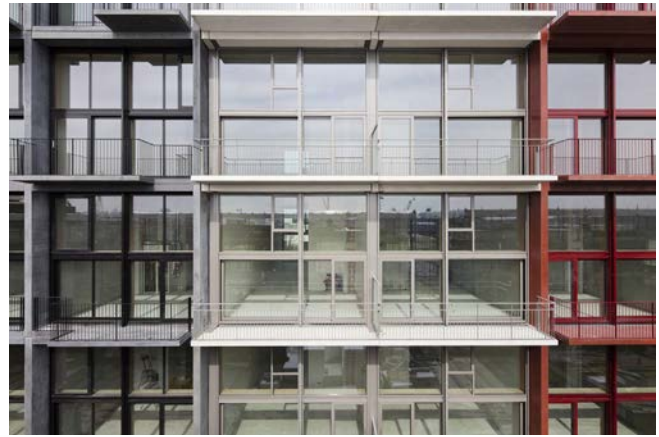
The 'Muziepaleis Tivoli', Utrecht
(Utrecht Music Palace) architect team



In 2003, I was selected as architect for the jazz concert halls in the all-new Vredenburg complex in the centre of Utrecht. Herman Hertzberger was asked by the municipality to update his original design from the 1970s for the existing music centre. In addition to these existing halls, the municipality wanted to incorporate the Tivoli pop venue and the venue of *Stichting Jazz Utrecht* (Utrecht Jazz Foundation, SJU) into a totally revamped complex. Main point of departure was that the existing, acclaimed concert hall of Vredenburg would be preserved. Four architects were ultimately appointed by the municipality: Hertzberger as coordinating architect for the complex as a whole and the refurbishment of his existing design, Jo Coenen as architect for the large hall of the Tivoli pop venue, NL architects were asked on the initiative of Hertzberger to design a crossover hall, and I was asked to design the jazz concert halls for the SJU. Together, we were responsible for the complete spatial coordination and integration of all the drawing work up to and including the implementation phase. Doing so, four different architects were able to structurally and architecturally anchor a diverse yet cohesive building complex, which is now called TivoliVredenburg. The complex was put into use in 2015.

3.

Collective private commissioning practice
and De Hoofden



Solutions were sought in Amsterdam to offer homebuyers the opportunity to design their own homes. Together in the architects' collective *De Hoofden*²⁰, we formed a team headed by architect Marc Koehler, that offered *casco-lofts* (shell lofts) in the Houthaven neighbourhood of Amsterdam. Large spacious and high empty shells were offered to people who were prepared to give us an assignment as collective architect group. Intensive discussion with large groups of interested parties ultimately led to approximately 50 clients who were able to give our collective the assignment to further develop the design of the stacked residential complex. Main entrances with stairs, lift and parking facilities, facades and balconies were designed as a whole and each individual client could subsequently give us or another architect an assignment to complete their own home in the empty shell as they saw fit. In this way, the residential building was meticulously incorporated into the environment in an urban design sense, but at the same time, each of the commissioners could fulfil his or her spatial architectural dream within the rules of the shell. In fact, a new architectural freedom and real estate value were created. The homes were occupied in 2016. Architectural quality was guaranteed by maintaining control over the total cohesive urban development, while differentiating between every resident who became responsible for his or her own design.

33. CPO Houthavens (2016)
Amsterdam, architects
De Hoofden (Marc
Koehler, Thijs Assel-
bergs, Cie, Rob Hoots-
mans, ILA)

20

Five architectural firms from Amsterdam together form *De Hoofden*: a collaborative venture geared towards joint project commissioning (*Collectief Particulier Opdrachtgeverschap*, CPO). *De Hoofden* has designed and developed two *casco-loft* (shell loft) projects in the Amsterdam Houthaven neighbourhood, and is involved as partner in a Superlofts project in the Houthaven neighbourhood. The loft projects in the Houthaven neighbourhood have been a great success and are already all sold. The collaborative venture *De Hoofden* remains active as consultant for CPO projects. Source www.dehoofden.nl.

21

This foundation is called Panopticon, see also <http://www.opendekoepel.nl>.

4.

University in the Haarlem domed prison



In 2015, I took the initiative to set up a foundation, together with a number of committed Haarlem residents, which aimed at building a university in the empty domed prison of Haarlem²¹. Such a function has been missing in this old city up until now. The building complex had to be bought for this purpose. This domed prison from 1899 and designed by the architect W.C. Metselaar is a 'panopticon'. The domed roof provides a beautiful silhouette in the centre of the old city and has a stunning interior. By developing a spatial proposal and simultaneously entering into discussion with the city about the benefit of the new function, local politicians were convinced to cooperate. As a consequence, the municipality of Haarlem recently bought the former prison from the Central Government Real Estate Agency and sold it on to our foundation as part of an ABC arrangement. As a result, I have also become risk-bearing architect, because it is a leasehold and I will be responsible for designing the overall spatial quality as part of a team of architects. The financing, the schedule of requirements the users, the building plan have become a totality and as a result, I am more equipped as an architect to create the quality I have in mind. Giving an assignment and accepting an assignment literally overlap in this process and reinforce each other. In the coming period, the complex will be further designed within a collective and it will be opened in its entirety around 2020.

32. Koepelcomplex (2017)
Haarlem, architects Thijs Asselbergs & Anne Snijders, restoration Andre van Stigt & Barry van Waveren

TECHNOLOGY AND BUDGET

When an architect has to cope with such large and complex forces at play, he or she will benefit by not only schooling him or herself in the aesthetic side of the building assignment, but also by continuing to focus on the technological side and the financial side. If the architect has no insight into the technical and financial impact of a building, his or her aesthetic plans will be easily dismissed as unrealistic. Architecture should still be about architecture and building engineering. In addition, the quest concerns the balance between programme, space and money.

The architect cannot, of course, do it all alone. He or she must ensure that parties work together, that the right players are involved. The director's role requires effective oversight. As I mentioned earlier, the generalist must know for what specialists should be held accountable for in order to be able to take responsibility for the total building as a collective.

Bearing in mind our study programme, we cannot ignore the changing position of the architect. In 1988, the Academic Titles (Architects) Act was introduced²². This Act determined who may apply to the register of architects and thus call him or herself an architect. Since 2010, this Act further requires that architects have attained certain exit qualifications and that he or she has demonstrably gained at least two years of professional experience.

How does that relate to the current university education? All graduates from the Faculty of Architecture and the Built Environment have a fair amount of project-based education and basic skills under their belt, but there is hardly any room for practical experience. The Academic Titles (Architects) Act can be used to strengthen the position of the architect. Let us take it upon ourselves to ensure that the newly registered architect actually has good insight, also practically, into the complex elements of the building process. Architectural design is about analysing, combining, collaborating, anticipating, managing finances and juggling situations that you cannot simply learn within an architecture study programme.

CHANGING POSITION OF THE ARCHITECT

Through such practical and teaching cases in recent years, I came closer to the question: *how do you position yourself as architect?* Which role, which responsibility and which goal do you want to achieve with your design? Moreover, with whom do you want to collaborate? Or: would it not be better for me to put together a good team for each job and formulate my own assignment?'

If you want to make beautiful and good things, you need to be able as an architect to share all responsibilities that are involved in a project. From neighbourhood to government, from budget to safety, from detail to material, from sustainability to architectural quality, you must be able to actively participate in the process. Because if you are not given space to formulate the assignment during a dialogue according to the way you think this must be made, you will be condemned to being a stylist. But the new architect should not be a stylist, as someone who is hired to direct a pretty facade on the basis of numerous requirements regarding the external appearance of buildings.

However, is it not your role as an architect to connect the essence of the assignment? Even more, are you not the engineer who is able to integrate the technology optimally in the design? In short, isn't it the time to position your role as the person responsible for the design in such a way that you can be the master builder of the job?

For this, you must be innovative as an architect and conform to being a part of a team in which the parties work with respect for each other on beauty and on sustainable practical value.

In recent years, I have learnt that this does not spontaneously happen; that choices have to be made and that you must carefully consider with whom you will collaborate. It is about working in a network and this requires a process in which the right people and parties join in at the right moment. Moreover, everyone has a responsibility. After all, you work together on the future building. This requires the right balance between process and product. A balance between the complexity of the building process and the challenge of wanting to produce the maximum architectural quality. Let us envision what we will produce with respect, transform it where necessary while also being optimally integrated into the environment. You are doing this together: working in a network in order to create a win-win situation that makes everyone happy. *This is actually the quest for The New Architect.*

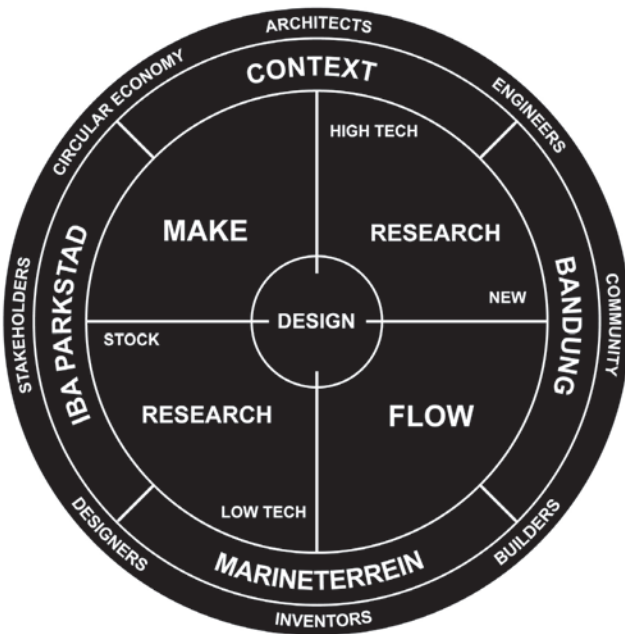
The Act imposes educational and professional experience requirements on registration. The Architects Registration Bureau (*Bureau Architectenregister*), see <http://www.architectenregister.nl>, provides statements on request concerning the qualifications of those persons entered in the register. Someone who graduates with a Master's degree from TU Delft may not yet call himself/herself an architect.

AE/INTECTURE

The graduation Studio aE focuses on integrating (new) technology into architecture: INTECTURE®. Students begin with a technical fascination, which is subsequently implemented architecturally in an environment.

'If technology is the answer, what is the question?'

Under the guidance of a team of enthusiastic (guest) lecturers, students search for the dot on the horizon in order to devise solutions that improve the built environment in terms of quality and make it more sustainable. In addition, either the 'making' (make) or the 'energy and material flow' (flow) is used as the foundation and applied within a context to be selected.



31. aE/intecture target
(2017) (schedule)

HERITAGE & ARCHITECTURE

The transformation of cities and buildings is one of the main emergent themes in contemporary architecture. Finding an appropriate balance between the old and the new is of fundamental interest for contemporary architectural design. The Heritage & Architecture Section is concerned with preservation and renewal in existing architecture. The research by design conducted in this specialisation focuses on the architectural and technical aspects involved in the conservation and transformation of buildings, including those of cultural significance. The Netherlands has a noteworthy tradition of cultural heritage management, a body of knowledge with high international standing.

Heritage & Architecture brings together the fields of cultural history, technology, and architectural design in a single holistic approach. The focus of the studio remains architectural design; Heritage & Architecture forms part of the master track Architecture of the Faculty of Architecture. It brings the technological expertise of AE+T to bear on the subject of built heritage.

Our graduate students develop into professionals who are able to work independently with a grounded knowledge of the latest developments in the field of Heritage & Architecture.

The focus of Heritage & Architecture lies in particular on the upper ranks of cultural and international built heritage, finding challenges where the past explicitly determines the possible future. The approach of the Heritage & Architecture section is development-oriented; in short: preservation through development.

Design studios in Heritage & Architecture take on crucial built heritage issues as investigations, with a particular focus on the built heritage of the 20th century. These present challenges from an academic point of view while addressing current societal developments. The emphasis in the choice of building complexes as cases lies on the need for changes in function. Where possible cooperation is sought by municipalities and property owners. However, the subject and approach can also charter new territories.



Wessel de Jonge (Rotterdam, 1957) is full professor of Heritage & Design at the faculty of Architecture and the Built Environment of TU Delft, since 2015. His Chair focuses on the adaptive re-use and restoration of architectural buildings and sites, elaborating on his particular expertise in 20th century architectural heritage, both in research and in teaching. Adaptive re-use is a rapidly expanding professional field, due to the on-going real estate crisis and the digitization of professional work that results in a less extensive use of office space. Obsolete office blocks are converted into apartments, and factories into schools. Architects are often engaged in the initiatives for such projects, and therefore increasingly confronted with the social and economic parameters of architecture. Apart from the cultural values that need to be taken into account, the Chair aims at an integrated design approach by involving the fields of real estate and sustainable design in an integrated design approach. This presents many opportunities for young architects in practice. At Master's level, he teaches students in MSc 1 level and supervises students in MSc 3/4 graduation studios. PhD candidates are invited.

Wessel de Jonge is founder and partner in Wessel de Jonge Architects in Rotterdam, a firm with international recognition in the field of adaptive re-use of recent architectural heritage in dynamic urban contexts, as well as an expanding portfolio of new buildings. The portfolio of his architectural practice includes the restorations of the Netherlands Pavilion at the Venice Biennale (Gerrit Rietveld, 1953) and the rehabilitation of the Van Nelle Factory in Rotterdam (Brinkman & Van der Lugt, 1925-28). He was awarded the World Monument Fund / Knoll Modernism Prize in 2010 for the benchmark restoration and adaptive re-use project for the 1926-28 former Sanatorium 'Zonnestraal'. He is a partner in the design team for the on-going restoration and adaptation of the 1938 Olympic Stadium in Helsinki. Recent projects include the Forum Rotterdam project (with OMA) and the adaptive re-use of the 1960 Orphanage by Aldo van Eyck.

In 1989, he was the co-founder of DOCOMOMO International, a worldwide network of scholars, architects and conservation specialists in the preservation and adaptive re-use of 20th century built heritage. With Prof. H.A.J. Henket he published "Het Nieuwe Bouwen en Restaureren. Het bepalen van de gevolgen van restauratie ingrepen", Zeist 1990. Further noted publications include his chapters in "Van Nelle Monument in progress", Rotterdam 2005: <http://www.wesseldejonge.nl/publicaties.php?pubid=11>, and in "Sanatorium Zonnestraal. History and restoration of a modern monument", Rotterdam 2010: <http://www.wesseldejonge.nl/publicaties.php?pubid=19>. His most recent open-access publication is "Sustainable Renewal of the Everyday Modern" in the Journal of Architectural Conservation, Taylor & Francis, London July 2017 (open access): www.tandfonline.com/doi/full/10.1080/13556207.2017.1326555

Wessel de Jonge

Sleeping Beauty



1. 'Zonnestraal' Sanatorium, built 1926–1928, after restoration in 2003. The lightness of the structure almost makes the building dissolve into nature / *photo Michel Kievits - Sybolt Voeten, Breda*
2. Het Schip housing block in Amsterdam (Michel de Klerk, 1921) is an early example of a twentieth century building that was listed in 1974 already / *photo unknown - Museum Het Schip, Amsterdam*

This article is based on the inaugural address of Prof. Wessel de Jonge.¹ It presents the dilemmas related to the conservation and adaptive reuse of recent architectural heritage particularly focussing on the author's pioneering engagement with Modern Movement buildings.

The field of operation for built heritage professionals has been widening in scope over the past decades in an unprecedented way. Early conservation professionals were mainly concerned with the restoration of neglected castles, historic mansions and ruinous churches. These represented only a limited quantity of outstanding pre-industrial buildings that were generally also appreciated by the public at large. Successive regulations in the Netherlands suggested that buildings had to be older than 50 years in order to ensure sufficient distance-in-time which would allow for a proper assessment of their historic value. This was reaffirmed in the first Dutch Historic Buildings and Monuments Act of 1961 and the following selection of eligible buildings for legal protection pre-dating 1850. However, since 1980 new policies were developed to actively advance the listing and conservation of heritage buildings from the 1850-1940 period. In order to be able to pursue these policies as soon as the 50-years cut-off date and other administrative constraints would be lifted, a critical selection of such buildings was prioritised.^{2,3}

NEW CHALLENGES

The nomination and listing of recent architectural heritage appeared to pose completely new challenges to both the selection and the conservation in comparison to pre-industrial built heritage.

First of all, many buildings of the modern era were constructed using steel, reinforced concrete and other new and often industrially prefabricated building materials. Their ageing and repair was still a blind spot in conservation practice while at the same time these new buildings methods caused modern buildings to decay more rapidly than many of their traditionally built counterparts.

The sheer quantity of buildings produced in the industrial era presented a second challenge. More buildings by far were constructed during the twentieth century than during all preceding ages taken together. The number of twentieth century buildings that needed to be reviewed

1

Wessel de Jonge is Professor of Heritage and Design. His inaugural address was presented on 10 June 2016 under the title 'Sleeping Beauty - About Transitoriness, Timelessness, the Future and Architectural Design'.

2

Kuipers 1998a; Kuipers 1998b. Historic buildings dating to the period 1850-1940 were referred to as 'Young Monuments'. Buildings included in this prioritized selection were the Open Air School in Amsterdam, the Nirwana apartment building in The Hague. Hilversum Town Hall and the Sonneveld House in Rotterdam. See for details www.rijksmonumentenregister.nl.

3

For an overview of the development of the conservation movement see: Glendinning, M. *The Conservation Movement: Antiquity to Modernity*, 2013, Taylor and Francis, Hoboken.



3. The Hilversum Town Hall (Marinus Dudok 1931) was one of the buildings prioritized for listing when the field of heritage preservation broadened to include the 1850–1940 period, and was listed in 1985 / *photo Arie den Dikken, Huizen*

4. Huis Sonneveld (Brinkman & Van der Vlugt 1933) was also one of the buildings preselected to represent the 1850–1940 period. It was listed in 1986 and is a house museum today / *photo Jannes Linders, Rotterdam*

for possible listing could have easily jammed the entire system of designation and funding if traditional procedures were to be followed. New selection instruments had to be developed and hard choices had to be made in order to prevent indecisiveness and carelessness from leading to the loss of the valuable built heritage of our recent past altogether. Given the poor material quality and state of decay of many of these buildings, time was of the essence: it was either choose or loose.

Another crucial aspect was the continuous widening of the focus of attention in heritage preservation. When the first Cultural Heritage Agency was founded in the Netherlands in 1918, those buildings that were generally regarded as architectural heritage included the traditional and pre-industrial built legacy that celebrated nobility through their palaces, the clergy by means of churches and represented civic pride in the form of town halls and other monuments. Since the 1960s, the focus of attention widened to include more modest buildings representing societal developments and everyday life of the past, as well as some early examples of industrial heritage. The legacy of the Modern Movement was gradually becoming part of a conservation-worthy legacy from a more recent past. The paragons of twentieth century architecture and those of the Modern Movement in particular, are mostly ordinary buildings that were designed to create a better life for the masses, often taking the form of healthy housing and schools, hygienic and day-lit workplaces or health-care facilities.

The conservation of these buildings posed an ethical dilemma: they were designed by architects who held critical anti-monumental stance,⁴ stating that buildings should be purely functional, and after having lost their function, they should be disposed of. This means that conserving the substance of these 'ordinary' buildings as 'monuments' goes contrary to the original 'idea'.

A last crucial challenge presented itself: Many of the older heritage buildings could be maintained as museums or tourist attractions. The potentially high number of listed twentieth century buildings made this approach unfeasible and implied that finding economically viable uses was the only way to lend them a second lease of life and safeguard their futures.

4

In 1937, Lewis Mumford (1895–1990) echoing the perspectives of Modern Movement architects, proclaimed that 'The death of the Monument'. See Mumford, E. *The CIAM Discourse on Urbanism. 1928–1960*. 2002, MIT Press. Cambridge Mass./ London.

5. The Swedish social housing industry headed by the Secretary of Social Affairs Gustav Möller, as depicted by cartoonist Nils Melander in 1939 (left) / Ernst May's 1929–1931 Westhausen Siedlung at Frankfurt (right) / photo unknown





6. The Van Nelle Factory as seen from the entrance in 1930 / photo Evert van Ojen – Gemeente Archief Rotterdam
7. Sanatorium 'Zonnestraal' shortly after completion in 1928 / photo unknown - International Institute for Social History, Amsterdam

MODERN HERITAGE⁵

The socio-cultural and technological developments of the Industrial Revolution initiated an unprecedented process of urbanisation and a change of lifestyle suited to the spirit and new realities of the Machine Age. Modern times triggered a demand for new and specific building types, such as factories, infrastructural buildings and social housing. The functional programs of buildings also became increasingly diverse and specific. The vanguard architects of the 1920s took the perspective that a direct link exists between a building's design, its technical lifespan and user requirements over time. As the projected timespan for a particular use shortened as well, time and transitoriness became important issues in the architectural discourse, i.e. leading ultimately to either a transitory or to an adaptable architecture. The consequent translation of these ideas into practice produced some remarkable buildings, including the Van Nelle Factory in Rotterdam,⁶ and its contemporary Sanatorium 'Zonnestraal' in Hilversum⁷ of 1928. Those vanguard architects were ruled by the principle of utmost functionality. A rigorous distinction was followed out between load bearing structure and infill to allow for maximum functional flexibility over time. Light and transparent materials were employed in façades to ensure unrestricted access of daylight and fresh air. Related to the idea of varied lifespans was the introduction of prefabrication of larger building components, which allowed for both the easy replacement of deteriorated parts, as well as future adaptation to respond to functional change.

They took advantage of the specific qualities of materials to build as lightly as possible, with a minimal use of material. Johannes Duiker (1890–1935), one of the foremost Dutch Modern Movement architects, labelled this philosophy 'spiritual economy' that, as he wrote in 1932, '... leads to the ultimate construction, depending on the applied material, and develops towards the immaterial, the spiritual.'⁸ In their search for optimal constructions, Modern Movement architects designed buildings that were extremely sensitive in terms of building physics.

5

Henket and De Jonge 1990.

6

The Van Nelle Factory was designed by Johannes (Jan) Brinkman (1902–1949) and Leendert van der Vlugt (1894–1936) during 1925–1931 and constructed between 1928–1931.

7

Sanatorium 'Zonnestraal' was designed by Johannes (Jan) Duiker (1890–1935) and Bernard Bijvoet (1889–1979) between 1926–1928 and completed 1928–1931. The design team also involved structural engineer Jan Gerko Wiebenga (1886–1974). In this text, the name of Duiker is used so as to represent the team of designers.

8

Duiker 1932.

SLEEPING BEAUTY

In his design for Sanatorium 'Zonnestraal', Duiker produced an early, and arguably his most direct, response to a short-lived functional program. Duiker advocated an architecture that was the result of reason rather than of style, and he attributed great value to the connection between form, function, material, economy and time. He argued that whenever a building's purpose had to change, the form would cease to have a right to exist and the building should either be adapted or demolished altogether. Duiker thus regarded buildings as utilities with limited lifespans by definition. He designed 'Zonnestraal' to be disposable: Based on a solid belief in Science and Progress, the complex was conceived in the conviction that tuberculosis would be exterminated in thirty years' time.

At 'Zonnestraal', Duiker managed to subtly balance user requirements and technical lifespans with the limited budget of the client, thereby creating buildings of breath-taking beauty and great fragility at the same time. Today 'Zonnestraal' – once pre-selected for future nomination as World Heritage – confronts us with the conservation of structures that were intended to be transitory.

DESIGN INTENT

It is clear that the conservation of such buildings poses great challenges in both conceptual and material terms due to their transitory character. Both of these aspects must be understood as part of the original design intent. Sanatorium 'Zonnestraal' seems to embody Adolf Behne's (1885–1948) original 1923 definition of 'functionalism', as opposed to 'rationalism'.⁹ Behne – probably inspired by the early works of the German architect Hugo Häring, and more precisely by his 1923–1925 design for the Gut Gurkau Farm – defined functional planning as a design process that departs from the functional program and involves the careful design of individual spaces for each particular use with specific dimensions and performance characteristics, thereby organically producing a tailor-made suit.

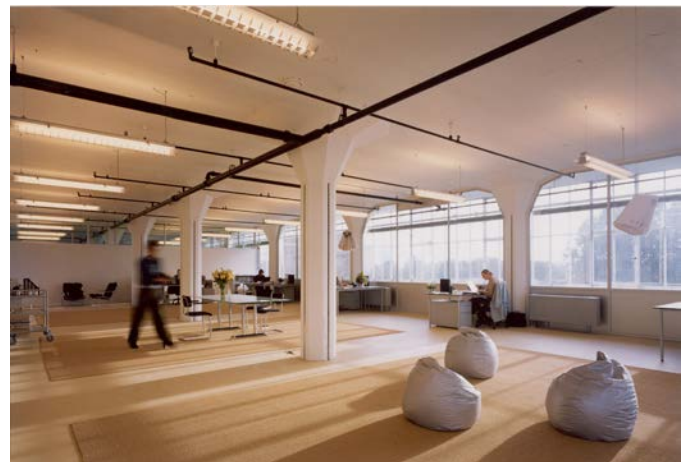


8. The Dresselhuys Pavilion of 'Zonnestraal' in the 1930s / photo unknown - International Institute for Social History, Amsterdam

9. The Dresselhuys Pavilion in 2008 after the roof had collapsed / photo Rudolf Wielinga, Heerenveen

10. The Dresselhuys Pavilion of 'Zonnestraal' after restoration in 2013 / photo Arie den Dikken, Huizen

Behne, A., Bletter, R. H., and Robinson, M. 1996 (1926). Although Behne wrote his text in 1923, before other mayor publications by Walter Gropius (1883–1969) and Erich Mendelsohn (1887–1953), it was only published in 1926. See also Heynen 2014.



At Sanatorium ‘Zonnestraal’ each room in the Main Building has its own dimensions and even the height of the spandrels varies according to the particular use of the space concerned. It is self-evident that the specificity of this architectural solution went hand-in-hand with a short functional life expectancy.

The factories for the Van Nelle company, designed almost at the same time, comply more with Behne’s definition of ‘rationalism’ by providing large quantities of generic spaces of which the uses were expected to vary greatly over time. This is typical for production processes. The non-specificity of the factory halls suggested a long functional lifespan was projected, which in turn required a long technical life expectancy.

Sanatorium ‘Zonnestraal’ and the Van Nelle Factory demonstrate different architectural responses developed in the 1920s to the problem of short-lived functional life expectancy. These differences greatly influence their suitability for adaptive reuse today. A highly specific, tailor-made ‘functionalist’ building like Sanatorium ‘Zonnestraal’ may not be easily adaptable to functional change and is therefore likely to have a short functional life expectancy. The non-specific but generic ‘long life, loose fit’ spatial logic of the Van Nelle Factory lends itself rather easily to adaptation, as was demonstrated by its recent conversion into a centre for design studios and offices. Also for architects today, understanding this lesson from history holds the key to designing new and sustainable buildings for the future.

In short, even within the Modern Movement various architectural concepts have lead to fundamental differences between modern buildings, which therefore require different design approaches when planning their conservation or adaptation. This underlines the need for a comprehensive study of not only the material aspects of a building, but also into the design intent or conceptual background thereof before making design decisions as part of a transformation or conservation project.

11. The interior of the Van Nelle Factory in the late 1920s, featuring novel light fixtures and a conveyor system / *photo Jan Kamman – Gemeente Archief Rotterdam*

12. A similar factory hall abandoned in the late 1990s, awaiting restoration and a new use / *photo Wessel de Jonge Architects, Rotterdam*

13. After conversion into the Van Nelle Design Factory since 2001, the factory halls today accommodate design studios and offices. To the right, the double-skinned ‘climate wall’ / *photo Michel Kievits – Sybolt Voeten, Breda*



14. The Main Building of Sanatorium 'Zonnestraal' after completion in 1928 / *photo unknown - Het Nieuwe Instituut, Rotterdam*

15. After the removal of all later additions and alterations, this was all that was left of the original substance of the Main Building of Sanatorium 'Zonnestraal'. The upper corner shows the first test for the new glazing / *photo Wessel de Jonge Architects, Rotterdam*

16. The Main Building of Sanatorium 'Zonnestraal' after restoration in 2003 – a representation of the original idea and design intent, rather than original materials / *photo Michel Kievits - Sybolt Voeten, Breda*

GOING GLOBAL

Ironically, the heritage designation of Sanatorium 'Zonnestraal' further canonized this transitory structure as a timeless masterpiece.¹⁰ However paradoxical the heritage status of Duiker's *chef d'oeuvre* may appear, the case of 'Zonnestraal' definitively altered the perspectives of the international conservation world. It inspired the creation of an international platform to share research and early hands-on experience in the conservation of 'modern heritage' among architects, heritage professionals, researchers, students and their teachers. This platform, called DOCOMOMO International – an acronym for the 'International Working Party for the Documentation and Conservation of Buildings, Sites and Neighbourhoods of the Modern Movement' – was established at the Eindhoven University of Technology in 1990. After more than 25 years of activity, DOCOMOMO counts over 60 national and regional working parties as well as several trans-national thematic networks. The first steps taken then by the organisation still serve as a reference in the international discourse about twentieth century architectural heritage, that has now entered onto the agendas of such institutes as the UNESCO World Heritage Centre and the International Council on Monuments and Sites (ICOMOS) in Paris, and the Getty Conservation Institute in Los Angeles.

THE 'ZONNESTRAAL' RESTORATION PROJECT

The restoration and adaptive reuse project for the Sanatorium 'Zonnestraal' complex started in 1993.¹¹ The work on the Main Building was completed ten years later in 2003, and the exterior restoration of one of the two patient pavilions followed only in 2013, twenty years after the initiation of the project. The other pavilion had already been refurbished in the 1950s and still awaits restoration.

Due to earlier refurbishment of the Main Building only the concrete frame, a few partition walls and a portion of the original steel window frames remained of the original building fabric and these could be preserved. The 2003 project further included the restoration of the original façades, partitions and finishes as well as some components of the service systems.

Initially the view was held that the crucial value of this building lay within the conceptual intent of the original designers and the restoration

10

Kuipers 2010. The earliest campaigns to safeguard 'Zonnestraal' were started by architects, among them J. Bakema, in 1960. After the building's listing in 1980 legal protection remained pending due to objections by the then owners. Preliminary protection became effective in 1983 while full legal protection followed only in 1988.

11

Henket, De Jonge 2010b. The project was conducted by Bierman Henket Architects, Wessel de Jonge Architects and Alle Hosper Landscape Architects.



17. Looking through the drawn glass into the main hall on the first floor, featuring tubular radiators, light fixtures and linoleum flooring that were remanufactured for the restoration / *photo Jannes Linders, Rotterdam*

18. The architect's role is like being the leader of a jazz ensemble or a string quartet: each member is equally important but someone has to set the tone / *photo Gjon Mili*

19. By recognizing restrictions as challenges, the architect takes advantage of what is available to make smart designs / *photo unknown*

project therefore aimed at revitalising the physical manifestation thereof. However, during preparatory research, it became apparent that the physical fabric itself was vital to make the full meaning of ‘Zonnestraal’ in its cultural context and time comprehensible. The retention and – where necessary – restoration of physical fabric became an essential component of the ambition to revitalise Duiker’s architectural concept successfully. Some lost elements – including the new steel window casements, the drawn window glass and the terrazzo floorings – had to be reconstructed carefully at high cost. Two original designs of linoleum were even remanufactured. Other replicas of mass produced parts from the 1920s, like window hardware and light fixtures, had to be handcrafted. Other elements could be replaced in a convincing manner by standard products that are still readily available.

Even if the conservation of original fabric was only possible to a limited extent one can convincingly argue that it was a truthful restoration. The ‘Zonnestraal’ case confirms that the presence of substantial amounts of original material is not a prerequisite for conveying cultural and architectural-historical significance. This observation underlines the ambiguity of the notion ‘authenticity’. Today, Sanatorium ‘Zonnestraal’ houses a variety of independent health services for outpatients, as well as conference facilities.

When the restored building was opened in 2003 it was as if Sleeping Beauty had not only awoken ... but had transcended her physical self.

CULTURAL HERITAGE AND ARCHITECTURAL DESIGN

The role of the architect in the conservation, adaptive reuse and transformation of buildings that form part of our cultural heritage requires particular knowledge and skillsets. The first and most important requirement is the inspired creativity and ingenuity of the designer. These lie at the core of any good architectural intervention. When dealing with an existing context or building, it should be the source of inspiration for creativity.

Successful projects are primarily based on making proper and responsible use of the existing qualities of a building. The architect should have highly developed professional skills and command a thorough knowledge of architectural history, including an understanding of the conceptual development of design principles and the related building technologies of the past. Only then will the architect be able to conceptualise a successful

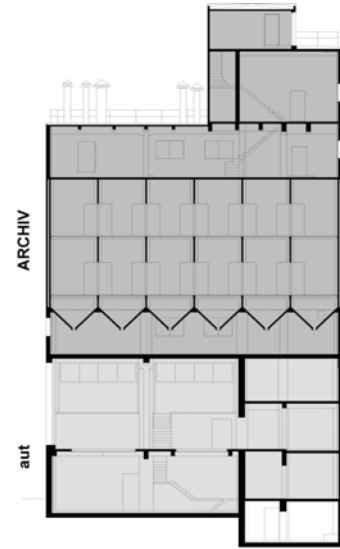
reinterpretation of the historic, cultural and architectural values of an existing context or building.

However, in order to develop a future-proofed architectural concept, it is also necessary to have knowledge of the parameters of economic value and the principles of sustainability as well as to understand indoor climate control concepts and technologies.

The architect should not necessarily be a top specialist, but rather be an integrator, operating in a team and collaborating with consultants. His/her role includes, for instance, the providing of advice on historic research, building physics, climate design and structural engineering. It also sometimes means cooperating with fellow architects with different fields of expertise. The role of the architect has changed from being the classic conductor of an orchestra into that of the bandleader of a jazz quartet where each member plays an instrument and is therefore equally indispensable. And yet: somebody has to set the tone.

The architect contributes both to the value creation for historic real estate and to a historic continuity by mastering all of this knowledge and integrating it with ingenious creativity. To my mind an inspiring synergy between old and new can be found in looking for compatibility and balanced contrast, rather than for creating conflict between current demands and existing characteristics – be they historical, architectural or technical.

By recognizing restrictions as challenges, the architect makes use of what is available and, in so doing, generally creates economically viable and sustainable solutions. Following these principles leads to smart designs that make optimal use of a building’s properties and values.



20. The Adambräu Brewery in Innsbruck after restoration in 2008 / *photo Christof Lackner, Innsbruck*

21. Section of the Adambräu Brewery showing the perforated silos on top of the glazed brewery hall / *drawing Köberl+Giner, Wucherer and Pfeifer Architects, Innsbruck*

22. View through the diagonally perforated silos that today accommodate an architectural archive collection / *photo Christof Lackner, Innsbruck*

23. The Adambräu Brewery hall today serves as a venue for the Architects' Association of Tirol / *photo Christof Lackner, Innsbruck*

The Adambräu building in Innsbruck serves as a small yet inspiring example of where a typology has been cleverly transformed. Lois Welzenbacher (1889–1955) originally designed this brewery in 1929–1932. Its cool and dark silos initially appeared completely unsuited to any new purpose, but thanks to their stable climatic conditions, the thick concrete silos were eventually found to be perfectly suitable to serve as an archive for architectural drawings and documents for the Tyrolean Architecture Centre. The three collaborating architect's studios, Köberl+Giner, Wucherer and Pfeifer, turned what appeared to be a disadvantage into a positive and useful aspect in their smart 2008 design.

Wherever a mismatch with a new functional use exists, the architect should have the capability to effectively intervene, as long as the historic qualities are sufficiently respected. A successful example of this is the 2011 transformation of the former chapel of the Convent of San Fransesc in Santpedor, Spain. The architect David Closes transformed this sacred building into a modern auditorium.

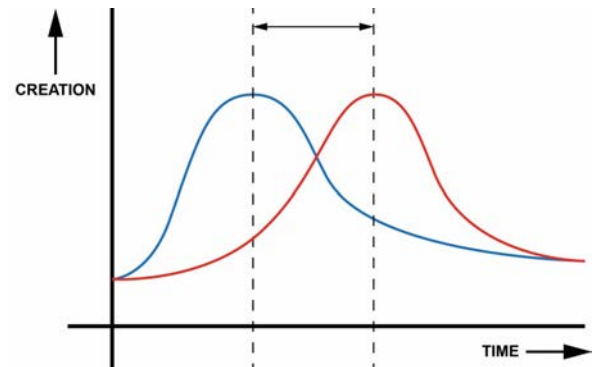
The Caixa Forum museum and cultural centre in Madrid is a former power station that was transformed by the architects Herzog & De Meuron between 2001 and 2007. They had to find a solution to the lack of much-needed public space around the building: carving out the ground floor of the power station helped to solve this problem albeit at the expense of the original interior fabric that was completely replaced by a new structure.

What all of these projects have in common is the remarkably sharp eye of the (re)designer, able to recognize and interpret the architectural qualities of existing structures which are not obvious to most people, which allows them to make cutting-edge design decisions.



24. The Convent of San Fransesc in Santpedor has been transformed into an auditorium by David Closes / *photo Jordi Suroca, Barcelona*

25. A power station in downtown Madrid after the transformation into the CaixaForum museum by Herzog & De Meuron Architects / *photo Óscar Carnicero*



26. The Roman Theatre of Marcellus, completed in 11 BC / *photo Maurizio Olmeda, Rome*

27. The GAK Building in Amsterdam (Ben Merkelbach, Piet Elling, Alexander Bodon 1960) was abandoned in 2005 / *photo Theo van Leur, Amersfoort*

28. A comparison of the 'creative curve' when designing new buildings (blue) and re-designing existing buildings (red) for which the creative process builds on a basis of research / *figure Wessel de Jonge – TU Delft*

The Gemeentelijk
Administratie Kantoor (GAK
building), designed by
Benjamin (Ben) Merkelbach
(1901–1961), Petrus
(Piet) Elling (1897–1962)
and Alexander Bodon
(1906–1993) in 1957-1960,
is protected as a municipal
monument.

LOOKING WITH OTHER EYES

It is self-evident and generally accepted that the Roman Theatre of Marcellus dating from 11 BC forms part of our cultural heritage. Most people will understand that this old structure is not just a pile of rubble, even though its original function was altered by converting it into dwellings during the Renaissance. If, however, we consider the 1960 GAK building in Amsterdam,¹² things become less self-evident. Some may affirm that it is old junk that should be torn down while others see it as an outstanding structure worth preserving. Yet in both cases, an architect should be able to find a clue to the definition of their individual and particular values. One of the most valuable contributions an architect can make to the successful reuse of heritage buildings is his capacity to look at a building with other eyes, in other words in an uncompromised way.

DESIGN DYNAMICS

The design process typically requires much more preparatory research when working with built heritage or other existing buildings than is the case when designing new buildings. In dealing with heritage buildings, the design process takes its historic values and characteristics – established in part through careful historic research and building surveys – as points of departure. Historical and architectural qualities need to be assessed and interpreted into design guidelines for transformation; functional qualities, once identified should be translated into options for new functional programs. This helps the client see the potential of the property.

This is an example of so-called ‘research-based design’; a methodology with specific characteristics. The creative curve in research-based design shows how the creative process builds on a basis of research and interpretation that precede the actual design process. This may diverge from the dynamics of general design processes for new buildings, where the creative peak can be reached earlier in the process as fewer preparatory studies are mostly required. Such a difference in dynamics needs to be taken into account, for instance, when operating in teams with other designers and when planning the design process as a whole.

THE FUTURE OF HERITAGE
& ARCHITECTURE

To conclude, it is worthwhile to consider the future of our field of work. The vacancy of real estate is an increasing challenge in the Netherlands, as it is in many other European countries. Although many professionals in the real estate and building industry do not sufficiently recognise the full consequences, vacancy rates are still speeding up at an alarming rate.

Office buildings in particular are prone to obsolescence, due in part to the general economic downturn of the last years, but also, and more structurally so, due to new work formats that are being adopted. People increasingly work at home for a part of the week and share a workstation at the office. Even though a significant amount of obsolete office buildings have successfully been converted into housing during the last few years, the vacancy rate for commercial office space skyrocketed in the Netherlands to 16% at the start of 2015.¹³ That translated to eight million square metres of vacant office space.

| Vacancy rates | Year | Volume | Million square meters |
|--------------------------------|------|-------------------|-----------------------|
| Vacancy office space | 2017 | 14,1% | 6,8 |
| Vacancy office space | 2016 | 15,8% | 7,8 |
| Vacancy office space | 2015 | 16% | 8 |
| Vacancy retail space | 2015 | 9% | 2,9 |
| Vacancy listed buildings | 2015 | 10.000 buildings | 2 |
| Vacancy apartments above shops | 2014 | 40.000 apartments | >3 |

The Real Estate Chair at the Faculty of Architecture of the Delft University of Technology estimates that even when the economy has fully recovered, six million square metres of extant vacant office space will never get to be used as such due to fast-changing work habits.¹⁴ This is equal to about 70.000 average housing units, or 850 of the proverbial soccer fields.

In addition to this, an alarming amount of shops stand vacant. At the end of 2015, this comprised almost three million square metres of unused floor space, to which can be added numerous churches and other religious, commercial and infrastructural buildings. Historic buildings account for an estimated two million square metres of the total of vacant floor space in the Netherlands.

These figures are still on the rise. Experts on the obsolescence of historic buildings at the Cultural Heritage Agency of the Netherlands (RCE) have already warned for many years that the vacancy rates increase by ‘one farm a day, two churches a week and a monastery a month’. To this we could add: an office block twice a day!

Of course our society cannot afford to simply demolish every building that has lost its use, be this due to economic reasons (our pensions are invested in them, after all!) or the environmental effects in terms of sustainability. Demolition leads to a huge amount of resources being discarded and wastes large quantities of embodied energy. In the case of buildings with historic significance, demolition becomes even less acceptable for cultural reasons. As the number of obsolete buildings is likely to remain very high in future, this will define the professional field of architects for the coming decades.

It is evident that most of the real estate of the future already exists. Architects need to offer their professional expertise to help finding ways of using this properly to serve societal needs. This can be done by preservation, adaptation or transformation, and by making our building stock more sustainable.

CHANCES FOR HERITAGE

It may seem paradoxical that the real estate crisis of the past years should lead to new chances for the revitalization of architectural heritage. Now that the economy is showing signs of recovery, we can assume that the funds and institutes that have traditionally invested in architectural heritage will continue to do so. But new stakeholders will also attempt to profit from the lowered real estate values and take advantage of the various incentives that have been introduced to address the vacancy problem in general.

Built heritage stands out due to a distinctive historic architectural character. This represents a unique selling point that will probably lead to a larger percentage of real estate investments being diverted towards the restoration and adaptive reuse of historic buildings. More historic buildings therefore can be lent a second lease of life and the volume of conservation and adaptive reuse projects is likely to increase. Built heritage professions, including H&A graduates and other young architects can seize the opportunities that are now opening up to kiss our sleeping beauties awake.

13

DTZ Zadelhoff 2015. This reduced slightly to 14,1% by January 2017 (Cushman & Wakefield, formerly DTZ Zadelhoff 2017). Adaptive reuse has been actively stimulated in the Netherlands, through amongst others the National Redevelopment Programme, initiated in 2010.

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Remøy, and Van der Voordt, 2007.

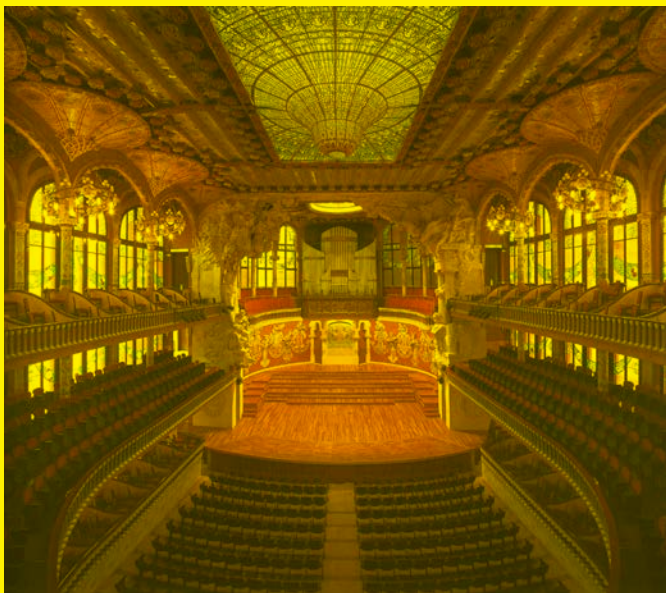


29. The GAK Building in Amsterdam in 2015, after its transformation into housing for young professionals / photo Luuk Kramer, Amsterdam

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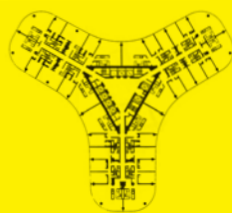
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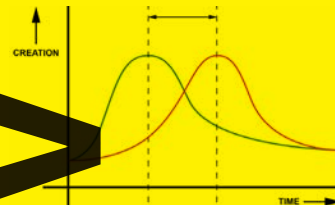
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