



# Mapping *the* Virtual

The past is,  
not was

TU Delft

Faculty of Architecture

Delft School of Design (DSD)

Architectural Theory Thesis (2012-2013)

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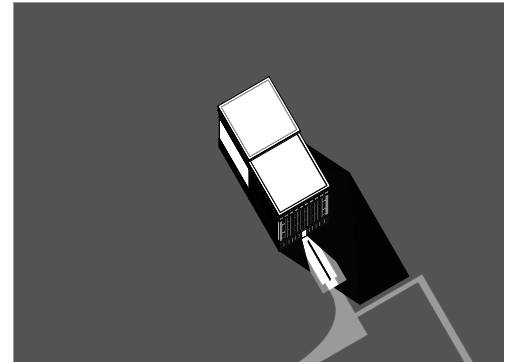
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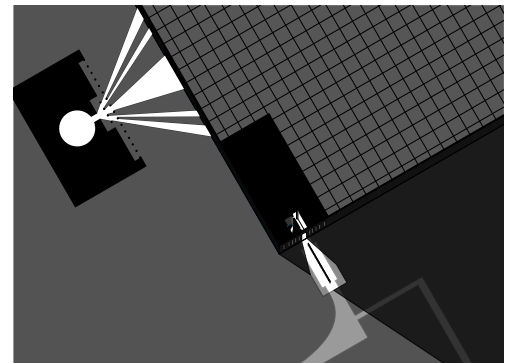
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## PREFACE

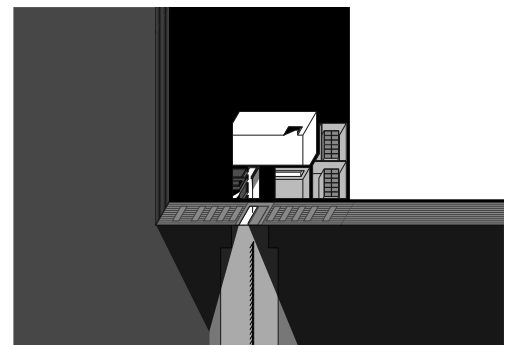
My search to a true meaning and understanding of Architecture started two years ago, in 2010 when I came to the Berghain, a hedonistic night club in a former power plant in Berlin.<sup>(1)</sup> The overwhelming scale of the building, with its rough concrete, small and large spaces, was filled with people from all different walks of life that had one thing in common; escaping the reality of daily life into a dark gathering going on for hours and hours.



At the same time, when reading about and drifting through the city, the history of Berlin in the past century tempted me to dive into a story of architecture; a story that shows traces of almost all chapters in the debate of contemporary Architecture. The absolute, but open-ended plot in the story ends at the place where the history of Berlin began: The Schloss-platz at Museum Inseln on the River Spree.



When coming to Berlin for the first time, the city was working on the demolition of the Palast der Republik (Pdr), the former Volkskammer of the GDR. The enormous concrete cores of the building and the brown, rusty steel construction facing Karl Friedrich Schinkel's Altes Museum, had the appearance of an apocalyptic movie scene. Berlin is at this moment working on the plans for resurrecting the former Prussian Castle, that was taken down by the GDR to built the (Pdr) on this place, the two most extremes in architectural ideology clash: traditionalism and modernism.



In some way I felt that all of this was interconnected with more, and even especially, with the Berghain. After research for a course with Jorge Mejia Hernandez, I came to the notion of buildings in Berlin, that act like characters in the story of the Berlin Wall. Berghain was built as a functional industrial building for the monumental GDR Stalinallee, but it gained its true meaning after the fall of the Wall: It is THE monument of underground Berlin of today and will always be remembered that way.



Figures:

Left:

1. Berghain, axonometry
2. Berghain, agonism
3. Berghain, rabbit hole
4. "Capricci Berlin"

Illustrations of author

not from author:

*The first illustration is the objective, Cartesian view of Berghain, revealing only a 'rabbit hole'*

*The second illustration is more subjective, 'virtually' rendering the Berghain with the Berlin Wall and Schinkel's Altes Museum, revealing the heterogeneity between monuments in Berlin.*

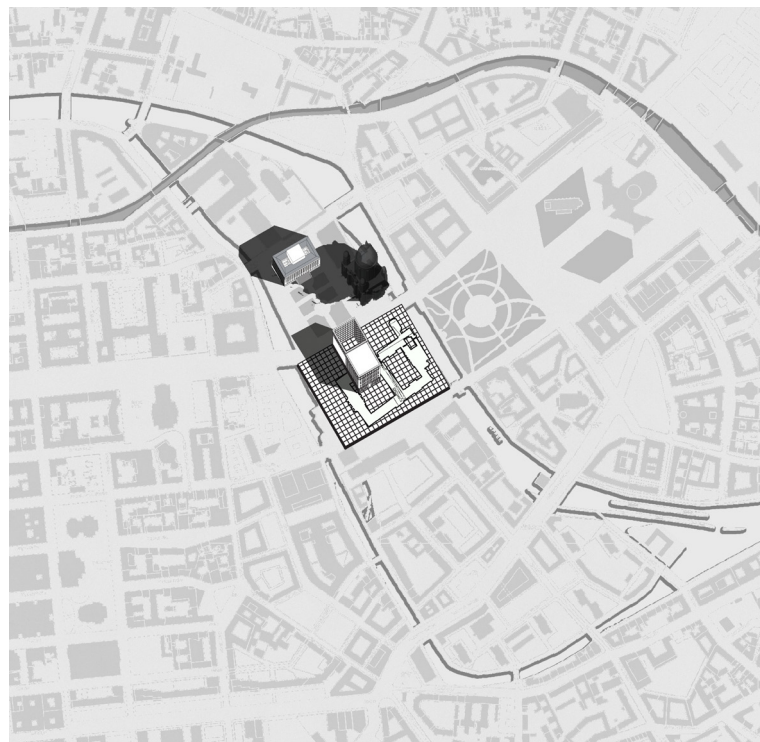
*The third illustration reveals an 'route architectural', stressing the tension between inside and outside world.*

*The fourth, 'capricci' rendering, tries to capture 'what is going on in Berlin'. The Berghain turns its back to the 'dead' monuments of the city. Because of its hidden entrance, metaphorically at the dead centre of Berlin in the courtyard of the soon to be resurrected 'Stadtschloss', Berghain is a living monument. It thrives on the 'scars' of past terror. The meaning of architectural form and style can change over time for different generations and this finds its manifest in the past decades of Berlin.*

The architecture, manifested a successive architecture without architects, that even Cedric Price with his Fun Palace, Renzo Piano and Richard Rogers with their Centre de Pompidou and Rem Koolhaas with his Exodus project, could only dream of in utopia. But how to connect this story and to make it complete? During the course with Hernandez, we were asked to metaphorically paint a Canalettonian Capriccio: a free choice of a public building on a interesting public space.(2) This revealed insight about architectural form, and I started constructing a story of agonistic architecture in Berlin. But it did not bring me to the essence how all of these actors in the story work together.

When starting with my graduation at the Delft School of Design, with the intense, passionate and deep readings with Andrej Radman and Marc Boumeester, I came into contact with the philosophy of Gilles Deleuze and his followers. Different ways of mapping context suddenly became a way to construct interconnected parts, that which at first sight seemed unable to connect. This reflection thesis is an attempt to construct a frame to understand what is really going on in Berlin, and, most importantly, to position myself among people that try not to get caught in the yes-no-yes pendulum and short term dualistic epistemologies.

Imre van der Gaag, december 2012



## ABSTRACT

In this time of scientific progression and groundbreaking discoveries in the realm of the environment, sociology and neurology, both architectural theory and practice find themselves in a self determined, ignorant position. In our present time, with its complex systems and highly dynamic progression, architecture is incapable of adapting to the current need to create spaces.

To engage in the question how to 'spatialize' the globalized world, it is important to 'construct' models as a way to understand the world. In this time of technological progression, computer models and artificial intelligence help us to 'render' the world and give us answers to practical questions. However, the same technology based models are unable to solve our irrational human needs such as emotion, memory, subjectivity and imagination. The missing 'link' is the 'mapping' of subjectivity, that touches the realm of memory and identity, a link that connects past, present and future.

By seeing the past as virtual, the past becomes real. The past, being not 'actual', is in the opposite state: the 'de-actual'. Transferring the notion of time into the virtual, the past becomes something that is, rather than something that was. According to Henri Bergson and Gilles Deleuze, time is a living concept that we interact with. With this notion, architects can construct a mapping of experience, memory and movement, and this puts them in a position to be more critical and take a imaginative stance on the topics of the future.

The 'activistic' architects and urbanists Rem Koolhaas, O.M. Ungers and Guy Debord used a radical mapping of subjectivity's and context, that reveal a different perception of the past, present and future in time and space. Their use of the 'virtual' plays a decisive role in making grounded discussions in developing their architectural or urban critique and proposals.

Figures:

Left:  
5. "Utopian Berlin"

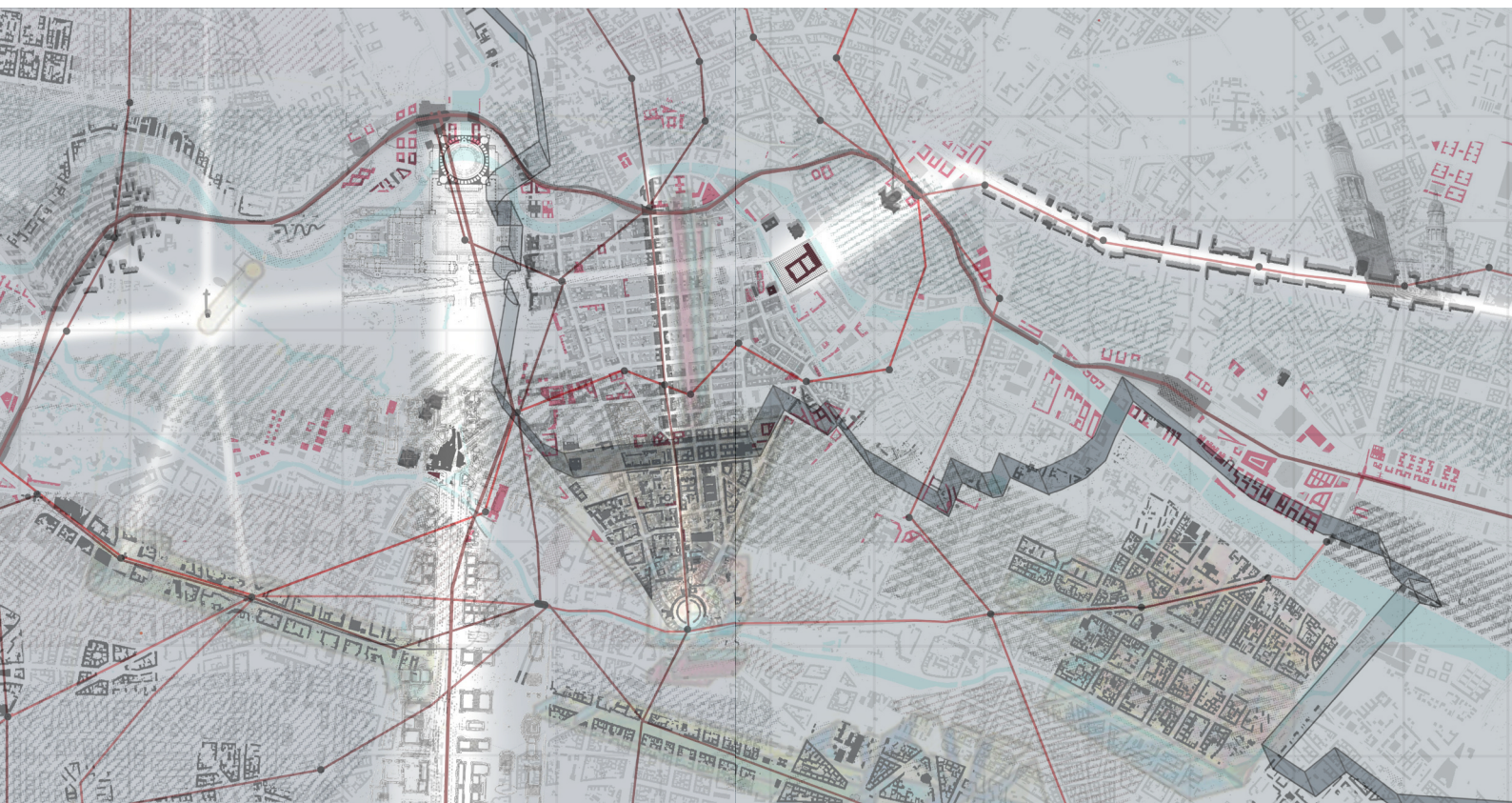
Illustrations of author

not from author:  
The map shows a selection of 'utopian' projects, proposed throughout the past century. The overlapping reveals 'utopian spaces', tangible in today's urban fabric of Berlin.

These architects revealed that architecture and urbanism are meta-stable. The 'operation' of a city, the construction of a building, the decay of the facade, and the demolition, all this together, when 'fast-forwarded', create a moving image. The mapping of this movement makes us perceive the city as something highly dynamic and charged with 'points' of 'singularities' and 'basins of attractions'.

To intervene in the built environment, architects and planners should find these 'points' and construct models to connect past, present and future, local, regional and global, time and space. For designers this will create a wider understanding of the reciprocal process on intervening in the built environment. Points, that at first sight seemed unconnected, have the potential of becoming 'valid' and 'productive'. This 'productivisation' of points and 'intensities', makes it possible to enable and connect past, present and future, the actual and the virtual.

In this way, architecture as a discipline, has the potentiality to unify technology with creativity and objectivity with subjectivity, and can contribute more to the built environments imagination. Instead of asking 'what is already there' and translating this into architectural form of, architects are obliged to ask 'what if?' or 'why not if?'.





## INTRODUCTION

Berlin, a city plagued by numerous wars in the past centuries followed by a sequence of destructions, reveals a clarity about architectural form as a way to reflect, change or develop society in flux. It is here, that a closer understanding of the continuous (mostly European) debate about progression versus reconstruction of the past, finds its explanation.

As a narrative line, starting at the beginning of the twentieth century, the debate shows a constant dialectic discourse. In retrospect, each time-frame shows counter movements, agonistic towards each other and to paradigms of their predecessors.

The oldest place of Berlin, the Museum Island in the River Spree, reveals an emotional debate on how to deal with the past, present and future after a sequence of wars. At this site, the Pallast der Republik, the former GDR parliament, is recently demolished to make place for the reconstruction of the Berliner Stadtsschloss. At the end of this century, Berlin rebuilds the Stadtschloss as a symbol to connect the previously divided Berlin. These dialectics between the conservatives and the progressive, stop the motion of architectural form, and take the discussion to a yes-no-yes about the (re) constructing the past, present and future.

At the start of the twenty first century, with its complex systems and highly dynamic progression, the dialectic and humanistic grounding of the architectural debate, is ill equipped of adapting nowadays needs of creating spaces that unify the past, with present and imagining a future. Neither the romantic, safe turn to historicism, nor the rational, objective believe in modernism, creates a unification of our complex environment.

It is here that the search for an alternative mapping becomes relevant. A place with such potentialities can reveal a hidden past, now and future.

*Figures:*

*lower right:  
6. Demolishment of  
Palast de Republik, un-  
known photographer*

This thesis sets out theoretical methods to reveal the “virtual” of the site – something that is real, but not actual. “Mapping” this virtual world, creates a theoretical method for design and a closer understanding of the “genesis” of a project and how it intervenes in the city.



## PROBLEM STATEMENT

### FROM DIALECTICS AND DUALISM TOWARDS MULTIPLICITIES

In this time of scientific progression and groundbreaking discoveries in the realm of the environment, sociology and neurology, both architectural theory and practice find themselves (with some exceptions) in a self determined, ignorant position. Clusters of architectural epistemology such as parametric design, architectural form (the typologists or structuralists) or sustainability, work on their own island of knowledge, without connecting the dots that could complete the drawing of our collective knowledge into built form.

Since the industrial revolution, architectural theory is still in the dualistic debate between progression and regression. Walter Benjamin's philosophy of History, as depicted in the painting 'Angelus Novus', by Paul Klee, is, for architecture and urbanism, still the paradigm for translating historical events into the creation of the next.(3)

Too often architectural practice finds itself in a dualistic creative process of context versus program. Recent revival of historicism all over the world, that is trying to create meaning, symbolism and monuments to unite divided or lost societies in the fast-forward development of our epoch, fails to reflect our current state of progression. Thomas Mayne pinpoints this by saying "What is ironic in a time of unprecedented advancement in scientific and technological inventions is the reactionary and superficial appropriation of historical forms. The problem here is not just one of form, but of the tendency for this architecture to be acquiescent to the day-to-day demands of utility and economics. . . . This romanticising of an earlier time as 'simpler,' fails to grasp that it is in the realisation of complexity and contradiction that we begin to find our way out of the psychological malaise we're currently suffering."(4)



Figures:

Left:  
7. *Angelus Novus* (1920),  
painting by Paul Klee

Indeed, in our present time, with its complex systems and highly dynamic progression, architecture seems incapable of adapting to the contemporary need to create spaces. Mayne exemplifies this by saying that with “the acceleration of telecommunication, as well as the mutation of lifestyles that this implies, have replaced traditional communities founded on the physical proximity by way of multiple interactions in a network. [As a result,] in the urban space, it is more and more difficult to find a satisfying articulation between a “public” and “private” sphere, like that between city and country, center and periphery.”(5) The classic notions of architecture and urbanism, are unable to keep up with the pace of our time. It is unavoidable to radically change our methods of research on, and our interaction with reality, to translate today's questions into sustainable answers. “To overcome this crisis, Mayne affirms the necessity of abandoning conventional ideas about urbanism, which tend toward a simple and homogenous order, and to take account of the complexity of the actual urban experience, which can only be understood in terms of the relations between heterogeneous experiences.”(6)

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As seen in the pleas of Mayne, there are certain movements that try to create an architecture that is more based on the recognition of the city as a complex system, although this mostly unfolds into a technocratic, parametric based architecture that forgets the human experience and its subjectivity's. The missing link is the mapping of this subjectivity, that extends to the realm of memory and identity, a link that connects past, present and future.

The Italian architect and theorist Aldo Rossi revived the notion of monumentality and the memory of the city in his book *Architecture of the city*, to create identity after the rational city planning of the CIAM.(7) As a reaction, close to the criticism of Mitscherlich and the Frankfurter School on modernism, time and perception came on the agenda of architectural theory and practice. Unfortunately the architecture of Grassi and his followers fell into the trap of semiotic signs and historical forms – a dualistic reaction towards modernism, failing to reflect the reality of contemporary society and the city.(8)

Neither the historic or the progressive approach to engage in the theme of desolation and loss of identity in the 'network society', succeeds in creating the right answers for a sustainable architecture and urbanism: One that makes us aware of the possibilities of exploring the unknown and unlimited solutions for creating 'a home' in the globalised world.

## **FROM TRACING TO MAPPING**

To engage in the question how to 'spatialize' the globalized world, it is important to 'construct' models as a way to understand the world. In this time of technological progression, computer models and artificial intelligence help us to 'render' the world and give us answers to practical questions. However, the same technology based models are unable to solve our irrational human needs such as emotion, memory, subjectivity and imagination.

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Indeed, it is important to 'trace' as much as possible the static's and dynamics of the context for an accurate, omnipotent view, rationalising the complex systems of our environment for an integration in the built and un-built environment. However, architecture as a discipline, that has the potentiality to unify technology with creativity and objectivity with subjectivity, can contribute more to the built environments imagination. The tracing alone would lead to a rationalising of 'what is already there', without asking the question 'what if?'

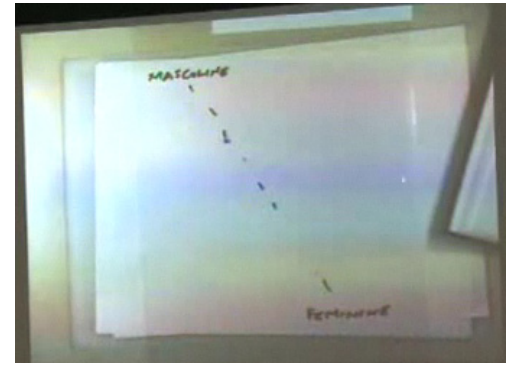
Mapping, instead, is a form of tracing converged with multiple layers of meaning and subjectivity. The 'question' in mapping would be, instead of 'what it is', of 'what it does'. (note: proposition by Andrej and Mark, that is fully agree with but do I have to put a source to it?) The mapping of subjectivity's together with the tracing of the city's complex points and flows can create a new 'type' of architecture. Architecture as a discipline, is at the diverging point of either becoming a service – executing the complex 'programming' of space, resulting in a rational translation of capitalistic paradigms, or, become a discipline of integration: one that can unify the objective with the subjective. The last one has the opportunity to, instead of showing the world 'what it is', imagine the world as 'what it can be'.(9)





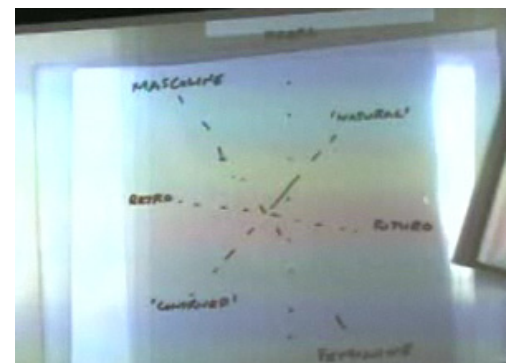
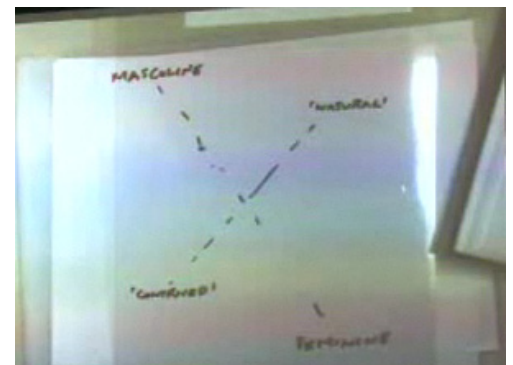
## THEORY

For the unification of past, present and future, and the implementation of the complex contemporary environment in architectural models, it is unavoidable to abandon the dialectic discourse in architectural theory and practice. The following artist and philosophers, discarded the dialectic nature of theory, and proposed methods for a more sophisticated understanding of the complex world.

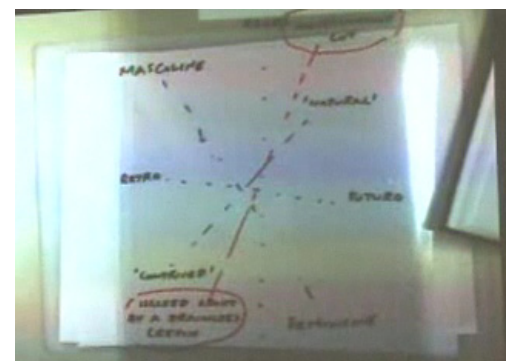


### BRIAN ENO – AXIS THINKING

Brian Eno, a musician, artist and writer, writes in his book for a year with swollen appendices, about Axis Thinking. “An axis is a name for a continuum of possibilities between two extreme positions: so the axis between black and white is a scale of greys”.(10) Axis thinking tries to reveal the field of possibilities for making decisions. Eno illustrates this idea with the choices people make about haircuts, as an artistic expression. The first axis to think about is if a haircut is masculine or feminine. Perpendicular to this axis could be for example if a haircut is neat or shaggy. Endless possibilities for an axis are imaginable, where each axis “exists as a ‘dimension’ in the haircut space, which becomes multidimensional...”(11)



With this everyday example, Eno brings artistic choices or styles under a concept, relating them with the variables that determine its variation. “What strikes you as interesting when you begin thinking about stylistic decisions (or moral or political decisions) as being locatable in a multi-axial space of this kind is the recognition that some axes don’t yet exist.”(12) The idea that new axes appear or disappear in different contexts or timeframes is a way to understand the constant change of meaning in art and creativity.



Figures:

Left:  
8-11. Stills from lecture  
by Brian Eno

In a lecture held at the Architectural Association in London, where he talks about the same subject, Eno proposes axis thinking as a way to understand and develop the notion of art. In his opinion “contemporary writing about art is in exactly the same place as writing about nature was, before Darwin came along.”(13) Before Darwin, scientist saw nature as a pyramid like structure, with men at the absolute top. The idea that all knowledge is concentrated in the apex of a pyramid, is still used in the army, the church, an orchestra and even art. After the discoveries of Darwin, Eno states, this pyramid structure was just an artifact of our perception. Darwin’s intellectual matrix, as Eno calls it, makes it possible to fix objects and organize knowledge, and think of how they relate to one and another. All artifacts in the world can be placed in a web, where every point is interdependent. “this is what [we today call] ecology...[where] there are webs of hierarchies that relate with one and another”.(14) According to Eno understanding these webs of hierarchies is still too sophisticated to implement into the world of art but nevertheless makes it possible to understand the meaning of art and how the creative mind works.

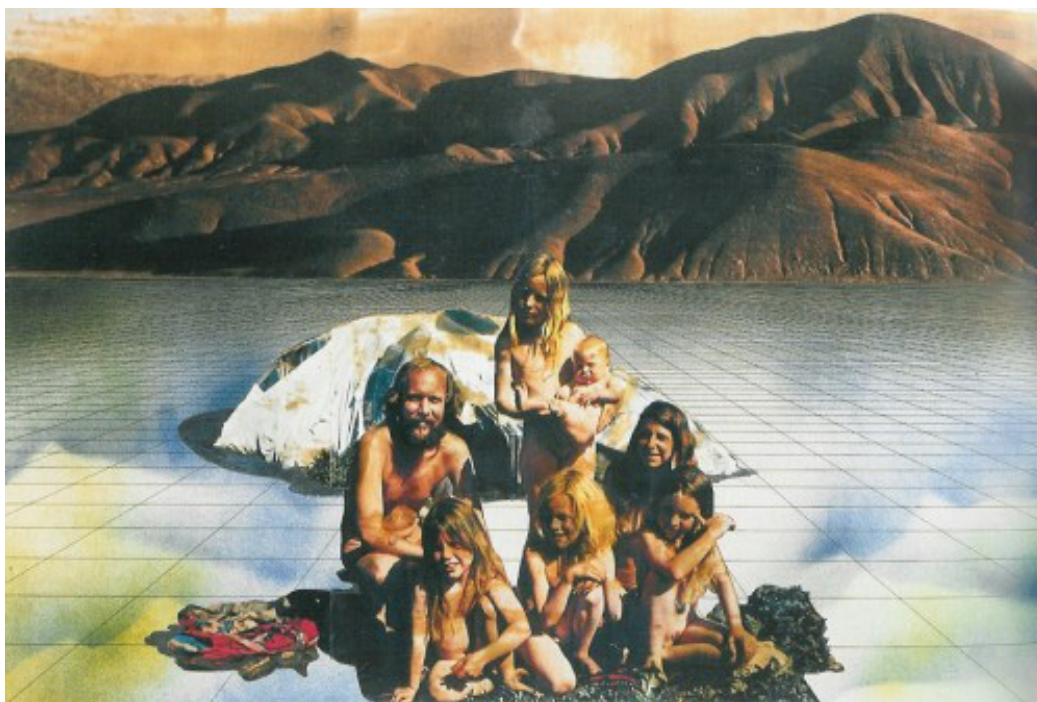
Axis thinking can be just as well be used for architecture. The idea that a certain axis appears because of a society in flux, for example new technologies, or some disappear because, for example of a lost tradition in aesthetics, is highly relevant for architecture. The appearance and disappearance of axes relates to Gilles Deleuze’s notion of the ‘virtual’: Something that is real but not actual.

## GILLES DELEUZE – VIRTUALITY AND THE PAST

The “intellectual matrix” from Darwin is further elaborated by French philosopher Gilles Deleuze and psychoanalyst Félix Guattari as a field with complicated and multidimensional dynamics. In their book *Milles Plateaux* Deleuze and Guattari propose this web as a “mechanism”, different from the rationalizing humanistic tradition.(15) Apposed to humanistic tradition, that something is human (cultural) or nonhuman (natural), this world consists of interconnected parts in the Three Ecologies.(16) In the same titled book, Guattari describes the three ecological registers of natural-, social- and mental ecologies. Ecology must be seen as the notion of the Greek *oïkos* (explain oikos 17)

To translate this into the realm of architecture, Reinhold Martin effectively explains the transition from the humanistic tradition into a the world of Ecology. Talking about architecture, modernism used “the cartesian grid, which became the very emblem of modernist “rationality” as the latter came under postmodern attack. In short, the grid as a unifying and coordinating device, [...] was simultaneously reified and displaced [...] into something that could only be grasped as an unstable matrix composed of a thousand

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Figures:

Bottom left:  
12. Superstudio,  
Supersurface life, 1972

note from author: still from  
the a movie, the first in the  
range of five entitled 'Five  
Fundamental Acts'.

plateaus.” (18) Without citing “a thousand plateaus” as a source, it is obvious that Martin is speaking of Deleuze and Guattari. The humanistic tradition with the dialectics between human and nature is made explicit in the renderings of Superstudio.(19) In their activistic photomontages the use of the grid is a metaphor for modern (and for them capitalistic) architecture that (over)structured the world of natural and human artifacts.

A Thousand Plateaus is often misunderstood and misused in (postmodern) architecture, but the transition of the overarching tradition of humanism or structuralism towards a dynamic system is the start of a radical different perception of the world (and thus in Architecture) and its mechanisms.

The axis thinking of Eno, and the appearance of the Virtual (“...axes [that] don’t yet exist”) operate in the multidimensional space (of possibilities) as discussed by Deleuze and Guattari.(20) The virtual, not to be misunderstood with the realm of virtual-reality, is, according to Deleuze, “not opposed to the real but to the actual. The virtual is not actual, but possesses a reality that is proper to it.”(21) For architecture, the virtual dimension is not new: “the architectural project has always been a virtuality seeking to translate itself into the real”, but the virtual is connected to other ‘points’ and ‘intensities’ in a multidimensional space of the system Deleuze calls the rhizome.(22). The (non-linear) rhizome, as opposed to the (linear) arborescent, is “the principle of the interconnection between one multiplicity and another – multiplicities that are never more than provisional assemblages in the process of becoming.”(23) The action of one architect thus operate in a chain of virtual and actual events in the ‘past’, where the past can be seen as virtual.

By seeing the past as virtual, the past becomes real. The past, being not ‘actual’, is in the opposite state: the ‘de-actual’. Transferring the notion of time into the virtual, the past becomes something that is, rather than something that was, a philosophy on time that the French philosopher Henri Bergson calls ‘la durée’ (duration).(24) According to Bergson, “the past should be referred to as that which ‘is’ while the present must always be understood as that which ‘was’.”(25)

The past is reflected in our personal and collective subjective memory, and in the terms of Bergson, “it is by virtue of the past that we are able to actualize our present.”(26) This paradigm on the virtual and especially time, has two layers: At first, physical objects, like photographs and monuments that we interact with in the present, a concept of memory as described in Aldo Rossi’s *The Architecture of the City*. In *What is philosophy?* Deleuze and Guattari change the meaning of monuments (and memory) by transforming it into a Bergsonian ‘time capsule’: “...the monument is not something commemorating a past, it is a bloc of present sensations that owe their preservation only to themselves and that provide the event with the compound that celebrates it. A monument does not commemorate or celebrate something that happened but confides to the ear of the future the persistent sensations that embody the event.”(27)

The second layer is constituted from (sometimes non-repeatable) events and more abstract subjects of memory. These are kept for example in books and our personal and collective memory, but just as the memory captured in physical objects, this perception of the past can just as well “create a new duration and a new “spacing” of sense. The artistic compound is not given once and for all, but inscribes itself in duration because the new percepts and affects that it creates lead us in turn into new becomings.”(28)

The Bergsonian ‘durée’ and Deleuzian ‘virtuality’ makes time a living concept, where we, in the present, interact, act and react with. It makes us as humans more aware of and have influence on the past, present and most important, the future. The past and its subjective memory is a ‘living’, dynamic subjectivity constantly in flux with the the actual present. The static monumental pyramid of ‘history’, is changed into a baroque organism of ‘being’.

## PRACTICE

The Following theorists, writers and architects exemplify a mapping of the virtual in architecture and urbanism during the late 70's beginning 80's. What they have in common is a search for an "anti-ideology" as opposed to participating in a dualistic or dialectic debate.(29) These debates in Post Second World War Europe during the Cold War opposed capitalism to communism, progressivism to conservatism and modernism to postmodernism, and finds its most clear exemplification in Berlin with its agonistic paradigms at both sides of the Berlin Wall.

Rem Koolhaas was a student of german professor and architect Oswald Matthias Ungers who both worked, individually and together, on alternatives for on the one hand pragmatic modernism and on the other hand historicism. Their work and research was highly contextual in time and space, exemplified in the context of Berlin. Interconnected but separately working on this "anti-ideology" was the French Filmmaker, Theorist, Writer and Artist Guy Debord, founder of the movement Situationist International. The manifest of the Situationists, just as Ungers and Koolhaas, proposes an "anti-ideology" and refused both the capitalism of the West and the dictatorial communism for the absence of autonomy of individuals in politics, economics and urbanism.

The epistemology of Koolhaas, Ungers and Debord show a radical method of mapping context, that is used to reveal a different perception of the past, present and future in time and space. Their use of the "virtual" plays a decisive role in making grounded discussions in developing their architectural or urban critique and proposals.



## O.M UNGERS AND THE GREEN ARCHIPELAGO

Berlin, more than elsewhere in Europe, showed how a polemic debate between two paradigms in architecture and urbanism created two opposing 'fronts'. Before the Second World War, when Berlin was in search of a new architecture for the future metropolis, the Beaux Arts opposed modernism, which in the end forced frontiers of modernism Ludwig Mies van Rohe and Ludwig Hilberseimer into exile after the closing of the Bauhaus by Adolf Hitler.(30) After the war, at the dawn of the cold war when Berlin was split up in two opposing powers divided by the Berlin Wall, agonism in Architectural style dominated the debate and influenced the discourse of Architecture until today.(31) The city is at the unconventional start of what would become the 'concrete' confrontation between two ideological opposites: capitalism and communism. As the German architectural historian Werner Durth stated, a "remarkable exchange of plans came about in which politically engaged architects in the GDR who had linked socialism with modernism were obligated to unloved national traditions, while their colleagues in the west, who only a short time earlier belonged to the circle around Speer, now appeared as proponents of modern architecture"(32) This led to a dialectic in architecture where architects either practised pragmatic modernism or communistic 'socialist realism', creating two opposing totalitarian paradigms, manifested in the 'Western' Hansaviertel and the 'Eastern' Stalinallee.

Ungers, professor during the Cold War at the TU Berlin, worked on a project called 'Berlin as Green Archipelago'.(33) As an alternative to the modernistic slabs in West Berlin and the boulevards in East Berlin, Ungers was developing a 'third way'. Ungers and his students (among them later famous architects Rem Koolhaas and Hans Kollhoff) envisioned post-war Berlin as a city made of 'islands', where each 'island' has a different identity, floating in a green landscape. The method to come to this archipelago model



Figures:

Bottom page:

13. Oswald Mathias  
Ungers, Rem Koolhaas,  
Hans Kollhoff, Arthur  
Ovaska, and Peter Rie-  
mann, *The City within the  
City, diagrams, 1977*

rows:

1: Friedrichstadt  
Süd-Karlsruhe  
2: Gorlitzer Bahnhof -  
Central Park New York  
3: Unter den Eichen -  
Magnitogorsk

columns:

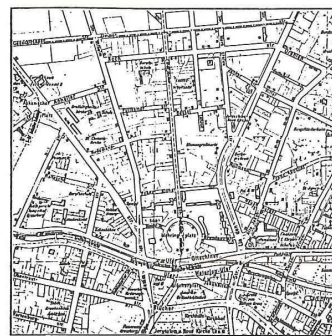
1: aerial photo  
2: figure-ground plan  
3: island  
4: reference city

was to demolish 'weak' parts and to strengthen 'strong' parts of the city, reacting on the actuality of West Berlin as a shrinking city.

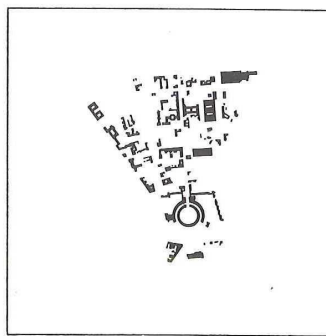
Ungers and his students "sought to turn Berlin's idiosyncratic character as a politically divided city in economic difficulty into a laboratory for a project of the city that countered the technocratic and romantic approaches popular at that time." (34) With a more diverse architecture spread over the 'islands' of the city, Ungers believed that the city with this "approach could overcome the fragmentation of postwar Berlin by turning the crisis itself ... into the very project of the architecture of the city." (35) It was a



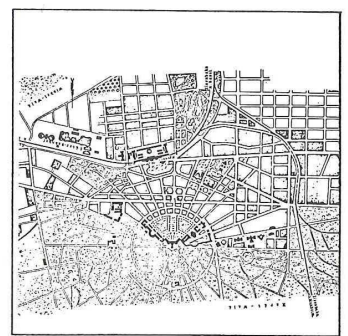
b Luftaufnahme südl. Friedrichstadt



Lageplan südl. Friedrichstadt



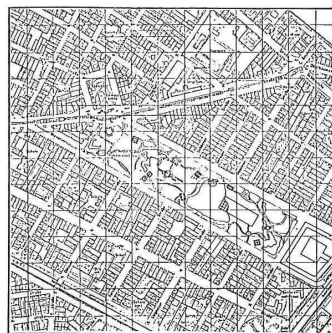
Stadtinsel südl. Friedrichstadt



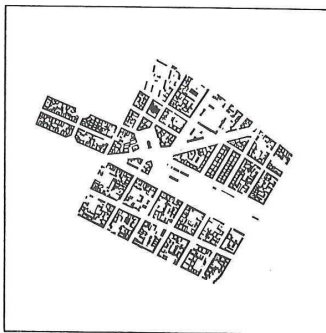
Stadtplan Karlsruhe



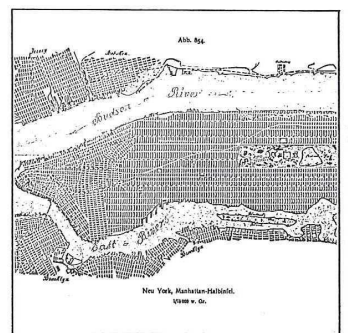
c Luftaufnahme Kreuzberg



Lageplan Kreuzberg



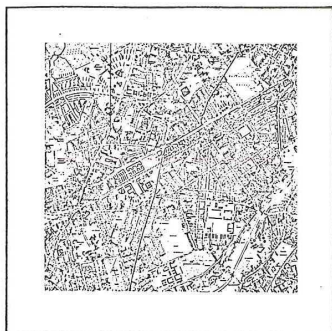
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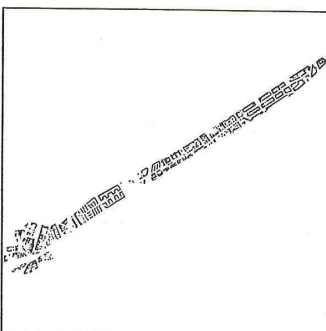
Stadtplan Manhattan N.Y.



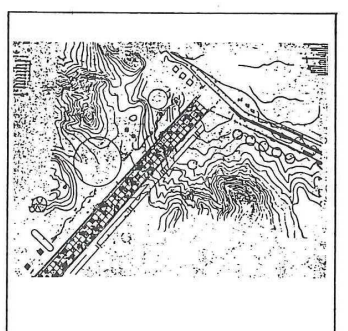
d Luftaufnahme Lichterfelde



Lageplan Lichterfelde



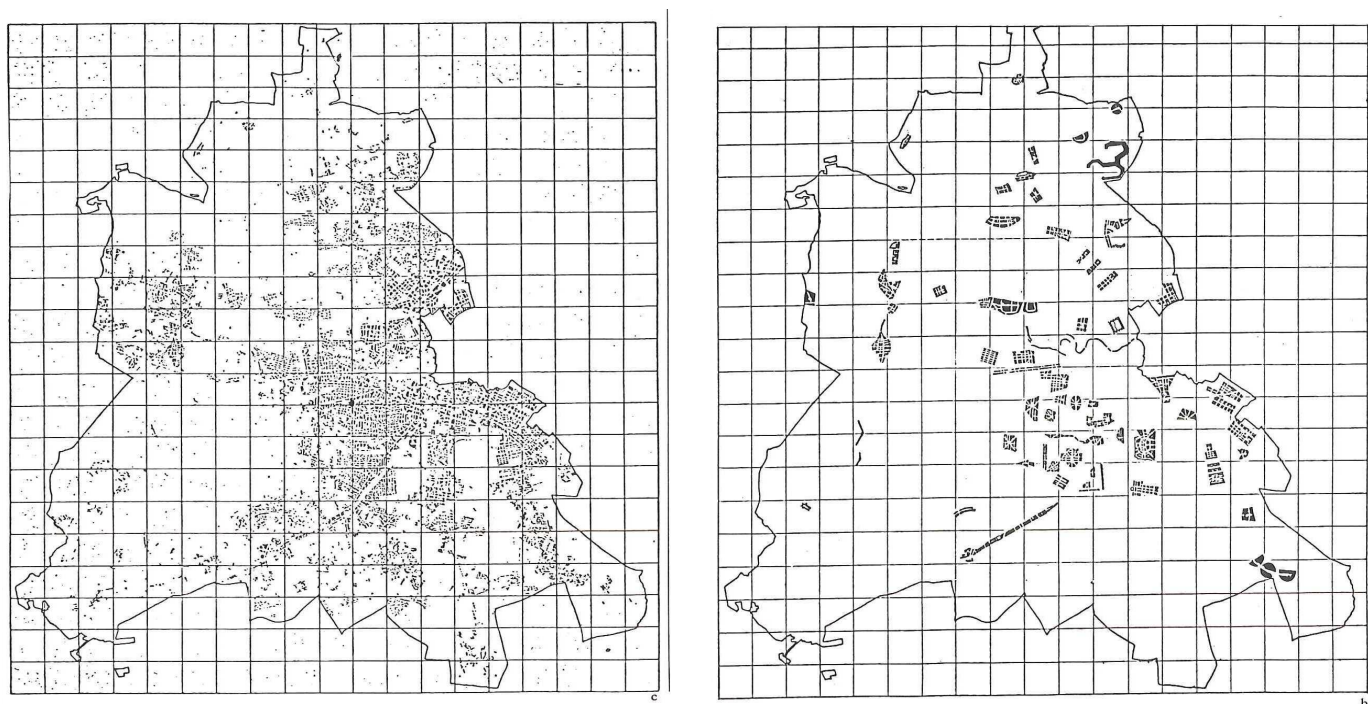
Stadtinsel unter den Eichen



Stadtplan Magnitogorsk

critique on both the megalomaniac projects of the Stalinallee and the counter-project of the Hansaviertel, with the idea to construct Berlin out of micro-cities. These micro-cities radically reflected the city of Berlin including the baroque nineteenth century Berlin, Schinkel's monuments and modernistic architecture. Ungers accepted specific architectural visions and utopian architectural form as Cities within the city.(36)

The method to determine each island, was an analyses of the urban from as a totality, and from which 'parts' this shape was constituted. These parts would reflect a certain architectural paradigm and a related urban design. The urban shape from each 'city' was compared with (sometimes utopian) paradigms known from somewhere else in the world. For example the gridded structure from Kreuzberg, broken in half by a rectangular shaped park was 'thematized' with the metaphor of Manhattan, New York, with its rigid grid and Central Park. The south of Friedrichstadt, bordering the Berlin Wall, consisted out of baroque buildings, in a radial street layout. This was 'thematized' as Karlsruhe in Germany – A baroque city with a 'perfect shaped' radial city layout. Even the utopian Magnitogorsk from the Russian constructivist Ivan Leonidev was used as a metaphor.(37)





Figures:

Bottom page:

14-17. Oswald Mathias Ungers, Rem Koolhaas, Hans Kollhoff, Arthur Ovaska, and Peter Rie-  
mann, *The City within the City*, diagrams, 1977

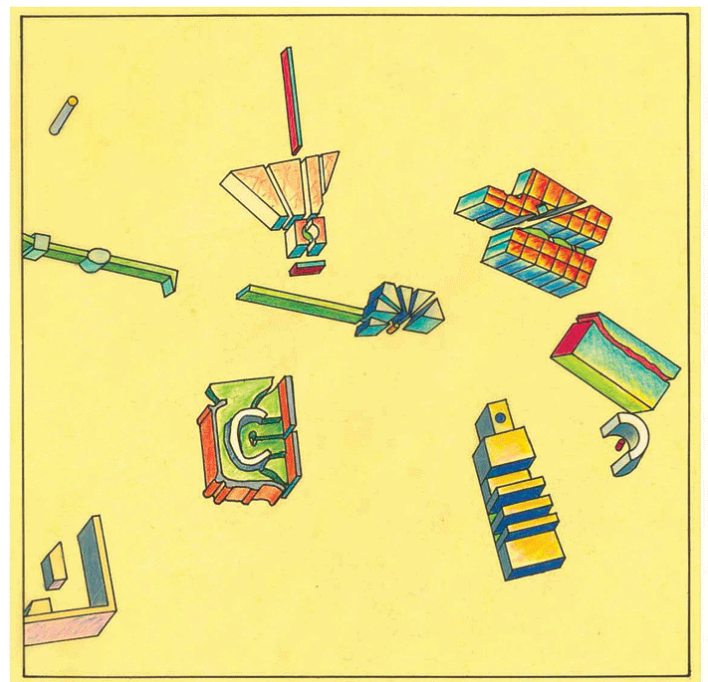
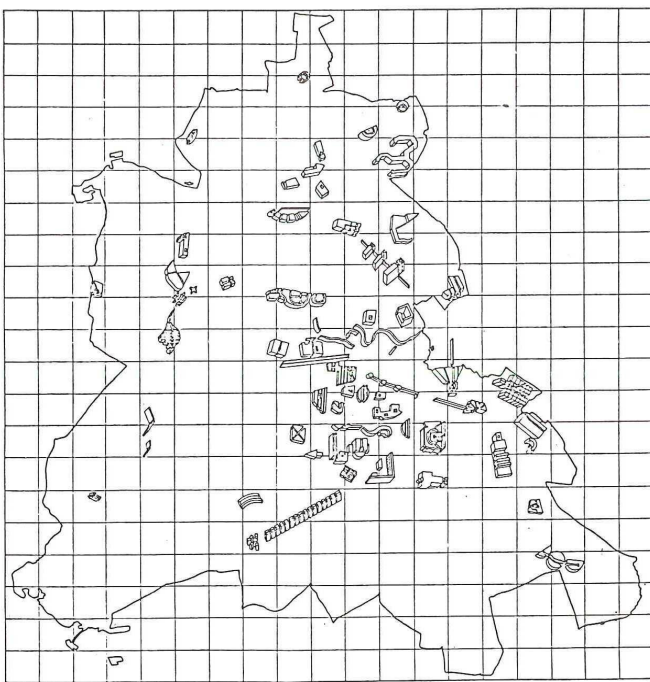
- 1: towns in the town
- 2: plan of urban island
- 3: chart of housing struc-  
ture in Berlin
- 4: detail

note from author:

The outline over the grid  
is the Berlin Wall. In the  
detailed view (4), the two  
most top 'islands' repre-  
sent South Friedrichstadt  
(left) and Kreuzberg  
(right).

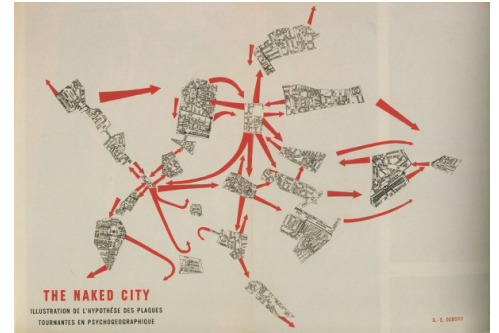
With the *Cities within the City*, Ungers broke down the two opposing utopian paradigms of the East and West, into a "multitude of little Utopias" - a matrix reminiscent of Deleuze's and Guattari's *A Thousand Plateaus*.<sup>(38)</sup> The virtual, is the imagination and connection of all the city parts with other parts in the rest of the world, reflecting the state of Berlin as the epicenter of Cold War politics. The virtual, is the appearance of different paradigms reflecting certain time periods becoming valid in the multiplicity of the now, connecting the past with present and future.

The used 'generic' grid in the representational figure-ground drawings, allows new islands to appear in the space between the other islands. "The green interspaces form a system of modified, sometimes artificial, nature ... suburbs ... parks ... woods ... hunting preserves ... gardens ... agriculture ... The natural grid would welcome the full panoply of the technical age ..." <sup>(39)</sup>. This space, the "natural lagoon" welcomes "counter cultures", "ecological urbanism", and is a "free-zone" for architectural experimentation that "with the city's most controversial aspects, such as devision, conflict, and even destruction" creates a space of possibilities.<sup>(40)</sup> This space is generic because "where there is nothing, everything is possible [and] where there is architecture, nothing (else) is possible."<sup>(41)</sup> The "lagoon" is metaphorically the emptiness in space, where 'supernova' create conglomerations of stars, that gravitate other mass towards it. It is a 'ecological' system where natural, mental and social systems create a Darwinian space: survival of the fittest forms, architectural evolution.



## GUY DEBORD AND PSYCHOGEOGRAPHY

Guy Debord illustrated his critique on post war urban interventions with his work *Guide psychogéographique de Paris: discours sur les passions de l'amour* (1956) and the followed *The Naked City*, *Illustration de l'hypothèse des plaques tournantes en psychogéographie* (1957), both in collaboration with the Danish painter Asger Jorn. The first map, used the *Plan de Paris à vol d'oiseau* (1956), a famous “magnificent perspectival rendering of the city”, a map, made for tourists, that reveals Paris as a homogeneous, “spectacle city”, an outcome, according to the Situationists, of the post-war capitalistic society. (42) The manifest of Debord and the Situationists, countered the post-war urban visions in Paris (and in other European city's), that where, according to them, an outcome of the rational planning of the CIAM's Athens Charter.(43)



The maps of Paris made by Debord and Jorn opposed the clear division of functions (and also classes of inhabitants) into different, clearly bordered city quarters. By drifting through the city, a method they called *Dérivé*, they used their own subjectivity to find urban quarters where the city still had the ‘romantic’ sphere of the metropolis as written by Thomas de Quincey, Charles Dickens, Charles Baudelaire and Walter Benjamin.(44). By cutting up the *Plan de Paris à vol d'oiseau*, into “centres of attraction”, they emphasized the ‘special’ quarters of the city.(45)

The manifestation of this mapping in their cartography countered the objective birds eye view of the city that creates no subjective meaning. The paintings and maps of the Situationists use cut-outs of existing maps and images into a new composition, a notion called *Détournement* – “the fluid language of anti-ideology”, as Debord called it, was a reinterpretation and recreation of existing popular elements of mostly images.(46) This ‘mapping’ is the two-dimensional translation of the Theory of the *Dérivé*.(47)

Figures:

Left:

18. *The Naked City*, Illustration de l'hypothèse des plaques tournantes en psychogéographie (1957), Guy Debord and Asger Jorn.

19. *Guide psychogéographique de Paris: discours sur les passions de l'amour* (1956), Guy Debord and Asger Jorn

note from author:

The used 'cut-outs' are from the 'Plan de Paris à vol d'oiseau' from 1956, a famous "magnificent perspectival rendering of the city".

The subjective 'mapping' of quarters was an activism against the "rationalist imagination, which aspired to tailor the city with Cartesian precision. The Situationists "sought ways of illustrating and addressing the social ecology of the city...(48)." The maps of Debord and Jorn, just as Ungers and his pupils, emphasise the quarters that stand out against the homogenising capitalistic urbanity of post-war interventions in the city. The clear borders of these heterogeneous 'archipelago's' have "fixed points and vortexes which strongly discourage entry into the white homogeneous spaces in between that represent the "self-contained character of administrative districts," spaces taken by cars (parked cars literally took pedestrian space in this time) and the Cartesian modernistic "dead" spaces of post war architecture.(49)

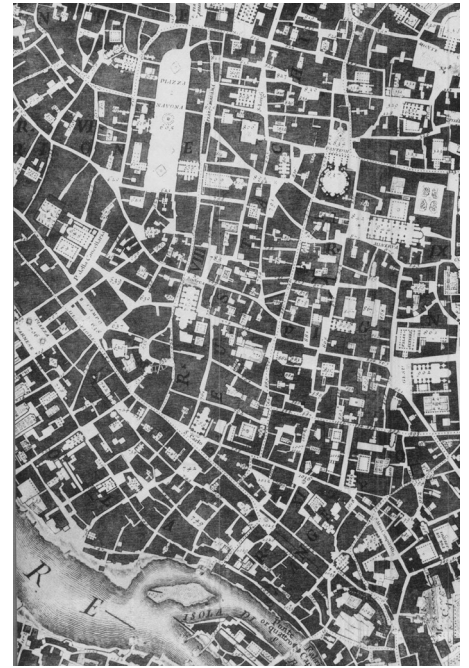
"With the aid of old maps, aerial photographs and experimental dérives, [the Situationists drew] up hitherto lacking maps of influences, maps whose inevitable imprecision at this early stage is no worse than that of the first navigational charts..."

25





The Situationists “admitted that its overview of the city was reconstructed in the imagination, piecing together an experience of space that was actually terrestrial, fragmented, subjective, temporal, and cultural.”(50) Nevertheless, “the only difference is that it is a matter no longer of precisely delineating stable continents, but of changing architecture and urbanism.”(51) The Acknowledgement of the city as meta-stabile, the islands as tectonic plates that clash between one and another, reveal the city in flux of urban renewal. The activistic, virtual map of Paris, drawn up out of subjectivity, generated a ‘mind map’ of Paris creating a critique against the rational, omnipotent view rationalising the flows of traffic, money and goods that according to the Situationists “killed” the needed free spaces that were as vital for Paris as they were for cultural and personal exploitation of citizens in all classes.

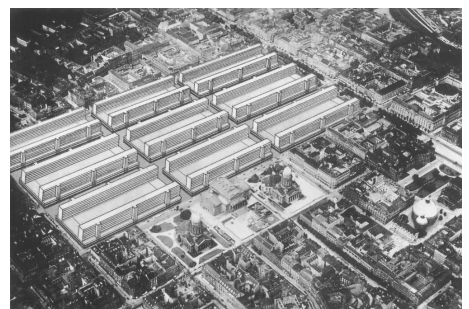


## REM KOOLHAAS AND VIRTUALITY

Across Europe criticism on modernity and its concreteness in built form was growing in the mid-1980s. The German historian Heinrich Klotz wrote that “all the Western nations had completed the turn to history”(52). Klotz meant that Western Europe “resorted to historical forms [of architecture] and linked up to a historically given environment by way of critical response to a modernism that in his opinion was characterised by a naïve belief in progress and scornfully turned its back on the history of architecture.”(53)



The criticism of modernism that was arising found its most famous architectural and urban proposals in the Internationale Bauausstellung (IBA) in Berlin from 1978 to 1984. This exhibition was a call to internationally known architects for visions on intervening in the still damaged urban tissue of West Berlin. Parallel to the exhibition a competition was held for specific sites that show the insularity of West Berlin, the clash between modernism and the Berlin Perimeter block or the damage of the Second World War.(54)



Figures:

Top left:

20. Giovanni Battista Nolli, *Nuova Pianta di Roma*, 1748, detail

Middle Left:

21. Ludwig Mies van der Rohe, *Competition for a skyscraper at Friedrichstrasse*, 1921

Bottom left:

22. Ludwig Hilberseimer, *Geschäftsstadt am Gendarmenmarkt*, 1928

*note from author: both the project of Mies van der Rohe and of Hilberseimer are summed up in the aerial view of the urban proposal of O.M.A. (see next page).*

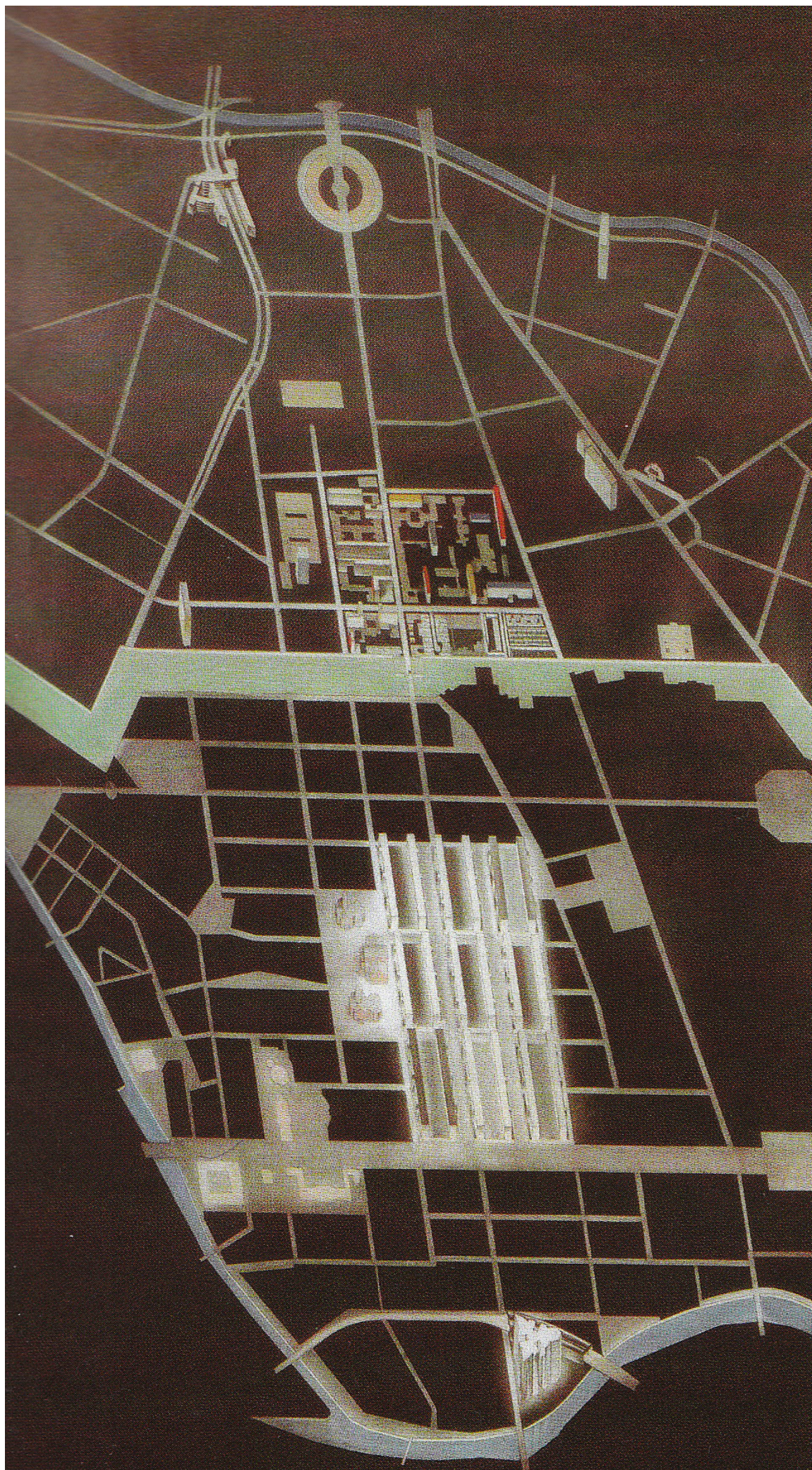
The German architect Josef Paul Kleihues, director of the IBA, was very much influenced by architectural theorists Leon and Rob Krier's "convention that the city needs streets, blocks, and squares...", a theme in urbanism far removed from modernism.(55)

It was at the start of the IBA that the image and memories of nineteenth century Berlin revived and were set as the reference for rebuilding Berlin. The 'nightmares' and 'horrors' of war and utopian visions of nazism, modernism and communism had to be erased with a 'critical reconstruction'. This 'critical reconstruction' focused on restoring the urban fabric of nineteenth century Berlin and to use this Poché as example and reference for other parts of Berlin.(56)

Ungers with his students criticised the critical reconstruction already in the Green Archipelago manifesto. This rather provocative project can be seen as one of the earliest critiques on the Krier brothers' visions for rebuilding Berlin with their "romantic" approach. In the manifesto *The City in city: Berlin as a green archipelago*, the authors write that the "[critical reconstruction is] to be avoided on the theoretic and operative plane, due to their illusory character: one is that of starting from the assumption that the city can be restored to its former historic substance and configuration ... The realisation of the idea of "repairing" the city which, if wrongly interpreted, may in practice be transformed into a destruction of the city..."(57)

For the competition around the IBA, Rem Koolhaas with his office O.M.A, submitted a plan for four 'blocks' around Friedrichstrasse and Kochstrasse. Koolhaas neglected the references for critical reconstruction stated by the IBA and opposed the 'fantasy' reconstruction of Berlin. Koolhaas defies "the plan to restore the nineteenth century edification with closed blocks. The gaps created by bombing, the postwar reconstruction, the wall that borders and divides the city, and architecture of Berlin, all excluded from the references of the IBA, are summed up in the aerial view of the plan of the quarter along Friedrichstrasse, showing the Skyscraper by Mies van der Rohe, the fabric of parallel blocks envisioned by Hilberseimer..." and other architectural forms that stand out in the city's Poché.(58)







Figures:

Left:

23. Office for Metropolitan Architecture, Rem Koolhaas, project for Kochstrasse and Friedrichstrasse, 1980, aerial view

note from author: the unbuilt projects of Mies van der Rohe and Hilberseimer are rendered in the total overview of the urban intervention of O.M.A. proposal for the IBA (see previous page).

Bottom right:

24. Office for Metropolitan Architecture, Rem Koolhaas, project for Kochstrasse and Friedrichstrasse, 1980, axonometric drawing



Koolhaas wrote in one paragraph about his critique towards Kleihues, the Krier

Brothers and most of ‘postmodern’ architects by saying that “the recent rediscovery of the streets as the core element of all urbanism, the simplest solution to this complex and ambiguous condition [of Berlin] is to undo the “mistakes” of the fifties and sixties and to build once again along the plot lines, [and this would] hide most of the postwar buildings in an effort to render harmless the mistaken ideologies of the past four decades.”(59) The visions derived from the workshop together with Ungers on the cities within the city explain the stance Koolhaas takes towards the IBA. Effectively he sums up the ‘beauty’ of the agonistic architecture and the different architectural utopias and the reason critical reconstruction would harm the city. “It is important to resist [the] temptation [for critical reconstruction], to avoid becoming part of a mindless pendulum movement where the acceptance of one particular architecture doctrine leads – as surely as day follows night – to the adoption of the exact opposite a few years later: a negative sequence in which every generation ridicules the previous one only to be annulled by the next.”(60) With these words Koolhaas summarises the agonistic projects and counter projects of Berlin, and refuses to participate in this chain of events. “The effect of such a yes-no-yes sequence is antihistorical in that it condemns the discourse of architecture to become an incomprehensible chain of disconnected sentences.”(61) It was this competition entry for the IBA that showed the most radical critique against the ‘critical reconstruction’ where Koolhaas used iconic visions or buildings, built or unbuilt, destroyed by the war or demolished, as the ‘reality’ of Berlin.

The acknowledgement of these projects as the reality, reveals the ‘virtual’ of the context, where the virtual is presented, in the aerial view, as the ‘real’ but not the ‘actual’. This contextual mapping of the virtual generated an image of the site ‘legitimizing’ his design for an empty plot constituted from a “texture of patio houses whose models are those of Hilberseimer and Mies van der Rohe, generating a multiplicity of walls, a symbolic reflection of the Berlin Wall.”(62) Koolhaas’s proposes “modern typologies ... [that] can co-exist with a classical street pattern and the survivors of architectural ideologies from the recent and distant past.”(63) The mapping of different, sometimes ‘clashing’ ideologies, even at the other side of the Wall, constitutes a field of possibilities in the context of Berlin, acknowledging the recent historical happenings around the Wars.

## METHOD

### MOVEMENT AND META STABILITY

The perception of space and time has always been a topic of discussion in the field of architectural theory, related to philosophical readings on space, time and matter. Since the evolution theory of Darwin, the idea of time and space changed radically, from a sequential loop towards a progressive line. Our perception of space, time and matter in daily life consists of the dynamic flows of nature and traffic, the static objects like mountains and architecture, and our memories of the past, by virtue in our minds, and physically in photographs and books.

With new techniques, such as cinema, photography, satellites and computers, we can perceive the things that at first sight seem static becoming dynamic. Manuel de Landa uses the metaphor of the moving tectonic plates and with that the creation of mountains with an inch every year, for meta-stability – something that seems static but is actually moving. (64) Architecture and urbanism are meta-stabile. The growing of a city, the construction of a building, the decay of the facade, and the demolition, all this together, when ‘fast-forwarded’, create a moving image. The way the futurist emphasize the dynamics of movement, for example in Marcel Duchamp’s *Nude descending a Staircase*, can be, metaphorically, a technique for mapping certain aspects of the city. The mapping of this movement makes us perceive the city as something highly dynamic and charged with “basins of attraction” and “singularities”.



Figures:

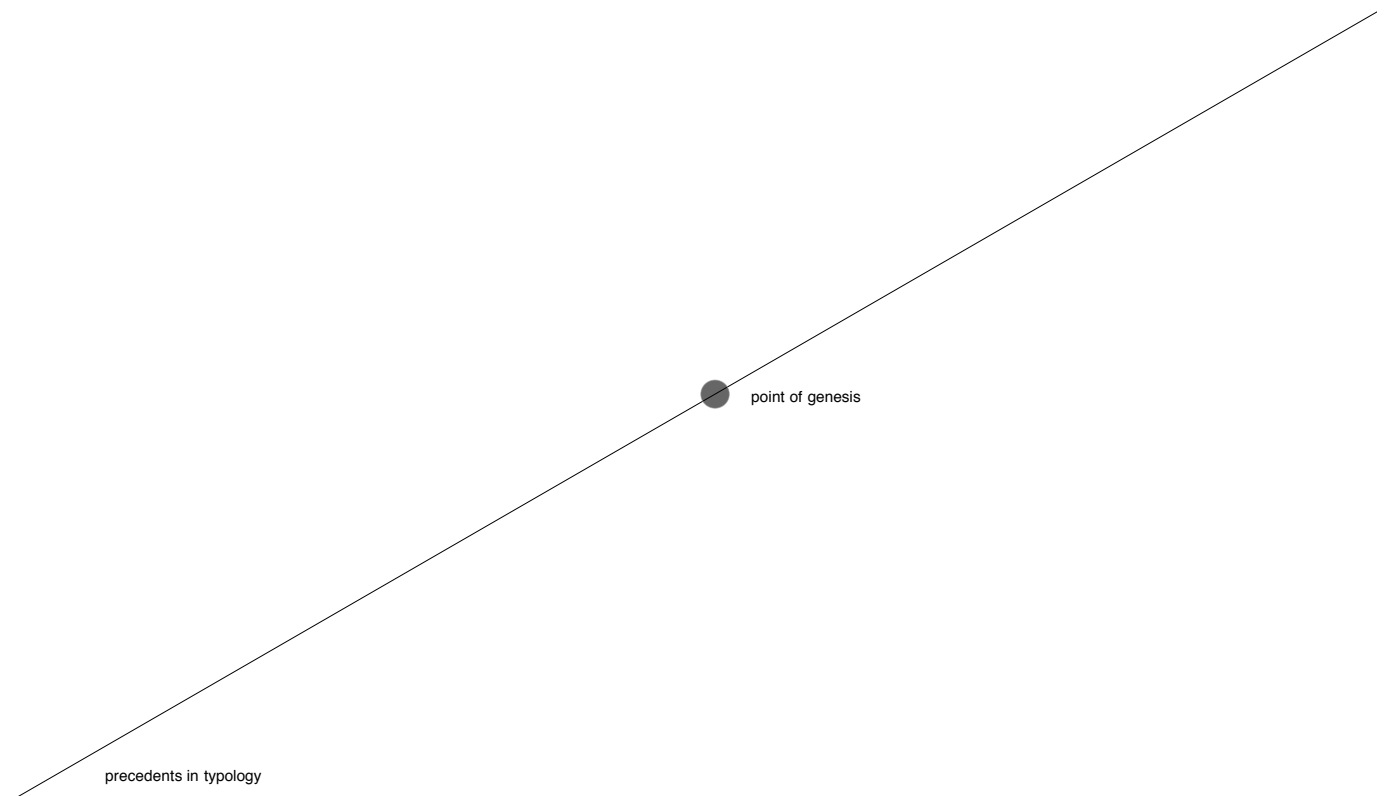
Left:  
25. *Nude Descending a Staircase, No. 2* (1912),  
Marcel Duchamp

Bottom:  
26. *axis of typology*, il-  
lustration by author

## POINTS OF GENESIS

The human (architectural) interventions contribute to the meta-stability and movement in the environment. The point of creation, and the process of becoming are working, as set out in this paper, in the Deleuzian 'rhizome'; 'points' and 'intensities' working in a multidimensional space. How does the morphogenesis (the process of becoming) operate as architectural form? In humanistic tradition this is structured in the dialectics between the realms of building typology and its context. If we transcend this towards axis thinking, we can think, next to a range of possibilities, of the axis of typology, context, content and program. These axes are not a range of possibilities but a range of virtual and actual reality's in its totality.

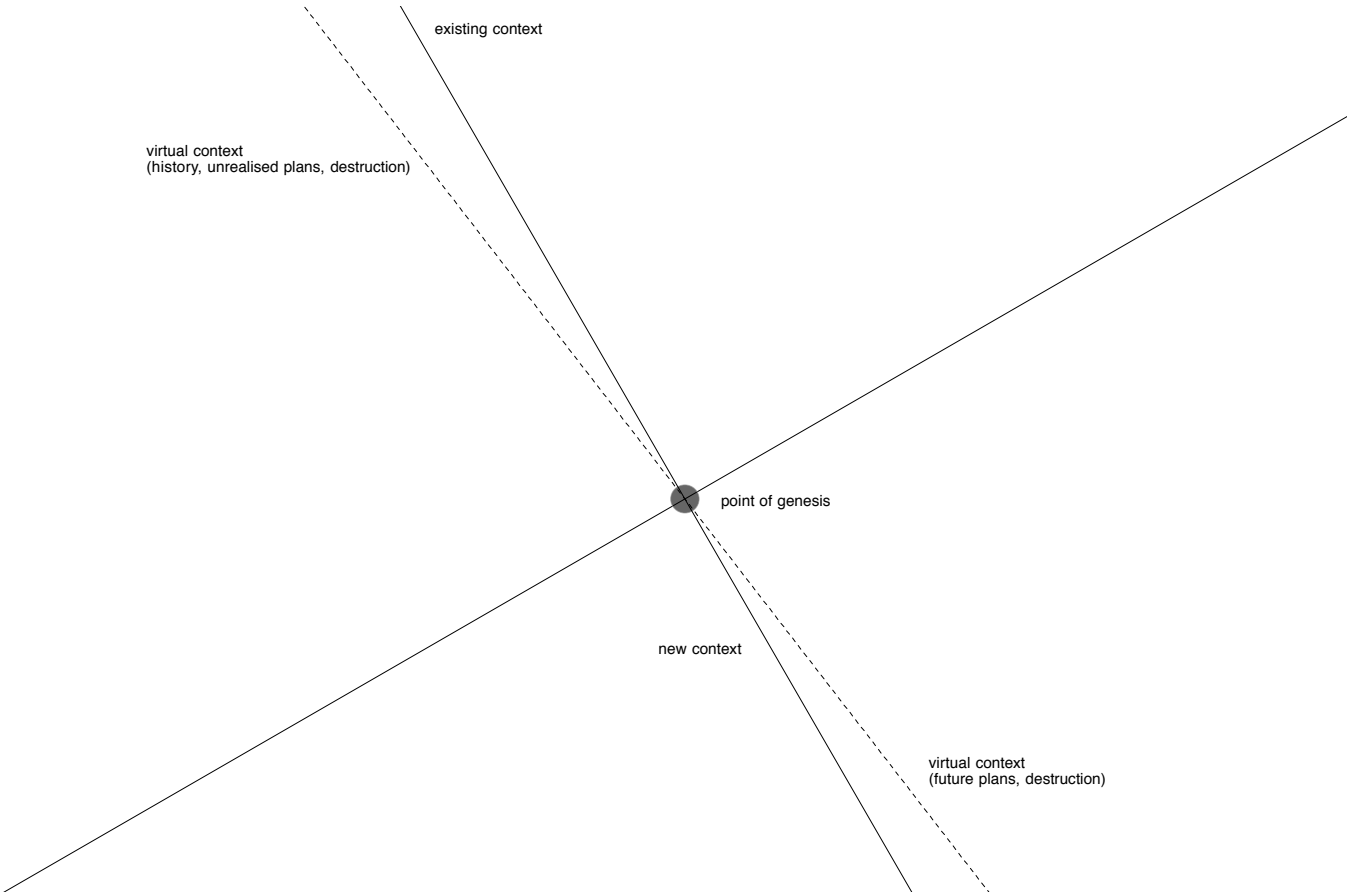
The axis of typology, is not a range of forms between on the one end the 'pavilion' and the other end the 'courtyard', describing its position between introverted and extroverted. Instead, the axis of typology (figure 26) is more visualizing the precedents that are in the mind of an architect or the environment he or she is working in. Before actualization of the building, which can be called the point of genesis, the 'virtual' consists of 'ghosts' hovering in this space of possibilities.



The axis of context (figure 27), is ambiguous, where before the point of genesis, it consists of the present “real” physical context, the actual morphological layered structure of the environment. Existing, next to the actual context, there is a virtual context, consisting of historical events, being ‘de-actualized’ and future plans not being actualized. The process of becoming, and the point of creation, change the context and thereby the entire virtual, and actual context. The axis of context, with the progression of time, is a reciprocal mechanism between possibilities and realities.

The axis of content (figure 28) operates on the level of epistemology. Certain visions and ideas, be it utopias or the project of the city, are virtual before actualization. At the point of genesis, the idea becomes crystalized: its actualization. After actualization, the content changes, being this because of society in flux or other such mechanisms, and it becomes virtual again in the mind of its users, the creators and spectators.

The program is virtual before its creation, and made actual by a spatial



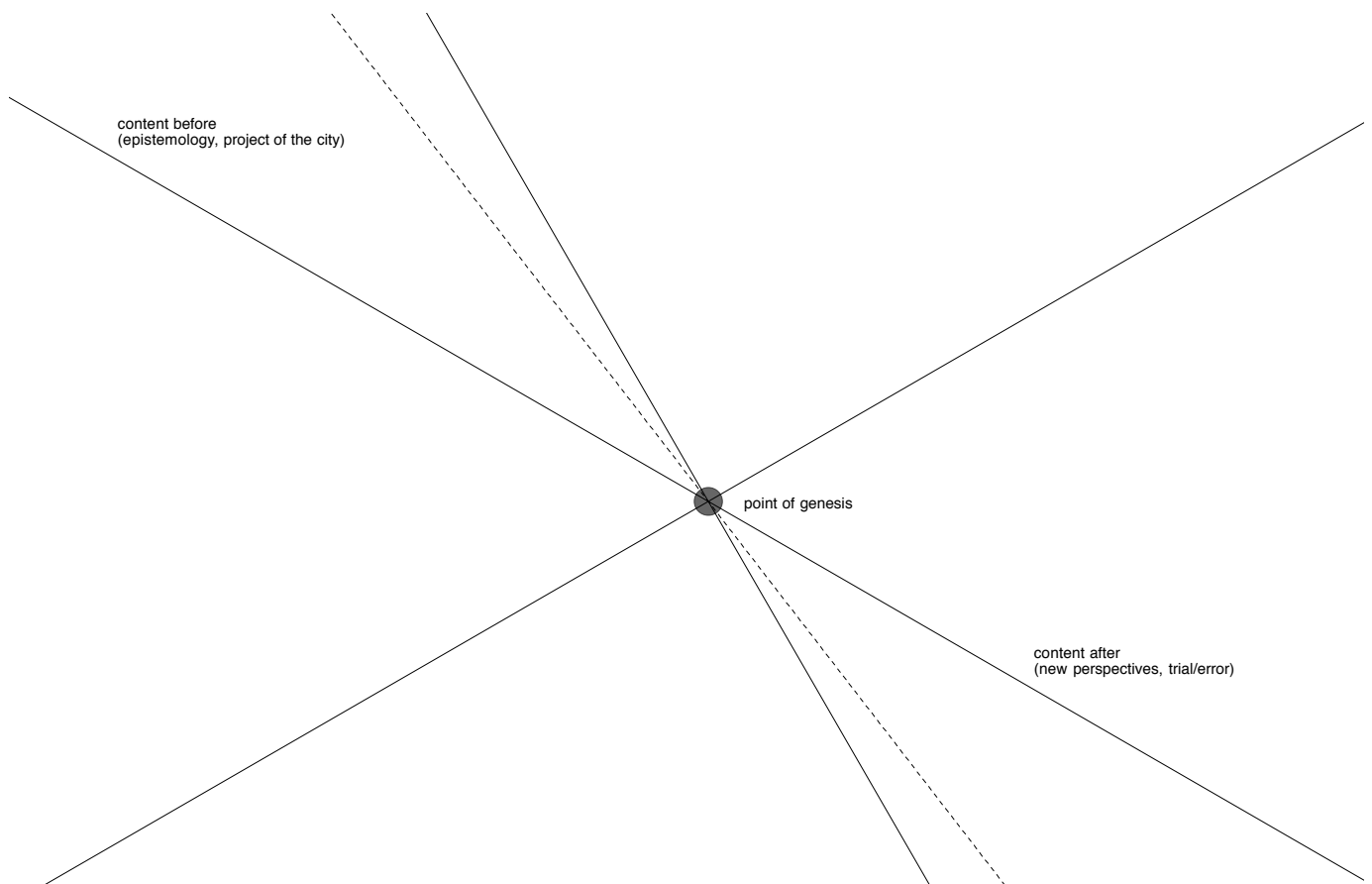
Figures:

Bottom left:  
27. axis of context,  
illustration by author

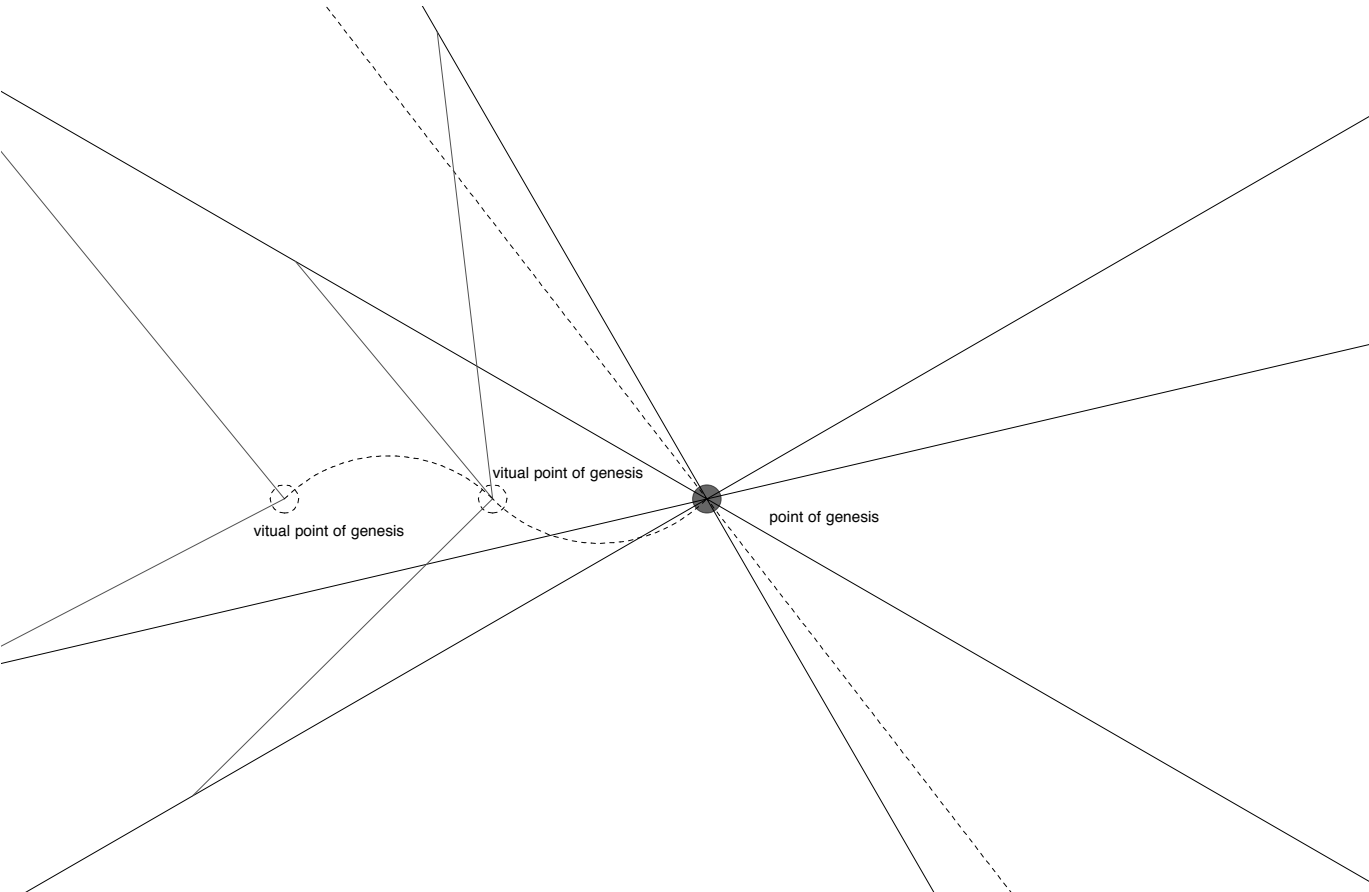
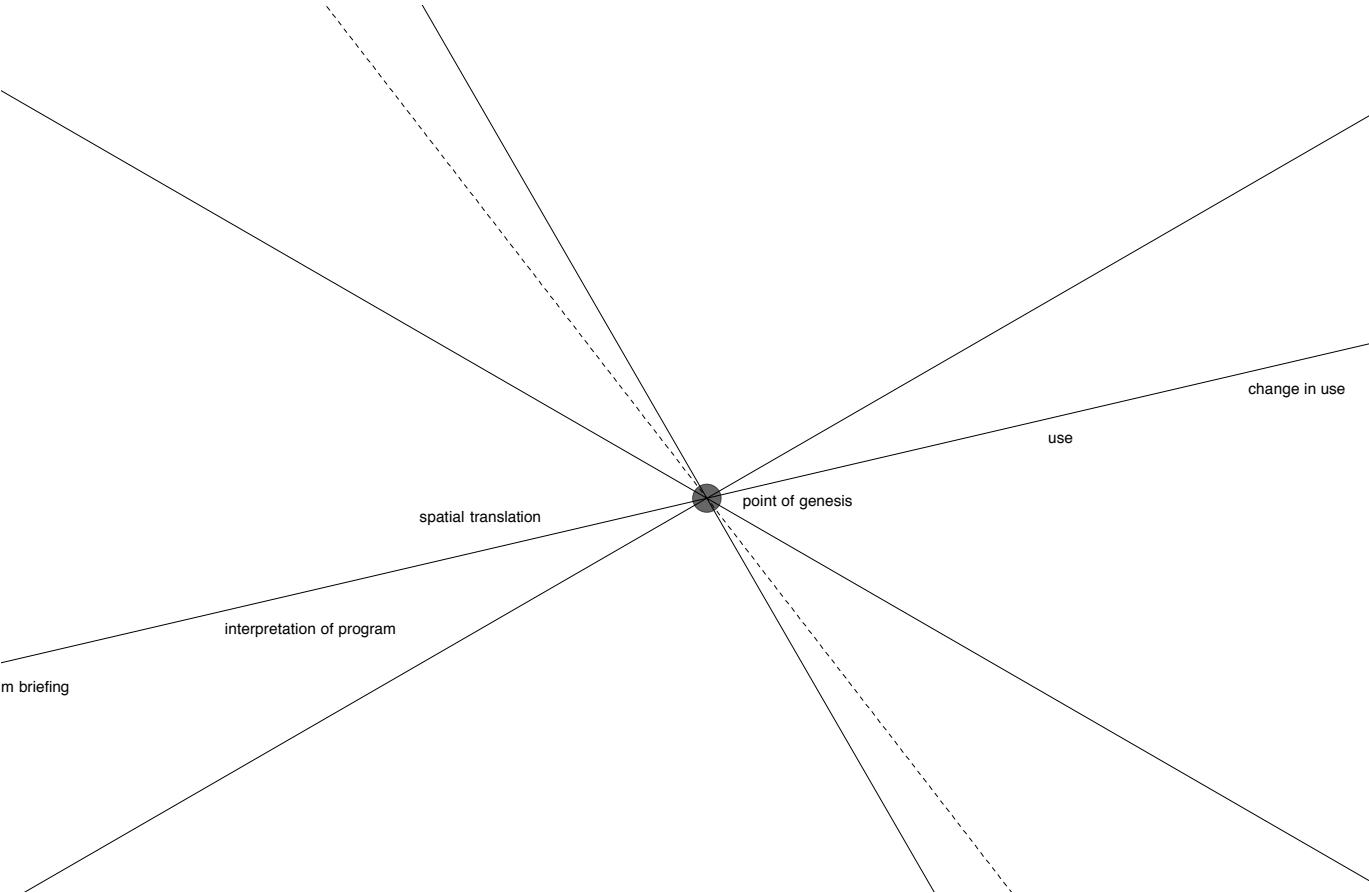
Bottom right:  
28. axis of content,  
illustration by author

translation of the program. However, as architecture theorist Paul Virilio, it must be emphasised how “the way a space is used and inhabited. The monumental conception of architecture forgets that the building is inscribed in a duration and in a complex fabric of social relations. The work of an architect does not end when actual construction is completed; the building continues to act within its environment and in regard to the various ways it is used by a multitude of people, each one carrying out a different strategy. Virilio thus affirms that, to the extent that ecology involves the study of relations carried out by living beings vis-à-vis their environment, it will be necessary to engage a way of thinking that comprises a true ecology of the building.”(65) As time progresses, the axis of program (figure 29) experiences an exchange of rational objective program and a subjective interpretation. Architects can operate as the mediator in this process of an object.

The axes work together towards the point of genesis, becoming more and more intense. Genesis even takes place at intense moments before realization, considering the different (design) phases and decisions that are taken from the initial idea until



completion of the building. (figure 30) This is what we could call the ‘process of becoming’. Intensity is at its highest peak when genesis takes place, a moment that in ecology is called morphogenesis.



Figures:

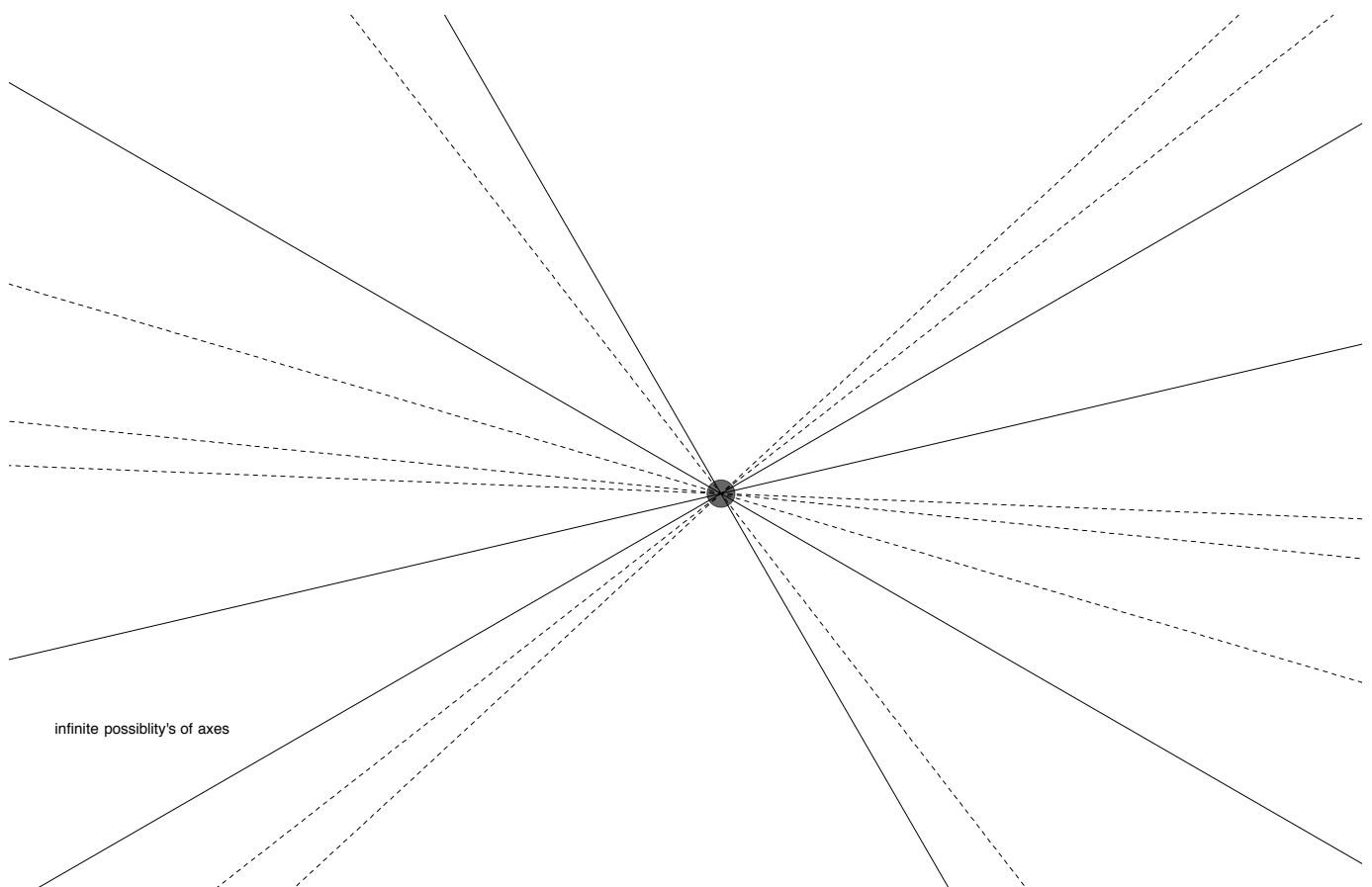
Left:  
29. axis of program,  
illustration by author

Bottom left:  
30. process of becoming,  
illustration by author

Bottom right:  
31. infinite axes  
illustration by author

It must be noted that these points of genesis don't necessary need to be actualized. They can just as well be utopias, unrealized projects or studies. As Foucault states in his *Of Other Spaces*, utopias are the mirror of reality. "The mirror is, after all, a utopia, since it is a placeless place. In the mirror, I see myself there where I am not, in an unreal, virtual space that opens up behind the surface; I am over there, there where I am not, a sort of shadow that gives my own visibility to myself, that enables me to see myself there where I am absent: such is the utopia of the mirror." (66) The mirror is metaphorically the virtual in the field of possibilities.

To construct a diagram from the rhizome into 'axis-thinking', creates for designers a wider understanding of the reciprocal process on intervening in the built environment. Points, that at first sight seemed unconnected, have the potential of becoming 'valid' and 'productive'. This 'productivisation' of points and 'intensities', makes it possible to enable and connect past, present and future, the actual and the virtual.



## MAPPING THE VIRTUAL

According to Bergson and Deleuze, time is a living concept that we interact with. The meaning, importance and actuality of history is a concept we have the potentiality to change. In this time of rationalizing, it is important to work on a more critical position, towards the subjectivity of the virtual and thus history, “in which man now appears destined not only to ‘react’ but to ‘act’.”(67) This can construct “our search for the condition – the ‘structure of experience’” - to be more critical and take a ‘imaginative’ stance on the topics of the future.(68) The architect can be at the position to reconsider, reinterpret, re-imagine, the un-actualized virtuality’s.

The possibilities of, when thinking in ‘axes’ and vortexes, mapping the virtual is endless. The method for mapping is already a subjectivity, and the researcher should take a stance, considering the context he or she is working in. These axes could, with the used examples in theory and practice, as a proposition, consist of the following subjects:

36

**Mapping the meta-stability of the context.** What is the movement and what are its vectors? What are the counter forces on this movement? What are the stable and what are the dynamic objects or fields? This can reveal the temporalities of the context.

**Mapping the virtual context.** What are the hidden virtuality’s in time and space? How is it connected to other spaces and other times? A method of mapping this could be ‘drawing’ specific axes, and construct a web with connections in time and space, connecting to historical events and places.

**Mapping the narrative.** To avoid being part of contemporary (architectural) styles, ideas or paradigms, how is the intervention, relating to the past and future, creating a sequence or narrative?



**Mapping memory.** How is the memory constructed, and with 'what' and 'where' is it connected.?

**Mapping experience.** Closely related to psychogeography, what models can be constructed to map experience and what 'can' be changed or 'should' be changed?

**Mapping the scenario.** What are the possible scenario's, taken into account all the other propositions for mapping? This puts the designer in the position of creating the next scenario, or changing the direction by saying 'what if?' or 'why not if?'

## CONCLUSIONS

To engage in the question how to 'spatialize' the globalized world, it is important to 'construct' models as a way to understand the world. In this time of technological progression, computer models and artificial intelligence help us to 'render' the world and give us answers to practical questions. However, the same technology based models are unable to solve our irrational human needs such as emotion, memory, subjectivity and imagination. The missing 'link' is the 'mapping' of subjectivity, that 'touches' the realm of memory and identity, a link that connects past, present and future.

The theories of Gilles Deleuze and Brian Eno, gives a wider understanding of the world in terms of time and space, and makes it possible to 'compress' past, present and future in one 'structure', called the 'rhizome'. With this structure, models can be made to conceptualise progression of time and space and how to intervene in this 'web'.

38

Architects and urbanists that mapped this rhizome, such as Ungers, Koolhaas and Debord, came to new (contextual) revelations, practicing retrospective theories on urban development that led them to highly critical and contextual, activist proposals.

The method of constructing an axis-thinking around architectural interventions in the (urban)rhizome, positioned in the rhizome of urban progression, architects and planners are able to propose future 'scenarios', inserting their proposals in the 'narrative' of urban 'movement'. This method elaborates on both the theory of Deleuze and Eno and on the mappings of practicing architects and urbanist. In this way architecture can, by position itself in the discourse of these pioneers, escape the Cartesian dualism towards a progressive, uniting multiplicity.



## NOTES

1. For more information on Berghain, see Christine Ruben, Anh-Linh Ngo, “Das Berghain – eine möglichkeitsarchitektur” in Arch+ 201/202, March 2011
2. Giovanni Antonio Canal, better known as Canaletto, was a Venetian Renaissance painter. He made a series of etchings of Capricci: a term for architectural fantasies. In one painting he depicted the unbuilt design of Andrea Palladio for Rialto Bridge over the Grand Canal, together with the Palladio's Palazzo Chiericati and Basilica in Vicenza, all rendered in a Venetian context. For more reading see Pier Vittorio Aureli, *The Possibility of an Absolute Architecture* (Cambridge: MIT Press, 2011)
3. “There is a painting by Klee called *Angelus Novus*. It shows an angel who seems about to move away from something he stares at. His eyes are wide, his mouth is open, his wings are spread. This is how the angel of history must look. His face is turned toward the past. Where a chain of events appears before us, he sees only a single catastrophe, which keeps piling wreckage upon wreckage and hurls it at his feet. The angel would like to stay, awaken the dead, and make whole what has been smashed. But a storm is blowing from Paradise and has got caught in his wings; it is so strong that the angel can no longer close them. This storm drives him irresistibly into the future to which his back is turned, while the pile of debris before him grows toward the sky. What we call progress is this storm.” from Walter Benjamin 1940 work, “On the Concept of History,” *Gesammelte Schriften* I, 691-704. Suhrkamp Verlag. Frankfurt am Main, 1974. Translation: Harry Zohn, from Walter Benjamin, *Selected Writings*, Vol. 4: 1938-1940 (Cambridge: Harvard University Press, 2003), 392-93. Scholem's poem on the Klee painting was written for Benjamin's twenty-ninth birthday -- July 15, 1921. Sieburth's translation is from Gershom Scholem, *The Fulfillment of Time: Poems* (Jerusalem: Ibis Editions, 2003).
4. Thomas Mayne is architect of the USA based architecture firm Morphosis. Thomas Mayne, “Connected Isolation”, Quoted from Manola Antonioli ‘Virtual Architecture’ Trans. Julie-Françoise Kruidenier and Peter Gaffney in Peter Gaffney (Ed) *The Force of the Virtual: Deleuze, Science, and Philosophy*.
5. Manola Antonioli ‘Virtual Architecture’ pp. 179
6. Ibid.
7. Aldo Rossi, *The Architecture of the City* (Cambridge: MIT Press, 1984)
8. Miescherlich and the Frankfurter School criticised modernism in architecture and urbanism for its failure in creating a home for post-industrial society in the monotonous suburbs following the clear divisions of functions as described in the Athens Charter of CIAM. For the influence of the Frankfurter School on the postmodern architecture (mainly in Berlin) see Angelika Schnell, What is meant by ‘history’? In *Oase* #87, 2012
9. Brian Eno divines this capacity of showing ‘what the world can be’, as one of the most important affects of Art and creativity, as opposed to scientists and engineers. See Architectural Association School London, “Eno, Brian”, <http://www.aaschool.ac.uk/VIDEO/lecture.php?ID=1804>
10. Brian Eno, *One Year with Swollen Appendices*, Brian Eno's Diary (London: 1996, Faber and Faber Ltd.) pp. 298
11. Ibid.
12. Ibid., pp 299
13. In a lecture held at the Architecture Association School of Architecture of London, Eno talks about the importance of Art. He relates this to the notion of “webs” in biology, started by Darwin and further elaborated in “ecologies”. Architectural Association School London, “Eno, Brian”, <http://www.aaschool.ac.uk/VIDEO/lecture.php?ID=1804>
14. Ibid.
15. Gilles Deleuze and Felix Guattari, *A Thousand Plateaus*, trans. Brian Massumi (London: Continuum, 1980)
16. Felix Guattari, *The Three Ecologies*, trans. Chris Turner, “Material World,” *New Formations* 8 (summer 1989)
17. explain oikos
18. Reinhold Martin, *Utopia's Ghost* (Minneapolis: University of Minnesota Press, 2010) pp. 150
19. Superstudio, a group of architects from Florence, used images, performances and writing to criticize the capitalistic ideologies of modern architecture and urbanism. Their use of modern architectural ‘language’ and its grid are used to demonstrate its destructive impact on nature and the city, best envisioned in their work *The Continuous Monument*. See Peter Lang and William Menking, *Superstudio, Life Without Objects* (London: Skira, 2003)

20. Brian Eno, *One Year with Swollen Appendices*
21. Manola Antonioli, 'Virtual Architecture' pp. 177
22. *Ibid.*, pp 176
23. *Ibid.*, pp 178
24. Deleuze's first book called *Bergsonism* describes the notion of time and space and the notion of virtuality. Gilles Deleuze, *Bergsonism*. Trans Hugh Tomlinson and Barbara Habberjam (New York: Zone, 1991)
25. Gilles Deleuze, *Bergsonism*. Quoted from Deborah Hauptmann, 'The Past which Is: The Present that Was: Benjamin and the Bergson trajectory', in *Cities in Transition*, Eds. Arie Graafland and Deborah Hauptmann (Delft: 010 Publishers, 2001) pp. 359
26. Hauptmann, 'The Past which Is: The Present that Was: Benjamin and the Bergson trajectory' pp. 353
27. Gilles Deleuze and Félix Guattari, *What Is Philosophy?* Trans. Hugh Tomlinson and Graham Burchell (New York: Columbia University Press, 1994), 208, quoted from Manola Antonioli, 'Virtual Architecture' pp. 170
28. Manola Antonioli, 'Virtual Architecture' pp. 170
29. Pier Vittorio Aureli firstly 'coined' this term for the method Ungers was developing to escape the dualistic (architectural) debates of the cold war. See Aureli, *The Possibility of an Absolute Architecture*
30. For more reading on pre-war architectural debate with Mächler, Speer, Mies van der Rohe and Hilberseimer see Vittorio Magnago Lampugnani, 'Berlin Modernism and the Architecture of the Metropolis', in *Mies in Berlin*, ed. David Frankel (New York: Museum of Modern Art, 2001)
31. For a closer reading on the Cold War politics and its "agonistic" architectural projects see Francesca Rogier 'The Monumentality of Rhetoric: The Will to Rebuild in Postwar Berlin', in Sarah Williams Goldhagen and Réjean Legault (eds) *Anxious Modernism. Experimentation in Postwar Architectural Culture* (Cambridge: MIT Press, 2002)
32. Werner Durth, *Stadt und Landschaft: Kriegszerstörungen und Zukunftsentwürfe* (Berlin: Henschel Verlag, 1995) pp. 152
33. Oswald Matthias Ungers et al., *Cities within the city. Proposals by the Sommer Akademie for Berlin* in "Lotus international", 1978, No. 19
34. Aureli, *The Possibility of an Absolute Architecture*, pp. 178
35. *Ibid.*
36. The project is called Berlin as a Green Archipelago, but the publication in Lotus was called *Cities within the city*. See Ungers et al., *Cities within the city*
37. Ungers et al., *Cities within the city*
38. Reinhold Martin discusses the "Ghosts" of utopia in the, what he calls, the "post-utopian" era of postmodernism. Berlin as a green archipelago is described as a "multitude of little utopia's". See Martin, *Utopia's Ghost*. pp. 150
39. Ungers et al., *Cities within the city*
40. Aureli, *The Possibility of an Absolute Architecture*, pp. 226
41. Rem Koolhaas, "Imagining Nothingness,," in *Small, Medium, Large, Extra-large: Office for Metropolitan Architecture*. (Köln: Taschen, 1997 ) pp. 199-202
42. note for spectacle city, post war capitalism
43. The Athens Charter is an overview of visions and plans for cities mainly in Europe, designed by modernistic architects that contributed to the Congrès International d'Architecture Moderne (CIAM) in 1933. Architects such as Ernst May, Cornelis van Eesteren, Le Corbusier and other CIAM members worked for years on this document, which is commonly understood as the 'guidebook' for building in Europe after the second world war. The vision, written in the Athens Charter, for future cities describes a clear division of functions instead of mixed use.

44. Benjamin, Baudelaire, Dickens, de Quincy explored the public sphere of the rising Metropolises of London, Paris and Berlin, creating the notion of Flânerie. For the relation between these writers and the Situationists see Simon Sadler, *The Situationist City* (Cambridge: MIT Press, 1999)
45. These centres of attraction, as written in *Theory of the Dérive*, were most of the time quarters that Debord liked to visit during his long 'drifts' through the night. See Libera Andreotti and Xavier Costa (Eds) *Situationists: art, politics, urbanism* (Barcelona: Museu d'Art Contemporani de Barcelona, 1996) pp. 26
46. Libera Andreotti 'Introduction: the urban politics of the Internationale Situationniste (1957-1972)', in Andreotti and Costa (Eds) *Situationists: art, politics, urbanism*, pp. 26
47. Guy Debord, "Theory of the Dérive," *Internationale Situationniste* (December 1958)
48. Sadler, *The Situationist City*, pp 20
49. Guy Debord, *Theory of the Dérive*
50. Sadler, *The Situationist City*, pp 82
51. Ibid.
52. Heinrich Klotz, *Moderne und Postmoderne. Architektur der Gegenwart* (Wiesbaden: Vieweg, 1987) pp. 45 quoted from Angelika Schnell, What is meant by 'history' ? In *Oase #87*, 2012 pp. 57
53. Schnell, What is meant by 'history' ? pp. 57
54. One of the most important references mentioned in the catalogue of the IBA was the perimeter block, named by Leon and Rob Krier as 'typical' for Berlin. The revival of the perimeter block was seen as an alternative for what the Alexander Mitscherlich, Philosopher and Founder of the Frankfurter Sigmund Freud Institut, called monotonous and 'alienating modernistic' architecture. See Schnell, What is meant by 'history' ? pp. 64
55. Aureli, *The Possibility of an Absolute Architecture* pp. 243
56. Figure-ground maps show the 'Poché' to "graphically illustrate the relationship between "figure" and "ground", "object" and "texture", in urban fabric where the quality of the spaces "in between" buildings had the same importance as the buildings themselves." Nolli's map of Rome is the most used example for this. See Colin Rowe, Fred Koetter, *College city*, in "The Architectural Review", vol CLVIII, 1975, No. 942, pp.66-91, Quoted from Roberto Gargiani, *Rem Koolhaas / OMA: The construction of Merveilles* (Lausanne: EPFL Press, 2008) pp. 61
57. Ungers et al., *Cities within the city*
58. Gargiani, *Rem Koolhaas / OMA: The construction of Merveilles*. pp. 93
59. Rem Koolhaas and Bruce Mau, *Small, Medium, Large, Extra-large: Office for Metropolitan Architecture*. (Köln: Taschen, 1997) pp. 259
60. Ibid.
61. Ibid.
62. Gargiani, *Rem Koolhaas / OMA: The construction of Merveilles*. pp. 96
63. Rem Koolhaas and Bruce Mau, *Small, Medium, Large, Extra-large*. pp. 259
64. European Graduate School, *Manual de Landa*, lecture on intensive and topological thinking, <http://www.youtube.com/watch?v=owW2l-nBIDg&feature=relmfu&noredirect=1>
65. Manola Antonioli, 'Virtual Architecture' pp. 184
66. Michel Foucault, "Of Other Spaces: The Principles of Heterotopia" (1984)
67. Hauptmann, "The Past which Is: The Present that Was: Benjamin and the Bergson trajectory" pp. 359
68. Ibid.

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