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The course Architecture, Urban Mapping and the Digital Technologies deals with contemporary issues concerning the influence of digital technologies in contemporary architectural and urban design. The effects of contemporary high-end technologies are much more than new and faster ways of working. Digital technologies are changing the very notion of ‘tool’. Digitalization shifts human agency and structure to a register of informational bits from that of manufactured matter. With many of the contemporary architectural electronic imaging techniques and communication technologies, we might in the end loose notions of ‘ground’. It will take at least a series of lectures to explain what I mean by this. In relation to the lecture series we might be able to run a series of workshops for students willing to read and discuss these matters in further detail.

Arie Graafland
This contribution deals with contemporary ideas on urban mapping. The growth of the first generation metropolises like New York, Paris, or London, is in no way comparable to the growth of Asian cities. Many are in fact doubling their population every 15 to 20 years. Consequently, we are no longer talking about “cities”, but about mega-urban-regions (MURs).

A central question then becomes a question about mapping these urban complexities. I will deal with the Dutch Randstad consisting of the four major cities in the Netherlands; Amsterdam, Rotterdam, Utrecht and the Hague. The last part deals with the Rotterdam Port and its new logistics.

In the most recent report of the United Nations Human Settlements Programme, The State of the World’s Cities 2004/2005, we find a diagnosis of pervasive and persistent urban problems - problems that include growing poverty in many regions, deepening inequality and polarisation, widespread corruption, high levels of crime and violence, and deteriorating living conditions with inadequate sanitation, unsafe water, etc.

Nonetheless, the Report goes on to state that cities also function as engines of economic growth and an examination of promising practices around the world show examples of low-income communities who mobilise successfully, to improve difficult situations. In describing the characteristics of today’s urban world, the Report describes the specific character of globalisation. At least three out of the four are well known.

Global connections function at a much greater speed than ever before, globalisation operates at a much larger scale, leaving few people unaffected, and third, the scope of global connections is much broader; it has multiple dimensions such as economic, environmental, technological, political, legal, social and cultural dimensions. Especially the last mentioned characteristic has our attention.

The dynamic and often unmediated interactions among numerous global actors create a new level of complexity for the relationships between policy, research and practice. A general trend, especially in East Asia, is the ‘informalization’ of urban economy, with increasing shares of income earned in unregulated employment. This way of generating income even occurs in one of the most advanced countries of the Asian world, Japan.

Interestingly enough, the UN Report also notices that we need better and more advanced ways to analyse and describe our contemporary cities. A recent assessment of United States cities put it this way: ‘It is becoming a commonplace that established representations of the city and the suburbs do not hold. Our capacity to describe or theorise the social and spatial organisation of the contemporary metropolis is manifestly inadequate to what we know of the metropolitan experience’. (Thomas, 2001)

One of the major instruments in our profession is of course a map. Maps today come in all kind of varieties. In our present day situation with GPS and computer generated maps a lot has changed. We now measure the earth from space satellites which gives us more precise knowledge of the globe. For maps of small geographical areas such as city maps, the earth may reasonably be considered a plane. Many astronomical and navigational computations use the sphere as a surface representing the earth because a sphere is mathematically easy to deal with.

But architects and urbanists are no geodesists. They use maps for other purposes. Nor is our perceptual apparatus completely neutral to its observations. Donna Haraway, the American biologist and philosopher writes that the ‘eyes’ made available in modern technological sciences shatter any idea of passive vision; these prosthetic devices show us that all eyes, including our own organic ones, are active perceptual systems, building in translations and specific ways of seeing.

There is no unmediated photograph or passive camera obscura in scientific accounts of bodies and machines. The recognition of the different maps and modes of political alliance and action in the West has been articulated most strongly by feminist and post-colonial theory. ‘Positionality’, ‘situatedness’, and ‘standpoint’ have become familiar words as means to locate perspectives and power positions, David Harvey writes.

What kind of map of the world are we talking about today? What we are confronted with are innumerable seemingly incomplete maps of the world drawn from different space-time ‘positions’. Harvey in his Justice, Nature & the Geography of Difference has argued that the multiple windows on the same reality, like the multiple theorizations available to us, can constitute a way of triangulating in on this same
I believe that is also the intention of Ed Soja’s book *Thirdspace*. His book deals with feminist critiques of urbanism, and postcolonial critiques. Although it is indebted to French philosophers like Henri Lefebvre and Michel Foucault, his ideas are open to many other non-Western thinkers. What we need is developing the techniques of conjoining information from different positionalities.

It is a basic principle of all cartographic construction: to make an *accurate* map (representation) of the world we require at the very minimum a procedure of triangulation that moves across multiple points. Spatiality simultaneously unifies and separates. David Harvey suggests that precisely because of the transcending possibilities of global framing, we can register forms of social difference.

In the first-generation metropolis like New York, London, Moscow and Paris the social morphology is largely determined by the territorial division of labour between its functional components core and fringes. First generation metropolises tend towards social segregation with populations different in income and ethnic traits clustering in different geographical parts of the city. The patterns usually vary according to historical conditions. We should realise that the growth of these first-generation metropolises is in no way comparable to the growth of Asian cities. Many of them are doubling their population every 15 to 20 years. By 2015, Asian developing countries will hold three of the world’s largest urban agglomerations: Mumbai, Dhaka and Delhi.

Whereas London took 130 years to grow from 1 to 8 million, Bangkok took 45 years, Dhaka 37 years and Seoul only 25 years. We are no longer talking about ‘cities’, but about *mega-urban-regions* (MURs). Asian MUR’s may contain 10 to 30 million people each. The Asia Pacific urbanisation occurred as ‘regional-urbanisation’, mostly absorption *in situ* of populations. Completely different from the urban centred urbanisation in the West.

We are now talking about the Tokyo-Osaka-MUR. It is expected that by 2020 two-thirds of the entire Association of East Asian States (ASEAN) urban populations will live in only five MUR’s. The Bangkok centred MUR (30 million), the Kuala Lumpur-Klang MUR (6 million), the Singapore Triangle (10 million), the Java MUR (100 million) and the Manilla MUR (30 million). The Tokyo-Osaka-Kyoto-Kobe-Nagoya MUR contains 60 million people. When we compare these agglomerations to our notions of the West European city, you will realize that with our instruments of design we are completely at loss to even partially steer these agglomerations.

Our design instruments will need a *mutation* to even understand what’s going on. The *Mapping Urban Complexity* project I have initiated at the Delft School of Design is only a first and moderate step to get to an understanding of the Asian agglomeration. When you look at the urban map of Tokyo, I would like you to think of how notions of ‘self-organisation’ from Life Sciences take place in a city like Tokyo. The only apparently ‘designed’ urban area of Den-en Chofu looks like a Western urban antiquity of the garden city in this Asian context.

In all cases in the West it was the availability of mass transportation, both public and private, that produced the first generation metropolis and led to the ‘commuter population’ common by the middle of the 20th century. The type of metropolis that is growing out of the heightened gravitation of city users, a population composed of individuals going to a city primarily to *use* its services, is the one most common today and is called ‘second-generation metropolis’. There is also a third generation or late-metropolis emerging. Although I would not call it a new metropolis, the UN Report basically describes a new class or social group of businessmen, a transnational middle class living not in a *city*, but rather *in cities* or between cities. This group of people affects the morphology and functions of all large cities well beyond the group’s numerical weight. This still emerging metropolis has been called the *third generation*. Other categories have come into play as well. Sociological categories like uneven distribution of wealth, distribution of crime scenes (think of possible maps in the West of Los Angeles, New York, Washington), race and gender.

**The Dutch situation; the Randstad and the Rotterdam Port.**

[荷兰的处境: 代尔夫特和鹿特丹港口]

The cultural dimension is extremely important to the assessment of our spatial problematics. More and more emphasis is placed on the complexity of space, while the notion of hierarchical structures is disappearing. Instead, we are confronted with ideas about networks, streams of information, knots, and a space that is no longer to be controlled or planned.

Economics, politics and social sciences are all currently seeking terms to describe this process.

Even within the fields of urbanism and planning, the vocabulary is undergoing a shift; this is visible even in, for example, the definition of the Dutch Randstad (consisting of the four big cities Amsterdam, Utrecht,
The Hague and Rotterdam). Years ago, the Dutch sociologist De Swaan already pointed out that metropolitan areas such as the Randstad and the Rhine-Ruhr area in Germany are principally conceptual constructions of planners. He especially appreciated urban culture, specifically as exemplified in the city of Amsterdam. The terminology used by De Swaan extended not only to formal statistics such as number of inhabitants and density per square kilometre, but also dealt with issues such as functional connective tissue surrounding an urban centre. In this sense, he considers the Randstad a metropolis or mega-city, and one of the most eminent ones in Europe. (De Swaan, 1991)

In a more recent debate, the Dutch urbanist Willem de Bruin draws a critical perspective of all the policy guidelines for this area (Volkskrant 20 mei 1996). He sees the urban centres and rural areas slowly beginning to fade into one another. The treatment of major planning issues such as the high speed railway, Schiphol, and building schemes in the Randstad, give the impression that we can hardly speak of an overall vision on the planning of Holland. A reaction from the Delft professor in urbanism Frieling is very interesting. He wonders about the nature of the changes becoming visible in urban Holland through the Betuwelijn, the railway connection to Germany’s Ruhr area, and Schiphol, the major Dutch airport. These changes are due to Frieling ‘the same symptoms indicated by economists with the term ‘globalization’ and in the social sciences with the terms ‘multicultural community’ and ‘pluralist society’. He argues that we should adapt the image of Holland to the actual situation and give up myths such as the ‘empty’ Green Heart and the ‘full’ Randstad. One of the deciding factors appears to be our judgement of internationalization and economic globalisation. In the development of our spatial discipline, these critical judgements play an increasingly important role. In other words, knowledge in a very general sense is more important than ever.

Economic flexibility is combined with an accelerated growth and accessibility of knowledge and information, also termed ‘reflexive accumulation’. Increasingly, a cultural meaning is contained within this (Lash and Urry 1994). This increase in knowledge acts on two levels: economic and cultural.

Another example is Paris. Do the five satellite cities of Paris belong to the city or do they exist on their own? When we count travelling distance as a criteria they certainly do.

It is certainly wrong to see the five Parisian new towns as distinct entities in their own right. Rather, they are essential parts of the city itself. They could not exist without the network of motorways, airports, and above all metro lines that constitutes Paris just as much as the picturesque crust of masonry buildings of Haussmann and his predecessors. It is not just that you can get from one part of Marne-la-Valee to another by train that counts.

The fact that you can get to the shopping malls of Les Halles in less than twenty minutes, and on to the other new towns on the far side of the city without changing platforms, has transformed the mental map of the city that Parisians carry in their heads. The English urban critic Deyan Sudjic is of the opinion that the Dutch claims for the existence of the Randstad megalopolis – the ring of cities that takes in Amsterdam, Utrecht, The Hague and Rotterdam – amount to a deliberate political statement, an attempt to turn what would otherwise be regarded as a nation of extremely modest size into a very large city. If it actually existed, Randstad would be vast. More than eight million people live amidst its baroque steeples, prefabricated concrete housing estates and bulb fields. On the other hand, large numbers of people living in close proximity do not in themselves constitute a city.

The functional connections of de Swaan could just as easily be extended to London, Brussels or Paris. Another Dutch urban analysis is much more tempered; if the Randstad is a metropolis, it should operate on the level of importance it claims by virtue of its population level and its being situated in the center of Europe (De Boer 1996). Since it does not function at this level in cultural, economic or juridictive aspects, it should not be considered a metropolis. We find the same questions of evaluation when encountered with the Rotterdam harbor. As with the Randstad, the Harbor incites us to consider the consequences of globalisation and informatization.

The Rotterdam harbor; a new relationship between city and port.

[鹿特丹港：城市与港口的新型关系]

City and port together form one of the catalysts of the Dutch economy. Rotterdam is the gateway to Europe and still number one on the list of world ports. Most of its income is earned with taking and passing on, with trade and transportation, and is mostly geared toward quantity collecting and delivering containers and delivering and transporting raw materials and petrochemicals and iron ore and coal for German blast furnaces.

The city belonging to this scenario is one of offices and institutions specialized in business and financial services, transport and communication, among which
are many internationally oriented headquarters. Thus city and port belong together”. However, this does not mean that it will be the same in the future! The observation is made that Rotterdam has been indebted to the port for its growth in the past, but that the relationship between port and city is decreasing.

First, the port is geographically shifting toward the sea, and secondly the port no longer offers a rate of employment adequate to Rotterdam, with its staggering unemployment rate. The port of Rotterdam is still proudly wielding the title and status of the largest in the world, but behind this facade the city of Rotterdam is struggling with some serious problems. Over the past decade, the number of jobs in the metropolis has been decreasing by one percent per year. The port, once a major source of employment for the city and its surroundings, has been transformed through its extensive mechanisation into a fully automatic world where there is no longer any demand for ‘muscle’. The port itself may be flourishing, but the city of Rotterdam is no longer profiting from it directly in terms of employment.

In April 1997, the Dutch employers’ organization organized a symposium about the construction of a second Maasvlakte. This was mainly to address the different visions of the Central Planning Bureau and the Port Authority of Rotterdam about the benefits and necessities of Maasvlakte II, the new outward port facility. NYFER, an economic research center in the Netherlands, was asked to contribute to the symposium, and its director pulled in OMA, the Office for Metropolitan Architecture, for an urban proposal.

This proposal, now complete, states that Rotterdam needs to be released from its identity as port city, and that the second Maasvlakte will take over the old port activities. If the port completely moves away from its old setting, Rotterdam becomes the first city of Holland to start swimming in its leftover space. ‘In the world of globalisation, a strong and permanent identity is not an unconditional advantage,’ as OMA states. The less identity the better, according to OMA.

And as is to be expected from Koolhaas, he brings one of the Asian tigers to the floor as an example: Singapore. ‘Singapore is an example. Not only has it reasoned itself out of quicksand like a von Munchhausen, but it continually reinvents and questions itself. Permanently afraid for its survival, it follows a strategy of contradictory, varying, successive identities. The city itself hardly belies the presence of a port anymore. The Singapore coastline is being changed radically and reconfigured into an idyllic shore: 140 kilometre’s of tropical beach. The port is no longer a conceptual theme, but only the financial backer, according to OMA.

The scenarios, referred to above, are structured around the opposing poles of local development and globalisation, and slow and aggressive administrations. Unlike knowledge, information is ephemeral. The speed and accessibility of information determine the competitive level of a company. This has made the control of information a powerful weapon. Of course, we are only talking about a possible scenario, a projected development. But the importance of the infrastructure of knowledge is evident; the Port, as a spatial and organisational unit, requires some reflection on urban planning and the conceptual basis of the city.

The July 1995 year plan of the Knowledge Infrastructure Report, Mainport Rotterdam observes that knowledge and technology are becoming more important to the Mainport; however, the infrastructure of knowledge now present is not adequate. In other words, the agents involved in the Port are not sufficiently aware of current developments. The same problem appears to lie at the root of the relapse of the Waal/Eemhaven, one of the biggest man made ports in the world. Many Rotterdam stevedore companies ran into trouble simply because they did not assess the changes accurately or early enough. The report of the Port Authority indicates that many companies fell into a downward spiral: less cargo shipped resulted in a lower revenue, which meant fewer investments were made and an even lower productivity ensued.

Conclusion

Not all wagers should be placed on a large-scale shift to containers, for ‘just-in-time’ delivery flourishes in a small-scale area. The Waal/Eemhaven should offer possibilities for the continuation and reinforcement of these small-scale activities. This should also encompass new possibilities for living in Charlois, the adjacent residential area. Especially since the current governmental policy on large urban areas opens up numerous opportunities.
facilities and exterior space.

The relationship between the city and the port is to be explicitly developed here, in terms of street furnishings, signage and lighting. Also, a tourism/recreational structure is being considered, offering interesting possibilities for a designer to work on a contemporary expression of this type of experience. The relationship between water, cargo transfers and living is a good starting point.

The shift to containers has not benefited the Waal/Eemhaven, but this same development should now be used to allow for the importance of ‘just-in-time’ delivery and to enhance the options for living and working in Charlois. The port of the future is especially dependent on logistic networks, and the transition from a large-scale turnover to a logistic conception. In the rat race against other ports of western Europe, these added potential benefits of a port are beginning to take precedence over its primary functions. The conclusion is that a world-class port needs world-class knowledge. The same motto should be applied to the field of design in Holland considering its present urban renewal.

[References]
1. “United Nations Human Settlements...”

The report describes the rapid changes occurring in today’s urban environments, pointing out that more than one billion people live in slums, and that the pace of urban expansion is much higher.

2. “...engines of economic growth...”

Cities also function as engines of economic growth, and they are the sources of social, economic, and political development.

3. “...today’s urban globalization...”

The report discusses the impacts of globalization on urban development, pointing out that the pace of urban expansion is much higher.

4. “...multiple dimensions...”

It has multiple dimensions such as economic, environmental, social, political, and cultural developments.

5. “Our capacity to describe...”

Our capacity to describe and measure the scale and impact of urbanization of the past, contemporary, and present is inadequate to provide a basis for future policy decisions.

6. “In our present day situation...”

In our present day situation with rapid and complex global processes, cities have changed, and we need new methods to measure their impacts.
8. “What kind of map…?”
The kind of map of the world we are looking at here is a combination of computer graphics, geographical information systems, and also a view of some other elements.

7. “But architects and urbanists are no longer…”

6. “…techniques of connecting information…”
When we want to understand the complex web of connections among places and regions, we need a technique that can show multiple views.

5. “…but about mega-urban-regions.”
The growth of new megacities in the twenty-first century has led to the redefinition of urban regions. However, instead of just looking at cities, we should consider larger regions.

4. “In the West…”
In this part, we discuss the diversity of urban growth in different contexts around the world.

3. “…cultural dimension…”
Cultural dimensions are extremely important in the understanding of the evolution of urban areas and the development of a more sustainable approach to urban planning.

I have been involved in the Mapping Urban Complexity project, which aims to create a more detailed understanding of urban areas.

1. “…”But about mega-urban-regions.”
The growth of new megacities in the twenty-first century has led to the redefinition of urban regions. However, instead of just looking at cities, we should consider larger regions.
15. “...the Dutch Randstad...”

An example is the idea of the Dutch Randstad, consisting of four major cities: Amsterdam, Utrecht, The Hague and Rotterdam. Randstad means “large City”, so talk about one city that is far away from others.


The treatment of major planning issues such as the high speed railway, high speed road and other forms of transportation has been done in a way that not only improves the efficiency of transport but also reduces noise pollution. We speak of the green belt and well maintained parks that provide a natural link between the city and its surroundings.

20. “The city is struggling with serious problems...”

This city is struggling with serious problems. The city is experiencing economic decline, losing its status as a major port, and facing an aggressive infrastructure.

23. “Dependent on logistic networks...”

The port is the hub of logistic networks and depends on efficient and well maintained infrastructure to support its operation. The logistics sector is crucial to the economy and should be taken into consideration in the field of design.
From embodiment in urban thinking to disembodied data; the disappearance of affect.

By: Prof. Dr Arie Graafland.

I want to briefly start with what I consider one of the most important books on the city and its inhabitants that was written around the nineteen thirties, to be precise between 1927 and 1940, Walter Benjamin’s Passagen Werk. Most of the important texts Benjamin wrote until his death in 1940 are offshoots of the Passagen Werk. Rolf Tiedemann writes that if it had been completed it would have become nothing less than a materialist philosophy of the history of the nineteenth century. Paris, Hauptstadt des neunzehnten Jahrhundert (1935) provides the summary of the themes and motifs Benjamin was concerned with in the larger work. It introduces the concept of ‘historical schematism’, which was to serve as the basic plan for Benjamin’s construction of the nineteenth century. Benjamin was the ‘maverick member’ of the Frankfurt School, as Terry Eagleton qualifies him.1 Benjamin with his astonishing blend of Marxism, surrealism, Kabbala, Messianic theology and avant-garde aesthetics, belonged to the fertile Judeo-Messianic current which produced Horkheimer and Adorno. His other influential work Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit has more connections with the twentieth rather than with the nineteenth century, Tiedemann writes. I do not want to go into these texts, my main concern in this presentation is with the way current architectural discourse is developing along very different lines of thought. My main argument will be that with Benjamin we are dealing with a form of urban thinking that rests on embodied thinking, and that in our times, the beginning of the twenty-first century, we are moving into the direction of a disembodied language due to the development of digital techniques and ideologies. The effect of all this might be that we are loosening notions of ‘aesthetic affect’ which were so important for the philosophers of the Frankfurt School. The Frankfurt School was the first to give serious attention to mass culture, to day known as Cultural Studies.

The books were written a good seventy years ago however. The question remains where are we now in technology? We would have to look where ideas about technology and society are at the forefront. There are few organizations in the world that routinely look as far forward as the Defence Advanced Research Projects Agency (DARPA) in the USA. It regularly thinks – and funds 20 to 40 years ahead. It has already changed your life, Joel Garreau writes. In the early sixties there was no field of computer science. There were no computer networks and departments in Universities. But that was also the time that J.C.R. Licklider, director of the Pentagon’s DARPA organization, envisioned what he called the Intergalactic Computer Network. By the late sixties they started Arpanet. This was a decade before the first commercial personal computer. In the 1970s they expanded it into a network. You know it now by the name of the Internet.

Today DARPA is in the business of creating better humans. They are interested in soldiers having no physical, physiological or cognitive limitations. This ‘bio-revolution’ is however only a fraction of DARPA’s overall agenda. There are no other institutions in the world that are so devoted to high-risk, high return, explicitly world-changing research, according to Garreau.1 They are definitely not interested in incremental research. “All of the military’s airplanes, missiles, ships and vehicles, including the materials and the processes and armour that went into them, and especially everything with the word stealth as part of its name, has “DARPA inside”. Various ray guns, including laser, particle-beam and electromagnetic pulse weapons, started with DARPA.

DARPA invests 90 percent of its budget outside the federal government, mainly in Universities and the industry. Academic groups in MIT, Stanford and Carnegie Mellon made fundamental contributions to information technology because of DARPA. Architecture departments play no role in this, they seem to be low-tech.

In an interview with Alan Rudolph, Garreau asks him what he is doing at DARPA. Let me give you a little bit of my background, so you understand the perspective, he says. “I am a zoologist, I come from systems taxonomy, physiology, the thinking about populations, ecology’s, communities and organisms, how they adapt and evolve”. He is working now on everything from multi-legged robots to computerized human eye implants, to brain-machine interfaces, - the famous telekinetic monkey. In 2002 DARPA funded a team of researchers of Duke University and the State University of New York. They were working on brain computer interfaces to give the paralysed control of robot arms. “What’s born here is a fundamental philosophy that says what if we can first increase the number of interconnections between living systems and the non-living world – hardware of software – what would happen” (Rudolph). The
result is massive connections between individual neurons inside the skull of humans and wires that lead to computers. One of the more peaceful results is cochlear implants, tiny machines that allow the profoundly deaf to hear by wiring tiny computers directly to the nervous systems. The next step is retinal implants, computer eyes, wired to the brain of the blind as we will see soon.

Phil Kennedy’s research with monkeys had shown that an electrode implanted in the brain could facilitate communication to the outside world, by picking up a brain signal and transmitting it to a computer. No one till so far had tried it out on a human. The neurosurgeon Roy Bakey implanted a device in the motor cortex, the part of our brain that deals with motion. The patient was put through an intensive training program, “he would stare at a computer monitor that showed an on-screen device in the motor cortex, the part of our brain that deals with motion. The patient was put through an intensive training program, “he would stare at a computer monitor that showed an on-screen..."

If, as many theorists and scholars have claimed over the past decades, modernity finds its cornerstone in the belief that human progress should be measured and evaluated solely in terms of the domination of nature, instead of focusing on the transformation of the relationships between ‘humans’ and ‘nature’, it becomes evident that much has escaped our attention in architecture theory. The relationship between humans and nature, which has without a doubt undergone dramatic changes, boundary dissolutions, and definitional mutations, has changed in contemporary discourse. It renders the general notions of ‘nature’ and ‘society’, ‘Natur und Gesellschaft’, the central categories of Adorno and Benjamin obsolete. Donna Haraway, Bruno Latour and Katherine Hayles, among others, have shown in a rather convincing way how, in their obsolescence, ‘society’ and ‘nature’ become concepts that are no longer equipped to address their referents. Finding new definitions and understandings of ‘society’ (Latour, Urry) and ‘nature’ (Haraway, Hayles) is becoming paramount. The basic idea with these writers is that we are experiencing an increasingly intimate relationship between objects and subjects, rendering the human and physical worlds as intertwined and inseparable from each other. Hence, the conventional distinctions between society and nature, between humans and objects become more complicated. Conceptual fields evolve similarly to material culture, in part because concept and artefact engage each other in continuous feedback loops. Conceptual shifts that took place during the development of cybernetics for instance, display a pattern reminiscent of material changes in artefacts. As Hayles shows, an artefact materially expresses the concept it embodies, but the process of its construction is far from passive. The rapid development in bio-sciences has produced many oppositions and warnings; we are involved in changing the very nature of our ‘selves’ and ‘society’. In 2000 George W. Bush created the President’s Council on Bioethics. Its head Leon Kass, a University of Chicago professor of bioethics and political conservative opposed infertility treatments, cosmetic surgery, organ transplantation, and other technologies that in his view violate the natural order of things. Francis Fukuyama in his book Our Posthuman Future, also a council member, opposes the improvement of human nature. Ramez Naam in More than Human takes the opposite stand; “rather than fearing change, we ought to embrace it, rather than prohibiting the exploration of new technologies, society ought to focus on spreading the power to alter our own minds and bodies to as many people as possible”. Raymond Kurzweil goes quite a bit further down that road. The core element here is the Curve of exponentially increasing technology. This development to him is unstoppable, the Curve is a force of nature. It is like evolution, a new emerging pattern, the outcome of billions of small actions. He calls it ‘the Law of Accelerating Returns’, the only possible limit a complete and catastrophic collapse of civilization or the extinction of the human species, to Kurzweil no more than a possible footnote in history. Disruptions like economic depression, wars and famine do not really have an effect on the Curve, in the end it is a smooth line of accelerating technology. If stemcell research is slowed down in the United States, then other countries like China, Korea, Taiwan and Great Britain will pick up and get there first he notes. That might be overly optimistic, but more important right now is the question: how does this development relate to architecture? Do we see the same patterns arising in architecture?

In an essay published in Architecture and the Sciences Antoine Picon addresses the question of the growing number of images and metaphors from mathematics, physics, and molecular biology that have spread among architects. A large number of these images are linked to the growing importance given to the virtual dimension in the architectural discipline. His main question is whether we are dealing with a mere rhetorical figure or ‘habit’, as he calls it, or if...
it is dictated by more profound reasons. The use of scientific images and metaphors within the discipline is of course no recent phenomenon. Picon mentions a series of central concepts and images that originated in different historical settings. What would nineteenth century architecture have been without the notion of structure, for instance? Structure resulted from biological sciences, the study of living beings. Moreover, and throughout its history, science has repeatedly made use of architectural notions. Referring to Nelson Goodman, Picon writes that architecture, like science, is about how we ‘make’ and conceive worlds; worlds populated with subjects and objects, where definitions are always historically determined. Important in his essay is that he develops science and architecture along parallel lines: science and architecture often meet in their common attempt to shape the categories of visual perception. And in doing so, they construct the notion of subject and society. Hugh Aldersey-Williams compares the molecular structure of the element carbon to Buckminster Fuller’s geodesic domes. ‘The shape of these molecules’, he writes, ‘proves structurally advantageous at the scales of chemical bond and human construction’. The scale of the molecular and the architectural seem to correspond. Aldersey-Williams suggests that visual motifs might be persuasive for a design mentality to be helpful in comprehending the miniature three-dimensional worlds of micro-organisms and molecules. This might be so, but in the near future we might be able to rearrange atoms into new molecular structures inventing new materials. The most daring idea in nanotechnology is where we are stacking individual atoms into any larger thing we want. Richard Phillips Feynman describes a world in which you give the orders and the physicist synthesizes it. In 1996 Richard Smally got the Nobel prize for chemistry for hitting a batch a pure carbon with a special laser beam until the atoms rearranged themselves into a previously unknown molecule – a ball made of 60 atoms that looked like the kind of geodesic domes pioneered by Buckminster Fuller. The molecule is nicknamed the ‘buckyball’ in Fuller’s honour. Buckyballs and their cousins, the nanotube fibres, have many intriguing properties Garreau writes. They have 60 times the strength of steel, the weight of plastic, the electrical conductivity of silicon, the heat conductivity of a diamond and the size and perfection of DNA. Visualization can prove woefully misleading Aldersey-Williams rightfully remarks. He refers to Heisenberg who felt that ‘visualization was invalid for quantum phenomena occurring in a scale below the wavelengths of light’. Also D’Arcy Thompson’s On Growth and From (1917), the brilliant exploration of visual and structural similarity among natural organisms is occasionally wrong, he argues. His main argument is that ‘visualization becomes more treacherous the further you travel away from the human scale’. ‘Beyond the visual, images of science have merely metaphorical power, typically communicating a sense of progressiveness and optimism through the objects that adopt them’.

Aldersey-Williams refers to the double helix of DNA that has become an enduring motif in art, design, and architecture I would add. The DNA played an important role in the design for the Biocenter competition Peter Eisenman submitted in 1987. The most striking characteristic of the plan is the literal graphic copying of the four nucleotides in the plan.

Later on he got interested in Mandelbrot’s fractal geometry, which for Aldersey-Williams explains the emergence of a new baroque in contemporary decorative art. Using science for inspiration is all well and good, he writes, but caution is necessary if larger claims are made for it. His critique of Charles Jencks who claims that science leads to a more creative world view is to the point, there is no superior moral authority in science, it can only be an inspiration, a starting point. After that, design is on its own. In Eisenman the final design shows traces of the applied research into DNA structures. But at the same time it is always more than that, I wrote at the time. In its final form it has been autonomized, it is no longer the property of the architect; it was never so materially; neither is it so in an immaterial sense. The same is true for the current interest in Deleuzian conceptions of space, ‘striated’ and ‘smooth’ space conceptions have no moral authority in design practice over contested conceptions of ‘modern’ space. They can only be starting points in a process that ends elsewhere, into a different relatively autonomous form. We could ask ourselves whether Joris Laarman’s Bone Chair (Joris Laarman Studio, the Netherlands 2007) where he explores a biomimetic approach, is any different from Eisenman’s Biocenter? They both explore biomimetic possibilities, design solutions even. The former in a building, the latter in a chair. A building has not more ‘importance’ then a chair when it comes to design, only its economic value will make the difference. Laarmans used automotive software SKO to design the chair. As bones grow, areas not exposed to high stress develop less mass, while areas that bear more stress develop added mass for strength. Using 3-D optimization software to generate form rather than applying the software to a pre-existing structure, Laarman’s Bone Chair moves beyond imitation of a biological structure, Aldersey-Williams writes. The design of the chair moves on to semi-autonomy, and much like Eisenman shows all the traces of its intentional starting position. An even more interesting relationship between science and architecture is unveiled in Picon’s thesis:
similarly to architecture, science is permeated by the virtual, in that is reducible to neither a set of theoretical results, nor to a collection of experimental data. Science appears as the productive tension between theory and experiment, or between abstract knowledge and practice. Hence, the virtual dimension works in both architecture and science.

Picon, like Christine Boyer, traces contemporary virtual reality to the Cold War period, when a new space was emerging; a space of phenomena that could be visualised exclusively through the use of screens, maps, and diagrams. These phenomena ranged over a vast amount of possibilities: the attack of bombers and enemy armies, the state of military supplies, or economic trends, regardless of whether real or hypothetical. These visualizations heralded the destabilization of form, an important issue in contemporary design. Until then, architectural form was considered the ultimate result of a process of research. Its beauty was the beauty that only an end product could entail, built or un-built. Aided or even generated by computer technologies, digital architectural form can no longer aspire, or pretend or even generated by computer technologies, digital architectural form can no longer aspire, or pretend to achieve this status. Digital architecture remains the result of an arbitrary stop in a potentially endless process of transformation. And with this process, the human body has changed dramatically: from a modernist bodily image as in Walter Benjamin, to the human body has changed dramatically: from a modernist bodily image as in Walter Benjamin, to an informational bodiless videogram as in Greg Lynn’s work. The New City Concept, a project developed for the MoMa exhibit Design and the Elastic Mind Lynn participated in, the world is mapped onto a ‘folded virtual manifold’, a seamless world with an informational bodiless videogram as in Greg Lynn’s work. The New City Concept, a project developed for the MoMa exhibit Design and the Elastic Mind Lynn participated in, the world is mapped onto a ‘folded virtual manifold’, a seamless world with neither social structure nor conflict. (http://www.imaginaryforces.com/featured/3/435).

This way of thinking is not completely new however. Let me take you forty years back to the times of Buckminster Fuller and John MaHale. McHale engages with the work of Buckminster Fuller, a figure he found intriguing. Much like Fuller, McHale was fascinated by the attachment of artificial limbs usually to overcome some kind of human defect. But artificial limbs could also amplify and diversify the human organism, passing that apparatus right into the internal nervous system. This might have been a distant future in the time of McHale, but today at Duke University, scientists are looking for ways to help amputees and paralytics by way of implanting electrodes in the brain of a group of monkeys. The monkeys can move mechanical arms just by thinking about it, as if those robots were parts of their bodies. In Lisbon, Portugal, there is a group of blind men and woman who can now see. In place of eyeglasses they wear cameras connected to electrodes implanted in the visual area of their brains. Some of them had been blind for twenty years or more before the surgery. The technology that has given them sight could in principle beam images from one person’s mind to another. We could call genetic engineering a crime against humanity, or see it as wonderful enhancement, the main issue here is that the limits between interior and exterior are giving way. Identity questions can be asked even without the new technologies, Ramez Naam writes. “Neurotechnology doesn’t radically alter the nature of identity – it just brings some of the limitations of the idea into starker relief. The reality is that we’re constantly changing.”

McHale conceived of technology itself as an organic system. Radio telescopes and radar systems are often presented as enormous ears and eyes. Parts of our body float above and around the planet: “eyes, ears and noses on the loose,” as Mark Wigley puts it. McHale’s ideas point towards an artificial body that has become globalised into a vast electronic network mirroring the internal electricity of the nervous system. The bodily scale collapses, opening way for a planetary body: a body at the scale of the planet, an ecosystem in which the distinction between culture and nature cannot easily be made. Such an ecology calls for new kinds of resource management, which allow addressing uneven distribution of resources, and combat it with new tactics, new ‘prosthetics’. In this scheme, institutions such as the Nation State have to be abandoned because they no longer convey the possibility of envisioning new forms and models for the planetary oykos.

Beyond the futuristic underpinnings, McHale’s argument on prosthetics is, as Wigley shows, a social argument. The social condition nestles in the extremes of state-of-the-arts technology. McHale’s extension of Buckminster Fuller’s formulation of the house as a rentable and fully serviced facility, the house not as a ‘home’, but as a telephone, is revealing in this regard. The identity of the house is radically displaced. McHale rejects homeownership, for starters. But more importantly, in his descriptions the house is rendered as a prosthetic skin as much as the car becomes a mobile extension of the house. All that is left of a traditional understanding of ‘house’ is that of a sort of “service pack” that actually can go anywhere: architecture in restless circulation, architecture in a constant flow. McHale’s ideas have gained ground in our times, objects have had to become lighter and more elastic, Paola Antonelli writes. The new category of objects designed to provide access to networks and services are meant, as John Thackara states, to be used, not owned. And yes, Antonelli is right in stating that today’s technologies leap forward toward portability and miniaturization. Her plea is for ‘Existenzmaximum’, the opposite of...
German architectural ideas in modern architecture. Functions were organized in rooms, rooms within dwellings, dwellings within buildings, buildings within quarters, quarters within cities. At he 60s and 70s the concept started to burst at the seams, Archigram just one example of intended change. The home became more permeable to the outside world, telephone, radio, television entered private space.

In taking up the western philosophical notions of ‘First’ and ‘Second Nature’ as in Benjamin, Timothy Luke defines a new concept, called ‘Third Nature’ as the informational cybersphere/telesphere. Here, digitalization becomes a primary concern, since it shifts human agency and structure from manufactured matter to a register of informational bits. Human presence is located in the interplay of the first two modes of nature’s influence: terrestriality (the earth) and territoriality (the states). On the other hand, ‘Third Nature’ posits itself well beyond the feasible realm of human consciousness, located more on spheres involving temporality, over and against the ‘scapes’ implicit in the spatiality of terrestrial and territorial models. It looks like time today has become a function of speed, as Fredric Jameson argues. It is evidently perceptible only in terms of its rate, or velocity as such: “as though the old Bergsonian opposition between measurement and life, clock time and lived time, had dropped out, along with that virtual eternity or slow permanence without which Valéry thought the very idea of a work as such was likely to die out (something he seems to have been confirmed in thinking).”

An interesting association might be established between Luke’s understanding of ‘Third Nature’ as informational ‘spheres’ and John Urry’s conception of ‘instantaneous time’. Instantaneous time is related to the new informational and communicational technologies based on inconceivably brief instants beyond human consciousness. Codes can be sent over fibre optics instantaneously; there is no longer a shared, stable context that helps to anchor meaning and guide information, as Katherine Hayles writes. In contrast to the fixity of print, decoding implies that there are no original texts, no first editions, no fair copies. Something similar seems to be occurring in western architectural design, where physicality and body are currently also data or codes to be translated into computer programs. The very notion of ‘urbanity’ as social construct as in Benjamin, as a set of complex social relations is fading away in recent digital technologies.

The loss of a more fixed and stable ‘urbanity’ and the fading of traditional social relations as parameters to our profession as architects and urbanists are, of course, of no small significance. They bring questions of action and agency to the fore: how are we to understand our own actions in relation to nature and society? And how could this translate into possible architectural and urban solutions?

Both architecture and urbanism are directly involved in this new information environment as a third nature in digitalized work processes and digital architectures, and their relation to first and second nature. An important effect of it is what Urry calls ‘collage effect’: a phenomenon in which the ‘event’ has become more important than the urban context in all its socio-political connotations. This poses questions to the notion of meaning as Picon argues. As an event architectural form is supposed to find its ultimate justification in what it can achieve he argues. In referring to Lars Spuybroek’s D-Tower he mentions that the tower in itself has no meaning, what it does is merely perform, it has neither meaning nor function. It gathers ‘emotional feelings’ from the inhabitants of Doesburg, the city where his tower is located.

The tower has the same background as Jonathan Harris ‘we feel fine’ organization.(wefeelfine.org). People often use the Internet to express and share emotions and to connect to others. The web site We Feel Fine has been harvesting human feelings from blogs since 2005. Every few minutes the system searches newly posted blogs entries for phrases like “I feel”. When it finds such a phrase, it records the full sentence and tags the feeling expressed in the sentence. The site can also extract age, gender, and geographical location of the author, resulting in a database of several million feelings each day. Urry’s formulation departs from a critique against these media, and centres on the argument that the juxtaposition of ‘stories’ reveals that most of them share nothing in common, except their ‘newsworthy’ character. Urry’s ‘collage effect’ can be made operative in architecture, where the effect of digital media quite literally effaces the notions of space and place, dissolving them into neutral data of ‘locations’, while simultaneously reducing all forms of embodiment to digital data and event. ‘Telemetricality’ has replaced the older aesthetic parameters and the notions of beauty and the sublime in architecture. The growing volatility and ephemerality implicit in telemetricality have supplanted the unique building (as concept) transforming it into a ‘series’. These series of possible solutions in rapid prototyping are necessarily the product of an arbitrary stop in the process. The conceptualisation of, and the relation to Luke’s ‘First’ and ‘Second Nature’ has been either lost completely, or has been dealt with in a rather superficial method of data collection. We experience the conceptual reduction of first, second, and third nature into one abstract, autonomous data based concept. This reduction is often the pseudo-architectural
concepts, or insubstantial datascapes used in Dutch architectural offices such as MVRDV, UN Studio, NOX, or ONL. This is related to “the idealization of architecture as autonomous form”, the efforts of the profession to define and protect some independent class of work.\textsuperscript{29} Digitally based architectures as in the 11th International Architecture Exhibition in Venice (2008) are indeed an ‘Out There’, they are ‘Beyond’ any notion of first and second nature. Architecture in the Arsenale has become an object of desire, no different from Damien Hirst’s art forms. ‘Context’, that contested concept in sociology, is not a ‘field of influence’ as these architectural studios might see it, but instead should be a key element in our efforts to formulate an urban and architectural theory in a ‘post-societal’ condition.

The contemporary ‘right to the city’ of Lefebvre might be partially fought out over the web, but political force will need embodiment deployed on the ground, on the streets, rather than on digital highways. Information, Hayles reminds us, like humanity, cannot exist apart from the embodiment that brings it into being as a material entity in the world.\textsuperscript{31} Embodiment is always instantiated, local, and specific.\textsuperscript{32} And as such, it encompasses a broad spectrum of problematic relationships and forces that have to converge at some point in order to form coherent directionals for action. As Harvey points out, there is a witches’ brew of political and environmental arguments, concepts and difficulties surrounding these questions that can conveniently become the basis for an endless academic, intellectual, theoretical or philosophical debate.\textsuperscript{33} No satisfactory solutions will be reached from this debate unless adequate ways of translation between different languages, or even more ideally, some sort of common language is found. This would also entail the establishment of a common ground, something that Harvey refers to as ‘the web of life’ metaphor, which might indeed be useful in filtering our actions through the web of interconnections that make up the living world. The ‘computational universe’ that spreads out before us today might quite literally be the living world. Information, Hayles reminds us, like the ground, on the streets, rather than on digital highways.

The virtual is an integral part of architecture. In architecture the virtual is present in all its forms, and projects to its expressions and representations. Nevertheless, and in spite of the fact that these are rarely acknowledged in contemporary architectural theory, there are real and important limitations to this: the capacity of simulations to approach the sensory and corporeal is still an impossibility today.\textsuperscript{28} If we consider that these corporeal limits and sensory capacities have always been, and continue to be, a vital engine for architecture, it seems far too easy and unjustified to simply ignore them in order to advocate for a ‘new’, digitalised architecture more in tune with other logics than that of our own ‘slow’, but grounded, materiality.

Conclusions
If, after surveying the implications of these so-called new technologies and the computational universes they unlock, on our bodies, on our material realities, and on our cognitive spheres, we were to reach any form of concluding remarks, we would be forced to phrase these as a sort of warning. Digital technologies and computerisation are changing the very notion of ‘tool’ or ‘technology’, as Grosz and Hayles remind us, and therefore require a certain degree of precaution. Architectural design will only become more reliant and dependant on these ‘new’ digital technologies, and this will have as a result that our understandings of ground, city and body will necessarily have to shift to adapt to them.

Contemporary discourses on dematerialisation will inevitably change our conceptions of both, the body as a material substrate, and of the ‘message’. Information technologies create ‘flickering signifiers’ - a term that Hayles relates to Lacan’s ‘floating signifiers’, which are characterised by their tendency toward unexpected metamorphoses, attenuations, and dispersions.\textsuperscript{35} This, however, does not imply that computational, or digital virtual reality is fundamentally different from the virtual reality of writing, drawing, or even thinking, as Elisabeth Grosz advocates. The virtual is simultaneously the space of the new, the un-thought, and the unrealized. And it is precisely here that the real challenge for architecture begins: the ‘new’ in architecture is certainly not limited to digital techniques as the hijacking of the term in ‘digital architecture’ suggests. Just like the cybernetic aspect of the posthuman is not necessarily related to interventions or alterations to the human body. In architecture the virtual is present in all its forms, from its processes to its practices, from its concepts and projects to its expressions and representations. The virtual is an integral part of architecture.

[Endnotes]
1 Terry Eagleton, Figures of Dissent, Critical Essays on Fish, Spivak, Zizek and Others, Verso 2003, p 73.
2 Joel Garreau, Radical Evolution.
3 Joel Garreau, Radical Evolution, p 23.
4 Joel Garreau, Radical Evolution, p 24.
5 Joel Garreau, Radical Evolution, p 34.
6 Ramez Naam, More than Human, Embracing the promise of biological enhancement, p 174.
7 Ramez Naam, More than Human, p 178.
8 Ramez Naam, More than human, p 5.
10 Joel Garreau, Radical Evolution, p 94.
13 Joel Garreau, Radical Evolution, p 119.
14 Hugh Aldersey Williams, Applied Curiosity, p 52.
15 Hugh Aldersey Williams, Applied Curiosity, p 53.
16 Hugh Aldersey Williams, Applied Curiosity, p 54.
18 Arie Graafland, Architecture in absentia, p 111.
19 Hugh Aldersey Williams, Applied Curiosity, p 71.
21 Ramez Naam, More than Human, p 59.
22 Marc Wigley, p 38.
23 Paola Antonelli, All Together Now, in Design and the Elastic Mind, p 152.
27 Katherine Hayles, How We Became Posthuman, Virtual Bodies in Cybernetics, Literature, and Informatics p 47.
31 Katherine Hayles, How We Became Posthuman, Virtual Bodies in Cybernetics, Literature, and Informatics, 1999, 49.
32 Katherine Hayles, How We Became Posthuman, Virtual Bodies in Cybernetics, Literature, and Informatics p 196-197.
34 Katherine Hayles, How We Became Posthuman, Virtual Bodies in Cybernetics, Literature, and Informatics, p 244.
35 Katherine Hayles, How We Became Posthuman, Virtual Bodies in Cybernetics, Literature, and Informatics, p 29 and 30.
From embodiment in urban thinking to disembodied data; the disappearance of affect

Arie Graafland

1. I want to briefly start.

2. My main argument is that the leap from the embodiment of the material form of the urban to the disembodiment of data in the digital city is a fundamental shift. The question is not whether it can happen, but what kind of urban form will it be. It is a shift from the embodiment of the city to the embodiment of data, from the materiality of the city to the virtuality of data.

3. The book is a sort of a road map. The material city is a place where we can feel the presence of others. The digital city is a place where we can feel the presence of data. The material city is a place where we can feel the presence of the past. The digital city is a place where we can feel the presence of the future.

4. From this perspective, the digital city is not simply a substitute for the material city. It is a new way of thinking about the city. It is a new way of understanding the city. It is a new way of feeling the city.

5. DSA's 15th anniversary is a bridge between the digital present and the material past. It is a bridge between the virtual and the real. It is a bridge between the digital and the concrete. It is a bridge between the future and the present.

6. But materiality is not just about physicality. It is about embodiment. It is about the way we experience the city. It is about the way we feel the city. It is about the way we understand the city.

7. The book is a sort of a road map. The material city is a place where we can feel the presence of others. The digital city is a place where we can feel the presence of data. The material city is a place where we can feel the presence of the past. The digital city is a place where we can feel the presence of the future.

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9. But materiality is not just about physicality. It is about embodiment. It is about the way we experience the city. It is about the way we feel the city. It is about the way we understand the city.

10. The book is a sort of a road map. The material city is a place where we can feel the presence of others. The digital city is a place where we can feel the presence of data. The material city is a place where we can feel the presence of the past. The digital city is a place where we can feel the presence of the future.
17. Both architectures and urbanism are deeply anchored in cybernetic processes and their role in the contemporary context can be understood through the lens of urban computational epistemology. In this framework, urban design is a process of creative adaptation to the constraints and opportunities offered by the digital environment, characterized by a dynamic interplay between physical and virtual domains. This approach emphasizes the interconnectedness of urban systems, where digital technologies play a crucial role in shaping the urban landscape.

Conclusion:
In conclusion, the implications of the interplay between architecture and digital technology are profound. As the boundaries between the physical and virtual worlds continue to blur, designers are faced with new challenges and opportunities. The ability to leverage digital tools effectively can lead to more sustainable, adaptable, and resilient urban environments. However, it is crucial to approach these technologies with a critical mindset, ensuring that they are used ethically and responsibly to enhance, rather than replace, the human experience of the built environment.
03

Space Fighter, applied deconstructivism, and the architecture of disappearance.

By: Prof. Dr Arie Graafland.

It is about five years ago that, one of my PhD candidates at the time got interested in MVRDV’s Region Maker, a digital program on the urban decision making process. We contacted Winy Maas (MVRDV) who put together a small group of teachers and students who started to work on a new program at the Delft School of Design and the Berlage Institute. The set up was in line with his PhD research on evolutionary urbanism. Very little of the ideas of evolution theory had been applied to urbanism. A lot of his work related to Daniel Dennett’s writing about Darwin’s dangerous ideas. His idea’s had to do with the notion that information is always dispersed and that it is impossible to have a birds eye view in urban planning. He was looking for a provisional language by binding living and non-living entities and their artefacts through notions of survival and energy (entropy; or simply disorder).

There was not much published at the time, the only one with a substantial contribution to this field was from Bernard Colenbrander from TU Eindhoven, De Verstrooide Stad (The Dispersed City) from 1999, his thesis project. A book I always liked because of its challenging theoretical thetactics which in the Netherlands is quite exceptional. It was only published in Dutch, and that is the same time your Netherlands is quite exceptional. It was only published in Dutch, and that is the same time your

The idea is that architects use ‘intelligence’ in a twofold way: as a specific form of practical knowledge characteristic for their profession and in the way the American CIA or military might want to use ‘intelligence’. ‘Intelligence’ like in the military, to be able to work from seemingly endless fragments of ‘information’, rumours even, and disinformation. The ‘chatter’ of the outside world should be related to the projective capacity of the profession. The way to do it is just use your imagination; do not ask too many social questions, and play along.

The ‘chatter’ of the outside world should be related to the projective capacity of the profession. The way to do it is just use your imagination; do not ask too many social questions, and play along. Speaks’ notions on CIA ‘intelligence’ are of course directly related to the military. But in the design process with the students working on this model, we found out that most of them stayed ‘on the ground’, Space Fighter never really took off to unexpected heights. It stayed on the ground, not unlike contemporary warfare where the horizontal takes precedence over vertical tactics. What students produced as end result were mainly knots of interconnected spatial problems, I wrote at the time. Much like for instance the Israeli conflict with the Palestinians since it has this urban component.

Speaks explores the organizational structures of a few offices that, like academic research groups that in the same period of time, became more internationally oriented. These network firms proliferated in the 1990’s, reflecting the need for small, innovative studio’s to create working partnerships. Speaks focus is on organization and economic change, his vocabulary is accordingly on ‘innovation’. The central idea of this innovation is a highly organizational one. But for Speaks there is more at stake. His comments deal actually with the end of Marxist thought and what is mostly called ‘critical thinking’, or the end of architecture as a ‘medium of the social’.

For Speaks the times of criticism and social issues in architecture are over. There is lot more at stake here than the transition to flexible accumulation in economy and architectural offices. This new flexible accumulation of architectural image, practice, and management forms is depicted as the new successor of what he calls the ‘exhaustion’ of (mostly Continental )‘critical theory’. For him the new challenge for architecture is to develop forms of practice able to survive the fiercely competitive global marketplace.

I relate this to Eyal Weizman’s critical notions in the same period of time touching on the same phenomena Speaks is discussing, be it in another quite different line of argument; “If some writers are right in claiming that the space for criticality has to some extent withered away in late twentieth-century
capitalist culture, it surely seems to have found a place to flourish in the military…. The reading list of some contemporary military institutions include works dating from around 1968 (in particular, the writings of those theorists who have expanded the notion of space, such as Gilles Deleuze, Félix Guattari and Guy Debord), as well as more contemporary avant-garde writings on urbanism and architecture that proliferated widely throughout the 1990s, and relied on post-colonial and post-structuralist theory. According to the urban theorist Simon Marvin, the military-architectural “shadow world” is currently generating more intense and better funded urban research programmes than all university programmes put together”. (Eyal Weizman, Hollow Land).

Much to my surprise I found many of the ideas back in Weizman’s book; he explains how after the end of the 1967 war the Israeli army developed a stereoscopic camera designed to capture two simultaneous images at a slight angle from each other. “When viewed through a special optical instrument, the shades of gray on the two flat images are transformed by the gaze of the intelligence analyst into a three-dimensional illusion of depth, reproducing a tabletop model of the pilot’s vertical perspective. Knowledge of the West Bank was primarily gathered from the air in this way, he writes. The mapping of this area was the result of an intensive process of photograph, analysis and classification, pretty much in line with the ideas of architectural offices and state’s regional strategic defence plan. They are not only places of residence, but create a large-scale network of ‘civilian fortifications’, generating tactical territorial surveillance in the state’s regional strategic defence plan. Speaks arguing on architectural offices and contemporary planning, produces a very uneasy feeling when we read about the Israeli Armed Force. Another example is from Derek Gregory. In November 2004 Gregory spoke with a senior Israeli Defence Force officer in Tel Aviv who told him that the key to urban warfare was a more forensic “deconstruction” of “the spatial grammar of the Arab city”- and his models were Jacques Derrida and Gilles Deleuze.

In an interview with Eyal Weizman, Shimon Naveh one of the top officers of the Israeli Army explains the following: “In Nablus, the Israeli Defence Forces started understanding urban fighting as a spatial problem. He said that “by training several high-ranking officers, we filled the system with subversive agents who ask questions…Some of the top brass are not embarrassed to talk about Deleuze or (the deconstructive architect) Bernard Tschumi.

Weizman asks him, ‘Why Tschumi?’ (Tschumi is of course the “radical” architect of the left) he replied: “The idea of disjunction embodied in Tschumi’s book Architecture and Disjunction became relevant for us (…) Tschumi had another approach to epistemology; he wanted to break with single-perspective knowledge and centralized thinking. He saw the world through a variety of different social practices, from a constantly shifting point of view…”. Weizman asks him then, if so, why does not he read Derrida and deconstruction instead? He answered, “Derrida may be a little too opaque for our crowd. We share more with architects; we combine theory and practice. We can read, but we know as well how to build and destroy, and sometimes kill” . (Hollow Land, p 200)

This idea resulted in what the Army calls: walking through walls.

“The military practice of “walking through walls”- on the scale of the house and the city - links the physical properties of construction with the syntax of architectural, social and political orders”. (Eyal Weizman, Hollow Land)

Another example of ‘applied deconstructivism’ might be Peter Eisenman’s Bio Center for the University of Frankfurt, a competition he submitted in 1987. The DNA played an important role in the design for the Biocenter. The most striking characteristic of the plan is the literal graphic copying of the four nucleotides in the plan 1 Every DNA molecule consists of two adjacent chains of nucleotides. Within the chain, (A and T) and (G and C) correspond; the ratio is different for every type. Both chains are linked by bridges of hydrogen. Watson and Crick proved that the ladder structure is spatially a double helix. In Eisenman’s Biocenter he had to connect the nucleotides, for functional reasons the buildings were interconnected by a ‘spine’. The spine is disrupted in order to avoid the ‘classical’ axis. Functionally the spine is circulation space; the disruption consists of communal spaces.

Later on he got interested in Mandelbrot’s fractal geometry, which for Hugh Aldersey-Williams
explains the emergence of a new baroque in contemporary decorative art. Using science for inspiration is all well and good, he writes, but caution is necessary if larger claims are made for it. Aldersey-Williams compares the molecular structure of the element carbon to Buckminster Fuller’s geodesic domes. ‘The shape of these molecules’, he writes, ‘proves structurally advantageous at the scales of chemical bond and human construction’.

The scale of the molecular and the architectural seem to correspond. Aldersey-Williams suggests that visual motifs might be persuasive for a design mentality to be helpful in comprehending the miniature three-dimensional worlds of micro-organisms and molecules. But, there is an important restriction here. Visualisation can prove woefully misleading, he rightfully remarks. He refers to Heisenberg who felt that ‘visualization was invalid for quantum phenomena remarks. He refers to Heisenberg who felt that visualization becomes more treacherous the further you travel away from the human scale’.

Aldersey-Williams refers to the double helix of DNA that has become an enduring motif in art, design, and architecture I would add. The most striking characteristic of Eisenman’s Biocenter design is the literal graphic copying of the four nucleotides in the plan.

Aldersey-Williams’s critique of Charles Jencks who claims that science leads to a more creative world view is to the point, there is no superior moral authority in science, it can only be an inspiration, a starting point. After that, design is on its own. In Eisenman the final design shows traces of the applied research into DNA structures. But at the same time it is always more than that, I wrote at the time.

In its final form it has been autonomized, it is no longer the property of the architect; it was never so materially; neither is it so in an immaterial sense. The same is true for the current interest in Deleuzian conceptions of space, ‘striated’ and ‘smooth’ space conceptions have no moral authority in design practice over contested conceptions of ‘modern’ space. They can only be starting points in a process that ends elsewhere, into a different relatively autonomous form. We could ask ourselves whether Joris Laarman’s Bone Chair (Joris Laarman Studio, the Netherlands 2007) where he explores a biomimetic approach, is any different from Eisenman’s Biocenter. They both explore biomimetic possibilities, design solutions even. The former in a building, the latter in a chair. A building has not more ‘importance’ then a chair when it comes to design, only its economic value will make the difference. Laarmans used automotive software SKO to design the chair. As bones grow, areas not exposed to high stress develop less mass, while areas that bear more stress develop added mass for strength. Using 3-D optimization software to generate form rather than applying the software to a pre-existing structure, Laarman’s Bone Chair moves beyond imitation of a biological structure, Aldersey-Williams writes. The design of the chair moves on to semi-autonomy, and much like Eisenman shows all the traces of its intentional starting position.

**Conclusion, and an example of an architecture of disappearance.**

A common understanding of modernity centres on the belief that human progress should be measured and evaluated solely in terms of the domination of nature, instead of focusing on the transformation of the relationships between ‘humans’ and ‘nature’. The relationship between humans and nature, however, has without a doubt undergone dramatic changes, boundary dissolutions and definitional mutations — at least in contemporary discourse — rendering the general notions of ‘nature’ and ‘society’ obsolete. Donna Haraway, Bruno Latour and Katherine Hayles, among others, have shown in a rather convincing way how, in their obsolescence, ‘society’ and ‘nature’ are concepts that are no longer equipped to address their referents. Society and nature have undergone important transformations. Hence, it is becoming paramount to find new definitions and understandings of ‘society’ and ‘nature’.

Latour’s research in the practices of the sciences has led him to a redefinition of the concepts of nature, society and technology. His ‘sociology of science’ aims at dismantling and discharging both the concepts of nature and society. John Urry echoes Latour in his claim that a new, broader concept of ‘society’ is required, one that approximates what he refers to as ‘massively powerful empires’ roaming the globe, mass mobility of peoples and objects, and the production and circulation of dangerous human waste. (Urry, 2000, 13; see also Hardt and Negri, 2000) Not unlike Latour, he claims that our experience is given by enduring and increasingly intimate relationships between objects and subjects, rendering the human and physical worlds as elaborately intertwined and inseparable from each other. Hence, the conventional distinctions, or separations, between society and nature or between humans and objects are no longer operative or meaningful.
Antoine Picon, in his essay published in Architecture and the Sciences (2003) addressed the question of these growing numbers of images and metaphors from mathematics, physics and molecular biology that have spread among architectural discourse. A large number of these images are related to the growing importance of the virtual dimension in contemporary architecture. Picon’s central question is whether this propensity in architectural discourse is a mere rhetorical figure, or ‘habit’, or if it is dictated by more profound motives. The use of scientific images and metaphors in architecture is not a recent phenomenon. Picon lists a series of central concepts that originated in different historical settings: the notion of ‘structure’, for instance, developed from biology and the study of living beings during the nineteenth century. On the other hand, science has also made use of architectural notions throughout its history. Referring to Nelson Goodman, Picon argues that architecture like science is about how we make and conceive worlds populated with subjects and objects, where definitions are always historically determined. Architecture and the sciences develop along parallel lines, often meeting in their common attempt to shape categories of visual perception. And in doing so, they construct the notion of subjects and society.

What is relevant about these theories is that they manage to convey the formation of new conceptual fields. Conceptual fields evolve similarly to material culture, in part because concept and artefact engage each other in continuous feedback loops. Culture circulates through science no less than science circulates through culture. An illustrative example of this is Eisenman’s Biocenter and Laarmans’ Bone Chair.

I want to conclude my presentation with a design we did some 4 years ago, it is a museum in Amsterdam situated in a grave yard. It was the first and only Museum in Holland that deals with death. Amsterdam has about 130 different populations of different origin, with different burial ceremonies and, the Nieuwe Ooster as it is called, wanted a reception facility combined with a museum function. The building was realized two years ago. To go back to what I earlier said, *science does not lead to a more creative world view, there is no superior moral authority in science, it can only be an inspiration, a starting point.* And secondly, *whatever our conceptual issues might be, they can only be starting points in a process that ends elsewhere*, into a different relatively autonomous form. It is in this light that I want to briefly close the discussion with our building in Amsterdam. The inspiration came from different lines of thought, but an important one came from Klaus Jurgen Bauer’s thesis *Minima Aesthetica, Banalität als Strategische Subversion der Architektur* (December 1996). Bauer’s study is an inquiry into the banal, the everyday, “eine Hinwendung zum Gewöhnlichen”. His dissertation is a question of “die Frage nach den Grenzen zwischen Kunst, Kitsch und Banalität”. He is referring to Germano Celant, the theoretician of the Arte Povera, who in the sixties wrote that the periphery of art is moving more into the centre by addressing the banal, the everyday. Bauer is not looking for banal objets, his theme is about the banal in the sense of the interpretation. He is looking at the early work of Herzog de Meuron, and Adolf Krischanitz, Diener and Diener or Marquez & Zurkirchen. There seemed to be a certain correspondence in design at the time, but the offices he is discussing are all in different places, they do not come from the same school, they have different clients, do most certainly not have a common manifesto like deconstructivism once had. The architectural critique mostly discussed the work in the terminology of ‘minimalism’, ‘neo-functionalism’, neo-modernism’, or ‘honest pragmatism’. Bauer finds a more interesting way, and it certainly did influence our building in Amsterdam. Its ‘minimalistic’ architecture relates to Mies van der Rohe’s ‘silence’ in architecture, and at the same time questions its relation to the notion of ‘ground’. The structure of the square, with the elevated box for the museum space is no doubt a modern design principle and a very common or already banal principle in architecture. But the relation to ‘ground’ is reversed by literally sinking the complete building into the soil. The site is excavated, the building reformulates our relation to life and death, the ‘journey’ through life has finally ended. This ‘sinking into the ground’ confirms man’s relation to death, the building has become site specific. The main entrance to the building is a ceremonial slope, a long route into the entrance hall and reception space. The visitor is made aware of the ceremony of ‘descending’ into the earth. There are no steps leading to the main entrance. The Museum is connected to the existing gravedigger house which functions as a ‘remnant’ of the old condition of the cemetery and is reused as exhibit space and offices. This existing building is internally connected by the long axis that leads to the dead end in the wedge-shaped space outside the building which is used as terrace. Inside the spaces are flexible, sliding walls close and open to different configurations in use. The large exhibition hall is an open space with movable interior exhibitions; the interior is open, not fixed. Different uses are possible in one and the same space. The glass wall of the main exhibition space, opens up to the cemetery garden and wedge outside. It is a ‘banal’ building, not very spectacular; it is an architecture that wants to disappear into the ground. And may be here in this
sense it is more of a “Medium des Sozialen” in the current context of signature architecture.

[Endnotes]
3 Hugh Aldersey Williams, Applied Curiosity, p 52.
4 Hugh Aldersey Williams, Applied Curiosity, p 53.
5 Hugh Aldersey Williams, Applied Curiosity, p 54.
7 Arie Graafland, Architecture in absentia, p 111.
8 Hugh Aldersey Williams, Applied Curiosity, p 71.
Space Fighter revisited, a Jeu Magnifique

by

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1. “Very little of the ideas of evolution have been applied to urbanism. A lot of his work related to Daniel Dennett’s writing about Darwin’s dangerous ideas. His ideas have to do with the notion that information is always dispersed and that its complexity forces a high eye view in urban planning.”

2. “Space Fighter found its name in...”

Space Fighter found its name in Wargaming. In some way or another the game suggested the possibility of an overview, an omnipotent view, the high end of one contemporary computer technology with the capacity to fly over another at level, making digital pictures of the earth and at the same time producing provisional and incomplete interpretations by gathering intelligence.

3. “...focus is on organization and economic change...”

Michael Speaks focus is on organization and economic change, his vocabulary is accordingly on ‘innovation’. The central idea of this innovation is a highly organizational one. But for Speaks there is more at stake. His comments deal actually with the end of Marxist thought and what is mostly called ‘critical thinking’, or the end of architecture as a medium of the social.

Very little of the ideas of evolution have been applied to urbanism. A lot of his work related to Daniel Dennett’s writing about Darwin’s dangerous ideas. His ideas have to do with the notion that information is always dispersed and that its complexity forces a high eye view in urban planning.
4. “The idea is that architects use ‘intelligence’...”

5. “I relate this to Eyal Weizman’s critical notions...”

6. “…I found many of the ideas back...”

7. “Knowledge of the West Bank was primarily gathered from...”

8. “…‘up there’, on top of the hills.”

9. “…‘deconstruction’ of ‘the spatial grammar of the Arab city’”

10. “...Tschumi had another approach to epistemology...”

11. “We share more with architects...”
12. “The military practice of “walking through walls...”

This idea evolved to relate the same idea—walking through walls.

“The military practice of “walking through walls” on the scale of the house and the city—links the physical properties of construction with the spatial, architectural, social and political orders.” (Eyal Weizman, Hollow Land

13. “...applied deconstruction...”

Another example of applied deconstruction, might be Peter Eisenman’s BioCenter for the University of Frankfurt, a competition he submitted in 1987. The DNA played an important role in the design for the BioCenter.

14. “Every DNA molecule...”

Every DNA molecule consists of two adjacent chains of nucleotides. Within the chain, (A and T) and (G and C) correspond; the ratio is different for every type. Both chains are linked by bridges of hydrogen. Watson and Crick proved that the double sequence is equally by exactly half.

15. “...applied deconstruction”...

Hugh Aldersey-Williams compares the molecular structure of the element carbon to Buckminster Fuller’s geodesic domes.

16. ...visualization can prove...

“Visualization becomes more treacherous the further you travel away from the human scale.”

17. “...visualization becomes more treacherous...”

“Visualization becomes more treacherous the further you travel away from the human scale.”

18. “Deleuzian conceptions of space”

There is no superior moral authority in science; it can only be an inspiration, a starting point. After that, design is on its own.

The same is true for the current interest in Deleuzian conceptions of space, “striated” and “smooth” space conceptions have no moral authority in design practice over contested conceptions of “modern” space.
We could ask ourselves whether Joris Laarman’s Bone Chair (Joris Laarman Studio, the Netherlands 2007), where he explores a biomimetic approach, is any different from Eisenman’s Biocenter.

A common understanding of modernity consists in believing that humans have progressed in terms of domination over nature, in terms of achieving some understanding of the relationships between ‘humans’ and nature.

20. "...a biomimetic approach...

21. "A common understanding of modernity...

22. "...society’ and ‘nature’ are concepts that are no longer equipped...

23. "...images and metaphors...

24. "...Conceptual fields evolve...

25. "To go back to...

26. "...an inquiry into the banal...
28. "...minimalistic architecture..."

29. "...the relation to 'ground' is reversed..."

30. "...existing building is internally connected..."

31. "...open space with movable interior..."

32. "...it is an architecture that wants to disappear into the ground..."
Introduction and prelude.

The question of mapping is as old as the history of paper. The link between a physical reality and a human’s world has always been an important matter within human evolution. Weather maps stand as reflections of man’s relationship to his surroundings or as a product of humankind’s dominance over a particular territory, maps seem to have played a vital role across the board and spectrum of human existence.

One of the most influential questions within the act of mapping has been to explain relationships. It has always been a question of comparison. Historical sources set out the processes which show the protocols followed to trace out and compare; elements, units, physical characteristics, realms of a living organisms as well as temporal and spatial relationships. This has further emphasised the importance of mapping, a method to evaluate, relate, highlight similarities, render visible differences and emphasise the possible crossovers between any objects, living and dead. It has, as a consequence of exploring the topological nature of mapping, produced a number of methods of comparison and classification as well as help introduces protocols for revised nomenclatures.

It is thanks to this visual and graphic method of comparison that mapping itself has undergone an evolutionary process, claiming new ground within all fields, either in the way maps are made, in the manner they are read, or, in the pure accessibility of how information is used to compile specific maps types. Today it is possible to find maps dedicated to pure science, maps made to highly technical processes as well as maps made exclusively for urban warfare. In the last decade alone, a number of publications have re-questioned the use and importance of maps. More specifically, the surge in the number of newly published ‘atlases’ alone has most definitely emphasised the dependency of technology within the mapping praxis. New atlases emerged which mapped out the phenomena of time, perception, flows and a variety of newly acquired technical data. This can only be ascribed to what Christine Boyer would refer to as part of the mayor ‘epistemological traumas’ , currently associated to mapping and the mapping praxis. With the easily accessible information, data and technology a hand, the question is not so much a question of what to produce, but rather one of what to map and using what information. It is through the building of referential systems, drawing from a number of databases and being able to view many points simultaneously in real time that has forever changed the nature and prospects of how we understand, as well as manipulate, our direct living and built environment. Or, in other words, it has become possible to pin-point our position with accuracy, map and relate spatial structures, displace ourselves in time, fold and revolve the space-landscape by simply looking at the touch-screen of a hand-held device.

Still we have to question, how all this impacts the city, both as object and as process? What maps are relevant to a reading of the urban-regions or smaller, incremental sections of the city? This section of the syllabus should be seen as only a part of a larger research project that looks at the question of urban structure and form. As a text it finds relevance within the larger questions of mapping, thanks to the praxis and techniques involved with the mapping out and documenting of urban spaces in the city. It is a text meant to inform students on the possibilities of how to directly engage with the question and interpretation of city structure, without having to produce an entirely new set of mappings or a range of atlases. As a text it attempts to briefly encapsulate the cartographic history of mapping. Thereafter the focus shifts to look at urban maps from up close, scrutinizing their manner of representation and the techniques used to represent the city-landscape. The representational products of maps, and how a built landscape is reflected within the two dimensional surface is explored, by looking at only three specific map categories; [1] traced maps, [2] maps composed out of urban elements and [3] statistical maps.

Many possibilities

In order to proceed, it would be necessary to examine certain historical particularities related to maps and the activity of mapping. It represents a preface, as it were, to the general praxis and traditions of mapping, before continuing to the more recent and current practices.

John Noble Wilford’s book entitled ‘The Mapmakers’ [Wilford, 1981], traces specific moments of the cartographic process and its historical development. Wilford’s account is a detailed description of the triumphs, tribulations and the types of obstacles faced in the history of map making. Wilford defines the map as a means of communication. It represents a medium employing the basic and visual tools of
communication, a graphic alphabet as it where, in order to grasp the unfamiliar. Wilford’s account traces a variety of historical mapping processes, ranging from the practices used by Roman map makers, to those where the advancement of technology has helped produce specifics maps, such as those found in medieval cartography.

‘The Mapmakers’ is richly illustrated with historical key figures influential in mapping history. One such an account describes the mapping strategies of Marcus Agrippa [65-12 BC], son in law of Augustus Caesar, and his determination to map most of Britain and parts of Europe. Another account provides insight into Medieval practices, described as parts of the formative years, responsible for the first mapped results of the larger medieval Europe. Known as the ‘mappa mundi’, or map of the world, it represents a visual documentation of an extensive section of medieval Europe. And although rudimentary by today’s standards, the ‘mappa mundi’ embodied the newest technologies for its time. Maps of Europe not only ranged in size and form of representation, they each represented different, and sometimes highly complex, notions of how the world was understood, and seen. Wilford describes how the Portuguese took the lead in the mapping of the world, especially during the 15th century. It was thanks to Prince Henry of Portugal, also known as, ‘Henry the Navigator’, who initiated 4 separate expeditions as part of a personal campaign to map the unknown world. 4

With ‘Henry the Navigator’ s death, Portugal had mapped Africa’s west coast as far as Sierra Leone. Vasco de Gama [1660-1524], a Portuguese explorer, was responsible for navigating a route to India around the Cape of Storms at the tip of Africa as early as 1498. De Gama’s geographic and navigation system is said to have been accurate to a 2 degree level of precision. 7

Scientifically accurate topographic maps were developed in France through 4 generations of cartographic experimentation, funded by the French royal court. 5 From 1669 until the French revolution [1787-1799], the practices were spear headed by individuals such as Giovanni Domenico Cassini [1625 - 1712] and Jacques Cassini [1677-1756]. Both are mentioned as founding members of the Cassini legacy and their contribution to the world science of cartography. In combination, the Cassini family is accredited for the accurately documented topographic maps of Paris and environs, referred to as the Carte de Cassini - published in 1793. The final and overall series of Cassini maps, published in 1793, consisted of 182 sheets. Placed side by side, the maps gave an 11 x 11 meter overview of Paris’ territorial landscape, scaled 1:86400. 6

The Carte de Cassini map collection contained, at levels of detail; roads, rivers, canals, towns and hamlets, abbeys, chateaux, vineyards, marches, lakes, ponds and windmills. Wilford describes Cassini’s maps as ‘[…] scientific, complete and useful’. 11

Cassini’s methodology of scientific documentation and spatially presented elements helped to facilitate the development of cartography in general, which later lead to the development of maps as a result of a fusion between the visual representation of a context and technological instruments such as the radar, sonar, computers and planetary spacecraft. Thus far, according to Wilford, the use of the map within the urban discourse has been mostly focused on the use and interpretation of Landsat photographs. Landscape photographs have become useful tools for pattern recognition, studying the types of urban structures, land use patterns and to spot trends in urban sprawl, land use and other abnormalities in landscape features and characteristics. 12

Presently it is possible to find a wealth of information on maps, as well as sources, which address the question of maps, mapping and aspects related to ‘what to map’. From the theoretical perspective, we find a wealth of information contained within the collection of essays, published within James Corner’s Recovering Landscape: Essays in Contemporary Landscape Theory [Corner, 1999]. Here I would like to make specific reference to the essay of Dennis Cosgrove, Liminal Geography and Elemental Landscape: Construction and Representation [Cosgrove, 1999]. Other sources such as Christine Boyer’s The Way Things Work: City Maps and Diagrams [Boyer, 2006], deals with the maps and diagrams produced as part of the diversity of the spatial discourses presently under review. For architects like Rem Koolhaas the issue of spatial representation seems to be the key focus in his representations of ‘30 Space for the new World.’ In comparison, Arie Graafland produced an insightful text entitled ‘Understanding the Socius through Creative Mapping Techniques’ [Graafland, 2008] as part of a teaching curriculum, which illustrates the practices of mapping and their specific techniques of exposing social forms.
produced one of the most insightful overviews of the various mapping techniques currently available, within both discourses of architecture and urbanism. What is so evident in her work is two fold. At first her work situates the praxis of mapping in relation to the contemporary maps which try and document the phenomena of perception, flows, time, data and scales. Secondly, her work is most insightful within the specific realms of the morphological traditions, that is to say, within the ‘formal’ discourses which look at and scrutinize form, order, structure and pattern of the built landscape.14 One of the most important aspects in both Pinzon Cortez’s thesis as well as that of Bruyns [2011]15, is the relationships between how ones sees things and what is mapped. Bruyns specifically addresses the influence of the mental and referential frameworks as inherent guides to how individuals look at urban and city objects and how these various types of objects and processes are thereafter translated into a map which reframes a reality, structure, order and form. Pinzon Cortez’s urban list, a list of vocabulary and city nomenclatures for the contemporary city, directly illustrates this.16 The 34 name list shows the various kinds of city, each with a particular character-concept. These specific character-concepts have had a direct influence on the types of maps made to represent each settlement type.17 Exploration of each ‘city-concept’, in terms of its position, framework, dependencies and overlaps, it would be possible to produce definitive city specific types of maps. The list below is taken from Pinzon Corzets dissertation and is set our in chronological order.

Table 1 [below]: Timeline of a selection of terms of the new vocabulary to name the contemporary city. Source: Pinzon Cortez [2009], p28.

<table>
<thead>
<tr>
<th>Year</th>
<th>Term</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1915</td>
<td>World Cities</td>
<td>Geddes 1968 [Originally published in 1915]</td>
</tr>
<tr>
<td>1962</td>
<td>Dispersed City</td>
<td>Stafford 1962, Burton 1963</td>
</tr>
<tr>
<td>1966</td>
<td>World City</td>
<td>Hall 1966, Friedmann 1986</td>
</tr>
<tr>
<td>1987</td>
<td>Technohubs</td>
<td>Fishman 1987</td>
</tr>
<tr>
<td>1989</td>
<td>Carpet Metropolis</td>
<td>Neutlings 1989 [Tapijtmetropool]</td>
</tr>
<tr>
<td>1990</td>
<td>Citta Diffusa</td>
<td>Indovina 1990</td>
</tr>
<tr>
<td>1992</td>
<td>Middle Landscape</td>
<td>Rowe 1992</td>
</tr>
<tr>
<td>1994</td>
<td>Le règne de l’urbain et la mort de la ville</td>
<td>Choay 1994</td>
</tr>
<tr>
<td>1995</td>
<td>City of Bits</td>
<td>Mitchell 1995</td>
</tr>
<tr>
<td>1996</td>
<td>Cybercity</td>
<td>Boyer 1996</td>
</tr>
<tr>
<td>1997</td>
<td>Ladders</td>
<td>Pope 1996</td>
</tr>
<tr>
<td>1999</td>
<td>X-Urban, X-Urban City</td>
<td>Gandelsonas 1999</td>
</tr>
<tr>
<td>2000</td>
<td>After the city</td>
<td>Lerup 2000</td>
</tr>
<tr>
<td>2001</td>
<td>Postmetropolis</td>
<td>Soja 2000</td>
</tr>
<tr>
<td>2002</td>
<td>Global-city-region</td>
<td>Scott 2001</td>
</tr>
<tr>
<td>2003</td>
<td>Quantum City</td>
<td>Arida 2002</td>
</tr>
<tr>
<td>2004</td>
<td>Netzstadt</td>
<td>Oswald, Baccini, et al, 2003</td>
</tr>
<tr>
<td>2006</td>
<td>Horizontal city</td>
<td>Berger 2006</td>
</tr>
</tbody>
</table>

Technicalities
From a technical and practical point of view, there exists a wealth of data available to be used for mapping. However, an excess of data does not necessarily secure successful or affective mapping practices. Without the proper interpretational devices available [software, computational formals, indexes and catalogues] the wealth of data becomes restrictive rather than being productive. Two exemplary projects which have mastered the translation of data into mapped and visual aides are [1] HiperCatalunya: Research territories [2004] and [2] Atlas Europe: Planet, people, profit, politics [2006]. Atlas Europe is discussed at length later in the text. The former, HiperCatalunya, represents a two book omnibus of various themes, mapped out through the Catalonian landscape, executed by a vast organization. The 704 pages of the larger book, is a collection of photographic material, maps, diagrams, images and text all related to population, habits and cultural data, as well as commuter, traffic, networks, systems, geographic and logistical data. It is embodies a collaborative effort that should be seen in terms of how mapping and diagramming helps
within a thinking process of generating alternative strategies of regional and architectural design.

However, other, ‘free for all’ information sources are readily available as sources for maps and mapping. Here I propose to examine the three most basic map types, or sources of mapped information related to cities and architecture. Aerial and Satellite maps, the first types, remain some of the more familiar maps in use. Generally, aerial and satellite images are available in 2 formats; pure aerial surveying or aerial and satellite surveying accompanied by specific elements or ‘themes’.

As a first type we find a number of aerial maps, representative of the landscape in a purely photographic format. Images document any landscape or context, frozen in time, using a specific technique and protocol. They may very well vary in scale and in resolutions of depth. On certain maps it may be possible, once more dependant on the resolution and clarity, to identify landscape features and characteristics of a territory, making it possible to accurately pin-point specific buildings, groups of settlements, geographic and natural features [mountains, plains, forests] and structural elements in the landscape [streets, highways, airports, race tracks and dams]. In the more traditional sense aerial photography has always been accepted as the primary source of looking at the world from above. In recent years, and thanks to the advances made in technology and the virtual web, Google Earth and Google Maps have both become instrumental engines in providing both aerial and satellite maps to a global audience. Google has spearheaded the internet industry, whereby the entire globe has been captured photographically. Web engines and computer programmes such as these allow the user, in most instances, to zoom in and zoom out at will, and spot specific features and elements on the landscape. Individuals, cars, and street panoramas have become part and parcel of the descriptive tools users access when looking at certain landscapes.28

A second type of aerial and satellite image extends the level of information in comparison to pure photographic representations. Images classified under this category translate specific information into themed maps. It is possible to source maps which include, in addition to the photographic perspective, specific features such as roads, commercial use, public transportation routes and nodes, and points of interest. Wilford describes on page 344 how the introduction of radar, sonar, computers, seismic probes, lasers and planetary spacecraft have helped produce the early Landsat photographs. Landsat photography has become useful as it has become specific in the interpretation of landscape features, using colour to indicate soil conditions, urbanization patterns, landscape features or geological phenomena.

Themed maps present the second alternative to the general categories of maps. The introduction of the themed map, in the late 17th century, has changed the ‘mapping landscape’ forever. Ever since this defining moment, it could be stated that professions have become greatly dependent on the themed map especially within a number of professions. Here we think of the professions as architecture, urbanism, oceanic and aeronautical navigational charts, geographic explorations and others who depend on the maps as a key source of information. What is more, Robinson [Robinson, 1984] states that the 20th century saw a rising awareness of ecological modelling, which directly influenced the types of maps in production, the alternative methods of interpreting maps and mapped information. With ecological modelling Robinson states that the landscape is interpreted as one cohesive system, with a number of interrelated processes and parts.29

In order to recognize the various landscape ‘parts’, it became a necessity to look at maps according to themes or topics.

Today it is possible to source a number of themed maps. A number of atlases have become a collection of maps which show specific elements, geographies, political boundaries, geopolitical conditions, social religious or economic status. It is possible to source atlases on European History - *De historische atlas van Assen* [Battjes, 2009]20, world religion - *Atlas of global Christianity 1910 – 2010* [Micheal, 2009]21, the physical elements of the environment - *Atlas Nieuwe Hollandse Waterlinie* [Steenberg, 2009]22 and on the human body - *Martini’s atlas of the human body* [Frederick, 2008]23. Under a similar category one finds the collection of maps which simply one element as main focus, before mapping it in relation to other elements. Here we find the vast number of road maps and road atlases, and their specific conventions and mapping vocabulary of roads, road types and the various possible road structures in existence. One example of note remains the *Michelin Europe Tourist and Motoring Atlas* [Michelin, 2002]. It is one of the most comprehensive atlases of any single territory’s road infrastructure. In summary, it is by manner of the themed maps through which we find specific information sets, translated and visually communicated with specific means.

To conclude this overview of map types, we find the third and final category of the typological map. The Merriam-Webster’s dictionary defines topography as;

“the physical or natural features of an object or entity and their structural relationships” 24
Topographical maps are used to complement the information already available from aerial and satellite images. Topographical maps are mapped sets of information, graphically translated and communicated on a two dimensional surface. They are found at various levels of scale. Maps of a topographical nature have no distortion in its manner of representation. Technically, topographical maps are vertical representation taken at every point on the map. Unlike photographic images and their levels of distortion, topographical maps represent all features or landscape elements equally.

By ‘reading’ topographical data - as indicated from the legends used on the maps - differentiation is made from residential units, high-rise buildings, large buildings, greenhouses, roads, railroads, hydrological features, boundary information, vegetation and places used for specific purposes.

Map characteristics provide higher resolution of how urban elements group together. A tracing of similar elements can show how schools or churches tend to aggregate in specific places of neighbourhoods, or how greenhouses cluster in specific regions of the landscape. Economic activities, and how they distribute or cluster, are not legible form topographic maps.

Representational differences are apparent when comparing topographic maps with aerial images. A comparison of, let’s say an aerial image and a topographic map of Schiphol International Airport [Amsterdam], clearly establishes the differences between the two representational formats.

The aerial image - on the left - is of the overall and distributive character of the region. It pin-points Schiphol’s exact contextual location in the landscape, the empty spaces surrounding it and the presence of agriculture as infill between the lob structure of Amsterdam and Aalsmeer. Exact borders and city limits of both remain vague, as the definitive boundaries remain illegible exclusively from the image.

Colour and symbols indicated on the topographical map, completes a more informed representation of a landscape-region. Spatial arrangements and distribution of urban elements are colour coded on the topographic map. What is more, topographic maps establish hierarchical ordering amongst urban elements of a similar category. Hierarchical differences between the various types of road are legible on one map. Distinctions are made, both visually and through the mechanism of the map key, between motorways [highways], mains roads [dual carriageway], main roads - regional roads [dual carriageway], local roads and loose or light surface roads. Different soil types or surface conditions are shown with the same levels of difference.
each representative of their urban footprints, and neighbouring settlements. ‘Elemental’ maps I define as maps which look at specific urban [morphological] elements, employing build object and infrastructure as mapping guides. In this category we find maps that indicate specific city elements in order to express structure. Maps used in this case look at road maps and their representational tools as part of a way to express a mobile urban landscape. Individual maps depicting buildings, parks, metro stations, bus terminals or all commercial location may fall under this category. The statistical map, the third map category, uses only statistical information communicated through a visual and two-dimensional medium. Maps in this category, relate statistical information to geographic landscapes, that is to say, statistical data in relation to spatial and geographic conditions. Maps may vary well range from the number of flights per country, or city, or the density of roads in relation to an area.

The choice of the maps are motivated by a number of reasons. Map categories were selected in order to visually show the city. A second guideline is to question the mediums of expression of how the contemporary urban landscape is drawn and understood. Thirdly, the maps used set in place a manner of working whereby they form a comparative tool through which it is possible to demonstrate the various manners in which similar cities can be expressed. For example; it is possible to express Paris by tracing its urban footprint, or as an alternative, as a city expressed by a rich and finely woven web of road infrastructures. In addition, would it be possible to read the city’s centralities or central places within the pattern of distribution through the series of maps, or, has the issue of centralities become a loose fitting notion, detached from the city debate? As a fourth guideline, certain maps are demonstrative of how the city operates, as indicated by their statistical data. In this sense is it possible to express any city through the processes, that is to say, by the number of daily flights from a region, a regions highway and railway density or a landscape expressed by its number of airports forming connective hubs within a global network.

A fifth guide is set in place by the notion of understanding that maps scrutinized, go beyond the mere objective of studying individual cities. Maps could be used as a test to see if the city has in fact become an embodiment of a complex structural relation, within the post-modern, post industrial and network paradigm.

In order to establish a comparative method it was deemed necessary to choose specific urban cases.

The first sources investigated is The World Metropolitan Atlas [2005], which establishes a visually comparative model for urban regions. As a source, the discussion centres on the ‘city-regions’ of the Dutch Randstad, London metropolitan complex, the Essen-Dortmund-Düsseldorf-Cologne urban complex, Frankfurt-urban complex, Johannesburg-Midrand-Pretoria complex, Los Angeles, Philadelphia, the Madrid-region, and a region of Belgium-France.

The second map category discusses the city as expressed through specific elements. Here the Michelin’s Europe Tourist and Motoring Atlas [2002] remains key. Where applicable similar ‘city-regions’ as discussed in the first category, are scrutinized and looked at from up close using a different source. Examinations consider distributive patterns, urban footprint, settlements structures, motorways, railways, and airports as part of the formal and structural urban narrative.

For the third and final ‘statistical’ category, the focus shifts from specific ‘city-regions’ to a European scale. The primary source consulted was Atlas Europe: Planet, people, profit, politics [2006]. Motivation for choosing Atlas Europe as primary source stems from its clarity and it manner of depicting the various data sets for the Netherlands, in relation to the European context. In addition, the statistical information directly contributed to the centrality debate, through its informative maps on railway and automotive density within Europe.


The World Metropolitan Atlas employs statistical information to cartographically represent cities and their formal structure. Overall, the atlas has been made to act as a reference work where cities can be placed alongside each other in order to establish similarities and differences.24 It is crucial to be reminded that despite the atlas’ statistical foundation, it still is an atlas which traces urban form ‘geographically’ and ‘spatially’. Apart from the formal tracing of urban footprints, a variety of characteristics are represented. Each characteristic is equated to a numerical value. Values are then translated spatially to produce a map with a series of indicators. A higher value in a particular aspect would result in the manner it is represented graphically, meaning, a smaller dot would reflect a lower value of the inhabitants with a large dot indicating a higher value. For larger cities, an outline is shown and coloured in orange, tracing the exact form of the built up area in the region. As shown, and through a consistent scale and manner of representation, individual maps designate bodies of water, land area, land elevation, railways, motorways, airports and seaports. Ultimately the atlas sets up the conditions to establish the basis for a comparative model between a variety of cities, using
the same language of representation.

Examination of the Randstad region map pinpoints the cities of Amsterdam, The Hague and Rotterdam in relation to a vast number of larger and smaller settlements. The entire territory appears to be an urbanized field linked to each other by road and rail infrastructures. A series of 7 ports and three airports are visible. Visually, there appears to be no major or strong central urban place or city. Related to the patterns and sizes of the urban settlements Amsterdam, The Hague and Rotterdam seem to be larger, more extensive than the neighbouring settlements and accompanying villages. According to these maps Leiden, Utrecht, Weesp, Katwijk and Haarlem are of equal size and stature whereas the cities of Nieuw Vennip, Mijdrecht, Abcoude and Noordwijkerhout are similar. It therefore remains impossible to talk of a singular central urban nucleus or render visible any centrality differentiation between settlements.

In comparison, the maps of the Essen-Dortmund-Cologne urban complex, referred to as the Rhine-Ruhr region, exceed those maps which are representational of the urban complexes of the Randstad or Frankfurt at the level of size. Visual tools show how this urban region covers a larger area than that of the Randstad. The Rhine-Ruhr complex forms one continuous urban ‘crust’, linking Dortmund to Essen and gradually linking to Düsseldorf and Cologne. Because of the appearance of the Rhine-Ruhr configurations, being less polycentric than its Randstad counterpart, it still remains impossible to distinguish between any main city or central urban structure. In the case of the Randstad distinction between the main four cities are easily legible. For the Rhine-Ruhr region distinction at this level is problematic, allowing no clearly legible city or periphery. One large and extensive urban zone, surrounded by a number of smaller settlements, is legible form the map. An excessive number of railway and automotive infrastructures links or overlap within most of the urban settlements, especially clear for both Dortmund and Essen. Infrastructures become less dense in the Northern and South Eastern section of the map. Also noted is the presence of 5 airports and 4 ports - related to Rhine activities - servicing the urban complex.

The greater city of London is used as another European example. Where the previous urban regions demonstrated a decentralized, less nucleated urban form and footprint, the city of London appears to be different. London is represented as a singular, nucleated, urban structure. From the map, the city has a centralized urban core as footprint surrounded by medium and smaller sized settlements. Settlements such as Luton, Gatwick, Windsor, Harlow, Brighton and Colchester are represented to be larger than the settlements of Hullbridge, Uckfield, Edenbridge, Mannings, Heath and Warden. In size and scale London’s footprint, is bigger than the entire centre region of the Randstad with its green heart. A total number of 6 airports service the region, with one airport (City Airport) situated within the core of the city. An intricate web of highways and railways disperse from London connecting a larger region beyond the indicated ‘periphery’. Four ports are located on the Thames River with a series of other sea ports close to Brighton, Seaford, and Hastings. No definitive centres are visible on the map, marking no distinction between a centre or non-centre. A distinct periphery is much more apparent for London than in the Rhine-Ruhr region, due to its nucleated form.

Madrid, the Spanish Capital, is seen to be considerably smaller. Similar to the city of London, Madrid has a nucleated form. No other larger settlements or effects of excessive sprawl are legible form the map used in the Atlas. Of importance in this sample is the lack of medium sized towns in the region. According to the manner of representation, only a few medium sized towns are noticed, namely: Guadarrama, Collada Villabra, Alcorcon, Leganes, Torrelodones, to the north and Leganes, Pinto, Valdermo, Ciemposuelos to the south. What is more, most of these middle sized towns are indicated at places where the railway and road infrastructures coincide or overlap. Similar to other European examples, a series of railway and automotive road networks are seen to extend far beyond the limits of the urban, linking most of the small ‘dotted’ towns on the maps. Two airports provide air connectivity for the region.

Non-European examples examined are of Los Angeles in the United States and that of Johannesburg, South Africa. Los Angeles’ urban footprint is extensive, outranking most cities in the Atlas. An urban footprint, almost half of the map, is observed to be a complete and solid urban mass. The surrounding territory have few smaller sized settlements, as for example Santa Clarita, Simi Valley, Mission Viego, which are larger than settlements like Littlerock, Sleepy Valley, Humphreys, but relatively smaller than Los Angeles itself. In comparison to the European examples, Los Angeles, and its total footprint, is larger than the cities of the Randstad, London or Paris. What is remarkable is that, according to the Atlas, Los Angeles’ population during 2003, is stated as being 17 263 000. The atlas also estimates London’s 2001 population as 13 945 000. Therefore, although Los Angeles’ footprint might seem more extensive, its population to area ratio remains less than that of London. Los Angeles’ residential density in 1985 was estimated to be 3 353, with London’s given as 4 172. Population density of the Randstad, during 2002, was estimated to be 4 651 - considerably
higher and denser than that of Los Angeles – known for its sprawl. As for infrastructure, we observe a less extensive railway networks, in comparison to the vast number of roads.

The Johannesburg-Pretoria urban complex, located in the Gauteng province of South Africa, has a total of 4 airports connecting the region, nationally and internationally.34 Footprints of the cities of Pretoria and Johannesburg are less extensive than the footprints of Los Angeles or London. For Johannesburg the footprint appears to be orientated east-west, connecting the regions in the east, known as the East Rand region [Springs, Brakpan, Boksburg, Germiston] to the settlements to the west, termed the West Rand [Florida, Roodepoort, Krugersdrop]. A Pretoria urban footprint, the second and the smaller footprint on the map located to the north, has a more compact urban core. No apparent urban sprawl connects the two settlements. Compared with Los Angeles or London, the Johannesburg-Pretoria complex consists of far less medium and smaller sized settlements. Also, there are far less automotive and railway networks visible overall. With the exception of one railway line, no railway connections are observed linking Johannesburg and Pretoria directly. Settlements located on this railway as well as highway connection are Lyttleton, Irene, Clayville, Olifantsfontein, and Tshwane. The majority of railways run east to west in both cities.35

See:

Image 3: World Metropolis Map of the Randstad, the Netherlands.
Image 4: World Metropolis Map of the region of the Rhine-Rhur region - Dortmund, Essen and Dusseldorf, Germany.
Image 5: World Metropolis Map of London, United Kingdom.
Image 6: World Metropolis Map of the city of Madrid, Spain.
Image 7: World Metropolis Map of Los Angeles, United States of America.
Image 8: World Metropolis Map of Johannesburg and Pretoria, South Africa.

Map category 2: Maps composed out of or representative of urban elements. Inverting the elements of urban shape:

The Michelin Europe Tourist and Motoring Atlas [Michelin, 2002] is a collection of maps instrumental at the level of connectivity of urban centres. These maps, or what are represented by them, focus on how urban centres are connected by way of a variety of roads and highways.

These Maps cover the entire European region and go one step further than the Metropolitan Atlas. Whereas the Metropolitan Atlas expresses centres and urban settlements through tracing statistics and outline or footprints, the Michelin series maps reflect primarily how a variety of places are connected. Moreover, it is useful in the way it demonstrates the various possible levels, series and orders of connectivity between cities, villages or larger territories. Alternatively stated, the maps show how places, neighbourhoods or regions are interlinked with a greater system. What is not addressed by The Michelin Europe Tourist and Motoring Atlas, and most road atlases for that matter, are how railway networks distribute in the various territories.

Levels of connectivity expressed in the atlas are technical. Representation of roads and highways are hierarchically classified through various criteria. Criteria for classification is set out according to the order or type of roads, ranging from Motorway – dual carriageways, Junctions, Dual carriage way with motorway characteristics, International and national road network, regional and local road networks. The Atlas provides us with the following levels of information.36 At first, this map acts as a description of roads, in order to classify and not necessarily provide descriptions of what roads might look like. Secondly, many other map-legends and symbols help inform the context of the territories further. All maps reflect the basic geographical quality of the landscape, in terms of rivers, lakes and mountains. Legend keys are specific and indicate ‘faculties’ [hotels, camp sites, shelter and customs offices], ‘other transportation means’ [ferries, trains, airports] and ‘sights’ [castles, caves, ruins, rock carvings, monasteries, ancient sites and national parks].37 Finally, maps contextualize the territories through their graphic systems and graphic symbols. Maps reflect how road networks and infrastructure connects cities with other settlements as well as how a city is related and connected to a larger territory, region, country or other international territories. Although national borders are indicated they become subservient to the layout and patterns of roads. As an example, the Eastern border of the Netherlands with Germany is indicated by a series of small ‘x’s and shaded in yellow. Motorways cutting across the border are, in this drawing convention, more intense of colour and bolder of line style and thickness. Maps are continuous and if separated and placed alongside each other they will form a continuous whole of how roads are distributed across the European landscape.

The map of the Randstad, taken from The Michelin Europe Tourist and Motoring Atlas, is read to be a landscape rich with roads and motorways.38 Dual carriage motorways have a dominant presence in the entire region. Only a limited number of national roads [indicated in yellow] appear on the map, creating links between dual carriage motorways. Dominance of dual carriageways [highways], over and above other types of roads, stems from the level of presentation. Due to the large scale at which these maps are made, only a limited number of
roads remain visible. [Observation of the 1:20 000 Topographical map show the intricacy and number of roads visible at higher resolutions of scale].

Overall we observe a system of roads which link settlements in a variety of ways. First, motorways establish internal links between the various cities of the Randstad. Thereafter they are observed to further connect Randstad cities with other settlements outside the region before connecting settlements in the larger Dutch landscape. Highways then continue to connect settlements of the Netherlands to settlements in Germany or Belgium. Roads such as the A7, A37, A1 and A3 establish connections with the German towns of Oldenburg, Bremen, Osnabrück, Essen and Dortmund.

Distribution pattern of highways vary per region in the Netherlands. For the Randstad alone, and especially around cities, highways form intricate matrixes of mobility. Amsterdam has a clearly legible ring road encircling a yellow marked zone which represents its core. A secondary highway is looped around the city as the A9 circumvents Amsterdam, connecting Schiphol directly to Ijmuiden. Both Rotterdam and The Hague have dual carriageways cutting as tangents to their yellow marked footprints. Utrecht is seen nestling between two motorways [A2 and A27] within a rather complex configuration of motorway and regional networks.

Moving further northwards from the Randstad, the motorways are spread out, forming a less dense matrix. From the map it is seen that cities such as Gorringen are ‘fed’ by 3 dual carriageways [A7, A7, A28] from the east, south and the west while Enschede nestle between 2 main carriageways [A1 / A30 and A31]. Leeuwaarden is connected by ‘double’ dual motorways [A31, A32]. Distribution pattern of highways and motorways in these regions appear to have a less complex arrangement and distribution.

A study of the Antwerpen, Brussels [Belgium] and Lille [France] regions, taken from the same series of Michelin maps, have a similar distributive complexity of road infrastructure as seen in the Randstad.66 Brussels, situated at the heart of what can only be called a matrix of highways, has a semi-circular ring road structure at its northern perimeter. From here a series of motorways radiate outwards into the Belgium territory connecting to cities such as Brugge, Antwerp, Gent and Lille [France]. One can easily distinguish a triangulation shape when following the motorways connecting Brussels with Brugge, Brugge with Antwerp and Antwerp with Brussels. Again, when observing the highways and their distribution patterns, one can easily see the level of complexity and intricacy of the highways of Belgium. In comparison to France, of which a portion is visible on the same map, one can easily see how there are portions of the territory where the presence or matrixes of highways are less or even non-existent. Here once more, only by enlarging portions of the landscape do other roads appear, as for example the farm road, the village road or the principal road acting as an alternative route to the highways between settlements.

Both Paris and London are read from the maps to be substantial cities in their respective countries.40 These cities, substantially larger than Brussels, Antwerp or Amsterdam, are prominent urban centres within their regions. In addition, both cities have a clearly legible circular shape which outtranks neighbouring cities in footprint size. Simply reading the yellow zones representative of the build landscape of both cities, it becomes clear how similar in size these cities are. However, Paris’ motorway distribution differs to the road configuration of London.

Motorways of the Paris Region are seen to form a complex intertwined nucleus of highways intersecting the footprint of the city.41 Roads are observed to intersect the settlement’s footprint, cutting across what is indicated as ‘city limits’. [City limits in this sense include the settlements and regions of St Denis, Nanterre, Versailles, Bobigny and Creteil].

An examination of Parisian inner city maps unlocks another level of how roads connect and distribute within the inner city region. After penetration of the city limits the highways connect to the ‘Peripherique’ – or inner ring road. Form the ‘peripherique’ roads, boulevards and avenues lead into the historical centre of the city. Similar to the hierarchies observed at the higher scale, it is possible to read the hierarchies of the inner city roads. Clear distinction is made between specific boulevards and venues. Some large and extensive Hausmann boulevards bisect the inner core of the city. Smaller Rue’s [streets] are seen placed lower down in the hierarchy of roads, usually allowing only traffic in one way.

How does Paris compare to London in terms of roads and infrastructure? Differences between their roadway infrastructures are, if observed at the same scale, that there are few motorways within the yellow and larger city zone of London.65 Motorways encircle the city to form a clearly visible ring road [M25]. Connections between the ring road and the inner urban core are made through radial highway arteries leading into what appears to be an inner ring road.

Enlargement of London’s inner city map shows the formation of another and secondary ‘internal ring road’, similar to that of the peripherique of Paris. Connections from the larger and ‘exterior’ ring road [M25] are made to the northern half of the inner ring road, [A406] or the southern half of the
inner ring road [A205].

From this level, movement is redirected once more into the city centre using designated routes of flow indicated in red. A third and final inner circulatory road [national road] is observed circulating in the most inner part of London, referred to as the A510, A5, A3 and A2. Less congested roads [yellow] further connect the national roads with the inner boroughs of the city. London is an excellent example of the various orders and hierarchies of movement found in an urban setting and how these establish a system of connectivity.

Madrid proves to be another interesting case. Although Madrid is the capital of Spain, the city is smaller than Paris or London – also capitals of their respective countries. At the regional scale Madrid remains the primary city for the entire region, being larger in scale and size than any other city in the vicinity. It therefore has a similar status and is the central and focal point of the region, similar to the cities of Paris or London. It is simply smaller.

As for Madrid’s connectivity and distribution of infrastructure we find the following. Three ‘disfigured’ motorways encircle Madrid. An outer ring road defined by the M40 /M45 configuration, and an inner ring road formed by the M30, with a third, the M45, only visible for a section. Seven motorway axes radiate outwards from both these two sets of ring roads, connecting the city to Valencia - in the East - and Valladolid, Burgos and Pamplona - in the north. Encircling urban ring roads compact tightly around the city’s urban footprint, which is especially the case of its inner ring road. Enlargement of the city’ inner region provides more insight into how roads are configured within the levels of hierarchy of movement and connectivity. The south-eastern section of the maps shows how a region of the city has options of access to three different motorways. A provincial road [Av de la Albufera] cuts across and connects to all three motorways. A series of other provincial roads connect the inner city region to the ring roads, all bisecting a range of functions and public places such as the arena, metro stations, cemeteries, parks and hospitals.

See:

Image 9: Mobility and connectivity map of the Netherlands, and sections of Germany.

Image 10: Mobility and connectivity map of Belgium and sections of France.

Image 11: Mobility and connectivity map for Paris and region, France.

Image 12: Mobility and connectivity map of London and region, United Kingdom.

Image 13: Mobility and connectivity map of the city of Madrid and region, Spain.

Map category 3: ‘Maps composed out of pure statistical data’.

What other maps may provide insight into the contemporary urban context and the conditions of the Network Society, the Zwischenstadt or Metropolis? Not especially an indicator of one city, but of an extensive territory, Atlas Europe: Planet, people, profit, politics [Ronden, 2006] provides additional information on the European urbanized context. Conceived to examine how a specific context is arranged in terms of landscape, geology, spaces of movement, politics or demographics, the atlas sets out a basis whereby smaller regions could be placed alongside each other, and set in relation to a larger European level. Therefore, an Atlas such as this, sets in place a level of comparison between a specific country and an European context. The introduction to the Atlas clearly states the intention to map and document spatial characteristics at the European level. Overall, the atlas addresses the topics of land use [use, oceans, nature, pollution, water, climate change] people [demography, immigration, minorities, cities, and tourism], profit [growth, old economies, new economies, infrastructure and transportation, energy] and politics [European cooperation, agriculture, regional and transportation policies, nature, Lisbon - strategy and spatial concepts]. In order to demonstrate a European urban context, interlinked by an extensive urban movement network, it is proposed to focus on the section of Profit and specifically its subcategory of infrastructure and transportation.

Atlas Europe represents a level of European roads and their connectivity. An extensive road network is shown to cross the entire European landscape. Road hierarchy is coded using two distinct colours. A primary road network is indicated using red. A secondary road order is coded using orange. Road classifications are made by way of measuring the number of users within a region at a specific time. Editors of the Atlas states how a variety of statistical models [by ESPON - 2004], were implemented to help determine the various levels of connectivity within Europe. The red darker coloured lines demarcate, what the atlas terms, a first order of highway / motorway, highly accessible to users in the particular region. In relation to the Michelin Tourist and Motoring Atlas, it is shown that these red colours movement arteries coincides with to European motorways or ‘A’ type routes. The second category, or second order, simply reflects a second
level of the same hierarchy of connectivity for the same road network. Michelin Tourist and Motoring Atlas indicates this level of roads to be either of the ‘N’ type routes that relate to the larger roads and carriage ways.

Visually one can read road connectivity through the density of lines in specific regions from the map.47 Road connectivity is at its highest in the cities of Koblenz and Cologne. One could further hypothesise that an increase in a specific order of roads in a specific place would establish a ‘network centre’ – a convergence of network structures, within the entire network. From within this context it is possible to roughly classify the position of The Netherlands’ status in terms of road connectivity. Form the map it is possible to read the structure and complexity of roads of which the Netherlands is part of. A larger percentage of red lines are noticed in the Netherlands, Germany and Belgium.

A supplemental map in the atlas classifies regions of connectivity. In other words, regions are classified according to how easy or difficult it is to access places using motorway and road networks. Regions are classified within a 10 scalar hierarchy. Dark shading reflects a high level of connectivity with light shading representative of a low connectivity level. The Randstad falls within an 8 level category, meaning that its connectivity remains high overall. Germany proves to fall within the highest category with sections of Norway and Sweden falling within lower categories.

Can one talk about a central region of connectivity for Europe? Again, the maps provide a visual document with dark and light coloured zones indicating good zones of connectivity and less effective zones of connectivity. Germany, Belgium and the Netherlands fall within the dark and more ‘central region’ of connectivity. Sections of Norway, Spain and Greece fall within the peripheral - less connected - zone. Referring to the provided colour scale, we observe how the Netherlands is in a region where road-to-region connectivity is higher. Atlas Europe further states that the Netherlands has an average road density four times higher than the average norm for Europe – measured at 61km/1000km². 48

In conclusion, the document provides a first glimpse as to how connectivity and accessibility can be read as both a central and peripheral structure of urban Europe. But, can the same be said for other levels of connectivity, such as air and railway networks?

A similar documentation or mapping, one related to railway and air connectivity, is provided. Atlas Europe provides two corresponding maps for Railway infrastructures and how it connects to regions surrounding it. A similar mathematical calculation is applied to establish statistical basics through which to measure access to the railway networks from surrounding regions.49

According to this source the entire European railway network remains more extensive than the previously discussed road network. The map shows a refined and delicate distributed network for Europe. Despite being larger in length, and therefore more extensive, railway networks are not as intensely used as road networks. Railway use has, especially during the recent past, stabilized.50

An overall picture of railway connectivity shows how cities like Paris, Koblenz, Cologne, London and Berlin feature as hubs within the railway network. From the map the convergence of railway networks are easily legible in specific spots of Europe, indicating specific cities. Interestingly enough, and although we observe a large extent of railway network in Poland, Russia, Latvia, Lithuania or Estonia, connectivity in these regions remain low due to the lack of railway stations – which act as and facilitates modes of interchange.51

As for the Netherlands, and specifically the Randstad, it falls within the region of high railway connectivity. The entire country falls within the top 70% of connectivity, with the Randstad itself, classified as falling with the top 80% range classification. 52

Another type of connectivity is examined at the level of air transportation. Airspace, or rather the manipulation and control of airspace, stems from how countries secure treaties and establish working or trade alliances.53 Traditionally, only a few and selected airports were in use for regional, European or international flights. With the rise of low cost carriers new regional airports gradually emerged. Two sets of maps are used to study the connectivity of airports. Connectivity here refers to how easily accessible airports are within their respective regions [surface to surface] and does not necessarily reflect air-to-surface connectivity.

A first map locates the entire collection of European airports. All airports are indicated, irrespective whether they airports are regional or international centres [hubs]. Results calculated through the various models, indicate a complete different scenario to the central regions and peripheral zones of the previous two types of road and rail connectivity. A map dotted with various dark coloured zones, indicates a number of highly accessible airports. Similar colour codes are used to translate the statistical information visually, meaning the darker the colour, the higher the connectivity of the airport, and visa versa. 54

Airports, traditionally recognized as larger hubs servicing the national carriers, fall mostly within the dark and highly connected zones. The Randstad,
Brussels, Frankfurt, London, Berlin and Madrid all have highly connected airports. A regional airport like Eindhoven or Luton in the United Kingdom also falls within the highly connected zones.

Other maps are sourced to provide an in-depth look at how specific routes establish hubs in terms of airports and their cities. Two maps of the SkyTeam Airline Alliance were sourced to aid with illustrating the relation between city-and-airport as hubs within the airline industry. What is more, the maps used distinguish between two types of airline hubs: European and intercontinental hubs. Cities of importance in Europe, as part of the SkyTeam Alliance, are Amsterdam [Main], Paris [main], Prague, and Rome. Each city represents an airline’s specific hub. The cities of Seoul, Tokyo, Nairobi, Amsterdam, Paris, New York, Atlanta, Houston, emerge as the global hubs on the intercontinental level.

What do these types of maps communicate in terms of Europe’s connectivity or centrality at the city level? Through comparing the various types of maps as discussed for this specific Atlas, a larger European perspective is formed. By placing the maps of railway connectivity alongside highway connectivity, it becomes possible to comprehend larger systems of movement and connectivity. Larger scaled maps are indicative of how regions in Europe, and not specific cities, form and interlink with an existing European network. Both series of maps, connectivity of either the rail or motorway, point towards specific regions where the aspects of connectivity are better or worse. Does connectivity imply a better or even well integrated urban structure? Northern Europ, Belgium, The Netherlands, Germany, sections of France, northern Italy, south-eastern sections of England and sections of Poland are observed to fall within the regions classified as having good or excellent connectivity. Portugal, Southern Spain, eastern sections of Italy, Norway and Sweden are classified as being less connected, falling in the lower categories of the classifications.

Overall, it appears not to be a question of centre and peripheries of cities. Rather, it is a question related to proximity of networks – and therefore proximity to movement. Therefore, ‘movement centrality’ indicates regions in accordance with the types of networks in existence, network access and network distribution. It is not so much Paris, Amsterdam or Brussels that appear to be important, but rather the manner in which these cities are related within the Randstad, Belgium or French network infrastructure.

Air connectivity confirms the importance of movement infrastructure, bound to the earth’s surface. Atlas Europe indicates a number of airports as spots of global or regional connectivity. Airline connectivity is indicated as contained spots in the urban landscape. Generally, airports remain dependant on motorway or rail connectivity, in order to connect places and cities. Here the double edge sword condition is evident, as airports facilitate a greater number of tourists, thus making them important to cities. They remain first and foremost dependant on the ‘earth surface’, allowing some degree of flexibility of geographic location. Yet, their main dependency remains network based, and how the various types of networks connect airports to cities, settlements and larger sections of the territory.

See: [Image 16: Road network distribution across Europe.]
[Image 17: Road accessibility indicated in a mapped format.]
[Image 18: Distribution of the railway network across Europe.]
[Image 19: Low cost airline network for Europe.]
[Image 20: Air accessibility – related to airports, for the European continent.]
[Image 21: Airline connectivity at the European level.]
[Image 22: Air Alliance networks on a global scale.]
[Image 23: A reminder of a globally connected world.]

Conclusions: a variety of forms and structures.

To conclude, I would like to pose the question; does theory and city meet one another? Do the mapped representations of the city actually embody the sprawled and endless expanses, discussed as generic characteristics of the post-industrial, post modern network city-society?

One can first reflect on what the various mapped sources show the city to be. A first level of critique is related to representation of the city. Each source formally presents the urban landscape using specific devices. The World Metropolitan Atlas, and its racings, gives a rather accessible account of urban geographies and settlement patterns. Cities are represented using their outlines, or indicated using dots. In addition, cities are contextualized in relation to geography, demography, certain levels of infrastructure and economy. Spatial characteristics are highlighted as settlements are placed in relation to a natural context, as for example bodies of waters, rivers and mountains.

Critique on The World Metropolitan Atlas can be raised pertaining to the matter of translating statistical information to a spatial form, and hence tracing this graphical. Larger and medium sized cities are represented by tracing the actual outline or ‘footprints’ of cities. Smaller settlements, however, are reduced to a series of ‘dots’. A collection of ‘dots’ fall short of communicating a spatial reality and a true distributive character of settlements. One example of this misinterpretation is in the South African cities of Johannesburg and Pretoria. Settlements of Lyttleton, Irene, Clayville, Olifantsfontein, Tembisa, Kempton...
Park are only mapped as dots located adjacent to a metropolitan highway. Satellite imagery reveals levels of urbanity found around Pretoria, through the townships, neighbourhoods and extended city pockets. Ultimately regions are seen to expand between the city of Pretoria, extending outwards to towards Johannesburg and its metropolitan region. A Google map clearly indicates an urbanity and form of higher complexity and structure.

A second matter of concern is the inability to read central places, urban cores or places of importance. Physical settlement outlines remain the primary concern for this atlas. Representations remain ‘flat’, by its manner of classification, either as part of a city or outside of the city footprint. All levels of information stand in relation to the main ‘form’ of the city and its orange outline. Airports and port facilities are either part of the larger settlement footprint or as part of a peripheral and ‘external’ region. Roads either cross trough the footprint or circumvent it. Essentially, the manner of representation adheres to the central and peripheral notion as basic understanding of the city, a notion which the Michelin Atlas, in my view, challenges.

In comparison, the Michelin Atlas labours a similar question of the representation of spatial information on a two dimensional surface. Whereas the World Metropolitan Atlas focuses on the city seen from above and how its footprint distributes across a geographic terrain, the Michelin Atlas represents the city through a series of movement infrastructures. Here the city is graphically represented, not as an outline but by the expression of a territory’s infrastructure elements, and in this particular case ‘roads’ and ‘city functions’. In comparison, The World Metropolitan Atlas uses road and motorways to contextualize an urban setting, and places in the settling. The Michelin Atlas reverts back to the importance of infrastructure as the primary tool through which the landscape can be expressed. Roads, highways and certain railways are read in their configurations, distributions, links and convergences in and towards each other, as well as urban places. Apart from representing routes in the landscape the information contained in the Michelin Atlas provides a hierarchy within the vast assortment of urban networks. Motorways, routes, and secondary roads are placed within a hierarchy of movement and the various connectivity scales to which the roads are related too. Perhaps it could be an idea to rethink city structure and how places are mapped in terms of how ‘place’ stands in direct relation to movement networks?

As a final word to the question of mapping and the various complexities of producing maps we can say the following. Mapping remains an activity, a praxis of doing. Students should never be discouraged to participate or initiate own ideas when it comes to mapping. It is only through the activity of doing that new maps, new realities and new perspectives can redraw existing conditions. It is best summarized by stating; that to map simply means to engage within an oscillating process, between what one observes, how one thinks and how you transfer the these relationships to paper.

See:

Image 24: Urbanized regions between Pretoria and Johannesburg, South Africa.

Image 25: Reading of mobility scales. A proposal of reading spatial scales imprinted into the city fabric.

Image 26, 27, 28: A photographic survey of the Paris Périphérique or ring road.

(Endnotes)


3 Ibid., p 48.

4 Ibid., p 56

5 Ibid., p 58

6 Ibid., p 59

7 Ibid.

8 Ibid., p 111

9 Ibid., p 123

10 Ibid., p 126

11 Ibid., p 126

12 Ibid., p 344.


14 Also see the extensive and elaborate discussion on Goethe’s work setting out the foundation for the Biological as well as general urban and architectural Morphological traditions.


17 Also see: The Urban Analysis Guidebook, Typomorphology. [2004]. Edited by L. van den Burg, Faculty of Architecture, Delft University of Technology.


25 Read from the key or legend of Topographical maps – scale 1:25
26 Harvey, P. D. A., [1980]. Topographical maps, symbols, pictures,
and surveys.
27 Ibid.
29 Ibid., p 178.
30 Ibid., p 180.
31 Ibid., p 126.
32 Ibid., p 132.
33 Ibid., p 128.
34 Ibid., p 102.
35 Also See Comrie, H. P., [2003]. The Role of Urban Design in South
African Corridor Development. University of Greenwich. PhD
 Thesis. Comrie addresses the various types of urban development
within South Africa’s Post-Apartheid context.
36 Michelin, M. F. d. P. [2002]. Michelin Europe, Tourist and Motoring
37 Ibid., p 1.
38 Ibid., p 54 – 55.
40 Ibid., p 14 – 21.
41 Ibid., p 186 – 189.
42 Ibid., p 170 – 171.
43 Ibid., p 173.
44 Ronden, H., et al Ed. [2006]. Atlas Europa, Planet, people, profit,
politics. Rotterdam, Den Haag, NAI Uitgevers, Ruimtelijk
Planbureau Den Haag.
46 Ibid., p 189.
48 Ibid., p 189.
49 Railway access and connectivity; Ronden, H., et al Ed [2006]. p
195 – 196.
50 Ibid., p 190.
51 Ibid.
52 Ibid., p 190 and 195.
53 Ibid., p 200 – 201.
54 Ibid., p 200 – 201.
55 Royal Dutch Airlines, KLM. [March 2006]. Travellers Check,
58 See Google maps [www.maps.google.nl].
Urban Scales

Scale 1: European motorway network
Scale 2: London Metro
Scale 3: London city scale
Scale 4: Paris inner urban section
I will address the problem of urban design from the theoretical problem of ‘grounding’, and the necessity of a spatio-temporal ‘re-framing’ of urban thought in terms of the everyday life and contemporary digital technology in order to get at ways in which we may rethink the possibility of sustainable action and agency in our times. It will take more than a definition to explain what I mean by these terms, it might help here to explain that I am not only referring to either ‘context’ or a connectedness to the earth. Grounding also has to do with notions on permanence, with pluralism, the collective, and communication on a local level. It relates back to Jane Jacobs’ ideas on her ‘street ballets’, qualifying street life as part of larger urban life-forms.

‘Grounding’ picks up, partially I have to admit, on the more recent American debates on ‘Everyday Urbanism’ as initiated by Margaret Crawford and John Kalinski in the 1990s. Crawford’s reference to Henri Lefebvre is of course understandable, but the problem is that Crawford does not really relate to Lefebvre’s theory, and more important we can no longer simply make that reference since Lefebvre’s ideas on the everyday cannot be isolated from his Marxism, a doctrine which has not brought us much good in everyday life of ‘real existing socialism’. We might be able to develop Lefebvre’s intentions like Ed Soja does in his trialectic of spatiality, but the embedding theory will have to change.

He underlines that in this view the city is shaped more by the forces of everyday life than by formal design and official plans. The same impulse we see in the Delft School of Design (DSD) Studio plans presented in this book. They share the same cooperative attitude towards the organizations Everyday Urbanism is interested in. “... (O)ur work with residents, city governments, and local organizations on real projects has pointed to another important dimension of everyday urban practice: the many aspects of urban life that are deeply embedded in the daily workings of city government and its regulation and enforcement functions”, Margaret Crawford writes.

The urban plan I will present later on is situated in Amsterdam. The DSD projects in many aspects relate to Everyday Urbanism. The Amsterdam plan relates to Post Urbanism, but it is only at first sight. I will try to explain where it differs and develop another position than in the current American/British discourse. I will address Patrick Schumacher’s ‘parametricism’ in design, a new global style for architecture and urbanism developed with Zaha Hadid Architects in the London based Architectural Association Design Research Laboratory, AADRL, a style I see as a new megalomania. Peter Eisenman’s interest in non-stable and non-static design seems to give an opportunity to relate to the Amsterdam plan.

Koolhaas ‘junk space’ being the ‘cynical’ paradigm (Kelbaugh) of Post Urbanism. In Koolhaas there seems to be no alternative, ‘junk space’ is all around us. Crawford takes the opposite position, Everyday Urbanism tries to refamiliarize the urban environment, it seeks the opposite sensation Koolhaas is describing. Refamiliarizing would be too naive for him, too much hope for the good, in a world where ‘all that is solid melts into air’. It would not fit the form of his writing; the essay. In this contribution I will relate to another less known idea of Koolhaas, to what he once called the instinctive recoil from the void, a fear of nothingness, a quality I believe is resented and kept at bay in most urban practices but can be used critically. This concept that will fit the urban plan for the Westerdok in Amsterdam and in certain aspects comes close to Everyday Urbanism, will in the end distance itself from Koolhaas’ ideas of ‘junk space’, Post Urbanism, most certainly New Urbanism, and to a less extend from Everyday Urbanism. I believe it can be used in a critical way as I tried to show earlier on.

I believe urbanism needs to deal with the acceleration of communication systems in our network cities. The peoples in Everyday Urbanism are quite often moved over to locations they never choose to live due to urban growth and investment policies driven by our network society. We cannot leave these developments untouched, if we do not pay attention everyday life for many will mean being pushed over the globe without much understanding of its causes. We need to understand what digital communication means in daily life.

Cyberspace in particular, forces us to re-conceptualize our spatial situation inasmuch as we experience our positions in cyberspace only as simulations in some ‘virtual life’ form, Timothy Luke argues. His argument is that we might need another reasoning to capture these digital worlds. Quite recently digital technologies have found their way into urbanism. “(w)e are now entering a new threshold condition, as the application of these tools has begun to shift up a scale to the level of the urban”, Neil Leach writes.
The idea is that cities and software programs display a similar emergent logic. Although Leach warns us for an all too easy comparison, - the complexity of material computation within the city by far exceeds that of digital computation -, he explores the potentials of modelling swarm intelligence within a computational framework for urban form. He relates Deleuze and Guattari’s ideas about ‘the rhizome’ to the logic of emergence.

Leach sees the city as a site of material composition, and as the site of spatial practices. The city “can be read in terms of an accretion of material deposits, and the latter can be read in terms of choreographies of agents whose freedom of movement is constrained by these material deposits”. The task of design would be to anticipate what would have evolved over time from the interactions between inhabitants and city. It is a way of ‘fast forwarding’ (Leach) the process of evolution so that we envisage the way in which the fabric of the city would have evolved in response to the impulses of human habitation. But in the end his approach is too mechanistic, ‘lived space’ is far too complex to grasp by his ‘choreographies’.

In Leach his approach it will be impossible to understand our own actions in relation to different natures Luke describes and the possible architectural and urban interventions. Both architecture and urbanism play an important role in the understanding of digitalized work processes and digital urbanism in relation to bioscape, ecoscape and geoscape. It is difficult, if not impossible to say where these systems begin or end, where solutions to the environment might be found, what kind of agreement we might reach to solve architectural and urban problems.

It is not that technologies mediate between the human and the natural, Elizabeth Grosz writes, for that is to construe technology as somehow outside either the natural or the human, instead of seeing it as the indefinite extension of both the human and the natural and as their point of overlap, the point of conversion of the one into the other. And that will make the discussion on possible solutions quite complex. There is indeed a witches’ brew of political arguments, concepts and difficulties that can conveniently be the basis of endless academic, intellectual, theoretical and philosophical debate, as in for instance the Michigan Debates on Urbanism.

Some common language has to be found, Harvey writes, or at least an adequate way of translating between different languages. Harvey’s common ground is in ‘the web of life’ metaphor, it might indeed help us to filter our actions through the web of interconnections that make up Luke’s natures. The problem however with Leach ‘shift up a scale to the level of the urban’ is that digital urbanism stays at the level of image, what was corporate or ‘cultural’ architecture (museum architecture), built in the race for ‘city branding’ has spread out as Parametric Urbanism in for instance Zaha Hadid Architects Kartal-Pendik Masterplan for Istanbul (2006).

It is actually a new ‘style’. Parametricism is seen by Patrick Schumacher as ‘a mature style’. And of course it defines itself, much like Modernism, as ‘avant-garde’. Why is it that all Parametric Design is fluid? The answer is obvious. It cannot be orthogonal since it is developed as a counter procedure to modernism’s orthogonal style. Leach description even sustains the metaphor of a riverbed in which Parametric Urbanism flows. ‘Space’ in parametric design is empty. ‘Fields’ are full, as filled with a fluid medium, according to Schumacher. “We might think of liquids in motion, structured by radiating waves, laminal flows and spiralling eddies”. The idea is “that urban massing describes a swarm formation of many buildings whereby the urban variables of mass, spacing and directionality are choreographed by scripted functions”.

Hadid used basically two well known typologies; towers and perimeter blocks. Not much different from ‘older’ urban design components. The towers were conceived as cross towers, placed on the crossing points of the area, a reclaimed sub centre of Istanbul’s Asian side to reduce the pressure on its historic core. The perimeter block correlates height with parcel area so that courtyards morph into internal atria as sites get smaller and blocks taller. Maya’s hair dynamic tool related incoming paths to larger roads. Social and cultural conditions do not play any role here. How different is it actually?

Cultural theory has tended to think in terms of binary oppositions. Oppositions between closed and open subjects and infinity; between cognitive and aesthetic individualism, it has appeared as nature and culture, capitalism and schizophrenia, identity and difference. Scott Lash argues that there is a third party or a third space involved. It is not a fold, it is finally not any sort of sublation or reconciliation of totality and infinity, or beautiful and sublime. The third space for him is a ground, an underneath, a base in the sense of basis.

We are reflexively judging animals, thus ground is in perception and community. Both notions are under a lot of pressure with our new digital technologies. I believe Lash’s “third space” can be linked to a revision of Kevin Lynch’s urban model of the Ecological City, a normative concept he developed in the seventies. The Ecological City was preceded by the City of Faith working along the lines of cosmological geometry. This concept has been followed up by the City as a Machine as in Modernism.
An important idea for our project came from an impossible thought based on a structural or generative model of pluralism from decades ago. It renders every line of above all a figure of thought; it extends beyond the narrative path as an important element in the design. There is no emphasis on a single centre of command from other assemblages in that it reintroduces the Shane's description a rhizomatic assemblage differs from an overall view putting everything in place. In the theoretical and social perspective. There is no point on what is important in the 'site' from both a theoretical and social notions. The urban plan was involved in a specific point of place of waterfront development bordering the heart of Amsterdam's islands in the IJ river, an upscale residential area that architecture can no longer be bound by the static conditions of space and place. \underline{Rebstock} is seen as an unfolding event. Events like a rock concert where one becomes part of the environment, he says. Ground, or territoriality in Luke's terms, is seen as a clear neutral datum, projecting its autonomy into the future. There might however be another way to deal with this figure/ground problem, I believe.

A couple of years ago we have drawn up a plan for one of Amsterdam's islands in the IJ river, an upscale place of waterfront development bordering the heart of the old medieval city. This plan, the \underline{Westerdok plan}, was inspired by theoretical and social notions. The urban plan was involved in a specific point of view on what is important in the 'site' from both a theoretical and social perspective. There is no point from an overall view putting everything in place. In Shane's description a rhizomatic assemblage differs from other assemblages in that it reintroduces the narrative path as an important element in the design. There is no emphasis on a single centre of command position, no place of total control. The rhizome is above all a figure of thought; it extends beyond the pluralism from decades ago. It renders every line of thought based on a structural or generative model impossible.

An important idea for our project came from what Peter Eisenman wrote about displacement in his Rebstockpark plan in Frankfurt where a design, rather than being understood as fundamentally different from the old, is seen instead as being merely slightly out of focus in relation to what already exists. The displacement or blurring of the whole he relates to Deleuze's fold and Rene Thom's catastrophe theory. For Eisenman's Rebstockpark project it was an opportunity to reassess the entire idea of what he defines as 'static urbanism', one which deals only with objects rather than with events.

In Amsterdam's Westerdok these dynamics of the past and present situation were also captured with the notion of a 'rhizome'. The plan itself has no architectural connotation other than its land use. It explores the possibilities of a pedestrian archipelago where the strips have no other meaning than dimensional limit to the streets and the water. It formulates the design rules for the architectural offices which will develop different parts of the over all plan. Where Parametric Design is out for 'Elegance', the Westerdokplan sets out for social and aesthetic 'Experimentalism'. It explores a theoretical 'non-representability' in the urban scale.

The 'experiment' in architecture here consists of taking apart and putting together, Tafuri sees it as a launching pad towards the unknown. The launching pad is however solidly anchored to the ground, he writes. It is a form of 'tight rope walking', the wire might break, but there is a strong net below. It is different from the avant-gardes who by definition perform without a net: "they look in the face of disaster and accept it from the start", he writes.

Architects are not particularly fond of absence or non-representability. Or, to put it differently; they like to do design and not to withdraw from it. Rem Koolhaas describes it as the response to the horror of architecture’s opposite, an instinctive recoil from the void, a fear of nothingness. It is necessary to imagine ways in which density can be maintained here, - in Koolhaas wordsless, without recourse to substance, intensity without the encumbrance of architecture. Of course this is ambiguous, to be 'critical' means we have to go back to substance, we have to 'climb back into real architectural structures' (my italics). Referring to O.M. Ungers plan for Berlin (1976) 'A Green Archipelago' Koolhaas describes the plan as an archipelago of architectural islands floating in a post-architectural landscape of erasure where what was once city is now highly charged nothingness.

In Europe he adds, the remnant of the historic core may be one of the multiple realities. In the case of our Westerdokplan we are dealing with a 'connection' to the historic core, the late medieval fabric, densely packed and transacted by water. Water here was no
blank space. Amsterdam centre is characterized by a lot of water, related to the notion of Deleuze and Guattari’s rhizome, a figure of thought they relate to this part of the city. The way I relate to it here is this abstract construction Deleuze and Guattari used in their book *Mille Plateaux*.

The experience here might also be related to what Bruno Latour describes as the ‘*oligopticon*’, sites that he sees as the opposite of Michel Foucault’s ‘*panopticon*’, the ideal prison allowing total surveillance, a structure that I believe is applicable to Versailles’ gardens and castle. The oligopticons do the opposite of panoptica; they see much too little to feed the megalomania of the inspector or the paranoia of the inspected, Latour writes. From these places, extremely narrow views of the (connected) whole are possible. They are very different from “the splendid public terrace” in Rowe and Koetter’s *College City*. But the real problem with all seven ‘ages’ of Postmodernism’s suggestion of operative power is that they are blind to the social conditions they are addressing with their plans. In other words, who is going to live in these new urban plans and for whom are they designed? And more important, why are they conceptualized the way they are. How are we going to deal with the social and the aesthetic qualities in urbanism? Let’s take a closer look at the Westerdokplan.

The Westerdokplan (*The Nieuwe Reael*) is characterized by the famous modernist strip, but it is a reinterpretation of it. The ‘organic neighbourhood’ is cast aside for density, one of the main issues in the municipality’s plans for this island. Our intentions were not much different from Eisenman’s; *The Nieuwe Reael* is not fundamentally different from the modernist strips, it should be seen instead as being merely slightly out of focus in relation to what already exists in our memory. From the ‘oligopticon’ we could see the old lay out of the Jordaan, an extremely dense area close to the site that was once built for the new labour forces in Amsterdam. We took over the Jordaan density in our new plan, quite contrary to the ideas of the Modern since they considered this ‘unhealthy’. Children from the Jordaan used to swim in the public bath on the Westerdok, the old images are in the book.

But there is more, the housing blocks were no longer the modernist’s ones, although four floors high, the ‘strips’ are in fact ‘maisonettes’, two houses on top of each other. Each house has an interior staircase, the top ones leading to the flat roofs with terrace. Again an image from the ‘8 and Opbouw’ of a roof terrace made the connection. A substantial part of the houses had to be built for lower incomes groups, owned by the Amsterdam housing corporations, they actually own the greater part of the city. But also higher income groups had to be accommodated, a change in Amsterdam’s housing policy we followed. Higher income groups were already leaving the city since they could not find proper housing. We did not build high in the housing blocks, we stayed with the modern ideas, four floors, but made them into ‘houses’, another issue at the time. Communal entrances to flats are hard to keep in shape, we hoped for communication in the streets.

The struggle was with density, to reach that in low rise is difficult. But we managed to get 145 units into a hectare, the average dwelling space 120 m2. (the realized plan has a double amount of units per hectare). From the outside you could not distinguish social housing and higher income housing. Units could be connected, vertically or horizontally, but the outside image is ‘bleak’. Compared to the realized project which is spectacular and mainly consists of higher income housing blocks, *The Nieuwe Reael* is hardly visible, still paying tribute to Archizoom’s *No-Stop City*.

We also designed a substantial amount of anchoring places for house boats, the realized plan has no longer a place for them. Considering all the great urban design scheme’s, the many ‘isms’ and ‘ages’, I believe a lot in urbanism at the moment has to do with what you do not do: ‘the recoil from the void’, you cannot arrange life directly by built form. The main thing you do is try to create possibilities, you work on performative issues, ‘lived space’ if you like. And even that is questionable, here in urban void the effects of the design are unpredictable. “At its best, urban design creates a physical framework for the present city’s myriad activities”, John Kaliski writes. The urban designer must find “new means of incorporating the elements that remain elusive: ephemerality, cacophony, multiplicity, and simultaneity”. The means, methods and aesthetics are barely defined.

We cannot let go of ‘meaning’ or ‘aesthetics’ in urbanism. There is always ‘meaning’, we live in Lash his ‘third space’; we are reflexively judging animals, ‘ground’ is in perception and community. But for the people living in our plans this is quite different from the discourses we use in urbanism. ‘Meaning’ in design is for the specialist, we load our designs with ‘meaning’, all ‘isms’ and ‘ages’ do so, the ‘fear of nothingness’ is always present. Also in urban theory. I believe it was the Florentine Archizoom’s implicit agenda to show this. This is not a plea to get ‘political’ again and withdraw from design, neither to abstain from image as Debord would have it. We need image, ‘polluted’ as it may be. The question that remains is why this ‘bleak’ image of the Westerdok. Why not a strong and ‘loaded’ image full of references? The answer is the book itself. It took a longer theoretical
text to explain these issues on different levels. The notion of the ‘banal’ in architecture (and art as in Arte poverta), the critical ‘paragon or the aesthetics of the banal’ as in Klaus Jürgen Bauer, the non-decorative as in Koolhaas Kunsthal, and finally the relation to the philosophical notions of a contemporary ‘sublime’.

In the Kantian notion of the sublime, the schemata of the imagination are overwhelmed by the objects or events it encounters. Art, and architecture as artefacts open out on to the emptiness, the void, or lack. In the three designs closing the last three chapters on Amsterdam, Tokyo and New York we tried to stay away from Architecture. Writing about the homeless shelter in Manhattan I wrote then, ‘it is thoroughly ‘banal’ architecture. Its day-to-day use may evoke on occasion an emotion that I have previously described as sublime, and this may yet transform the building into architecture’. There is still that relation to architecture and the urban, but of another kind: a testing ground for the banal, the everyday, an interest in ‘everyday urbanism’ but of a ‘sublime’ kind. An effort to slow down an object based design strategy, an effort to establish a more relation based strategy in urban design.
"a site of material composition"

"Cyberspace"

"...perception and community."

"Emergent logic"
"a fear of nothingness"

"Millic Plateaux"

DSD Lecture

"oligopticon"

DSD Lecture

ARCHITECTURE & DESIGN
I want to address a recent phenomenon in what years ago was seen by the Frankfurt School as ‘culture industries’. ‘Culture’ if I may use this term in a somewhat too general sense has become more and more important over the last decennia and it looks like virtually every product and especially every service as economic good is related more and more to cultural aspects addressing a specific clientele. Let me try to explain what I mean by this. Part of the current hotel business heavily depends on branding. The interiors, the designers and architects form a focus group. Not so much because they have the technical skills, but because they understand the cultural implications of their work. David Chipperfield for one has been working with the furniture firm B&B Italia on his hotel designs, currently he is involved in the Dolce&Gabbana shops. Shops are changing too, Paul Smith opened his first store in an old post office close to Convent Garden, and Romeo Gigli rebuilt a former slaughterhouse for his Paris boutique. Jigsaw hired John Pawson for their flagship store in London, while Helmut Lang in New York has a permanent exhibition of Jenny Holzer’s work. The store is a hybrid of an art gallery and a designer shop. Armani’s flagship store in Milan is located in a former insurance building and has 8,000 square meters of shopping area in combination with the prestigious Nobu restaurant, a hit in New York with Robert de Niro as one of the owners. Ian Schrager redecorated St Martins’ Lane, a late modern office building restored as hotel. Philip Starck’s eclectic interior fits the minimalist interior. Rococo chairs and the classics from Charles and Ray Eames go hand in hand with Arne Jacobsen’s chairs. More recently Hermès opened the second largest shop in Paris in the brand’s global network, after Tokyo which is even bigger. The shop is located in the 1935 art deco Lutetia, a former indoor swimming pool. The 2155 square meter store carries all the brand’s lines, half of the space dedicated to home furnishing, plus a florist run by Baptiste Pitou, a bookstore and a cafe. The architect turned to nomadic architecture from Asia and Africa for inspiration, building three large tepees out of braided ash to create a sense of intimacy in the overall expansive space. Marc Jacobs opened a new flagship store in Aoyama in Tokyo. It combines New York glamour with a distinctive, Japanese lantern-inspired building designed by Stephan Jaktisch. The striking three story building will have to compete with its famous neighbour; the iconic Prada building by Herzog & de Meuron. Also Vietnam is establishing its fashion shops, Runway owner Tran Thi Hoia Anh invited the Milanese architects CLS to build the brand’s new store in Ho Chi Minh City. A 1000 square meter space with ribbed ceilings, lacquered tables and crystal details. The centrepiece is the VIP room, a glittering cocoon much like the Prada shop in Aoyama. Beijing has its first Comme des Garçons shop, Rei Kawakubo’s trendsetting firm was one of the first to recognize the enormous appetite of the Chinese for branded fashion. The all-white interiors are purposefully bare of details, making them an ideal canvas for the Comme des Garçons labels, and the clothes designed by the Belgian Ann Demeulemeester and Yves Saint Laurent.

And then there is Design Hotels, a chain established in 1993, operating under the rubric of “urban chic”. The web page informs us that their environments require “creative architecture and innovative design”. It involves the proper balance of colour, ornamentation and decoration, as well as authentic local touches and careful attention to detail. The focus of Design Hotels, whose member hotels are located in the world’s metropolises, has always been to link the modern community with the best of contemporary design and today’s society, the web page says. An online advertisement for a book issued by the chain asks the question, “Will my dress go with the lobby?” Quaglino’s in London is another example. The restaurant seats 338 people, the bar 90. The restaurant can feed up to 1,000 people a day. Michael Mueller characterizes Quaglino’s as an exclusively styled expression of a trend to stage mass culture. This mega-restaurant is owned by Terence Conran, the founder of Habitat. Quaglino’s was a dazzling restaurant in the 1930s, and the new one, according to Conran, has become the gastronomic centre of the world. It is a big social arena simulating the public space of a piazza, where seductions are carried out, friendships made, and gossip exchanged, Michael writes. It is certainly more than a restaurant in the traditional sense.

These are all workplaces as stages, dramatic settings for certain kinds of performances. Ian Schrager is looking for special customers, - art directors, the CEO’s of the record and television industries, art dealers and architects; in other words our present day culture producers. The increased aesthetic reflexivity in the culture industries has created a vast economy over the last decennia. A phenomenon that Sharon Zukin years ago analysed in her Loft Living: this is a network of design hotels, restaurants, art galleries,
cinema’s, culture producers, culture brokers, airport interiors and designer shops; she calls it the “art infrastructure”.

Scott Lash and John Urry, in their *Economies of Signs and Space*, more or less theorize Zukin’s observations. They argue that *aesthetic reflexivity* has its place in the production and consumption in the culture industries. Against a Marxist notion that culture production is becoming more and more like commodity production, they claim that ordinary manufacturing is increasingly the production of culture. Lash and Urry are particularly interested in what they call “reflexive objects”. Lifestyle-creating communication networks are related to these reflexive objects. The profession of interior architect or retail designer has steadily evolved into a full fledged discipline. A recent book on retail design edited by Rodney Fitch, CEO of PPCSD a company that has 19 studios in 11 countries, and employs 450 people puts it this way: previously economics were focused on production, dominated by technology and ample availability, the consumer has now become the focal point. Consumers are no longer viewed as product buyers; they have become people with desires, feelings and personalities. Generic products alone can no longer satisfy this new perspective; increasingly it demands specific, dynamic brand positioning with which the consumer can be and wants to be identified. Retail design is a professional study leading to insight into the relationship between the individual and the environment, cultural ambitions, design aspirations and the commercial conditions. The book I refer to speaks of ‘sharpening the senses’ of the interior designer. “You should have an antenna that is constantly registering consumer preferences, needs and choices. You have to have an active and topical vision; on the evolution of worldwide interior concepts, on cultural developments and social needs. On the one hand registering how the client views these developments, on the other hand looking through eyes of the target group for whom the design has been created”.

In this way *aesthetic reflexivity* has more recently found an important place in production and consumption in the culture industries. Culture itself became more and more important in capitalism in the seventies, although till so far it had mostly meant almost the opposite, a critique that came form the middle class and traditional bourgeoisie. It was always more about value systems and more or less educated aesthetic experiences in art and music than about the production of goods. But culture at that time in the seventies meant also film, fashion, lifestyle, food, marketing and media. And architectural books and magazines became part of that culture. These developments have gone so fast that for the majority of the architectural offices today it will be hard, if not impossible, to step back from this development. The conditions they work in today are the sort of symbol flow, cultural capital creation and aesthetically cast expert systems that are intrinsic to the current profession. Intellectual rights are the main form of capital in the culture industries, but in architecture and interior design what is sold are not the intellectual rights since it is a one time operation, but the ‘product’, the architectural project, and especially the name of the firm or architect has managed to make for himself by way of publishing. Today’s more prominently published offices are involved in ‘loading their brand name’, as in marketing, and not in ‘critical thinking’ about the role of architecture in society. What some of the firms have invented is not so much an economic and managerial innovation as well as a strategic *aesthetic innovation* in *profiling* and *image production*. This of course has been the case for longer periods of time in the twentieth century, and was always followed by a critique from both Marxist and conservative sides. But that also is getting more and more complex. In Marxist critique there was always a stronghold, a form of resistance with aesthetic depth as in Manfredo Tafuri or Theodor Adorno. But what is happening now, at least in Western societies, is the *disappearance* of that subject of resistance in the circulation of images in contemporary information and communication structures. I book on retail is clear about the role of the profession, I do not believe it is very different today for the architects world.

Architecture, interior design, curatorship and advertising have much in common. They have a “creative side” and a purely business side. High profile architectural firms are organized the same way as advertising agencies; it’s not so much the product they sell as the name of the architect and the culture that comes with it. The Saatchi brothers, who are in art and advertising, describe their agency, Saatchi & Saatchi as “commercial communication”, and do so the architects. We are living in a *Kulturgesellschaft* as Lash and Urry ironically say, because in their theory there is no longer an industrial society but only an informational society. This informational society is paramount in the global cities such as London, Tokyo and New York where we find many of the hotels and restaurants I referred to. This new type of metropolis is inconceivable without its local surroundings. In an era of globalized air travel, surroundings can stretch out to the heart of Africa and the inner wards of Tokyo’s Shinjuku district. But they have almost disappeared from our immediate urban reality. Local surroundings are resurrected in the sublimity of the design hotels, the authentic local touch of the African tribal stool is present here.
In January 2002, Amsterdam’s Stedelijk Museum (Municipal Museum) opened an exhibition of the work of the English artist Sam Taylor Wood. It was her first large exposition in Holland. Damien Hirst, Tracey Emin, the Chapman brothers, Sarah Lucas, Fiona Banner, and Sam Taylor Wood form a recognizable group that deals with “communication” and “spectacle”, categories I just used to describe our present day architecture. Their private lives - with a remarkable consumption of alcohol and sex - are part of the communication structure. The Young British Artists are strongly supported, if not invented, by Charles Saatchi himself. Many come from Goldsmith’s College where Scott Lash writes his books on our postmodern culture. Saatchi buys en gros, stocks their paintings for a while, creates a hype around them, and sells the paintings to the art world.

The art works have very little to do with notions of contemplation. “Sensation” was the title of Saatchi’s London exhibition in 1997. This “Shock Art” is about communication. In her video accompanying My Bed from 1998, Tracy Emin tells us about her abortions and submits the bed as an entry for the Turner Prize; it was later bought by Madonna, who is also an art collector. The Tate Modern bought Damien Hirst’s Pharmacy, a huge one-on-one installation of a pharmacy. Hist is no longer the rebel, but a respected artist. Sam Taylor Woods sells her photographs for 20,000 pounds a piece in the White Cube the gallery owned by her husband. Nan Goldin’s photographs sell for 5,000 pounds each, a lot less interesting apparently.

Few art critics have raised the question of why this ‘communication’ is either a bad or a good sign. Why contemplation and abstraction are better than spectacle and event. The same goes for architecture. It is not enough to show that architecture has historical roots that might function like Jungian archetypes, as is the case in Aldo Rossi. It is not enough to show “Sensation”, and so called shock-art, and not wonder why modern art’s century-long tradition of shock is still important today. It is also not enough to mention that the art world is ruled by the advertising world, when kings and merchants have commissioned so many great paintings; money and power have always played an important role in the ‘arts infrastructure’.

Perhaps what we are dealing with is a dilemma of contemplation and spectacle, the collision in architecture between Modernism’s space-based morals and Venturi and Mendini’s communicative architecture which is no longer grounded in Modern notions of space. In the end, architecture is not about space. The term is redundant is we do not explain why it is important and to whom. The question is either about notions of ‘experience’ and ‘contemplation’ of space which will need critical theories, or about the flow of sensations, like in contemporary art and media.

The dilemma, in fact is about aesthetics. Aesthetics refer to a specific regime for identifying and reflecting on the arts: a mode of articulation between ways of doing and making. (Ranciere). Consumption of architectural and lifestyle preferences involve discriminatory judgements which at the same time identify and render classifiable to others our own particular aesthetic judgements. We all belong to Bourdieu’s “new cultural intermediaries” in art, architecture, design, fashion, media, and advertising. We are all involved with the production, writing, marketing, and dissemination of symbolic goods.

Critical theory, with much reason, tends to pass negative verdicts on contemporary society and its cultural forms. Still, I think we should look into the work of artists and architects who have relinquished their commitments to high culture and have adopted an increasingly open attitude toward consumer culture, showing in turn a willingness to truck with different and varied cultural intermediaries, image-makers, audiences, and publics. The critical line may be a thin one here. We can no longer discuss architecture and art in terms of groups, genres, or “avant-gardes”; we should not even focus too much on the maker any more, but mainly on their art works and architectures. In that sense, Young British Artists is a marketing strategy by Charles Saatchi, leaving the question of art criticism still open to be answered. The same is true for the architectural magazines; the image world they create leaves little space for critical analysis and easily slides into marketing strategies for their offices. Marketing strategies can also promote architectural images: Prada used OMA’s models for their shop in its advertising campaigns.

The MAS in Antwerp.

17 May the new Antwerp Museum, Museum aan de Stroom (MAS) opened its doors. The building is situated directly at the river, built by the Dutch firm Neutelings Riedijk (Rotterdam). The view is spectacular, the building very prominent and is a depot which is open to the public too. The municipality invested about 56 million in the building. The city of Antwerp is building up a new image; next to Neutelings Riedijk, Zaha Hadid is working on the new Havenhuis that will open its doors in 2013. “Spektakelarchitectuur”, as the Belgians call it, the architecture of spectacle. Three different collections are put together; the National Ship Trade Museum, the Ethnographic Museum and the Meat Packer’s House. They did not do too well on their
own, not attracting many people. Now in the new configuration they most certainly will. The curators have defined different ordering themes for their collections, Power, World City, World Port, Live & Death. Related to the last topics, the ethnographic objects and the Dora Janssen collection of pre-Columbian art has found its place. The coordinator Leen Beyers sees the combined exhibits as a new step in the curator's task to bring visitors to the newly built museum. No longer geographical or time bound displays, but a topical organization bringing together very different objects and time frames. She sees it fitting the new contemporary minds of her visitors, people travel a lot she says, they already have an image of Asia, and are not interested in a floor with only one theme. The arrangements might look artificial, but are focused on universal theme’s in all collections, she argues. For the interiors another firm was invited, B. architects, they actually designed every floor according to a different scenography. Through this visual scenography the different objects are related.

The development of mass media has led to the massive proliferation of visual imagery, and to what Michael Mueller has described as “the aestheticization of everyday life”. The main question concerns how these objects of desire are incorporated into our daily lives. Can we still become reflexive subjects, individuals who are able to monitor their actions in systems such as architecture and art, which are themselves reflexive, cognitive, moral and aesthetic? What kind of theories do we need today to get a grip on this development.

The older generation of the pioneering work of Jacques Lacan, Claude Lévi Strauss, Louis Althusser, Roland Barthes and Michel Foucault are several decades behind us, Terry Eagleton writes. We seem to be in the period of ‘after theory’. And he is right, the older generation has proved a hard act to follow. In architecture theory the situation is no different, the work of Manfredo Tafuri has found no successor. Like cultural studies, social sciences, communication and media studies, architecture faculties have opened up their doors to an endless variety of topics, all coming from ‘foreign territories’. The guide is no longer the Italian historian Manfredo Tafuri, but the American post-critic Dave Hickey. Architecture is no longer about proportion and harmony, in the American discourse it is either ‘hot’ or ‘cool’.

With the declining significance of social structures and their partial displacement by information and communication structures the aestheticization of everyday life has become possible. Our current condition of postmodernity is in effect the generalization of aesthetic modernism to not just an elite, but to the whole of the population. Aesthetic modernism however presupposed that autonomous subject with depth and reflection. It assumes an aesthetic expressive subject. Lash and Urry argue that the circulation of images in contemporary information and communication structures entails not an aesthetic subject, but reflexive objects. Retail Design, Interior Design and current curatorial practices in the MAS in Antwerp are approaching each other. For sure this flexible accumulation is much more than a merely economic managerial flexibility as suggested by the books on retail design. The entrepreneurial practices of retail design will for the greater part follow the money, and money has no principles or identity of its own. Money, Terry Eagleton writes, is utterly promiscuous, and will happily tag along with the highest bidder. It is infinitely adaptive to the identity of its own. Money, Terry Eagleton writes, is utterly promiscuous, and will happily tag along with the highest bidder. It is infinitely adaptive to the most bizarre or extremist of situations, and like the Queen has no opinions of its own about anything. But how is that with the curators? How is that with the profession of the curator?

I think it is correct that the subjects tend to be flattened in the ongoing proliferation of mostly image. But to me this process is not completed, there are critical
possibilities left as the work of Michael Mueller has shown us.
6. "Marc Jacobs opened..."

Marc Jacobs opened a new flagship store in Soho, London, in 2009. The building is a dramatic, two-story structure designed by Bohlin Cywinski Jackson. The design is a mix of modern and traditional elements, creating a unique blend of materials and textures. The store features a large glass facade, with a dramatic staircase leading up to the second floor. The interior is decorated with a mix of modern and vintage elements, including a large art installation by Yayoi Kusama.

7. "Also Vietnam..."

Also in Vietnam, there are several unique projects. The Ho Chi Minh City Museum of Fine Arts is an example of contemporary architecture. The museum is designed to look like a dragon's mouth, with a large, open space inside. The museum houses a collection of Vietnamese art, including paintings, sculptures, and textiles.

8. "Quang Lo's in London is..."

Quang Lo's, a Vietnamese restaurant in London, is an example of modern Vietnamese architecture. The restaurant is designed to look like a traditional Vietnamese house, with a long, narrow building and large, open windows. The interior is decorated with traditional Vietnamese elements, including wooden furniture and colorful fabrics.

9. "Economies of Signs and Space..."

Economies of Signs and Space is an exhibition that explores the relationship between signage and architectural design. The exhibition features a variety of signs, from traditional street signs to modern digital displays, and examines how these signs are used in different contexts. The exhibition also explores the role of signage in shaping the cityscape and how it interacts with architectural design.

10. "...aesthetic reflexivity... has created..."

The increased aesthetic reflexivity in the culture industries has created a new economy over the last decade. A consequence of this is the rise of a new design aesthetic, which is characterized by a high degree of freedom and experimentation. This new aesthetic is evident in the works of many contemporary designers, who are exploring new forms of expression and the boundaries of design.

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12. "Retail design is a professional study...

Retail design is a professional study that involves the study of retail space and its relationship to the consumer. It involves the study of the retail environment, including the design of the store, the layout of the space, and the interaction between customers and the store.

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14. “Culture itself became more and more important in capitalism…”

In this way ‘aesthetic reflexivity’ has more recently found an important place in production and consumption in the culture industries. Culture itself became more and more important in capitalism in the seventies, although till so far it had mostly meant almost the opposite, a critique that came form the middle class and traditional bourgeoise. It was always more about value systems and more or less educated aesthetic experiences in art and music than about the production of goods.

17. “…The conditions they work in today…”

But culture at least now in the seventies meant also dolls, clothes, identity, work, own objects, art objects, and objects of daily life. These contradictions have gone so fast that for the majority of the audience culture today is still defined, semi-winged, by pop music and films from this development. The conditions they work today are essentially different from cultural capital complex and cultural and report systems as an answer to the current production.

16. “…loading their brand name…”

Fukuyama’s name prominently published articles and involved in loading their brand name, a fact we may find out in critical thinking about the rate of production here. The Fukuyama frame has been invented not so much an answer to the suspended tradition, but as a strategic aesthetic connection to graph, and image production.

17. “But what is happening now…”

This of course has been the case for longer periods of time in the twentieth century and was always defined by a critique from both Marxist and conservative ideas. But that idea of getting more and more complex to burden culture has never been, however, a stronghold, a form of resistance with academic depth as in WCR and Walker Adams. But what is happening now, at least in academic activities, is the development of that subject or movement in the direction of shape in contemporary information, and communication industries. I hope this book is not only a short about the role of the production, but also before to what different today for the author’s field.

20. “Communication” and “spectacle”

In January 2006, the Amsterdam’s Fundatie Museum (Amsterdam) opened an exhibition of the work of the French artist, Jean Taylor Wood. It was her third exhibition in the Fundatie Museum. The exhibition featured a range of works, including paintings, sculptures, and installations. The exhibition was curated by the Fundatie’s director, Roland van der Hel, and it was the first exhibition at the Fundatie to focus on the work of a single artist. The exhibition was open to the public from January 2006 to March 2006.
21. “Sensation…”

The art works have very little to do with "revelations" or "inspirations," reduced them to the idea of "sensation." London said that it's this "sensation" that is about communication. In her view, communication is the "essential" thing. This from a man about abstractions and "art." He first wrote in a book of abstractions and made the art as an afterthought. The Tate Modern, she said, is also an art collector.

22. “…Damien Hirst’s Pharmacy…”

The Tate Modern bought Damien Hirst’s Pharmacy, a huge wax sculpture molded and sculpted. But is in no longer the school, but a required art. It’s the largest four with the philosopher. (Hirst) is a fragile, fragile artist by the gallery. seen by two husband. (Hirst)’s photographs with four, 10,000 people and a lack of it is, in its own way, a fascinating/appealing.

23. “The dilemma, in fact is about aesthetics.”

The dilemma, in fact is about aesthetics. Aesthetics refer to a specific regime for identifying and reflecting on the arts: a mode of articulation between ways of doing and making. (Rancière). Consumption of architectural and lifestyle preferences involve discriminatory judgements which at the same time identify and render classifiable to others our own particular aesthetic judgements. We all belong to Bourdieu’s “new cultural intermediaries” in art, architecture, design, fashion, media, and advertising.

We are all involved with the production, writing, marketing, and dissemination of symbolic goods.

24. “New Antwerp Museum…”

At this new Antwerp Museum, missing the great Dieter Rams’ building, the new building is in the same. The building is situated behind the new, and by the Church. One children share. After all, the new is in question: the building very powerful and significant. It is in new Antwerp in Antwerp. The building was made for exhibitions, first, for permanent exhibits, then for temporary, and open to a public which is open to the public too.
26. “Three different collections…”

These different collections are put together: the Material Ship Trade Museum, the Ethnographic Museum, and the Naval Port’s Home. They did not do too well on their own, and attracting many people. Now in the new configuration they must violently sell: The re-saturated object is re-vived, where the three collections are put together. Peace, World City, World Port, Live and Death, Exhibited in the last layer, the ethnographic objects and the three Japanese collections of port documents are put back to plans.

28. “…Rubens…”

The temporary collection about Peter Paul Rubens (1577-1640) shows the Dutch School of Rubens.

30. “…the aestheticization of everyday life…”

The development of mass culture has led to the mass production of visual images, and to the media. Media has described as “the aestheticization of everyday life.” This work suggests consumers how these images of reality are mediated into the daily life. Can our still become aesthetic culture, this culture has transformed the world into a medium? In what circumstances do we interpret and analyze our own aesthetic competences and realities? More than before we are now lacking to get a grip on this development.

32. “…current condition of promiscuity…”

This documentation highlights of moral and social circumstances in the world. By information and communication channels, the democratisation of everyday life has become possible. Our consciousness is not a process to obstruct the groundwork of political movements or to help others, but to be free of this society.

27. “The curator’s task to bring…”

The curator’s task is to bring together the historical objects in the form of object collections. These geographic objects have transformed displays, but a typical of an ordinary home means to bring very different styles and time frames. They are telling this contemporary world, which is not visible, people can see it in the very way, they can always be seen in a home, and even not interested in a house with empty spaces. The curators might look additional but an immediate relationship to all collections side by side.

29. “…calligation of the contemporary Maori artist…”

The view for the perspective of the Maori artist in the contact of the contemporary Maori artist and the European culture, they have transformed displays. The Maori artist has created a new life art in different conditions. In the world of mathematics there is more innovation like cultural and social science, communication and media, culture, architecture, and context. The Maori have spread their ideas in an ordinary society of culture. All content from foreign domestics. The golden is inscribed the Maori between Mondrian. Today, the Maori perspective on nature: Rubens, Rubens, who is always living art, and the contextual domestic life either dead or live.”

33. “…reflective objects…”

Levi and Levi argue that the evolution of design is the condition of information and communication channels, and are now visible. Today, reflective objects. Braid Design, Insider Design and current cultural genetics in the West is almost an approach of each other. Reflective/Conceptual reflection is much more than a mere economic management thinking is registered by the breaks in visual design.
34. “Money...is utterly promiscuous, ”

The entrepreneurial practice of retail design will be the greatest part culture, the money, and money have principles of identity of its own. Money,Every

fugitive worthy, to utterly promiscuous, and will happily hang along with the highest bidder. It is certainly adaptive to the fate finish to evolution of structures, and like the Greeks has no

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35. “as...Michael

Müller has shown...”

But how is that with the curators? How is that with the principles of the curators

I think is correct that the subjects tend to be defined in the ongoing professionalism of every image. But in the process is not completed, there are critical possibilities left in the work of Michael Müller has shown on.

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Curatorial
Practices, Culture
and Architecture.

Thank You.
Increasingly new digital imaging techniques are creating a world on their own terms, the conference outline reads. Images, especially digital ones, are en vogue. Digital imaging technologies stand for an increasing liquefaction of boundaries. But what does it mean for the cognitive side of architecture. In a recent essay in Hunch Peter Eisenman writes that there seems to be a new subject in architecture, the mix of students, clients, and critics that has changed. This new subject is inundated by media, information and images, and has less motivation for more interpretative kinds of information. There is less and less interest in a close reading of the design. I do not believe however that the continuous re-invention of new concepts like ‘the fold’, ‘the index’, ‘the projective’ and more recently ‘the post-indexical’ as suggested in Hunch, will help us much in understanding what is going on in architecture and its digital techniques.

Before we go to the architectural discourse, we first have to address more general notions of (human) nature, bio-sphere, and information society. How do we address these questions? The concept of human nature is highly complex; I will not strictly follow the problem of what is called ‘the post humanist subject’ as it is already well presented in current cultural discourse or theory. I will address the problem of ‘digital worlds’ and artificiality from the problem of ‘grounding’, and the necessity of a spatio-temporal ‘re-framing’ (as in representation and production) of architectural thought in terms of the organic and inorganic in order to get at ways in which we may rethink the possibility of action and agency in our times. Cyberspace in particular, forces human beings to re-conceptualize their spatial situation inasmuch as they experience their positions in cyberspace only as simulations in some ‘virtual life’ form, Timothy Luke has argued. His argument is that we might need another reasoning to capture our present digital worlds. The epistemological foundations of conventional reasoning in terms of political realism are grounded in the modernist laws of second nature, he writes. Today we might need another epistemic notion on what is real and what is virtual as the conference suggests. In taking up the notions of ‘first’ and ‘second’ nature, Luke defines the ‘third nature’ as informational cybersphere/telesphere. Digitalization shifts human agency and structure to a register of informational bits away from one of manufactured matter. Human presence gets located in the interplay of the two modes of nature’s influence. First nature gains its identity from the different terrains forming the bioscape/ecoscope/geoscope of terrestrially, Luke writes. Earth, water and sky provide the basic elements mapped in physical geographies of the biosphere that in turn influence human life with natural forces. Second nature finds its expression on the technoscape/socioscape of territoriality. The actions of people, cities, economies, states constitute these spaces of territoriality. My main concern is how to understand our own actions in relation to nature and the possible architectural and urban solutions. The concept of action is a complicated one, one thing is sure, it is not done under the full control of consciousness; action should rather be felt as a node, a knot, and a conglomerate of many surprising sets of agencies that have to be slowly disentangled, as Bruno Latour writes. Both architecture and urbanism play an important role in the understanding of third nature as digitalized work processes and digital architectures, and their relation to first and second nature and its forms of cyberscape and mediascape of telemetricality. It is difficult, if not impossible to say where these systems begin or end, where solutions to the environment might be found, what kind of agreement we might reach to solve architectural and urban problems. It is not that technologies mediate between the human and the natural, Elizabeth Grosz writes, for that is to construe technology as somehow outside either the natural or the human, instead of seeing it as the indefinite extension of both the human and the natural and as their point of overlap, the point of conversion of the one into the other. And that will make the discussion on possible solutions quite complex. There is indeed a witches’ brew of political and environmental arguments, concepts and difficulties that can conveniently be the basis of endless academic, intellectual, theoretical and philosophical debate, as David Harvey writes. Some common language has to be found, he writes, or at least an adequate way of translating between different languages. His common ground is in ‘the web of life’ metaphor, it might indeed help us to filter our actions through the web of interconnections that make up the living world, a notion that comes close to Latour’s idea of his ‘actor-network-theory (ANT). Cultural theory has tended to think in terms of binary oppositions. Oppositions between closed and open subjects and infinity; between cognitive and aesthetic individualism, it has appeared as nature and culture, capitalism and schizophrenia, identity and difference. Scott Lash argues that there is a third party or a third space involved. This third party is not to be confused with the earlier mentioned third nature’. The third party is not a fold, it is not an index, or the post-indexical, it is finally not any sort of reconciliation of totality and infinity, or even the...
notions of the beautiful and sublime. The third space for him is a *ground*, an underneath, a base in the sense of basis. We are reflexively judging animals, thus *ground* is in *perception and community*. Both notions are under a lot of pressure with our new digital technologies.

I can agree with Elizabeth Grosz who writes that we have to be careful with the computer-associated technologies with their promise of virtual realities. By ‘virtual space’ she understands a system of computer simulations of three-dimensional spaces, themselves laid out within a more generalized space, known as cyberspace. Virtual realities are computer generated and are acting as a partial homology for ‘real’ space within it is located. ‘The Reality of the Imaginary’ is that it is partial, we need to consider first and second nature too. Like Timothy Luke, Elisabeth Grosz also sees that it is more and more difficult to separate cyberspace (the space of software) from real space. Virtual spaces are interactive environments, the crucial ingredient here is a responding subject, the ‘wetware’, located in real space. The subject does not really direct or control the action she says, as well as participate in a virtual environment. She relates virtual reality to the promise of a paradoxical contact at a distance, with the famous example of virtual sex. Luke’s definition of the nation state, mass society and global geopolitics as historical artefacts used for constructing and conquering the built environments or social spaces of second nature can help us along this path. Second nature is the technoscape/socioscape/etnoscape of territoriality. Luke might also be right that many of the changes today cannot be fully understood with these two concepts alone. The elaborate human constructions become overlaid, interpenetrated and reconstituted with a ‘third nature’ of an informational cybersphere or telesphere, he argues. As a new concept we might want to see this in a Deleuzian way of a *contour*, a configuration, a constellation of an event to come. It will also have more and more implications on the way we deal with architecture and urbanism.

Architectural and urban design are deeply involved in what Luke calls ‘third nature’. Until recently design was involved in first and second nature, but with digitalization it has entered a third nature. This is not only a question of the ‘means’ of designing, it has, and will, influence our ways of seeing and experiencing architecture and the city. It has caused that increasing liquefaction between the digital and material world. Grosz might be right that with computerization we are changing the very notion of tool or technology itself. Architectural design will more and more depend on these digital tools than we might think possible right now. It will most certainly have effects on what till so far we consider *ground*, or *city* and *body*. But is does not mean that the virtual reality of computer space is fundamentally different from the virtual reality of writing, drawing, or even thinking, Grosz writes. The virtual is at the same time the space of the new, the un-thought, the unrealized. But the capacity for simulation has sensory and corporeal limits that are rarely acknowledged. To my mind these corporeal limits and sensory capacities are vital for architecture, and are too easily and unjustified moved out of the way. Let’s briefly see how this might work out for an advanced position as in Peter Eisenman. Eisenman is one of the major theoreticians in the American architectural world with a steady interest in philosophical questions.

Traditionally, Eisenman writes, architecture was place bound, linked to a condition of experience. Eisenman refers to the comparable notions Luke is writing about, mediated environments challenge the givens of classical time, the time of experience. Writing about his Rebstockpark project for Frankfurt, Eisenman writes that architecture can no longer be bound by the static conditions of space and place. To his mind architecture must deal with new conditions like the ‘event’. Events like a rock concert where one becomes part of the environment, he says. That is a peculiar reading of Deleuze’s notion of event in *The Logic of Sense*. Deleuze speaks of a field of virtual structures, namely events. Events are not bodies but, properly speaking, incorporeal entities. They are not physical qualities and properties, but rather logical or dialectical attributes. Events belong to the virtual field, they are ‘ideal by nature’, and should not be confused with their ‘spatio-temporal realizations in states of affaires’. Statements about events are fundamentally different from statements about physical qualities and properties. Events are not what occurs, but are rather inside what occurs. To Eisenman’s mind architectural theory has largely ignored this idea of event. Instead theory has focussed on notions of figure and ground. For Eisenman there seem to be two ways of dealing with this conceptual pair; one leading to contextualism, and one leading to a tabula rasa like the modern movement imagined. With architectural modernism there is no relationship between old and new or between figure and ground. What I will do at the end of my lecture is show you a project that deals with this figure-ground relation. The project is digitalized in film, it escapes the binary positions Eisenman is referring to by using digital techniques to produce the transition from the virtual to the real. This transition is neither a jump cut nor a linear process, but a conceptually guided mediating process. I am using Latour’s notion of ‘mediators’ here, which he distinguishes form ‘intermediaries’. The intermediary transports meaning or force without transformation, input and output do not have different qualities. For mediators the input is never a good predictor for the output, mediators transform, translate, distort, and modify the meaning or the elements they are supposed to carry, he writes. I will argue from a position not
circumscribed by the American discourse in my opening, but by social theories that are intended to make life better; discourses that seek not only to make social life intelligible but also to make it more just and humane. It involves first and second nature too. My argument will be that with contemporary digital techniques like ‘foldings’, ‘blobs’ and ‘post-indexical procedures’, we are at risk of finally loosing all ground. My Northwest Passage (to speak with the Situationists), is that we need more ground and permanence in the architectural imagery itself. If society is organized in appearance as Guy Debord and Jean Baudrillard have insisted on, then it can only be contested in the field of appearance. Seen from an architectural perspective it means that blobs take the city as an additive texture without any coherence, technically they consume too much space since they want to stand on their own imagined pedestals like the present architectures in Dubai. Ideologically they have no concept of the city. They reinforce urban sprawl, instead of more compact building, they spread out. There is indifference to the environment, grounding in a more literal sense is no issue. In that sense it is different from an earlier artificial conception as in Koolhaas’ City of the Captive Globe (1972) (also devoted to an artificial conception). They lack Koolhaas accelerated birth of theories, interpretations, mental constructions, proposals and their infliction on the World. In Koolhaas’ world in the capital of Ego, science, art, poetry and forms of madness compete under ideal conditions to invent, destroy and restore the world of phenomenal Reality. Koolhaas’ plots are like folds all on identical pedestals, but what they generate is difference. I think I can agree with Scott Lash ‘critique', (although I think it does not work for Koolhaas as he suggests), but very well for digital architectures: contemporary speed supersedes space as indifference supersedes difference.

The source for these digital designs is third nature. Third nature here is largely penetrating first and second nature, it dissolves any notion of ground, context or collectivity. Ground in the City of the Captive Globe generates difference, ground in blobs generates stasis, autogenesis, they take on the literal quality of Koolhaas’ plots; a solid block of granite. It at the same time dissolves the notion of the human body as a living organism. Virtual reality promises a paradoxical contact at a distance, Grosz writes. Referring to Howard Rheingold and Randall Walser, the last one a well-known researcher in cyberspace technology, Grosz criticises the idea of dispensability or redundancy of the body, the suggested capacity of computer technology to transcend the body. To her this fantasy of disembodiment is that of autogenesis. A megalomaniacal attempt to provide perfect control in a world where things tend to become messy, complicated, or costly; to her it is a control fantasy, a luxury only affordable by the male subject. Like second nature, third nature is no doubt a social product. In architectural design computer technology has facilitated a shift from the traditional notions of ground. It is here where my doubts for architecture and urbanism begin. In architecture and urbanism we cannot do without ‘ground’ as a philosophical category. I think Deleuze and Guattari are right in saying that thinking takes place in the relationship of territory and earth. If we loose first and second nature, we loose the very notions of gender, sexuality, ethnic diversity, uneven distribution of wealth and class of second nature. Too easily the shift from harsh reality into the seemingly endless possibilities of the computer programmes is made, made without any interest for these categories. It is also a risk in Eisenman’s Rebstock park where he shifts the notion of figure ground to one of assumed Deleuzian folding. We should realize that all spaces are constructs and real, including our digital worlds. Virtual space in Deleuze’s sense is not an unforeseen possibility in the design, to be realized in a certain framing. It is about a question that will open up new uncharted territories, no doubt Eisenman’s intention. First and second nature do not have more materialized substance than third nature, it is more than that collective hallucination restricted to the symbolic domains of social superstructures. It has that immense material base in communication satellites, fibre optic networks and the like that Manuel Castells has analysed. But with this dissolving of figure ground, we have opened the door for the completely neutral concept of ‘location’. ‘Location’ is a neutral datum for digital design. Foreign Office Architects (FOA) submitted a design for the future of the former World Trade Center site in lower Manhattan. The undulating tower of bundled tubes was accompanied by these remarks: ‘let’s not even consider remembering... What for? We have a great site in a great city and the opportunity to have the world’s tallest building back in New York’ ‘Will full amnesia’ Reinhold Martin calls it, an active blindness to the historical conditions of which 9/11 was only one component. Digital design here is about the neo-liberal consensus regarding new opportunities opened up by techno-corporate globalization, he writes. The location of these constructions is nowhere, they might be anywhere. It is like that complexity of movement in Koolhaas international airports, they are for the greater part interchangeable.

Conclusion (film start)
For my conclusion I want to briefly go back to a design we did years ago for a site in Manhattan. It was a homeless shelter situated upon the old Amtrak line in the Meat Market district at Washington Street. I had a film made to show what the procedures in my book were about. The film itself is converted to a highly complex digital exercise where a simulated
Situationists drift (dérive) through the Meat Market district is related to conceptual imagery coming from Rem Koolhaas’ Kunsthal in Rotterdam and Melnikov’s Russian Constructivism. The imagery you see in the film is not used in an analogical way in the sense of comparison or typology, but in an abstract conceptual way referring to Modernists perfection and its anxiety with imperfection which to my mind is addressed in the Kunsthal. The film is basically a narrative of a walk through the market area, including at the same time flashes of the virtual state of the shelter concept, transforming virtuality into a constituted reality in film. There is no suggestion of complexity in the drawings or in the model as in Eisenman since it looks all quite clear, a long building on a former Amtrak line. In my book The Socius of Architecture I mentioned we were heading for limitlessness on street level with this shelter. Digital techniques are operating on a notion of the computer programmes and the notion of limitlessness also, but here expansiveness is on the level of the computer programmes and the media involved. The key difference is in the way we perceive architecture, to think of architecture as a medium, rather than as an art of shelter. For me it is the last one, I believe we have to think architecture in relation to ‘ground’, the body and the world. For the majority of people in the streets it is just a long building, a train would be the first association, it literally sits upon a railroad track. The long windows at night will most likely give the impression of an abandoned Amtrak car arriving at its destination. But there is more to it. We found our inspiration in an analysis from Michael Hays on Hannes Meyer and Ludwig Hilberseimer. The repetition of sameness in the shelter is what Michael Hays, analysing Hannes Meyer’s Co-op Vitrine calls ‘a crucial reversal of standard Marxist aesthetics’. It is the mechanization, rationalization and commodification and their psychological consequences, that are recommended as the raw material of a critical aesthetic practice. For Meyer, Hays writes, aesthetic practice must submit to reification. These theoretical positions are not there to be translated or retroactively fabricated in the image of what it resembles, I use the proposals in my book as frameworks of visibility. ‘Framework’ means an effort to make visible the by definition formless and un-framable of the sublime,- it raises the question of what forms and frames this formless in architectural practices that are by definition involved in form(ation). Or, in the words of Slavoj Žižek, ‘the proper site of production is not the virtual space as such, but, rather, the very passage from it to constituted reality, the collapse of the multitude and its oscillations into reality – production is fundamentally a limitation of the open space of virtualities, the determination and negation of the virtual multitude.’ I see this ‘passage’ or ‘mediation’ as a possible ‘ground’ in Scott Lash his conception. It is produced by a possible ‘actualisation of the virtual’, the to my mind in formal architecture dormant affect of the sublime.

[Endnotes]
1. Hunch no 11, Rethinking Representation.
9. Eisenman’s critique is on architecture theory’s neglect of the event structure in architecture. He might be right there, but I think it is not only a question of addressing the topic of the event structure, but also the way we write about it. It is not only about an open mind for fleeting events, but very much about a fleeting way of writing about these events. For a great part architecture history has been focussed on what Eisenman calls the figure ground relationship. Events however go further than just the ‘function’ of a plan. Events go deeper into the structure of a plan, they form it for the greater part as I tried to show in my Versailles and the Mechanics of Power (010 Publishers 2003).
Models which emphasize experimental design and approaches to research-oriented activity as new foundations for design education.

I will briefly focus on the notion of ‘laboratory’ in education, and particularly address the notion of the new foundations. Especially here in contemporary ideas about technology, society and nature many changes occur which are vital for current models in design teaching. These more abstract notions will form the background for more concrete issues like sustainability, ecology, computer software development and so called ‘digital design’, and their relation to critical design practice.

Designers are in the unique situation that their design issues are simultaneously technical, social and aesthetic, but their techniques differ substantially from both those of empirical research in social and technical sciences, and in the hermeneutic disciplines like architectural history and theory. Neither do they have the advantage of an analogy from the applied sciences in Technical Universities. Architecture and science do however correspond in their virtual dimension, science appears as a productive tension between theory and experiment, between abstract knowledge and experiment. Architecture is not solely about technical optimization and rationalization, but also about architectonic quality, culture, perception and social conditions. The test environment in natural sciences operates as a closed system, external conditions are maintained at constant levels and cannot influence the test results. In repeated test situations the computer output must achieve the same outcome in order to provide sensible results. Although I put these two as opposing conditions, they are in some respect comparable as porous systems, but for the moment the distinction works.

Design disciplines mainly operate in an open dynamic system, in other words a society with requirements in the areas of housing, work, mobility, ecology and recreation. This is one of the major issues in our courses in the Delft School of Design (DSD). From the very first research outline, assessment and vision on social reality need to be included. The issue of research is bound to the construction of social reality. Our approach is indeed ‘antithetical’ to the model of design education which characterized design as ‘individual creativity’ as Robert Oxman and Alfred Jacoby state in their brief to the conference. Designers have to deal with that open system which will have to be defined in concepts in order to first discover which reality is being dealt with. The second step is to define the productive tension and potentials of architecture. Architecture is not something stable. Design, order and proportion, ornament, structure and space conceptions are all potencies of architectures virtual content. They need to be brought into a comprehensive structure of research. The research we do in the Delft School of Design (DSD) is a cycle of theory formation, empirical-analytical assessment and design practice. Project sites are in Mexico City, Newark (NY), and Santiago de Chile. Projects deal with affordable housing issues, politics, and ecology. The design Studio’s are complemented by courses in architecture theory and philosophy. The so called Future Cities Programme is basically a research and design project with 50 students and 5 design teachers. We are working on the publication right now.

All representations of buildings or urban plans are incomplete and partial. It is safer to assume the fundamental impossibility of an accurate transcription of vision. That is not a weakness, but a true characteristic of every form of representation. Just as photography is not merely ‘imagery’, but more a specific construction of reality, concepts and procedures in the DSD Studio’s are implemented in order to demarcate a research field in order to formulate any relevant question at all. Although the architectural images may seem technical, utopian or banal, it always concerns the imaginative construction of technology, Utopia or banality.

From this perspective it is interesting to examine current digital designs as in Peter Eisenman, Zaha Hadid, Frank Gehry and Greg Lynn in which computer models are used as conceptual diagrams. Proportion, perspective, typology or other arbitrary and stabilizing cultural forms are no longer predominant here, this intervening role has been taken over by the CAD-CAM program itself. This is at the same time related to a more complex problem, that of the dissolving borders between nature, technology and society, concepts that were until recently quite unproblematic, but are rapidly changing at the moment. Let me discuss with you a few of these current conceptual issues, they are important for our understanding of contemporary architecture and education.

If technology is conventionally understood as being opposed to organically-defined categories such as the body, life, society or culture, what theoretical
challenges are posed by the increasing interpenetration and symbiosis of technology and society, machine and body, as different authors like Donna Haraway, Katherine Hayles and Bruno Latour have shown us.

Donna Haraway shows us how general notions on nature have become obsolete. The same might be true for general notions on society; it is certainly Latour’s concern to get rid of both. Both ‘monsters’ (Latour) were born in the same season and for the same reason: nature assembles non-humans apart from the humans; society collects humans apart from the non-humans. (Reassembling the Social, and We have never been modern). John Urry echoes Latour in his claim that a new, broader concept of ‘society’ is required, one that approximates what he refers to as ‘massively powerful empires’ roaming the globe, mass mobility of peoples and objects, and the production and circulation of dangerous human waste. (Urry, 2000, 13; see also Hardt and Negri, 2000) Not unlike Latour, he claims that our experience is given by enduring and increasingly intimate relationships between objects and subjects, rendering the human and physical worlds as elaborately intertwined and inseparable from each other. Hence, the conventional distinctions, or separations, between society and nature or between humans and objects are no longer operative or meaningful. Of course this will have an important effect on our education.

In a recent publication Architecture and the Sciences (Princeton papers on architecture), Antoine Picon addresses the question of the growing number of images and metaphors coming from mathematics, physics, and molecular biology that have spread among architects. A large number of these images are linked to the growing importance given to the virtual dimension in the architectural discipline. Picon’s main question here is whether we are dealing with a mere rhetorical figure or ‘habit’ as he calls it, or is it dictated by more profound reasons. The use of scientific images and metaphors within the discipline is of course non recent phenomenon. Picon mentions a series of central concepts and images that originated in different historical settings. What would nineteenth century architecture have been without the notion of structure? Structure resulted from biological sciences, the study of living beings. Important in Picon’s essay is that he develops science and architecture along parallel lines, science and architecture often meet in their common attempt to shape the categories of visual perception. And in doing so, they construct the notion of subject, technology and society.

We are of course in the era of new digital technologies. It would be an understatement to say that developments here are very fast. You probably know about Moore’s law; Gordon Moore (director of Fairchild Research and Development Laboratories in Silicon Valley) noticed the unprecedented doubling of information power and dramatically reduced costs. In other words, the power of information technology will double every 18 months, for as far as the eye can see. Let me give you an example; the smart card. Looks like a credit card, I pay my tram and subway with it. The card is connected to my bank account, it allows me tram, train and metro rides, and of course has my ID in it. These Cards are full blown versions of tiny computers without a key board or screen. By 2002 the smart cards matched the processing power of a 1980 Apple II computer. By the middle of the decade they matched the power of a 386-class PC. Before 2010 they will have Pentium class power. All at the costs of Euro 3-4 a piece. No need to say chip technology goes very fast. What does it mean for our profession? These informational developments will have unprecedented influence on genetics, robotics and nanotechnology. As soon as the new developments will be applicable in architectural design, architects will use them. It will lead to exponential impacts on society, culture and values.

In that sense both architecture and urbanism will play an important role in the understanding of what the British critic Timothy Luke has called third nature as digitalized work processes and digital architectures, and their relation to nature and society. It is difficult, if not impossible to say where these systems or ‘nature’s begin or end, where solutions to the environment might be found, what kind of agreement we might reach to solve architectural and urban problems. It is not that technologies mediate between the human and the natural, as Elizabeth Grosz writes, for that is to construe technology as somehow outside either the natural or the human, instead of seeing it as the indefinite extension of both the human and the natural and as their point of overlap, the point of conversion of the one into the other. And that will make the discussion on possible solutions quite complex. There is indeed a witches’ brew of political and environmental arguments, concepts and difficulties that can conveniently be the basis of endless academic, intellectual, theoretical and philosophical debate, as David Harvey writes in his book Justice, Nature and the Geography of Difference. Some common language has to be found, he writes, or at least an adequate way of translating between different languages. His common ground is in ‘the web of life’ metaphor, it might indeed help us to filter our actions through the web of interconnections that make up the living world, a notion that comes close to Bruno Latour’s idea of his ‘actor-network-theory
The notion of dealing with Michel Hays' 'post humanist subject' immediately brings to the table the idea of digital architectures truly belonging to the context of MVRDV. Here we touch on wider issues of criticality. Strategies in offices like UN Studio, Shop and Data Scaping in MVRDV are also in profound accordance with Michael Speaks' claim for marketing with market forces. Marketing techniques are an important matter at stake here. Picon points out that 'deep planning' as in UN Studio and Data Scaping in MVRDV are also in profound accordance with market forces. Marketing techniques are an important reference here. In the Space Fighter book I am referring to Michael Speaks' claim for marketing strategies in offices like UN Studio, Shop and MVRDV. Here we touch on wider issues of criticality. Digital architectures truly belong to the context of globalization as Picon suggests, they are no longer dealing with Michel Hays' 'post humanist subject'. This immediately brings to the table the notion of European criticality versus American notions on 'the projective' or 'the diagram', a discussion we had in a conference in Delft and where the different ideas about subjectivity and society remained not only unsolved, but merely unspoken and were 'critical positions' of the Europeans, if any, were mostly avoided. One of the things we have to figure out, is how we conceive of architecture. Wigley mentions that McHale was attracted to Fuller because he is first and foremost an 'image maker' as he qualifies him. Or, on the other hand we see architecture as an art of shelter. In either case we are discussing a different notion of 'house', 'city', 'subject' or 'world'. Our Studio's are on the side of architecture as shelter.

I think we have to be careful with our digital technologies. Elisabeth Grosz might be right that with computerization we are changing the very notion of tool or technology itself. Architectural design will more and more depend on these digital tools than we might think possible right now. It will most certainly have effects on what till so far we consider ground, or city and body. But is does not mean that the virtual reality of computer space is fundamentally different from the virtual reality of writing, drawing, or even thinking, she writes. The virtual is at the same time the space of the new, the un-thought, the unrealized. But the capacity for simulation has sensory and corporeal limits that are rarely acknowledged. To my mind these corporeal limits and sensory capacities are vital for architecture, and are too easily and unjustified moved out of the way. You will see that I am more on the side where architecture is an art of shelter. Let's briefly see how this might work out for the other side where architecture is defined as medium.

Eisenman refers to the comparable notions Picon is writing about, mediated environments challenge the givens of classical time, the time of experience. Writing about his Rebstockpark project for Frankfurt, Eisenman writes that architecture can no longer be bound by the static conditions of space and place. To his mind architecture must deal with new conditions like the 'event'. Rebstock is seen as an unfolding event. Events like a rock concert where one becomes part of the environment, he says. That is a peculiar reading of Deleuze's notion of event in The Logic of Sense. Deleuze speaks of a field of virtual structures, namely events. Events are not bodies but, properly speaking, incorporeal entities. They are not physical qualities and properties, but rather logical or dialectical attributes. Events belong to the virtual field, they are 'ideal by nature', and should not be confused with their 'spatio-temporal realizations in states of affairs'. In Deleuze statements about events are fundamentally different from statements about physical qualities and properties. Events are not what occurs, but are rather inside what occurs. To Eisenman's mind architectural theory has
largely ignored this idea of event. Instead theory has focussed on notions of figure and ground. Here we see the same issues of criticality versus a digital architecture of globalization.

Conclusion
The source for these digital designs is third nature. Third nature here is largely penetrating first and second nature; it dissolves any notion of ground or context. It is here where my doubts for far reaching applications to architecture and urbanism begin. Like second nature, third nature is no doubt a social product. Eisenman’s Rebstock Park shifts the notion of figure/ground to one of assumed Deleuzian folding. This shift has direct consequences for the grounding of design. In architecture and urbanism, we cannot do without ‘ground’, nor can we do without critical thinking. I think Deleuze and Guattari are very right in saying that thinking takes place in the relationship of territory and earth. If we lose first and second nature, we lose the very notions of gender, sexuality, ethnic diversity, uneven distribution of wealth, and class. Too easily, the shift from harsh reality into the seemingly endless possibilities of the computer programmes is made, made without much interest for these categories. The location of most of Lynn’s constructions is nowhere; they might be anywhere. Just like the complexity of movement in Koolhaas’ international airports, they are for the greater part interchangeable. In architecture and urbanism, we can never loose ground; third nature won’t be enough. Thinking, in the end, always takes place in relation to territory and earth. We need first and second nature too.
“Meyer differs from Geopolis in the sense...”

“...Archizoom in the 1960’s.”
“Let me close this off...”
The first thing we must do is look at the present-day curricula at Technical Universities and assess how architectural criticism is going to cope with its technical contexts. What we need is to analyze our current social condition and the requirements arising from this. But that is not possible without also characterizing the problems connected with the theories of for instance Manfredo Tafuri from the 60s and 70s and the more recent school of ideology critique of Fredric Jameson. This is especially true where it concerns the consequences of these analyses and the specific situation of design training. The faculties of Architecture, as I see it, are acutely affected in the seeming antithesis of social and political sciences and their future oriented design work. Apart from the fact that social sciences can maintain a critical position with regard to their social object, Architecture faculties are at the same time constructing, that is, designing and future oriented. The most important characteristic of critical analysis is that it is retrospective - historical analysis explains why something happened the way it did. In order to achieve such an analysis, the narrative must be shut down. Hegel says that the owl of Minerva, representing our knowledge, takes its flight at dusk. In fact it always arrives too late - certainly for the planner and the architect who are left standing empty-handed. Through the rigorous separation of historical critique and design practice as witnessed in, say, Tafuri's Progetto e Utopia (1973), (published in English by MIT in 1976) or in the conception of historical materialism as science in Althusser in the 60s and 70s, the theory is saved, but the planner or designer is left with nothing.

In this faculty in the late 70s the work of Tafuri and Althusser also had an inhibiting affect on teaching in Delft. This is also the time that the British Archigram was an important force in the UK and abroad. In Italy Archizoom and Superstudio were imagining architectural stories which meant a vast enlargement of the territory of architectural imagination. Tafuri’s approach in Theories and History first published in the UK in 1980, where he writes that one cannot “anticipate” class architecture (an architecture for the liberated society), also had a crippling impact. He believed that the only recourse was to introduce ‘class criticism into architecture’. Jameson’s critique of this mode of thinking, which he relates to Adorno’s negative dialectic and Roland Barthes’ degree zero of writing, illuminates at least a number of problems of such analyses. This ‘rigorous analytical history must in turn be bought by the stoic renunciation of action and value’, according to Jameson in Architecture, Criticism, Ideology (1985). As I see it, that inspires Jameson to the disputable assumption that the position of Tafuri and that of the postmodern is the same - the idea that in fact there is nothing to be done, that no fundamental change is possible anymore within capitalism. One leads to a self-conscious stoicism, the other to a post-modern relax, as he puts it.

Before I go any further I would like to refer to our present day situation in philosophy and also in teaching like in this faculty. In my opinion the utopia of modernism, oriented to machine technology, is definitely consigned to the past - its liberating and at the same time repressive movement has been exhausted. We find ourselves in the era of postmodernity. Let me give you an example that is close by. The situation within architectural training is complex. The competition of the various social, political and aesthetic ideas – following Lyotard I call these types of discourse (genres de discours)- is large. All these species of discourse are essentially heterogeneous - one cannot replace the other. The departments, faculty bodies, and boards who must administer this field, apportion it, and pay for it from fixed amounts of money, see little chance of making balanced decisions. There is no general language or ideology which leads to control of these different so called ‘language games’ and the financial claims attached to them. There is no meta-rule, no ultimate principle like ‘quality of training’, no recent purposeful discourse policy for the final decision makers, no functionalist maxim of ‘form follows function’ or ‘concepts following money’, with which to encompass them. Internal conflicts can still be settled, but not the external ones between the various systems. This of course sketches out my own position in teaching in research. The same situation we find in the DSD, the place you are in right now. The two streams of MSc courses in DSD might be organized under the umbrella of Future Cities, but content wise they are very different. This has nothing to do with the so called ‘object’ of study, but much more with intentions and theories the different teachers will try to realize. The interesting part to me is, that it all happens on the same floor. We did not strive for unity. We are looking for intellectual collision and debate. In a recent essay in Hunch Peter Eisenman writes that there seems to be a new subject in architecture, the mix of students, clients,
and critics that has changed. This new subject is inundated by media, information and images, and has less motivation for more interpretative kinds of information. There is less and less interest in a close reading of the design. I do not believe however that the continuous re-invention of new concepts like ‘the fold’, ‘the index’, ‘the projective’ and more recently ‘the post-indexical’ as suggested in Hunch, will help us much in understanding what is going on in architecture and its digital techniques.

The idea of a machine technology is no longer decisive; instead technical Universities deal with a knowledge technology in the sense of symbol interpretation. The actuality of this situation – the heterogeneity of the discourses – precludes a harmonious arrangement. While this condition has been analyzed many times – most notably perhaps by Lyotard in his influential book, *La condition postmoderne – rapport sur le savoir* from 1979, an example comes to mind. In the 1985 exhibition *Les Immateriaux* in the Centre Pompidou in Paris, thirty authors were asked to communicate with one another using personal computers connected to a central memory. The various writers, philosophers, physicists, biologists, and linguists were not only asked for their own contributions, but to react to the contributions of others. Central to this event was the question of the influence of modern technology on changes in writing and thinking. The results were utterly worthless. All the authors shielded their own discourse and there was no communication at all. Of course there are many more examples, but one thing is clear, in our present situation is it virtually impossible to formulate a new utopia that relates to society as a whole. Moreover I am not convinced we need a new utopia. Our contemporary society has ironically realized most of Marx thoughts, the welfare state is here. At least in the West. Social and political utopia’s are realized. What we see now are the new *cultural utopia’s*, the utopia’s of eternal youth (plastic surgery, body culture), the utopia of being world famous or extremely rich overnight by mass media or stock market, or of being a famous architect. Although utopia is still quite popular in architecture, and has been in the past, I think we have to be very careful with utopian claims in our profession.

Although I find different arguments in philosophers as Derrida, Lyotard and Foucault particularly compelling, my own interest is not circumscribed by post structuralism. My focus is on social theory more generally, which I conceive as a series of overlapping, contending and colliding discourses. My concern is with multiple discourses, discourses that seek not only to make social life intelligible, but also to make it better. I look for strategic interventions in the field of architecture and urbanism, driven by critical theory. I am probably one of the few social critics that has been involved in design teaching for most of his life. Critical theory is a large and fractured discursive space, by no means confined to the Frankfurt School alone. I think I am very much in line here with Derek Gregory’s work, especially his *Geographical Imaginations*. His book has been very important for my own book, *The Socius of Architecture*. When we are required to think critically and systematically about social life and social space, we usually need to distance ourselves from the taken for granted positions. We need to interrogate those ‘common understandings’. This has become one of the central tasks of social theory, which by the way is not the possession of anyone discipline – not even sociology. Empiricism is not an option, the facts do not and never will speak for themselves, and no one in this field can escape this phenomenon.

**Writing and structure**

Within the academic world, the imperative of systematics and hierarchy is generally adhered to. Much can be said in favor of this. However, in the past few decades an increasing number of authors appear to want to match Theodor Adorno’s *parataxis*. Some of these books are inspired by Walter Benjamin, or more recently by Gilles Deleuze and Felix Guattari. A recent example is Derek Gregory’s *Geographical Imaginations* (1994), the book I just mentioned. Gregory organizes his book as a set of essays that consider diverse geographical imaginations, with an emphasis on plurality. Following Deleuze and Guattari, he calls it a nomadic project, and compares the open-essay structure to a rhizome. This structure is analogous to the organization of Deleuze and Guattari’s *Mille Plateaux*. Edward W. Soja pointedly criticizes Gregory’s book by using an uncontrived reference to Foucault – calling it a labyrinthine Chinese Encyclopedia of geographical thinking; although both authors exhibit an equally acute grasp of Foucault’s work. Soya’s *Thirdspace* (1996) overrides an important portion of Gregory’s criticism of his earlier *Post-modern Geographies* (1989), at least as far as a feminist critique is concerned. Though Gregory presents his arguments with exceptional lucidity and has written, what is to me, a remarkably interesting book, Soja’s critique is largely accurate. The labyrinthine structure does not make for light reading. To an author, books may seem to enter an anonymous market, but this market is not entirely undesignated. Almost everything ends up within the educational institutions of its inception, like the Berlage Institute or Architecture Delft. Each of these books thus acquires a local character. To a less initiated reader the nomadic expeditions are rather
exhausting. In this aspect, Thirdspace is more linear, making it easier to follow. Naturally, the presentation of the discourse is linked to the knowledge and assessment of the potential of postmodernism. Adorno set up his parataxis as a critical answer to Hegel’s systematic, although the paratactic elements he related to the essay are not the same as those within the post-modern discourse. And this refers to the title of my lecture, the Transversale Vernunft, I term I have borrowed from Wolfgang Welsch. Welsch critical position distinguishes different forms of knowing and feeling. Very much in the German tradition of Kant and Hegel he distinguishes cognitive, ethical, aesthetic, religious, technical and other rationalities. Vernunft of course is the power to transcend these different forms. The interesting notion however is that none of them can actually overrule the other. Transversale Vernunft can never reach totality, it can only reach different totalities. I think it is very similar to Edward Said’s situated ness of theory. Said has always emphasized that these situations are always overdetermined and constantly changing and that no theory can claim totality. Post-modernity is undoubtedly a glorification of consumption, as Celeste Olalquiaga states, but the question remains whether and how this is still related to critical thought, it could easily slip into non-critical late modernistic “shock” motives as Roemer van Toorn has shown. To Olalquiaga, an articulation of novel and often contradictory experiences seems to appear through the relinquishing of depth, linear causality and univocality.

For example, in her book, which is also composed as a collection of related essays, this is the case in the ‘third-degree-kitsch’ of Amalia Mesa-Bains’s work - a conscious gesture of political reaffirmation of Chicano cultural values. The same is true of Superbarrio, a masked stranger who grew out of the governmental inefficiency regarding the handling of the 1985 earthquake that destroyed vast areas of Mexico City. Her descriptions in Megalopolis (1992) are well suited to the essay format. This becomes different when it revolves around more abstract texts, which is precisely what makes Gregory’s book difficult to enter. His critical philosophical discourse would perhaps benefit from some level of overview, even though he emphatically dismisses the idea of any such prospect. The systematic of my book, The Socius of Architecture, (2000) is to be found in its subdivision into different parts. In part 1 a new critical understanding of architecture is developed, and in part 2 three urban phenomena are analyzed in the three cities, Amsterdam, Tokyo and New York. Architectural understanding is not only developed on a theoretical level, but also, concluding each urban analysis a design proposal which addresses the critical questions raised in the respective analyzes is put forward. As I said, I am not only interested in understanding the world, but also in improving it by concrete interventions. With this I attempt to conciliate theory and practice. None of the different fields in my book can overrule the other, the reader can have a preferred part or chapter, but the interrelatedness of parts, (which by the way in an open structure), relates to other fields, a form of Transversale Vernunft.

Mapping

In the conclusion of his article ‘The Agency of Mapping: Speculation, Critique and Invention’ James Corner directs our attention to the failure of the bureaucratic regime of city and landscape planning with its traditional focus on objects and functions, which has failed to embrace the full complexity and fluidity of urbanism and, more generally, of culture.1 In authority and closure, current techniques have neglected to embrace the contingency, improvisation, error, and the uncertainty that inevitably circulate in the urban condition. Given the complex nature of late-capitalist culture, it is becoming increasingly difficult for urban designers and planners to play any significant role in the development of cities and regions beyond scenographic or environmental amelioration.2

As Corner rightfully points out, there is no shortage of theories and ideas. The problem nests in the ‘translation’ from these theories into meaningful practices and new operational techniques. The difficulty today is less a crisis of what to do than of how to do anything at all. This will also be the main issue in the MSc project we will run on Mexico City, a project dealing with urban asymmetries. In this, the questions of mapping as practice, and of the map as an instrument, become paramount. These questions render Corner’s contribution not only interesting, but also especially timely and relevant, since it provides an opening for the problems we are facing in contemporary urbanism and architecture alike. This opening has not gone unnoticed in recent debates on the agency of mapping and of the map, as many advances in academic circles show.3 Despite of this, the outcomes of these debates are far from satisfactory, especially in terms of the many diverting positions that view these issues in completely incompatible ways. In many instances, maps and mappings are still seen as subservient to questionable agendas of “imperialist technocracy and control”, of “mapping as a means of projecting power-knowledge” through imposition and reproduction.4 This may be explained partially because of mapping’s prevalent association to historical or historicist interpretations of geographical, spatial, cultural, social or ethnical
‘otherness’. Conventionally, historical maps have been caught in the dialectics of ‘true and false’. For instance, throughout the age of exploration, European maps gave a one-sided view of ethnic encounters.3 They supported Europe’s God-given right to territorial appropriation, while European atlases promoted a Eurocentric, imperialist view. J.B. Harley explains, for instance, how in many seventeenth and eighteenth century maps natives are depicted riding an ostrich or a crocodile, engaging in cannibal practices, or displaying bodily malformations, as a French map of the eighteenth century shows in which a race of men and women with tails is depicted. Female sexuality in the representation of African women, and allegories for America and other continents is often explicit for the benefit of male-dominated European societies.6

On the other hand, mapping is often associated with the failure of universalistic approaches towards master planning and the imposition of state-controlled schemes and politico-ideological models. Not surprisingly, these views only increase the difficulty of thinking in terms of mapping as a means to envision and create anything outside of the status quo. There is a widespread perspective that highlights the pessimistic undertone of mappings as reductive or simplistic, erroneous, authoritarian, or coercive; something that has also opened a discourse that wishes to place the projective disciplines, architecture and urbanism included, “beyond mapping”, as the efforts of the Berlage Institute show.7

But mapping is more than an instrument of authoritarian or imperialistic regimes, and a subordinate tool for master-planners. From a general standpoint, mapping is a cultural activity that reunites important aspects of perception and cognition. It functions as an instrument for the visualization to different needs, for the understanding of spatial phenomena, for the storage of information, as a research tool by which we can comprehend relationships and distribution patterns, and so forth. In short, there is a sort of ‘map intelligence’ through which the earth and many other phenomena may be represented with a certain degree of factuality or accuracy. In this sense, mappings, like architecture, reunite both, scientific data and artistic expressions in a format that has extraordinary potentials.8 However, one of the problems that Corner identifies in his article is related precisely to the fact that we view maps more in terms of what they represent, and less in what they do; his critique is that maps are regarded as mere ‘mirrors of reality’ or depictions, as instruments of measurement and empirical description.

It does not mean however that measurement and empirical data are to be dismissed from the profession, they are important to give us the overview. The launch in 1986 of the French SPOT 1 was an important step to challenge the American monopoly on earth observation. The picture of Paris gives us an overview of most of the cities urban fabric and parks.

At the moment there are many different Remote Sensing Experiments all over the globe to construct different kinds of information, but I believe they are never enough for urbanists and architects on the ground. They not only need the view from above, but especially the one from below. In our MSc courses we deal with the ideas from the Situationists from the 1960s in Paris who were dealing with the map of Paris in a quite different way. Notably, none of the main players were designers or architects by profession. Their opponent was functionalism, which to their minds was played out and had fused with the most static conservative doctrines. One of the most important precepts upon which Situationism was based was that social progress did not subsume the individual, but instead had to maximize his or her freedom and potential. This precept linked Situationism (as a practice), and in specific the “drift”, to ideology and politics, something that is often overlooked in contemporary adaptations or interpretations of Situationism. The drift is not just another way of microscopic attention to city life; we cannot strip it from its political content. Using it as another way to “explore” the city is against everything the Situationists stood for, namely the revolution of the working class and an overturning of power. In 1958, Guy Debord explained that the dérive or “drift” entails playful-constructive behaviour and awareness of psycho-geographical effects, which completely distinguishes it from the classical notions of the journey and the stroll.9 The drift is characterized by its “letting go”, but at the same time by its opposite, namely the domination of psycho-geographical variations by the knowledge and calculation of their possibilities. In his introduction to his textbook on Debord and the Situationist International, Tom McDonouch explains that psycho-geography conveyed exactly a desire for rational control over over-greater domains of life.10 Psycho-geography was a way of systematizing, of consciously organizing what the Surrealists had still experienced as merely random. Other than the Spot 1 image, the Situationists cut up the map of Paris according to affective influences experienced during their drifts through the city.

The map can also be employed as a means; effectively a re-working or reformulation of what already exists.
And although this is an important step we need to keep in mind that what already exists is not given in perception alone. It includes natural forces, historical events, political interests, and programmatic structures. In other words, one of the most important characteristics of this 'reformulation' is that it includes conceptual issues, setting the factors from which eidetic and physical worlds may emerge. Landscape or space is not something given or external to our apprehension; it is constituted or formed through our participation with things, material objects, images, values, cultural codes, cognition and events. Space is subjectively constituted, which makes the map more of a project than of an empirical description. And space in this context can also be the human body, the locations on this bodily map the internal workings of our body. The picture of Kunisada Utagawa, a Japanese woodblock print from 1850 shows us the functions of the respective organs and instructs the reader about proper nutrition.

Arthur Merton’s Symbolic Head shows us how in his interpretation of how the powers of intellect, affection and will can be located and even measured.

In Chinese acupuncture the body is also conceived of as a diagram of intervention.

A Missionary Map of the late 19th century shows us the symbolic interventions of missionary work in Africa, Asia is mentioned but has fallen of the map.

A more recent example is the Surrealist Map of the World from 1929. The surrealists amused themselves by creating a map that puts imperialist powers in their place. For instance, other than Alaska, the United States are invisible, the UK is dwarfed by

Another personal map is Eugene Turner’s map of Los Angeles from 1971. Turner is a geography professor at California State University, he made his map as an experiment in presenting multiple variables in a way that is easy to grasp. He uses so called Chernoff Faces on the theory that people are sensitive to subtle differences in facial expressions. The faces are aggregations of multiple sources of data to be read with the blink of an eye.

Architects and urbanists are neither geodesists nor artists. They use maps for other purposes. Nor is our perceptual apparatus completely neutral to its observations. Donna Haraway, the American biologist and philosopher writes that the ‘eyes’ made available in modern technological sciences shatter any idea of passive vision; these prosthetic devices show us that all eyes, including our own organic ones, are active perceptual systems, building in translations and specific ways of seeing. There is no unmediated photograph or passive camera obscura in scientific accounts of bodies and machines. The recognition of the different maps and modes of political alliance and action has been articulated most strongly by feminist theory. ‘Positionality’, ‘situatedness’, and ‘standpoint’ have become familiar words as means to locate perspectives and power positions, David Harvey writes. Giuliana Bruno's Atlas of Emotion is probably one of the best contemporary examples. The Atlas opens with a rather personal Prologue, directly relating to Madeleine de Scudéry’s map, the Carte du pays de Tendre, a map of the land of tenderness dating from 1654. “Behold the reign of love”, Madeleine de Scudéry wrote. She was part of the court that I described in my Versailles and the mechanics of power. Remarkably she is missing in the seminal work of Emmanuel Le Roy Ladurie on Saint Simon and the court of Louis XIV (quatorze). But she is very present in the book of Lisa Hilton on Athénais, the real queen of France. Love was everywhere, in the ballets, and in the operas and poetry written for the court. The cult of love was conflated with the cult of the monarch, and since there was no more delicate way of flattering the King than by celebrating his prowess as a lover, gallantry, flirtation and intrigue ruled the day. Athénais, the main subject of Lisa Hilton’s book is pretty much comparable with Madeleine de Scudéry. Ten years long, “la belle Athénais”, who took the idea of maîtresse very seriously indeed, was in many respects the king’s equal. They could bicker and make life miserable for each other, but as a rule this was cast aside in bed. The people I described in my book were no older than twenty five. Madame, the youngest was seventeen. Her ladies-in-waiting, known as the “flower garden” were the most beautiful and well born girls in France. All of them trying to catch the King’s eyes. “Oblivious of political realities, this jeunesse dorée abandoned themselves to balls, concerts, moonlight promenades – and love”, Lisa Hilton writes. This is the backdrop of Madeleine de Scudéry’s love map to the heart of man.

Of course the examples are personal geographies, they are not fully objective. My point here is that very few maps on our profession are completely objective. We are no geodesists but urbanists and architects. I agree with Corner that maps have very little to do with representation as depiction. More specifically, Corner refers to the activity of mapping –mapping in its active sense-, as “creative practice” and as “a collective enabling project” with productive, liberating capacities. In this understanding maps are not retrospective or representational tools exclusively; their power lies in their capacity of simultaneously concealing and revealing potential,
allowing us to discern what is from what is not, and to envision what is not yet. The act of mapping is then an agency - a practice - that helps us to engender and remodel the world. In this understanding, mapping is then less related to a “mirror of reality” than to the re-shaping the world in which we live. Maps are performative, pragmatic instruments that “emancipate potentials, enrich experiences and diversify worlds”. They seem to be involved in a “gains its identity from the varied terrains forming the bioscape/ecoscape/geoscape of terrestriality. Our traditional notions of “space” are under pressure, and it might be wise to first see how these notions have changed before we go on to different mapping techniques using different notions of time/space. As Corner reminds us, ideas about spatiality are moving away from physical objects towards a variety of territorial, political and psychological social processes that flow through space.16

[Endnotes]

2 idem. p. 251.
3 Berlage’s debate on mapping, entitled “Beyond Mapping”, held in February 2007 at the Berlage Institute in Rotterdam, where Pier Vittorio Aureli and Peter Trummer, moderated by Roemer van Toorn, explained their ideological positions regarding architectural practices.
7 See footnote 3
12 Lisa Hilton, Athenais. The Real Queen of France (Little, Brown 2002)
16 Op.cit. 1, Corner, p. 224, and his reference to David Harvey’s “utopia of process”, p 228
I. The eighth Architectural Biennial in Venice, called Next, which recently closed her doors. Deyan Sudjic, the curator, places all contemporary great names in a row, and leaves it at that. An overview without an analysis. A post-modern universe elegantly presented in the Venetian Arsenale. The exhibit unmistakably chooses in favour of a post-modern project. Now, some twenty years after Jean Francois Lyotard’s book the Condition Postmoderne, the faculty of Architecture of the TU Delft has redefined its design research in relation to other technical faculties. The central theme of this research, (the so-called Research Portfolio), is very much in line with this book, the ‘condition’ of the means of design in relation to their effectiveness and social legitimacy. A great deal of work will be coordinated in this recently opened Delft School of Design, a PhD Studio with design and teaching courses for Dutch and international students in the Msc.

Teachers in many architecture faculties are asking themselves the same questions: What am I teaching my students and why is one solution better than the other? Obviously it is one of the questions of this day about architectural research and the differences and similarities in teaching and research at ETH and Delft. Of course, there are always the architectural examples, the standpoints of architects and urban designers, the diverse claims emanating from the different disciplines that are involved, and the legitimizations of the students. But whoever bothers to look beyond this façade will find a great deal of uncertainty. It is fine to discuss examples, but who selects them? Which examples are pertinent and which are not? Only the high profile names from El Croquis?

II. The Delft landscape in short.

This brings us to the following series of questions: Which instruments are actually valid for use in analyzing a design, and which ones have become obsolete? In other words, can composition, semiotics, linguistics, philosophy, social theory, hermeneutics or phenomenology still help us discover the value of a design? Or are we basically in the position of Deyan Sudjic, a post-modern universe were all these disciplines are used to dress up design? We have to realize that most design questions formulated in the Technical Universities have to do with the how question, the question how to make it. The other question is however the why question. For more than a century the issue in the social sciences. Since architecture and urbanism are social constructions of reality, they have to deal with the why question also. Why is this design so important, why is it any better than the other one? The textbooks in education that deal with these questions are sometimes drowning in a sea of examples and procedures. The best ones in this field relate to architectural examples as a social construction of reality.

In contrast to the other technical faculties, Architecture faculties are dealing with society right from the start - we are not only discussing cause and effect here (as might be the case in technical sciences like physics). We deal with a material concept that has a double connotation, both technical and social. Technical in the sense that materials and procedures of architecture itself form a rich cultural matrix, capable of sustaining dense intellectual argument without much recourse to concepts and language borrowed from other fields. Social because we are dealing with the social construction of reality. This might be a ‘declaration of position’ for the Architecture faculty in Delft.

III. Architecture as material practice.

At the Faculties of Architecture, the criteria are not only technical; they are also – in fact primarily – societal. The Faculty of Architecture at the TU Delft distinguishes itself from the rest of the faculties in this regard. We are not suggesting that social relevance is not also important at the other faculties, but perhaps only as an effect, not from the outset as ‘taste’, ‘value’, ‘aesthetic quality’ or ‘beauty’ they all inform and form the design. The design process takes place in an open and dynamic system, one which is, in continuous flux: that system is society itself. There are only limited opportunities to ‘isolate’ the system and that is only possible if design takes the changes and dynamics of society into account. The conclusion might be that architecture and art are practices, not sciences. (practice as theoretical practice) Although not everyone present here today will follow me here I guess. The faculty defines itself of course as a scientific one, to distinguish itself from the many Academies and urban disciplines in the Universities we have in the Netherlands. The construction of natural sciences aspire universal application. Buildings and plans have a far more unique character however. The conditions the architect has to work with, come from the outside, programs are determined beyond the control of the individual architect. Or, as Stan Allen has put it: the practice of architecture tends to be messy, and inconsistent precisely because
VI. Conclusion and position

Let me conclude with a short statement that I recently wrote for the upcoming assessment for the Portfolio program I am responsible for in Delft. Consider it my position for the discussion this afternoon. The group I am heading focuses on relational concepts between design practice and culture, and at the same time on the assessment of social/cultural phenomena. This means that different fields of knowledge will be addressed. Not so much ‘design’, ‘sociology’, ‘history’ etc, but defined forms of historical research, defined forms of socio-cultural analysis and defined practices in architecture and urbanism. I have never been impressed by the way social theory was taught in this faculty, dialogues in this faculty over the past twenty years were hardly linked to design questions. And certainly the designers were never interested, they had their own discipline they said. Not realizing that part of that “own discipline” was intrinsically social. To at least explain two concepts in our program one has to be aware of the notion of ‘reflexivity’ in Scott Lash’s work (Economies of Signs and Space) and Stan Allen’s notion of ‘material practice’ (Practice). In the VSNU Review (April 1998) the problem of assessment is clearly formulated, when it was stated that there is a systematic error in assessing the performance of a faculty of architecture since a large part and most important part cannot be assessed by the rules which apply to scientific research. The VSNU assessment is very much to the point, but at the same time lacks specificity. The Material Practice group does support the idea that a fruitful approach is possible by use of developed concepts from cultural studies and reflective design practices. We do not wish to be entangled in dichotomies relating to humanities and technical sciences. We believe we have learned from the German Positivismus Streit, we have learned from Kuhn’s paradigms. We certainly do not adhere to any form of scientific ‘mimicry’, we do not borrow ‘method’ as used in natural sciences (in an isolated and repeatable laboratory context) to fulfill tasks in a dynamic social cultural context. We would like to state clearly that we see architectural and urban design as a complicated process of analysis of a large, and increasing range of requirements, social and cultural as well as economic and technological, the outcome of which can be understood through a precise study, but which cannot be predetermined by whatever stable method. Nor have I discovered any architectural office in the Netherlands that uses “method” in its daily practice. Our position of course is a difficult one in a Technical University. This will be one of the risks of our research and teaching programme. (Although I do not hear many complaints from our students).There is a constant threat of ‘utilization’ parameters and by illusions to find methods which can be instrumental in design activities defined by technical laboratory research. It might even be considered a ‘weakness’ in our programme. However, we believe we are on the right track, we believe Technical Universities as a whole are risking ‘one dimensionality’. We actually believe it is our strength not to address technical mimicry, not to address questions of instrumentality alone.
The flat screen of my computer has a name of its own. It’s called digital life. Is there life inside my computer? Well, sometimes it looks like it. It does things on its own. Indeed, it seems to have its own mind. It shows me lively pictures; it communicates for me all over the planet with its equals. It can drive me mad, actually, but mostly I am quite happy with what it does for me. At least it has changed my working life considerably. And isn’t that what most life-forms are about? Changing behavior. But where does that leave me as a person? Am I lost as a mere ‘interface’?

Quite a few architects and artists will tell me: ‘you are not lost, you just have to talk back. Communicate!’ Communicate with our (plans for) digital architecture and art forms. I am already part of what William Gibson wrote twenty years ago about cyberspace; I am part of that ‘consensual hallucination’ called cyberspace. It also seems to be a lot more than that. Certainly, more than the computer itself. It is about networks, compatibility, architectures, access, non-accessibility; it is about power, transfers of money, data and information that flow through it. And it is also about new forms of architectural practices, office organizational strategies, and profiling.

Enabled by the new information and communication technologies, Michael Speaks writes that network practices in the 1990’s became communities that are more powerful than any single studio or office. Speaks explores the organizational structures of a few offices that, like academic research groups in the same period of time, became more internationally oriented, using each other’s networks and expertise. For example, the Amsterdam based un Studio (United Network Studio) of Ben van Berkel and Caroline Bos organized their office as a ‘network studio’. These network firms proliferated in the 1990’s, reflecting the need for small, innovative studios to create working partnerships. Speaks focuses on organization and economic change, indeed, his vocabulary is on ‘innovation’. The central idea of this innovation is a highly organizational one. Speaks talks about ‘knowledge based services’ and refers to ‘cultural intelligence’. In referring to ShO(P) (Sharples Holden Pasquarelli), a young firm in New York, he quotes Gregg Pasquarelli who was looking for a new way of practice, in which design was not just handed off, but was part of an entire approach. ShO(P) to him is unlike most architectural offices – the model is a consultant firm, not the traditional master-builder type office. He stresses the combination of design intelligence with computer design technology and a sophisticated approach to marketing, public relations, and other aspects of the business of architecture in order to create that ‘truly innovative’ practice.

Speaks is in fact referring to the transition from Fordism to flexible accumulation, described by David Harvey and others in the 1990’s. This more flexible form of capital and organization emphasizes the new as a category, a recurring term in these accounts on the benefits of computerization. It is the fleeting, the ephemeral, the fugitive and the contingent in modern life, rather than the more solid values implanted under Fordism that becomes paramount. Harvey discusses three accounts from that period of time, all dealing with the same economic and organizational issues. The rather celebratory account by Halal of new capitalism, emphasizes the new entrepreneurialism. The second is Lash and Urry’s The End of Organized Capitalism, and the third is a book by Swyngedouw from 1986 providing in great detail the transformations in technology and the labor process. Many of Speaks’ arguments are similar to Harvey’s in theorizing this transition.

The period from 1965 to 1973 was one of the inability of Fordism and Keynesianism to contain the inherent contradictions of capitalism. On the surface, Harvey writes, these difficulties could best be captured by one word: rigidity. There were problems with the rigidity of long-term and large-scale fixed capital investments, in labor markets, labor allocation and contracts. The 1970’s and 1980’s have been a troubled period of economic restructuring, and social and political readjustment. This shift to flexible accumulation rests on flexibility with respect to labor processes, markets, products and consumption patterns. Furthermore, the shift is characterized by the emergence of entirely new sectors of production, new ways of providing financial services, new markets and above all, greatly intensified rates of commercial, technological and organizational innovation.

According to Speaks, even the most forward-looking members of the architectural establishment have ignored these innovations. And for sure, for some of the offices their way of working is new. Greg Lynn (Los Angeles), Douglas Garafalo (Chicago), and Michael McInturf (Cincinnati), mostly architects with smaller offices in different cities, took advantage of electronic imaging and new communication technologies. Together they
realized the Korean Presbyterian Church of New York. Stan Allen and James Corner – one in New York, the other in Philadelphia – collaborated in architectural thinking, research and landscape architecture. Also the Dutch firm mvrdv is into research of datascapes, urban design/decision-making models like Regionmaker, and publishing office work as research-related. An important aspect of this innovation is the fact that the principals were far more involved in academic research-related work than the majority of their colleagues ever were. Their colleagues are still more interested in publishing their completed office work. Mostly built work, they do not make that step back, there is virtually no distance from their design production. Probably Rem Koolhaas is the inspiring figure here, his first form of ‘practice’ being, so to speak, a book on Manhattan. Later publications show more of the tendencies Speaks indicates – writing about architecture and urbanism, a clever mix of proposed and executed office work, critical articles, and a surplus of photographic material combined with an ingenious way of presenting, made possible by advanced digital assembling techniques and the design skills of Bruce Mau and the like. In the 1990’s amo, an offshoot of oma, was set up when principals Rem Koolhaas and Dan Wood, then project architect for oma’s abandoned Universal Studios Project in Los Angeles, decided to begin this theoretical arm together. At the moment, Reinier De Graaf heads amo.

Another example of Italian origin is Stefano Boeri, exploring urban projects, doing design research, and with an architectural practice in Milan. For some architecture schools, this new methodology meant new forms of architectural research. Koolhaas started his ‘Project for the City’, an immensely influential and fast paced project at Harvard School of Design. In Rotterdam, the Berlage Institute is always on the cutting edge of design and architectural thinking and has established a name for itself. More recently, the tu Delft established its Delft School of Design, an internationally oriented research laboratory at the Architecture Faculty. They all have in common the exploration of the fields of architecture and critical thinking.

Nevertheless, for Speaks, the times of ‘critical theory’ are past. At stake here was more than the transition to flexible accumulation in Western economies as proposed by Harvey. Instead, this new flexible accumulation of architectural image and practice, as well as forms of management, is the new successor to the so-called ‘exhaustion’ of primarily Continental theory. In this depletion, Speaks sees the failure to recognize the important shift in the relationship between thinking and doing that occurred in architecture in the 1990’s. Consequently, the more recent focus is on American pragmatism and on these ‘newly emerging forms of practice’. For him the new challenge for architecture is to develop forms of practice able to survive the fiercely competitive global marketplace. The idea is that architects use ‘intelligence’ in a twofold way: as a specific form of practical knowledge characteristic for the profession, and in the practical way the American cia or military might want to use ‘intelligence’. Architects should be able to think ahead and visualize ahead – a form of foreknowing the effects and, at the same time, the social impacts of their proposals. Yet, in order to be able to do so, they must employ ‘intelligence’ like the military, be able to work from seemingly endless fragments of ‘information’, rumours even, and disinformation. The ‘chatter’ of the outside world should be related to the projective capacity of the profession. The way to do it is just to use your imagination and to play along.

The question is, however, are there other ways to deal with projective practice and how can critical thinking be involved in this procedure? Or is critical thinking, indeed ‘exhausted’? The first thing to be said is that virtually no office in the past has been interested in critical thinking; this investigation has always been solely the domain of philosophy and sociology in the universities. Certainly, critical theory was not a field of interest that played any role in actual office work. The link Speaks makes between modernization of the work process in architectural offices, and ‘the exhaustion of Continental theory’ is questionable in itself since Continental theory never played any role in daily office practice in Europe and America. Architects get their ideas elsewhere – from confrontation with the specificity of site and program, from work of other architects, from periodicals and professional literature. The discourse on theory, in fact, streams along in all of its convoluted complexity, largely unnoticed by the average practitioner of architecture. If the articles get too complex, simply no one will read them. Indeed, there has always been ‘chatter’; and in fact, there will probably always be ‘chatter’ in the architectural office with its chaotic work processes, and also in the Universities where different interests and ideas have to work together or at least tolerate each other. Speaks’ argument runs two ways: firstly promoting flexible and internationally oriented office practices, and secondly announcing the ‘exhaustion’ of critical thinking in the Universities. I argue that although the two are substantially unrelated practically speaking, they are both relevant questions for architecture and especially for architectural education.

What other ways are there to approach this question?
What is needed here, in my opinion, is what I would like to call a 'reflective architecture', an architecture addressing its own foundations reflexively, paired with the digitalized work processes on a larger scale than the traditional office practices employed until recently. To be clear, in the end I do not think that the offices can do this reflective architecture on their own. Most of them will have neither the focus nor the time for extended experimentation. A Studio setting is necessary in order to be able to get the desired focus. The designs in my *Socius of Architecture* were made in our office, but the text came from my work in the University. 'Reflectivity' is an activity mainly in Universities since it relates to 'critique' and to contemporary notions of time and space. If this split between office practice and University research remains, it will leave the historians and critics on the safe side, they won't have to bother with the messy daily practices in the offices where negotiating and adapting are more common than the grand design. However, I think the research groups in Universities cannot do reflexive architectural research without the offices involved. They lack the much needed pragmatic context and client. What is happening in Speaks' discourse is the effort to promote a few American and Dutch offices to the forefront of contemporary architectural practice. His main argument being an organizational and instrumental one, a position of instrumentality covered by a 'pragmatic' stance no longer assessing the outcome of the designs. Not quite a new position. This 'obsession with instrumentality', as Alberto Pérez-Gómez writes, rages unabated in architectural practice and almost always underscores the 'leading edge' positions. He traced the instrumental obsession in mid-eighteenth-century technical theories in order to probe their myths of rationality. His focus was on pre-modern architecture where essential aspects of architectural knowledge were defined as *techne* founded on *mathemata* that could be transmitted through a 'scientific' treatise. Pérez-Gómez examined the polemic between two instrumental theories in late seventeenth- and eighteenth-century France, the work of Charles Etienne Briseux and his criticism of the earlier writings of Claude Perrault. The contemporary 'obsession with instrumentality' encourages fashionable architectural projects that are obvious to their cultural context, to their intended programs, to their historical roots, to ethical imperatives, and to our experiencing body. Although Pérez-Gómez is correct, in my opinion the problem is that today's architectural practice is no longer on the level of historical consciousness, or even managerial and organizational levels as Speaks mentions, but on the level of a software-driven flattened out *aesthetic reflexivity*. This kind of aesthetic reflexivity has more recently found an important place in the production and consumption of the culture industries. Architectural books and magazines are also a part of this mechanism. Treatises are no longer an option for an architect, rather a necessity. For the offices it will be hard, if not impossible, to step back from this aestheticization. The conditions under which they work are in a sort of symbolic flow, cultural capital creation and aesthetically cast expert systems that are intrinsic to the current profession. Whereas intellectual property rights are the main form of capital in the culture industries, in architecture what is sold is not the intellectual rights since it is a singular operation, but the 'product', the architectural project, and especially the 'name' the firm or architect has managed to make for himself by way of publishing. Quite a lot of the smaller firms Speaks mentions, do niche marketing, finding holes in a major markets of building practices. What some of them have invented are not so much an economic and managerial innovation as well as a strategic *aesthetic innovation* in *profiling and image production*. This invention/promotion of course has been the case for longer periods of time in the twentieth century, and was always followed by a critique from both Marxist and conservative sides. Nevertheless, the critique is also getting more and more complex. In Marxist critique, at least there was always a stronghold, a form of resistance with aesthetic depth, as in for example, Tafuri or Adorno. But what is happening now is the disappearance of that subject of resistance in the circulation of images in contemporary information and communication structures. This very disappearance, however, is what Speaks characterizes as the 'exhaustion of Continental theory'.

We are no longer dealing with reflexive subjects, but reflexive objects, as Lash and Urry argue. They have argued that the current cultural artefacts in the music industry, to use one example, are no longer transcendent as representations, but that they have become immanent as objects amongst other objects circulating and competing in information and communication structures of popular culture. Music has become a lifestyle. Their claim is that with modern-ization and autonomization, hence differentiation of the cultural, culture became primarily representation. More recently we have seen representations taking up the functional position of objects, objects which only differ from other objects of everyday life in their immaterial form and aesthetic character. Madonna as a star is not just an image, but a representation. She has become a cultural object in the anthropological sense of culture. With the declining significance of social structures and their partial displacement by information and communication structures the
aestheticization of everyday life becomes possible.

Our current condition of postmodernity is in effect the generalization of aesthetic modernism to not just an elite, but the whole of the population. Aesthetic modernism, however, presupposed that autonomous depth and reflection. It assumes an aesthetic expressive subject. Lash and Urry argue that the circulation of images in contemporary information and communication structures entails not an aesthetic subject, but these reflexive objects. Although their observations might be too close to Baudrillard’s notion of dystopia here, it is true that the subjects tend to be flattened out in the ongoing proliferation of digitalized images. But to me this process is not yet completed, not yet exhausted, there are still critical possibilities left. For sure this flexible accumulation is much more than a merely economic managerial flexibility as suggested by Speaks. In our digital world, contemporary architectural image production is replacing modernistic aesthetics for an ‘anaesthetics’ as Neil Leach has recently suggested.

Record companies are not so much selling the record, but the artist. For architecture this is not the same situation; architecture does not command that kind of widespread interest in society, although interest is growing rapidly in magazines originally not dealing with architecture. But for the architectural in-crowd, Rem Koolhaas and Frank Gehry are functioning in a comparable way. It is not so much the building, but a ‘Koolhaas’ as a brand name, reinforced by his own publications and the oma/amo office, and even more by the endless publications on his work in books and magazines. Many culture sector firms have become like advertising agencies, and advertising itself has become more like a culture industry, Lash and Urry have argued. For example, the pr firm of Saatchi in London profiles their advertising business as ‘commercial communication’. The amo office is not too far away from the same practice. oma/amo’s research into Shopping more or less coincided with their Prada account. The office not only designed the shops, but took care of the corporate identity of the company in advertising and publicity.

I am avoiding the already obsolete terms ‘innovative’ and even the terminology of ‘critical architecture’ since I am also of the opinion that ‘critical’ in social theory and philosophy are indeed problematic, and cannot easily be related to a projective aesthetic practice like architecture. Never-the-less, in saying ‘critical’ we must be precise. Certainly ‘critical’ can be related to ‘retrospective’, historical, and critical analyses. Critical itself is either under a lot of pressure, or is fading away completely in social theory and philosophy since for many it seems to have lost the much needed critical subject. There is certainly much more at stake here than the mentioned shift to a new organizational model. It is also a matter of knowledge as Speaks suggests. Philosophical, political, and scientific truths have fragmented into proliferating swarms of ‘little truths’, appearing and disappearing so fast that ascertaining whether they are really true is impractical if not altogether impossible, he writes.

Yet his altogether too hasty conclusion is a farewell to critical theory; ideas or ideologies are no longer relevant, but intelligence. The ‘critical architectures’ of the 1960’s and 1970’s had none of the theoretical, political, or philosophical gravitas of their early 20th-century predecessors, he writes. On top of that, Post Modernism, Deconstructivism, Critical Regionalism, and many others in the late 1980’s and 1990’s posed as false pretenders to Modernism. The opposition Speaks is laying out here is about different forms of theoretical and aesthetic practices. His claim is that ‘vanguard practices’ are reliant on ideas, theories and concepts given in advance (my italics), and that ‘post-vanguard’ practices are more ‘entrepreneurial’ in seeking opportunities for innovation. That is to say, practices that cannot be determined by any idea, theory or concept.

I think it is here where the misunderstandings are in danger of arising. To my mind, architecture as a projective and creative aesthetic practice can never be both solidly and safely guided by critical theory which is retrospective by definition. The projection of architectural thought into a building and its prospectively hoped-for aesthetic effects will always be an uncertain stab in the dark, whether it comes from ‘entrepreneurial opportunities for innovation’, or from ‘critical’ intentions. It has nothing to do with the idea of ‘stable theories’ given in advance, or the inventions of entrepreneurial practices. I will stress the aesthetic side of this projective process; it certainly does not mean an ‘anything-goes’. There are many stable ways to analyze and organize the context, the program, the construction, the budget, etc. But in many cases, it is this aesthetic effect that is discussed at length beforehand in both educational and practical settings. Philosophy in this context easily leads to a confusion, in many cases coming from Eisenman’s writings and especially his linking up with philosophical partners like Derrida and Rajchman where, at least to my mind, there is a false suggestion of projective archi-philosophy. Whether this is due to the way Eisenman always publishes his projects, or whether it comes from a genuine philosophical interest in the projects is hard to decide. I think it is possibly both, but what seems to be certain is that it is confusing the American discourse on ‘criticality’.
an architecture of the street

Speaks himself seems to be ‘exhausted’ by this discourse, but that does not mean that we are completely at a loss here. Certainly it is possible to say something intelligible about economic conditions in design practice, about political choices and decision making in urbanism, about territorial conditions or ‘terrestriality’, about design ideologies and managerial relations. In the end, architecture and urbanism are about our lives and the way we experience our world. Nevertheless, the comments of Speaks, although I do not agree with his argument, no doubt confront us with the more serious problem, that of critique itself. The argument presents us with yet another opportunity to question the status and usefulness of deconstructionism, critical theory, and our ideas about society and nature.

Indeed, Bruno Latour writes, ‘it has been a long time since the very notion of the avant-garde – the proletariat, the artistic – passed away, pushed away, pushed aside by other forces, moved to the rear garde, or may be lumped with the baggage train. It looks like we are still going through the motions of a critical avant-garde, but is not the spirit gone, he asks? Staying with the idea that critical thought is a weapon, a ‘Waffe der Kritik’ as it was once called, Latour writes that we have to re-think our critical strategies and instruments. The actual threats might have changed so much that we might still be directing our entire arsenal east or west while the enemy has now moved to a very different place. Our critical arsenal with the neutron bombs of deconstruction, with the missiles of discourse analysis, might all be misdirected. And yes, we might be using the wrong arsenal, we will have to go back again to deconstructivist architecture and our newly established digital architectures to see what went wrong. And at the same time come up with alternatives, the latter more imperative than the former.

At first sight there might be a correspondence between Speaks’ notions and Latour’s. But in fact their positions are very different. Latour’s plea is to get closer to the facts, not fighting empiricism, but on the contrary renewing empiricism. The new critical mind for him is to be found not in intelligence, but in the cultivation of a stubbornly realist attitude, to speak like William James, a realism dealing with what he calls matters of concern, not matters of fact. Instead of moving away from facts, we have to direct our attention toward the conditions that made them possible. For architecture it implies the redirection of our thoughts to what I would call an architecture of the street. A reflexive architectural way of proceeding, renewing empiricism, and addressing the sophisticated tools of architectural deconstruction and its inherent construction – or better, the lack of – social construction. The desired outcome of architectural practices discussed at length in architecture schools, books and magazines can never be guided by a rhetoric of ‘entrepreneurial architecture’, or ‘design intelligence’. A discourse which only focuses on organizational questions, and is referring to ‘critical’ architectures as lost cases, is in fact a hastily post-modern and post-political manoeuvre that needs to be addressed. It is still possible to think of critique in other ways. Not so much in the exclusive Marxist way which I will briefly explain a little further on, but in a way Latour and Lash suggest. Not as the critic who debunks, but the one who assembles. The critic in his thinking is not the one who pulls the rug from under the feet of the naïve believers, but the one who offers the participants arenas in which to gather, Latour writes. That is to say, generating more ideas than we have received, not being purely ‘negative’, but in fact productive.

In order to explicate this progression in the field of architecture, I will relate to an earlier publication where I tried to show both relation and ruptures between architecture and ‘critical’ theory. In an insightful article in Harvard Design Review, George Baird sketches out the American discussion on ‘criticality’, which has its origin in Europe in Marxist and Kantian thinking. The lineage of criticality in architecture more or less starts with Peter Eisenman, accompanied by Michael Hays, who has developed a position consistently focussed intellectually on concepts of ‘resistance’ and ‘negation’, Baird writes. Both refer to the Italian historian and critic Manfredo Tafuri. To my mind, one of the crucial notions on criticality is to be found in Hays’ book on Hannes Meyer and Ludwig Hilberseimer which is heavily indebted to the work of the Marxist thinker Fredric Jameson. For Hays – following Tafuri – Mies van der Rohe was the paramount exemplar of negation in late Modernism. The work of Mies is examined as critical, or resistant and oppositional. In another writing Hays addresses the surface distortions and formal inscrutability of the 1922 skyscraper project published in the second issue of G magazine. Mies insists that an order is immanent in the surface itself and that the order is continuous with and dependent upon the world in which the viewer actually moves. Hays puts the building into the context of the German city at the time, referring to Georg Simmel’s ideas on the blasé individual. This sense of surface and volume in fact wrenched the building from the atemporal, idealized realm of autonomous forms, in order to install it in the historical world of that time. The design, then, becomes open to the chance and uncertainty of life in the metropolis. The moment of resistance is that it is not subsumed in the chaos of the metropolis.
but rather seeks for another order through the systematic use of the unexpected mirroring of surfaces. Hays addresses the building, not the architect’s intentions or œuvre.

Other later works of Mies, like Alexanderplatz in Berlin and the Adam building on Leipzigerstrasse, do not fall under the same category; it all depends on how the buildings can be related to a focused and critical assessment from sociology or philosophy. Instead of Simmel, one could also argue from Walter Benjamin’s work. The main question is how the relation is assessed between project and city. Not in the sense most urbanists discuss this relation as a fitting-in with the site, but as a critical reading of both city and architecture at the same time. The later projects abstain from any dialogue with the physical particularities of their contexts; the glass walled blocks could be reproduced on any site. The sameness of the units and undifferentiated order tend to deny the possibility of attaching significance to the arrangements. Yet, Hays argues, it does not mean that these later designs are unrelated to the 1922 skyscraper designs. It is the repudiation of an a priori logic as primary focus of meaning that ties them together. Mies’ achievement in the Alexanderplatz design was to open up a clearing of silence in the chaos of the nervous metropolis; it is silence that carries the burden of meaning in this project.

Interestingly enough, the new position of ‘criticality’ seems to be with Elisabeth Diller and Ricardo Scofidio, since Michael Hays’ first act as curator of New York’s Whitney Museum was to give them a major exhibition. But even more interesting is that they chose to exhibit many of the museum gallery projects that have made them famous, Baird writes. None of the building projects on which their recent design practice has focussed was shown – projects that will have to meet the more difficult test of being critical ‘in the street’. To be able to relate to notions of ‘lived space’, which is part of this criticality in the streets, we will have to relate to the ideas of a critical theory, and especially projective thinking as in reflexive architecture (not to be confused with ‘critical architecture’). ‘Critical’ can only be used for theory, not for architecture. In the projects in the Socius book, it is directly related to an ‘architecture in the streets’. Remarkably, the earliest and most severe critique on Eisenman’s work came from Tafuri, where Eisenman’s work was considered to be fit for the boudoir, and not for the street. So let us turn to that ‘reflexive architecture in the street’ and see what it has to offer.

The Human Body and its Ground: Before we go back to the architectural discourse, we first have to address more general notions of (human) nature, sustainability, bio-sphere, and information society.

How do we address these questions? The concept of human nature is highly complex; I will not strictly follow the problem of what is called ‘the post-humanist subject’ as it is already well presented in current cultural discourse or theory. I will address the problem of ‘digital worlds’ from the problem of ‘grounding’, and the necessity of a spatio-temporal ‘re-framing’ of architectural thought in terms of the organic and inorganic in order to get at ways in which we may rethink the possibility of sustainable action and agency in our times. Cyberspace in particular, Timothy Luke argues, forces human beings to re-conceptualize their spatial situation inasmuch as they experience their positions in cyberspace only as simulations in some ‘virtual life’ form. His argument is that we might need another reasoning to capture these digital worlds. The epistemological foundations of conventional reasoning in terms of political realism are grounded in the modernist laws of second nature, he writes. We might need another epistemic notion on what is real and what is virtual. In taking up the notions of ‘first’ and ‘second’ nature, Luke defines the ‘third nature’ as informational cybersphere/telesphere.

Digitalization shifts human agency and structure to a register of informational bits from that of manufactured matter. Human presence gets located in the interplay of the two modes of nature’s influence. First nature, according to Luke, gains its identity from the varied terrains forming the bioscape/ecoscape/geoscape of ‘terrestriality’. Earth, water and sky provide the basic elements mapped in physical geographies of the biosphere that in turn influence human life with natural forces. Yet a large part of the biosphere is polluted beyond recovery. For example, car and air traffic are jointly responsible for some 40% of the usa’s annual energy consumption, but the built environment consumes an equal amount, the rest taken by industry. Urban sprawl in the usa is one of the major problems of energy consumption. Subsidized gas, relatively low taxes on cars, high accessibility by car, and low land prices guarantee more and more sprawl every day. Of course the problem is far more complex than what can be briefly described here in a few lines. My main concern is how to understand our own actions in relation to nature and the possible architectural and urban solutions.

Both architecture and urbanism play an important role in the understanding of digitalized work processes and digital architecture, and the relation to bioscape, ecoscape and geoscape. It is difficult, if not impossible to say where these systems begin or end, where solutions to the environment might be found, what kind of agreement we might reach to solve architectural and urban problems. There is indeed a witches’ brew of political arguments, concepts and difficulties that can conveniently be the basis
of endless academic, intellectual, theoretical and philosophical debate, as David Harvey writes. Some common language has to be found, according to Harvey, or at least an adequate way of translating between different languages. His common ground is in ‘the web of life’ metaphor; it might indeed help us to filter our actions through the web of interconnections that make up the living world.

In addition, Luke’s definition of the nation state, mass society and global geopolitics as historical artefacts used for constructing and conquering the built environments or social spaces of second nature can help us along this path. It is a domain historically described for architecture by Richard Sennett in his book Flesh and Stone. Second nature is discussed in the sense of the technoscape/socioscape/ethnoscape of territoriality. Luke might be right that many of the changes today cannot be fully understood with these two concepts alone. The elaborate human constructions become overlaid, interpenetrated and reconstituted with a ‘third nature’ of an informational cybersphere or telesphere, he argues. As a new concept we might want to see this in a Deleuzian way of a contour, a configuration, a constellation of an event to come. It will also have more and more implications for the way we deal with architecture and urbanism. Architectural and urban design are deeply involved in ‘third nature’. Until recently, design was involved in first and second nature, but with digitalization it has entered a third nature. This is not only a question of the ‘means’ of designing, it has – and will – influence our ways of seeing and experiencing architecture.

On the other hand, Peter Eisenman writes, architecture traditionally was place-bound, linked to a condition of experience. Eisenman refers to the comparable notions Luke is writing about, mediated environments challenging the givens of classical time, the time of experience. Writing about his Rebstock Park project for Frankfurt, Eisenman writes that architecture can no longer be bound by the static conditions of space and place. To his mind architecture must deal with new conditions like the ‘event’. Rebstock is seen as an unfolding event – events like a rock concert where one becomes part of the environment. Yet architectural theory has largely ignored this idea. Instead, theory has focussed on notions of figure and ground, according to Eisenman. There seem to be two ways of dealing with this conceptual pair; one leading to contextualism, and one leading to a tabula rasa such as the modern movement imagined. With architectural modernism there is no relationship between old and new, or between figure and ground. Ground, or territoriality in Luke’s terms, is seen as a clear neutral datum, projecting its autonomy into the future. I think both Luke and Eisenman are right in detecting a ‘third nature’, but where it will lead is still not clear.

Critical Theory in Brief: the Aesthetic Mode of Writing
Theory has to be grasped in the place and time out of which it emerges. These situations are constantly changing. In that sense, Scott Lash’s use of ‘allegory’ is an interesting thought that I would like to pursue for a moment. He distinguishes two types of modernism in social theory: on the one hand, positivism, and on the other ‘Lebensphilosophie’. Positivism he understands as structured along the lines of ‘system’, and Lebensphilosophie along the principle of ‘symbol’. The forerunner of positivism, whose paradigmatic system building figures run from Rousseau/Condorcet, through Comte, the late Marx, Le Corbusier and more recently Habermas’s later work, is French humanist classicism. Lash refers to the not unproblematic opposition of ‘Zivilisation’ and ‘Kultur’ in Norbert Elias’ work. Lash’s main reference here is Simmel, who worked more in the idiom of symbol than system. Simmel also began to work in a different register, the register of allegory. Lash describes it as a deepening of Goethe’s notion of symbol in contrast to French classical allegory which was superficial and ornamental, as it was associated with the salons and the manners of court society. Lash shifts the notion of symbol from the classical to the baroque allegory, from French court society to Spanish absolutism and thus to baroque allegory. For Lash it consists of a completely different register from the original juxtaposition of symbol and allegory, it has to do neither with Zivilisation nor Kultur. Concepts seem to partially lose their original meaning here, in fact Lash is laying out a different ‘plane of immanence’ in the Deleuzian sense.

Second and third nature as newly established concepts would need a different laying out of the plane that holds them together. Classical allegory proffers a point for point homology between two narratives; his baroque version posits a significant absence, a ‘hole’ in the underlying narrative. If the original, ‘true’ story somehow is not quite right, then the point to point homology between the second narrative and the first is no longer possible. Baroque allegorists such as Nietzsche, Simmel, Benjamin, Adorno and Karl Krauss write in the form of an essay, Lash maintains. The essay might well look ‘wissentschaftlich’, but instead emerges in an aesthetic mode – serious and at the same time superficial, light, ornamental.

Baroque allegory is, in fact, opposite to a Marxist explanation. Michael Hays refers to Louis Althusser, the French Marxist, with regard to his idea of ‘relative autonomy’. At the other end of the line,
then, might be the Frankfurt School of Horkheimer and Adorno. In the American debate on ‘critical’, the term is used many times by different authors with often divergent meanings, but it might be good to remember that Parisian Marxism in the sixties and seventies was never interested in a ‘critical’ but in a Marxist ‘scientific’ way of proceeding. My first two books on the architectural body, were written as an essay in that aesthetic mode to which Lash refers - a seemingly ‘light’, sometimes ‘ironic’ architectural critique as in my analysis of Rem Koolhaas’ Downtown Athletic Club and Duchamp’s Large Glass. Yet the allegorist is, while looking ornamental, simultaneously deadly serious. In Lash’s formulation, the allegorist is the father of the illegitimate child of modernity’s other.

Conclusion With many of the contemporary architectural electronic imaging techniques and communication technologies, we are in the end loosing all ground. My claim is that we need more ground and permanence in architecture instead of ‘folds’. Seen from an architectural perspective, it means that blobs and folds take the city as an additive texture without any coherence; they consume too much space since they want to stand on their own imagined pedestals. They reinforce urban sprawl. Instead of more compact building, they spread out. There is indifference to the environment, grounding is no issue. I think I can agree with Lash’s critique. Although I do not think his critique works in the instance of Koolhaas as he suggests, it does work very well for digital architectures; speed supersedes space as indifference supersedes difference.

The source for these digital designs is third nature. Third nature here is largely penetrating first and second nature; it dissolves any notion of ground or context. It is here where my doubts for a possible application to architecture and urbanism begin. Like second nature, third nature is no doubt a social product. Eisenman’s Rebstock programme is made, made without much interest in relation to territory and earth. We need first and second nature too.

I think Deleuze and Guattari are very right in saying that thinking takes place in the relationship of territory and earth. If we lose first and second nature, we lose the very notions of gender, sexuality, ethnic diversity, uneven distribution of wealth, and class. Too easily, the shift from harsh reality into the seemingly endless possibilities of the computer programmes is made, made without much interest for these categories. The location of most of Lynn’s constructions is nowhere; they might be anywhere. Just like the complexity of movement in Koolhaas’ international airports, they are for the greater part interchangeable. In architecture and urbanism, we can never lose ground; third nature won’t be enough. Thinking, in the end, always takes place in relation to territory and earth. We need first and second nature too.

[Endnotes]
10. ibid. p. 164.
12. ibid., p. 132.
16. ibid., p. 12
19. Graafland, Arie; op. cit.


26. Baird, George; *op. cit.*

27. Graafland, Arie; *op. cit.*


29. cf. Foucault, Michel; *The Archaeology of Knowledge* (Great Britain: Tavistock Publications Limited, 1972), and *The Order of Things* (Great Britain: Tavistock Publications Limited, 1978).


34. Eisenman’s critique is on architecture theory’s neglect of the event structure in architecture. He might be right there, but I think it is not only a question of addressing the topic of the event structure, but also the way we write about it. It is not only about an open mind for fleeting events, but very much about a fleeting way of writing about these events. For a large part, architecture history has been focused on what Eisenman calls the figure-ground relationship. Events however go further than just the ‘function’ of a plan. Events go deeper into the structure of a plan; indeed, they form it for the most part as I tried to show in my Versailles analysis. See my *Versailles and the Mechanics of Power: The Subjugation of Circe. An Essay* (Rotterdam: 010 Publishers, 2003) p. 54, and note 86.


Camera Eye: A Machine for Projective, Practice in Architecture*

By: Prof. Dr Arie Graafland & Deborah Hauptmann.

Jean-François Lyotard characterizes cinematography as the recording of movement, as writing with movement (grafein = to write). It is not a description of movement, but it is the activity itself, writing as actively dealing with film shots, the activity of the other actors and other moving objects, the lights, the colors, the frame and the lens. This also applies to the sequences of the film, which are edited/cut in the whole of the film. A film with ‘speed’ as its subject can be ‘slow’ in its editing. Of course one may ask how one views the relationship between an image and the total scene or even the entire film. Eisenstein, in his contribution to this field, saw dialectics proper; according to him a field, saw

Deleuze is reading from Bergson’s Creative Evolution of 1911, a period when his work was contemporary to the development of cinema. However, to get past this view, what Bergson will argue as a return to Idealism, Deleuze works backwards and makes a turn against this position by looking at Bergson’s work of 1896, Matter and Memory, in order to derive his first thesis of the movement-image: ‘movement and instant’, as that which lies beyond the condition of ‘natural perception’. We will briefly summarize Deleuze on this first step in constructing a thesis of movement directly relating to cinema. The problem of the ‘immobile section’ lies directly in the apparatus of the camera in that its ‘shooting’ and ‘projecting’ follow from the same logic as discussed above, in the attempt to reconstitute a unity with moments. As long as the ‘view point’ of the camera remained fixed, as long as it only attempted to capture state by state the action portrayed, then it was itself captured in a spatializing paradox of the ‘real’. However, Deleuze will provide that with the advent of montage – meaning ‘the mobile camera and the emancipation of the view point’ – the shot becomes temporal as opposed to solely spatial. In other words, the immobile section is replaced by one which is mobile. Thus, the position which analyzes the immobile section + abstract time is shifted to that of the mobile section + the temporal plane.

The compositional unity between the framework of the film image and the object therein is in a certain manner transferrable to architecture, for instance the treatment of the façade as a whole and the elements of which it is composed. We imagine a single, homogeneous space within which we situate the different elements present. Bergson writes that ‘We find in architecture, in the very midst of this startling immobility, certain effects analogous to those of rhythm’. Façade and floor plan can be composed out of different procedures; is it about rhythmical successions of elements, surface foldings, or is it also about deconstructivist clashes inside grids? This problem to a large extent touches on that of Wolfgang Welsch in his explanation about post-modern architecture. In fact, all architecture is about the quality of the editing. Architects differ much in the extent to which they have a handle on this process and are able to have command of it. Welsch, as well as Tafuri for example, is enthusiastic about Stirling’s capacities in this field. Tafuri compares it to handling syntax in a sentence. In this way architecture for Stirling is a ‘linguistic’ process; it wishes to challenge the trad-ition of the Modern Movement, that is, to be measured
against a body of work strongly compromised in an ‘anti-linguistic’ sense. Stirling has rewritten the words of modern architecture by constructing an authentic ‘archeology of the present’. As with many contemporary architects, the theme of Stirling’s work is also conceptual destruction. The re-assemble occurs according to recognizable trajectories. Tafuri sees two regularities; on the one hand it imitates the mechanical world, and on the other it reduces the formal assemblages, obtained by the accumulation of forms, to a succession of ‘events’. This applies to the Florey Buildings in Oxford, but also to the Olivetti headquarters in Milton Keynes, the Wallraf Richartz Museum in Cologne and the Landesgalerie Nordheim Westfalen in Düsseldorf.

Eisenstein’s forms of editing such as metric editing, tonal editing and super tonal editing, become relevant as architectonic processing. In film-making, a lot of material gets lost – if it has no bearing on the story line, it is left out. Director and cinematographer record movement on celluloid, but during editing much is deleted. Though this is not a given, as editorial technique varies within cultural contexts. In Eisenstein’s opinion, editing does not occur at all in early Japanese films. However, he says, one could still also consider the principle of editing as the essence of the Japanese visual arts, because the culture of a document is, after all, in the very first place expressive in the characters. A recent Russian example is Russian Ark (Russkij Kovcheg, 2002) shot in one single take, a conducted tour through the Hermitage Museum in St Petersburg. This technique applies to film and architecture in the same way. Eventually, everything revolves around ‘the story’, the syntax, the ultimate meaning of the film. Recording, directing and editing requires not only command of material, but also a developed view and a developed idea about the medium itself.

The same is true of the Camera Eye project. Before the filming started we introduced students to the history of film and photography; the film-maker teaching the studio, Marc Boumeester, introduced the complete structure of the production cycle utilized in film-making. The scenario, the pre-production, the logistics, the forming of crew and cast, the building of décor, the light plan, camera angle, montage, sound, graphics and post-production, everything was lined up in advance. As in architecture, the complete cycle was produced before the actual filming started. ‘Film is predicated on architecture under the premise that it requires fixity and framing as orientation devices’, Olga Vázquez-Ruano, one of the teachers writes. But the opposite may prove more accurate, she continues; ‘more often than not it is architecture that increasingly demands new forms of notation in order to record the complexity of time-based variation and change, signaling a fundamental break with the older medium of architectural imagery, of the tableau map in its organization of parts and geographical units’.

The activities of an architect here show similarities with those of film-making. The designer also edits images within a specific context, seen as the projection of the unity or the whole. However, architecture is not film; a building, as Bergson describes it above, possesses a ‘startling immobility’. But, if we are to understand its recourse to rhythm must we not also allow that this rhythm itself constitutes flux and movement? In the most simple terms possible, we might understand this in the sense that while the object is immobile, our perception and our experience of it can never be anything but continuous and thus mobile. And it is in this sense of mobility, and thus change, that Deleuze will discuss the concept of the new and, along with Bergson’s work Creative Evolution, our ability to grasp the notion of emergence. Movement as commonly looked on as a translation in space, that is, a shifting of positions of objects in space, will never bring us to what Bergson will discuss as ‘true movement’, one which encompasses transformation rather than translation. For Bergson there is ultimately no absolute spatialization of things in the universe but simply vibrations of a whole. And, in fact, the ‘startling immobility’ of architecture might also be seen to apply to film. In other words, the screen that is being projected upon is static, the spectator is also stationary; in both cases there is only a suggestion of movement; while in reality only the film in the projector is moving (24 frames a second) according to a mechanical and specific trajectory along the reels and the lens, and in fact this is also static according to the thesis of the ‘immobile section + abstract time’. Unless, that is, as with Bergson, we consider all things as merely perturbations, movements, flows, each a different rhythm of an unfolding durée. We can, of course, provisionally isolate the different systems; every discrete section of movement in this case is merely captured while retaining its true relation to movement of an open whole.

Deleuze distinguishes between this whole and what he calls ensembles, isolable systems or closed sets. He has also applies his well-known notion of the machine-assemblage (agencement machinique) to the ‘movement image’ – mobile section + temporal plane – in order to get at the correspondence between matter and image; at least as it acts within an infinite series of finite sets cut out, as he argues, on the plane of immanence. Here we can understand this as similar to Tafuri’s second ‘regularity of assemblage’ as a ‘succession of events’. However, here too it must be extended from an understanding
of mechanism to that of a Deleuzian machinism. In other words, Tafuri’s succession must be elaborated with a new form of simultaneity, generating a flowing-matter in what Deleuze refers to as bloc of space-time. The open whole manifests durée as universal vibration and flow, and provisionally isolates sets, like architecture and its specific ‘significant’, within this flow. And only within these sets does the cinematographic illusion prevail; individual entities within sets are like immobile cuts, like still photographs arranged in a mechanical abstract time. Not only can we provisionally isolate them, but we must provisionally isolate them for the sake of analysis, for the purposes of design. Neither Bergson nor Deleuze would suggest otherwise.

It would seem that the problem for architecture lies in the belief that once the parts have been assembled, once the editing of plans, section and elevations has been ‘strung together’ to reconstitute a ‘whole’, that this unity is somehow constituted by the sum of the parts; whereas, in the argument following a thesis on cinematographic movement, it must be understood that to get at the perception of the object, its rhythms and its ‘temporal plane’ must be sought outside the isolation of the frame and within the centers of indetermination acting within the movement image itself. This is, no doubt, a difficult task. However, with the Camera Eye the attempt to develop means of thinking within this process became the implicit motivation of the entire experiment.

Of course by now it should be clear that every ‘significant’ has its own specific limitations and possibilities. In the Camera Eye project we analyzed specific films like Lang’s Metropolis, Welles’ Citizen Kane, Scott’s Blade Runner, Tarkovsky’s Nostalghia (among many others). We asked simple questions such as what is the camera doing, or what kind of cuts and dissolves are used? But also, how are light and sound applied in the film and what specific techniques of editing are being employed in combination to constitute the film’s unity or lack of unity? The reversal of sequence, flashforwards and flashbacks, the reversal of chronology as in Christopher Nolan’s Following were analyzed. The opening sequence of Meirelles’ City of God (Cidade de Deus) was analyzed in its reconstruction of ‘virtual’ and ‘real’ spaces. By analyzing camera movement in this film students managed to reconstruct the area where the film was shot; the cutting in this film of course does not represent the actual situation, it was the filmic presence that was overlaid by real presence. Without real and imaginative space there is no film. The first experiment in the studio was structured in two steps. First, as just noted, and working in small groups, they analyzed examples from film and by abstracting their temporal and spatial construction they then produced a series of notational diagrams representing editing cuts, soundscape, music score, color & lighting, camera movement, framing, and the changing relationship between subject and camera.

All film is both visual and auditory. The film theoretician Christian Metz is concerned in particular with the film significant as visual and auditory perception. The literature significant does the same – after all we have to read the written text, but it calls on a more limited register of perception, it is only about signs, about script. The same applies to the art of painting, sculpture, and photography, each time involving different limitations; absence of auditory perception, absence in the visual of certain important dimensions like time and movement. Architecture, on the other hand, has the particular possibility of an ever-varying viewpoint for observation and it also has a very important difference – it is a tactical art form, you can feel and touch it. Of course, Walter Benjamin has offered a point of view on the tactile nature of architecture as well. In his well-known ‘The Work of Art in the Age of Mechanical Reproduction’, he argues that architecture is appropriated through ‘habit’ as opposed to ‘attention’, by perception that is about tactile encounter rather than that of viewing and thus contemplation. With Benjamin this extends to issues of mass consumption, and the nature of the aura of an object. Thus distance and proximity comes into play, as it does with Metz, who points out that it is not coincidental that the most important socially accepted art forms are based on the sense of distance, and that the art forms which rely on the senses of contact are often considered second-class (culinary art, art of perfuming). Yet architecture has the relatively unique possibility of combining the senses of distance related to the haptic and those of contact related to the tactile. In this way there is not only an ever changing perception, but there is also a tactile experience involved. That is not the case in any other form, except for the specific art forms of sculpture and environments (in Kienholz for example). In that sense, more than ‘just the urge to perceive’ is involved. This term is used by Metz for the film significant. The object itself is absent in the film; the Lacanian eye works at a distance.

With this in mind, the next step in experimentation in the Camera Eye was for the groups to compose a three-minute film; a form of reconstruction (seen as transformation as opposed to translation) was made based on the analyses produced in the previous phase. Here architecture as the subject of the film was used as performance medium for the interpretation of an abstract notation. The story line of the film was replaced by a ‘story’ about two buildings: the Van Nelle factory by Brinkman and van der Vlught and the Netherlands Architecture
always consumption, as with the match; something philosopher Julia Kristeva. Production is also a concept which we also 'jouissance' and sexual pleasure – in a very broad sense of the energy. Lyotard is especially interested in this last hissing of the phosphorus. His activity, as it were, the total moment itself, the colors which arise, the see what happens – just for the fun of it – he enjoys practical target. But when a child lights a match to then the 'consumption' of the match is not sterile. that you can at least start the day wide awake, with a match to put some water on for coffee, so When someone lights the gas under the kettle of production, one productive, the other sterile. Again, who makes a distinction between two forms to move on to the next steps we addressed Lyotard has not yet found a possibility that was inserted in the study on non-horizontality / metric editing. These obstructions opened up new and unforeseen possibilities that were inserted in the final product later on. So far, the Camera Eye exercise could be qualified as 'experimental'; the projective analysis has not yet found a final form. To move on to the next steps we addressed Lyotard again, who makes a distinction between two forms of production, one productive, the other sterile. When someone lights the gas under the kettle with a match to put some water on for coffee, so that you can at least start the day wide awake, then the 'consumption' of the match is not sterile. It is a movement directed at a certain target, a practical target. But when a child lights a match to see what happens – just for the fun of it – he enjoys the total moment itself, the colors which arise, the heat, the piece of wood which shrivels up, and the hissing of the phosphorus. His activity, as it were, leads to nothing, a physicist would call it loss of energy. Lyotard is especially interested in this last 'useless' form of production. Intense enjoyment and sexual pleasure – in a very broad sense of the stimulation of sense organs – he calls 'jouissance'. A concept which we also find with the French philosopher Julia Kristeva. Production is also always consumption, as with the match; something is destroyed, consumed. The concepts go together. This way of thinking we also find in Tafuri. His criticism of many contemporary architects is that they are frightened to death of recognizing the limits of the game; socially their architectonic experiments are often entirely risk-free. Tafuri calls it an architecture dans le boudoir; in the padded space of the boudoir they cannot do much harm, but at the same time they have little practical effect. In the case of Eisenman the game is all too clear; Tafuri says it almost becomes a didactic manual for tearing up architectural concepts.

This idea of 'jouissance' (there is no adequate English translation for this term as the term 'pleasure' is much too limited) comes from psychoanalysis. Klossowski's simulacrum for instance is related to it. Adorno once noticed that truly great art is a kind of firework, 'pyrotechnics', because it is about sterile consumption of energy. The question now is to what extent this idea is transferable to architecture.

A good example in the field of 'pyro-architecture' is Bernard Tschumi, who started out with paper architecture but no longer works in the periphery. In his Manhattan Transcripts, architecture is edited like a film; the Transcripts consist of frame-by-frame descriptions of an architectural inquest. By no means do they comprise a definitive statement; they are a tool-in-the-making, a work-in-progress. The whole process relies on a theoretical article called The Pleasure of Architecture which is about the theory of the above-described jouissance. The Transcripts are the boy with the match; lit for his own amusement. Tschumi literally uses film-stills, pictures which have to be read in a particular sequence. It is an architecture which must not be built, which cannot be built; it is outside the cycle of social capital.

Another example is Peter Eisenman. When Eisenman heard that his original assignment for House X fell through, the already controversial design became real pyrotechnics. In the garden of the villa, he projected a scale model of the house which caught fire every now and again. He continued designing; for instance, drawings of the house were intended to be baked in tiles in relief and then submerged in the swimming pool. Even the scale model no longer depicted the reality of the house, it is at once axonometric. The house itself is slanting; there is only one point from which it seems to be an erect building. A three-dimensional construction yields a picture of a two-dimensional drawing. The process of representation is turned upside-down; the scale model normally is for the 'depth', the perspective. Precisely this is canceled as the scale model is 'flat'.

In art, the distortion of three-dimensional space has been developed by Duchamp. 'Êtant donné's
is the best example. The spectator is maneuvered into the position of voyeur. The reclining naked woman only becomes ‘living material’ through the Peeping Tomism of the spectator who spies through two holes in the door. Eisenman has repeated this in ‘Site, unseen’ (recorded as film stills in Peter Eisenman, Recent Projects). What you see is not quite clear, however unmistakably it bears his architectural signature; the transformation of the cube. The image ‘itself’ has been transformed, the projection, however, is genuine. Fiddling, or a statement about architecture; what you see is not what is really there. The voyeur position has also been repeated – the reference to ‘Etant données’ is evidently present. But in his beautiful scale model what is it that we actually see? What you see is ‘a beautiful scale model’ and certainly not a real building because this is never visible from that superior bird’s-eye view. The scale model only exists in this case because it is an ‘investment’ in the future, in the most banal sense of the word. Everything that seemed so evident is more complex when you take that closer look. It seems the day has come for another and better researched projective practice in architecture and city planning.

Architecture is also a productive consumption of nature. Something is built which has a social aim. It will cost us resources and capital expenditure and it brings in money as well – the economic cycle circulates. Nevertheless, there are many architects who shift their activities to the other side of the production, which is often called ‘paper’ architecture. Here, too, a comparison with the film-maker is possible; when the editing of the images leaves no possibility for identification, the film loses its exchange value; it becomes pure expenditure, exhausted in its own production. Here film-makers and architects find themselves at the periphery of the economic cycle. The question that remains is how to transform this experimental projective praxis into a work of art, into that of architecture.

Composer Louis Andriessen and stage director Robert Wilson have successfully worked this out in De Materie (1989) (materie, English Matter). De Materie consists of four independent works, each lasting about twenty-five minutes. Each segment is about the way in which the spiritual handles the material, in other words, the transformation from one structure into another. All historical examples but one referred to in the work come from Dutch culture. One of the most important building blocks for the music is determined by the fortissimo chords. In stutters and starts they are played throughout the entire piece, mainly by strings, piano, carillon, vibraphone and gongs. They mark the walk of Hadewijch, a mystic female writer from the 13th century, through the Reims cathedral. For the framework they used a map of the ceiling of the cathedral in Reims as point of departure. The construction of the cathedral is characterized by the relationship of the distances between the pillars supporting the vaults. The pillars also form the supports of the composition, seen from left to right. Andriessen and Wilson applied the same relationship between the pillars to the length of time or duration of the fortissimo chords. The music, directed by Reinbert de Leeuw, moves between the pillars as it were. A total of fourteen pillars passes by. Meanwhile ballad music sounds in all forms and Hadewijch sings her Seventh Vision. Gothic style and music begin to show great similarity in their structure, one system is transformed to the other. This can also be called ‘intertextuality’.

Intertextuality was also a leading principle in Camera Eye. Patterns of movement through the buildings were locked into music; by composing (or sampling) pieces of music, sound score and image were related. Rhythms in montage to music, and from music to image were tested. In the second stage of the Camera Eye project students produced a diagram of a one-minute film. In this case the film was no longer related directly to the movies they had analyzed, yet the material from the three-minute films still formed their material vocabulary. Thus another form of transformation was set into play. Here, in addition to the diagrams, students produced several models; all were subject to precise limits and rules of execution. The final model, an interpretation of their findings in concrete, was then filmed as well; and from this digital rotation a series of ‘architectural’ drawings was subsequently produced. The final presentations took place in the Van Nelle factory, as one of the original subjects in the film. Here students individually presented their one-minute film along with PowerPoint presentations and the concrete models. Along the walls hung drawings and at the entry to the exposition space the three-minute films ran in loops. The force of experimentation was evident to all, as were the images of architecture recognizable even if not absolutely immutable. The grafein evidenced in self-capture upon a ‘temporal plane’.