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MASTER

Dream catcher

towards new modes of reciprocity in architecture

Mak, J.C.

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DREAM CATCHER

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architecture

JEROEN MAK

Final Thesis

DREAMCATCHER
towards new modes of reciprocity

Jeroen Mak
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Jeroen Mak (J.C.)
0461284

Technische Universiteit Eindhoven (TU/e)
Faculteit Bouwkunde
Unit Architectural Design and Engineering (ADE)

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Graduation Committee
prof. ir. Jan Westra(voorzitter)
ir. Ralph Brodrück
dr. ir. Gijs Wallis de Vries

1. Summary article

It seems the absence of a core or heart is something that has haunted Rotterdam since the Second World War. At the same time, Rotterdam is always looking at the future, always building "something new". For the first time, more or less by chance, the tension between these two positions is made visible in a real and very powerful display within the city. The value of this "unintended scenography" should not be underestimated.

The dream catcher is a hotel in Rotterdam. It tries to give an answer to the evocative challenge the void in the city poses. The building design engages this void by means of a new balanced mode of reciprocity. Research into broader architectural theory, with central roles for Peter Sloterdijk and Gordon Matta Clark, tries to simultaneously analyze and reveal these kinds of modes.

Site

This project begins (and ends) in Rotterdam. An intriguing site was found in the centre of Rotterdam. The plot for the design of a hotel is part of a larger urban development scheme that is crucial for the future of the city. The ambitions are sky-high. Recent projects include an indoor market hall, very large apartment buildings, a new train station and possibly even a new central city library. All these buildings will be situated on or near the Binnenrotte boulevard. A Masterplan by the firm KCAP tries to keep the whole area coherent.

The fact that on all sides new projects are being built is actually not that unusual in "unhistorical" Rotterdam. However, in this place there is a very experiential almost corporeal tension between all these activities; between the ambitious projections for the future, and the tangible state of affairs as it presents itself. It reminds somewhat of the sensation when seeing a theatre-show being built up from the coulisses. However this isn't some visiting show. This is the play of the city itself. Nowhere in the city is Rotterdam's flux caught is such a mobile panorama.

Research

Certain aspects of designing a building on the chosen location are magnified and elaborated on within theoretical research, with the idea to finally express them in the physical make-up. The project in its most basic form is thus a bringing together of an abstract conception of space and a physical spatial model.

The formal research question is: *What modes of reciprocity are there within current architectural discourse and beyond to engage an urban landscape that is characterized by a large open area; an urban void?*

Peter Sloterdijk is a German philosopher. He puts forward the Crystal Palace, borrowed from Dostoevsky, as an applicable metaphor for the state of affairs around globalization. Sloterdijk's diagnosis is preceded by the earlier work of many 20th century thinkers like Derrida, Deleuze, Foucault, Lefebvre and Baudrillard, and ultimately Heidegger. In architecture and urbanism one finds these kinds of perspectives and models in many (contemporary) musings on the city. A recent example could be the *'capsular civilization'* of Lieven the Cauter. Many of the models are analyzed and compared in the thesis.

From Sloterdijk I moved on to Gordon Matta Clark's work. Parallels were drawn to Sloterdijk. Both of them have a rigorous conception of *space-use tied to use-value;* one making artwork and urban installations, the other using (academic) philosophical methodology. A conclusion on why their work blends so well could be found in the intricate way they themselves mix semiological statement and phenomenological structure. Where Sloterdijk uses words to invoke phenomenological structures in the mind to a point where they become almost experiential, Matta-Clark's bodily experiences invoke a phenomenal wordiness.

Sloterdijk's theory and Gordon Matta-Clark's works are juxtaposed to other artist and architects in a comparative analysis. The results of the research is also represented by diagrams.

Design

Next a structural concept would have to be invented that could move, respond, frame and brace all the spatial demands without losing structural integrity. A breakthrough, literally, for the design was realized in a couple of abstract conceptual models. The physical model consists of three variations of a pattern-ruled structure lined up to each other for comparing purposes. They are part of a much larger collection of iterations of a generative script I made in a program called *generative components* (Bentley). In this project I have learned to apply many new generative design tools and techniques, including rhino grasshopper. The resulting script files are catalogued in the thesis.

In the generative program a structural line or volume is "beamed" through the walls. The pattern on the wall responds by bracing the resulting opening. The goal became more and more to formalize the breaking through the wall as beautifully and interestingly as possible; to frame the moment as best as possible. The construction becomes fluid.

Finally a choice was made for a mathematical pattern named Delauney triangulation. In a field of points the optimum connections are sought that require the shortest members and also retain the triangular nature as much as possible. With its optimum triangles it is also vaguely linked to common constructional principles. The Delauney solution is a (re)constructive agent. It is capable of mending suboptimal circumstances. It gives the whole structure the ability to get back into shape.

From the experiments in the generative program a more or less composed spatial diagram emerged. What became clearly visible in the iterative process of generation and judgment of the patterns was this dynamic of bracing, of structural movement and overlapping that would not only "make up" the walls, but also the space. The pattern became much more than a surface anomaly; it became the agent of the spatial experience. The pattern renders and maintains the reciprocal relationship

Contents

111. Preface

This preface should be about the idea of the city. It is the city that exists as a collective *sphere* between people. There are many models that try to describe its dynamic; to make it explicit. The drawing of *global* models is usually done by planners, architects, policy makers, research facilities (broader academia, like post-graduate schools), and the occasional lonely philosopher, like Peter Sloterdijk. Sometimes models get an axiomatic name, like "capsular society". Sometimes it is just in the air. It is always a suspension of (dis-)belief.

Now, the term *global* here does not signify an impossible scale of reflection or appropriation. It merely indicates a larger scale that can be useful to draw a perspective. It is simply a scale of operation larger than one. Scale is a strategy*. Architects in particular should be quite good at switching between scales. On every scale they draw a picture, a face even; they personify. The scale of the (urban) plan is then always already the scale of the model.

The models are part of an intuitive nature (of the architect) to create taxonomy of space use on a collective level. Where these models in less complicated times used to be "ready for installation", now they merely function as superfluous suggestion; a more natural state for them I believe. Nevertheless they still exert influence, if not only through our own continuous resuscitating acts. The idea of suspending a model in order to use it is very important in my view.

In this thesis I can't make a complete historical overview of all these models. This is a design-based project. The accompanying research is design-driven. Design-driven means the design ultimately has the hegemony. So, what I can do is pick one socio-spatial model (perhaps two) of the city, a model of *reciprocity*, and compare it to others. Two driving forces make up the selection, namely perceived relevance and of course personal interest. I think my approach in this project belongs to a tradition of students (and architects) who try to really pay attention to the *global* models, so they can practice their attitude towards the city to come to interesting sometimes provocative ways to respond to it, be it on paper or in situ.

There are no final conclusions in the research. There are however units of understanding that are transferred to the actual design. Certain aspects of designing a building on the chosen location are magnified and elaborated on within the research, with the idea to finally express them in the physical make-up. The project in its most basic form is thus a bringing together of a conception of space and a physical spatial model.

From the above given setup a choice is made to divide the final thesis in two parts, namely a formal research part and a second part concentrating on the design itself; a sort of "research and development" dichotomy. Moreover the two components are first separated not to isolate them but, on the contrary, with the intent to make their interconnectedness more experiential, more explicit. The phrase research and development (also R and D or, more often, R&D), according to the *Organization for Economic Co-operation and Development*, refers to "creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications".

* *see also Neil Brenner and Eric Swyngedouw*
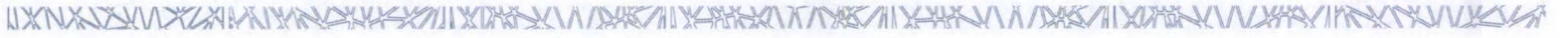
Part 1 Research

1. Introduction

From the described interest in models of the preface it is possible now to move on towards the actual research, starting with the (final) research question.

1.1 Research Question

According to the encyclopedia a research question is "the methodological point of departure of scholarly research in both the natural sciences and humanities. It is the question which the research sets out to answer." (Wikipedia)

The formal research question is:

What modes of reciprocity are there within current architectural disourse and beyond to engage an urban landscape that is characterized by a large open area; an urban void?

1.2 Theme

This research is about special *modes of reciprocity*. The term reciprocity is the absolute centre of the research and basically of the whole project. It is turned into a workable concept. It is caught in spatial diagrams; both textual and visual. What matters of these diagrams is that they become explicit nodes. By a precise bringing to the surface these singular nodes of reciprocity can be (re)viewed and compared.

1.3 Foundation

Close readings of a relevant philosopher, Peter Sloterdijk, and an enigmatic artist, Gordon Matta-Clark form the basis of the research. Not to clutter things up too much, I have decided to focus on these two main sources. The format is that of an essay. The first two paragraphs of the essay also take on the literary style of a florilegium; interleaving citations with interpretations and comments. Two books will be the foundation on which the arguments will be built initially. With these books I have had the most productive "dialogue". Their in- and re-flections proved most useful.

The first book is 'Crystal Palace'[1] written by Peter Sloterdijk himself (paragraph 2.1). It deals with the topic of globalization brought into relation to his *spherology*, the conceptual centre of his philosophy. *Spheres* and *modes of reciprocity* are somewhat related, both being socio-spatial units that bring relationality to the front.

The second book is 'Object to be Destroyed' by Pamela Lee (second chapter). It is a compilation of the work of the artist Gordon Matta-Clark, commented on from a perspective of art history and theory. In the two books (and the artworks), the modes surface in a number of ways which are completely mixed up. This could be a point of concern, if not for the fact that in this text a different agenda is pursued. The chronology of the books is therefore hardly respected. Material is rearranged.

Crystal Palace

Sloterdijk's book fits within a long tradition of philosophical research into socio-spatial theory, dedicated to bridging a personal and a world scale. The central axioms and ideas of Sloterdijk's proprietary theory of *spheres* are in this particular essay applied to the notion of globalization.

In the text I recognize a sophisticated and relevant approach to architectural space theory that is deeply imbedded in the current economical, social and even psychological context of today. I see in it a philosophical, textual and even straightforward architectural tool to engage the economy or conjuncture of the location I chose with this bigger theme already in mind.

Peter Sloterdijk
(source: mitpress.typepad.com)

Gordon Matta Clark
(source: curatedobject.us; original from Estate of Gordon Matta Clark)

Gordon Matta Clark

From Sloterdijk I moved on to Gordon Matta Clark's work (figure). I feel many parallels can be drawn to Sloterdijk. They both have a rigorous conception of *space-use tied to use-value;* one making artwork and urban installations, the other using (academic) philosophical methodology. Besides that, Matta Clark's work seems to always still remain relevant within an architectural context that deals with society at large and the place of personal space within the (post)modern condition. I have gotten a lot out of his evocative imagery. Unfortunately mostly imagery (black and white photographs) has remained of his build works.

Matta-Clark's thematic attaches itself effortlessly to my main theme of *reciprocity*. I am mainly interested in the (visual) methods he elects for his socio-spatial engagement. Moreover "space-appropriation" in a broader sense resonates in my project. Architecture can of course never be seen as separate from notions of property or appropriation.

1.4 Analysis

From Sloterdijk's and Matta-Clark's accounts a comparative architectural analysis is done. Some models from (recent) architectural history are analyzed using the setup, lexicon and dynamic of the earlier chapters. The models will be reviewed chronological starting with the modern movement and ending with current models like parametric design and iconography. The global models will be divided into more specific types.

2. Methodology and Approach

The gathered material from the literary study and research into architectural theory will be presented in the next chapter. As has been stated in the introduction the gathered material will be presented in the format of an (extensive) essay. The style of the text moves from a *florilegium* towards a comparative analysis and is concluded with some general reflections. In this chapter the specifics of the methodology and approach will be elaborated on.

Firstly, the format is explained in some more detail. Then a couple of definitions are given, with a lot of emphasis on the main theme of *reciprocity*. To conclude this chapter an overall research concept is given that is related to the actual objective that is pursued with the text.

2.1 Format

Text
The research material is presented as a comprehensive essay. The essay represents the extensive research that was done[2]. It is its conclusion. An important question would be: how is it related to the actual project? In what way does it engage or delineate it? Why is the lively format of an essay chosen to present the results?

As we know, essay comes from essayer, which means to try. It is always just an attempt; a trial. As a whole, the essay is an attempt to reflect on the "form and meaning" of the contemporary public *sphere*, in socio-spatial terms. To this public sphere the project ultimately seeks to relate itself. The choice to start off here with a socio-spatial theme and not an historical architectural one is deliberate. The social agenda or perspective of the project has been given primacy over others, which is perfectly logical considering the nature of the actual location.

Imagery
Next to concerns for textual presentation careful attention is given to the imagery in the essay. Matta-Clark's works are represented by photographs, in many instances taken by the artist himself. Some pictures of artworks by Anish Kapoor are added in a sort of *doubling* of those of Matta-Clark. They form a silent witness of actuality. Being aware that this kind of image comparison is a bit gratuitous, this move won't be motivated.

The difficulty in general to write on art by looking at images, especially very experiential art like this, is also recognized. This difficulty is already very apparent in Lee's book. In the case of Matta-Clark it is insurmountable since his works, as stated before, simply don't exist anymore. Besides the *double-frames* imagery in the first two paragraphs is scarce. The last paragraph that deals with the comparative analysis of architectural types is illustrated more abundantly.

2.2 Definitions

Definition
The dictionary tells us that reciprocity is "a relation of mutual dependence or action or influence". Its (conceptual) appearance in a plethora of scientific fields makes up a referential smorgasbord. The term appears in architectural models in various ways already as well. In the final chapter I will compare some of these models to the ones in this essay. The many applications imply that in general it is considered a useful term for engaging, delineating and organizing a field. Within the fields it always takes on a very specific meaning. The diverse application of the term however also reveals that in general it signifies very little out/in of itself, which ironically in this case is quite useful as well.

Container-term
Anchoring discourse in a container-term like reciprocity can give some interesting results: a shift of definition yielding a shift of perspective. One recognizes this logical procedure in the work of many (20th century) thinkers. Of course, this (re)emphasis on a *latent* concept[3] is a proactive recalibration of discourse in its own right, a proposition; even if it only lasts for the duration of

a text[4]. *Collage* and *capsule* are examples of these kinds of containers from well-known architectural discourse. We also find these kinds of containers with Sloterdijk; the most prominent ones being the sphere, the bubble and lastly *foam*.

Inside vs. Outside

"Inside vs. outside" is an example of an approach that is <u>not</u> a theme of this essay. In comparison to reciprocity *as an approach* one could say this approach fails from the start. Every façade, every architecture mediates between inside and outside. This does not even count as an observation. Furthermore, alternating between these two poles arbitrarily to conjure up some casual dynamic serves little purpose (incidentally a statement closely related to my personal view on architecture). There should be more to every architecture, every façade.

If we take into account Hume's observation (reproduced in Deleuzian theory) that every relation is external to its terms the above presented distinction isn't trivial. What we are doing here is actually studying and bringing to the surface relations, not making them. It is only the moment where the relations become reciprocal in an isolated and *involuted* way, i.e. the moment they start to generate their own economy and become nodes, which I find of interest.

Involution

So is reciprocity merely a term, or is it a concept? Once again, exactly a container-term that doesn't signify or contain much initially has potential for the kind of *involution* described above. One can invest into its growth. In addition to that, as a trope of discourse it would ideally end up somewhere between antanaclasis[5] and allegory. A more precise description of the logical operation employed in this essay can be given now.

Translation

The growth or investment into a container-term, filling it up so to speak is a "translation that reveals". Unscrambling a complex structure and rebuilding it somewhere else simultaneously is often the only available procedure to preserve its complexity, instead of trying to deny and/or overcome it (which we classically know as Hegel's *aufhebung*). It is only in the moment of translating or transferring that the actual dynamic is made visible. Furthermore, this creates a sort of foundation, or middle ground, that safeguards against either the visual or textual nodes becoming lost in translation. They can pass into (and out of) each other by this method. Their com-paring, as was set out in the first paragraph, is then also rendered more plausible.

Method

A topic like reciprocity is brought to the surface as much by the precise choice and application of the method itself as it is by the actual content this method uses as its fuel. Content and method are very much caught up in each other here; methodology matters. A final claim to bring this argument home would be that discourse itself of course forms (part of) the public sphere as well.

2.3 Concept

Recapping, the essay is not about searching for a single unilaterally applicable mode of reciprocity; a singular modus operandi for the project. Reciprocity *as a concept* is merely (re)presented here as an exchange in perpetual motion. It is a workable concept that never becomes fixed and it is thus firstly a matter of getting the word itself operational. What is important to reveal and emphasize is the special care with which it is elevated to this operational level on connected immanent planes. The concept of reciprocity related back to architecture, in chapter 3, might finally serve as an ideal starting point for anyone interested in "reading" the entire project. The bringing forward of the term is therefore relevant for this essay as much as for the sake of the w-hole.

3. TOWARDS NEW MODES OF RECIPROCITY IN ARCHITECTURE

3.1 The Crystal Palace

Citation 1.1:
The goal was to absorb the outside world as a whole into a magical, luxurious immanence, that glorified cosmopolitism. Already the visionaries of the nineteenth century had come to realize that social life at the end of history could only be sustained in a vast artificial but comfortable super-interior. (p185)[6]

3.1.1 Globalization

Dostoevsky's Palace
The trial can be started with Peter Sloterdijk's reading of the *Crystal Palace* as an initial vantage point. Sloterdijk uses the Crystal Palace, borrowed from Dostoevsky[7], as an applicable metaphor for the State of affairs around globalization. His enigmatic style is that of critique and diagnosis intertwined with instant (pro)verbial remedy.
Sloterdijk's diagnosis of the condition we all live in today according to him can be summed up by the above given citation from page 185 of his book. He sees a gripping move towards the unreciprocal; a drying up of the élan of society originating from an all-pervasive (self) leveling by means of remedial mediation; an unstoppable quest for total symmetry.

Post-history
According to Sloterdijk all the social models and modes of living of the last two centuries have led to a State of post-history. Globalization as we know it today then entails the collective creation of a worldly interior; a transparent virtual totality that is more or less controlled by mass-media[8]; a Crystal Palace. He describes the process as being finalized[9], leaving all of us trapped inside its hermetic comfortable interior; reciprocity is muted.
He ties this metaphorical model to Walter Benjamin's model of the Paris Passages[10]. In both an architectonic structure is the centre around which the social argument is build. In both these models transparency as a spatial ideal of the industrial (consumer) society has flooded the public sphere. All public action is overwhelmed and prescribed by this continuous flooding. He continues by arguing that the "place without self" has become the principal archetype of space in modern society.

Musings
Sloterdijk's diagnosis is preceded in the work of many 20th century thinkers like Derrida, Deleuze, Foucault, Lefebvre and Baudrillard, and ultimately of course Heidegger. In architecture and urbanism one finds these kinds of perspectives in many (contemporary) musings on the city. Examples of this, similar at least in argumentative style en tone, could be something like the *'collage city'*[11] of Colin Rowe; in response to the modernity of the first half of the 20th century. More recently we can suggest the *'capsular civilization'*[12] of Lieven the Cauter, in response to the post-modernity of the second half. In the worst instances, these kind of musings present a belief in feigned emergence or emergency: melodrama in the meta-theatre of the city. Nevertheless, it is clear that public life (in cities) and its lack of reciprocal dynamic can still be inscribed in these models, if only incompletely. So in proceeding; what would we take from them if reciprocity itself is put forward as the key concern here?

Citation 1.2
On the other extreme we find the "place without self" appearing clearly. These inhospitable regions of the earth [...] to which one can compare the secondary barren wastelands of human origin [...] airports, shopping malls, tourist destinations. Sometimes overpopulated, sometimes abandoned they are typically found at the centers, robbed of their core, and the hybrid peripheries of contemporary society. (p164)
The psycho-political challenge of the global age consists of

tackling this notion that the weakening of the container-immunity cannot be seen as a mere sign of "shapely loss" or decadence. What is at stake for the postmodern human being is the successful new design of livable immunological conditions. (p166)

3.1.2 Immunology

Immunity

What Sloterdijk preludes to when he elaborates on immunological conditions are exactly new modes of reciprocity. Immunity is generally thought of as a process of selection or judgment by gatekeepers within an organization or organism, for instance white blood cells in humans. The going back and forth is a sort of *thresholding*, constantly determining what is inside and what is outside; what belongs and what doesn't belong in the proprietary sphere of the container. Immunity can go either way: active or passive; allergy or infection.

Responsibility

Then what if we speak of immunology in the public sphere of the Crystal Palace? Under authority of finalized globalization as Sloterdijk describes it in his book nothing enters this sphere; this immune hermetic body proper of public space. Nothing is tested. Everything is preemptively (dis)qualified. What is left is space that is uninhabited and uninhabitable. What seems to be the main culprit is an unreciprocal "ethic of responsibility" that prevents action by the users; users as space practitioners. A passive modality of comfort is preferred over active inhabiting. They have let themselves off the hook from this task of placemaking, or have simply lost their ability to respond somehow. Sloterdijk claims that in this modality resonance is considered a deeper phenomenon than creativity. In the citations below he carefully describes why.

Citation 1.3
The existence in the big interior entices telecausal and telepathic modes of thinking that associate local action with

distant effect, [ ] responsibility [ ] is more a relational term – it wants to anchor the responsive care for the other into its own subjective structure. (p203)
The worldly creation by the proactive deed is called [ ] "work" in the intransitive way and "life" in the transitive way, together yielding the "lifework". Art up till then was the medium for unilateralism by individuals, perpetrators. [about postmodernity] The perpetrator absolution; the traumatized world started to demand of this proactive individual to be regressively responsible. (p205)
In reality one has to look for the meaning of "locality" in the renewed emphasis on the asymmetric with all its implications [ ] a significant mental event, because with this new accent on "placeness" a language of the uncompressible awaits. The newly affirmed locality then delineates the autonomy of the "intrinsic-vastness" {trl. from Dutch: "het in-zich-uitgebreide"}. [ ]With this the common logic of participation also surfaces; of being situated and inhabiting. We point out once again that contemporary art has gained a big advantage over philosophical analysis with its move towards the installation. [ ] The inhabiting relationship to the world is always enveloped in an interior-forming activity. This is also why inhabiting is the mother of asymmetry [ ] and when syntheses would outgrow themselves, they would only yield legal figures and rhetorical addresses. (p 277)

3.1.3 Localization

Local

The élan of society is (re-)discovered in the local, the place. After the long citation, the thread of the previous paragraph can be continued with another question. How does one overcome the post-historic State of affairs, if this is "desired"? How does one even go about designing new immunological conditions?

Comfort model

Symmetry ends reciprocity. In Sloterdijk's book a kind of symmetry is first presented in the shape of finalized globalization; i.e. the Crystal Palace as the ultimate architectonic model. All forms of unilateralism are excluded from this comfort model; either regressively or

preventatively, both relating to (an ethic of) responsibility. With responsibility being a relational term original unilateral action, action "out of" symmetry, is simply caught in the act. It is muted; a form of compression. Regressive responsibility is the social mechanism that censures asymmetry and assures passivity. Unreciprocal hyper-relating leads (back) to symmetry. Sloterdijk opposes these dispositions with a call for measured asymmetry tied to inhabiting, rendering new mode(l)s of locality. The inhabiting as a phenomenological modus or active asymmetric attitude as he describes it in the book is indebted heavily to Heidegger's definition of dwelling[13].

(A)symmetry

As the antagonist of the crystal clear symmetry, this present "mode of passivity" described in the previous paragraph, Sloterdijk builds up his arguments for an alternative of balanced asymmetry and perpetual recalibration. This again sees him lobbying for new modes of reciprocity.

Balanced (a)symmetry equals *reciprocity in perpetuum mobile*. Sloterdijk sees the possibility for reciprocity in the perpetual alternation between two lists; one list describing the compressed symmetry of the comfortable super-interior and the other describing the open-ended asymmetry of unilateral creative action. This is the social diagram that his argument ultimately revolves around.

One must realize that both lists lead to the unreciprocal when pursued as totalizing limits. The asymmetric must be introduced to overcome the rhetoric of the symmetrical comfort model, but not become an all-enveloping move of appropriation in itself. Synthesis should still be possible. At the same time this synthesis needs to be monitored to not yield the rhetorical address of the Crystal Palace, because rhetoric equals *canned reciprocity*; "reciproperty". The balancing act or *play* then means that the comfort model (or zone), the Crystal Palace, is never evacuated completely.
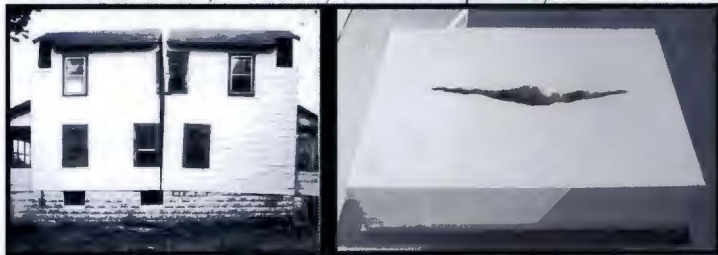
3.2 *The Work of Gordon Matta-Clark*

Citation 2.1
Above all, the precarious balance the work strikes between
exterior and interior, urban and suburban, public and private,
violence and enlightenment causes many to check themselves,
to still their movements as they negotiate their way through
the space. (p xii)

Double-frame 1, "thin layers of reciprocity"

Gordon Matta Clark, Splitting, 1974
Anish Kapoor, Wound, 2005

3.2.1 Negotiations

Gordon Matta Clark

The opening citation above is from the second book
that will be presented as part of the *florilegium*. It is by
Pamela Lee, a Professor in Art & Art History at Stanford
University who has written an extensive outline of Matta-
Clark's work. Gordon Matta-Clark was an architect and
artist from the 70's who was based at the SoHo district,
at that time a very active place in the art world.
Lee digs deep to reveal the impact of Matta-Clark's art
works, which are mainly *(a)live installations* in an urban
setting. The argument in her book, in my view, revolves
around bringing to the surface a kind of *play*[14] in the
works. The display of Matta-Clark in the text slowly
sketches the image of an artist who is obsessed with
reciprocity. In this chapter the complex argument of
Pamela Lee will be reviewed and expanded. In my view
it anchors Matta-Clark's work clearly into the realm of

the explicit modes that this essay is trying to find and
disclose.

Appropriation

The unfolding of the analysis in the book starts off with a
consideration for the context that the artwork was made
in, both in terms of time and of place. The latter is the
more interesting here. Considerations for the specifics
of the conception of each work are quickly abandoned
in favor of a more universal view.
Lee first puts forward Hegel and his offering on the
meaning of appropriation. I will cite it here once
more:*"To appropriate something means basically only to
manifest the supremacy of my will in relation to the thing
and to demonstrate that the latter does not have being for
itself and is not an end in itself [ ] This manifestation occurs
through my conferring upon the thing an end other than that
which it immediately possessed. I give the living creature,
as my property, a soul other than that which it previously
had; I give it my soul"*[15]. With this abstract account of the
asymmetric process of appropriation a space is opened
to discuss reciprocity.

Installation

With Hegel's account in mind it appears that an act of
appropriation can be described as installing unreciprocal
relations rhetorically, a form of territorializing. Matta-
Clark's works appear to gesture against this kind of
installation. The art installations overcome the forces
of appropriation; they deterritorialize. In 'treatise on
nomadology' Gilles Deleuze gives an exemplary account
of how this deterritorializing mechanism could work that
somewhat resonates in the stills of Matta-Clark's work.
Deleuze writes: *"operative logic of movement enabling the
"initiate" to draw, then hew the volumes 'in penetration in
space', to make it so that 'the cutting line propels the equation'.
One does not represent, one engenders and traverses."* [16]
Recall here Sloterdijk's admiration for the effectiveness
of such a means of space practice in the previous
chapter. Moreover, Sloterdijks's argument on social
space that doesn't "move" anymore resonates heavily
in the following citation from Lee's book .One need

only replace *abstract space* with *globalized space* here, i.e. the space of the Crystal Palace and it basically reads the same message. Lee then starts to decompose the contextual imbedding of Matta-Clark to move to a more universal assessment that relates to the above stated.

Citation 2.2
In their to-ing and fro-ing between the past that continuously underwrites itself, and a future that cannot be build on such historical aporias, they radicalize the entropic monument, render it a "non-ument", to borrow the artist's term. (p55)
Social space also has a decidedly temporal dimension. "Space is a use value," Lefebvre writes, "but even more so is time to which it is ultimately linked, because time is our life, our fundamental use value." Abstract space, by contrast, is alienated space, universalized and therefore without time. Reified as exchange value by the stare, by planners, by capitalist interests, it is an object of instrumentalization, a way to condition and contain its inhabitants. Its terrain is neither sociability nor everyday life but real estate, zoning, property. (p93)
Matta-Clark's desire to go beneath the building, to subtend it, conveys that what is foundational to the architecture is a virtual absence, here represented by the "figure" of the hole. Impossible as this goal may be, the impossibility is instructive. (p67)
A group of images titled Threshole plays on the thematic of liminality as if to graft a passage through something onto a passage over a place. But to insert the word "hole" in place of the customary "hold" is to suggest that the movement toward such a place remains radically indeterminate. (p81)

Double-frame 2, "vertiginous confusion"

Gordon Matta Clark, Threshole, 1972
Anish Kapoor, Vertical-horizontal, 2003

3.2.2 Thresholding

Socio-spatial
The *play* on words by Matta-Clark himself in the title of his work called 'threshole' (see citation and image at the end of the previous paragraph) gives us a clue as to the possible (architectural) means Matta-Clark applies to engage his particular context. He himself has said of this: *"I think that they [the projects) are all different versions of some kind of preoccupation with a dynamic. The thing I would really like to express is the idea of transforming the static, enclosed condition of architecture on a very mundane level into this kind of architecture which incorporates [ ] this sort of animated geometry or this animated, tenuous relationship between void and surface [ ] It implies a kind of kinetic, internal dynamism of some sort."*[17]. This really sounds like a sort of socio-spatial intent. Is it one that makes way for reciprocity? What does his *thresholding* or *liminality* as a spatial practice yield?

Context
As many (early) philosophers have already elaborated on endlessly, basically since the beginning of time, any notion of contextualism requires a fixed inside and a fixed outside. What we have learned beyond that from 20th century philosophers (Heidegger, Deleuze, Derrida; the lot) is that the index of this inside and outside is always already embedded in the spectator, in the proprietary woven array of perception.

As stated in an earlier paragraph, Matta Clark's gestures at first glance appear to be tied to considerations of property and appropriation. What is inside and what is outside is then related, in static mirrored fashion, to what belongs or doesn't belong to some entity (an individual, a group of people, a corporation, a State). Besides that, Pamela Lee argues that the architectural gestures adhere to the dichotomy of site vs. non-site. Somewhat simplified this dichotomy resonates in the dichotomy of local and global in Sloterdijk's argument in the previous chapter. The non-site and the global both lay claim to the universal, while the local is infused with the site-specific, with "placeness".

Perception

Now, no matter what the social-spatial limits or poles are it seems that Matta Clark's architectural diagrams settle right in the middle. They walk the line. This is what makes them bias towards the reciprocal. Then, could this not very well be "this kind of architecture that incorporates" that he talks about? How does this architecture work when one takes the perceiving entity, the phenomenological body, into consideration? Below we see the general dynamic of this Heideggerian phenomenology reproduced in Lee's analysis; squared so to speak.

Citation 2.3
Relative distance or proximity to the object further contributes to this sensibility, as confirmed by the experience within Matta-Clark's cuttings. When the viewer enters the building to be apprehended, a sublime contradiction underwrites the conditions of spectatorship. The beholder stands in such a close relation to the object and becomes so intimate with the inner workings of its space and its constitutive components, that the capacity to scale the building cut is rendered extremely difficult. 'What appears immediate, given over to sight as a visual excess, amounts to a kind of spectral blindness. (p141)
In the excess of contingent factors his art lays bare, it gives the lie to the phenomenological body, suggesting that the subject's intertwining with space is an actual shattering. But shattered along with it is the category of experience, structurally and thematically linked to architecture. For the building cuts broach the contingency of alienated space as always illegible, temporally riven. What Matta-Clark's critics mistook as his violence, then, is no less than a critique of the transparency of spatial experience. (p161)
Challenging any claims to an essentialized community of spectators, his work produces a viewership founded on loss, not the fullness of productive or performative experience. And it is the commonality of this loss, endlessly played out in the space of the city that is the heart of the modern itself. (p209)

Gordon Matta Clark, Day's End, 1974
Anish Kapoor, Installation Tate, 2008

3.2.3 Play

Beyond Return
The argument for the presence of an experiential *otherness* in Matta-Clark's work hinted at in the previous citations ("challenging any claims to an essentialized community" as Lee writes) is essentially already made. It then starts to feel more apt that *play* itself takes centre stage in the final re-view; *play* as a movement, as perpetual motion. One could easily foresee that *play* is *reciprocity beyond return.*

Actually, *play* is more the trajectory ad infinitum out of the initial moment in the works that doubles itself upon installation. It is always already inscribed in the next iteration. This Derridian "moment of doubling" is at the same time the moment in which the notion of a fixed vantage point erases itself and thus the perpetual motion is initiated; a risk. This motion is "allowed"[18] to flood every suggestion of a predetermined relation. By this mechanism the space (or possibility) for different modes of reciprocity is opened up.

Practice
The search for the moment described above is exactly the thresholding that was spoken of before. I also agree that the *playing* out (with which Lee concludes the argument in her book) which follows from this is endless and common practice within a public sphere that is determined by active modes of reciprocity. Perhaps though, it would at last be better to relate it to the human condition in general instead of to the modern

condition per se.

And thus Matta-Clark's display is far more universal than originally anticipated. It is not (just) about sublime asymmetric shock. The reciprocal space he creates is about the *practice of otherness*; i.e. finding the *other* in ones territory and having the means or demeanor to deal with it. This putting to the test or putting at play is anything but neutral, although in Matta-Clark's gestures it is never suggested fully what this might yield in the end.

C(an)onical Intersect

This chapter concludes with an image of the work 'conical intersect'. This work was situated at the plateau Beaubourg in Paris in 1975; a then large open area, a void in the heart of the city. What we see is a freeze-frame of the moment that *play* is initiated. Deleuze's citation about *"the hew of volumes penetrating in space"* from earlier on in this text can be recalled here, or even Semper's *würfkorper*[19]; an object or volume slung into the wall.

By the obscuring of the specificity of the locus where gestalt settles down the work's former (or initial) spatial presence is diluted and exchanged for a more uncanny mode. It is a play on where gestalt, interiority of space and integrity of viewpoint[20], installs itself.

Double-frame 4, "presence in-flection"
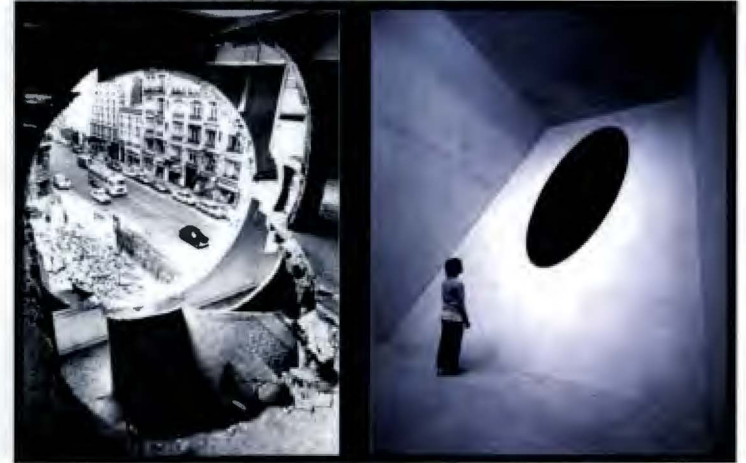
Gordon Matta Clark, Conical Intersect, 1975
Anish Kapoor, The Origin of the World, 2004

3.3 Towards New Modes of Reciprocity in Architecture

A reciprocator or ellipsograph, transforming axial movement into oval movement (source: wikimedia)

3.3.1 Reciprocity

Scale

Now that we have seen their casual appearance in the writing of a contemporary thinker, their enigmatic appearance in art of yesterday (and today), it is time for a more foundational reflection on, or inflection of, these modes of reciprocity that were brought to the surface. With a clear bias towards the universal perspective the scale of all the modes discussed up to can feel a bit overwhelming.

In bringing it back to architecture, to the scale of a single building or a single person, it really doesn't make matters less complicated. With this (re)turn to architecture this chapter however comprises an attempt at anticipating and embedding the actual design project; a project with the object to make an object with this, to this or for this.

Juxtaposition

To start off here, the accounts of Sloterdijk and Matta-Clark will be compared. When the account of chapter one is juxtaposed to that of chapter two, as has been done already to some extent, one can't help but feel that an argument in/of the same spirit is being made. Both protagonists are in favor of a certain type of movement in the public sphere where none such movement exists. The locus is the same, namely: wherever a choice for the reciprocal can be made.

A preliminary provision on why their work blends so well could be found in the intricate way they themselves mix semiological statement and phenomenological structure. Where Sloterdijk uses his words to invoke phenomenological structures in the mind to a point where they become almost experiential, Matta-Clark's bodily experiences invoke a phenomenal wordiness, that he has in fact expressed himself on many occasions; *play*ing on words all the time. It is an alternation between psychosomatic (sign) and "soma-psychological" (experiential) structures. This juxtaposition and alternation becomes very important in the final paragraph of this essay.

Evocation

Pamela Lee argued that Matta-Clark was trying to sublimely and subliminally overcome the state of affairs of the particular context he found himself in. Matta-Clark had a very specific agenda of opposition with his art, gesturing against issues of property; an artistic battle of installation vs. appropriation. The very architectural means he chose for that were shown before. But from his opposition something else has surfaced. What Matta-Clark did not anticipate completely (or maybe he did) is this sheer evocative force that came into being from the exploding of the reciprocal movement in his works. His engagement in fact completely redefines what reciprocity could actually mean in terms of attitude within the public sphere. But his projects project too far. One all too easily recognizes the modality of *play* in his art (installation); a dynamic having merit[21] but at the same time being suspicious. His *play* is *reciprocity beyond return*.

Ethics

In voicing his preference for the art installation Sloterdijk implies that in these works, like those of

Matta-Clark, modes of reciprocity are (re)presented in greater clarity than textual labor could ever provide. This clarity of them, their brightness, however means one feels that their working should be attenuated a bit if the intention is to relay their gestures to an actual public sphere or to forge an architecture out of them. It is still possible to borrow some of the dynamics of these installations but it is necessary to be attentive to not get swamped by their convolution. Without this caution, they would surely be too asymmetric to be of use (as modes)?

Sloterdijk admires the unilateral action of the artist-maker, something that is becoming rarer because of the ever expanding "ethics of responsibility", making this perpetrator regressively accountable. This ethic is one of progressive attenuation. So, with this, both responsibility and (from that) accountability become central concerns.[22]

Regression
Responsibility as attenuation is always in danger of becoming regressive, leaving the subject trapped in a mode of *canned reciprocity*. Real reciprocity is a kind of relating in which a new chance for relating is opened up intrinsically; a doubling ad infinitum. So reciprocity is actually a level up from relating, because, as has been argued, merely relating for the sake of it (resonance) can easily end the possibility for relating altogether. This drying up of relating would lead (back) to the symmetry of the comfortable super-interior, the Crystal Palace. As an attitude regressive responsibility could be traded in for impressive *respons*ability.

Accountability
Closely related to the ability to respond is *account*ability. Accountability is the ability to make an account of something; something that can be traced back to a source, which is vital to be able to respond to it. It is then conductive for reciprocity. Classically, accountability is something that architecture is already more concerned with than art, exactly because of its particular public nature. It cannot avoid making an account. To summarize then; responsibility as we defined it here is

the possible action against or movement out of ominous symmetry, accountability is the possible action against or movement out of ominous asymmetry. They meet in the middle.

3.3.2 Oppositions

Attenuation
The opposite of (or opposed direction to) reciprocity needs to be developed a little more before we can relate our findings back to architecture. What can be opposed to our modes of reciprocity? When dealing with the Crystal Palace in the first chapter it already became apparent that certain forms of symmetry are the means by which reciprocity is annulled. In the pendulum motion between symmetry and asymmetry, what kinds of modes are then actually responsible for this annulment, this over-attenuation? What is the mechanism behind the surfacing of passivity in the comfort model? Why was this passivity so easily related to a notion of (architectural) transparency by Sloterdijk, Benjamin and many others?

Mediation
Where the process of attenuation goes too far it ultimately leads to the overall passivity of the space-practitioners. It is possible to speak of negative modes of attenuation that are beyond the plane of reciprocity. They belong to the un-proprietary quest (of the masses) for symmetry. Passivity is the end of plasticity and the prologue of placidity.

The easiest entry-point for understanding the predicament is this notion that passivity is conditioned by the hyper-mediation we are all subject to or subject ourselves to on a daily basis. It is a form of hyper-relating, typically by mass-media and (personal) media technology. The representative of the mass-media is the presenter; in both material and immaterial appearance. He or it (re)presents for the sake of it. He asks only rhetorical questions.

There is simply no time anymore for real reflection or

communication. Everything is instantaneous; hyper-reflecting, hyper-relating. In mass-media, resonance is the mechanism that provides automatic consensus. The finality of this argument is Baudrillard's *fatality* (recall his account on mass-media from chapter one; see also end notes). Though the call against mass-media is on the verge of sounding archaic, in these considerations mass-media still plays a central part in the unreciprocal "society of control"[23]. The argument remains.

Politics

The to-ing and fro-ing between reciprocity and passivity is a matter of (personal) politics. Reciprocity and the conception of any political economy are closely related. The architectural model is the frame or background of these spatial politics.

With Matta-Clark a specific engagement lay at the basis of his (architectural) art work. He had a social intent or agenda. Although he wasn't explicitly gesturing against passivity but, as has been said before, more against notions of property, his work can be seen as having a demediating impact; a gesture of anti-consensus, anti-symmetry.

With reciprocity turning political the term all of a sudden starts to sound like other political terms like for example pragmatism. If one were to draw a parallel to present day politics, the term would end up somewhere in the middle of noöpolitik and realpolitik.[24] Lexically speaking this makes sense. They are sort of charged in the same methodological way. The political element of this particular term is however bound by the personal sphere in relation to the public sphere, not the other way around; micro-politics.

Like with Matta-Clark, Sloterdijk's quest isn't necessarily political in the global sense. The search for new modes of reciprocity of both of them does have a personal political element though. The only political connotation of their new modes namely is a pushing forward of spatial judgments in time and spectatorship, a *practice of otherness*. The postponement of judgment is a very important principle in this practice.

Ontology

The more you practice, the more you are prepared to let the particular iterations of *other(s) space* co-exist. In a sense comfort is exchanged for practice and movement. You could speak, quite daringly of an ontology of reciprocity that escapes attenuation and passivity. To strive for this kind of movement is ironic, because it simultaneously implies a relating, a tying up.

The ontology is about placement (of oneself) in the vast field of uncertainty; with practice before preaching, creativity before resonance. The space of this mode is not just a use value (Lefevre), but more a *(re)bound use value*; bound by reciprocity. And if reciprocity in this meaning implies perpetual recalibration, then the attenuated space of symmetry is merely its dystopian limit and asymmetry its utopian limit. Liminality here is a limit-mentality.

3.3.3 Architecture: Comparative Analysis

Citation 3.1
"It is necessary that the structure is provisional, not that it is left open, but that there is a structural overlapping and blurring that is always under pressure, always in a rhythm of redefinition; A structure of vagueness."[25]

3.3.3.1 Introduction: Models & Modes

Provision

To be reciprocated means to get a desired response to a specific question posed. Modes of reciprocity are provisional structures that allow more questions to be asked and perhaps even answers when the questions haven't been posed yet. If the desire is to induce these modes, then within a chosen architectural model these very provisional structures have to be created[26]. It is now possible to apply our earlier described modes to architecture in a review style or style review. In fact, everything up till now has been put forward only for this task.

Vagueness

Following up the provision it should be possible to move into the *terrain* of architecture by introducing Spuybroek's *structure of vagueness* as described in his book 'the Architecture of Continuity' (see the citation at the beginning of this paragraph).

Traditionally however, architecture is about constraint; about containment. This responsibility can be ideological or pragmatist or both. From its own structurality modalities or iterations of this containment are projected. Furthermore, architecture is (still) a (re)presentation of political economy, though in many of its built instances it has been relieved of this task. Architecture alternates between symmetry, its potential for mediation, and asymmetry, its artistic potential. Its language or spatial make-up determines how it structures this alternation.

Models

In the first chapter, Sloterdijk's Crystal Palace was already related to some exemplary models from recent architectural discourse. It is possible here to pick up this thread. Of course, not all identifiable models in architecture can be reviewed here. Furthermore, "modes of reciprocity" is not an established and accepted category for reflection within discourse or architecture. Nevertheless, categories that are established have already been connected to the term in the previous chapters. So there is still an indirect relation to more conventional discourse. The term thus has many assets within the territory of this text.

In first instance broad period models form the heading or category, starting with the modern movement, moving onto structuralisms, then to post-modernity and finally analyzing the present-day model. Within these global models certain types are put forward to exemplify and specify. Some of these reviewed types are semiological in nature, like Sloterdijk's. Others are phenomenological, like Matta-Clark's.

The chosen types are mostly ones from general architectural history. Many questions accompany the reflections upon them, like: Do they make an account? Do they promote unilateralism? Do they have an ethic of responsibility? How (if) do they make way for reciprocity? This comparative analysis allows for the development of an aptitude for the overall dynamic.
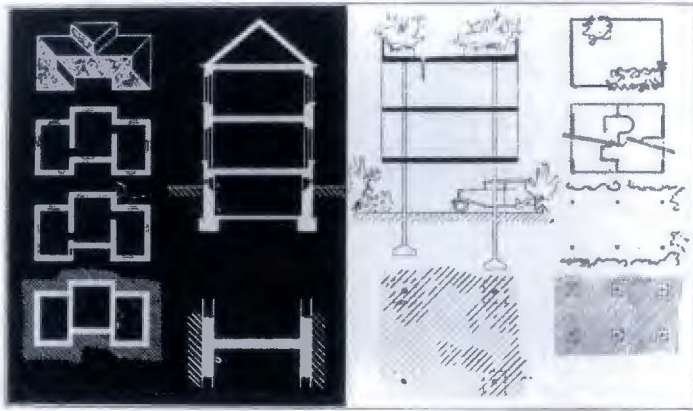
3.3.3.3 The Modern Movement

Modern movement

If one were to start classically, with the modernists, the first term that resonates a concern for reciprocity is make-ability; especially the resonant absence of reciprocity in its connotation.

The make-ability of the modern movement was a sort of consensual unilateralism. The reason for their mode to action was that they felt in a special historic position to redefine (the) spatial practice within architecture. They had a sense of mission. The modernists believed, very proactively, in a mediated unilateral approach to reciprocity. Indeed it is as if everything about them is paradoxical. This transparent reciprocity would be possible according to them in a new mode of living (obviously not even close to inhabiting as Sloterdijk defines it or to Heidegger's *wohnen*). The container, that had to be built separately, was to become a "machine for living".

In the Crystal Palace from chapter one it was brought forward that the "maker absolution" functions as an insurance policy in the comfort model. This might explain a bit why, in the last 50 years or so, positions are always taken up against make-ability and never for it, usually with antagonist terms like "social engineering" to condemn it. This antagonism in the argumentations however cannot just be explained from a simple denouncing of the unilateral nature of the modernist's enterprise. This observation rings yet truer when one takes into account the ethics of responsibility. The modernist already possessed such ethics themselves, namely in the form of their adagia, like *form follows function*. Where they then responsible? Were they accountable?

Le Corbusier's list of five
(source: Modern Architecture since 1900, W.J.R.Curtis; Vers une Architecture 1923, Le Corbusier)

With the modern movement transparency makes its suspicious appearance. As a helpful image recall here how Matta-Clark ultimately challenged the transparency of the spatial experience with his playful interventions (see chapter 2). In the call for transparency and universal values symmetry surfaces. The accompanying taxonomies of the universal style (like Le Corbusier's list of five, see figure) reveal an avant-garde that requires reciprocity, but only within its own artistic ranks. No real asymmetric action is actually allowed in the public sphere. This sort of regime was mediated by their adagia[27]. One can also think of the always projective agenda of CIAM.

From the suggestion of unilateralism in their social agenda, one of providing a new universal mode for living, a paradox surfaced that attenuated and finally annulled their own intentions. Ironically, exactly because they failed, always already, they had way more in common with their (later) critics, who wanted to attenuate this unilateral action themselves in an argument for more responsibility; of the regressive kind of course.

3.3.3.4 Structures and machines

Structural-isms

"The city, as a mechanism, is thus nothing other than a labyrinth : a configuration of points of departure, and terminal points, separated by obstacles". This is Yona Friedman's account of his 'Ville Spatiale'; an urban mega-structure. Infrastructure connecting to nodes makes a "mobility of living" possible according to the author.
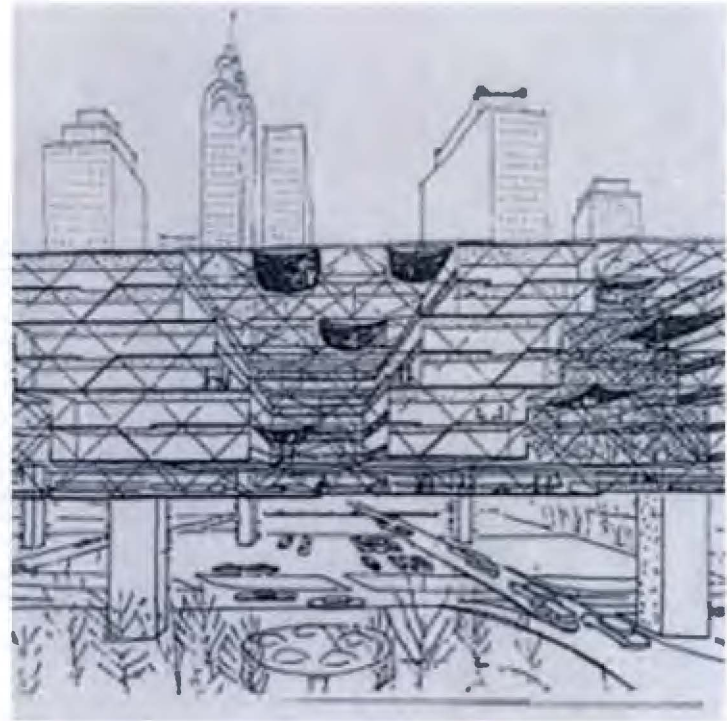
Megastructure of Yona Friedman
(source: online archigram archival project, archigram. westminster.ac.uk)

The mega-structures like Friedman's or Constant's 'New Babylon' and even Archigram's 'Plug-in City', as open structures, supposedly marked the opposite of the modernist unilateral appropriative schemes. The structures were made up of smaller repeatable units. The unit in its repeatable form is a projection. It has to be, at the same time, the structure as a whole. Does this lead to possible modes of reciprocity within this whole?

Actually, this is a setup for symmetry despite its good intentions. It goes against the grain of placeness; against the formation of real localities. Within the mega-structure dwelling obviously does not equal building (Heidegger); the structures are too provisional, they are set (-pieces). With this provisional structure of the static kind the intended emancipation of its inhabitants is put on a downward slope. In all these models the striving for consensus by (re)calibration is rigorous but never proprietary. Reciprocity in general becomes problematic since there is no juxtaposition of *other*-places. There is not even a useable inside and outside. In that sense the spatial conditions remind us of those of the Crystal Palace.

Although modalities of living within this model have the appearance of nomad life or squatting, a word closer related to placeness, actual living in these structures in fact could easily lead to passivity. This could be one of the reasons that the physical public space within the few realized structuralist plans (like the Kasbah by Piet Blom) is hardly ever appropriated. This form of asymmetric appropriation is simply not implied in the (ideological) structures. The suggestion of community again makes way for the ethics of responsibility and attenuation, in this case by means of planned social control. From this perspective one could argue that again a lack of reciprocal working is the keys to any of these types.

The Kasbah of Piet Blom and its communal space
(source: Wikimedia)

Machines

Machine architecture represents a move (back) towards a belief in process. This belief is aesthetisized. Currents like metabolism, brutalism, mega-structures (once again) and finally high-tech have attributes of the machine within their formal architectural language.

A dichotomy between Cartesian space and flowing moving space is formalized in most of these architectures. Within this dichotomy, symmetry and asymmetry are simply divided over different building elements and functions. The ethics of responsibility is partially avoided in that way; it is relayed. Though the structures wish to emancipate the user by providing neutral space that is functionally fed, this mechanization can easily have the opposite effect. Cartesian space offers a flexible universal background. The flooding neutrality of this kind of space impedes the formation of own-places. It just doesn't offer any asymmetric opportunities for the space-appropriating body-in-space to attach and *fold*; to settle in its surroundings.

Sloterdijk employs an analysis of Cartesian space in his description of the spatial topology of the Crystal Palace. He reaches a similar conclusion. Archizoom's and Superstudio's dystopia's, recall the nomadic grid, have already made this argument in images long before.

Superstudio, Life on the Supersurface (1972); A Nomadic grid
(source: archigram archival project, archigram.westminster.ac.uk)

Aldo van Eyck

With the machine and the structure having a lot of overlap in this particular context, it would be a good idea to introduce a bridge here to compare them; an intermediate in the person of Aldo van Eyck.

Aldo van Eyck actually invokes the notion of a machine of reciprocity when he says that the inside-outside relationship of his orphanage in Amsterdam is mediated by *"the mild gears of reciprocity"*. This does echo Heidegger's idea of attunement somewhat, a constant re-calibration to find one's place. However, with his *duo-phenomena* it becomes about resolving by means of a set opposition. What it ultimately engenders is a move towards consensus, which was a very understandable social gesture at the time, but now has a definitive ring of symmetry to it.

With van Eyck's gears of reciprocity being mild, naturally the yield of their turning is too. The mechanics of it all is admirable, again certainly from a societal point of view, but the architecture is getting ahead of the space-practitioners; the inhabitants of the structures. His many musings on home and harmony are revealing for this disposition of dwelling, of the inhabiting modus. Nevertheless, with his concept of the *drempel* (threshold) he ironically regains some of the dynamic that is lost within the structural installation as a whole. This threshold receives special attention in the design process and architecture. In the orphanage we see a perforated lintel above the glazed façade, integrating transparency and containment in a single element. This focus of the architect in itself can clearly be viewed as a search for possible modes of reciprocity.

Aldo van Eyck, orphanage in Amsterdam, detail of threshold (source: see image stamp)

3.3.3.5 Post-modernity

Post-modern

Poststructuralist thought lay at the basis of post-modernity in architecture, although their relation was and is never one-to-one. It was argued in chapter two that in Matta-Clark's work a central notion of post-structuralism, *play*, yielded modes of reciprocity that went beyond return; their turnover was uncertain(-ty).

In this respect Matta-Clark could retroactively be considered the first post-structuralist (even deconstructionist) architect, although within most academic circles his gestures would be considered way too literal to compliment the complexity discourse that we know of the late 80's and 90's. Nevertheless, if the literal upheaval of structures can be surpassed by the critics, they would see the real structural gesture that is behind them[28].

Notions of uncertainty are omnipresent within deconstructionist motifs. These motifs were biased towards destabilizing. With destabilizing as an agenda in/for architecture sounding a bit prosaic these days what of them remains?

In the previous paragraph it was argued that from the machine a dichotomy between Cartesian space and mechanical space was created; a dichotomy between where reciprocity is possible or allowed and where it isn't. In the deconstructionist motifs this dichotomy is (deliberately) unhinged.

With reciprocity going beyond return, accountability is automatically transferred to the user. For reference one could think of Bernard Tschumi's Parc La Villette where this transference is caught in a very didactic architectural scheme. This means however that attenuation isn't possible anymore as well. It is exactly the reality that the user isn't responsible for his own attenuation that forms the basis of a possible re-calling of the asymmetric flight. In short, by his spatial acquittal he is no longer susceptible to this recall. Return is rigorously abstracted from all possible modes of reciprocity, a priori.
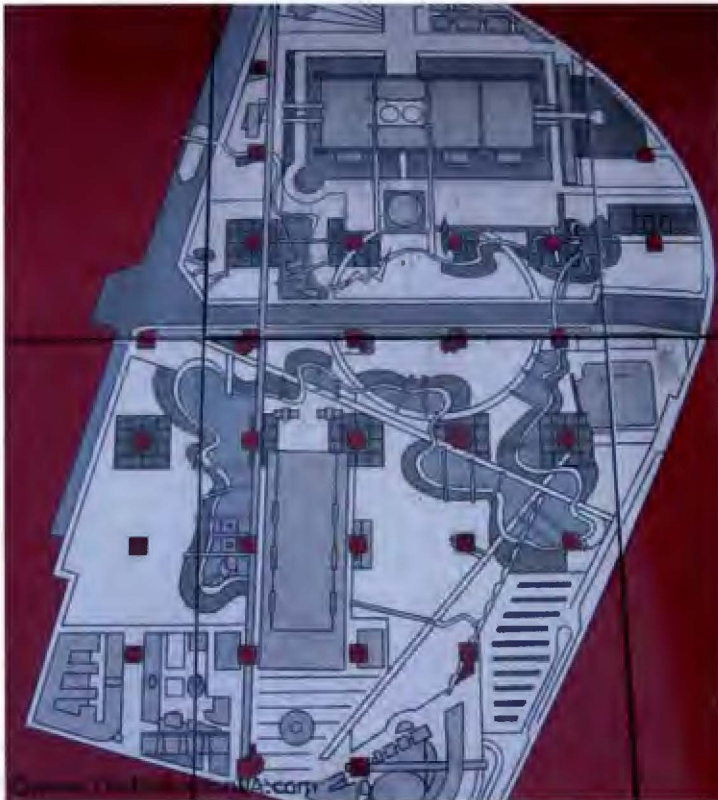
Bernard Tschumi's La Villette in Paris, scheme
(source: see image stamp)

New Inntell hotel in Zaandam; a façade of stacked historical houses; historicism?
(source: Wikimedia)

Historicism

A special mode of postmodern architecture is historicism. Prefixes like neo, retro, post etc. all signify a re-use. When styles spawn these temporal variations of themselves, it usually means their days as a working concept are numbered; lit(t)erally.

With active space-use or space-practice being the ground-movement of reciprocity the search for new modes is troubled a bit by this recycling. The modes can be enjoyed from a distance, but not actively inhabited; at least not how Sloterdijk defines it. Actually, technically the buildings can be inhabited; the architecture just

can't. Historical reference is a form of resonance. Traditionalism as a style exercise implies a form of regressive responsibility. At the same time though, traditional modes are proven.

Perhaps re-used artificial feigned modes of reciprocity from previous iterations of relational society can be transplanted; like decorations. But, would the successfulness of these modes not be a self-conversation of its space-practitioners? This kind of affirmation is as tautological as the stylistic elements themselves. Furthermore, as with the mega-structures, there is a susceptible absence of a real *working* outside. Traditionalism is then a kind of risk-management closely related to the ethics of responsibility.

Retro is already related to rhetoric. In Sloterdijk's book the address of the Crystal Palace was described as being a rhetorical one. With reciprocity being predetermined by rhetoric, being canned, so are the localities that originate from them. These never escape the gist of their conception.

The equivalent of this position in sociology might be critical theory and the Frankfurter Schule[29]. The overlaying or hyper-relating of the transcendental kind is a denial of a potential; in any case according to Sloterdijk. It is in the same way that one can't *"design coexistence"*; an oxymoron.

3.3.3.6 *Current currents*

Current(s)
To finish our summation some present-day currents in architecture are added. In the overview up till now it has been shown that neither the machine nor (unconditional) transparency is a way towards new modes of reciprocity in architecture. With post modernity modes either never settled, or were too settled to allow a dynamic of asymmetry to change them.

With iconographic *starchitecture* unilateralism appears to be back, but is it? Architecture is not mass-media, or is it?

Where ten years ago the rise of diagrammatic architecture promised a more iterative design method that would allow re-calibration, today parametric and generative methods offer an extension of this development. Just from this possibility of re-calibration, fine-tuning (attunement) they still hold the promise of being able to respond to varied input whilst keeping the integrity of the whole suspended. Within this dynamic modes of reciprocities have a possible entry-point into the design process.

Iconography
The *inner workings* and the many attached interpretations of the sublime of the 20th century have firmly reinstated authorship. Because of this, contrived unilateralism in art and architecture has gained a possible modus operandi; a virtual locus suspended in/by an affirmative medium. There is an important distinction between authorship and the unilateral artist-maker though, with the first being merely a feature of the latter; an exchangeable quality or qualification.

Iconography is tautological presentation; architecture as the presenter who presents for the sake of it. It has surfaced out of media culture, with its bias towards image consumption. It is part of what Baudrillard would call *"the violence of the image"*.

In architecture the combination of these two opportunities, authorship and image culture, has lead to the emergence of an iconographic modality within architectural practice that is both autonomous and self-

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sustaining. Its yield is approved, sealed and stamped, *sign*ature architecture.

Like with the modernist, an avant-garde guards the input and output, the limits of the sublime. They mediate, both by themselves and in resonance with critics. Their great ability for this mediation has been proven, to exhaustion, in the last decade or so of practice. The mediagen(et)ics of it all in itself already implies, without much ado, that reciprocity is deemed unnecessary; new modes are muted and discarded[30].

Cover of a recent book on iconography by Charles Jencks (source: Amazon.com, 'The Iconic Building', 2005)

Parametrics

Parametric design marks the possibility for a new relating and relational architecture. In parametric design the architect has such telling tools at his disposal as "explicit history" and "generative components". This current could take two possible directions, one moving towards symmetry, the other towards assymetry.

In the first relationali*ties* are used for more control; a kind of hyper-relating belonging to the practice of the mass-media, similar and sometimes even complimentary to the given account of iconography. The tools are used to make ever more farfetched iterations of unmotivated geometry. Euclid is the only glorious victim.

The second option is introducing more open relationalities that facilitate reciprocity, both in the design process itself and in the final architecture. The *structure of vagueness* that was brought forward at the beginning of this chapter is an attempt at finding the right tune for this openness.

As far as the potential of parametric systems goes, they can be either more open or more closed. It is possible to refer to a well-known example from Deleuzian theory, namely the distinction Deleuze draws between chess and Go in "Treatise on Nomadology"[31]. In the first there is taxonomy of possible pieces and prescribed movements, in the latter the pieces are generic and the movements endless. Between these two a choice for certain flexibility is made. In recent trends like bio-mimicry and emergent architecture, as special modes of parametric design, this flexibility is experimented with.

Typical parametric design, in this case a canopy by Foster for the Smithsonian building
(source: photographer Chuck Choi)
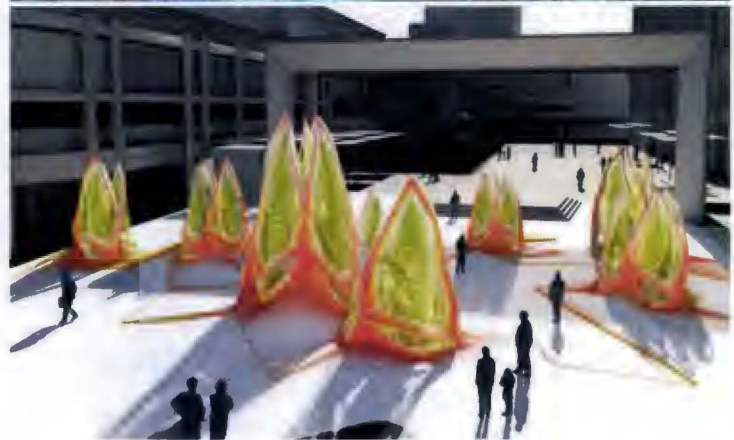
Emergent architecture and biomimicry
(source: www.emergentarchitecture.com)

3.4 Conclusion: The Space Reciprocator

Abstraction

After all the figurative reflections on architectural models in the previous paragraph, a more abstract projective account can be given to wrap up this essay, this trial. In this account the subject of reciprocity is first elaborated on. After a very general description of its dual range, the subject's position(-ing) within the public sphere is abstracted. Secondly, a beginning is made in describing a spatial unit of reciprocity; the space reciprocator. To conclude, the architectural language, the tectonics of reciprocity, is taken into account.

Subject

What was common in the many reflections on (older) architectural models was that the subject is either constrained or given freedom with regards to reciprocity within a particular structure. It is practical here to reflect on the subject itself, the space-user.

Perhaps it is useful in this context to reveal first that this whole essay hasn't been written either for the general user or for the architect per se; nor even with the purpose of creating a distinction. One would be quick to realize that in this context they are actually the same. The architect, as trained spatial expert, might have a slight advantage, but is certainly not of a different making than the average space-practitioner. Another way of saying it is that in the end we are all architects. So ultimately up to now within this essay only a single spatial economy has been engaged, one belonging to an appropriating desire machine: homo sapiens.

Economy

In the spatial economy two positions of the subject can be brought forward. Oversimplified, one could read the dichotomy of the physical man (homo) and his mind (sapiens) in it, with both moving in and out of each other, in search for comfort or experience[32]. In alternating, the positions are basically tied to two types of subject(ive) intervention.

Firstly, there are those of the *"nothing is outside of the text"*[33] type, belonging to the intellect, the mind. The two-dimensional intervention, taking place on a *plane of immanence*[34], brings together material either to prepare and facilitate unilateralism or its opposite, mediation. The paper-machine of semiology is capable of enveloping a message as much as it is capable of wrapping a gift.

Secondly, there are those of the *"everything always already reaches us via phenomenon"*[35] type, belonging to the body-in-space. The three dimensional volumetric intervention is the most heroic as it escapes horizontal semiology; appearance and façades. It brings dynamic back to the phenomenological body, a purely spatial body.

In the juxtaposition of Sloterdijk and Matta-Clark it was shown how these two types of interventions are and can blend together and are interchangeable. They are reciprocal to one another. You can start out with one and end in the *territory* of the other. It seems space as the highest category belongs both to mind and body in equal amounts.

Flaneur & Nomad

Finally, two kinds of subject are brought forward (from common architectural discourse) that could represent the dynamic alternation described above. They are Walter Benjamin's flaneur[36] and Gilles Deleuze's nomad[37]. The flaneur moves on the horizontal axis of semiology; of mindful reflection. He strolls from the mediated space of the city to the unilateral space of his own viewpoint. The nomad moves on a vertical axis of phenomenology. This body-in-space moves from attenuation to evocation. Neither of these *figures* ever loses the ability to occupy the centre of attention or the attentive centre.
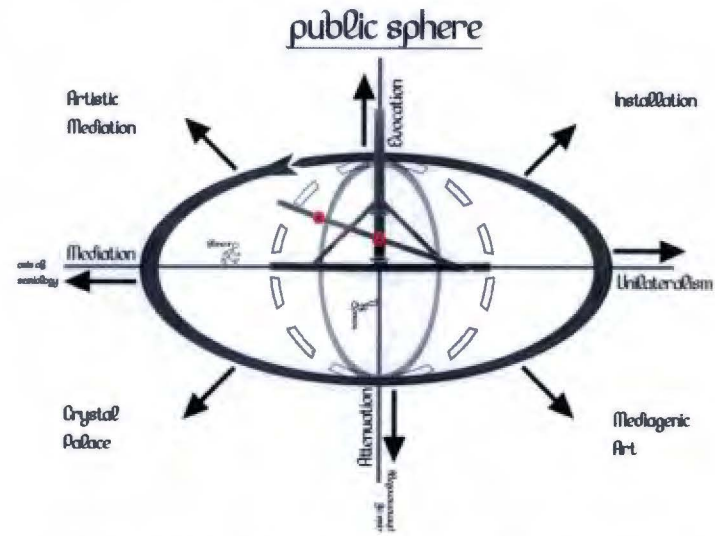
Space Reciprocator

At the most basic level of understanding reciprocity is the ability to say "I don't know (yet)"; to prefer practice, creativity, over preaching, resonance within the public sphere, be it in discourse, art or architecture. Within the field of architecture nothing is really needed, but structures that remind us that we are space practitioners. An architecture that is able to facilitate a practice of *thresholding* on the edge of the public sphere, from which new modes of reciprocity are invented, activated and tried. At all times asking, with a more or less increasing

ambiguous undertone: whose space is it anyway? These modes yield models from which molds can be made, from which new models can be cast, that prescribe new modes.

This architecture works as an entry-point for reciprocal intensification. It does not wait for any other economy to tell it what to do. The space reciprocator is the architectural unit or tool to move out of the circular, the (w)holy shape of eternal return. The ellips[38] circumscribes the double axes of negotiation.

Spatial Language

The *structure of vagueness* upheavals the oversimplified dichotomy of body and mind. It unhinges it. Fatal dualism is avoided. The space reciprocator has its own language. This spatial language is a tectonic one. Its tectonics is a formal pattern that marks pat(t)ernal contiguous intensities within the architectural landscape, from the inside, and/or formal singular autonomous objects asymmetrically juxtaposed to that landscape, from the outside. In this case, vaguely between these two modes, a specific tectonic *play* is sought to initiate a desired spatial program of reciprocity.

The space reciprocator :With one axis representing the body and the going up and down of the phenomenological argument, and the other axis representing the mind/intellect and its semiological movement from left to right (or also up and down, when the machine is turned a quarter revolution), it is possible to draw ellipses and perhaps even the occasional circle; a perpetuum mobile.
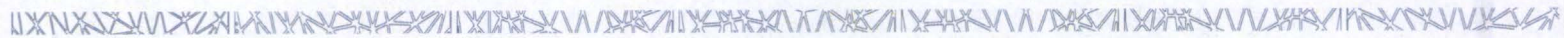
4. NOTES RESEARCH

Chapter 1

1. 'Het Kristalpaleis' was read in Dutch and translated by myself. The original German title is 'welltinnenraum des kapitals', which translates to: "the worldly interior of capital".

Chapter 2

2. The research question (for now) is: What reciprocal spatial schemes and diagrams are there within the current architectural field and beyond to engage an urban landscape that is characterized by a large open area; an urban void?

3. A good example of this kind of practice is the lecture of Sloterdijk and Bruno Latour recently gave at the Harvard's Graduate School of Design on Tuesday, February 17, 2009 titled: "Networks and Spheres: Two Ways to Reinterpret Globalization" (available online)

4. See Michel Foucault's 'Archeology of Knowledge' (English edition) for an extensive elaboration of this principle.

5. In rhetoric, *antanaclasis* (from the Greek: ἀντανάκλασις, antanáklasis, meaning "reflection") is the stylistic trope of repeating a single word, but with a different meaning each time. Antanaclasis is a common type of pun, and like other kinds of pun, it is often found in slogans. (Wikipedia)

Chapter 3

6. About the citations: Sloterdijk is hard to take out of context, because of endlessly layered cascading argumentations, which means that everything he states is always completely enveloped in everything else he states. The strong advice here is to read the books oneself!

7. In *'Notes from Underground'* Dostoevsky speaks of a "palace of crystal" (mainly in paragraph 10 of the introduction). As a metaphor it is mostly revered by him for its total transparency and untouchable perfection.

8. Here a (rather long) citation from *The Masses – The Implosion of the Social in the Media* is given; a text of Jean Baudrillard from 1985: "It is more particularly to the optimism of Enzensberger that I formerly opposed a resolutely pessimist vision in "Requiem for the Media." In that I described the mass media as a "speech without response." What characterizes the mass media is that they are opposed to mediation, intransitive, that they fabricate noncommunication — if one accepts the definition of communication as an exchange, as the reciprocal space of speech and response, and thus of *responsibility*. In other words, if one defines it as anything other than the simple emission/reception of information. Now the whole present architecture of the media is founded on this last definition: they are what finally forbids response, what renders impossible any process of exchange (except in the shape of a simulation of a response, which is itself integrated into the process of emission, and this changes nothing in the unilaterality of communication). That is their true abstraction. And it is in this abstraction that is founded the system of social control and power. To understand properly the term *response*, one must appreciate it in a meaning at once strong, symbolic, and primitive: power belongs to him who gives and to whom no return can be made. To give, and to do it in such a way that no return can be made, is to break exchange to one's own profit and to institute a monopoly: the social process is out of balance. To make a return, on the contrary, is to break this power relationship and to restore on the basis of an antagonistic reciprocity the circuit of symbolic exchange. The same applies in the sphere of the media: there speech occurs in such a way that there is no possibility of a return. The restitution of this possibility of response entails upsetting the whole present structure; even better (as started to occur in 1968 and the 70s), it entails an "antimedia" struggle." –This is clearly a very polarized account. One of course has to take into account the

(social) context it was written in. The polarized nature is welcome however in this case to give a rough sketch of what the term mass-media represents (within this essay, later it resurfaces in chapter 3).

9. Sloterdijk calls the sphere of globalization "die letzte kugel" which translates to "the final sphere".

10. Walter Benjamin, *Paris, capitol of the 19th century*; 1935 Benjamin describes a "flaneur" (wanderer) who is confronted with the new industrial global condition of the metropolis and becomes a bit melancholic. He sometimes feels spatially disenfranchised. At other moments he actively engages. The passages are seen by him as the emergent architectonic model that belongs to this dual condition.

11. Colin Rowe, *'Collage city'*, 1978

12. Lieven de Cauter, *'Capsular civilization; On the City in the Age of Fear'*, 2005

13. See for instance *Bauen-Wohnen-Denken*, Heidegger, 1951. The text and its concepts are characterized by the fact that they are quite obscure and really never to be understood completely it seems, only to be elaborated on. Its usefulness then in the consideration of a "new practice of asymmetry" becomes somewhat tautological. What one can nevertheless take from it is this notion of *dwelling* being "equal" to *building (wohnen als bauen)*, a useful construction when we introduce installation (art) later on.

14. *Play* is a central concept in the post-structuralist work of Jacques Derrida. Besides *playing* this "logos en jeu" means "putting at stake". For a better definition see also the text "*Plato's Pharmacy*" in '*Dissemination*', 1970, p 156,158,166

15. Hegel, *Elements of the Philosophy of Right*; UK Cambridge university Press, 1991; p76

16. Gilles Deleuze, *Mille Plateaux*; 1980; p364

17. Gordon Matta Clark quoted in "Interview with Gordon Matta-Clark" by Judith Russi kirshner. *Gordon Matta Clark* (IVAM), p 389.

18. Derrida has spent a lot of his later work on relating deconstruction to notions of responsibility. The dynamic between deconstruction and responsibility has remained, at least in my view, largely unresolved. "Allow" is a somewhat too proactive term in the wake of this uncertainty.

19. Gottfried Semper, Ueber die bleiernen Schleudergeschosse der Alten und über zweckmas- sige Gestaltung der Wurfkorper im Allgemeinen (1858)

20. As a spatial principle it is possible to give another example from art. In Foucault's description of the painting 'Las Meninas' by Velasquez (from 'the order of things', French: 'Les Mots et les Choses') the shifting of perspective or better yet the actual movement and obscuring of the perceptive vantage point is argued as initiating reciprocity. Relations of the subjects in the painting to each other and to the outside observer go beyond a one-to-one comparing. They are never fixed.

21. Merit here refers to merit *as spatial nodes*. It is important to not lose sight of that limitation in all these reflections. The actual merit of any artwork is a very personal affair.

22. Usually responsibility and accountability are just synonyms, in this context they are in "each other's extension", spanning a space of social action.

23. See Gilles Deleuze's and Michel Foucault's later work.

24. Realpolitik as a concept actually came to mean something in a similar fashion, technically speaking, as reciprocity has in this essay. Only it is more a top-down construction instead of bottom-up. In its time, it was merely a fashionable combination of the words

real and *politik* (by Bismarck). It was later translated to international politics, carefully preserving the euro-continental k. Nonetheless, it is never more than an inscribed attitude. Noöpolitik is its antonym. The terms can still be found in many socio-political texts of today.

25. Lars Spuybroek, *The Architecture of Continuity*, 2008, p 128 This citation is chosen because Spuybroek relates it to tectonics (and Semper) in the book. With the *structure of vagueness* he addresses the definition of the wall or the screen; very important topics for the physical project.

26. Simultaneously one has to have some faith in the idea of the *social condenser* for this connection to be meaningful. The concept of this *social condenser* is borrowed from Soviet constructivist theory (from about 1928); the term is mostly related to the Narkomfin building in Moscow (source: Wikipedia)

27. On "form follows functions" Jean Baudrillard has commented in his text *'For a critique of the political economy of the sign'* (1972). In the text he argues that by installing a dichotomy between the two terms, which are in themselves arbitrary, the modernist provided themselves with a tool of (rhetorical) control.

28. This is something Lee has been able to do in her book and this is exactly why the book has been heavily cited from.

29. *Frankfurter Schule* refers to a school of neo-Marxist interdisciplinary social theory, particularly associated with the Institute for Social Research at the University of Frankfurt am Main. Since the 1960s, Frankfurt School critical theory has increasingly been guided by Jürgen Habermas' work on communicative reason, linguistic intersubjectivity and what Harbermas calls "the philosophical discourse of modernity". [Wikipedia]

30. In his context, Alejandro Zaero-Polo's appeal for "double speak" in a public arena dominated by iconography can be considered as a recent example *from* the media. "Double speak" as a (spatial) practice means

that random referential images should float around the project area and magically attach themselves to it whenever the opportunity for it arises. Public reception is the measure, with its limited "range of arbitrariness" always making sure that modes of reciprocity are never really initiated. So you would have the real project, and the more easily consumable iconographic project, for the ignorant public. Of course, it is not necessary to emphasize how much the gist of symmetry is present here; how rhetoric and resonance have become mere tools in the hand of the mediating architect.

31. Gilles Deleuze, Mille Plateaux, 1980 (translation English 1988)

32. If someone ever wonders or cares (as I do sometimes) why some currents in architecture are biased towards the intellectual and others towards the experiential and how they are related, this could be the shortest answer.

33. This (pedagogical) dictum is of Derrida. With it he describes how everything is caught/inscribed in semiology already; in the signifying (con-)text.

34. Gilles Deleuze, *'Qu'est-ce que la philosophie?'*, 1991 (Eng. Trans. *What Is Philosophy?* 1996)

35. Phenomenology is a field with many protagonists in 20th century philosophy, like Husserl, Heidegger, Deleuze, Merlau-Ponty etc.

36. The flaneur is a type from Benjamin (originally from Baudelaire) he develops in his text on the Parisian arcades. He says of this subject: "The flaneur is someone abandoned in the crowd. He is thus in the same situation as the commodity. He is unaware of this special situation, but this does not diminish its effect on him; it permeates him blissfully, like a narcotic that can compensate him for many humiliations. The intoxication to which the flaneur surrenders is the intoxication of the commodity immersed in a surging stream of customers."
The *'Cambridge introduction to Walter Benjamin'* reads: "Benjamin's presentation of the flaneur is deeply

embedded in his account of both the phantasmagorical character of the nineteenth century and his perception of an intoxication that not only runs through the nineteenth century but also persists in the twentieth century within surrealism. To awake from this intoxication or dream-like state is a goal that the Baudelaire writings share with *The Arcades Project*." --- It is possible to see an early prototype of the subject living in the Crystal Palace; the final sphere of the flaneur.

37. The nomad is best described in the text *'Treatise on Nomadology; the War Machine'* from *'Mille Plateaux'*, 1980 (translation English A Thousand Plateaus 1988) A short description from www.rhizomes.net is copied here:
"Nomadism" is a way of life that exists outside of the organizational "State." The nomadic way of life is characterized by movement across space which exists in sharp contrast to the rigid and static boundaries of the State. Deleuze and Guattari explain:

"The nomad has a territory; he follows customary paths; he goes from one point to another; he is not ignorant of points (water points, dwelling points, assembly points, etc.). But the question is what in nomad life is a principle and what is only a consequence. To begin with, although the points determine paths, they are strictly subordinated to the paths they determine, the reverse happens with the sedentary. The water point is reached only in order to be left behind; every point is a relay and exists only as a relay. A path is always between two points, but the in-between has taken on all the consistency and enjoys both an autonomy and a direction of its own. The life of the nomad is the intermezzo". (380 TonN)
The nomad, is thus, a way of being in the middle or between points. It is characterized by movement and change, and is unfettered by systems of organization. The goal of the nomad is only to continue to move within the "intermezzo." --- A relationship to the concept of *thresholding* in this essay can be seen. Also recall the citation of Yona Friedman.

38. In the text *'form and meaning'* Jacques Derrida speaks of being elliptical. The text is from the bundle *'Margins of Philosophy'* (original French 1972, English translation 1990)

Part 2 Development
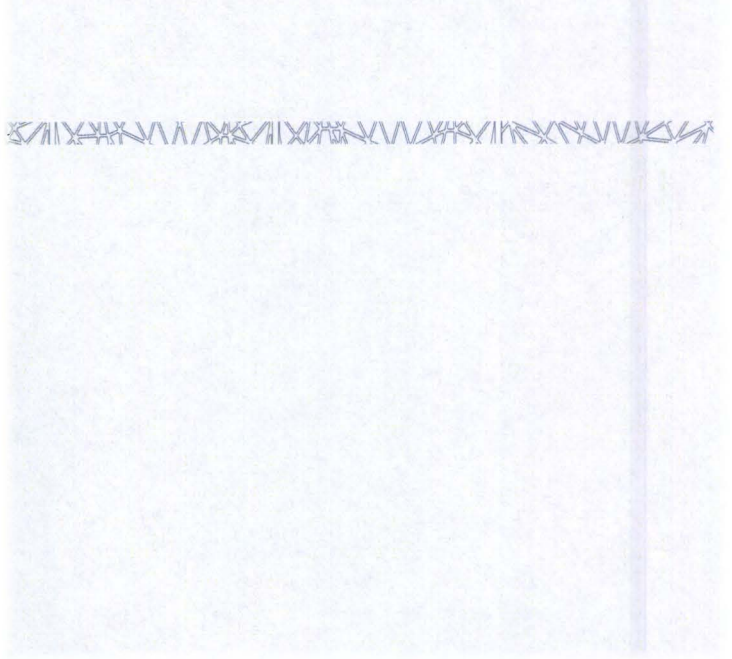
1. SITE AND PROGRAM

The thesis proceeds here with an overview of the plan starting with the basic ingredients of every project; the site and program. In later chapters the design concept is explained and the actual plan is presented.

1.1 History

An exhaustive history of the city and the site is not included in order not to flood this thesis with readily available material. A brief summary of the most relevant facts is given in this first paragraph. After this general urban analysis, the site and its specifics are introduced. This chapter is concluded with the informal and formal program to be realized on the site.

Origin

It is the 12th century when a dam is built in the stream 'de Rotte', at a site that is now the 'Hoogstraat'. This dam is the beginning of Rotterdam; a dam at the Rotte. For a long time the 'Hoogstraat' is the central axis and remains the most important street, right up until the second World War.

Bombing Rotterdam 14th of may 1940 only the Laurens church is still standing,
(source: Worldpress)

At the beginning of the Second World War, on the 14th of may 1940 to be precise, the centre of Rotterdam was heavily bombed by German forces (see the picture for the dramatic aftermath). In the reconstruction period a number of plans were made to start over; from scratch basically. The most notable of these is the 'wederopbouwplan' from 1946 and the many iterations it spawned in the following decades.

"Binnenstadplan" from 1985 with still very visible the zones from the reconstruction plan of 1946
(source: NAi)

Beside a more wide, open and axial urban fabric, the most important intervention is the partitioning of the city into four main sections called centre-zones. These zones are still discernable today. They are: the centre-rhombus, the park-triangle, the railway-triangle and the 'Kop van Zuid'.
The centre-rhombus is the area from the central train station in southward direction enclosed by the 'Lijnbaan' and the 'Coolsingel'. The park-triangle has a centre making up the museumpark and is surrounded by other green zones. The railway-triangle is the area east of the

'Coolsingel' up until 'Blaak'. This area is actually where the site for the design is located. The 'Kop van Zuid' is the last assigned concentrated area within Rotterdam which can be characterized as a 'high-profile' urban centre-zone. It has many projected ambitious project for the coming years.

Recent plans

Many plans have been drawn up for the 'railway-triangle' in more recent history. In 1993 West8, a famous urban design firm, made a structural plan. The qualification of the area as forum (as in forum romanum) by landscape architect Adriaan Geuze seems to have been the most important concept of their projections.

The last big urban Masterplan for the area is from 2006 by the firm KCAP. They approached the area in a very different way than West8, much more pragmatic and programmatic. Their plan for the 'Laurenskwartier' is a flexible system of envelopes and volumes which are to be freely filled in with architecture. No binding rules are given for this infill. The plan designates a couple of area's for special development, including the site for my design.

3D Map of envelopes from the Masterplan of 2006 by KCAP (source: website KCAP)

A number of running projects on the special sites within KCAP's Masterplan are:

- A residential building named "Rotta Nova" by "architecten CIE",
- The markethall by MVRDV,
- Office "Blaakhaven" by ZZDP
- "Blaak31" an office building designed by Kees Christiaanse (KCAP) himself
- The "laurenshof" by Rapp & Rapp architecten
- The "Statendam" by architect Hans Kollhoff

These buildings and a number of special older building are put in a (very colorful) overview below.

Colorful overview special projects of yesteryear and projected for the future.
(source images from left to right, top to bottom: own work, flickr cc, own work, website Statendam, flickr cc, flickr cc, website architecten CIE, website MVRDV, website KCAP)

1.2 Site Analysis

In the following paragraphs the site itself will be described and analyzed from various angles, starting with the first impression, the character or mood of the area. Then some more hard facts are given, followed by a description of the site's surroundings and its morphology. From these angles constraints are deducted that will have to be respected in the final design.

1.2.1 First impressions

Chaos & Flux

The site today is characterized by a (beautiful) chaos. Its condition can be said, somewhat charged, to be the result of yet another excess of the Dutch *poldermodel*. It seems to typify a decision model that always gets entangled with itself; by the displacement of its hyper-modern hyper-mediated agenda. It is a prime example of the uncontrollable space in the city of today.

A peculiar state of flux was actually the first thing I noticed upon visiting the site. On all sides there are new projects being build, which is actually not that unusual in "unhistorical" Rotterdam. However, in this place there is a very experiential almost corporeal tension between all these activities; between the ambitious projections for the future, and the tangible state of affairs as it presents itself.

It reminded me of the sensation when seeing a theatre-show being built up from the coulisses. However this wasn't some visiting show. This was the play of the city itself. Nowhere in the city is Rotterdam's flux caught is such a mobile panorama. Nowhere is the heroic emptiness felt so sublimely.

Core & Void

The vast empty space of the boulevard (500 meters long by an average 60 meters wide) proceeds in line with a prolonged railway on the north side and visually ends in the river 'de Nieuwe Maas'. This wide elongated space automatically seems to take on the typology of a boulevard although it is immediately clear that it was never planned as such. It is an axis that doesn't announce anything; it doesn't bind anything. The boulevard status is simply rendered by the *flaneurs* of the city that use it as such, completely indifferently. When they change direction, which they often do, this status is just as easily lost.

It seems the absence of a core or hart is something that has haunted Rotterdam since the second World War. For the first time, by chance, this absence or void is made visible in a real and very powerful display. The value of this unintended scenography should not be underestimated in my view. Judging from the billboards of the soon to be realized projects, is seems though that this poetic quality is going to be erased in the very near future. I suppose from that a desire surfaces to map its potentials before it is too late and perhaps even to make a statement about the core and the void of Rotterdam.

Picture of the location; unintended scenography; the wide open space, in this case full of garbage from a busy market day, (source: own work)

1.2.2 Hard Facts

Continuing from the historical overview earlier some more hard data of the area is given. More specific qualities or traits of the actual site are given in the next paragraph.

Hard Data

The location for the design project is at the end of the Binnenrotte boulevard in Rotterdam, where it crosses the old Meent street, see the map and model pictures.

Urban model wood, scale 1 : 1000

*Location in red
(source: google maps)*

Digital model for urban analysis of height, sightlines, urban composition etc.

The wide open area (void) of the Binnenrotte in front of the plot is a direct result of the pragmatic choice to demolish the existing railway viaduct and to make a new tunnel; a hard political choice. The rectangular plot is located above the rail-way tunnel and is 35 meters wide by 45 meters deep. The span over the tunnel is a constant 25 meters and this means 5 meter wide foundation strips running the full depth are available on both sides to make the building rest upon. Besides the "Meent-side", the plot is enclosed by narrow streets on all sides.

Picture location 1910 and today (source: world press and own work, taken 2009)

As has been said before, development of the plot coincides with a Masterplan for the larger area by KCAP architects from 2006, in which the plot is marked for "further investigation" (see figure). The demands for the location from this plan are: closing of the boulevard so that the large open area is contained and delimited; realizing residential density and adding to the overall liveliness of the area. There is a maximum height restriction of 70 meters for all projected buildings.

Further investigation (nadere studies) required for the location in the Masterplan
(source: "Masterplan Laurenskwartier", website Gemeentewerken Rotterdam)

A building in close proximity to the site, with typical glazed plinths.
(source: own work)

1.2.3 Surroundings

The open space we see in the urban plans in my view asks for a different kind of engagement than are present now or projected for the near future. An overview below shows an example of a building that is adjacent to the open area and its troublesome mode of public interaction; mostly via dark narrow glazed plinths and hard transitions.

The glazed plinth in present-day buildings is an immunological zone; recall or review chapter three on Sloterdijk in the research part of this thesis. It doesn't work as a transition-area or negotiation-zone. It is a canned form of urbanity, a simulation of public space. It is a universal shock absorber in the city. Instead of claiming or binding space it often frustrates any architectonic appropriation. As a generic entity they don't give access to the building and certainly never introduce the building's spatial character.
To pretend these kind of glazed plinth still function well as a transitions from outside to inside, from collective space to private space, is a bit absurd. What needs to be looked at afresh is the structure of negotiation (of immunology).

1.2.4 Morphology

From the earlier paragraphs and the many urban Masterplans some morphological characteristics can be abstracted.

For instance, as has been claimed earlier, the Binnenrotte is not a boulevard in its present day appearance. It never was. To claim it is, or to turn it into, a sort of Hausmannian boulevard will always yield a patina. The bordering development doesn't confirm this typology either. Where the building line on the east side seems pretty straight, alignment on the west side of the boulevard is completely absent. Height constriction hasn't been applied consistently. Style is also varying; a stylistic hodge-podge.

The Binnenrotte is not a plaza or *Forum Romanum..* Such a qualification only works when (many) public buildings are in close proximity to one another and their public space overlaps creating a mixed intensity. The Masterplan from 2006 by KCAP does however try to intensify the public space by enclosing it more rigorously and allowing greater density. The density needs to go up from 30% residential to 60% (see figure).
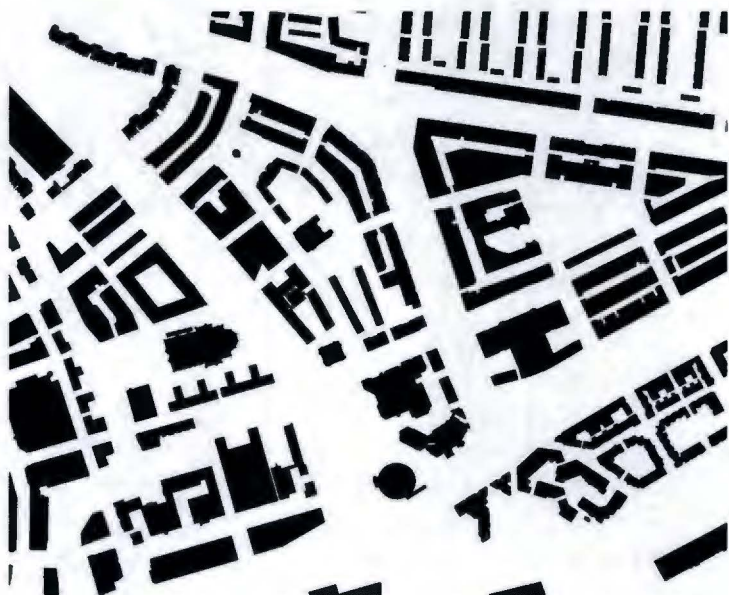
Morphological map revealing (low) density, "figure-ground" anno January 2009 (source: own work)

The Binnenrotte is not a comfortable square either, because it is too large, too elongated. Besides that the finish of the urban surface is harsh and uninviting; *"a bit like a communist square"* has been said by one local resident. There is also no cohesive relationship between the different elements of the public make-up.

This leaves the architect with some options. Even though it is not a boulevard the long axis could still be finished with an axial ending. One could design something like an Eiffel tower. The square cannot work as a whole, but it might be possible to partition it; divide into a number of linked sections or clusters along its length. A couple of cooperative buildings per section could then make up the more local public sphere.

1.2.5 Site Constraints

The site analysis can be concluded with formulating some constraints for the design project. These will have to be respected. Any exceptions during the design process will have to be carefully motivated.

Size

The building size is first and foremost constrained by the hard demands of the Masterplan. The 70 meter height restriction is respected, even though directly adjacent to the Binnenrotte many high buildings are being realized like the 'Statendam' and the 'Rotta Nova', both 70 plus meters. Due to the elongated nature of the Binnenrotte height or at least volume is important to counter the vast openness and balance the urban composition.

The design to be made will have to absorb some of the excess space of the boulevard. It also needs to close off the area, and "finish" the axis of the Binnenrotte. What is required is an in-between scale that can mediate well. Historial examples of possible solutions of such intermediates are arcades, atria, peristyles and of course public plinths. The latter is avoided, especially in its standard glazed version. Combinations are possible

also, as is a completely new intermediate space.

Finally, in relation to physical size, the agenda to create density is met; both visually and in number of residents or other users. This will be done programmatically (see chapter 2).

To span or not to span?

From the size considerations one can almost already conclude that the railway tunnel that runs beneath the plot will have to be spanned. Arguments for and against have however been considered too some extend to make a final decision; basically a go/no-go decision. This is simply required before proceeding with development of the plot.

Pros for spanning the railway-tunnel are:
1. A building with a certain presents in volume and height is needed to finish the axis.
2. A spanning construction is needed to close off the boulevard in a convincing way.
3. Densification is only possible if the whole plot is used.
4. Cost maybe high, but could be even higher when a leaning asymmetric building is chosen instead in an effort to meet the first three considerations above.

Cons for spanning the tunnel are:
1. A complicated construction is needed
2. Vertical routing might be hard
3. Connection to adjacent building on the east and west side is precarious.
4. Considerable span when wanting to realize many floors.

Go

A go-decision is made. Otherwise only an awkward "space-avoiding" building would be possible. A lot of tall and voluminous buildings are being built right now. It would be strange not to follow this trend on one of the most prominent locations within the larger area. Regressive contextualism, rigorously respecting the low quality 'wederopbouw-architectuur' is in this case a bit

far-fetched. Some of it is of course monumental and needs to be preserved, or at least not be put in the shade, but not in this particular case. Also, in the final plan nothing of the old urban fabric is actually demolished.

Examples of buildings in Rotterdam that have a large span are: the Markethall by MVRDV and the 'InHolland' school in the south of the city. The latter has a construction that spans 45 meters and has 9 floors above the span. It achieves this by two large trusses of 11 meters high by 45 meters long. They were brought in by ship from a construction site along the docks (see figure). In the next chapter the issue of the construction and the span is taken up when the structural concept is presented.

Truss for InHolland building brought in by dock crane at night; designed by "designed by Erick van Egeraat"(source: flickr cc)

Profile

To conclude this summation of urban constraints a consideration for the street profiles is given. The Masterplan prescribes a sort of space-change (a sort of 'ruimtewissel' of architect Bakema) between the Binnenrotte and the area behind the plot where the Rotte canal runs. The new profile of the shopping street 'De Meent' and the boulevard along the banks of the canal, perpendicular to the Binnenrotte, are described in detail

below. 'De Meent' is widened considerably compared to the present-day situation (see figure). Also the parking lots behind the plot are removed and replaced by wide pavement with terraces.
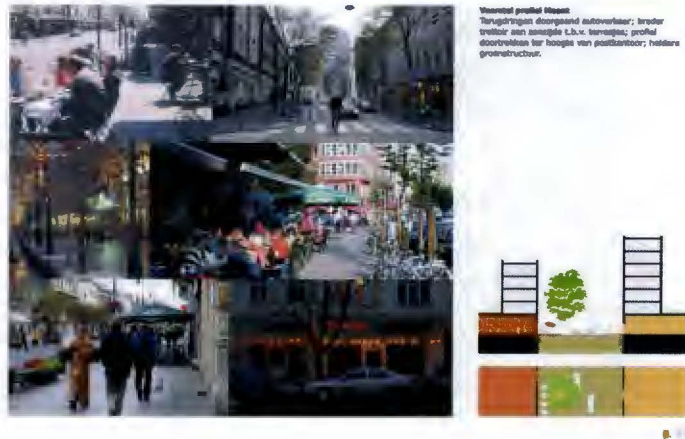
New profile Meent and Rotte roads, south and north of the plot respectively
(source: Masterplan 2006 KCAP)

1.3 Program

"It's a matter of finding the right tune for constraints to become productive."
Enrique Walker; lecture at Berlage Institute March 2009

From the urban constraints in the previous chapter it is now possible to move on to the programmatic constraints. The program is cut into two parts. The first of these relates to a (personal) agenda and intentions. The second part encompasses a straightforward functional program of demands.

1.3.1 Program Constraints

A suitable program for the site will have to be "invented". Apart from the global constraints from the Masterplan, new constraints will have to be found. These constraints of course originate from a place of reflection; reflection on the place; in an effort to find its spirit or *genius loci*. Without these constraints put together to make up an agenda there would simply be nothing to express, and vice versa. Renzo Piano once summarized this truth in a sensible aporia: *"there is no architecture without constraints"*. It is about what we want (or don't want). There is a great similarity between finding constraints and an agenda for your project and marking and directing a simulation-space.

1.3.2 Informal Program

Institutions

The search for a suitable program type for the location was a long one. At first an institutional function was considered. Maybe a school would be possible. The idea was taken up for a while to make a 'Brede School' and combine it with a community centre.

A governmental function could have been possible too. The municipality office of Rotterdam is located only a stone throw away. It is being renovated and extended after a large open competition held last year where all the major Dutch architecture firms sent in entries. Eventually this idea was abandoned mostly because in my view there is much more to express on this location than just a formal institutional end-point.

Inhabiting

After the initial attempts a different angle was pursued, leading to a surprising choice for the building's program; a hotel. Inhabiting is the *"mother of asymmetry"* Peter Sloterdijk writes in his book. If inhabiting is the mother of asymmetry, then a hotel is a simulation of this practice of asymmetry (see the research part).

Heidegger goes even further and equates all inhabiting to building and even to thinking. Whenever we think of something new, we are actually building; creating a place. Placemaking means maintaining a healthy balance between static appropriated space and the continuing dynamic process of appropriation.

Guest-host

With the hotel a guest-host dynamic is introduced that in this very specific condition amplifies the intended architectural statement. Program and statement then line up, they are in-sync. Inhabiting as was stated earlier, is no more than being in once place, arranging one(s) place while being. The guest simulates this arranging. He requires a space of negotiation to play this game.

The rooms of the hotel, as containers respond to the mass distribution that is a derivative of the anomalies and the all encompassing reciprocal diagram that governs the design. Later, in the plans it will be shown that the building doesn't actually have enclosing walls, no perimeter. The whole interior is conditional.

The "glamour" of the relationship of the hotel with the wide open boulevard is most important and is arranged in the shared space of the building, making it a shared experience and one that is accessible to all the inhabitants of the building. By arranging it in the actual public space of the building many options are available to make the tie "work".

1.3.3 Formal Program

The formal program is given below, in square meters. First up though is a functional diagram that reveals how the public nature of the building decreases as you go up, and in what way other functions are organized around the public shared facilities.

ORGANOGRAM
BOULEVARDS
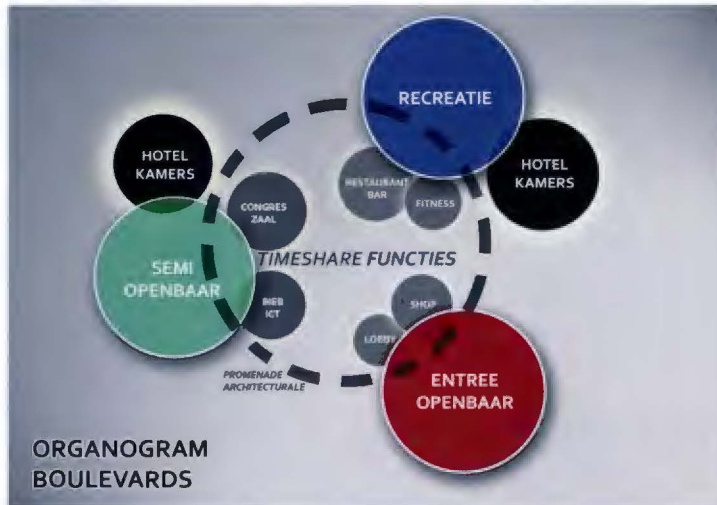
Organogram of the boulevards

Floor area calculation

Ratio GBO/BVO = 0.6

Total hotel rooms	3300	m²

BVO = 2000 m² GBO

Total auxiliary functions	5000	m²

BVO = 3000 m² GBO

Total 8300 BVO (Gross Floor Area); which yields 5000 m² GBO (Useable Floor Area) of which 2000 m² is reserved for hotel rooms divided over an average of 40 m² GBO per hotel room (smallest 18 m² GBO, largest royal suite 100 m²)
Auxiliary functions are calculated via a per room index.
(source: Neufert Architectural data)

• *Hotel rooms: 50 × 40 m²*	=	2000	m²
• 50 × 4,0 hall/routing	=	200	m²
• 50 × 2,5 entrance/elevator	=	125	m²
• 50 × 1,0 reception	=	100	m²
• 50 × 1,0 administration	=	50	m²
• 50 × 3,0 restaurant	=	150	m²
• 50 × 1,0 coffee bar	=	50	m²
• 50 × 1,0 bar	=	50	m²
• 50 × 4,0 lounge	=	200	m²
• 50 × 3,0 pool	=	150	m²
• 50 × 2,0 fitness	=	150	m²
• 50 × 2,0 wellness/spa	=	200	m²
• 50 × 4,0 large auditorium	=	200	m²
• 50 × 2,0 second lounge	=	100	m²
• 50 × 0,5 toilets	=	25	m²
• 50 × 3,5 conference rooms	=	175	m²
• 50 × 4,0 kitchen	=	200	m²
• 50 × 2,0 shops	=	100	m²
• 50 × 1,0 laundry	=	50	m²
• 50 × 2,0 personnel	=	100	m²
• 50 × 1,0 routing personnel	=	50	m²
• 50 × 0,5 concierge	=	25	m²
• 50 × 12,0 storage	=	600	m²
Total	=	5000	
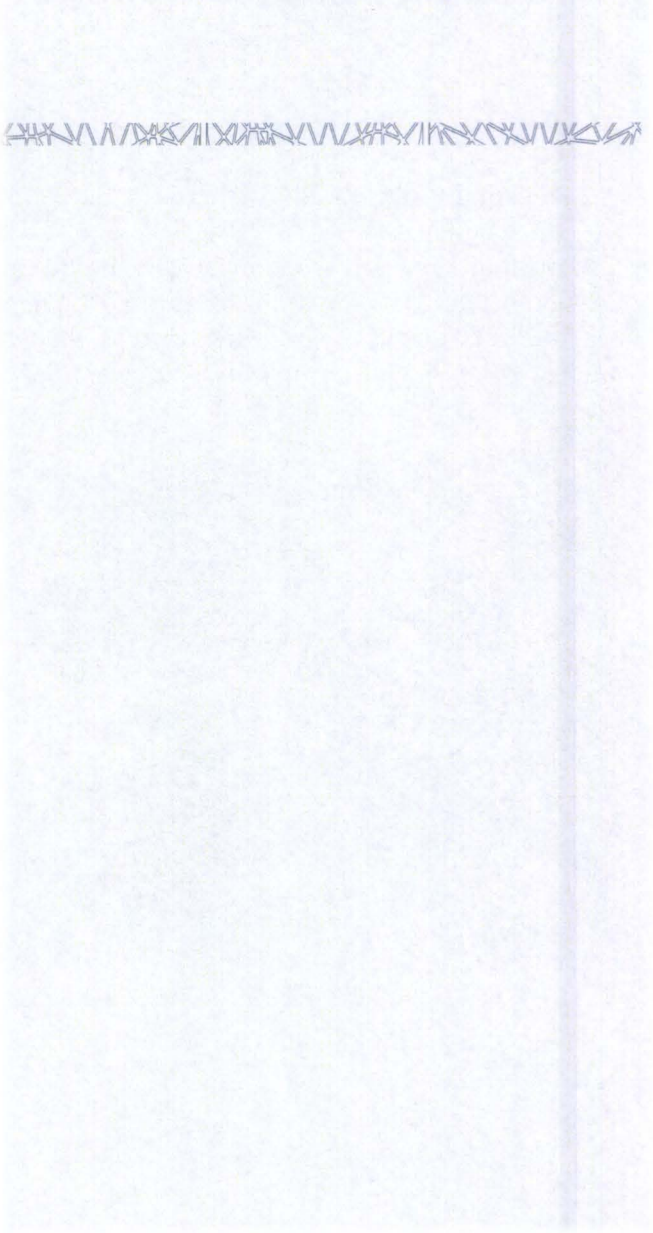
2. Structure and Concept

To start off this chapter what is actually possible on the location in terms of construction will be discussed, related to the site analysis in the previous chapter. This is the easy part. In the next paragraph the focus will shift towards structure; a more complex issue. Following from that the overall structural design concept is presented. The chapter is concluded with a more detailed description of the two main components that make up this concept in the last two paragraphs; the wall and the pattern.

2.1 Construction

The required span is 25 meters. Many examples of spanning such a distance and over a railway tunnel were reviewed; one was already shown in the previous chapter. In roof structures a 25 meters span is not a lot and they are very common, even in the average office building atrium. However, when building on top of this span this is a different matter. With every added floor the task becomes more intricate, more challenging. Since the (go-)decision was already made on different grounds than purely technical considerations it is however simply a matter now of searching for a viable solution.

As stated in the site analysis the plot needs to be filled with a certain volume and "presence of mass" to counter the "weight" of the large open area in front of it. The whole width of the plot needs to be fully taken advantage of. Height needs to be sought. The depth of the plot is relevant in de balancing act as well.

What we are faced with is an envelope of 35 meters wide, 45 meters deep and a preliminary height ambition of at least 30 meters. From these ambitions a search was made for a suitable construction method, material and ultimately expression.

At first the idea was taken up to build from the side and make the two sides meet in the middle either by leaning towers or arches. Height would be easily realized.

The construction would be reasonably cost-effective and efficient. These options would however create an undesirable void underneath the building. Even is this would be filled by hanging floors or spaces from the arch, the overall gesture would remain.
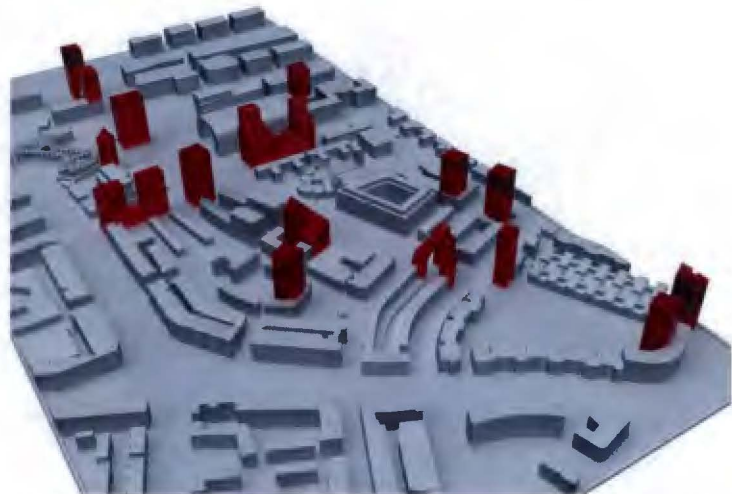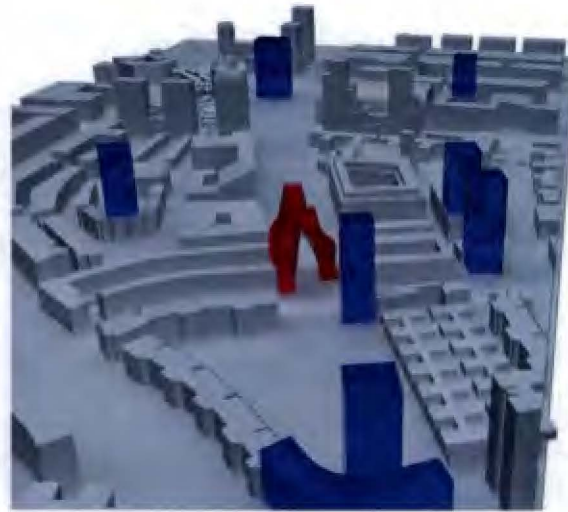
Overview height analysis and first constructive spanning trials

Excess

It became clear that if the social agenda was to be fulfilled beyond constructive constraints the construction would have to perform even better than fulfilling merely its task of spanning the 25 meters. It would need to have some excess ability to absorb greater ambition. The gravity of its task carries more load than the mere load of gravity. Again this ambition is not simply invented for the sake of it but a real necessity for the vitality of the place and thus ultimately for the entire area.

From this slowly attention was moved to less efficient systems, to flexible systems; systems than were capable of responding; of bracing. The main construction material would be steel. A structural concept would have to be invented that could move, respond, frame and brace all the spatial demands without losing structural integrity. The construction becomes fluid; by resisting it becomes, almost counter-intuitively, lightweight.

Some considered construction options for the plot

2.2 Structure

There is only one overall concept for the design project and it is structural. The structure is the main plot line in the narrative of the building. Perhaps this is then the most important paragraph of the entire thesis. The structure is burdened first and foremost with establishing a suitable balance between inside and outside. It must mediate between the interior and the space of the boulevard. Besides that it needs to brace and span, like was put forward before. The social agenda and the technical agenda must meet and be caught in the same structural scheme or diagram.

Breakthrough

A breakthrough, literally, in the search for a suitable structure was a series of models I made in august 2009. Below are two pictures of these models. They are conceptual abstract pieces. They consist of three variations of a pattern-ruled structure lined up to each other for comparing purposes (see figure below). They are physical models of a much larger collection of iterations of a generative script I made in a program called *generative components* (see also appendix). The physical models are laser cut. What you see in the line-up are seven parallel walls containing a responsive pattern, in first instance *voronoi*, a mathematical pattern based on a principle of proximity. In the generative program a (structural) line is "beamed" through the walls. The pattern on the wall responds by bracing the resulting opening.
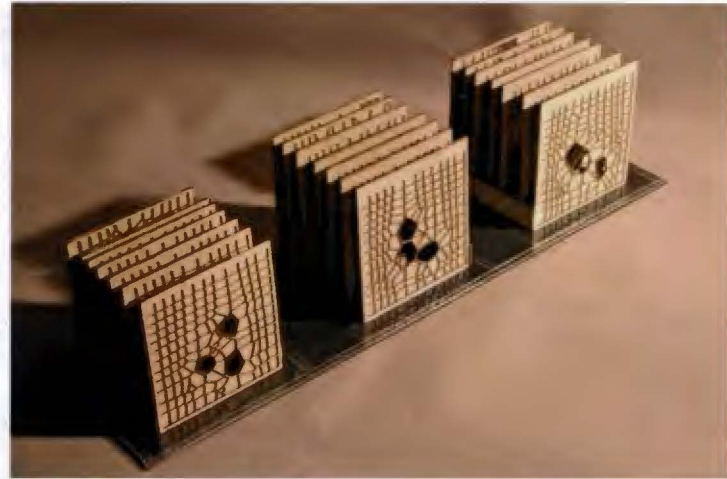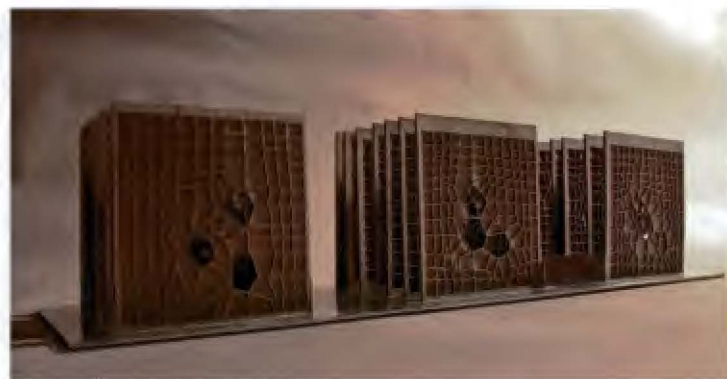
Pictures conceptual model of voronoi bracing structure

After this model I experimented with this setup and technique. Various anomalies (beam, shapes, shards and figures) were projected into the "building"; sort of slung in (recall Semper's slingshots here). The pattern was allowed to respond on each occasion. Different anomalies rendered different results.

In first instance the openings in the walls would line up to a collection of points on the boulevard, that together could span and more or less territorialize an area on the boulevard.

This 'architecture of bracing' is a form of formalizing; a tectonic response to public scrutiny or invasion of structural lines; *flight lines*. One could say the structure counters a compromise. The goal became more and more to formalize the breaking through the wall as beautifully and interestingly as possible; to frame the moment as best as possible.

2 .3 Concept

"It is in terms not of independence, but of coexistence and competition in a perpetual field of interaction, that we must conceive of exteriority and interiority." (Deleuze; Of Nomadology, p360)

From the experiments in the generative program a more or less composed concept surfaced. What became clearly visible in the iterative process of generation and judgment of the patterns was this dynamic of bracing, of structural movement and overlapping that would not only "make up" the walls, but also the space. The pattern became much more than a surface anomaly; it became the agent of the spatial experience.

The 2D pattern on the wall is a precipitation of a 3D intervention, namely the beaming of the volumes or shards through the whole depth of the building. The overlapping and juxtaposition of the sequential frames would organize the inside and the outside, the outside from the inside, the inside from the outside. The pattern renders and maintains the reciprocal relationship. The structural concept thus consists of two main components that interact; the wall and the pattern. In the following paragraph these two elements of concept will be extended.

2. 4 The Wall

Textile walls

According to Semper, and also Frampton to some extent, the wall and its enveloping and resisting capabilities form one of the most important premises of architecture. For Semper the textile wall or screen is one of the four main elements that constitute an architectural structure.

Walls don't just enclose space, they disclose it; arrange it. Mario Botta gave a lecture at the ETH in Zürich in 2008 in which he speaks of the walls being both defining and indefinite; making finality and absolving finality. The theme for his lecture was "Sakralität und Aura in der Architektur" (the date was 14-10-2008).

Force fields

In the generative diagrams and scripts from the previous paragraph the walls are acting as a sort of force field that tries to retain structural integrity against the volatile generative voids. There is an axis of negotiation. The tectonic agenda is met via regulating structures; an open field dynamic. The walls are constructional elements. As integral frames they carry the load to the two foundation strips on each side of the plot. In them the opposition of functional requirement, spanning, and social requirement, bridging and framing, is resolved.

Frontality

The wall-setup can be experienced in many ways; parallel or perpendicular; in-between or diametrically opposed; converging or opening up; stopping or allowing penetration. The *frontality* is the only thing that is important. The whole building falls between the suggestive boundaries of the square. *Frontality* here is something very different than making a façade or dressing up a building with a nice skin. It tries to go deeper. It is layered.

2.5 Pattern Morphology

Optimization & Bracing

All building structures optimize against their proprietary constraints in an iterative process of self reference; tautology. Circumstantial optimization is a true oxymoron. The pattern is the mediator of this optimization. One would think of Nervi and his fluid patterns; his formula of letting the structure appear where it is needed within a chosen architectural system, like post-beam in the wool factory.

Nervi Formula, Woll factory and stadium
(source: unknown)

Integrity

The bracing capacity of the pattern in the initial models suggested that it is possible to take away certain parts without losing structural (and perhaps even sculptural) integrity. At the same time it is sometimes unsure whether the pattern is a gesture of bracing or disintegrating. It actually finds its dynamic in the alternation.

Attractor point

The pattern is actually drawn with help of an intermediate point grid. The intersection point of the intruding line and the wall are calculated and added to that grid. The point functions as an attractor point within the point-grid. The individual points of the grid move towards the attractor based on their proximity. It is a sort of "flocking algorithm" that directs their flight and determines their new position. (Grasshopper and Generative Components scripts will be shown in the next chapter and are also available in the appendix)

Pattern Alternatives

The voronoi pattern, which is found in many organisms and biological system, is a useful performative pattern. It establishes order, equally essential to architecture, while allowing movement. The voronoi (or indeed any performative) pattern is both a proximity diagram as well as an image metaphor. Patterns are abundantly esthetisized order. Patterns are also mediator of order and disorder. In particular they bridge or mark the difference.

However, the search for alternative patterns continued. As stated, the desired pattern would have to be somewhere in-between performative map and universal grid. The performance would lie in expressing the introduction of the anomaly and framing the result. After all, no structure or diagram is readable or experiential if there aren't any anomalies that go against its authority.

Cracks in the wall

From this idea of anomalies and (dis)order experiments were done with crack patterns on the seven walls. These patterns are potentially very experiential in the sense that we encounter them very often in our everyday life. They are equated with weathering, resistance and even decay.

Using the same underlying point-grid setup crack patterns were generated and evaluated for their esthetic appeal. An element was designed made of concrete with added fiber optics to make the cracks explicit. Multiple algorithms were reviewed that varied crack progression, distribution and imaging. This pattern category was ultimately abandoned though due to its literal nature and "un-architectural" appearance, i.e. the effect was too iconographic.

The crack pattern of Alberto Burri; Grande Cretto
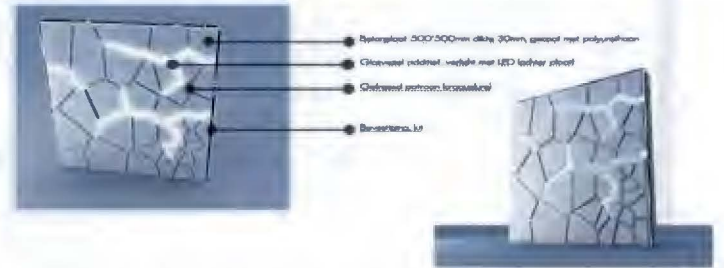
Attempt at designing a "cracked" building element out of concrete with an addition of fiber optics.

Crack patterns in natural phenomenon; dried paint on a telephone pole, cracked enamel

where $d(x,y)$ gives the distance between point x and point y. In our case, the distance in question is the cost of the shortest path through a graph. We interpret the boundaries between regions as cracks.

Our graph is a regular 4-connected lattice where each node is a texture pixel. We have a set of noise values $\{N\}$ such that each node i has a corresponding value N_i. The cost of an edge linking nodes i and j is

$$e_{ij} = \alpha \max(N_i, N_j) + \beta \qquad (1)$$

for some constants α, β. In practice, almost any positive, nonzero α and β will suffice. The larger the ratio α/β, the more random the crack network becomes – that is, the effect of using nonzero α is to cause the cracks to deviate from straight lines. In this paper, we consistently used $\alpha/\beta = 6$. The noise values are in the range $\{0,1\}$. See Fig. 2 for a depiction of the Voronoi diagram and our derived crack pattern after adding noise.

We achieve local control by making local adjustments to the edge weights, according to the information contained in a user-specified image I, the same size as the output crack texture:

$$e_{ij} = \alpha \max(N_i, N_j) + \beta + \gamma \max(I_i, I_j), \qquad (2)$$
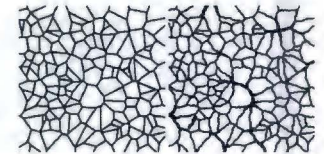
Figure 2: Comparison between the regular Voronoi diagram and the noise-Voronoi diagram.
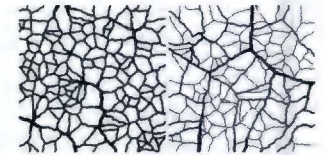
Figure 3: Basic cracking algorithm. Right, scattered sites; left, multiresolution site placement.
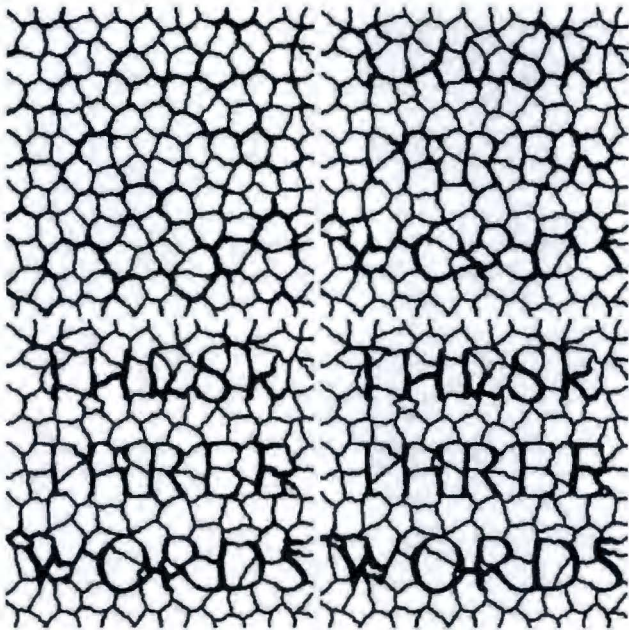
Figure 9: Words gradually emerging from the crack pattern.

It is possible to interpolate between crack patterns generated with different underlying images, say I^1 and I^2, by using two dynamic γ's: say

$$e_{ij} = \alpha \max(N_i, N_j) + \beta + \gamma_1 \max(I_i^1, I_j^1) + \gamma_2 \max(I_i^2, I_j^2),$$
(4)

Crack algorithms; crack progression and distribution, pages from a thesis on image guided fractures

Delauney triangulation

Finally a choice was made for another mathematical pattern named Delauney triangulation. Just like with voronoi this is an optimization pattern. In a field of points the optimum connections are sought that require the shortest members and also retain the triangular nature as much as possible. With its optimum triangles it is also vaguely linked to common constructional principles.

It is however just linked to construction, an influence, not a construction in itself, a hostile take-over. The Delauney solution is a (re)constructive agent. It is capable of mending suboptimal circumstances. It gives the whole structure the ability to get back into shape.
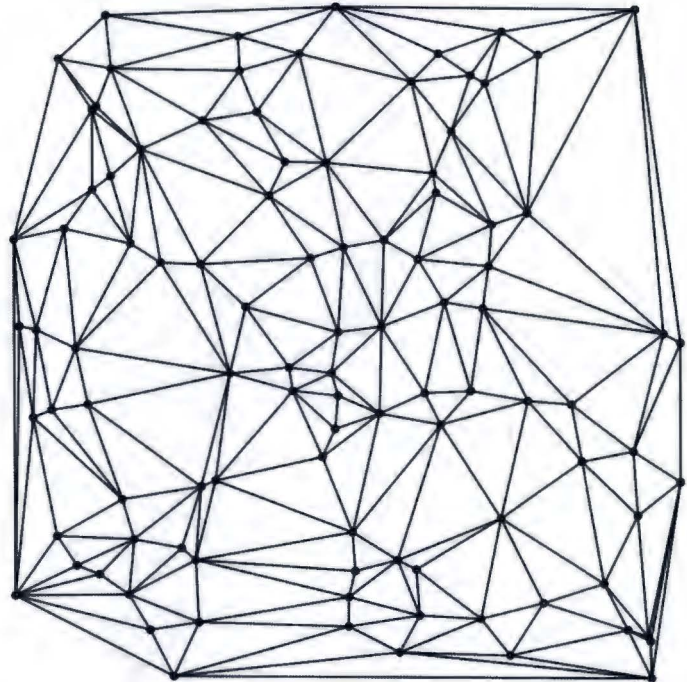
Delauney triangulation, the chosen pattern solution (source: Wikimedia)
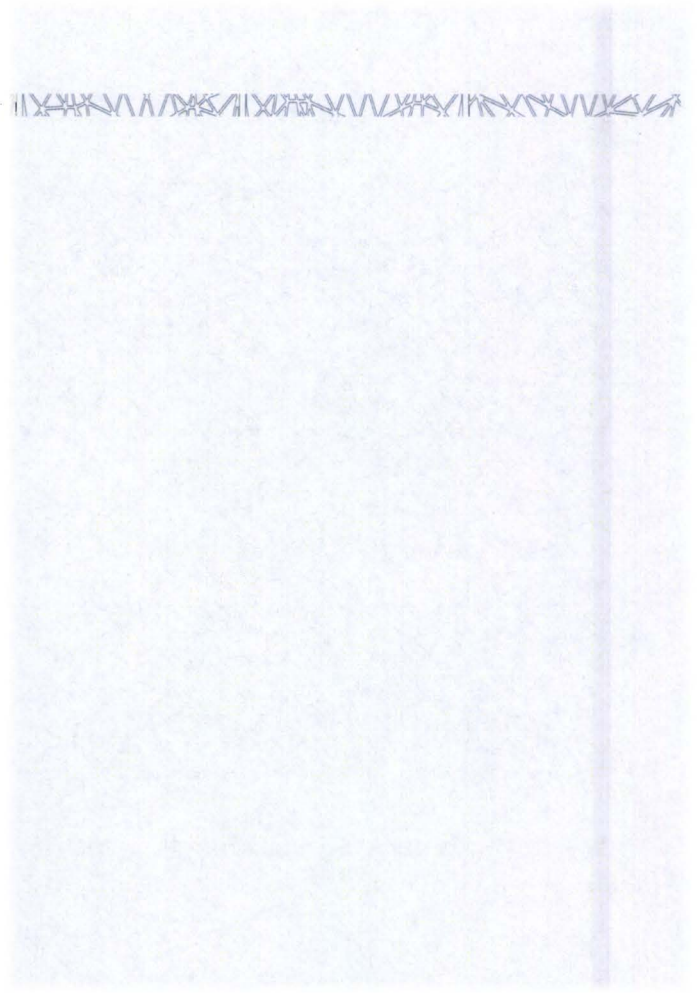
3. PLAN OVERVIEW

"Caught in the trap of life, man is moved by a field of attraction determined by a flash point where solid forms are destroyed, where the various objects that constitute the world are consumed as in a furnace of light." George Bataille, from the essay 'The Cruelty of Art'

Introduction

The design is represented by many different media, from diagrams and scripts to floor plans, to sections and detailing and finally renderings. The media form the ordering of the plan and its particular traits.

The scripts are started with because they were the generators of the plan, of the design. It is important to know how they work. The actual script files aren't placed here in the main text as they are not that readable. They are available in the appendix. What is shown are the resulting volumes or pattern via screen captures.

After that the floor plans are presented in sequential order. These are without comments, as the spaces will be explained later on with the aid of renderings. In the renderings chapter it is advised to go back and forth to the floor plans to figure out the spatial buildup.

Technical information of the building is represented by sections and details. Material selection is also elaborated on. Finally renderings are given, of the exterior and interior respectively. Façade are put in the appendix.

3.1 *Scripts*

The scripts that were used to design the main structure can be put into two categories. The first category is that of the volumes of the boulevard. The second is the pattern on the wall that responds to the penetrating volumes.
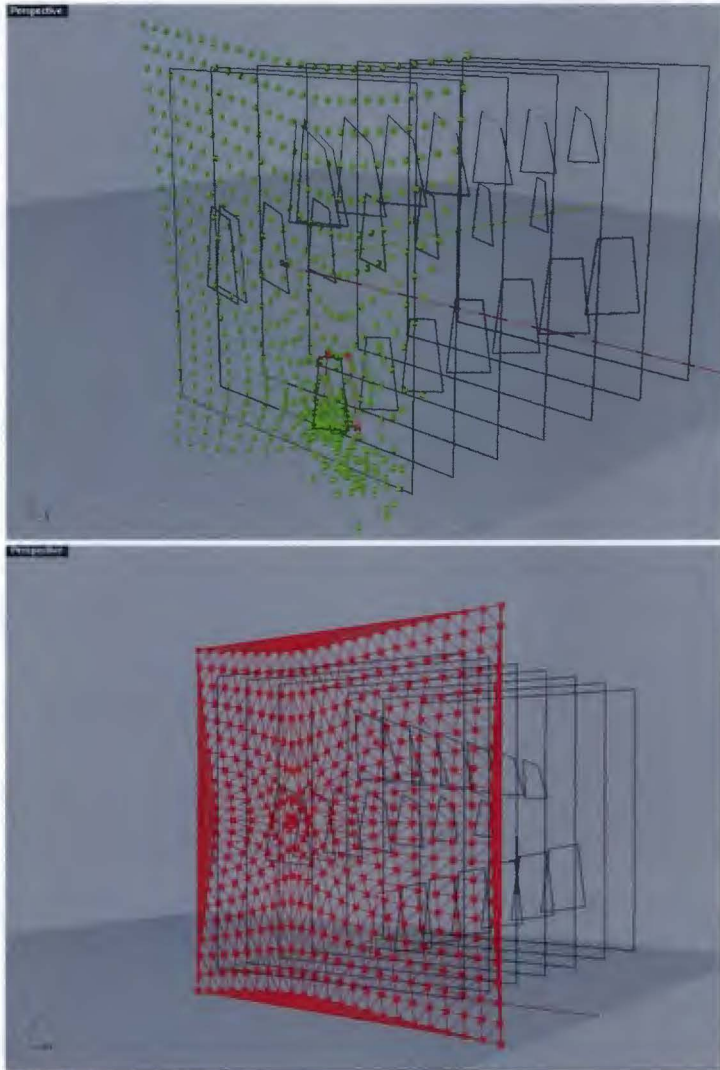
de depth dependency can be linear, logarithmic or exponential. Exponential means that the scaling is more dramatic the further away the wall is. With these controls the boulevards become landscapes.

The first boulevard is linear and scaled by a factor of 2.3 and it is then beamed upward. The second is logarithmic and bend inward and upward, along a curve. The third becomes smaller and bends inward and downwards along a less acute angle. All shapes stay parallel to their own projections, which means that no double curved surfaces are creates, even though the boulevards look very bent and curved.

Generated volumes

Generated volumes

Above we see the generated volumes of the boulevards; they are beamed through the walls.

Each volume is made up of a projected shape. De shapes always remain changeable; corners can be moved, as can the whole shape. The shapes are projected onto the walls using one of the scripts above. They then can be bent left, right, up or down. The shape can also be scaled dependent on the depth. This scaling is done by a formula. By introducing an exponential component,
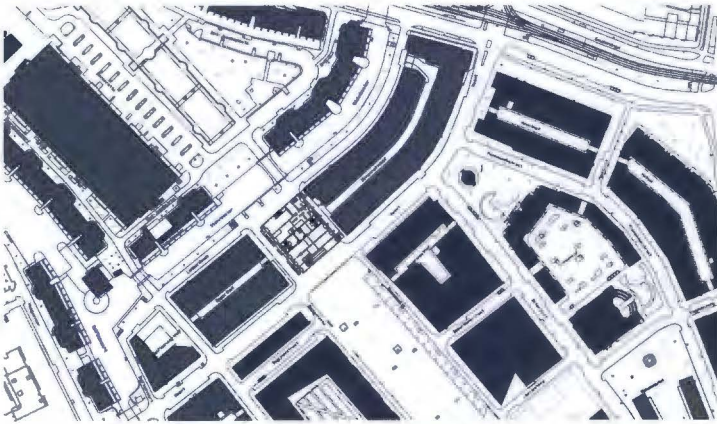
Grid pattern

a longer distance means less effect. Isolines appear in the grid. Falloff is controlled, as is the overall pulling strength.

The addition of three of these pulling forces renders the resulting grid pattern, which is then used as an underlayment for the actual Delauney geometry of the building (see last image). Different densities of the grid are tried, as are different pulling forces, different holes, different fall-offs etc. All of this in the end to get the desired result of the mediating pattern.

Grid pattern

The responsive grid is the second step in making the complex geometry. Per wall attraction values are set with numeric sliders; each hole in the wall has its own pull dependent on its size and location. The grid points move towards the holes and "disappear" into them. This is done with vector dynamics; meaning that the distance of a grid point to the attractor point is calculated and discounted into a translation vector which moves the grid point towards the point based on the distance;

3.2 Floor plans

In this paragraph the floorplans are given. Below is an site drawing that shows how the building is placed in its surroundings. The rectangular perimeter of the building "finishes" the elongated city block on the east side of its plot. In between a small street still connects the front to the back. This street can be used for loading and unloading goods. Another detail is the fact that the middle section of the building lines up with the inner streets of the adjacent blocks. The axial integration is of course most prominent.

Site, scale 1 : 1000 (north is straight up)

back entrance

escalators

counter

multipurpose hall

grocery store

jazzcafe

exit

night store

back office

laundy
shute

laundy

trash

side entrance

personel entrance

trash
shute

technical

lunchroom

loading area &storage

bakery

kitchen

bicycle racks

counter

main entrance

travelators

GROUND FLOOR (SCALE 1 : 300)

library

communal living room

kiosk

staffroom

administration

reception

winebar

lobby

coffee

flowerstand

FIRST FLOOR

SECOND FLOOR
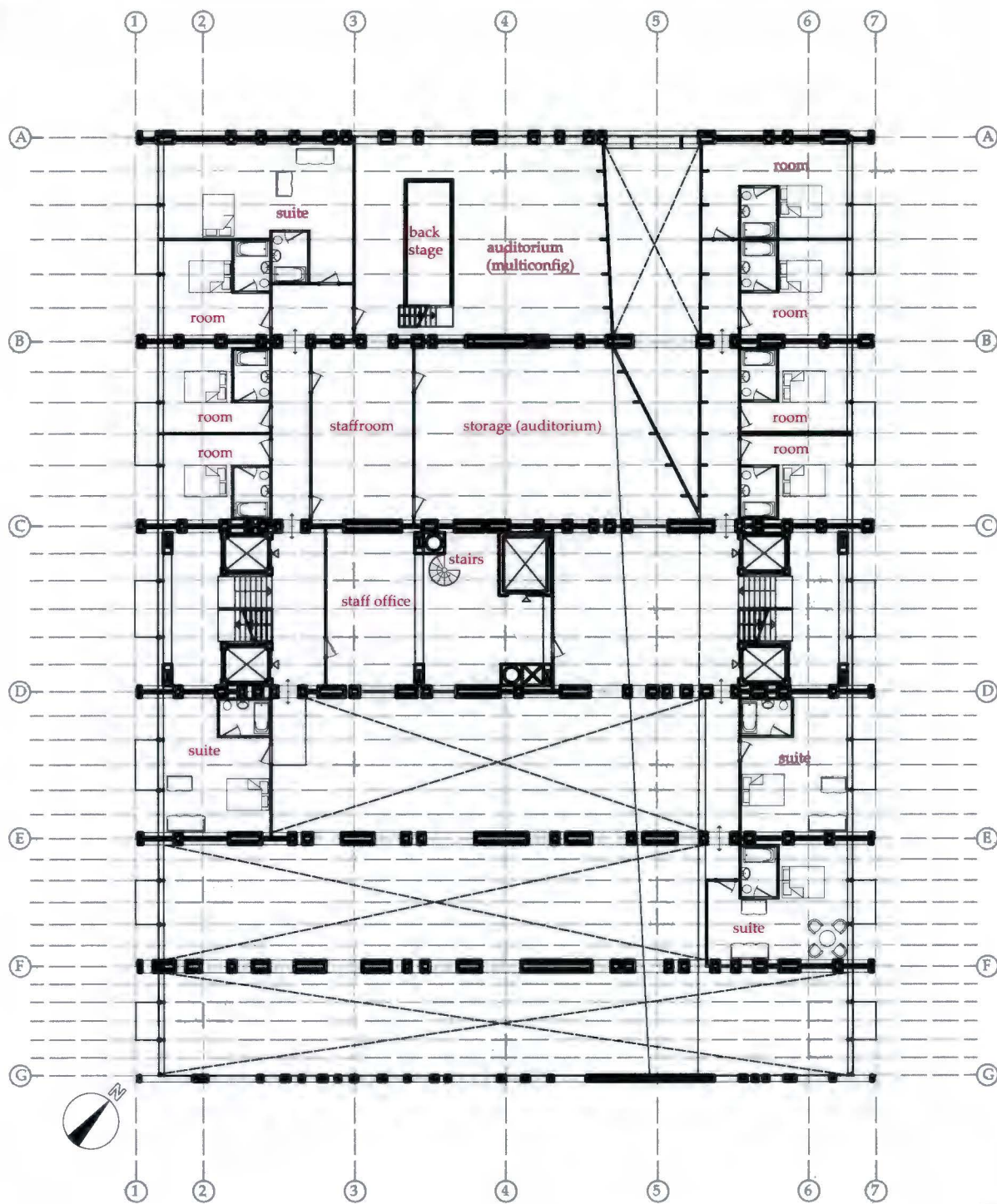
THIRD FLOOR

FOURTH FLOOR

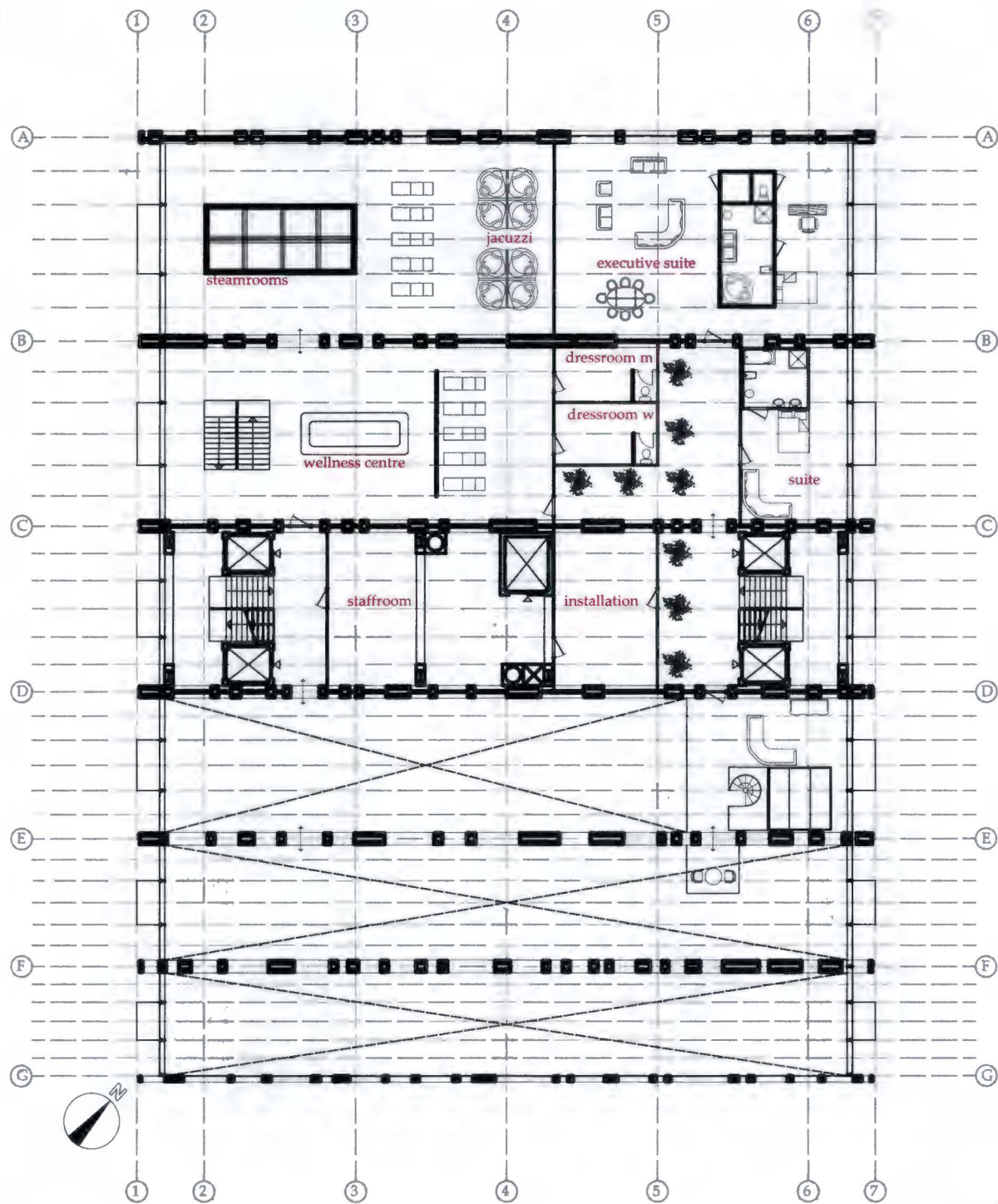Grid labels — columns: 1, 2, 3, 4, 5, 6, 7 (top and bottom)
Rows: A, B, C, D, E, F, G (left and right)

office
office
office
office
office
office

auditorium

suite
suite
room
room

storage

stairs
staffroom
staffroom
staffroom

meeting
meeting
meeting

room
room

bar
lounge
suite

swimming pool construction

screen two

projection room

meeting

backroom

room

room

staffroom

storage

room

room

meeting

backroom

room

room

room

meeting

room

room

FIFTH FLOOR

swimmingpool

short stay

room

showers

room

room

dressingrooms

women   men

kitchen   buffet area

bar

restaurant   room

room

restaurant private

SIXTH FLOOR

short stay

lounge

suite

fitness

kitchen supply

brides suite

SEVENTH FLOOR

steamrooms

jacuzzi

executive suite

dressroom m

dressroom w

wellness centre

suite

staffroom

installation

EIGHT FLOOR

3.3 Material & Sections

3.3.1 Materials

Steel frame

The generated wall-patterns are made of steel members, in this case tubular. This type of steel is capable of great strength. This strength is required for the nine floors that span the 25 meters wide tunnel below ground. Tubular steel has the added advantage of being capable of absorbing the occasional moment-force that is introduced when floors don't line up with the knots of the pattern.

The whole construction is cantilevered 5 meters over the support bearing foundation. This also means that the bulk of the weight, the hotel rooms is perpendicular to the support. Only in the middle, where the larger spaces of the auxiliary functions are situated does the steel have to perform to its maximum abilities. Steel members run up to a maximum section width of 300mm. Low load-bearing members can be reduced to a mere 120mm section width. The members of steel are allowed to grow within comfortably enclosing foam, whenever required.

Steel frame from Prada store; Architects Herzog and the Meuron (source: scan from book Prada Aoyama Tokyo)

Foam

A material was required that was indifferent to inside or outside use. The most important material of the whole building is foam. Foam made from bubbles; from spheres. Expanded polystyrene foam, reinforced with fiber optics is used to clad the patterned steel structure. The depth of the extrusion makes the underlying construction appear. It becomes visible; it is called to action, on the plane.

One has to keep in mind that the construction has to be wrapped for fire proofing anyway, so cladding is inevitable. Also the steel members in themselves are too thin to render the desired inside-outside relationship; i.e. more "mass" is needed. Therefore this intervention is legitimate I feel. The foam cladding is made in the form of cast and/or extruded man-carry-able pieces. The knots are individual custom-made pieces, preferably using a variable reusable mold. The pieces in-between can be serial and standardized.


Examples of foam material; sculptures and façade element of Brede school de matrix; architect Marlies Rohmer

Infra plus floor

For the floors a weight reduction was sought. This was found in the shape of infra-plus floors. These are floors consisting of perforated IPE-profiles spaced 1200mm apart with a 50mm concrete slab underneath and a top-floor of usually gypsum on top. The system is also used at Kraanspoor by architect Trude Hooijkaas of OTH to reduce weight on a constrained location; an old

weakened dock construction.

riolering
water
verwarming
electra
telecommunicatie
ventilatie

×
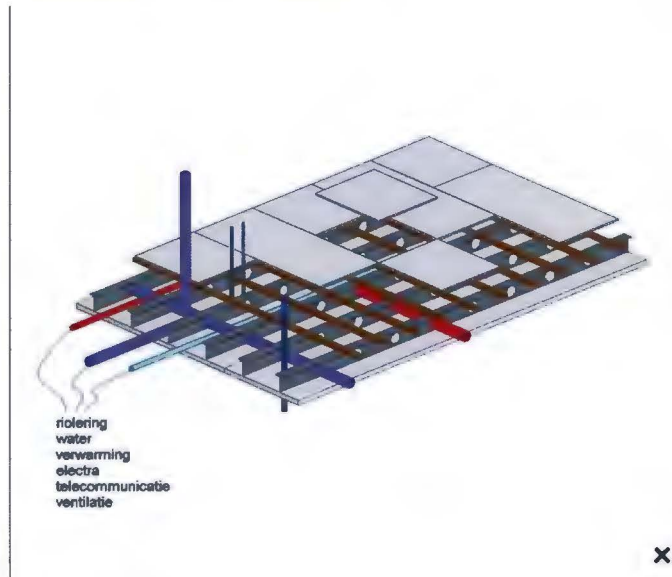
Infra plus floor

Aerated autoclaved concrete
The walls in-between the steel structure are filled with aerated autoclaved concrete. It is a sort of "foamy" concrete with a much lower weight than regular concrete (about 400 kg/m³ instead of 2400 kg/m³) and excellent isolating properties. It also has the added advantage of being easily workable on site. The blocks can be cut with simple tools. With the irregular openings of the pattern structure this is very important.

Aerated concrete

Glass
Maximum containing square for a glass pane is 4000 by 2400 mm. This is then also the limit of the triangular panes on the façade. Structural glass is used for the interior boulevards. A reference of such a construction of "lamellas" can be seen below.

Reference structural glass; Apple headquarters entrance (source: Wikimedia)

3.3.2 Sections & Details

Concept detailing

For the detailing it is important to state that there are two orders or systems in the building. The first system is that of the main structure; the dynamic generative pattern that creates the inside-outside relationship. The materials for this system, steel and foam, have to follow and respect the underlying structure as much as possible; they have to follow the lines.

In-between are the usable floor areas; they form the second order or system. This has to be neutral in appearance and detailing. They are part of an "observant layer". After all, the spatial make-up is already determined by the first order. This can be put even more strongly. Namely, if the second order would follow the first, the order of the first would be diluted. The first order is and has to remain autonomous. The building is simply designed that way.

System one is far too erratic to follow up to the level of most inert building elements. System two is far two neutral and inert to be allowed to be present and assert itself. It is therefore chosen to make a break; to make the two discrete and distinct.
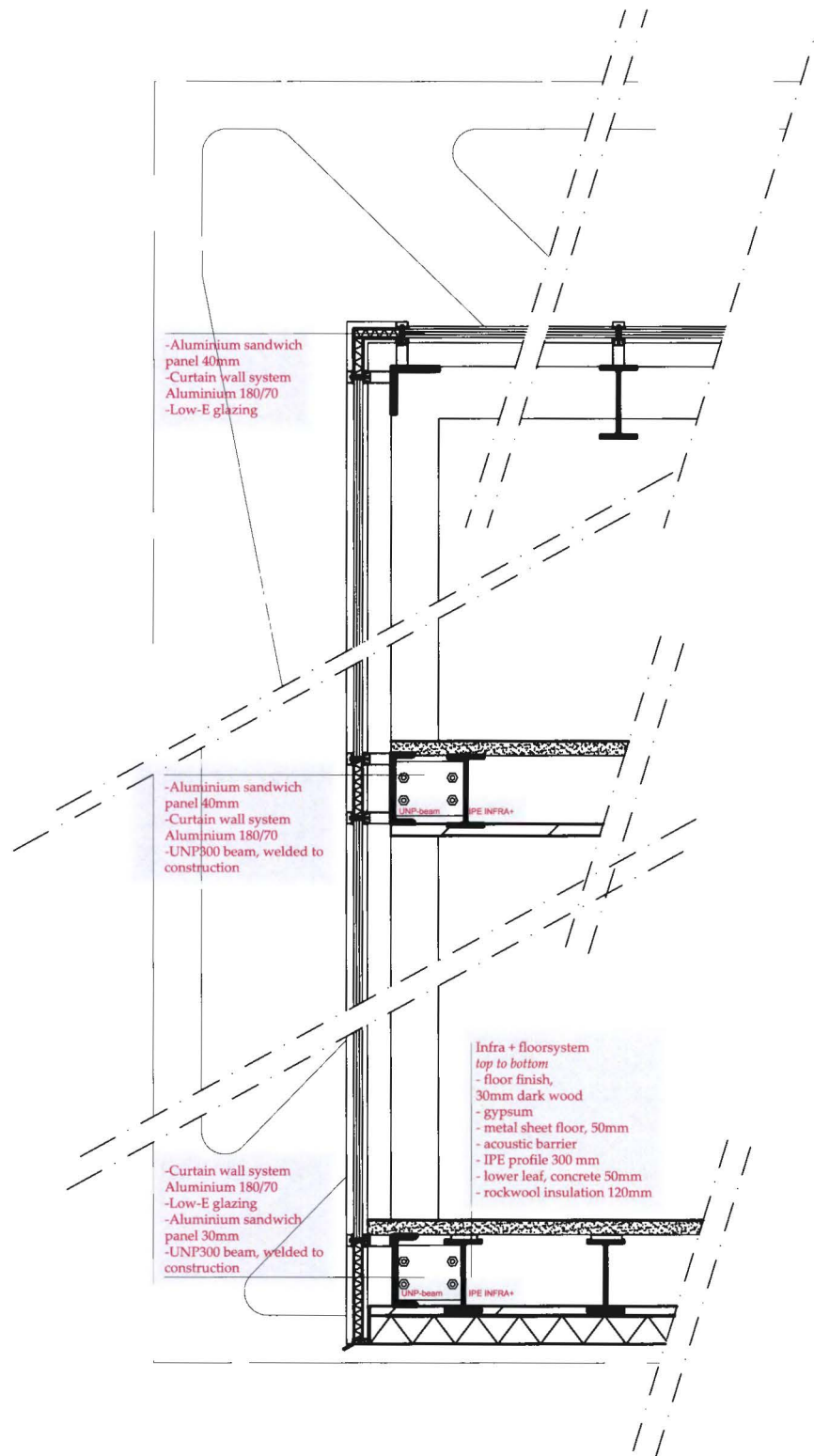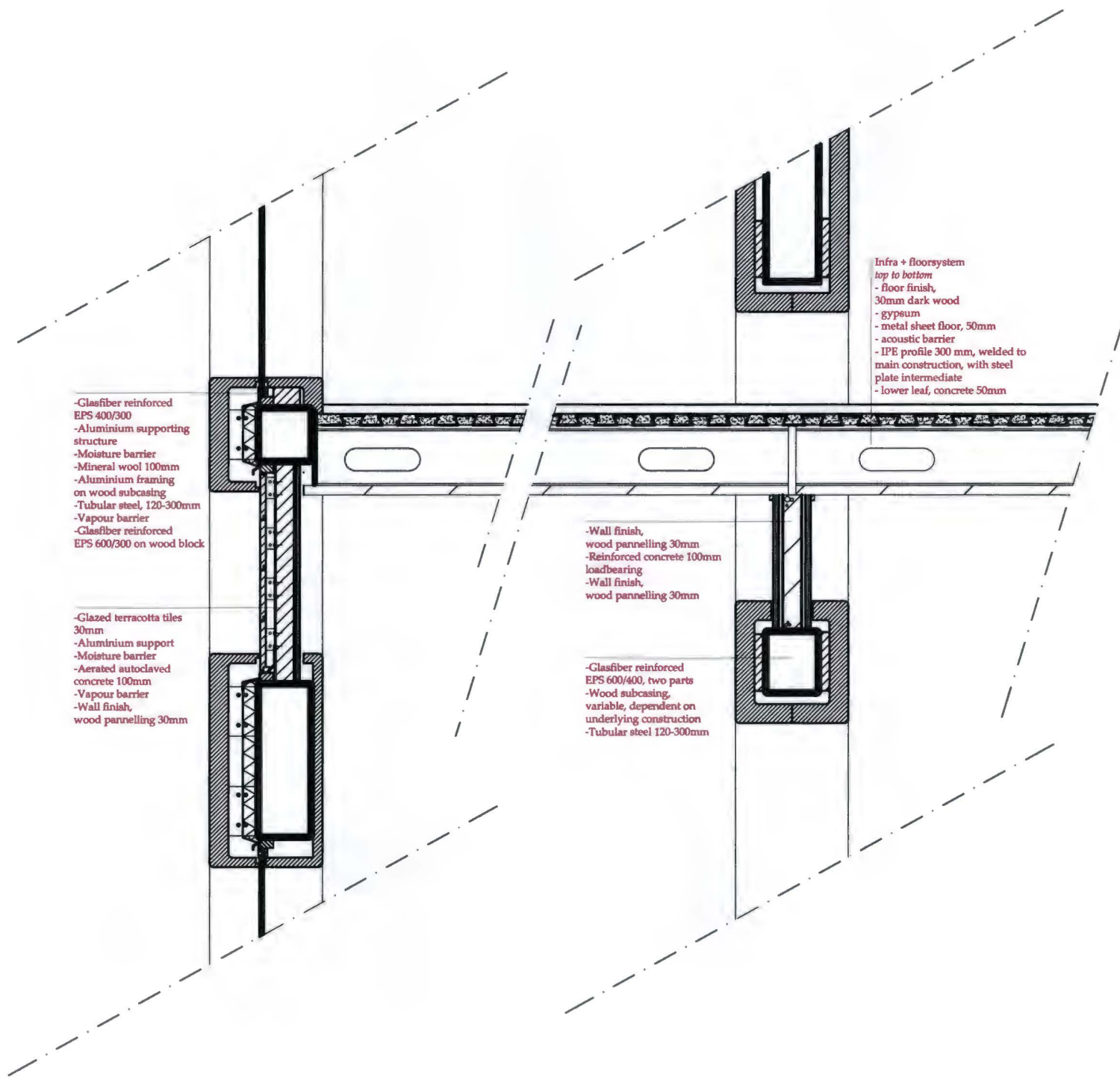

Rendered Longitudinal Section

Detail 3

Detail 2

Detail 1

restaurant

family room

room

meeting

staff

room

meeting

party lounge

room

room

room

coffee bar

lobby

winery

bakery

kitchen

bikes

34400 + P

33600 + P

21600 + P

18000 + P

14400 + P

11200 + P

8000 + P

3200 + P

P = 0

mv 800 - P

CROSS SECTION scale 1 : 200

jacuzzi   spa/wellness   staff

fitness   staff

Detail 4   pool area   dressing   toilets   restaurant   Detail 5   restaurant

boulevard congress

backstage   staff   storage

staff

back entrance

library/communal   toilets   reception   lobby   entrance

cafe   laundry   lunchroom   bakery

Levels:
34400 + P
33600 + P
29600 + P
26600 + P
22000 + P
13100 + P
11200 + P
8000 + P
3200 + P
2300 + P
P = 0
mv 600 - P

G   F   E   D   C   B   A
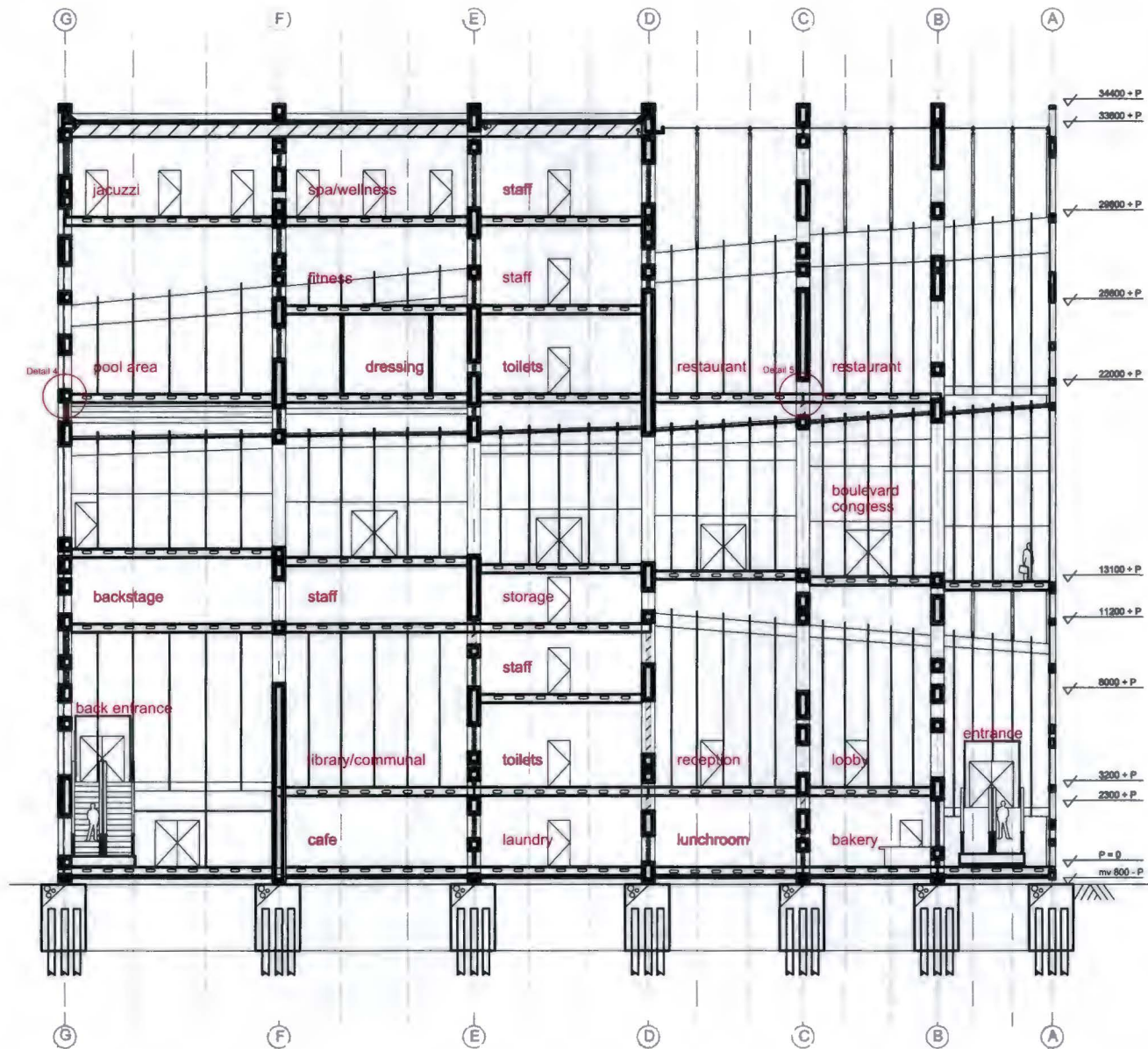
LONGITUDINAL SECTION scale 1 : 300

-Aluminium sandwich panel 40mm
-Curtain wall system Aluminium 180/70
-Low-E glazing

-Aluminium sandwich panel 40mm
-Curtain wall system Aluminium 180/70
-UNP300 beam, welded to construction

UNP-beam   IPE INFRA+

Infra + floorsystem
top to bottom
- floor finish, 30mm dark wood
- gypsum
- metal sheet floor, 50mm
- acoustic barrier
- IPE profile 300 mm
- lower leaf, concrete 50mm
- rockwool insulation 120mm

-Curtain wall system Aluminium 180/70
-Low-E glazing
-Aluminium sandwich panel 30mm
-UNP300 beam, welded to construction

UNP-beam   IPE INFRA+

DETAIL 1, 2 & 3 scale 1 : 20

-Glasfiber reinforced
EPS 400/300
-Aluminium supporting
structure
-Moisture barrier
-Mineral wool 100mm
-Aluminium framing
on wood subcasing
-Tubular steel, 120-300mm
-Vapour barrier
-Glasfiber reinforced
EPS 600/300 on wood block

-Glazed terracotta tiles
30mm
-Aluminium support
-Moisture barrier
-Aerated autoclaved
concrete 100mm
-Vapour barrier
-Wall finish,
wood pannelling 30mm

Infra + floorsystem
top to bottom
- floor finish,
30mm dark wood
- gypsum
- metal sheet floor, 50mm
- acoustic barrier
- IPE profile 300 mm, welded to
main construction, with steel
plate intermediate
- lower leaf, concrete 50mm

-Wall finish,
wood pannelling 30mm
-Reinforced concrete 100mm
loadbearing
-Wall finish,
wood pannelling 30mm

-Glasfiber reinforced
EPS 600/400, two parts
-Wood subcasing,
variable, dependent on
underlying construction
-Tubular steel 120-300mm

DETAIL 4 & 5

3.4 Images

3.4.1 Sculpture

Throughout the project there has always remained some concern about whether the setup for the design, with its wayward idiosyncratic structure, would ever be realized to its full potential if it also has to serve as a functional building.

It is almost a shame to have all these layers with depth and countless different viewpoints to then fill them up with simple rooms and building blocks. A lot of the dynamic could possibly be lost. Now, in my view this is not so bad, because much of this dynamic will still remain. And it is also questionable if the structure packing its full blown affect would even be suitable for its function; whether that wouldn't be just a little too much to handle for the average unsuspecting hotel guest. In this respect filling it up with useable spaces is the right counter measure to tone things down; to attenuate the unilateral architectural gesture to acceptable levels.

However from these concerns above a new idea sprung to mind. The idea is to let the structure exist on its own for a while, to let it be fully autonomous for let's say half a year to a full year; a self-generated and then exploited exploitation risk. Then it can be viewed in its naked truth and its odd nature can slowly become part of the city fabric; an acceptance period so to speak. It can even be revealed like an artwork in a special ceremony. In fact it is the desire of the local and the municipality to realize a public artwork on the Binnenrotte anyway. There is a budget of a million euro's available. The sculpture would have to express the heart and spirit of Rotterdam, or so the brief for the commission states.

The budget could easily be used to allow for the bear steel pattern structure to be left exposed and "unexploited" for the intended period of at least half a year. During this period exhibitions could be organized in and around it. Is this really such a far-fetched idea? Any sculpture only has a short life in the public eye anyway. After that it is usually quickly forgotten; gathering dust and bird droppings. In terms of the economic exploitation model it could even be compared to making a structure for a world exhibition; they are always temporary follies that exist for the moment.

Besides, the sculpture would always remain. After its immaculate period it is simply put to use; a new phase. A phase that still makes use of its underlying structural and sculptural qualities.
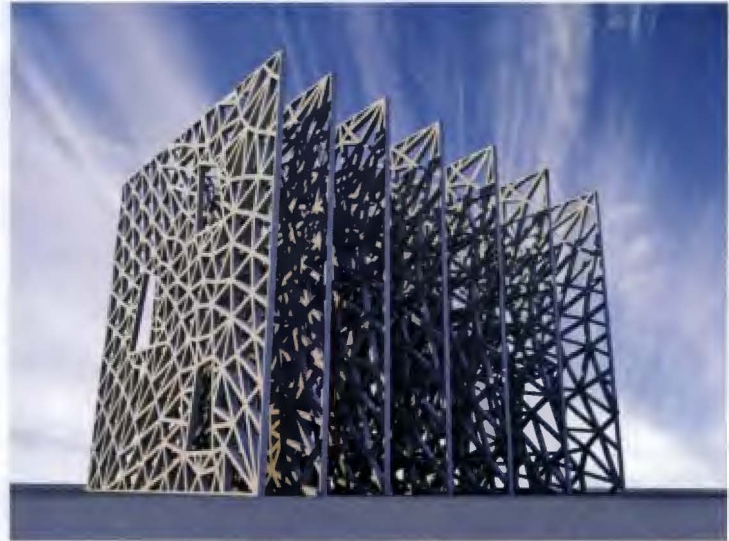
Half year sculpture phase of the steel structure,, rendering side view
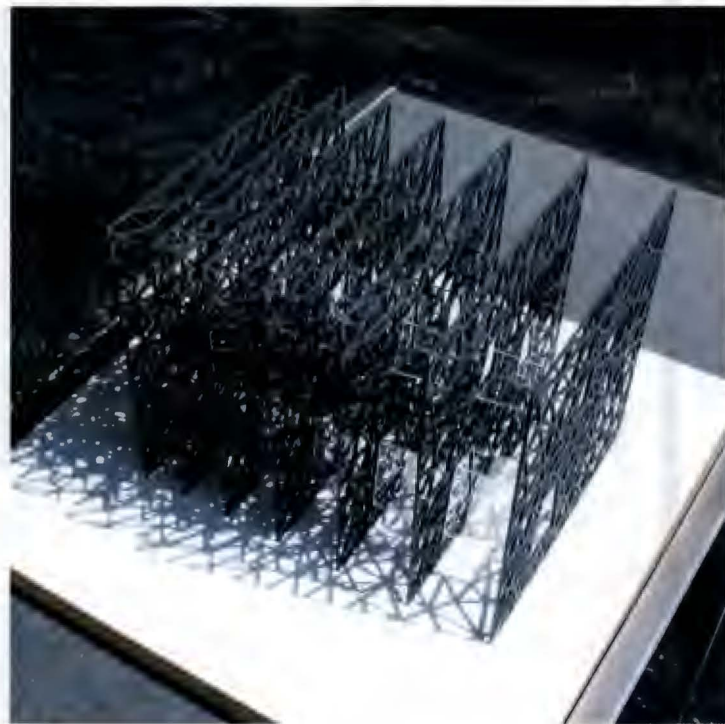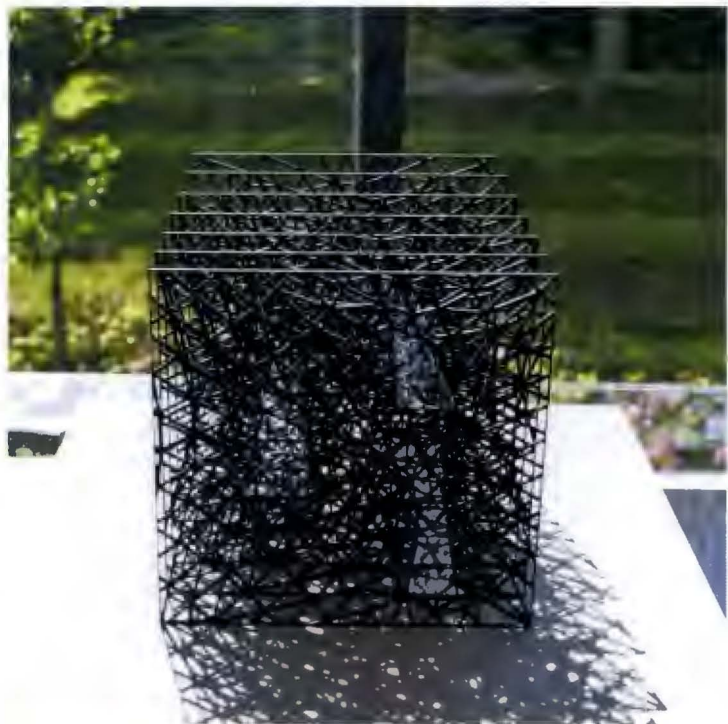
Half year sculpture phase of the steel structure
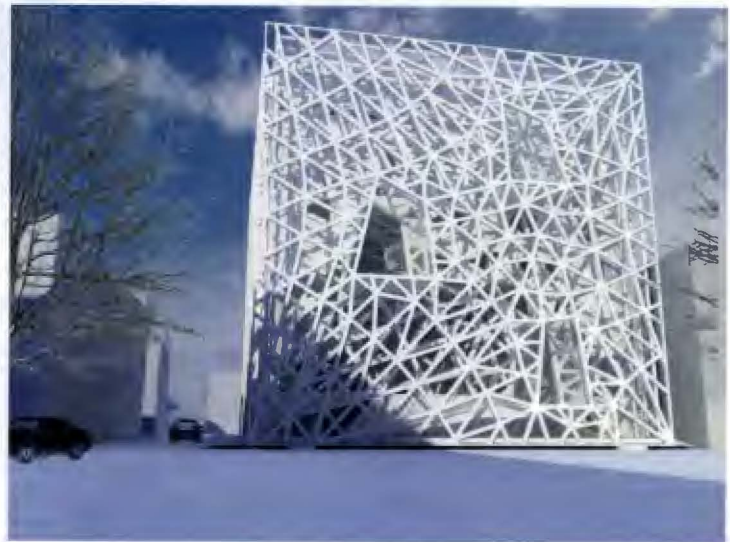
3.4.2 Exterior

The exterior renderings speak for themselves. The building is caught from many angles. Most pictures focus on the relationship to the large open area of the Binnenrotte. After all, this is the centre of gravity of the building.

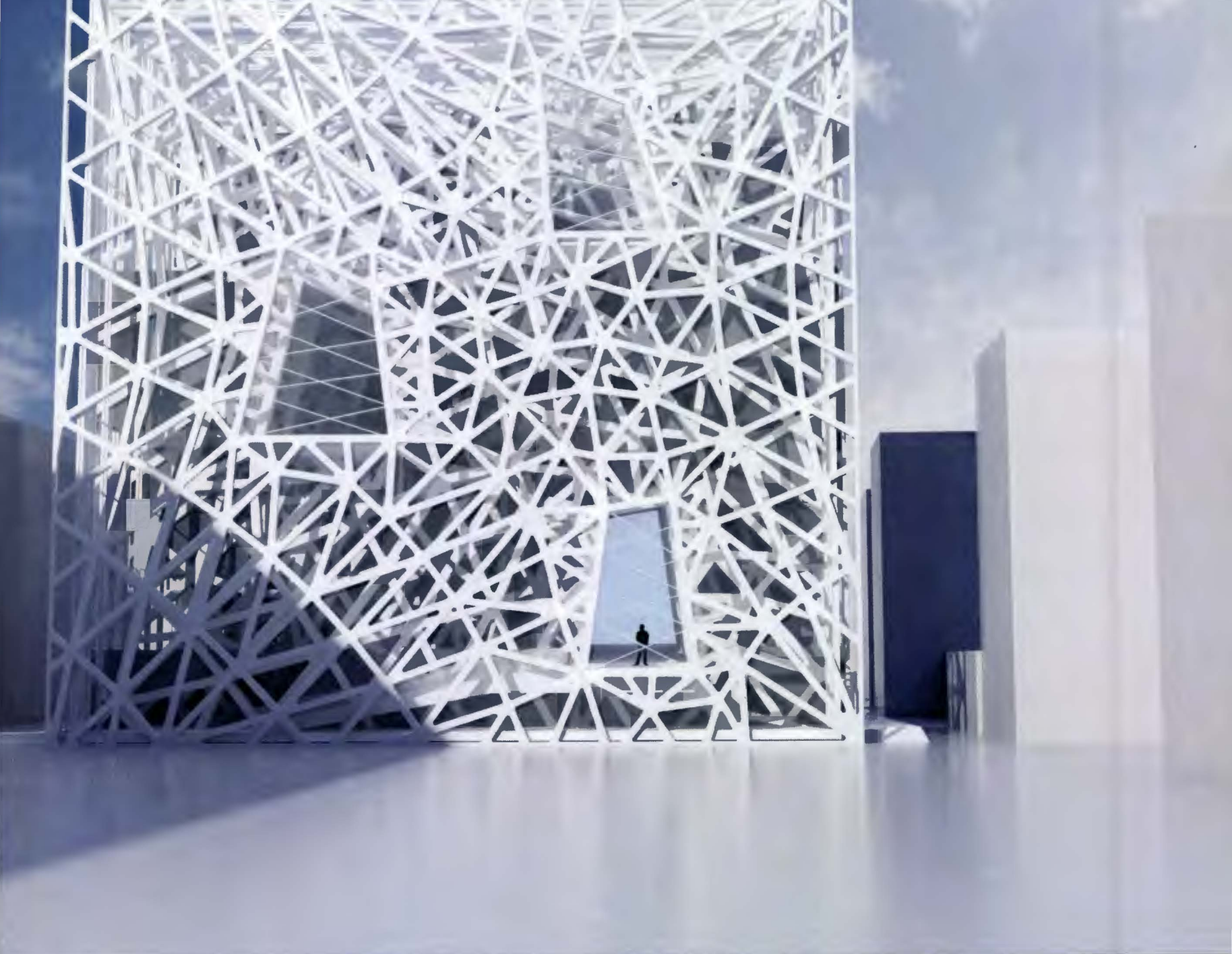Urban setting

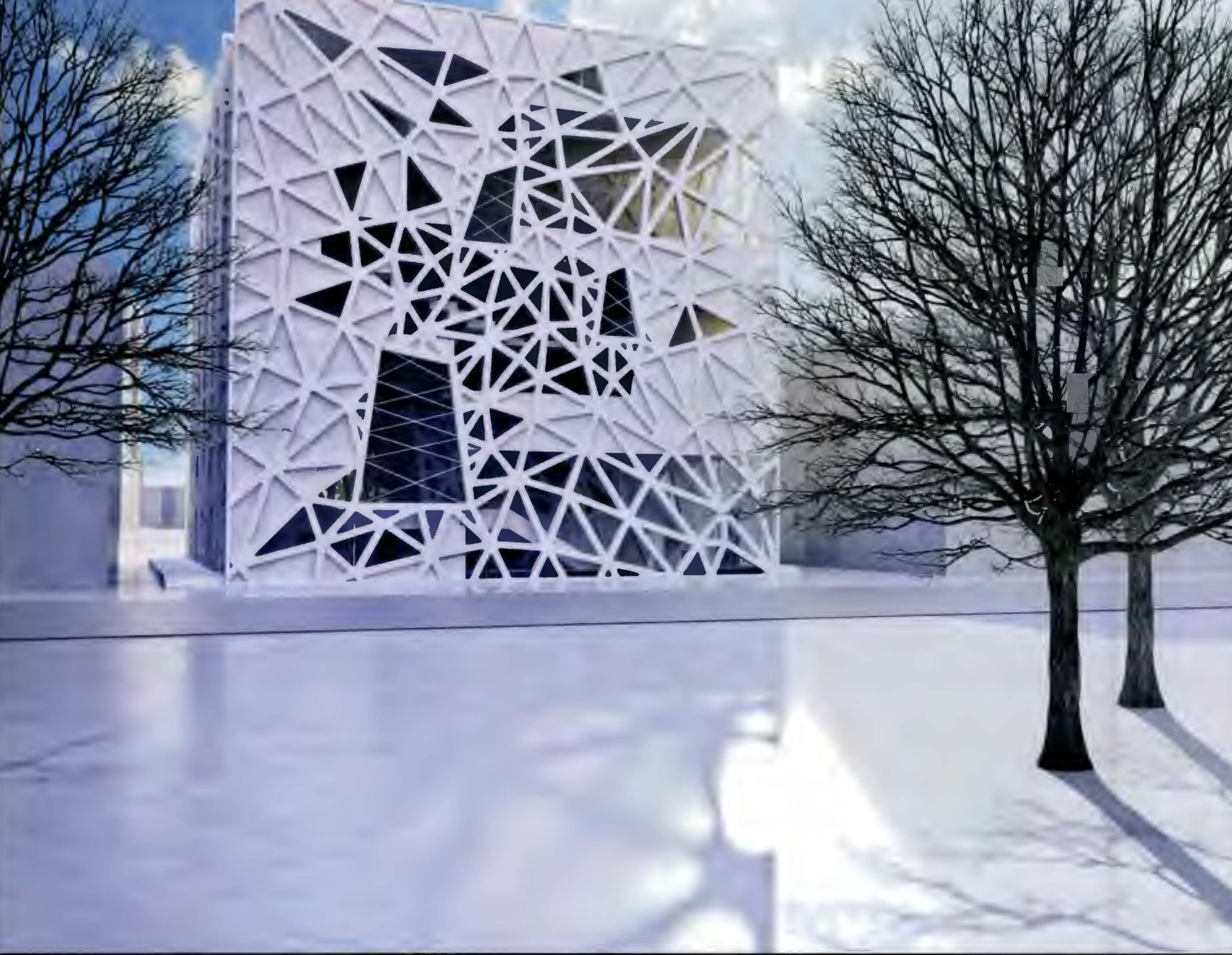Back façade and placement on axis

Front façade

IMAGES ON THE NEXT PAGES

1. Front façade from "De Meent" road

2. Front view, "anamorphosis"

3. Back façade, boulevard in distance

4. Back façade from park

Model, scale 1 : 100, overview
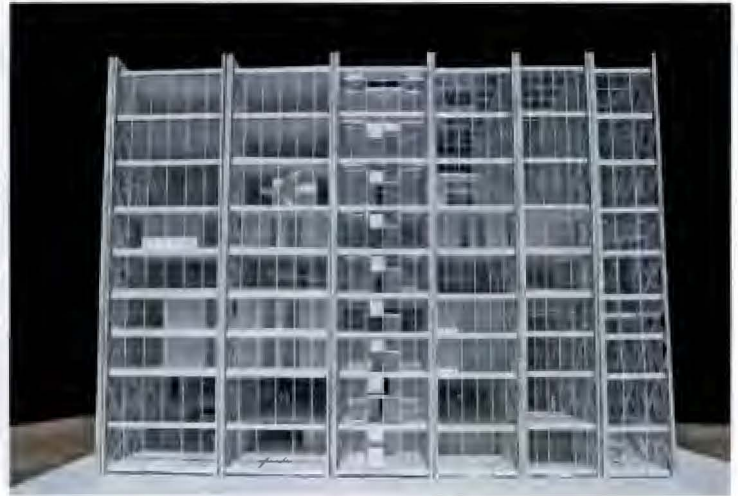
West facade

Scale model, west façade
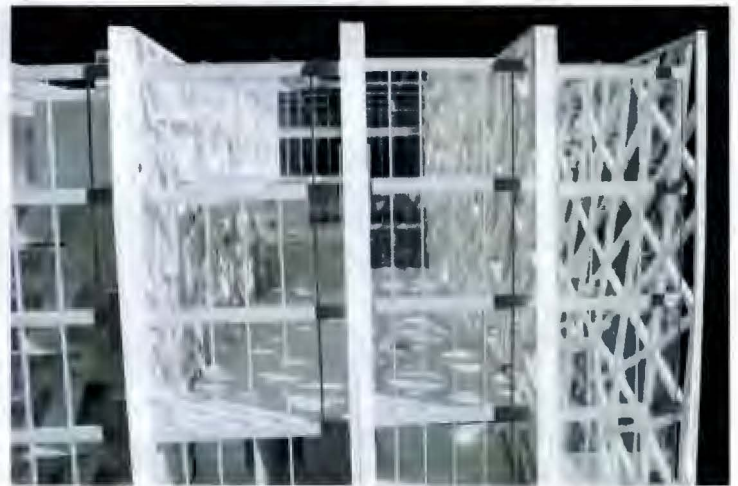
Restaurant in the top
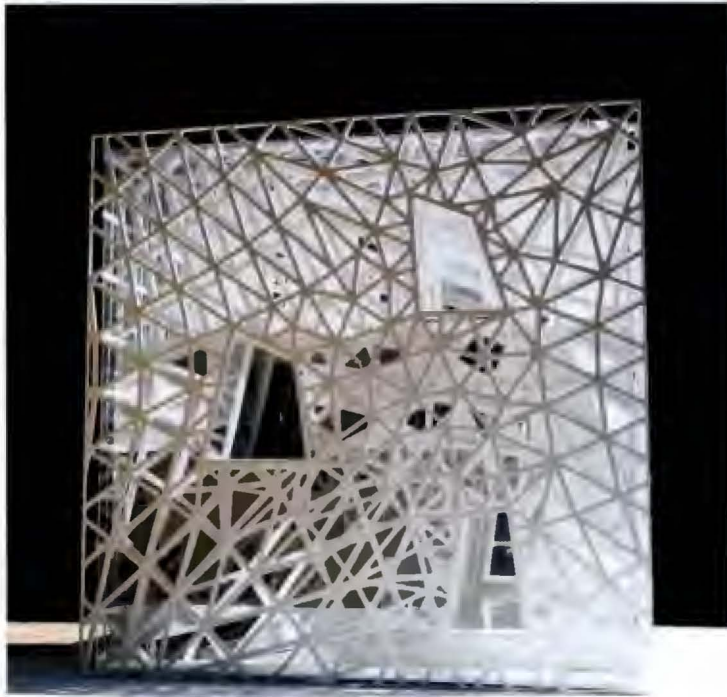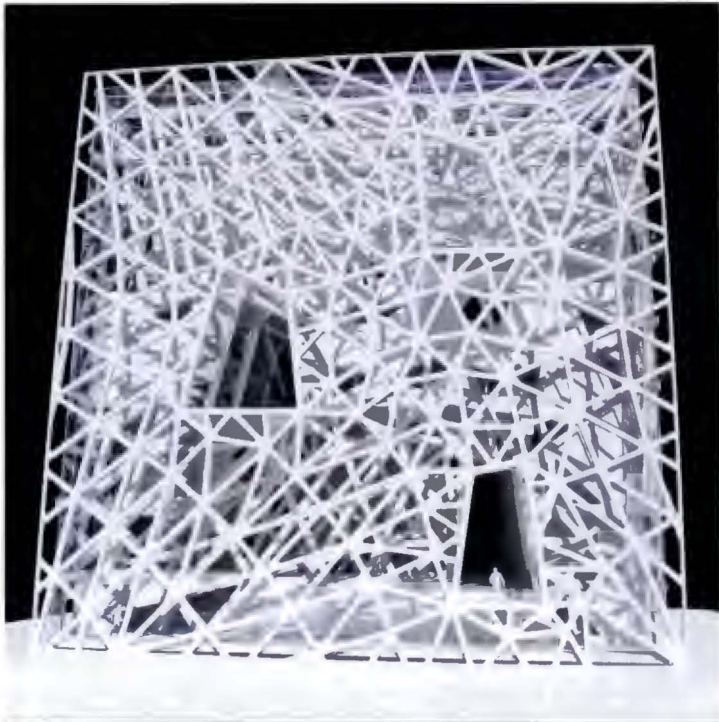
Model, "framing", notice the scale of the figure caught in the frame of the first boulevard
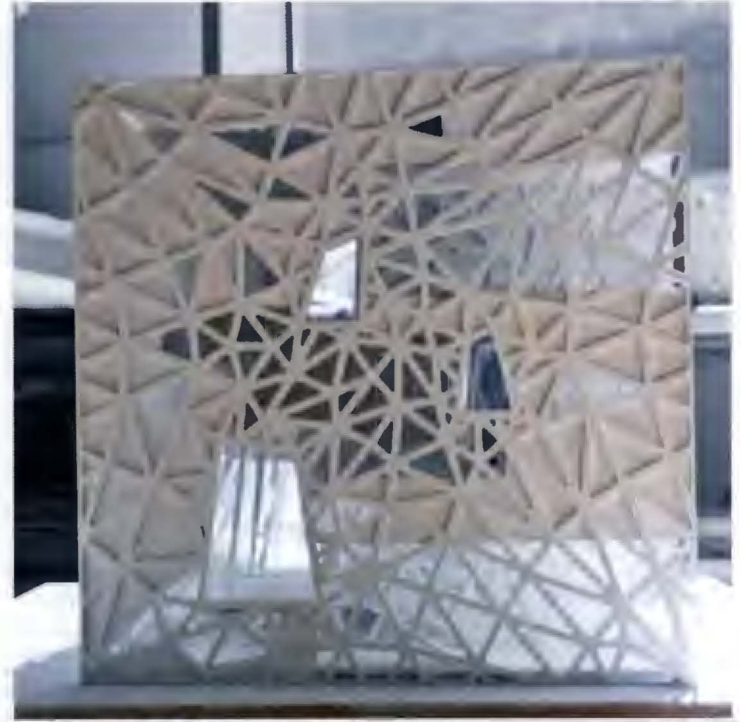
Scale model, back view close-up

3.4.3 Interior

Some renderings of the interior are presented. After that, descriptions of all the rooms are given from the entrance up to the restaurant on top.

Entrance
The entrance is not in the façade of the building. It is parallel to the main road (De Meent) and perpendicular to the Binnenrotte. As one approaches it is necessary to look around a bit; search for an opening at ground level. In between the first two pattern walls one enters. A hotel usher lets you in. Immediately a travelator then takes you up to the first of three interior boulevards situated on the first floor. From here one can enter the lobby.

Lobby and reception seen through a window

Entrance with travelator

Lobby
The lobby is a sort of *piano nobile*. Already a wide panorama of the Binnenrotte is possible. Views are framed by the first two layers of the pattern structure. As one traverses another layer, being absorbed by the building, the reception presents itself. After checking in one is directed to one of two vertical rise points that work with acces cards.

Public Boulevard

The boulevard, which is completely public, leads all the way to the back where it is possible to go down again with escalators. It is also possible to go back down again to the front side with a parallel travelator that goes down. Benches are places in the middle of the boulevard so all the visitors can take a rest and enjoy the dynamic play of the building. Public art can be exhibited in between because the space is fully conditioned and also easily monitored and secured by the hotel employees, since both exits are controlled.
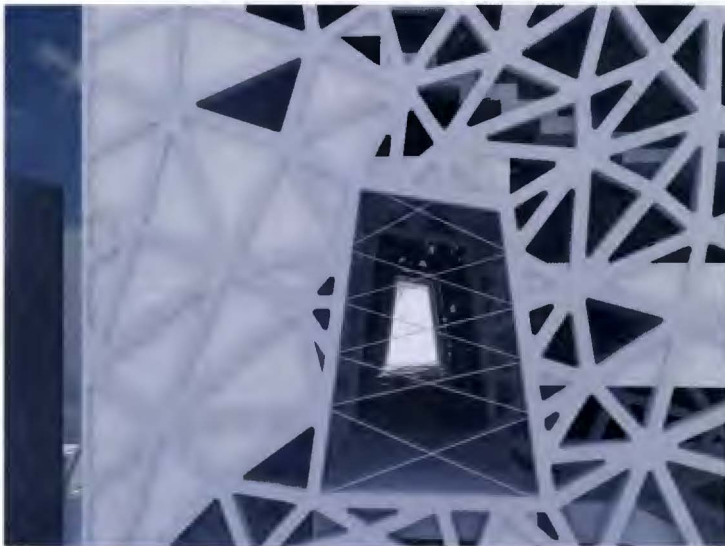
Public Boulevard

Shops

Alongside the public boulevard some small shops are integrated. They are targeted to the passing tourist and visitors to the hotel. When meeting someone there, it is possible to pick up some flowers a bottle of good wine or a magazine. These can also be taken into the lobby.
At ground level near the back entrance, a small grocery shop is integrated for convenience. This could be an AH-togo or other travel supermarket concept. It is only accessible from the back hallway. It doesn't have a street connection.

Lunchroom

On the west of the building, if one doesn't go up, is a sequence of hotel related functions. The first of there is a bakery that is connected to a lunchroom and also to the upstairs lobby. The smell of freshly baked product can travel up into the building, especially during breakfast time. During the day it is possible to get things like sandwiches or cakes.
A little further on a jazz cafe is situated on ground level. It opens to street level and the multifunctional hall in the back of the building. When the doors are open, music can travel up to the public boulevard.

Lunchroom and bakery below the lobby

Reading room

At the back of the public boulevard a communal reading room is situated. It is quieter than the lobby. Here one can read or relax on large sofa's. This space is not accessible from the boulevard. The entrance to this room is on the other side and only accessible after passing the reception. It is not a public room, but for guests only. Only a visible relationship with the passing public is allowed.
When moving close to the large glass windows on the west and north side, it is possible to look into the jazz cafe and the back hall.

Reading room

Rise points

The two rise points spoken of earlier consist of two open glass elevators with straight straircases in between. Being the main staircases in the building they are dimensioned and detailed to be more than just emergency stairs.

As one ascends the pattern shifts around; it moves also. One can also see the pattern continuing into the adjacent rooms and far into the building. After being abstracted from the tight hold of the pattern, one is reintroduced to the dynamic when going towards the public functions. Simple sometimes narrow hallways without doors, like a ship, lead to the rooms.

Rise points with far views

Rooms

The rooms come in different sizes. Thirty of them are standard economy rooms. Fifteen are plus sized rooms ranging in features. Five are special rooms, namely the bride's suite, two short stay rooms, and two extra large executive rooms. A (crack) pattern on the glass maintains privacy of the rooms, so it is not possible to look into the rooms from streetlevel.


Rooms with a privacy print

Congress Boulevard

The congress boulevard on the fourth level is reached via the west-side elevator; it cannot be reaches from the other side, where again rooms are situated.

Along this bending interior boulevard many different sized meeting rooms and offices are available. The interiors are built in a flexible manner to accommodate many different scenarios, from full-blown congress meeting, to workshops, to receptions. Even fashion shows are possible. All the rooms can be opened up completely to allow spectators to line-up around the boulevard for an event.

At the end of the boulevard a medium sized auditorium is present, for lectures, general showings (like video or other projections), and as a gathering room. A special

feature of this auditorium is the ability to project images into and trough the glass boulevard. The space becomes a sort of bill-board or seductive beacon able to form a background for an activity or draw visitors in.
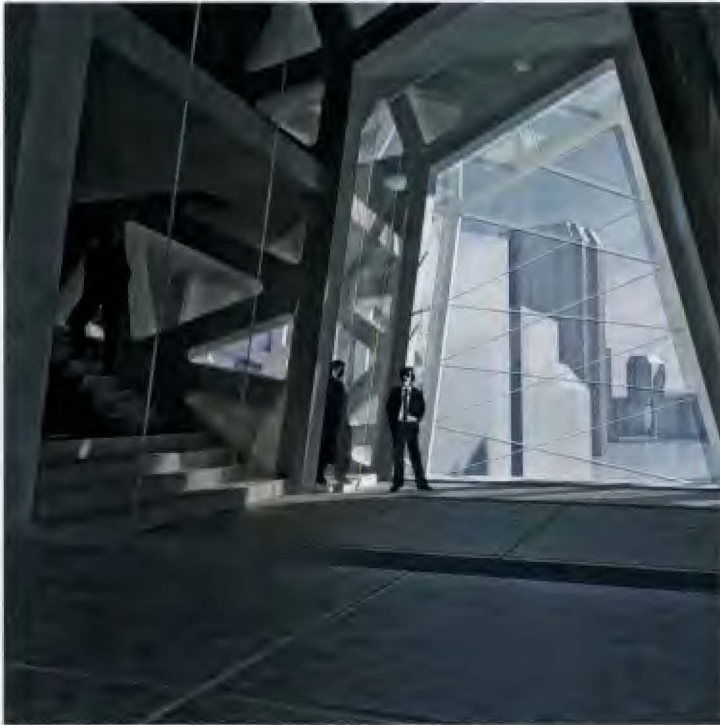
Congress boulevard with many different sized meeting rooms and offices

Restaurant

The last boulevard is connected to the restaurant, which has two-sided accessibility. Both elevators lead to this large high space that is crowned with skylights. It offers breathtaking views of Rotterdam trough the mediating texture of the pattern. Next to the lobby the pattern dynamic of the building is most dramatic and experiential here. One can also walk to the end of the boulevard to a front room; floating in between the first two layers thirty meters above ground. From here one has an unencumbered view of the skyline of Rotterdam. It is also possible to look down to the other two boulevards.
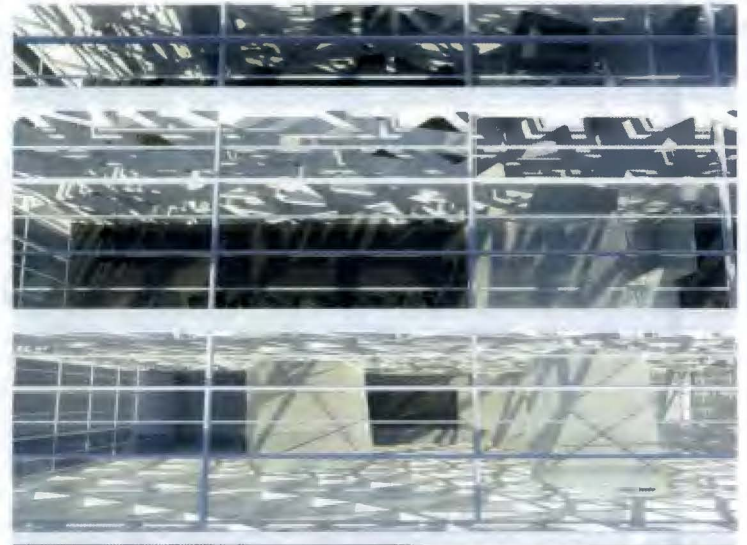
Restaurant, view through skylight

Wellness centre

On the top three floors on the north side respectively a pool, fitness room, and spa are accommodated. Like with the reading room the connection to the (third) interior boulevard is only visual. When someone wanders from the hotel along downwards, surprising views and unexpected sights are suddenly available. It is this function mixing than is essential to the communal nature of the building. The entrance to the centre is located at the west vertical rise point. On the first level change-rooms and restrooms are situated. Stairs connect all three wellness functions.

Swimming pool in the wellness centre

Brides suite

The brides suite in the front is extra spectacular because it has double height. An extra adjacent intimate room for two is located near the top of the building. At this location the then almost web-like pattern is most prominent and completely envelops the subjects; a suitable metaphor it seems.

Brides suite in the top and suite below; bordering the south façade

4. REFLECTION

This project tried to find a new *mode of reciprocity* for a very unusual location. To key for me was to design a structure that would be completely embedded in the challenging dynamic of the chosen urban area but also direct it, give it new élan. Thus the building would ultimately be very contextual, even though at first glance it appears very idiosyncratic and autonomous. It realizes this contextual embedding by means of a *spatial pattern* that I believe mediates quite well.

The most important personal agenda of the design, and indeed any project in this particular phase of my own (lifelong) learning track, is just to try to be novel and to make an evocative project; simply to experiment. The novelty of this design would lie in the particular way in which it engages its (local) surroundings and tries to offer a new mode of urban space usage, locally and globally; perhaps a new prototype even.

In light of the current state of affairs of the urban fabric the project also tries to *contest* and simultaneously look for an alternative to the omnipresent "glazed plinths". These are in my view outdated and uninteresting formulae of urban engagement that I see so often when I stroll around the cities of the Netherlands.

Besides that, I hope that the novelty lies in the analysis, arranging and presentation of the research material. This last effort was always somewhat restrained or even needed to be, not to undermine the task of the research to introduce a suitable and usable *sphere* for the design. Still, the research tries to add to present-day discussions and architectural discourse. These discussions take place in the college rooms, the ateliers; when talking to professors, tutors and fellow students. But certainly there is also a broader scope that you can engage with; other university with (online) lectures, student project sites, blogs and new literature that emerges everyday within the field. Theory still matters.

In a more general sense, there was a desire to use this project to continue my personal quest for deeper spatial and tectonic understanding based on persistent interests in mostly *post-structural* philosophy and general current architectural theory. The project has been very successful in that regard.

The applied methodology that was elaborated on so much in the early chapters of this thesis was in my view essential for the succeeding of the research. It involved a very close reading of *spatial philosophy* of Peter Sloterdijk and related thinkers; a thorough analysis of the works of Gordon Matta-Clark; investigation into practicing architects and theorist like Lars Spuybroek, and finally a comparative analysis of classic architectural types in relation to the above given topics.

In the end the relationship between the theoretical analysis and the physical design remained mostly implicit in this project, which is what I prefer. In this way the project is kept open for interpretation by others and new ideas can originate from them. In a future project I would like to continue this line of inquiry and try to expand on the foundation I have put down with this research and development.

Jeroen Mak, June 2010

Appendix

I scripts
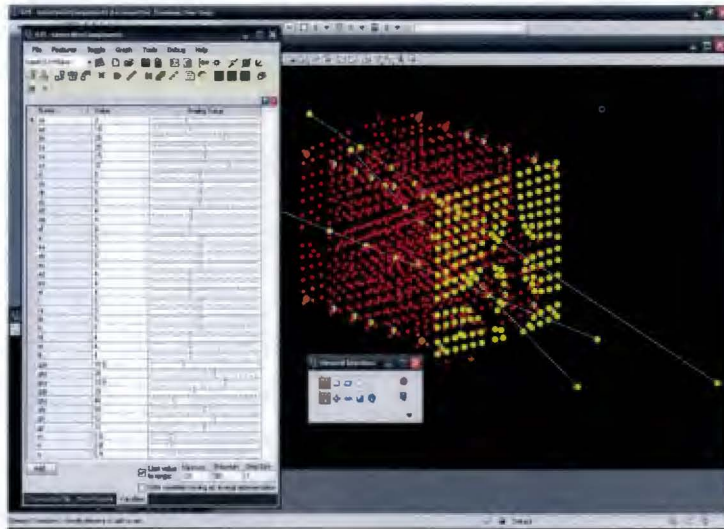
Generative components script

This is the first script that I made; with it I constructed the conceptual models, the voronoi models that were shown in chapter two on the structural concept. Three lines penetrate a point cloud. The points move away like a sort of curtain call. The lines are freely movable; they can even cross each other. From this the voronoi pattern was generated that was then cut with the lasercutter and assembled to make reconfigurable sequences.
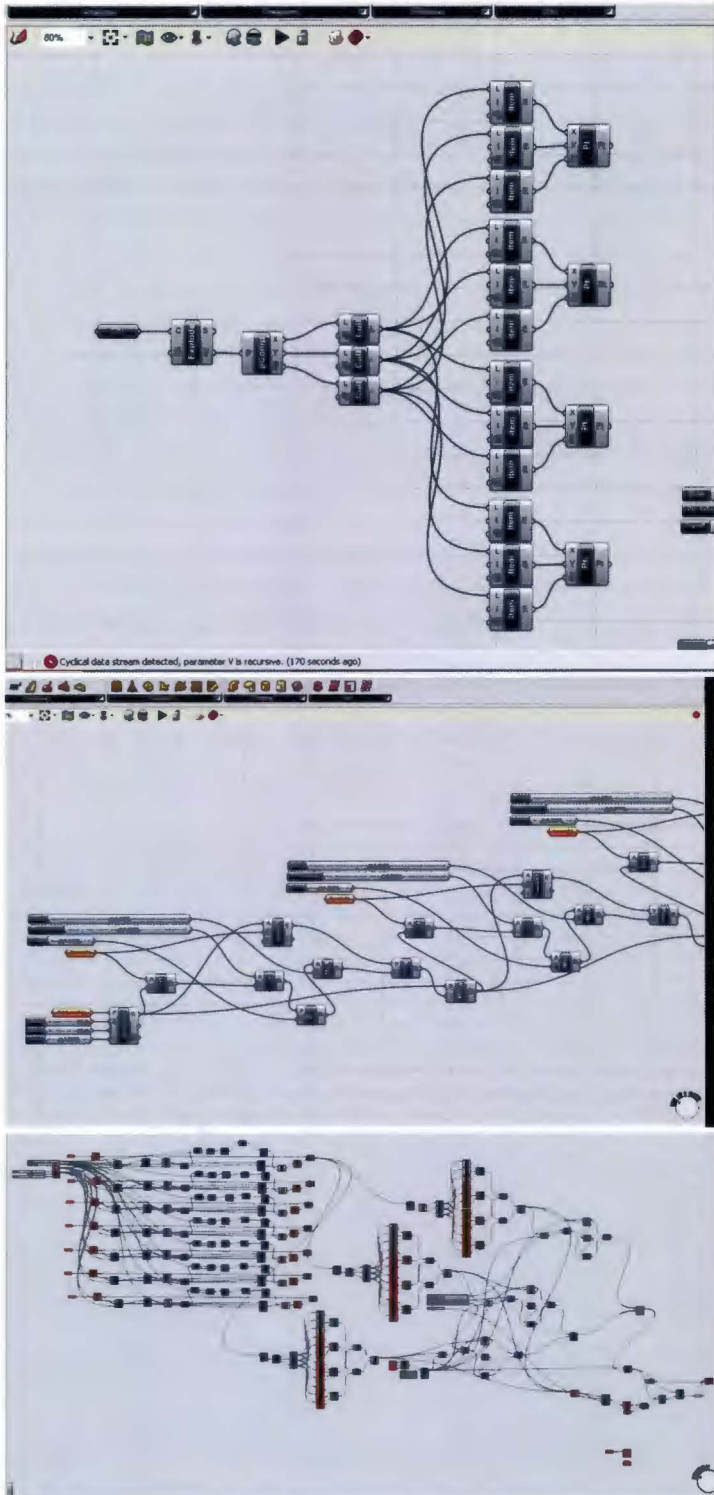
Grasshopper scripts
The applied grasshopper scripts are shown in parts above. The first two are for the projection of the shapes into the wall (see paragraph 3.1 again for an in depth explanation). The next three (first overview, then two close-ups) are for controlling the grid pattern movement. Finally an overview of the total script for the whole pattern generation of one wall is shown. What you can notice in this last one are the many numeric sliders; which means that everything remains parametric; all values can still be changed and thus many variations are possible and indeed have been tried and judged.
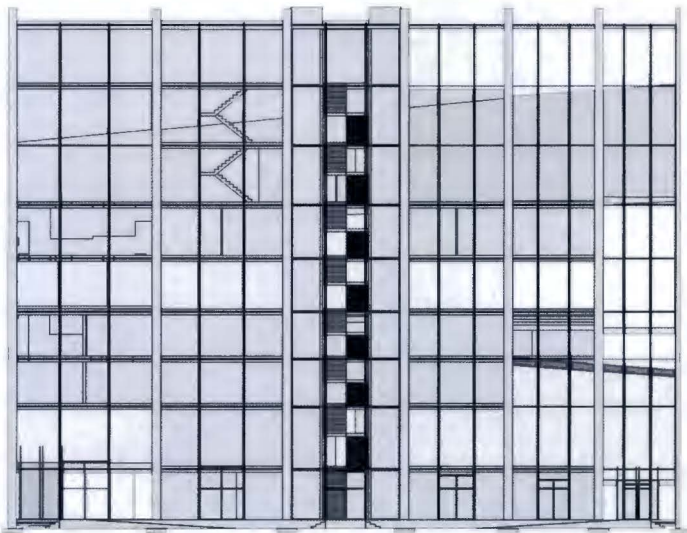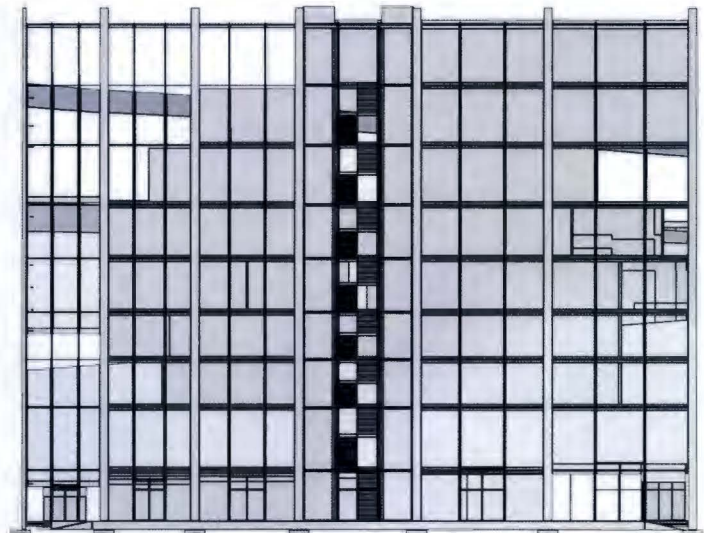
II Façades
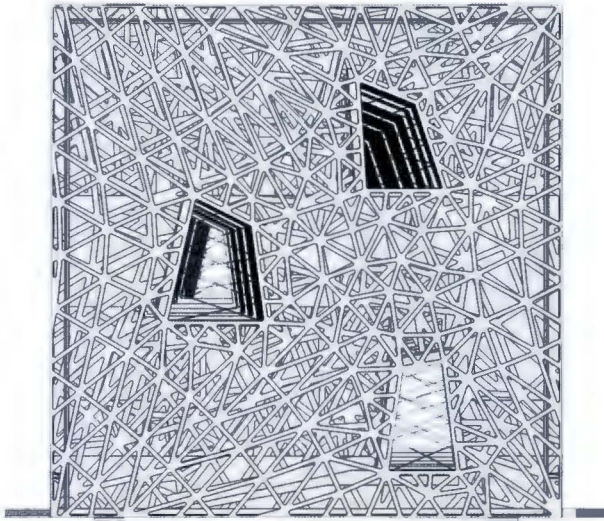
South façade
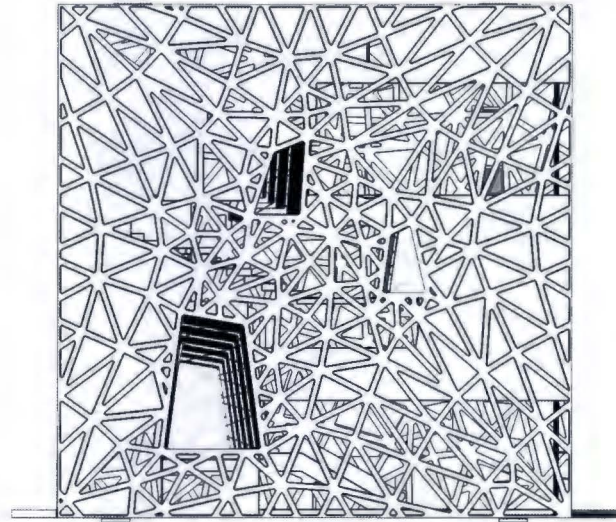
North façade

West façade

East façade

III Literature

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