Potentially...

Unravelling and reconnecting Aldo van Eyck in search of an approach for tomorrow

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Thesis for the master Architecture, Building and Planning, Eindhoven University of Technology

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(thanks to W.T. Willoughby for his comments)

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Preface

The story resulting in this thesis started a little over seven years ago, when I started my bachelor studies Architecture, Building and Planning in November 2004. I was not an eighteen or nineteen years old student, fresh from secondary school, though – no, I had already followed a master programme in Philosophy, Science and Technology, for which I only still had to write a thesis. My first years of architectural education thus had an extra dimension: finding a suitable topic to graduate as a philosopher; a topic, furthermore, in which I wished to bring together both fields of study. As it is an unusual route to first study philosophy and then study architecture, so it appeared to be uncommon to study architecture philosophically. Of course there are architects inspired by philosophers and philosophers who have collaborated with architects (Jacques Derrida and Peter Eisenman, for example); of course there are also two philosophical courses in the architectural education at Eindhoven University of Technology. What architects (at least those who received their education in the last couple of decennia) have hardly learn to do, nevertheless, is to reflect on what they create and what statements they make – that is what I consider to be the most important thing philosophy has to offer. I may formulate my critique on architectural education even stronger and state that it is actually an essential academic skill that is lacking in this university level education of architects.

So that was a bit of my critique; a bit of my frustration with the educational programme I am now finishing, and frustration can be a very inspiring thing, thus noted Bernard Colenbrander when I told him mine. But let me return to the story of the route that led to this thesis. In the academic year 2008–2009 I finally made time to finish my philosophy thesis (by putting my architectural studies on hold). The result was titled *Hoe wij de stad maken en de stad ons* ('*How We Create the City and the City Creates Us*'). It was an attempt to bring together both of my fields of study, particularly based on the idea of mediation. It turned out to be a difficult challenge and the resulting thesis is to be considered in first of all as an exploration – it did not feel like a finished project.

Then there was still to finish my studies in architecture. The plan I had in mind was to use this second graduation project to further develop what I explored in the first one – this time more from a perspective of architecture and urban planning (also as a response to my frustration, one might say). In the meanwhile, however, the policy with regard to the graduation project had changed: students were no longer asked to formulate their own graduation proposals independently, but to become part of a graduation atelier in which every student has its own project, though all starting from the same point of departure. My intention to continue what I had already started thus became problematic, as it seemed. It took me a while before I decided to present my plan to Bernard Colenbrander, chairman of the unit Architectural Urban Design & Engineering. Reluctantly he gave me permission to go on with what I intended to do. By then it was February 2011.

The result, after a little less than a year of work, is a thesis – not a design – that is similar, in many respects, to the previous one: both aim for bringing together both my fields of study, both focus on the idea of (technological) mediation and both focus on the ideas of the same architect: Aldo van Eyck. It was in fact in my search for an architectural relevance of the idea of mediation that I came across the ideas of this architect – in which I thought to recognize interesting similarities to the ideas I knew from my studies in philosophy of technology. This time, however, I have given Van Eyck a more prominent place: where the chapter of my previous thesis devoted to the ideas of Van Eyck was largely based on Strauven's study, the core of this second thesis is a study of primary sources by Van Eyck – which provided me with many new insights. Although both theses thus overlap, I think I have been able to bring it to a new level and hopefully I will be given the chance to go even further in the future…

Finishing this thesis would not have been possible without the mental and financial support of my parents, Francien de Vries and Jacques Lammers – I owe them many thanks. I also would like to thank my brothers, Hans, Maarten en Marco Lammers, for all the pleasant discussions we have had, but also for listening to all my ideas, even if my talking was unstoppable – I am sorry for annoying you! I would like to thank Marco especially for reading, correcting and commenting on the raw version. Bernard Colenbrander I would like to thank for allowing me to do this rather uncommon project and supervising my graduation, as I would like to thank Petran Kockelkoren and Kees Doevendans for again being part of my graduation committee. Finally I would like to thank everybody else who has knowingly or unknowingly contributed to the process of writing this thesis.

Eindhoven, 13 December 2011

Whatever space and time mean,
place and occasion mean more,
since space in the image of man is place
and time in the image of man is occasion.

Aldo van Eyck

Chapter One

Introduction

This thesis is about the ideas of an architect now part of history, as well as it is about exploring new directions for today's debate in architecture and urban planning. The largest part of it presents a re-evaluation of the ideas developed by an architect once well-known and now largely forgotten: Aldo van Eyck (1918–1999). My aim is not to focus on what he built, as has been done before (Ligtelijn 1999), nor to write a biography, as has been done as well (Strauven 1998). What I am after, however, is not as such to document Van Eyck's work (written or built), and neither to assess his position in the many polemics and disputes in which he has been involved. Instead, I am looking for a direction, an approach or a perspective for architecture and urbanism today: a way to better understand the relation between built environment, man and society; a way to broaden the scope of architectural thinking – which has become very narrow after three decades of focussing on autonomy, formalism, image and communication (cf. Bosma 2011); a way also to support the renewed search for the relevance and significance of architecture, as observed for example by Ole Bouman (*1960), director of the Netherlands Architecture Institute, NAi (Feireiss 2011: 14).

As I will show, the ideas of the Dutch architect Aldo van Eyck provide a starting point to re-introduce a broader perspective into the current debate – not as a return to an old approach, but as a way of moving forward. To strengthen the contemporary significance of his way of understanding architecture and urban planning, I will introduce in the third chapter a recent development in philosophy of technology and design to which Van Eyck's approach can be compared, thus reconnecting it to today's theoretical developments.

Man, society and the built environment

Allow me to explain why the ideas of Aldo van Eyck are important. To understand this I will first make a short detour further back into history in order to understand the context in which our current way of thinking is to be understood. The relevant story is much broader than that of architecture and art alone: it is the development of a world view which has its roots in science, philosophy and politics. It can be traced to the Renaissance and the 'Scientific Revolution' in the sixteenth and seventeenth century, as I will briefly show following two books: *Cosmopolis. The Hidden Agenda of Modernity* (1990) by the British-American philosopher Stephen Toulmin (1922–2009) and *We Have Never Been Modern* (1993 [1991]) by the French philosopher, sociologist and anthropologist Bruno Latour (*1947). Both authors discuss the origin of Modernity and how it influenced our worldview.

What has come to be known as 'Modernity' and its programme – what is considered to be the outcome of the 'Scientific Revolution' – has, according to Toulmin, its origin in the humanism of late renaissance Northern European authors such as Michel de Montaigne (1533–1592) in France and William Shakespeare (1564–1616) in England. Sixteenth century humanists, however, studied a much wider range of topics than most of the philosophers of the seventeenth century:

> *Renaissance scholars were quite as concerned with circumstantial questions of practice in medicine, law or morals, as with any timeless, universal matters of philosophical theory. In their eyes, the rhetorical analysis of arguments, which focussed on the presentation of cases and the character of audiences, was as worthwhile – indeed, as philosophical – as the formal analysis of their inner logic: Rhetoric and Logic where, to them, complementary disciplines. (Toulmin 1990: 27)*

While the humanists were fascinated by complexity and diversity, philosophy changed in the early seventeenth century. It was a period in which Europe was torn apart by religious troubles and the Thirty Years' War (1618–1648); a general crisis "*not just economic and social, but also intellectual and spiritual: the breakdown of public confidence in the older cosmopolitical consensus.*" (ibid.: 71)

According to Toulmin it is this sense of crisis that was felt all over Europe (the sole exception being the Republic of the Seven United Netherlands, which kept its relative tranquillity and prosperity and even had its Golden Age) in the first half of the seventeenth century that explains the philosophical and scientific (natural philosophical) shift that took place: a shift from humanism to rationalism in which the oral, the particular the local and the timely were devaluated and only the written, the universal, the general and the timeless remained. It was also a period which "*saw a narrowing of scope for freedom of discussion and imagination that operated on a social plane, with the onset of a new insistence on 'respectability' in thought or behavior, and also on a personal plane.*" (ibid.: 41-2)

The rationalist turn – in philosophy particularly represented by the French philoso-

pher René Descartes (1596–1650) – can be understood as a 'quest for certainty' in a period of uncertainty: "*the Cartesian program for philosophy swept aside the 'reasonable' uncertainties and hesitations of 16th-century skeptics, in favor of new mathematical kinds of 'rational' certainty and proof.*" (ibid.: 75) The validity of an argument was no longer been considered to depend on *by whom* it is presented *to whom* and *in what context*. Instead the 'project' of Modernity – Toulmin called it the 'scaffolding' of Modernity to emphasize that it never started as a single project – was the combination of three ideals: a rational method, a unified science and an exact language. Mathematics and physics became the bench-mark for all other fields.

A very important aspect of Cartesian rationalism is its dualism; i.e. that it splits the world in two: a human world of free, rational thought and action, and a natural world of physical phenomena and mechanical processes. From this distinction a modern framework of basic doctrines developed in the second half on the seventeenth century (figure 1), which only started to be challenged in the second half of the eighteenth century. Many aspects of it remain common even today, including – most importantly – its core: the dichotomy of object and subject, body and mind, nature and humanity or culture, et cetera.

Although Toulmin's study of Modernity is meant to broaden the understanding of it, there is a very important aspect of it to which he did not refer at all: the process of industrialization. While he focused on the development of *science*, he neglected *technology*. This is probably related to his focus on scholastic traditions in the domain of nature (natural philosophy or science) and humanity (politics, ethics and religion). Practical technical knowledge had been the domain of artisans and craftsmen since the Middle Ages. Although the Renaissance saw a growing interest in their practical knowledge, it did not lead to what we today would call 'applied sciences', but instead

nature	**humanity**
– nature is governed by fixed laws set up at the creation	– the essence of humanity is the capacity for rational thought and action
– the structure of nature was established a few thousand years ago	– rationality and causality follow different rules, so any causal science of psychology is impossible
– the material substance of physical nature is essentially inert	– humans can collectively establish stable systems in society, like the physical systems in nature
– physical objects and processes cannot think or reason	– humans live mixed beings, in part rationaland in part causal
– at the creation, god combined natural objects into stable and hierarchical systems	– reason is mental (or spiritual), emotion is bodily (or carnal)
– like 'action' in society, 'motion' in nature flows downward, from 'higher' to 'lower' creatures	– emotions frustrate or distorts the work of reason, so emotions are to be distrusted and restrained

Figure 1: The modern dichotomy between nature and humanity as it dominated the second half of the sixteenth and the first half of the seventeenth century, according to Stephen Toulmin (1990: 109-15). Many aspects of it are still present in today's Western worldview.

paved the way to empiricism in science itself. Instead of identifying themselves with the craftsmen, the involved scholars presented themselves as gentlemen spokesmen of artisan knowledge – craftsmen, after all, held a position on the social scale considerably lower than that of the university educated élite (cf. Dear 2001: 52-3). Most technical inventions of the 'Industrial Revolution' were done outside the institutions of science – a history that could still be recognized in contemporary university education: many engineers are educated in specialized technical universities or polytechnics that did not exist before the late nineteenth century or have their origin in military schools or schools related to industries, such as the famous École Nationale Supérieure des Mines in Paris, which was found in the eighteenth century as a school of mines.

To complement Toulmin's analysis of Modernity and to include the role of technological developments Bruno Latour provides an interesting perspective. Like Toulmin he considers the dichotomy of object and subject – nonhumans and humans – as the core of the 'modern constitution', but he furthermore recognises a second dichotomy that for a long time remained hidden: at one side the world of purified objects and subjects fitting into the modern perspective, at the other side a world of hybrids – quasi-objects and quasi-subjects – that was not talked about. To make it visible his book *We Have Never Been Modern* (1993) opens with a description of the content of that day's newspaper. Let me give you an extensive quote:

> *On page four of my daily newspaper, I learn that the measurements taken above the Antarctic are not good this year: the hole in the ozone layer is growing ominously larger. Reading on, I turn from upper-atmosphere chemists to Chief Executive Officers of Atochem and Monsanto, companies that are modifying their assembly lines in order to replace the innocent chlorofluorocarbons, accused of crimes against the ecosphere. A few paragraphs later, I come across heads of state of major industrialized countries who are getting involved with chemistry, refrigerators, aerosols and inert gases. But at the end of the article, I discover that the meteorologists don't agree with the chemists; they're talking about cyclical fluctuations unrelated to human activity. So now the industrialists don't know what to do. The heads of state are also holding back. Should we wait? Is it already too late? Toward the bottom of the page, Third World countries and ecologists add their grain of salt and talk about international treaties, moratoriums, the rights of future generations, and the right to development.*
>
> *The same article mixes together chemical reactions and political reactions. A single thread links the most esoteric sciences and the most sordid politics, the most distant sky and some factory in the Lyon suburbs, dangers on a global scale and the impending local elections or the next board meeting. The horizons, the stakes, the time frames, the actors –none of these is commensurable, yet there they are, caught up in the same story.*
>
> *On page six, I learn that the Paris AIDS virus contaminated the culture medium in Professor Gallo's laboratory; that Mr Chirac and Mr Reagan had, however, solemnly sworn not to go back over the history of that discovery; that the chemical industry is not moving fast enough to market medications which militant patient organizations*

are vocally demanding; that the epidemic is spreading in sub-Saharan Africa. Once again, heads of state, chemists, biologists, desperate patients and industrialists find themselves caught up in a single uncertain story mixing biology and society.
[...]
Fortunately, the paper includes a few restful pages that deal purely with politics [...], and there is also the literary supplement [...]. We would be dizzy without these soothing features. For the others are multiplying, those hybrid articles that sketch out imbroglios of science, politics, economy, law, religion, technology, fiction. If reading the daily paper is modern man's form of prayer, then it is a very strange man indeed who is doing the praying today while reading about these mixed-up affairs. All of culture and all of nature get churned up again every day.

Yet no one seems to find this troubling. Headings like Economy, Politics, Science, Books, Culture, Religion and Local Events remain in place as if there were nothing odd going on. The smallest AIDS virus takes you from sex to the unconscious, then to Africa, tissue cultures, DNA and San Francisco, but the analysts, thinkers, journalists and decision-makers will slice the delicate network traced by the virus for you into tidy compartments where you will find only science, only economy, only social phenomena, only local news, only sentiment, only sex. Press the most innocent aerosol button and you'll be heading for the Antarctic, and from there to the University of California at Irvine, the mountain ranges of Lyon, the chemistry of inert gases, and then maybe to the United Nations, but this fragile thread will be broken into as many segments as there are pure disciplines. By all means, they seem to say, let us not mix up knowledge, interest, justice and power. Let us not mix up heaven and earth, the global stage and the local scene, the human and the nonhuman. 'But these imbroglios do the mixing,' you'll say, 'they weave our world together!' 'Act as if they didn't exist,' the analysts reply. They have cut the Gordian knot with a well-honed sword. The shaft is broken: on the left, they have put knowledge of things; on the right, power and human politics. (ibid.: 1-3)

What Latour shows us here is the same object–subject dichotomy Toulmin wrote about. What he also shows, however, is that in real terms it is hardly possible to make such a clear distinction. Most of the world is in fact to be found in-between the world of objects (nature) and the world of subjects (culture) – there is no world of 'things-in-themselves' that can be understood separately from a word of 'humans-among-themselves'. Nevertheless that has been the central assumption of the modern project from which our modern sciences are born. They thus don't have access to all the networks[1] of humans and nonhumans – of hybrids – that make up the world between purified objects and subjects. The only field of study that has not followed the path of purify-

1 Note that I refer to a book Latour wrote in 1991; the same year the Dutch communication scientist Jan van Dijk introduced the notion of 'network society', and well before the internet became a commonplace. Because Latour's network notion is much broader than the now common structuralist understanding popularized by information and communication sciences, he avoided the term in later books, eventually replacing it by the notion of actor-network. I will return to this in chapter three.

ing objects and subjects is anthropology – as long as it studied non-Western cultures:

> *Once she has been sent into the field, even the most rationalist ethnographer is perfectly capable of bringing together in a single monograph the myths, ethnosciences, genealogies, political forms, techniques, religions, epics and rites of the people she is studying. Send her off to study the Arapesh or the Achuar, the Koreans or the Chinese, and you will get a single narrative that weaves together the way people regard the heavens and their ancestors, the way they build houses and the way they grow yams or manioc or rice, the way they construct their government and their cosmology. In works produced by anthropologists abroad, you will not find a single trait that is not simultaneously real, social and narrated.*
>
> *If the analyst is subtle, she will retrace networks that look exactly like the sociotechnical imbroglios that we outline when we pursue microbes, missiles or fuel cells in our own Western societies. We too are afraid that the sky is falling. We too associate the tiny gesture of releasing an aerosol spray with taboos pertaining to the heavens. We too have to take laws, power and morality into account in order to understand what our sciences are telling us about the chemistry of the upper atmosphere.*
>
> *Yes, but we are not savages; no anthropologist studies us that way, and it is impossible to do with our own culture – or should I say nature-culture? – what can be done elsewhere, with others. Why? Because we are modern. Our fabric is no longer seamless. Analytic continuity has become impossible. For traditional anthropologists, there is not – there cannot be, there should not be – an anthropology of the modern world. (ibid.: 7)*

Here we get to Latour's second dichotomy (figure 2): while the modern project narrowed the scope to objects and subjects in a process of purification, they did not deny the existence of hybrid mixtures of nature and culture, but declared them irrelevant by reducing them to intermediaries instead of mediators (see chapter three). Thus they allowed a proliferation of hybrids. Here Latour refers to the technological developments of the last centuries. Ultimately the success of the 'modern constitution' – the object–subject dichotomy – has made this proliferation possible, but now has made itself to start collapsing under its own weight. The modern project thus seems to have reached its limits. The answer is not to be found in postmodernism, though:

> *Whether they are called 'semiotics', 'semiology' or 'linguistic turns', the object of all these philosophies is to make discourse not a transparent intermediary that would put the human subject in contact with the natural world, but a mediator independent of nature and society alike. This autonomization of the sphere of meaning has occupied the best minds of our time for the past half-century. If they too have led us into an impasse, it is not because they have 'forgotten man', or 'abandoned reference', as the modernist reaction is declaring today, but because they themselves have limited their enterprise to discourse alone. (ibid.: 62-3)*

Instead of the postmodern juxtaposing of the three resources of modern critique – nature, society and discourse –, we should, according to Latour, search for a way to approach these three as one and so find a way to understand the work of hybridization. We should allow a more anthropological approach to Western societies, which is perfectly possible, because the purification of objects and subjects is Modernity's ideal, while hybridization is its reality – hence the title of Latour's book: *We Have Never Been Modern*.

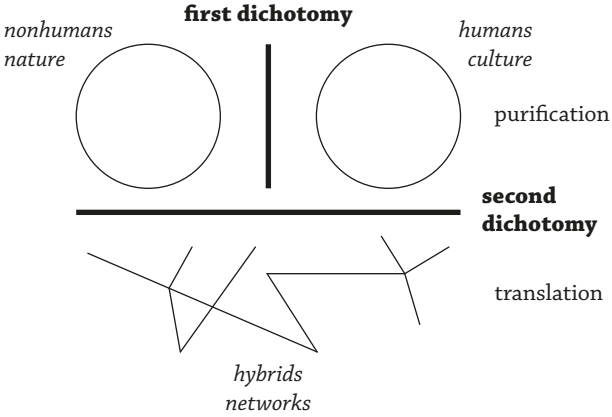


Figure 2: The modern dichotomies between humans and nonhumans, and between purified and hybrid entities, according to Bruno Latour (1993: 11).

If we now return from our detour and focus again on the relevance of architecture and urban planning, we recognise the same long-lasting mechanism of Modernity: although the second half of the nineteenth century saw an incredible expansion of the scope of science with the emergence of the social sciences, the split between a physical and a human world remained. This is also the case in the study of the built environment: urban studies as a social science is something entirely different to architecture and urban planning – in The Netherlands they are not even taught at the same universities.

Also the process of rationalization and purification can be recognized, for example in the scientific aspirations of the *Congrès Internationaux d'Architecture Moderne* (CIAM) held between 1928 and 1959, its search for a unified analytical method of presenting problems and possible solutions, and most famously Le Corbusier's (1887–1965) doctrine for the functional city in which the city is reduced to four functions (work, dwelling, recreation and transport) that should be separated to make the city function more efficiently and in a way more appropriate to the 'Machine Age'. Already at CIAM 6 (Bridgwater, 1947), while the modernism of CIAM finally became the dominant current in architecture in a period of post-war reconstruction, Aldo van Eyck was among the first from within the modern movement to criticize its rigid functionalism. This is not, though, why I have studied his writings.

The reason why I consider Van Eyck worth studying in search of a *new* directions for approaching *today's* questions is of a very different kind. Although there has been a process of rationalization since the seventeenth century, there have always been undercurrents that rejected Modernity's dualism – particularly in poetry and literature. These undercurrents became stronger in the nineteenth century, also in science and philosophy. The early twentieth century, however, was once again a period of strong

rationalization. According to Toulmin it was a situation comparable to the early seventeenth century period of rationalization: once again Europe (and now also the rest of the Western world) was in crisis, with two World Wars and a Great Depression.

This might provide an explanation why in the twentieth century theorists with a more holistic approach – holistic in a broad sense: viewing distinct elements and aspects as being irreducibly part of a larger whole – have become more and more rare. Only in the last decades this holistic approach is showing some revival with authors such as Bruno Latour, as I will show in more detail in the last part of this thesis. Also in architectural theory holistic approaches have become very rare (almost every architectural theorist or theorizing architect is focussing on one or a few aspects of architectural and urban problems), while in order to be able to understand the relation between built environment, man and society we do need a more holistic approach. We do so not only to overcome the reduced scope of current architectural discourse, but also to be able to make a connection between for example sociological and psychological theories and the praxis of architectural design. The major problem here is the distinction between a material and a human world: e.g. between the city of buildings and the city of human relations.

Aldo van Eyck was one of those rare holistically thinking architects in the twentieth century. What makes the ideas he developed during his career even more interesting is that they form a theoretical body that is essentially *open*. Compare this for example to the – also holistic – theory developed by Christopher Alexander, which is an essentially closed theory based on the normative proposition that buildings need 'the quality without a name', which makes them 'alive' and from which follows that any prefabrication or serial production is wrong and that ideally everybody should build for themselves (Alexander 1979). If one rejects the idea of 'the quality without a name', the entire theoretical body collapses. Van Eyck's theory does not have such a strong dogma keeping it together. The only idea that is fundamental to his theory is the concept of relativity: the observation that everything is related and therefore has no irreducible fundament; there is no absolute order – an idea today generally accepted in science and philosophy. This openness made it possible for Van Eyck to write on many different topics, while at the same time gradually developing a theoretical body that in essence never changed since his first writings in the 1940s, although new elements were added and existing ones were refined or even disappeared. This openness also makes it open for reinterpretation, alteration and extension. It is thus possible to re-evaluate his theory, filling in the blind spots which it certainly has, adapt it to the architectural problems of today and make it work in the context of today's architectural discourse. Paradoxically, however, it seems that Van Eyck's attitude toward his critics and those who gave their own interpretation of his ideas was not open at all. It is therefore more than likely that it takes someone of my generation – reading Van Eyck for the first time long enough after his death – to do what I do: judge his theory on its content and its historical context without being part of any of the controversies around his person and without risking a mailbox full of angry letters.

Aldo van Eyck as a writer and a theorist

As son of the Dutch poet and philosopher Pieter N. van Eyck (1887–1954), who worked in London as foreign correspondent for the Dutch newspaper NRC, Aldo van Eyck grew up in a world of poetry and literature. To spare them the strict discipline of traditional British schools, Aldo and his older brother Robert were send to the highly unconventional King Alfred School; an anti-authoritarian school based on the Dalton principles. This school, where like in the Van Eycks' family home poetry played an important role, was led by Joseph Wicksteed (1870–?), a renowned specialist on the poet William Blake (1757–1827). Wicksteed shared with P.N. van Eyck a pantheist worldview – the idea of the unity of the cosmos or the universe and the divine. Later the Van Eyck brothers were sent to the Sidcot School in Somerset: a Quaker school a bit less unorthodox, but nevertheless not as authoritarian as the conventional British boarding school. During his years as a schoolboy Aldo van Eyck developed a passion for poetry – in particular that of symbolist and pantheist poets – and for other sorts of art – modern and traditional. He decided to study English literature, but his father's warning that it would mean a future as English teacher made him, in the end, to choose for architecture. When in 1935 the Van Eycks returned to The Netherlands they found out that unfortunately Aldo's British matriculation afforded him no access to the Delft Polytechnic (now called Delft University of Technology) so he had to start two steps under university level, with an intermediate technical school (MTS) education as architectural draftsman. When P.N. van Eyck found out that the combination of the British matriculation and the Dutch education as architectural draftsman qualified for the architectural faculty of the Zurich Polytechnic (ETH Zürich), Aldo was sent to Switzerland in 1938. There he graduated as an architect in 1942, not being able to return to The Netherlands – due to the Second World War – until 1946. (Strauven 1998: 13-72)

Perhaps the role poetry, art and philosophy played in Van Eyck's upbringing has been of major influence on the kind of writer he became. At least the idea of reciprocity and bringing apparent polarities into balance, which he himself connected to the idea of relativity, goes back to the pantheist world view of his father (ibid.: 53-6). Also Aldo van Eyck's style of writing seems to be influenced by the poetry he showed so much talent for as a schoolboy: in his later writings he showed a particularly strong talent for aphorisms as well as for

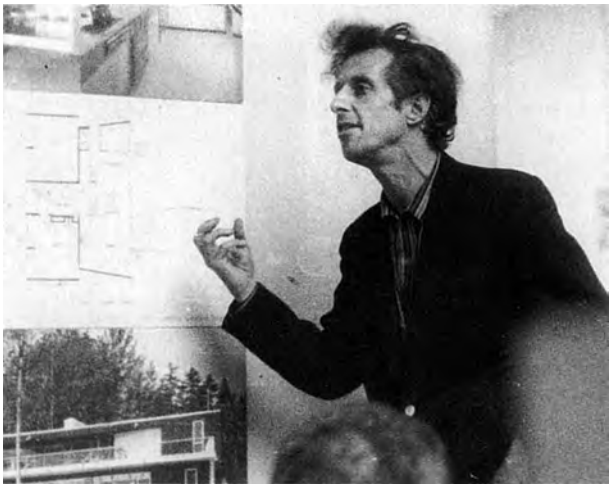


Figure 3: Aldo van Eyck at CIAM 11 (Otterlo, 1959).

short and sometimes poetic statements. His texts are usually very vividly written and show a tremendous urge to make a point, or many points. The problem, though, is that on the contrary to the talent he showed for all sorts of very short texts, he had more troubles writing a well-structured essay or book: in his urge to include many different things and in particular many aphorisms and short statements he had written before, it is often not very clear how all those minor arguments come together. However, as we will see, Van Eyck's thought is in fact very coherent and well-found in science, philosophy and personal observations. This is yet another of Van Eyck's paradoxes: as holistic as his attitude was, he was unable to communicate his theory holistically.

Perceived as a whole, his theoretical development can be understood as one lifelong search for the translation of the abstract notion of relativity to an understanding of society and a purpose of and approach for architecture and urbanism. Because in his view the answer to this problem was not yet (fully) given by modern architecture, he looked for other sources showing possible answers, which he found in the other arts, in science and in philosophy, but also in an anthropological approach to history and ethnology.

It is important to see that Van Eyck's search was based on questions, rather than answers. His reasoning was not driven by an advocated solution and the urge to find the arguments to underpin it scientifically or philosophically, but by the question of the relation between man and the built environment in a world of relativity and the urge of finding solutions. In this search Van Eyck appears as an associative thinker struggling with the complexity of the problem; a complexity he wanted to acknowledge and, as becomes clear in his idea of the reciprocity of 'twin phenomena' (apparently opposite phenomena which depend on each other for their meaning – e.g. large–small, open–closed, individual–collective), a complexity he did not want reduce into a more manageable model. Note the very important difference with the typological and typomorphological approaches that have dominated the architectural debate for the last thirty years, as those approaches do exactly what Van Eyck wanted to avoid: reducing complexity to suggest comprehensibility.

Van Eyck's non-reductionist approach can be illustrated by his view on the panning paradox that comes with the relation between order and chaos: for Van Eyck the urban reality has to be chaotic – "*A city is chaotic and necessarily so*." (wr [1962]: 1:170) –, but nevertheless needs some kind of order:

> *I believe that order can mean nothing other than making chaos possible – making sure that chaos does not choke on itself, does not change from a positive to a negative factor. Every other form of order that attempts to eliminate chaos, complexity and the elusive and never-to-be-defined network of human relationships – a network of such simultaneous complexity that no sociologist can figure it out – is not order at all, but is death itself. Order is what you bestow on chaos so it becomes liveable. (wr [1974]: 2:513)*

Here it becomes clear what the holism in Van Eyck's thought is: respecting the complexity of reality – not trying to force it into any sort of reduced order (as the functionalists tried to do) – without becoming nihilist (as many of the postmodernists) and rejecting any potential to influence man and society by design.

Although Van Eyck consistently has been searching for answers to the same fundamental question, he never reached a definite answer. There is always doubt; not just between the lines, but even explicitly (cf. wr [1962]: 1:135), as for example in the question he repeated many times: "*If society has no form, can architecture build the counterform?*" (ibid.: 1:129). For an architect reading Van Eyck in search of answers ready to be applied in his or her own designs this might perhaps seem to be a weakness, from a theoretical point of view, however, this is exactly what makes his theory an interesting point of departure, even fifty years later, because it shows its openness.

That it is possible to show coherence in Van Eyck's theories, as will been done in chapter two, might surprize many who are familiar with Van Eyck's ideas. As it seems, some parts of his theory, as well as the coherence of his ideas, have never been fully understood by most of his followers and critics. Partly this may be due to the level of abstractness and his choice of terminology (see the section on interiorization in chapter two). Another explanation may be that his colleagues had to learn about his ideas from the numerous articles he had written and the many lectures he has given all over the world. Herein his thoughts have been presented in a very fragmented way, while *The Child, the City and the Artist*, the only book he ever wrote, was only published officially ten years after his death and forty-six years after it had originally been written. In this book he brought together all aspects of his theory, thus revealing its complex coherence. His articles, on the other hand, were mostly part of a larger discussion within CIAM or Team 10, related to his own design work or written to discuss the works and ideas of others, while at the same time showing some theoretical development – as one would expect of an associative thinker. This meant that before *Writings* was published in 2008, most of his theory was only available in a very fragmented fashion (cf. Ligtelijn 1999: 15).

Lacking the publication of *The Child, the City and the Artist*, the most cited source for his theoretical framework had become *Het verhaal van een andere gedachte* (1959) – *The Story of Another Idea* (wr: 2:220-71) – the first edition of the magazine *Forum* edited by the 'Forum Group' of which Aldo van Eyck was the most prominent member (figure 4). This seems to have led to quite some confusion, as *The Story of Another Idea* became a source often read as representing Van Eyck's own ideas, while in fact it describes the most important debates in modern art and architecture – from Van Eyck's perspective – up to that moment. The theory it thus presents is not specifically Van Eyck's but a fusion of his own ideas and themes under discussion in post-war CIAM and Team 10. Some of the concepts prominent in *The Story of Another Idea* do in fact not return in Van Eyck's own theory, e.g. the concept of 'core', which was the major theme at CIAM 8 (1951, Hoddesdon) and has been cited in relation to Van Eyck's thought (cf. Terlouw 1990: 11).

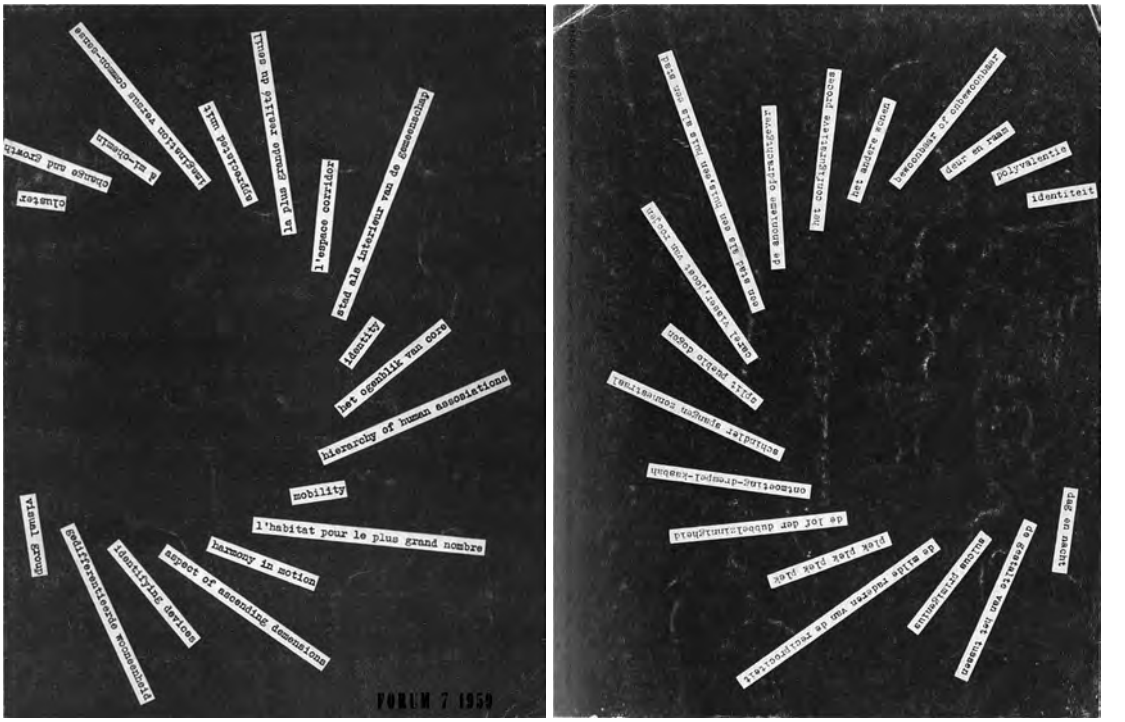


Figure 4: The cover of the first issue of *Forum* (1959-67) edited by the 'Forum Group' shows the most important themes of the 'other idea'. The cover of the 'posthumous' last issue (July 1967) shows the most important themes the Forum Group had written about. These are not necessarily fundamental concepts in Van Eyck's theory.

That the unity and consistence in Van Eyck's thought has not been very comprehensible is not just because of the abstractness of some of his ideas and the lack of a published book. Also Van Eyck's unconventional style of writing – for an architect in particular – may have contributed to the confusion. While modernist architects in the Interbellum – in particular in CIAM – developed a minimalist style of writing often based on the enumeration of points, propositions, demands, points of departure, characteristics, laws, et cetera (Hulstaert 2004: 794-5), Van Eyck's approach was very different from the start, as the Dutch architect and former CIAM chairman (1930–1947) Cor van Eesteren (1897–1988) remembered in an interview by Francis Strauven, referring to Van Eyck's first intervention at a meeting of 'de 8 en Opbouw', the Dutch CIAM delegation: "*He suddenly started talking about Joyce and Van Doesburg. I sat open-mouthed, I had never heard things put that way before. He really knocked over some hurdles, for what we always talked about in 'de 8' were other, very pragmatic matters. We stood around him listening. And the meeting had effectively ceased to exist.*" (Strauven 1998: 110)

Grown up as the son of a poet, educated in the spirit of William Blake and fascinated by such writers as James Joyce, Van Eyck had developed a rather literary style of writ-

ing. Where the modernist enumerations where in line with the reductionist analytical approach of the modernists, so there is a clear connection between Van Eyck's more holistic theoretical perspective and this style of writing: it is not based on separation, clarification or objectification, but on fusing critical observations, theoretical reasoning, associations and polemics. He did so in a vivid style, sometimes poetically, often developing into one or more aphorisms and sometimes entirely in aphorisms (cf. wr [1960]: 2:293-4). Van Eyck's deviation of the Interbellum modernist style as such is not remarkable, as after the Second World War the modernist style of architectural writing started to change. Van Eyck's chosen direction, however, is, as it is different from the general direction which was slowly shifting towards an academic observing, a mere describing (Hulstaert 2004: 798).

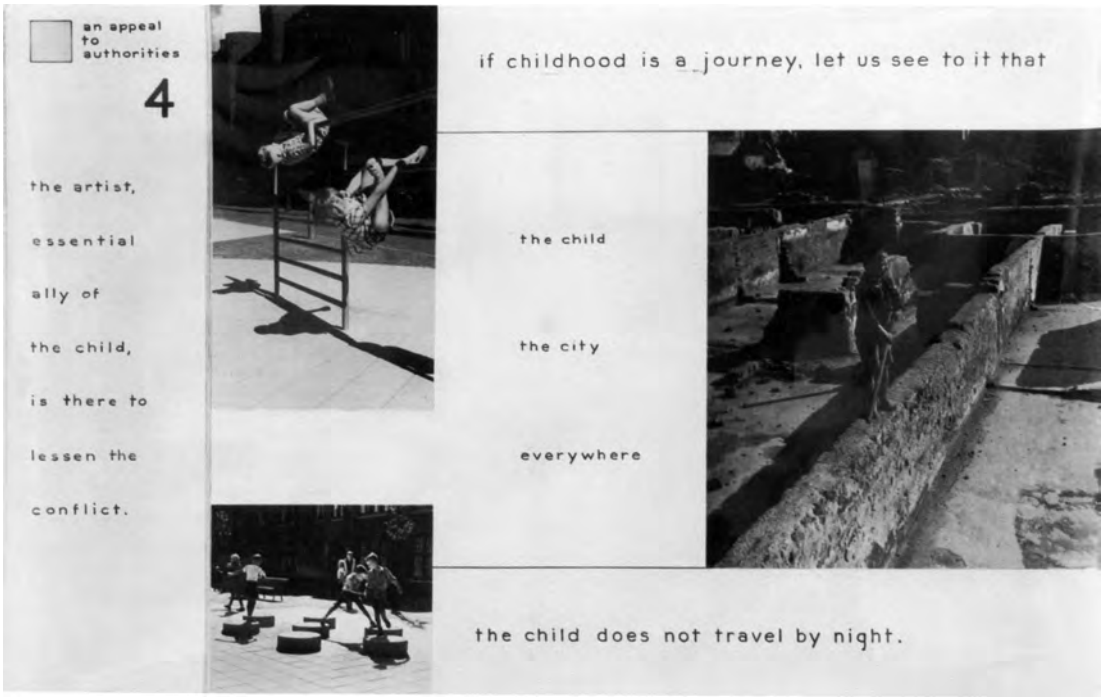
Although his style of writing is understandably related to his holistic approach and probably influenced by his rejection of functionalist rationality as well, it also contributed to the incomprehensibility of the consistency of his ideas, as it is often hard to distinguish between main issues and side-issues. Beside the fact that most articles were related to a specific project or issue, this is possibly also due to his associative way of thinking and due to his urge to include many different aspects, obfuscating the main issues of his thought. Thus is not only the case in many of his articles, in which he often used the main topic as a bridge to elaborate on some aspect of his larger theory, but also in *The Child, the City and the Artist*, in which he brought them together (part of the problem is that this book is largely composed of articles and other text fragments written before, without enough rewriting to fully integrate them[2]). If one reads only a few articles things become even more confusing, because, although Van Eyck's concepts are usually well thought-out, after having elaborated on them in earlier writings he often keeps repeating them in short statements and aphorisms without introduction and without underlining the interrelation of all of his concepts. This may explain why he was never fully understood – and for this aspect it would probably have made a difference if *The Child, the City and the Artist* had been published right away, because it is the only text in which the core concepts of his theory come together.

Aldo van Eyck did not present his ideas in words alone. The visual presentation, in fact, played a major role; not only in *Forum*, with the strong graphic design by Jurriaan Schrofer (1926–1990), but also in his writings and lectures, as Henk Engel pointed out:

> *A striking feature of Aldo van Eyck's work is the connection between design practice and verbal praxis; with the spoken word, lectures and slides, the written word, short texts and collages of text and photo's. General statements are attached to com-*

2 *The Child, the City and the Artist* stands midway a properly structured academic book and a collection of writings: many sections were published before and although Van Eyck wrote new sections to bring them together, the texts have not been edited enough to become an integrated whole. Perhaps this is the reason he never found a publisher willing to publish it.

Figure 5: Aldo van Eyck's Lost Identity grid for CIAM 10 (Dubrovnik, 1956) showing his fusion of photo-



graphs and written statements.

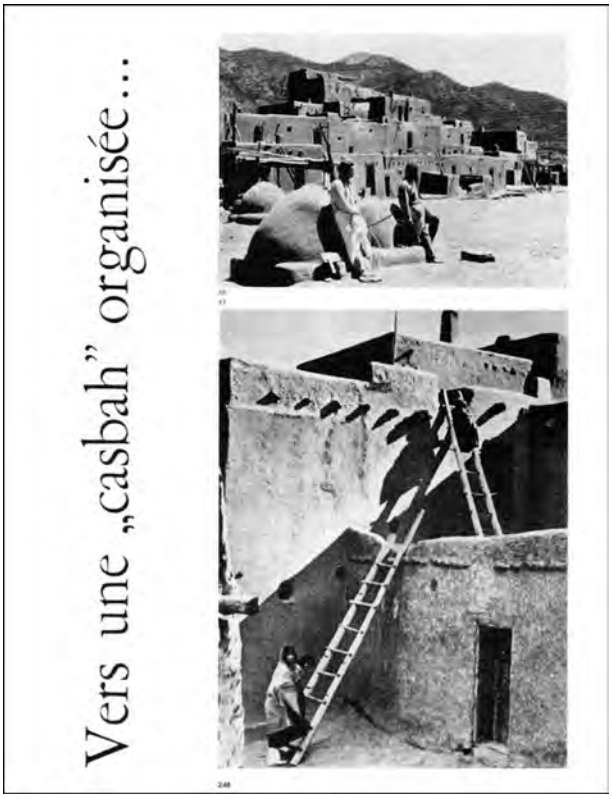


Figure 6: Last page of *Forum* 1959(7).

mentaries on designs. The texts condense into aphorisms, which combine with photographs of van Eyck's own work and works from diverse cultures to produce concrete concepts. The architecture is absorbed into the praxis of the word. It figures as a vehicle for the argument. (Engel 1999: 27)

A very strong example in which photographs, diagram and text come together is the 'Otterlo Circles' diagram first presented at CIAM 11 (Otterlo, 1959), which is a visual representation of Van Eyck's ideas (figure 14; figure 23). Another example are the panels made for CIAM 10 (Dubrovnik, 1956), presenting some of the playgrounds Van Eyck designed for the Amsterdam Public Works Department: titled 'Lost Identity' and accompanied by a series of statements and photographs of playing children, emphasizing the importance of the child for the city (figure 5).

The many photographs, drawings and other visual representations Van Eyck used to illustrate his ideas were hardly ever meant to be seen as literal illustrations of his theory or the point he wanted to make. On the contrary: they were meant to work by *association* to guide the mind in a certain direction. What he was after was not literally what the image showed, but the idea behind it in relation to what he was saying or writing. In his own words: "*The illustrations should be regarded as tentative illuminations, personally chosen, and not as static examples.*" (wr [1962]: 1:125). The same holds for many of his aphorisms. And while this fits perfectly well with Van Eyck's own associative way of thinking, it often led to confusion and misunderstanding. I will come back to the most extreme case: the response elicited by presenting projects by Tupker and Blom as illustrations of his idea for a configurative design approach. A less extreme case was the response to the last page of *The Story of Another Idea*, which showed the words "*Vers une 'casbah' organisée...*", accompanied by two photographs of North-African dwelling (figure 6) and the same line (though without the quotation marks) accompanied by a photograph of a model by the student Piet Blom (1934–1999), titled 'The Cities Will Be Inhabited Like Villages' (1958; figure 7) in his presentation at CIAM 11 (Otterlo, 1959). This is what Van Eyck wrote in *Forum* fifteen months later about

the misunderstanding this caused:

> *The concept of 'ordered casbah' (the evocation and challenge are included in the apparent paradox) can only be grasped when it is understood that the coupling of the concept of ordering and the concept of casbah presupposes a revaluation of both concepts. [...] The 'ordered casbah' concept was chosen as an image in order to define the ultimate limit towards which the fugal ordering process [...] can but need not lead. Nor are the form-associations that Blom's plan evokes necessarily contained in the term 'ordered casbah'. Why do people always concern themselves with: what does it look like, and not with: what is it? (wr [1960]: 2:309)*

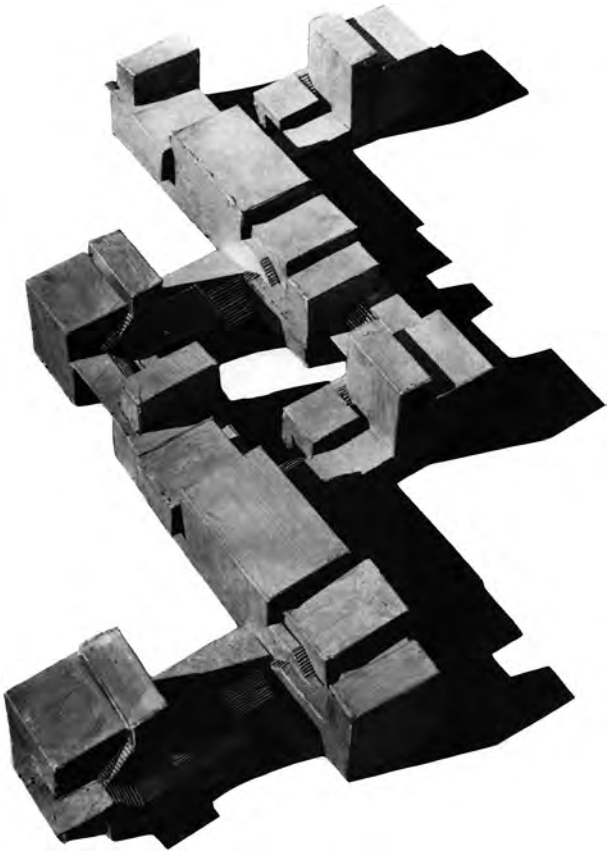


Figure 7: Piet Blom, 'The cities will be inhabited like villages', 1958 – photograph: Aldo van Eyck archive.

In 1991, in an interview, he once again referred to the topic of the casbah, what he meant and how it was understood:

> *We just used that one word 'casbah' as an image, as a poetic image. We were referring to any kaleidoscopic society where all the functions where more or less mixed, and I always said the casbah was the final limit. We don't have to literally make a casbah, imitating a period of human history when things were mixed and closely knit, but we need to be a little more 'casbah-istic', by putting things together: and letting things penetrate into each other again. That is what we meant by casbah. (wr [1991]: 2:616)*

It is clear that both this vivid style of writing and the way Van Eyck presented his ideas was appreciated by his readers and the people attending his lectures and therefore attracted a lot of attention. The drawback is that many people have not fully understood what exactly it was that Van Eyck wanted his audience to know or to understand. His poor mastery of the textual forms of essay and book caused some of the confusion. The abstractness of some of his ideas and the associative way of writing have most probably contributed to it as well – as has the combination of both, which reflects a frame of mind and an approach that is fundamentally different from the typological

and typo-morphological approaches that became so very common later on. Many people, however, tended to interpret his illustrations and ideas far too literal, while the importance of an illustrated concept was on a more abstract level, which is fundamentally different from the postmodern semiotic approach, as we will see in chapter three.

On the followed approach to Van Eyck's theory

My aim is to find a suitable approach to the relation between architecture, man and society, to be understood from the perspective of the architect and urban planner. This thesis investigates the possible clue for that larger aim to be found in the theories of Aldo van Eyck. It therefore is in the first place a theoretical enquiry into the coherence of the inclusive, open and thus adaptable body of theory Van Eyck gradually built during his lifetime, and not a historical research into his biography or his influence on the architectural discourse. The latter has been done thoroughly by the Belgian architect and architectural historian Francis Strauven, who has written an extensive monograph on Aldo van Eyck (Strauven 1998).

Previous analyses of Van Eyck's writings

Strauven writes in the introduction to his book: "*the aim of this monograph is to clarify the meaning of Aldo van Eyck's ideas and work and to show that they do in fact form part of a consistent theory, or rather of a frame of mind that is not just restricted to architecture but embraces an entire cultural philosophy. The purpose of this book is to make this frame of mind explicit, to probe its foundations and to elucidate its internal coherence.*" (Strauven 1998: 10) Nevertheless this book does not provide what I am looking for in this research: Strauven does show *that* there is coherence in Van Eyck's theory, but not *what* the coherent body of theory is (besides the core aspect of relativity and reciprocity). To accomplish that his book is both too much led by the biographical chronology and too much influenced by Van Eyck's involvement in its realization (ibid.): it is a very affirmative book with hardly any room for critical (or even balanced) evaluation and in the many polemics and disputes Van Eyck was involved in he appears to have always had the best arguments (which seems very unlikely), or they are not mentioned at all, such as almost the entire polemic with postmodernism.

The Dutch architect (and former student of Van Eyck) Vincent Ligtelijn recognises the coherence in Van Eyck's ideas as well (Ligtelijn 1999: 15), thought his contributions to the book on Van Eyck's oeuvre he edited only provides a very brief introduction to some of Van Eyck's ideas and focuses in particular on the formal aspects of his oeuvre. Although this book was published only after Van Eyck died in January 1999, here as well Van Eyck himself had been involved to a large degree (ibid.: 8-9), resulting in a highly affirmative book just as in Strauven's case – another example of the paradox between Van Eyck's open approach as a theorist and his urge for control over its devel-

opment as a person.

More a focus on Van Eyck as a theorist can be found in three essays by the Dutch architect (and also former student of Van Eyck) Henk Engel (1990; 1998; 1999). The first was published in a special issue of the journal *Oase* on Aldo van Eyck. As the article's title suggests – '*Het verlangen naar stijl*' ('The desire for style') – Engel's point of departure is the aspect of style: "*The work of Van Eyck seems to be all about the concept of style, i.e. the possibility of architecture as collective way of expression. Therefore it goes without saying that the appropriate way to do Van Eyck's work justice is a stylistic analysis.*" (id. 1990: 26)[3] 'Style' is here, according to Engel, not to be understood in a nineteenth-century sense of a formal order or the architect's personal language of form, but in a way he attributes to art historians such as the Swiss architectural historian Sigfried Giedion (1888–1968): as the expression of a certain attitude of mind – in Van Eyck's case in relation to the definition of space – without the necessity of a specific language of form (ibid.: 27-8).

Van Eyck did indeed write in his report for CIAM 6 (Bridgwater, 1947): "*It is style that matters for style is more than form*" (wr: 2:33). Nevertheless Engel's statement that Van Eyck's work is all about style shows a highly selective reading of Van Eyck's written oeuvre. Although he might be right – for Van Eyck as an architect – when he says that the content of Van Eyck's architecture is based on the problem of the relation between individual expressions and a general language of form (Engel 1990: 42-3), the problem of style as such only played a major role in Van Eyck's early writings (from the 1940s and 1950s). While in these earlier texts composition played a major role, he also warned against formalism (cf. wr [1947]: 2:33). In Van Eyck's later writings that aversion towards formalism developed only further – becoming particularly strong in his later critique on postmodernism, for instance in his analogy of the solid teapot: "*there is no such thing as a solid teapot that also pours tea. Such an object might be a penetrating statement about something and thus perhaps a work of art, but it is simply not a teapot – not one that can pour tea. Nor is there such a thing as a building which is wilfully absurd, banal, ugly, incoherent, contradictory or disconcerting and still a building or architecture. Such a thing does not exist.*" (wr [1981]: 2:545) In Van Eyck's written and built work, form is never given a priori: "*Idea [...] transcends form until it finds one; only then are they identified and become architecture. I am therefore primarily concerned with the validity of the idea; the form is the business of each individual architect.*" (wr [1962]: 1:125-6) That is why the language of form differs from building to building in Van Eyck's oeuvre. There is no language of form for him without understanding the involved human behaviour, relations and desires, but neither can architecture bring unity in diversity and diversity in unity without a language of form. "*We simply cannot embark on one without the other – they are both part and parcel of the same problem.*" (ibid.: 1:162) This is why Van

3 "*Het werk van Van Eyck lijkt te draaien om het begrip stijl, dat wil zeggen om de mogelijkheid van architectuur als collectieve uitdrukkingswijze. Het is dan ook voor de hand liggend dat een stijlkritische beschouwing de aangewezen methode is om aan het werk van Van Eyck recht te doen.*"

Eyck used the word 'counterform' – form in close, mutual relation to the people 'inhabiting' the places it defines.

Henk Engel does, however, suggest that a definition of 'style' without a language of form is perfectly possible. He does so by referring to Siegfried Giedion's analysis of the role of aesthetics in modern architecture. Whether this can be understood in term of style is nevertheless questionable, as Giedion himself noted: "*There is a word we should refrain from using to describe contemporary architecture – 'style.' The moment we fence architecture within a notion of 'style,' we open the door to a formalistic approach. The contemporary movement is not a 'style' in the nineteenth-century meaning of form characterization. It is an approach to the life that slumbers unconsciously within all of us.*" (Giedion 1967: xxxiii) So why, then, analysing Van Eyck in terms of style? Might it be a projection of Engel's own search for 'style', possibly inspired by the search for the possibly unconscious formal method in the work of modernist architects as initiated by Carel Weeber? (cf. Colenbrander 1993: 84)

Henk Engel's second article on Van Eyck was written as a response to the polemic following an article in *Archis* by Bernard Colenbrander (1997; 1998; wr [1998]: 2:555-64). The third article is a rewritten and extended version of the second one and therefore focuses on the relation between 'configurative discipline', 'identifying device' and 'city as donor'. In also includes some passages from the first article, though not its main arguments: the aspect of style and the relation between Van Eyck's point of view and the debate on art and architecture in the modern movement before and just after the Second World War. Only one very important aspect of it returns: "*the object of reflection is not what makes modern architecture 'modern', but what makes it 'architecture'.*" (Engel 1999: 27; cf. 1990: 27) The search for a language of form is now (pertinently) reduced to the single design:

> *A particular characteristic of van Eyck's work is that in each design he does not so much seek after forms appropriate to the various requirements of the task, but after a coherent formal language – a tectonic order – which is capable of expressing in a single movement both the extensiveness and the finiteness of the architectural object. Once an architectural order has been found, it applies exclusively to the project at hand. The process starts all over in the next project. (id. 1999: 29)*

On whether or not there is coherence in Van Eyck's thought Engel seems to be ambivalent. In both the first and the last essay he recognises the importance of 'paradoxes' – which seems to be his interpretation of Van Eyck's reciprocity and twin phenomena –, however first and foremost as the stylistic, rhetoric way Van Eyck composes his aphorisms (id. 1999: 27; 1990: 27). On the theoretical coherence, on the other hand he contradicts himself: "*Van Eyck's contribution to the architectural debate is remarkably consistent over the years*" (id. 1990: 27),[4] he wrote in 1990, while nine years later he came to the remarkable conclusion entirely opposite what this thesis will show: "*It is*

4 "*Van Eycks bijdrage aan het architectuurdebat is door de jaren heen bijzonder constant*".

not so that he has taken up a fixed theoretical position since the start of his career. If there is such a thing as a van Eyck ideology, it consists of a whole series of notions he has explored in his writings in the course of his development" (id. 1999: 29).

What the readings on Van Eyck by Strauven, Ligtelijn and Engel show is that there is still room for a new analysis of Van Eyck's writings: this time more detached from his buildings and his biography; and more detached from Van Eyck as a person as well. A reference to the already mentioned polemic with Bernard Colenbrander or his earlier diatribe against 'rats, post and other pests' (wr [1981]: 1:537-48)[5] makes clear that it would have been hard to write a critical interpretation while he was still around. Today more than a decade has passed, the debate has changed to different topics and hopefully people's emotions have calmed – even if Herman van Bergeijk's review of *Writings* suggest otherwise (Bergeijk 2008) –, thus making it possible to re-evaluate the value of his theory. The publication of Van Eyck's *Writings* (edited by Ligtelijn and Strauven) in 2008 makes furthermore that his written oeuvre has now become comprehensible and thus making it easier to investigate its coherence and distillate the theoretical body he developed. That is what will be done in chapter two, because that is what is necessary to assess the possibility of adaptation and extension in order to come up with the beginning of a theory or approach suitable for today's problems.

Brief biography in relation to Van Eyck's writings

Van Eyck's writings could not entirely be understood without any knowledge of the context in which he wrote it. What thus follows is a very brief biography based on the most important moments influencing his theoretical development. It is summarized in a timeline which also indicates one possible way to split his career into periods (figure 8).

In 1942 Aldo van Eyck graduated from Zürich Polytechnic. During that same year (wr: 2:131) he met Carola Giedion-Welcker (1893–1979), with whom he became friends. 'C.W.' (as Giedion-Welcker liked to be called) was the wife of Sigfried Giedion (1888–1968), architectural historian and secretary-general of CIAM. She herself was one of the first art historians to study the avant-garde of modern art movements, in which she saw – in spite of all the differences – a collective bringing to light of a new view of the world, a 'new reality' (Strauven 1998: 78; wr: 2:13). C.W. brought Van Eyck into contact with several artists that belonged to the modern avant-garde. Inspired by her he started his search for this new reality and came to the conclusion that there was a 'Great Gang' of artists, scientists and philosophers that – all in their own specific way – tore down the hierarchal and absolutist view of the world – their 'Great Riot' – and replaced it by one that was based on the concept of relativity. This remained the core

5 'Rats' are neo-rationalist architects such as Aldo Rossi (1931–1997), 'posts' are postmodernist architects such as Robert Venturi (*1925).

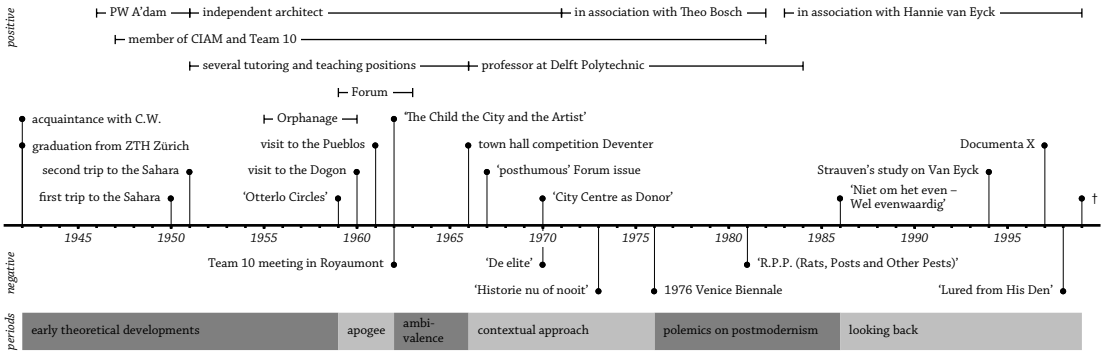


Figure 8: Timeline of some of the most important events and periods to understand Van Eyck's writings.

of Van Eyck's theory for the rest of his life.

When Aldo van Eyck and Hannie van Eyck-van Roojen (the Dutch former fellow student whom he married in 1943) returned to The Netherlands in 1946, Van Eesteren, whom he met before in Zurich, gave him a job in the Town Planning division of the Amsterdam Public Works Department (Strauven 1998: 99). It was also he who introduced Van Eyck into CIAM in 1947 (ibid.: 109). In 1951 Van Eyck left PW to start working as independent architect (the first couple of years in cooperation with Jan Rietveld) and teacher.[6] In CIAM, in the meanwhile, he was among the 'angry young man' (and one woman) rejecting CIAM's functionalism (ibid.: 224). These 'youngsters' were to become Team 10, which was initially the team to organize CIAM 10. Eventually it was this group that withdrew themselves in 1959, which meant the end of CIAM. The members of Team 10 kept meeting as a loose group of 'kindred souls' – with many differences of opinion – until 1982.

Reading Van Eyck's writing of the period between 1942 and about 1959 the impression appears of someone who has found a point of departure, but is still searching for what it means and how things could be connected. In this period he gradually introduced the concepts that were to become fundamental for his theoretical body.

In 1955 Van Eyck was given the opportunity to develop his ideas in a design for the Municipal Orphanage in Amsterdam (figure 9). It were the public playgrounds Van Eyck designed for the municipality of Amsterdam that inspired Frans van Meurs (1889–1973), former alderman of the municipality of Amsterdam (for the SDAP, the predecessor of the PvdA, which is the Dutch labour party) and director of the orphanage between 1946 and 1956, to suggested to commission Aldo van Eyck – whose ideas

6 Between 1951 and 1954 as lecturer art history at the AKI art academy in Enschede; between 1951 and 1961 as interior design tutor at the School for Applied Arts in Amsterdam (now called Rietveld Academy); between 1954 and 1959 as architectural design tutor at the Academy of Architecture in Amsterdam; between 1966 and 1984 as professor at Delft Polytechnic (now called Delft University of Technology).

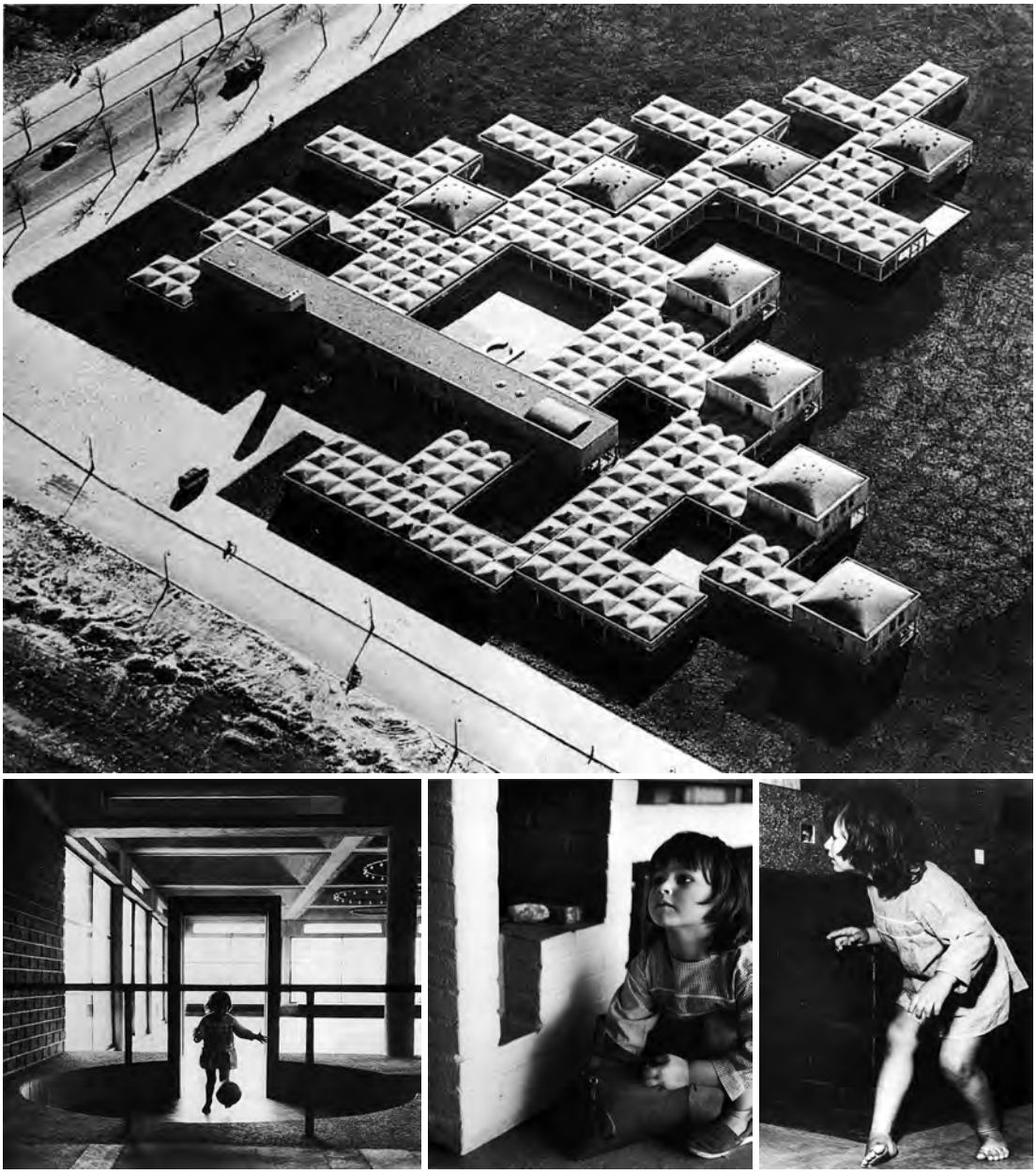


Figure 9: Aldo van Eyck, Municipal Orphanage, Amsterdam – top photograph: KLM Aerocarto; bottom left and centre: Violette Cornelius; bottom right: J.J. van der Meyden.

matched remarkably well the pedagogic ideas of Van Meurs himself (ibid.: 284-7).[7] The

7 Between 1947 and 1978 Van Eyck designed over 700 public playgrounds for the city of Amsterdam – until 1951 as an employee, later commissioned by PW (Strauven 1998: 100-5; Lefaivre & Roode 2002).

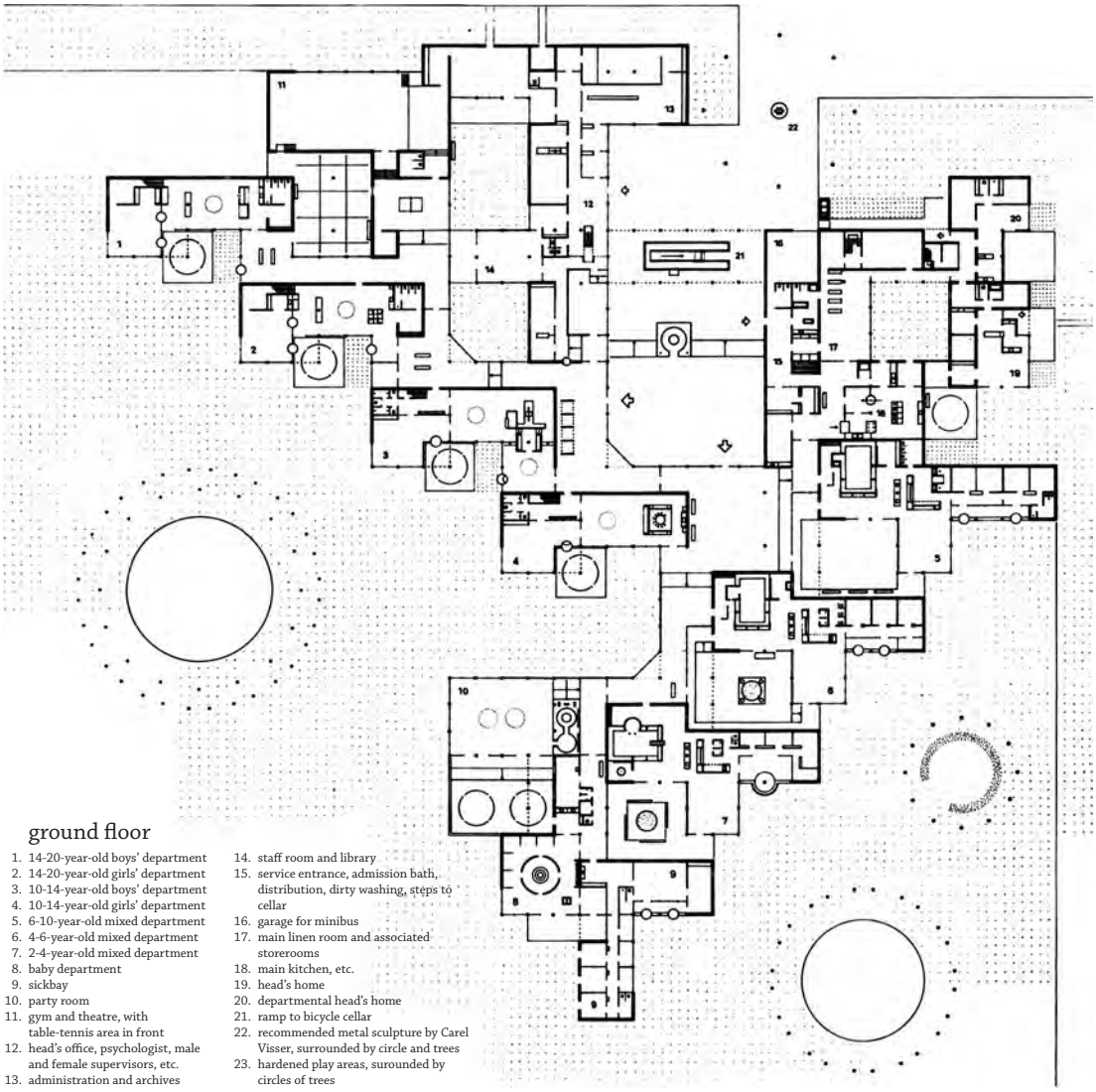
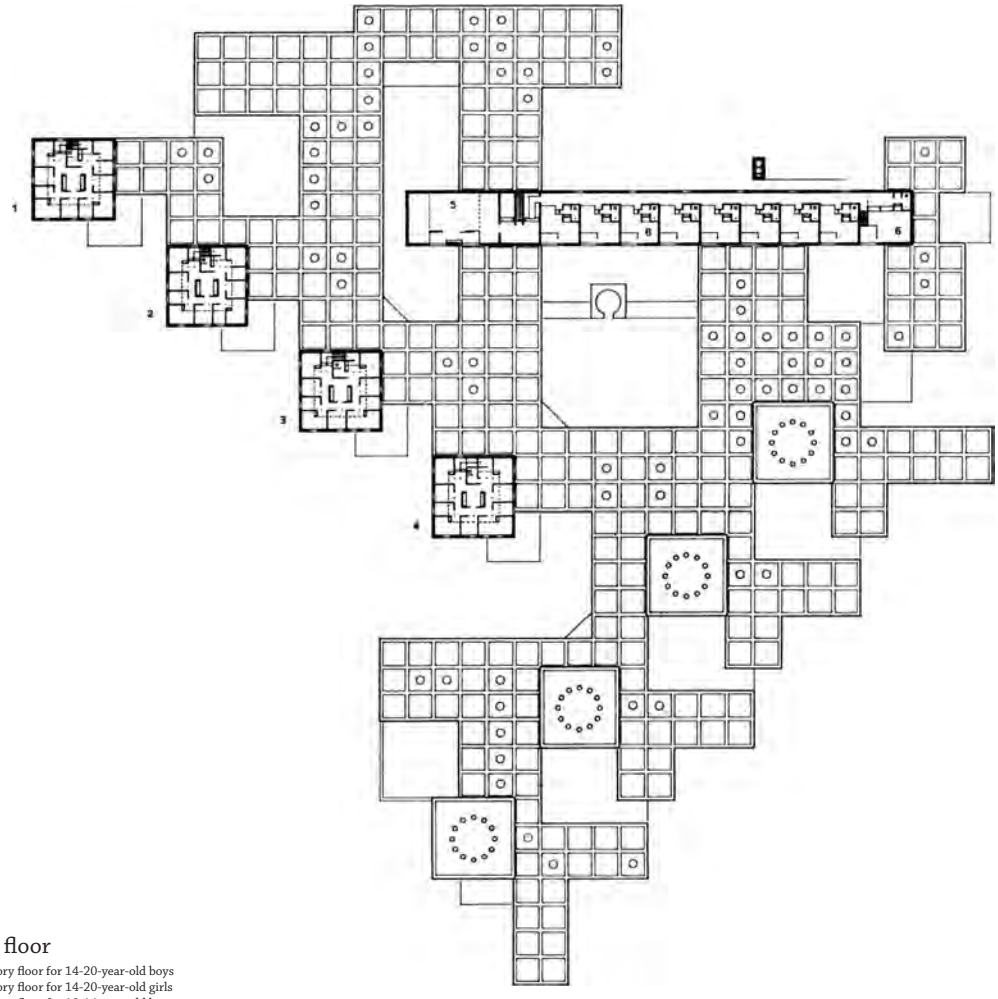


Figure 10: Aldo van Eyck, Municipal Orphanage, Amsterdam, floor plans.

location for the building was back then still in the open fields at the edge of the city, near the stadium. Van Eyck built here a mostly single story building which was almost a small city in itself (figure 10). In the course of its design, and based on his idea of reciprocity, he developed the idea that architecture and urbanism are not to be split – that every house should be a tiny city and every city a large house.[8]

8 Many have commented that this metaphor of large house en tiny city was already formulated by the Italian architect Leon Battista Alberti (1404–1472) during the Renaissance. Van Eyck has never cited Alberti and was most likely not aware of the similarity when he formulated this metaphor himself (wr:



first floor

1. dormitory floor for 14-20-year-old boys
2. dormitory floor for 14-20-year-old girls
3. dormitory floor for 10-14-year-old boys
4. dormitory floor for 10-14-year-old girls
5. meeting room
6. homes for resident staff

The design of the Orphanage gave Van Eyck international recognition as an architect, though nationally critics were ambivalent (ibid.: 317-8, 320-5). Nevertheless it inspired an entire movement in the Dutch architecture of the 1970s: the 'structuralism' of such architects as Herman Hertzberger (*1932) and Piet Blom – a movement of which Van Eyck did not consider himself to be part of. At the same time it marked the beginning of the apogee of his theoretical development. At CIAM 11 (Otterlo, 1959)

2:710). Herman van Bergeijk does not believe this and goes even so far as to conclude that Van Eyck presented the ideas of others as his own (Bergeijk 2008) – which seems to be a false accusation.

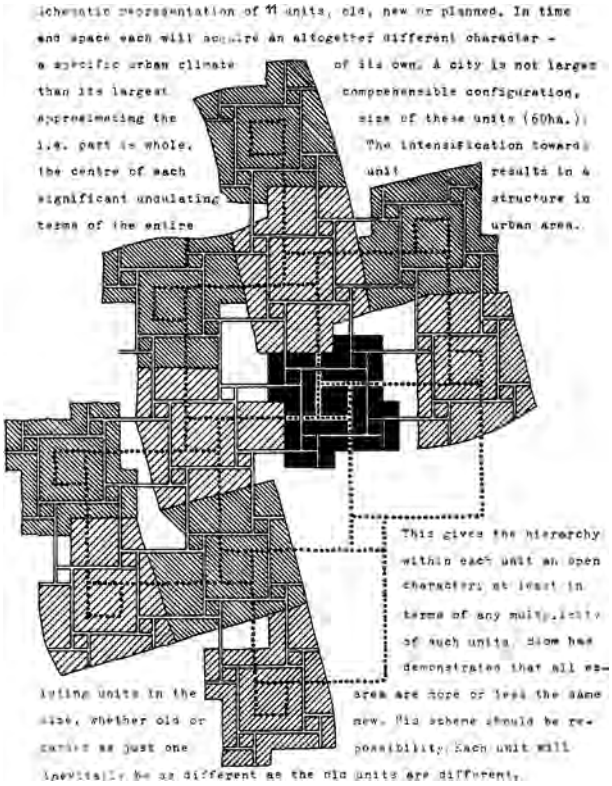


Figure 11: Piet Blom, 'Noah's Ark', 1962, with comments by Aldo van Eyck.

Van Eyck presented what later became to be known as the 'Otterlo Circles' (figure 14; figure 23). This could be seen as his first attempt to show the coherence of his ideas. In the same year Van Eyck was asked by the architect Dick Apon (1926–2002) to become part of the new Editorial staff of *Forum* (figure 4). This magazine was founded in 1946 by the architectural society Architectura et Amicitia (founded in 1855) and provided a stage for the continuation of the polemic discussion between the traditionalist Delft School and the functionalists in The Netherlands, which had started during the Second World War (in discussing the reconstruction after the War). At the end of the 1950s the battle seemed to be won by the functionalists, which made the board of A et A decide to approach Apon to find candidates for a younger, more dynamic editorial staff. This new team consisted beside Apon himself and the architect Gert Boon (1921–2009; he had already been responsible for the graphic layout since 1958) of the architects Jacob Bakema (1914–1981), Aldo van Eyck and Herman Hertzberger, graphic designer Jurriaan Schrofer and painter and self-taught art historian Joop Hardy (1918–1983), and was to become known as the 'Forum Group' (ibid.: 337-9). From the beginning Van Eyck – who was responsible for this new editorial staff's first issue, which was titled 'The Story of Another Idea' (wr: 2:707) – dominated this group. Now he had the stage for ventilating his ideas, which he was not given in the publications by Team 10 – for their content was dominated by the British couple of architects Alison (1928–1993) and Peter Smithson (1923–2003); the former being responsible the editing of these publications (cf. Strauven 1998: 256-66, 393-6). The four years Van Eyck was part of the *Forum* editorial staff (followed by a 'posthumous' issue in 1967) have played a very important role in his international recognition as a theorist, resulting in numerous invitations for visiting lectureships all over the world (ibid.: 392-3). One of them, a two-month visiting professorship at the University of Pennsylvania (Philadelphia, United States) in 1960, led him to be offered a grant from the Rockefeller Foundation in the United States to write a book bringing together his ideas. This resulted in 1962 into

The Child, the City and the Artist; a book which was never published during his lifetime, although it has been reported widely circulating in photocopied form at several universities in the United States (wr: 1:7-8).

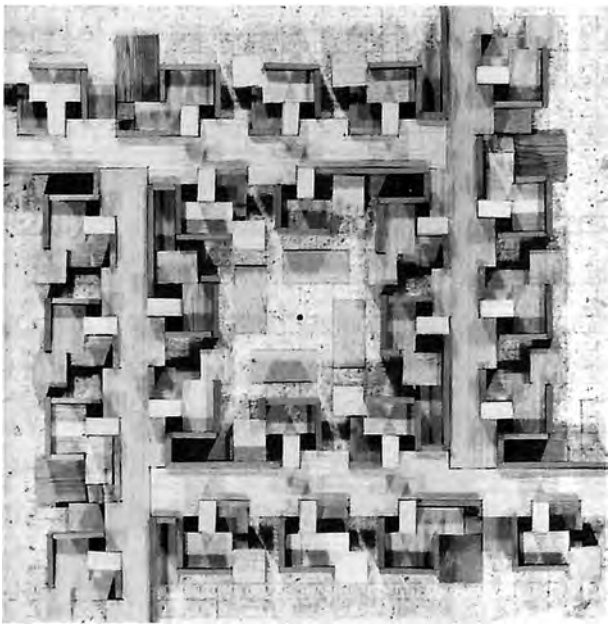


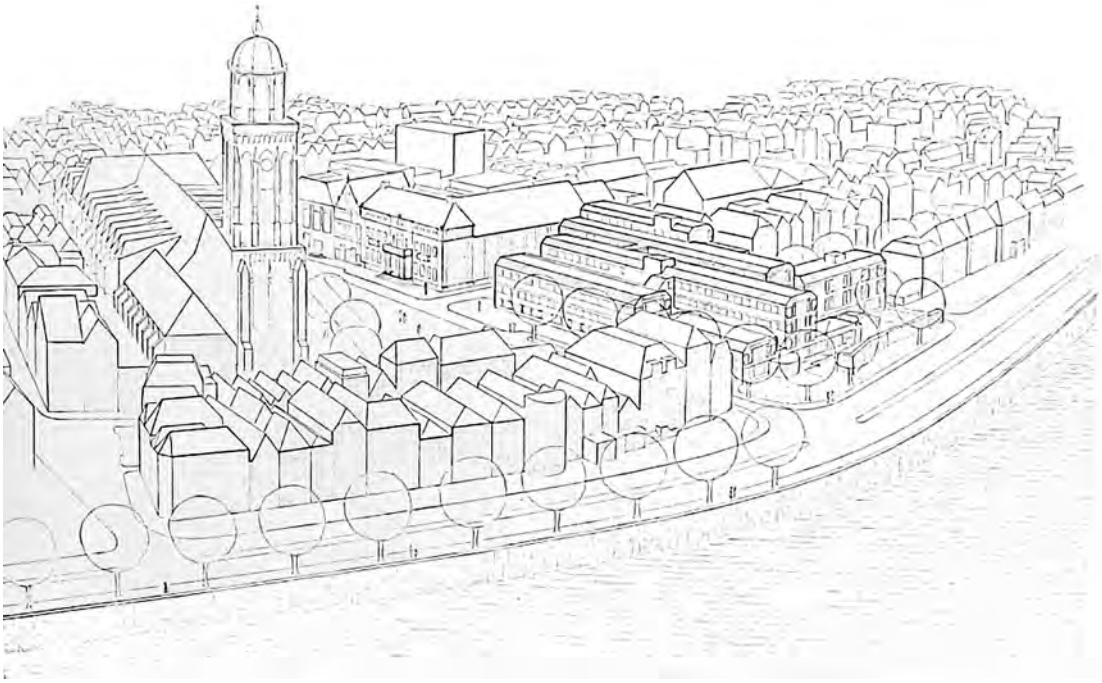
Figure 12: Piet Blom, 'Noah's Ark', 1962, basic unit – photograph: Aldo van Eyck archive.

Inspired by the main issue of the time – the design of large urban extensions – and his experience with the Orphanage and his involvement with the design of the newly built village of Nagele (Noordoostpolder), Aldo van Eyck formulated the idea of architecture and urbanism as 'configurative discipline', in search of an answer to the problem of what in CIAM discussions was called '*l'habitat pour le plus grand nombre*'. When he presented this idea at the larger Team 10 meeting in Royaumont (1962) accompanied by two student projects – 'Noah's Ark' (1962) by Piet Blom and 'Under Milk Wood' (1960) by Hans Tupker (*1935)[9] – it evoked the most extreme reactions. The Smithsons in particular really did not understand what potential Van Eyck saw in Blom's plan (figure 11; figure 12). As Peter Smithson commented:

> *I think it's the exact opposite of what we are looking for. We're looking for systems which allow us to develop as they need to develop without compromising each other. Here you have a system which takes absolutely literally the concept that the city is a big house; but the city is not a big house. It's impossible to deal with the functions in a house in the same terms as you have to deal with the functions in a city. It is a completely false analogy, a false image. I think you have abrogated your responsibility to define what you mean by a city as a big house. (wr: 2:435)*

Alison Smithson even went further by saying: "*This is completely dogmatic and German – completely fascist.*" (ibid.: 2:436) Both of them were not responding to the configurative idea, but to the particular form it took in the plans Van Eyck presented as steps towards a configurative discipline. Herein we recognise the problem of presentation I mentioned before.

9 Neither Blom nor Tupker attended the Royaumont meeting, because neither of them spoke English or French (Strauven 1998: 397).



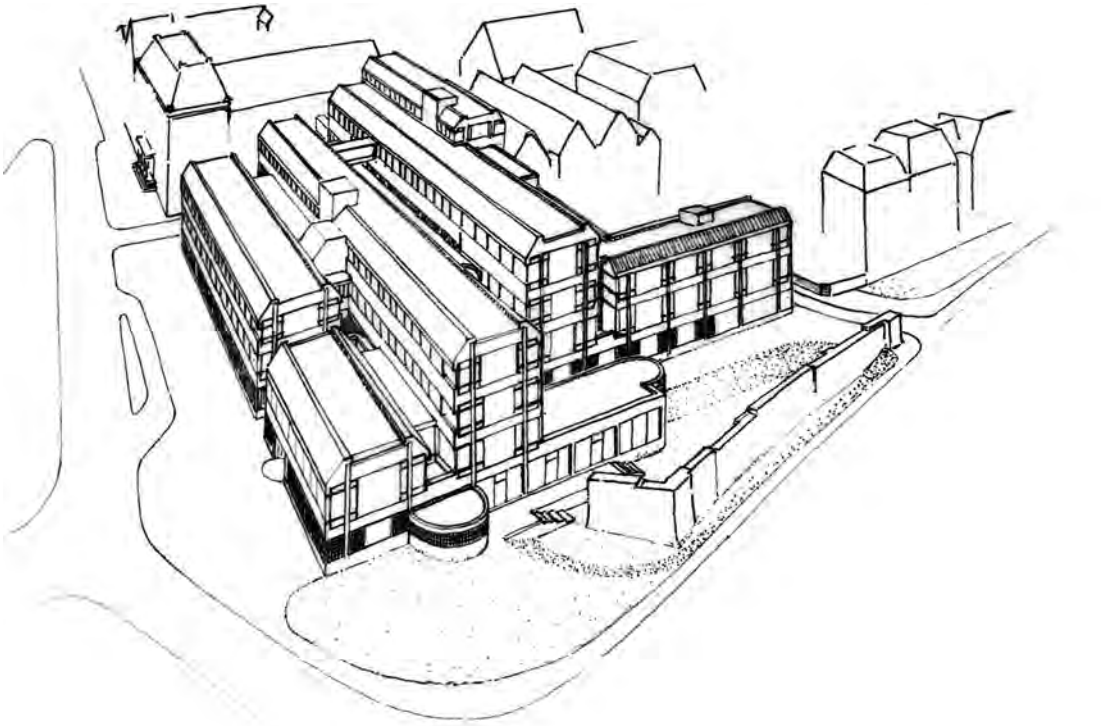


Figure 13: Aldo van Eyck, 'Between Roofs', 1966, prize-winning (but never built) design for a new town hall in Deventer.

For Van Eyck the rejection of his idea by his fellow Team 10-members came as a complete surprise: only now he realized how deep the drift was between his own ideas and those of his colleagues. When Piet Blom submitted 'Noah's Ark' as his graduation project at the Amsterdam Academy of Architecture the response was just as negative, whereupon he threw his models from the stairs and out the window. Blom and Van Eyck now each went their own way: the former kept designing impressive geometric configurations, while Van Eyck himself was so disappointed that for a while he turned away from the problem of number that led to the configurative approach and focused on the quality of 'place'. (Strauven 1998: 397-406)

The disappointing experience of the Royaumont meeting marks the end of Van Eyck's apogee as a theorist and the beginning of an ambivalent period: while it did not mean the end of the development of his theory, his writings became a bit less pronounced and much more ambivalent.

In the late 1960s Van Eyck – now assisted by and later in association with Theo Bosch (1940–1994) – once again became involved in urban planning. This time with a much more contextual approach, based on a changing character of the urban question: the context was no longer the large urban extensions of the 1950s and 1960s, but that of the historic city centre. Although his contextual ideas go back to the public playgrounds he had been designing since the late 1940s, the first time he translated it into a larger architectural project was his design for a new town hall in Deventer (figure 13) bearing the motto 'Between Roofs', which was his entry for a limited competition in 1966. This town hall was to be built at the bank of the river IJssel, right in the centre of the town, facing the gothic Saint Lebuinus Church. The brief called for a floor area of 5600 m^2, but Van Eyck did not want to build an enormous monolith in this historic, dense but small-scale context, because it would completely dominate it. Therefore he came up with the solution of shaping the necessary volume in such a way that it appeared as an assemble of volumes blending into the existing urban tissue by adopting its scale and rhythm and even incorporating two existing seventeenth-century buildings that were bound to be demolished. (ibid.: 528-30)

Although Van Eyck's plan won the competition, it was never built. Nevertheless it had an enormous impact. "*It marked a turning point in the development of modern architecture. It was in fact the first postwar project for a modern institutional building that did not present itself as a negation of the existing, traditional city but as a contribution to it. As such it [...] formed the basis of the urban approach taken by other architects in the Netherlands and abroad in the same period.*" (ibid.: 531). Van Eyck himself, together with Bosch, became involved in many inner city projects, of which the redevelopment of the Nieuwmarkt neighbourhood in Amsterdam was the first (1970). It is a neighbourhood in the oldest part of the city which was partly demolished for the construction of the metro and was initially planned to be completely replaced by a new plan according to modernist principles and including a four-lane urban highway. This plan led to so much protest that a limited competition was held to come up with an alternative.

Apon, Hertzberger and Van Eyck were invited and Van Eyck won. (ibid.: 549-62) It was in the article 'City Centre as Donor', which he wrote to explain this project that he elaborated on the role he saw for the historic centre in today's city (wr [1970]: 2:508).

While Aldo van Eyck was an example to many architects in the 1970s, at Delft Polytechnic the atmosphere was shifting. Marxist student-activists published a report titled *De elite* (*The Elite*), in which they accused him of educating people into artist-architects detached from political reality. They rejected his anti-authoritarianism because it should be anti-capitalism instead. Around the same time students were given the right to elect and be elected in the faculty council. This led in 1973 to two reports on the education of history: *Historie nu* (*History Now*) as provisional and *Historie nu of nooit* (*History Now or Never*) as final report. Here again was asked for a more politically engaged education, which they called 'scientific' (i.e. historical-materialistic). The historical education by Professor Joop Hardy (whose ideas were in many ways similar to those of Van Eyck) was considered to be 'cultural-anthropological',[10] 'unhistorical' and 'anti-theoretical'. This also meant a rejection of a *Forum* approach in the architectural education in Delft. (Strauven 1998: 517-21)

The chairman of the group that wrote the reports was Professor Carel Weeber (*1937). He became one of the Dutch protagonists of the neorationalist movement inspired by the Italian architect Aldo Rossi (1931–1997) and his movement *La Tendenza*. Perhaps the Delft history played a role in the furiousness of the campaign Van Eyck started against postmodernism and the bitterness that started to dominate most of his writings after his exhibition at the 1976 Venice Biennale, where he was confronted with the different movements that made up postmodernism, including neorationalism and new forms of neoclassicism (cf. Lammers 2009: 36-53). Although he shared with the postmodernists an interest history and tradition, he saw in them a negation of ideas of the modern avant-garde and the principles of relativity and reciprocity. His anger cumulated in the famous 1981 RIBA Annual Discourse he delivered in 1981 and which he titled *R.P.P. (Rats, Posts and Other Pests)*.

In 1984 Van Eyck retired as professor in Delft. Two years before he was granted the Rotterdam-Maaskant Award, an oeuvre prize for the important role he had played in Dutch and international architectural thought (Eyck 1986: V). Part of the award was a publication, published in 1986 and titled *Niet om het even – Wel evenwaardig* (*Not all the Same – Yet of Equal Value*). It gave him the chance to look back at his career and included many interviews by Francis Strauven with people he had been involved with. After this Van Eyck faded into the background, until the original Dutch edition of Strauven's biography was published in 1994. Three years later, at Documenta X in Kassel, he had his last chance to show the world his oeuvre and tell his story. Nevertheless the last text was an angry one: the article 'Lured from His Den', as part of the polemic with Bernard Colenbrander.

10 The approach I suggest in this thesis could in fact be seen as an anthropological approach as well.

Van Eyck's writings could not be understood without one other biographical aspect: the travels he made to the Sahara (1950 and 1951), the Pueblo people in New Mexico (1961) and the Dogon people in what was back then (1960) French Sudan (now Mali). These travels fed his interest in non-Western cultures and in anthropology – an interest that could be traced back to his Zurich years when in an antiquarian bookshop he found the 1933(2) special issue on 'Mission Dakar-Djibouti 1931–1933' of the surrealist magazine *Minotaure* (Strauven 1998: 84-5; wr: 2:24-5). An even earlier source, according to Francis Strauven, could be his grandparents when he was young: his grandfather was born in Suriname (until 1975 a Dutch colony), his grandmother in British Guiana (since 1966 independent as Guyana) and was of Portuguese descent. Their house in The Hague was redolent of South-America (Strauven 1998: 18-20).

"*My position has not changed since the 60s, 70s and 80s*" wrote Van Eyck in 1997 (wr: 2:646) and as this brief biography should have made clear that indeed the most important period in the development of his theory was the 1960s and late 1950s. The texts from this period will thus be the point of departure and the most important source for unravelling Van Eyck's theory in the second chapter.

Written versus built work

While Aldo van Eyck's theoretical development showed a remarkable consistence over time, this is not visible in his architectural work – which, however, does not make it *in*consistent. As Vincent Ligtelijn points out: "*Although, in terms of development, it can be formed into several groups, each work is different again. In each project he sought an architectonic order that responded to the specific circumstances of the assignment and the context, but with not tendency towards the idiosyncratic. Particular architectonic themes were referred to and explored depending on the circumstances.*" (Ligtelijn 1999: 8) Contrary to his theoretical elaborations that formed the abstract fundament of his designs and of which he clearly tried to convince his readers, he did not do so with regard to a design strategy. Even as a teacher he never dictated his students how to design (cf. Strauven 1998: 516), as is also the experience of Henk Engel: "*He opened up a world of knowledge to his students and only with great difficulty could he be persuaded to talk about his own architecture. [...] There has been no prospect of the formation of a school in this sense because van Eyck continually discovered new paths in his architecture, and in certain respects succeeded in surpassing himself every time.*" (Engel 1999: 27) This is confirmed by Ligtelijn: "*He liked to have kindred spirits around him, but his attitude and contribution were not intended to form a 'school'. In the same way he was averse to the idea that modern architecture is a universal language. Everyone has their own space and responsibility.*" (Ligtelijn 1999: 15) This makes clear that Van Eyck's intended contribution to the disciplines of architecture and urbanism was not so much in the level of design as such, but on a more abstract level of the larger context of design, the responsibility of the architect and the way of thinking this requires. In this respect my re-evaluation of his theory fits his own intention.

The structure of the next two chapters

The second chapter focuses on Van Eyck's theory. As appeared from the description of his biography, there are two moments Van Eyck has made an attempt to bring the different aspects of his theory together: the 'Otterlo Circles' and *The Child the City and the Artist*. The former will be used as an introduction to his theory and a way to connect his more abstract ideas to his view on architectural design, while the latter will be the point of departure for the analysis of his theory. It involves the identification of the most important concepts he used and the way they are related, based on the reading of the recently published *Writings*. Earlier texts will be cited if they reveal more details, later ones if they show a further development. The aim is not be complete: concepts appearing only once or only a few times and not playing an important role in relating other concepts or funding Van Eyck's theory will be left out.

Where in the second chapter Van Eyck's writings are being *unravelled*, in the third chapter they are evaluated and then *reconnected*. Strong and weak aspects of Van Eyck's approach are being identified and connections to more contemporary theoretical developments are investigated. Mediation theory – developed over the last decades, but not in architectural theory – will be introduced as a more recent approach which is in certain aspects comparable to Van Eyck's intentions. The combination of both will be shown to be a promising start of an approach to investigate the relation between man, society and the built environment from the perspective of architecture and urban planning.

Chapter Two

The Theoretical Coherence in Van Eyck's Writings

I should like to start with the question of Euclidean and non-Euclidean space. There was a period in history in which the mind of man functioned and thought according to what we now call a Euclidean or classical way of thinking. On the other hand, round about the end of the last century, a non-Euclidean form of perception has been evolved. We see non-Euclidean aspects in Rimbaud and we see non-Euclidean aspects in Cézanne. We see it gradually starting in science and art, in physics and anthropology, in painting and poetry: a new and different conception – another way of thought – another language. And what is wonderful about this non-Euclidean thinking – this non-Euclidean language – is that it is contemporary. It is contemporary to all difficulties, social and political that our period poses to man. In each period we require the specific language that corresponds to our problems.

So, we have two different views of the world, Euclidean and non-Euclidean. But man himself is never either Euclidean or non-Euclidean, he is just man. Our problems are also those of eternal man – of archaic man. We are after all just archaic people. We do nearly all the same things that people did nearly 60,000 years ago. Man just remains the same. (wr [1959]: 2:199)

This is how Aldo van Eyck started his talk at CIAM 11 (Otterlo, 1959). The 'non-Euclidian aspects' he was talking about were what he saw as binding together the 'Great Gang' of the early twentieth century avant-garde in art, science and philosophy.[11] What he was

11 Part of what Van Eyck considers to be the 'Great Gang' were at least: Cézanne, 'le douanier' Rousseau, Seurat, Kandinsky, Picasso, Braque, Mondrian, Brâncuși, Malevich, Klee, Léger, Carrà, Boccioni, Severini, Van Doesburg, Pevsner, Delaunay, Gris, Duchamp, Chagall, Schwitters, Arp, Täuber-Arp, Vantongerloo, Lissitzky, Moore, Loos, Rietveld, Le Corbusier, Duiker, Van der Vlugt, Van Loghem, Aalto, Schönberg, Berg, Webern, Bartók, Stravinsky, 'Jelly Roll' Morton, Mallarmé, Lautréamont, Synge, Jarry, Jacob, Apollinaire, Joyce, Pound, Eliot, Trakl, Mayakowski, Ball, Tzara, Van Ostaijen, C.W., De Chirico, Ernst, Miró, Breton, Aragon,

saying, in short, is that the early twentieth century showed the appearance of the fundamental insight that everything is based on relations; everything is relative – that is for Van Eyck the essence of the new developments in science, in philosophy, as well as in art. In later versions of the same text (wr [1961]: 2:202-3; [1962]: 1:58-9) he emphasized what he considered to be the problem of the modern movement in architecture: it has its roots in this same development, but drifted away and got stuck in a kind of pseudo-objectivity.[12] The problem of modern architecture is in its naïve belief in progress and technology (determinism) and its attempt to come to a synthesis based solely on a diagnosis rooted in an oversimplifying analytical approach, based – in the case of urbanism – on "*statistical data, numerical quanta and social symptoms that belong to the banality of actuality*" (wr [1962]: 1:139).

Otterlo Circles

The talk at the Otterlo congress continued with the presentation of a diagram composed of two circles, which came to be known as the 'Otterlo Circles' (figure 14). The left circle shows three photographs: houses in the village of Aoulef in the Algerian Sahara, a contra-construction of 'Maison Particulière' by Van Doesburg (1923) and the Temple of Nike at the Acropolis in Athens (427–424 BC). Outside of the circle are the words 'Is architecture going to reconcile basic values?' and 'par "nous"' (French for 'by "us"'). The right circle, accompanied by the words 'pour nous' (French for 'for us'), shows another three photographs: a Sardinian sculpture of a sitting woman with child, an Etruscan sculpture of a standing man and a Cypriot burial gift (ca. 2100 BC). Both circles are connected by the words 'Man still breathes in and out. Is architecture going to do the same?' (cf. Strauven 1998: 350-1; wr: 2:229).

The archaic images in the right circle were put there "*to remember that there have always been men, women and children, living in a kind of society. They represent constants in space and time, constants that constantly change.*" (wr [1959]: 2:199) The ones in the left circle stand for what Van Eyck called 'basic values' (ibid.) – in later versions of the same text he broadened their meaning by called them 'not conflicting, but partial aspects' (wr [1961]: 2:203; wr [1962]: 1:131), 'fundamental solutions for different equally valid truths' (wr [1962]: 1:131) and 'not incompatible properties' (wr [1968]: 2:467).

Van Doesburg's contra-construction in the left circle is 'a symbol of non-Euclidian thought', standing for 'the new dynamic concept of space'. The other two pictures represent 'the wonder of Euclidian order' (both in classical architecture and in the building of common people), corresponding to 'man's fundamental desire for enclosure'. Together these photographs represent Van Eyck's view on architecture: he emphasized

Éluard, Péret, García Lorca, Tanguy, Dalí, Bergson, Einstein, Bohr, Heisenberg and De Broglie (Strauven 1998: 410).

12 This critique not only applies to architecture and urbanism: for that same reason Aldo van Eyck criticised the influence of Bauhaus on modern art (wr [1962]: 1:149-50).

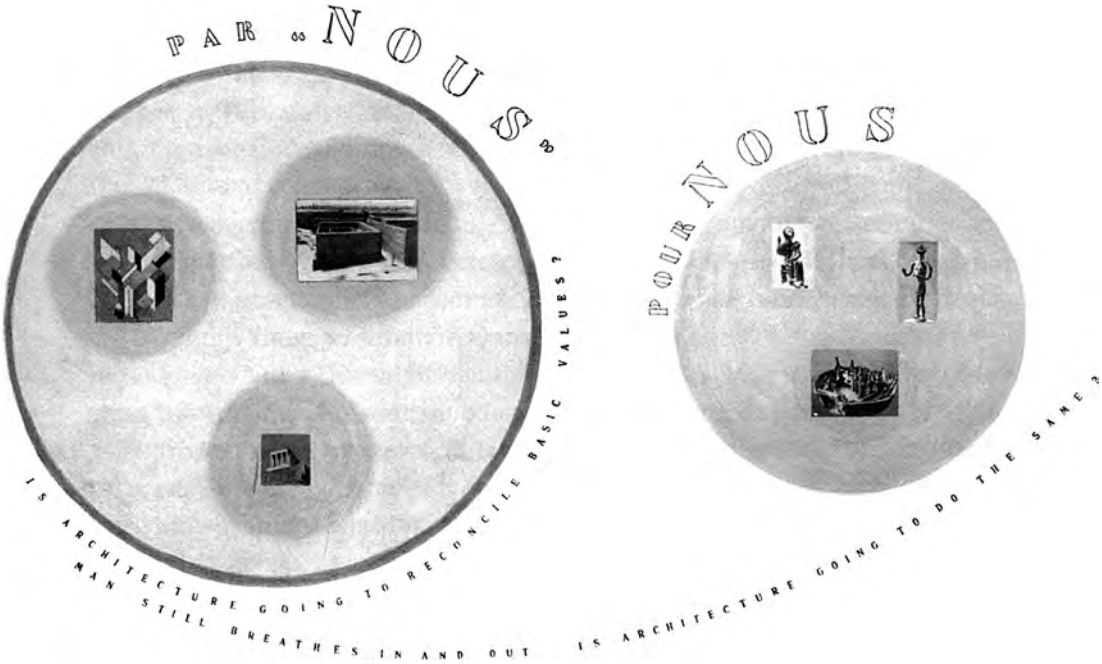


Figure 14: The first version of Aldo van Eyck's 'Otterlo Circles' as presented at CIAM 11 (Otterlo, 1959).

the importance of history and the tradition for the architecture of today, while at the same time endorsing the modern project: "*we must use this [modern] language created in our time to solve the human problems of our time. To do otherwise would be contradictory – it would be like using the machine in the wrong way. It's impossible. It's just logic, absolute logic, that you use the language – the spirit – of the period in order to solve the problems of the period.*" (wr [1959]: 2:199) Van Eyck compared the modern project and the other 'basic values' with breathing out and breathing in (one of his most used metaphors), which are not mutual exclusive: "*Man breathes in and out. There is no man on earth who can breath[e] either in or out. You go out and you go in – you have a closed and an open space. Man breathes in and out. It's simply fundamental that man does both – he always will. Somehow we have seen in modern architecture a certain desire to open up a house in such a way that it only breathes out and it never gets the chance of breathing in.*" (ibid.: 2:199-200)

The left and the right circle together represent the reciprocal relation between past, present and future and between architecture and society, but also – as the photographs of Algerian houses and archaic sculptures suggest – the importance of understanding the differences between ever changing cultures as well as the constant factor of human nature: "*In each culture, as a result of the geographic, climatic, cultural or religious circumstances, certain aspects of man are exaggerated. In other countries, other aspects of man are expressed more clearly, but they are all aspects which are universally human.*" (ibid.: 2:200) Here it becomes clear that the sort of role he saw in architecture for historic knowl-

edge, just as knowledge of non-Western cultures, was an anthropological one, i.e. to understand human nature and thus to be able to make humane architecture:

> *It is possible for us to discover different cultures and by so doing enrich ourselves, not by copying, not by eclecticism, but by more deeply understanding the mystery of man. […] It is not a question of history when I study a house in Ur or a Greek house from the period of Pericles. I only want to see, to enjoy the marvel of a house which is truly human, for each time I see a house which is truly human, of whatever period, I am enriched. It's not a question of form but a question of human content. (ibid.: 2:200-1)*

So far I have only referred to the very first version of the 'Otterlo Circles' and the talk at the last CIAM meeting in 1959. This was the first time Van Eyck made an effort to show the coherent way his ideas are related. In the period that followed he further developed his theory, in particular in *The Child the City and the Artist* (wr [1962]). In this process he also further developed the 'Otterlo Circles', changing the choice of images and adding more aphorisms and concepts. Many of these theoretical concepts are highly abstract, but will prove to be very important to understand Van Eyck's theory and what value it has today. Therefore in the next section of this chapter the abstract concepts making up his coherent theory will be discussed and their relationship will be clarified, before we will return to later versions of the 'Otterlo Circles' to see how they connect to Van Eyck's view on the role of the architect.

Van Eyck's theory unravelled

Aldo van Eyck himself has only made one attempt to bring all of his most important ideas together, although the result of it – *The Child the City and the Artist* – was never published during his lifetime. Because even that book does not make his theory really comprehensible, it is now time to unravel this work – combined with some of his earlier and later writings – to show its coherence and identify its key concepts.

The concept to which all the other concepts in his theory refer is relativity – as mentioned a couple of times before. As Strauven summarizes:

> *The understanding of reality as a complex coherence of space, time, matter and energy, a unity that necessarily manifests itself as diversity; the insight that the coherence of things does not reside in their subordination to a central, dominant principle but in their reciprocal relations – relations that are just as important as the things themselves; the relativity of all frames of reference, the awareness that they are at the same time autonomous and mutually related; the equivalence of all viewpoints; the simultaneous consciousness of the successively perceived; the essential role of the subject in the space-time continuum, when time is regarded as being real, consciously experienced time; the understanding of this continuum as the primal substance*

> *which exists in a state of continual transformation; the correlation of the opposites perceived within the continuum; all these elements are clearly present in his thinking and his work. Taken together they constitute his view of relativity.* (Strauven 1998: 458)

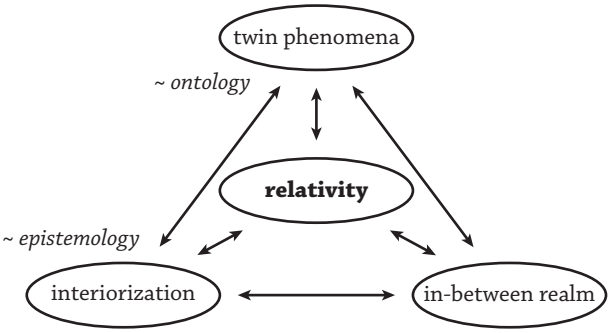


Figure 15: The abstract key concepts in Van Eyck's theory.

To make this view on relativity comprehensible – and with it Van Eyck's full theoretical body –, three abstract notions can be identified, each of them derived from the idea of relativity: twin phenomena, the in-between realm and interiorization (figure 15). These highly abstract and interrelated concepts prove to be the foundation of his world view, his architectural critique and his design approach. The concept of twin phenomena plays an ontological role: it is meant to explain *what* an entity *is* in relation to other entities; the role of the concept of interiorization is more epistemological: it is meant to explain *how* we *understand* our environment. The in-between realm is more meant to focus on the aspect of relativity in the approach of both mental and physical space. Other important concepts either provide the theoretical basis for these key concepts or are steps in a translation towards a design approach or an understanding of urban reality.

Twin phenomena

The core idea of Van Eyck's theory is not only that everything is related, i.e. relativity, but also that these relations are reciprocal – entities have no meaning but in their relation to other entities, as have their qualities: there is no large without small, no inside without outside, et cetera. Van Eyck calls these reciprocal entities or qualities 'twin phenomena' or, in his earlier texts, 'dual phenomena'.

He used the term 'dual phenomenon' for the first time in 1950 in a letter to Sigfried Giedion (on the function of a proposed UNESCO art review), in the context of the relation between collectivity and individuality and the relation between 'art, science, religion and social pattern' (wr [1950]: 2:48). The origin of this notion, though, can be traced back to William Blake, P.N. van Eyck, Carola Giedion-Welcker and the avant-garde of the early twentieth century – in particular of De Stijl (Strauven 1998: 459). A very similar notion – here called 'parallel phenomena' – already appeared a couple of years earlier, in the report he wrote for CIAM 6 (Bridgewater, 1947): "*We must learn to recognise the different basic problems that have occupied the advanced men of our time, from architect to poet, from astronomer to biologist, as different manifestations of one and the same current. It will help us to become more accurately conscious of the course we regard as the right one. The study of parallel phenomena is indispensable; those who thought otherwise have already gone astray.*" (wr [1947]: 2:38)

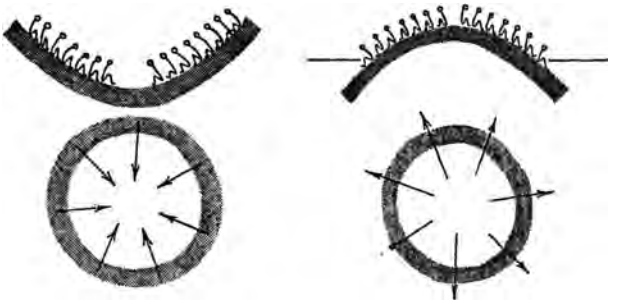


Figure 16: An interesting illustration of the ambivalence of twin phenomena was given by Van Eyck in in the presentation of his prizewinning (but never built) design, titled 'The Wheels of Heaven' (1963), for an oecumenic church in Driebergen: "*People seated concentrically in a hollow, gazing inwards towards the centre; and people seated concentrically on a hill, gazing outwards towards the horizon. Two kinds of centrality. Two ways of being together – or alone. The images, of course, have ambivalent meanings – though the hill reveals what the hollow may conceal: that man is both centre-bound and horizon-bound (the horizon and the shifting centre, the centre and shifting horizon). Both hill and hollow, horizon and centre, are shared by all seated concentrically either way; both link and both lure.*" (wr [1965]: 2:476)

The idea behind the notion of twin phenomena is that because entities or qualities are relative – also to the people perceiving them: "*Einstein, de Broglie, Planck, Bohr, Heisenberg and others have made it quite clear that, ultimately, we cannot measure what cannot be related to ourselves*" (wr [1962]: 1:91) –, they cannot exist (have a meaning) without their opposites. Furthermore, all twin phenomena are connected, making up a network or fabric: "*It is in the nature of relativity that all twin phenomena should be inextricably interwoven. The whole fabric is distorted throughout if you damage one by splitting it into conflicting alternatives, for each half will then of itself take place on a pedestal and become a meaningless absolute. You cannot come to terms with one twin phenomenon without coming to terms with adjacent ones.*" (ibid.: 1:70) Herein we can see an attempt of Van Eyck to do justice to the complexity of reality.

Because phenomena are intrinsically connected, splitting them will lead to false alternatives (ibid.); to alternating negatives (cf. ibid.: 1:148). This is one of the reasons Van Eyck criticized CIAM's analytical approach; because that is exactly what they did. Instead he proposed to think in terms of reciprocity and to connect different phenomena. The concept of twin phenomena should thus been seen as the translation of the idea of relativity into an approach towards how to understand what specific phenomena are, hence Van Eyck's ontology.

Conceiving relativity as reciprocity in Van Eyck's writings implies a rejection of hierarchies – at least in an absolute or static sense (cf. ibid.: 1:47). It also made him praise the 'Great Gang' and their 'Great Riot' for "*unmasking the worn-out hierarchies that prop society*" (ibid.: 1:48). In the 1980s he nuanced this statement and wrote that the 'Great Gang' "*trace[d] the outline of a hierarchy that [...] is not irreversible*" (wr [1981]: 2:545) – an insight for which he credited his Delft Polytechnic colleague and former student Pjotr Gonggrijp (ibid.: 2:720).

Before 1962 Van Eyck used the term 'dual phenomenon', which he then changed in 'twin phenomenon'. This was to prevent any confusion with dualism, while the twin reference is probably inspired by the cosmology of the Dogon people he read about

and which he visited in 1960 (see the brief biography in chapter one):

> *What excites me especially with respect to the village is the fact that they are generally built in pairs. The same goes for the districts. Since I am deeply concerned with twin-phenomena, the principle of twin-ness –* gémelliparité *– which runs right through the entire Dogon cosmology, manifesting itself at every scale level can, therefore, hardly fail to excite me! A rare sense of equipoise pervades the life and doings of the Dogon and epitomizes their specific genius. It seems to me that it could well be nourished by this principle of twin-ness, the one sustaining the other reciprocally. (wr [1967]: 2:392)*

It is important to understand that the notion of twin phenomena is not meant to dissolve oppositions – it should neither be confused with dialectics such as used by the German philosopher Georg Wilhelm Friedrich Hegel (1770–1831): "*I am concerned with ambivalence not with equivalence. No Hegelian implications should be searched for therefore; on the contrary, it should be understood that they are for once categorically absent. I am not concerned with the unity of opposites.*" (wr [1962]: 1:91) On the contrary, even, the notion of twin phenomena presumes the simultaneous existence of both phenomena, while "*Concepts and solutions based on reaction and counter-reaction are worthless in the long run, because they are based on false premises, i.e. false alternatives.*" (ibid.: 1:148)

The in-between realm

The spatial equivalence of the notion of twin phenomena in Van Eyck's theory is the notion of 'in-between'. It appeared for the first time (as far as I have been able to establish) in a short observation written after his two trips to the Sahara: "*The Sahara spans between two worlds: the world of Mohammed and the world of the Negro. Both in the imagination and in fact, this ocean of stone and sand is an in-between world.*" (wr [1953]: 2:86) Later he used the idea in a more architectural sense, initially as 'in between province' in an article about the schools he built in the village of Nagele (wr [1960]: 2:422). It was in the course of designing the Orphanage (figure 17) that he developed the notion of in-between into a design strategy for translating the notion of twin phenomena into architecture – a strategy that provided an alternative for the modernist principle of continuous space:

> *it implies a break away from the contemporary concept [...] of spatial continuity and the tendency to erase every articulation between spaces, i.e. between outside and inside, between one space and another. Instead I suggest articulation of transition by means of defined in-between places which induce simultaneous awareness of what is significant on either side. An in-between place in this sense provides the common ground where conflicting polarities can again become twin phenomena. (wr [1962]: 1:63; cf. [1961]: 2:319)*

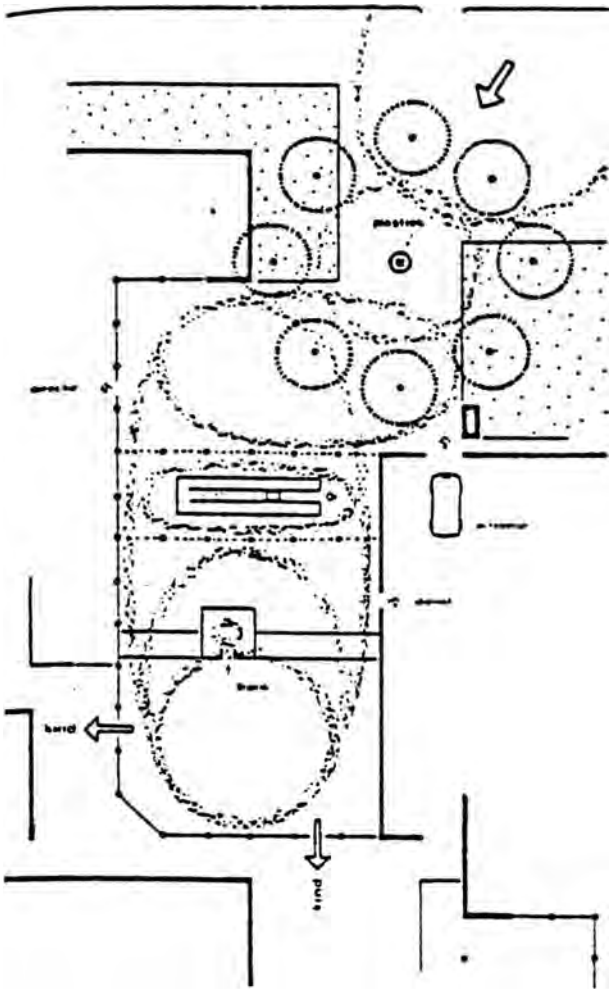


Figure 17: Scheme of the entrance sequence of the Orphanage as an example of the in-between in Van Eyck's building: "*It seemed best to anchor the children's large house–little city to the street, i.e. to the public sphere, there were they enter and leave it, by introducing a large open square as a transition between the reality outside and that inside. It is an in-between domain leading the trail gradually in stages, helping to mitigate the anxiety that abrupt transition causes, especially in these children.*" (wr [1961]: 2:318)

What Van Eyck called 'the in-between' originated in the notion of doorstep as introduced by Alison and Peter Smithson at CIAM 9 (Aix-en-Provence, 1953). Van Eyck extended the meaning of this notion to much more than the transition between house and street (cf. wr: 2:704-5). In his own words:

I have been mulling over it, expanding the meaning as far as I could stre[t]ch it. I have even gone so far as to identify it as a symbol with what architecture means as such and should accomplish. To establish the 'inbetween' is to reconcile conflicting polarities. Provide the place where they can interchange and you re-establish the original dual phenomena. *I called this* 'la plus grande réalité du seuil' *in Dubrovnic [CIAM 10, 1956]. Martin Buber calls it* 'das Gestalt gewordene Zwischen'. *(wr [1961]: 2:204; cf. [1962]: 1:61)*

This quote furthermore reveals how Van Eyck made the transition from 'doorstep' to 'in-between': he combined the extended notion of doorstep with the notion of '*das Zwischen*' (German for 'the in-between') as introduced by the Austrian-Israeli philosopher Martin Buber (1878–1965). His attention was drawn to the latter by the Swiss architects Rolf Gutmann (1926–2002) and Theo Manz in their contribution to the CIAM interim congress of Sigtuna in 1952 (wr: 2:218; [1959]: 2:243-4; Strauven 1998).[13]

13 Gutmann and Manz referred to Buber's *Urdistanz und Beziehung* (1951).

In *The Child, the City and the Artist* Van Eyck gave a more extensive elaboration on his interpretation of Buber's *Zwischen*. He did so by referring to *Das Problem des Menschen* (1943). In this book Buber wrote about '*das Reich des Zwischen*' and the relation between individual and collective, which Van Eyck related to his own notion of twin phenomena:

> *It was Martin Buber who said that individualism implies part of man whilst collectivism implies man as a part. That's what he said, and he's up against the splitting of a twin phenomenon that cannot be split.*
>
> *To follow Buber further: individualism sees man only in relation to himself, whilst collectivism fails to see man at all. That, I think, is incredibly true! For what is related only to itself or isn't related at all confounds relativity and freezes into an abstract absolute. And nothing appertaining to man is either abstract or absolute.*
>
> *Both conceptions, Buber says, grew out of the same human situation – both lead to frustration, isolation and despair. Neither one nor the other can pave the way that leads to the totality of man, for only between real people can there be anything like real associations. He means, of course, that the totality of man (implying real people) lies beyond the cold abstraction of either individualism or collectivism but requires both in another (real) dimension. Since both are equally abstract and hence equally unreal, both, to use his words again, are incapable of clearing the track between one man and another man, for the fundamental reality of man is one man and another man – man and his fellow men.*
>
> *Modern individualism is an imaginary structure – this is why it fails. Collectivism is the final barrier man has thrown up against himself as a substitute.*
>
> *There is only one reality between real persons – what Buber calls 'the real third'. To use his words, interpreting them at the same time: the real third is no makeshift, but the real bearer of all that passes between real persons (no reconciliation between false alternatives, in my terms, no arbitrary bridge between the conflicting halves of an arbitrarily split twin phenomenon). The real third is no new subterfuge because these false alternatives have failed. I should like to make it clear, though it is of course implied in Buber's concept of the real third, that individualism and collectivism cannot be reconciled as abstractions or absolutes since only what is real can shake hands and acquire ambivalent meaning – it needs real hands to really shake hands. The real third is a real dialogue, a real embrace, a real duel between real people.*
>
> *Buber then goes on to state – and this is his crucial point – that the real third is not something that happens to one person or another person separately and a neutral world containing all things, but something that happens between both in a dimension only accessible to both. The in-between acquiring form.* 'On the other side of the subjective, on this side of the objective, on the narrow borderline where I and you meet lies the in-between realm.' *(wr [1962]: 1:54)*[14]

14 Buber's original passage Van Eyck refers to: "*Ein wirkliches Gespräch, eine wirkliche, nicht gewohnheitliche Umarmung, ein wirklicher, nicht gespielter Zweikampf, – das Wesentliche davon vollzieht sich nicht in den*

Figure 18: "*Architecture must extend those narrow borderlines, persuade them to loop generously into articulated in-between realms*" (Eyck 1986: 2; cf. wr [1962]: 1:55) – photograph: Ernst Haas.

'*Das Reich des Zwischen*' inspired Aldo van Eyck to calling his notion 'the in-between realm', extending the 'narrow borderlines', hence the notion of doorstep (figure 18). "*Architecture must extend 'the narrow borderline', persuade it to loop into a realm – into an articulated in-between realm. Its job is to provide this in-between realm by means of construction, i.e. to provide, from house to city scale, a bunch of real places for real people and real things.*" (ibid.: 1:55) From the relation between house and street (the Smithsons' 'doorstep') and between man and other men (Buber's '*Zwischen*'), Van Eyck thus developed a notion covering every meaningful relation between people and between people and things (both as individuals and as a collective).[15]

Just like the notion of twin phenomena makes the meaning of things ambivalent, inclusive with regard to other things including what opposes it, and related to people, the in-between should necessarily be ambivalent as well, "*for it provides the kind of clarity that does not render invisible what is also there – what is equally true – what is simultaneously present.*" (ibid.: 1:90) It is Van Eyck's attempt to humanize architecture. He called it 'a frame of mind' – emphasizing it is not about the architecture itself but about its ambiguous nature: "*The kind of architecture which will ensue from it, represents it and transmits it – transfers what it receives.*" (ibid.) For this same reason he wrote about architecture as 'built homecoming' – "*The job of the planner is to provide built homecoming for all, to sustain a feeling of belonging – hence to evolve an architecture of place – setting for each subsequent occasion – determined or spontaneous.*" (ibid.: 1:61-2) In other words: people should be able to relate to architecture. That is, as we will see, the essence of the notion of place as appeared in the last quote.

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einen und dem andern Teilnehmer, noch in einer beide und alle anderen Dinge umfassenden neutralen Welt, sondern im genauesten Sinn zwischen beiden, gleichsam in einer nur ihnen beiden zugänglichen Dimension. Jenseits des Subjektiven, diesseits des Objektiven, auf dem schmalen Grat, darauf Ich und Du sich begegnen, ist das Reich des Zwischen." (wr: 1:228)

15 Here we could recognise how the in-between in Van Eyck's theory plays a role similar to a 'mediator' in some theories originating in science and technology studies and developed over the last couple of decades. I will elaborate on that subject in the third chapter.

The notion of in-between is a very powerful one to understand the relation between man, society and built environment. Sometimes, though, Van Eyck's faith in it developed a utopian edge – it might be rhetorical exaggeration – we should guard ourselves from:

> *As soon as the equilibrating impact of the in-between realm [...] manifests itself in a comprehensibly articulated configuration, the chances that the terrifying polarities that hitherto harass man's right composure may still be reconciled, will certainly be greater.*
>
> *It is still a question of twin phenomena, a question of providing the in-between places where they can be encountered, readily mitigating psychic strain. What is needed is a dimensional change, both in our way of thinking and working, which will allow the quantitative nature of each separate polarity to be encompassed and mitigated by the qualitative nature of all twin phenomena combined: the Medicine of Reciprocity. (ibid.: 1:65)*

Interiorization

Where the notion of twin phenomena represents the ontological side of Van Eyck's theory by explaining how entities could be meaningful, the notion of interiorization is the epistemological side: it is his attempt to understand the way we, as human beings, are able to understand our built environment, i.e. to relate to it, and to anticipate to the way it works. Probably it is also the least understood aspect of Van Eyck's theory. He developed this notion from different angles in *The Child the City and the Artist* (1962) followed by several articles and talks in which aspects of it returned. It is a notion that connects several aspects of the ideas he developed: the twentieth century world view in terms of relativity, his search for a way to reconcile rationalist analysis with imagination (science with art) and an understanding of man, his nature and his cultures. It is also a way to get rid of the distinction between object and subject as two opposite polarities – to see them instead as twin phenomena:

> *In principle the blending of the mind with what is still generally supposed to exist irrespective of it – an objective exterior world impervious to the impulse of concept – has interiorized the latter. Man's troublesome 'subjectivity' no longer troubles the 'objectivity' of reality! Since the latter can only be understood and measured in terms of the former it follows that the contrariety of subject and object is mitigated. At the most subjectivity can now only be identified as a degree of objectivity and vice versa. Art and science can certainly shake hands on this score for the cause of the old schism has gone. If this were only understood! (wr [1962]: 1:47)*

A precursor to the notion of interiorization can be found in the Dutch version of a poetic contribution by Van Eyck to the 'Door and Window' issue of *Forum* (august 1960), which started with the following passage:

> *Tussen hier en daar, nu en straks, tussen een mens en een ander mens, reikt het gemoed.*
> Maar niet zonder meer.
> *Want daartussen bevinden zich de stoffelijke zaken, die de mens met behulp van materiaal, gereedschap en verstand voor zichzelf maakt; een meer of minder geordende plaats geeft.*
> *Reikt het gemoed door deze materie heen? bereikt het een ander, de andere kant, een volgend ogenblik?*
> (Voor allen, die de paradox van het juiste antwoord niet schuwen is dit geschreven.)
> *De ruimte is in de leegte verdwaald en met de ruimte mee, het gemoed. Beide zoeken een gemeenzame plek, maar vinden kunnen zij haar niet.*
> *[…] (Eyck 1960: 107)*

Van Eyck uses here the Dutch word '*gemoed*', which cannot be directly translated into English. Therefore this passage does not return in the English version of this text – which is in fact not a translation: as he did often, he completely rewrote it to make maximum use of the specific poetic qualities of both languages. The *Collected Articles and Other Writings* nevertheless provides a translation of the Dutch version:

> *The mind reaches between here and there, now and later, between one man and another.*
> But not just like that.
> *Because in between are the physical things which man makes for himself with the aid of tools, materials and intelligence, giving them a more or less ordered place.*
> *Does the mind penetrate this matter? Does it reach another, the other side, a following moment?*
> (For all those who do not shun the paradox of the right answer this has been written.)
> *Space went astray in the void, and so did the mind, along with space. Both are searching a common place, but they cannot find it.*
> *[…] (wr [1960]: 2:291)*

Ligtelijn and Strauven have chosen to translate '*gemoed*' as 'mind', although its meaning is not entirely the same. They did so because they state that in *The Child, the City and Artist* Van Eyck "*obviously adopted the notion of 'mind' as an equivalent for* 'gemoed'." (wr: 2:710) I contest this. '*Gemoed*' in Dutch means so much as 'the interior of man, as seat of his feelings and emotions', which is much narrower than the meaning of 'mind' in English. Etymologically, furthermore, it has the same stem as the verb '*moeten*' ('to want' or 'having to'), suggesting it is also the seat of will and desire (cf. Etymologiebank s.d.; Sterkenburg & Verburg 1996). Taken into account the notion of interiorization as introduced in *The Child, the City and Artist* the equivalent notion is not 'mind' but 'interior of the mind'.

The impossibility of translating the notion of *gemoed* might not be the only reason Van Eyck replaced it by his notion of interiorization: reading the way he used it – 'the *gemoed* reaches between here and there, now and later, between one man and another' – gives almost the impression that it is some kind of substance, similar to what aether was in physics before Einstein's special theory of relativity. That could never have been Van Eyck's intention.

The choice of the word 'interiorization', however, is also a bit problematic – which might have contributed to the lack of acceptance in architectural theory. As Ligtelijn and Strauven point out, Van Eyck's use of this word is different from the common meaning it has today as 'to incorporate within oneself' (wr: 2:466) – and therefore as synonym of 'internalization'. But it is not only in conflict with the current sense of the word; it also becomes problematic once connected with dualism (the distinction between mind and body, mind and matter or subject and object) or with the distinction between internalism and externalism in epistemology, in which internalism stands for the position that the truth or reality can only be in our minds (Routledge 2000: 246-9, 399-400). In both cases a polarizing distinction is made between object and subject – or to phrase it in Van Eyck's terms: the reciprocity of the twin phenomenon is split into two false alternatives.

Another reason that the idea of interiorization has not been accepted in architectural theory might be that it is a highly abstract notion, more closely related to debates in philosophy, psychology and anthropology than to architecture. Therefore it is very likely that many of his followers have never fully understood the frame of mind Aldo van Eyck wanted to introduce into architectural thinking. Remarkable it is, at least, that many of the less abstract and more architecturally related concepts he developed out of the idea of interiorization have gained much more acceptance.

To really understand the notion of interiorization and hence to assess whether it is a suitable notion for today's problem of the relation between man, society and built environment, or it might be replaced by something else, we first need to have a closer look at where this notion is based on and what other important (and less abstract) notions in Van Eyck's theory are related to or depending on it.

Duration, memory and anticipation

Already in his Zurich years Aldo van Eyck has been studying different ideas of relativity. He found them not only in severalcurrents of modern art and in texts by physicists such as Albert Einstein (1879–1955), Niels Bohr (1885–1962), Werner Heisenberg (1901–1976) and Louis de Broglie (1892–1987), but also in these of the French philosopher Henri Bergson (1859–1941). While one of the many quotes accompanying his report for CIAM 6 (Bridgwater, 1947) was by Bergson (wr: 2:37), and he had been studying his texts in the late 1940s and early 1950s, according to Strauven (1998: 109-12), it was not until *The Child, the City and the Artist* (1962) that Aldo van Eyck developed his own epistemology, referring to the philosophy of Bergson.

In particular Van Eyck referred to the role of memory and the simultaneous perception of past, present and future, coming together in Bergson's notion of duration (*la durée*):

> *in order to define consciousness and therefore freedom, Bergson proposes to differentiate between time and space, 'to un-mix' them, we might say. On the other hand, through the differentiation, he defines the immediate data of consciousness as being temporal, in other words, as the duration (*la durée*). In the duration, there is no juxtaposition of events; therefore there is no mechanistic causality. It is in the duration that we can speak of the experience of freedom. (Lawlor & Moulard 2010)*

In duration – in simple terms: the human experience of the moment; of time – the world is not experienced discretely, as a quantitative multiplicity, but continuously and yet heterogeneously, as a *qualitative* multiplicity. This is connected to his understanding of memory: memory conserves the past and the experience of the moment – the experience of duration, in which the current moment itself and the collection of past moments in memory come together. Therefore no single moment can ever be the same twice, as the previous one has already been added to the past. Memory, and therefore human understanding, is progressive. The multiplicity, here, is in the simultaneity of many different memories, together with the current moment. Past and present are indivisibly one. The understanding of the moment as an integral experience and the recognition of unity in the heterogeneity of memory and perception is what Bergson called intuition. It is a more dynamic way of understanding than the 'analytical' thought of diminution and intelligence, the other part of human thought and memory he called 'habitual'. Habitual memory consists in obtaining automatic behaviour by means of repetition and habitual thinking or intelligence aims at necessities imposed by the body and our habitual knowing in spatial terms. Memory, now, is in Bergson's theory a mixture of both this habitual memory and the 'pure' memory in which personal memories survive. Intuition is the process of movement from pure memory into action. It is the creative moment – it opens up to creativity.[16] (Lawlor & Moulard 2010; Lechte 2008: 372-8)

The three concepts Aldo van Eyck used to understand the human relation to time and space – duration, memory and anticipation – are an extension of the way Bergson understood duration and memory (cf. wr [1962]: 1:74-80):

> *the present should never be understood as the shifting a-dimensional instant between past and future or as a closed shifting frontier between what is no longer and not*

16 This is a very brief description of Bergson's thought, focussing on his understanding of duration and memory, because these aspects are fundamental to understand Van Eyck's interpretation of it. A more profound research into similarities and discrepancies between Bergson and Van Eyck would most probably reveal many more ways Van Eyck was influenced by Bergson, for example in his use of the word 'image', neither as an analogy, nor as a visual representation, but as an associative way of understanding or knowing.

yet is, but as a temporal span experience, shifting in the continuum of consciousness where past and future converge. I think the temporal span experience man carries with him in time – his sense of duration – is sometimes appreciated as large and inclusive, sometimes as small and exclusive. It is when he experiences and participates fully, when his associative awareness charges and extends perception, rendering it transparent and profound through memory and anticipation, that he becomes aware of duration, i.e. of temporal depth.

The past and the future are then contained in the span of the present. A sense of being 'present' within the present, of being contained in its temporal span, ensues. Awareness of duration is as gratifying as awareness of the passing instant is oppressive. The former opens time, renders it transparent, whilst the latter closes time, rendering it impenetrable, i.e. without dimension. However, as soon as man experiences duration he senses himself contained in time – included – and time contained in him. In coinciding with time, furthermore, he coincides with himself. There is then no difference between sense of duration and sense of being, not for that matter between these and the sense of the present, for the present is experienced as extending into the past and the future; past and future are created in the present. This implies self-realisation. Yes, man is 'at home' in duration. But there is no room for him in 'closed time'. In the abstraction of the consecutive instant man loses his sense of dimension and hence also his identity. (ibid.: 1:74)

Like Bergson, Van Eyck criticised the mechanist approach. In Bergson's understanding of duration and memory Van Eyck found a lead for overcoming the reductionist tendencies of 'pure analysis' – in particular the breaking down of urban complexity into four functions: dwelling, work, recreation and transportation (cf. ibid.: 1:115) – and humanizing the modern architectural approach by recognizing human experience of the built environment.

Besides duration and memory, Van Eyck used the notion of anticipation. This could be seen as a variation on Bergson's idea of creative thinking: the latter is the speculative mode of thinking, the former "*should be regarded as the immediate extension of that of memory; an extension without a noticeable transition. Hence, since the future is telescoped into the temporal span of the present, anticipation merges with memory. If architecture is able to respond continually to human desire it will also elicit hope, the temporal aspect of which is of far-reaching significance.*" (ibid.: 1:79) Van Eyck described two mental processes related with anticipation: on the one hand mental association "*which not only articulates the impact of memory and anticipation but, beyond that, relates experience and knowledge intellectually, charging both with meaning and thereby rendering place [experienced space] impression far greater*" (ibid.); on the other hand emotional association which "*will likewise intensify the impact of memory and anticipation, though more unconsciously, and blend the images of former place experiences, carried in memory, with those that take place and still will – or will again – take place, colouring them with undertones and extra tones, irrespective – this is important – of the image category, i.e. irrespective of the*

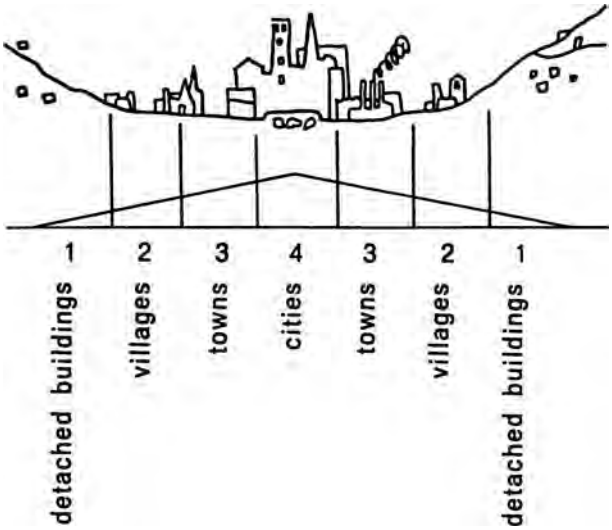


Figure 19: Alison & Peter Smithson's 'scale of human associations' in con-junction with Patrick Geddes' 'Valley Section', as published in *The Story of Another Idea* (wr [1959]: 2:256). The Smithsons' use of the term 'association' is rather different from what the same term means in Van Eyck's texts, beside the ones in discussion with the Smithsons.

diverse nature of the images blended through such emotional association." (ibid.: 1:79-80) Note the similarly to Bergson's distinction between intellectual thought (mental association) and intuition (emotional association).

The term 'association' could also been seen as a successor of or an addition to the term 'imagination' (I will return to that): while the latter appears frequently in Van Eyck's early texts (but does not disappear in the later ones), the former appeared for the first time in that sense in *The Story of Another Idea*: "*a greater sensibility for detecting associative meaning is necessary on the part of the architect-urbanist.*" (wr [1959]: 2:255) The difference with the notion of mental and emotional association is that here he is not concerned with man in general, but with the architect as a designer – who also needs to anticipate the future in order to make a good design. In *The Child the City and the Artist* he called this 'poetic association' (wr [1962]: 1:48), which he also used as a more inclusive and imaginative counterpart of analogy: "*Analogies compare directly instead of identifying indirectly through what one may call poetic association.*" (ibid.: 1:101)

Yet another meaning of the term 'association' can be found in the discussion with the Smithsons concerning the Doorn meeting of 1954 (which could be considered, in retrospective, to be the first meeting of Team 10) and its outcome: the *Statement of Habitat*. One year earlier, at CIAM 9 (Aix-en-Provence), the Smithsons had proposed to replace CIAM's hierarchy of functions by a hierarchy or scale of human associations, inspired by the 'Valley Section' (figure 19) of the Scottish biologist, sociologist and pioneering town planner Patrick Geddes (1854–1932). What the Smithsons called 'human associations' corresponds more to what Van Eyck called 'human relations' (cf. wr: 2:180-1), be it in a less abstract way: Van Eyck did not focus on such categories as 'house', 'street', 'district' and 'city', because for him people's ability to relate to a place does not necessity depend on its scale (cf. wr [1962]: 1:153-4).

The recognition of how Aldo van Eyck's ideas are rooted in those of Bergson (among others) makes it easier to understand what he means with the notion of interiorization. Let us once again look at Van Eyck's own use of this concept:

> *To interiorize is to render kaleidoscopic. [...] I visualize the in-between realm as a home for twin phenomena and hence also as a home for a reality which is thereby interiorized and rendered transparent; [...] I deem it interiorized because I desire to sense reality's 'presence' in the mind, which implies at the same time a desire to become sensitive to the mind's interior and hence aware, as tangibly as possible, of the body of human experience gathered and gathering in the temporal span of the present. (ibid.: 1:124)*

It now becomes clear that what he meant by interiorization is similar to what Bergson called duration: it is the simultaneity of experience and memory, and that what Bergson called 'qualitative multiplicity', Van Eyck called 'the kaleidoscope of the mind' – or in this quote: 'to render kaleidoscopic'.[17] Interiorization is thus Van Eyck's translation of the idea of relativity into an understanding of human nature – this in order to understand man's relation to his environment and thus to architecture.

Place and occasion

Where Bergson only focused on the temporality of experience, in contrast to the spatial focus of the mechanical, scientific world view, Van Eyck combined Bergsonian temporal and Einsteinian spatial relativity into the twin notion of place and occasion. By means of the idea of interiorization he extended Bergson's duration into the spatial domain.[18] Both space and time, as he saw it, are abstract, mechanical concepts, which could by humanized – "*place and occasion imply participation in what exists,*" (wr [1962]: 1:61) "*relativity presupposes the involvement of the subject*" (wr [1962]: 2:175) – into place and occasion: "*Whatever space and time [...] mean, place and occasion mean more, since space in the image of man is place and time in the image of man is occasion.*" (wr [1962]: 1:49) These notions (including the quoted phrasing) appeared for the first time in the 'Door and Window' issue of *Forum* (1960) – to be precise in the English version of the previously quoted poetic Dutch text in which he introduced the notion of *gemoed* (p. 52):

> *Space has no room, time not a moment for man.*
> *He is excluded.*
> *In order to 'include' him – help his homecoming – he must be gathered into their*

17 The kaleidoscope seems to have been Van Eyck's favourite metaphor for relativity and multiplicity: it appears frequently from (for as I have been able to establish) the first time he used it in this sense in 1957 in a speech in tribute to Carola Giedion-Welcker (wr: 2:134), until an interview in 1991 (ibid.: 2:616).

18 Interestingly Lawlor and Moulard point out that with the revival of Bergson's ideas in the writings of Gilles Deleuze (1925–1995) and Michel Foucault (1926–1984) the concept of qualitative multiplicity is dissociated from time and associated with space (Lawlor & Moulard 2010). This raises the question what the difference is between the way Aldo van Eyck has translated Bergson's ideas into an architectural approach and the way it has penetrated into postmodern architectural discourse via the interpretation of Deleuze (who has been a major inspiration for architectural theory in the last decades).

meaning
(man is the subject as well as the object of architecture).

Whatever space and time mean place and occasion mean more.

For space in the image of man is place and time in the image of man is occasion.

Today space and what it should coincide with in order to become 'space' – man at home with himself – are lost. Both search for the same place, but cannot find it.

Provide that place.

Is man able to penetrate the material he organizes into hard shape between one man and another, between what is here and what is there, between this and a following moment? Is he able to a find the right place for the right occasion?

No – so start with this: make

a welcome of each door
a face of each window

Make of each a place, a bunch of places of each house and each city (a house is a tiny city, a city a huge house).

Get closer to the centre of human reality and build its counterform – far each man and all men, since they no longer do it themselves.

[…] (wr [1960]: 2:293)

It is only in *The Child the City and the Artist* (1962) that he wrote down a connection to the theory of Bergson. Like duration is Bergson's theory, for Van Eyck occasion is experienced time – hence comprehensible time in contrast to purely abstract metronomic time, while place is comprehensible space. In a way similar to the role of memory for duration in Bergson's theory, Aldo van Eyck explained the experience of place and occasion in relation to each other and to memory:

Since an occasion-experience remembered cannot be isolated in a metronomical time sequence or severed from the previous one, it follows that it will tend to resist being exclusively tied in memory to the particular location where it took place. It may shift to quite another place and merge with another occasion that took place there or elsewhere; it may shift back and coincide with the actual place. In memory, places shift no less with reference to each other; they also merge with other places. One place is therefore always present in another, one occasion experienced in the climate of a

> *previous one, similarly one object is charged with the meaning of another. Each place, each occasion, each object, is as it were transformed by other places, other occasions and other objects in our appreciation. (wr [1962]: 1:80)*

The interrelation between place and occasion is one of the reasons Aldo van Eyck opposed the primacy of function: for him it is "*the inflation of the meaning of activity for its own human sake*", because "*Activity should 'create' the temporal span of the present. Its meaning is lost – hence also the meaning of place and occasion – if it signifies 'spending' each consecutive instant*" (ibid.: 1:153). In our memory place and occasion are connected, as occasions are associated with the places where they happened. And because the affinity of one place is in the process of memory and anticipation associated with other places, the affinity to many different places enhances the affinity towards each individual one and helps developing what Van Eyck called an 'extended place affinity' (ibid.: 1:153-4).

Aldo van Eyck emphasized that place-quality is not a property that must be designed, but one that arises from the relation between human and space: "*space-meaning need not be preordained or implicitly defined in the form. It is not merely what a space sets out to effect in human terms that gives it place value, but what it is able to gather and transmit.*" (ibid.: 1:67) At the same time it is not a property one can choose whether or not to implement into a design, because "*memory, anticipation and mental association will influence place appreciation whether the architect-urbanist, whilst at work, is conscious of this fact or not; whether or not it positively affects the realization process.*" (ibid.: 1:80-1) What the architect or urban planner can do is to consciously try to make a design such that it has the potential for human association and therefore for the experience of place and occasion and for being remembered – give it place-*potential* (cf. ibid.: 1:69).

This place-potential does not exclude the openness usually connected with the common modernist notion of space: "*There are two fundamental kinds of spatial sensation that are compatible with man's primordial nature. They must always be present somehow in what we make – both at once. […] There is the spatial sensation which makes us envy birds in flight, there is also the kind that recalls the sheltered enclosure of our origin. […] The in-between realm provides for both aspects simultaneously.*" (ibid.: 1:67-8) In short Van Eyck called place 'the appreciation of space' (ibid.: 1:67), but a place is not necessarily a quality related to an entire space, it can also be a part of it, constituting a smaller place but also making it possible to experience the larger space:

> *Now, to charge space with the meaning of place is not to effect false synonyms either, for there is a very relevant meaning that place embraces which space hardly can. I am thinking of the actual corporal place reality of components, elements and objects which are physically tangible and accessible as such in that they have – or acquire – a direct human use.*
>
> *A wall, a seat or some steps on which to repose, talk, wait or watch; a table around which people gather for an occasion; a balustrade, wall or lamppost against which one*

> *can lean and smoke a pipe, a door which allows one to tarry with dignity. All these things are not spaces as such but they constitute place in the most direct physical sense. They are tangible points of focus from which space is appreciated. Their experience value belongs to the body of space – to its place potential – but they are not space as such, although they impart a feeling of belonging, of being somewhere specifically. (ibid.: 1:67)*

This quote and some of the previous ones reveal two important aspects of Van Eyck's notion of place: its difficult relation with the notion of space and its relation with the in-between. The latter is a very important one, because it makes clear that places are not autonomous and neither must have clear boundaries. In his description of the Orphanage, for example, he called the interior street (figure 20) an 'intermediary place' (wr [1961]: 2:319); he also regularly used both notions in conjunction: as 'in-between place'. Place, in Van Eyck's theory, should be seen as the architectural (spatial) dimension of the in-between realm, and as it thus is related to the notion of twin phenomena, where one twin phenomenon is always connected to others, so is a place – both in its 'multi-meaning': "*the meaning of every real articulated in-between place is essentially a multiple one,*" (wr [1962]: 1:55) as in the relation between different places: "*When I speak of house or city as a bunch of places, I also imply that you cannot leave a real place without entering another – if it's a real 'bunch'. Departure must mean entry.*" (ibid.: 1:56) Architectural space could thus been seen as a network of places – although we will see in chapter three that the notion of network, as it is commonly used, also has its troubles.

Now for the issue of the relation between space and place: since the early 1960s, when it became one of his major themes, Van Eyck's writings showed a struggle. It is clear that he associated the former with what he rejected in CIAM's modernism: analytical abstraction – "*look, the word 'space' has become a sort of academic conjuring word. It means everything and therefore nothing.*" (wr [1961]: 2:295) Therefore he tried to avoid using the word 'space' (cf. ibid.: 2:296; [1982]: 2:495). Nevertheless he did not reject it altogether: "*Apart from qualitative distinctions that I liberally impose on the words 'space' and 'place' for the sake of effective evocation, I am not suggesting that the word 'space' should be banned form [sic from] the architect's vocabulary. I do not object to using it again for our work and thinking as long as it is allowed to acquire concrete meanings instead of purely academic construed abstract ones.*" (ibid.: 1:68)

While in the early 1960s the distinction between space and place was not a commonplace – Aldo van Eyck might have been the first to develop this concept within the context of modern architecture (Strauven 1998: 471) –, it became so in the following decades. The way it did, nevertheless, did not satisfy Van Eyck. Not only did he oppose the way 'posts, pests and other rats'[19] approach it, even the architects considered to be his followers did not meet his approval:

19 See footnote 5, p. 29.

Figure 20: Orphanage's interior street as an in-between – also in-between inside and outside, as emphasized by finishing floors and walls with outside-like materials and lighting that gives a street-like effect (cf. wr [1961]: 2:319) – photograph left: Van Eyck; centre: Louis van Paridon; right: J.J. van der Meyden.

> *The meaning of space [...] is in the process of being hollowed out, whilst the spaces themselves currently contrived by architects and town planners [...] are becoming emptier and emptier [...]. Space is now just another magic word without effect! That is why I tried to avoid using it for some years (though surreptitiously busy with it all the time). 'Stop talking about space, provide that place,' I protested [...].*
>
> *Lo and behold, places for this, that and the other came crowding in by the million like a new curse, as void as spaces had become before. That new word (like 'space' before, though there is nothing wrong with either) has dribbled from almost every architect's mouth since. Besides, I failed to foresee that those places would – in Holland – turn out to be quite so cosy. It didn't have to be that way – straight from cold and meagre to snug! But it did show how 'place' too became a magic word without content – and how, without receiving much in return, words are wasted on architects ('language' doesn't really rub off on them). Place, like space, is illusive, and cannot thus be 'provided for', or so it appears. All the same, we cannot do without either the one or the other. (wr [1982]: 2:495)*

As emphasized in this quote, architects and urban planners keep falling in the same trap: deterministic thought has still not disappeared – and I see no reason to think is has is the twenty years after Van Eyck wrote this quote.

Beside the rejection of empty academic abstractions, Van Eyck wanted to circumvent yet another aspect of the notion of space as used in CIAM's modernism: the primacy of the visual senses. For Van Eyck, on the contrary, it is just one of them:

> *In suggesting [...] that architecture should transcend the sensorial limitations of immediate visibility, i.e. that it cannot be guided by formal preoccupations or rely on perceptive impact alone, I am pointing out the necessity of giving each articulated place a fuller experience potential in terms of intellectual and emotional association, recollection, anticipation and intrinsic multimeaning, for these alone can impart depth to visual experience and render the impact of architecture truly kaleidoscopic. (wr*

[1962]: 1:49)

This is a very important notion: if spatial perception and association depend on human memory (which is not just a matter of images and language: think about remembering melody and rhythm, or the choreography of a dance), the quality of a place does not merely depend on the way it looks (and what it literally refers to), but to what extent it has the potential for human association – visual or otherwise. This is exactly what Van Eyck means when talking in terms of interiorization: "*I have come to regard architecture conceived in terms of 'space' and depending primarily on visibility (visibility taken for granted!) as arbitrary and abstract; only physically accessible and therefore 'closed'. Space and time must be 'opened' – interiorized – so that they can be* entered*: persuaded to gather man into their meaning – include him.*" (wr [1967]: 2:472)

Even though Van Eyck became rather sceptical about it in his later years, his understanding of place still could be very valuable to understand the relation between man, society and the built environment: exactly because it is an attempt to humanize a sometimes too abstract notion of space, while at the same time it does not promise the possibility of a fully predictable outcome – just the architects ability to create a potential. Also in his entire theoretical body this notion plays a very important role. As place and in-between are the architectural translation of the principles of relativity and reciprocity, they are probably the most important concepts in Van Eyck's theory in order to understand his view on the role of architecture and the architect: "*I suggest articulation of transition by means of defined in-between places which induce simultaneous awareness of what is significant on either side. An in-between place in this sense provides the common ground where conflicting polarities can again become twin phenomena.*" (wr [1962]: 1:63)

Identity

A concept closely related to Van Eyck's relativist approach to place, occasion and human association is identity. Although it is today a commonly used term, it is a rather problematic one. It has a long history in philosophy, where it traditionally refers to the essence and unity of an entity: "*Anything whatsoever has the relation of identity to itself, and to nothing else.*" (Routledge 2000: 381) Nevertheless it is a highly disputed notion, by some authors even considered to be completely irrelevant (cf. Noonan 2009). In social sciences it only came into popular usage in the twentieth century (in particular in the second half of it). Here as well it is a problematic notion, as there are many different schools of thought understanding it in very different ways:

> *There is […] no clear concept of identity in modern sociology. It is used widely and loosely in reference to one's sense of self, and one's feelings and ideas about oneself, as for example in the terms 'gender identity' or 'class identity'. It is sometimes assumed that our identity comes from the expectations attached to the social roles that*

> *we occupy, and which we then internalize, so that it is formed through the process of socialization. Alternatively, it is elsewhere assumed that we construct our identities more actively out of the materials presented to us during socialization, or in our various roles. (Scott & Marshall 2005: 289-90)*

Only on what identity is not, the different school of social sciences seem to agree: they all reject essentialism – in the case of a person: understanding identity as referring to the 'real me'. (ibid.: 287-90) The latter still being the connotation the word seems to have in everyday use, for many people, and considering that in relation to architecture and urban planning it is mostly used without further definition, is should be clear why it is so problematic.

This said I will now focus on the way the concept of identity has been used by Aldo van Eyck. Contrary to most concepts he used it seems to have, more or less, changed meaning over time (not just by refinement), in the way he used it. The first text in which it appeared was a letter to Sigfried Giedion. He used it in conjunction with a paradox emphasizing the relativist core of his view: 'the identity of what is constant and constantly changing' – as he clarified this paradox himself: "*The double use of 'constant' attempts to illustrate not opposites i.e. constant and changing, but a unity analogue to time-space.*" (wr [1950]: 2:49).[20] Identity, in this sense, is related to a term which Van Eyck used frequently in his early texts, but which he stopped using in the 1960s: 'the elementary'. "*Architecture, and design in general, [...] should help to simplify life, never to complicate it; it should stimulate a general re-evaluation towards the elementary; reconcile what is constant and what is 'constantly' changing by uncovering their space-time identity.*" (wr [1951]: 2:51)

The elementary is a concept which Van Eyck borrowed from Carola Giedion-Welcker, who recognised in the art of the modern avant-garde an urge to bring to light elementary forces. Inspired by surrealism, Van Eyck extended this idea with a search for elementary forms in 'primitive' art, while at the same time he extended it as well with a search for the pure relations, inspired by De Stijl (Strauven 1998: 76-87). The latter, the reference to The Stijl and its elementary relations between elementary forms, also returned in his early designs – in particular in the many playgrounds he designed for the city of Amsterdam (figure 21).

It is not entirely clear why he abandoned the term. Most likely it has to do with the gradual extension of his theoretical body with notions such as twin phenomenon, place and identity, covering several aspects of what he initially called 'the elementary'. For the notion of identity in the sense of what is constant and constantly changing, it is clear that it is a variation on the elementary: identity being a reference to what an entity (whether person, group of persons or thing) *is*. This is in the first place a refer-

20 Van Eyck used the paradox of 'constant and constantly changing' for the first time in 1946, in a rather free translation into English of an essay on Arp by Carola Giedion-Welcker. It was his own addition, because no German equivalent appeared in C.W.'s original text (Strauven 1998: 87).

ence to its philosophical meaning.

At CIAM 9 (Aix-en-Provence, 1953) Alison and Peter Smithson introduced a rather different notion of identity into the architectural debate. Allegedly (Strauven 1998: 247) inspired by the work of the anthropologist Judith Stephen (*1918) and the photographer Nigel Henderson (1917–1985) – a couple they were friendly with – they used the term identity in a more sociological way: "*Feeling that you are somebody somewhere*" (wr [1959]: 2:223). In order for people to have an identity, they need to be able to identify with the street they live in – which thus, according to the Smithsons, needs to have an identity (Strauven 1998: 248). It was Jacob Bakema who made the connection between identity and the notion of belonging (ibid.: 249-50): "*'Belonging' is a basic emotional need – its associations are of the simplest order. From 'belonging' – identity – comes the enriching sense of neighbourliness.*" (wr [1959]: 2:246).

After CIAM 9 Van Eyck's use of the term 'identity' changed: remarks such as "*The citizen has forsaken his identity*" and "*Yet what it [the child] needs is something more permanent than snow. Something the city can absorb without losing its remaining identity*" (wr [1957]: 2:108) show a use of the term similar to the Smithsons. It is a notion that refers to a way in which it is used in social sciences, but it goes one step further: it could be applied to a person or group of persons (as is common in social sciences), but also to a building or cluster of buildings (of whichever scale), where it is its "*personality as it were*" (wr [1960]: 2:306), "*its intrinsic 'gestalt' in human terms, i.e. its real 'dwelling' potential*" (wr [1962]: 1:162).

This notion of identity became an integral part of Van Eyck's theoretical body, as it is connected to all the other notions mentioned so far. This manifested itself in the way he criticized CIAM's analytical functionalism: "*lack of place – and thus of occasion – will cause loss of identity, isolation and frustration*" (wr [1961]: 2:317) and "*In the void of exteriorized time and space 'things' are reciprocally exteriorized, become menacing hard-edged objects and lose their real identity. A world of 'its'.*" (wr [1962]: 1:75) And as Bakema suggested, identity, in this sense, could be connected to belonging, which in Van Eyck's writings is connected to the notion of homecoming. They make both part of what Van Eyck considered the job of the architect or urban planner: "*to provide built homecoming for all, to sustain a feeling of belonging – hence, to evolve an architecture of place – a setting for each subsequent occasion, determined or spontaneous.*" (wr [1961]: 2:318-9; [1962]: 1:62)

'Built homecoming' nevertheless does not mean that identity could be designed. "*Places acquire specific identity through the sum total of the positive properties each of them embraces in relation to its context within the overall configuration in which it occurs.*" (wr [1962]: 1:83) Identity thus is a quality appearing in the relation between something (in this case a place) and its context. This is an important notion, because understanding this means that 'giving a project a strong identity', as heard so many times from architects, urban designers and developers, is at best partly possible: not only does one have to take the context into account, this context is subject to change over time as well; especially because the context is not only the build context, but also the people

Figure 21: One of the playgrounds in Amsterdam designed by Aldo van Eyck (Jac. P. Thijsseplein, 1949) – photograph: Amsterdam City Archives.

that make use of it. This today seems often to be forgotten: that identity depends on both buildings (a particular one, and the ones making up its build context) and people and in particular the relations between them. What could be designed is not identity as such – just as place and occasion could not be designed –, but the potential to gain (or maintain) identity. Even more so because identity is dynamic, it changes – it thus still is what is constant and constantly changing. Not only does identity change over time, it is not even for every person exactly the same and at the same time refers to much more general identities:

> *There are as many Londons as there are Londoners, as many Parises as there are Parisians (as many too as there are Londoners going to Paris!), yet London is not Paris.*
>
> *A village (town or city) is not just one bunch of places; it is many bunches at the same time, because it is a different bunch for each inhabitant. Consequently there are many Andiumbolos. This means that a village can be identified with each villager individually but also with all the villagers collectively. (wr [1967]: 2:413)*[21]

Identifying device

The notion of identity played an important role in the approach to architecture and urban planning (in unity) Van Eyck tried to develop between 1959 and 1962, inspired by his own experience in the design of the Orphanage, the metaphor of small city–large

21 Andiumbolo is a village of the Dogon people in what today is Mali.

house and the student projects of Piet Blom: architecture and urban design as a configurative disciple. What he was searching for was an alternative for the monotonous city planning of endless repetition of the same houses in new city extensions – the additive planning of modern urbanism. He wished to achieve "*a far greater comprehensibility at all stages of multiplication*"; "*a radical enlargement of scale in the sense of far greater configurative compactness*"; "*a greater audacity of form and articulated place-clarity within a closely knit compound rather than an amorphous texture of inevitably oversized items […] additively arranged in space-emptiness*"; and ultimately "*a greater urbanity since this implies a far closer meshing of all urban functions, aspects, and kinds of human association.*"

The required design process "*is a question of multiplying dwellings in such a way that each multiplicative stage acquires identity through the significance of the configuration at that stage*", which is a matter "*of significant content transposed through structural and configurative invention into architecture. Each multiplicative stage should therefore achieve its appropriate identity by assimilating spontaneously within its structural pattern those public facilities this stage requires and which inseparably belong to it.*" (wr [1962]: 1:164)

Inspired by the fugal configurations of Piet Blom, the 'infra-structures' of Alison and Peter Smithson and the 'megastructures' of the Japanese Metabolist Movement, Van Eyck came up with the idea of introducing both large structures and identifying devices into the urban fabric, not as independent system, but as an integrated whole of large structures, identifying devices and urban fabric. "*Structural qualities must contain textural qualities and vice versa – in terms of consecutive place-experience, structure and texture must be ambivalent, for only then can wrong emphasis of the structural and amorphousness of the textural be avoided*" (ibid.: 1:176). Together large structures and identifying devices should make the city comprehensible on all scales (parts in whole and whole in parts). Large structures "*must not only be comprehensible in their own right, they must above all – this is the crucial point – assist the overall comprehensibility of the minutely configurated intimate fabric which constitutes the immediate counterform of each and every citizen's everyday life.*" (ibid.) Identifying devices "*– call them images – […] not only articulate visually but also frame civic association between people, i.e. […] still possess direct physical meaning and still bear witness to this day by day, which remain in our memory most persistently. They articulate places for simple occasions in which we are able to participate directly.*" (ibid.: 1:177)

When Aldo van Eyck wrote about identifying devices, he was not just referring to a quality of newly designed features. "*Identifying devices can be artefacts – new or historical – or given by nature and more or less intensely exploited. In the past it was often a church, a palace, a great wall, a harbour, a canal, an important street or square – often, too, a river, valley, hill, or seafront. Many of these are still valid beyond their visual impact.*" (ibid.) Nevertheless we cannot just do with the existing old ones; these are not enough. "*The time has come to invent new significant identifying devices that perpetuate in a new way the essential human experiences the old ones provided for so well. At the same time those new ones must provide for equally essential experiences the older ones no longer provide for, or never did.*" (ibid.: 1:178)

Although Van Eyck abandoned the idea of developing a configurative discipline after the debacle at the Royaumont meeting of Team 10 in 1962 (see the brief biography in chapter one), he did not forget why he made the attempt to formulate such an approach – as he noted a couple of years later and a lot more cautiously: "*We have to see if we cannot conceive of an item, say a house, in such a way that it has an identity, an identity in terms of human meaning, and that when we multiply it, we do not end up with something that has less identity, but more.*" (wr [1967]: 2:445) Nevertheless a change of context caused a change of approach: while his attempt to develop a configurative discipline should be seen in the context of the large urban extensions of the 1950s and 1960s and the critique on the monotonous and sterile character of the suburbs then built, the focus started to shift to the existing city in the late 1960s (cf. Engel 1999: 28) and Van Eyck got involved with inner city projects in the 1970s. Also the way he approached the city became more contextual. As early as in 1961 the first sign of this contextual view on the city can be found, when he wrote an article for the weekly *De Groene Amsterdammer*, while criticising the Amsterdam town hall plan by Berghoef and Vegter:

> *The point is how a magnificent city such as Amsterdam is in danger of being locally robbed of the very qualities that make it so habitable, so liveable. [...] The grandeur of Amsterdam's old city centre [...] lies in the wonder of its humane proportions and clear structure. For hundreds of years this humane dimension and structure have accorded with a correspondingly humane life view – being a direct product of it, of course.*
>
> *The city and the life in it are of the same stuff, have the same climate – and this is something you can no longer say of all cities, however visually attractive they may still be. The old houses along the canals, the canals themselves and the streets connecting them – even the old royal building, the Place at the Dam – and the enormous churches with their melodious towers, they largely get by together, and not in the first time separately. Nowhere does (did) one thing impose itself at the expense of any other (apart from a few exceptions of recent date); no bombast, no domineering size, no separate objects made autonomous. The stamp of an enterprising middle class is still clearly visible. It is a city where business sense and culture have always gone together. Traces of tyranny are not found here – at least, not until now. But there are plenty of old almshouses for the elderly, the poor and the orphans. A truly beloved tradition! (wr: 2:503-4)*

If we compare the way Van Eyck describes the traditional Dutch city in this quote with the configurative design idea, a similarity is striking: he recognized the non-hierarchal quality of its fabric; the clear and comprehensible structure of it; the monuments that strengthen the fabric without dominating it – the existing urban fabric becomes the larger structure and the monuments the identifying devices (among others) that Aldo van Eyck was looking for in his search for a configurative approach. Nevertheless the issue of identifying devices does not return in the texts from the contextual approach. It is no longer the same problem he sees himself confronted with. The new problem

is the value of the old city as Donor, i.e. as compensation for the lack of identifying devices in the new-built parts of the city:

> *We believe that today old city centres – both their spatial reality and their content – are psychologically indispensable for their own sake, simply because they exist in all their multicoloured intensity and enclosure, and because so far no newly-built districts possess these essential qualities in the least, not even in a contemporary version. They are rigid, empty and sterile and are therefore inadequate as places to live. As long as they remain this way, the city centre will continue to function as a donor. Nowadays, however, its donor task is too great for its size. It is therefore absolutely essential not only to keep its size as large as possible, but to ensure that the addition of certain quanta does not have the effect of losing precisely those qualities that, owing to the sterility of the suburbs, make it into a donor. (wr [1970]: 2:508)*

Almost three decades later he explains that this meant not that he abandoned the idea of identifying devices, just that it was not relevant to the problem of the existing city: "*I have never spoken of identifying devices in old cities because they already have them (assuming they haven't already been knocked down) and that is why I refer to old inner cities as Donors as long as the new ones or new urban quarters cannot fulfil that role.*" (wr [1998]: 2:559-60)

Right-size and labyrinthian clarity

One of the most important points Aldo van Eyck wanted to make is that we build for people and therefore it is absolutely necessary to take people's natural and cultural desires into consideration. This is not only an important aspect of his thought alone, but is one of the shared ideas among the architects of Team 10 and their followers. One related concept that has become strongly associated with Team 10 is the premise of the human size. In *The Child, the City and the Artist* Aldo van Eyck opposed this concept as too limited and too naturalistic (wr [1962]: 1:91). His alternative for 'human size' or 'human scale' was the concept of 'right-size'. He introduced it in another context one year earlier in a talk he gave at the Royal Academy of Art in The Hague:

> *In the newspaper that was lying opposite me on the train, I read a section on 'whether scientists have become sufficiently involved with literature'. It was a survey. The question was put to several professors, mainly astronomers and physicists. Professor Zernike answered that he had always had a great aversion to literature, possibly unjustly, because literature concerns itself with things that cannot be measured and he has always been engaged specifically in things that can be measured.*
>
> *I have to say I don't know what the Nobel Prize is awarded for, but I would in any case never give it to anyone who thought that in science things are measurable! Measurable à la Zernicke [sic Zernike]. Anyone occupied with what is measurable is not engaged in science, but in applied science. And of course you can do a great many*

> *worthwhile things with that, like making atom bombs and extra moons!*
>
> *In fact there is no barrier between the myth and what is measurable. After all, measurable doesn't mean that you can measure something in centimetres, kilos, guilders and dollars, does it? This has no meaning whatsoever as far as measurability is concerned. It doesn't have anything to do with measure or right-size. We try to give shape to the place between here and there, between this and the following moment, between inside and outside. These are things that cannot be 'measured'. They are things where the mind can feel at home if we gauge instead of 'measure'. (wr [1961]: 2:297-8)*

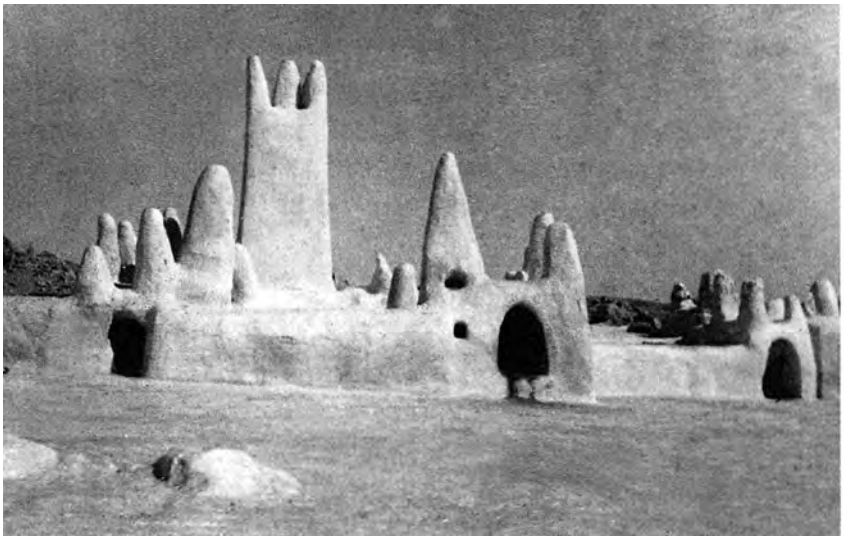
What this quote reveals is that Van Eyck pleaded for a focus on quality, not quantity – even not if measured in the size of man. Furthermore is not about the size itself, but the right effect of size (wr [1962]: 1:64). It is strongly related to his concept of twin phenomena: "*What has right-size is at the same time both large and small, few and many, near and far, simple and complex, open and closed; will furthermore always be part and whole and embrace both unity and diversity. [...] Right-size will flower as soon as the mild gears of reciprocity start working – in the climate of relativity; in the landscape of all twin phenomena.*" (ibid.) But right-size is not a singular thing:

> *Human scale converges with right-size, right-size with right-reference. The trouble is that right-reference is as kaleidoscopic as reality and as positively ambiguous. It is above all charged with intimations of all that is impalpable in human nature. Yes, if the reference converges with the full panorama – its full panaroma*[22] *– man will respond to it. He will then also respond to the places made – the table, the door, the window, the room, the building, street, square, city and region, to whatever significant artefact goes into the making of environment. He will respond to the right sequence whichever way he goes; the right enclosure; the right interval for emotional association throughout; the right delay; the right release; the right climate for anticipation and memory, spontaneous gesture and unpremeditated action. All this is the fortuitous extra that demands the scope and scale which must be inherent in the articulated configuration of places the architect-urbanist provides. This means no more and no less than that these places should be able to gather man into their meaning. I imply, above all, that he should be able to extend himself into their structure. (ibid.: 1:92-3)*

In short: building the 'right-size' is building with place-potential, building for people, building from an understanding of their nature and their culture, and making buildings and urban spaces comprehensible – which does not necessarily have to mean small in scale.

The notion of right-size is important, because it makes it understandable why an

22 The addition of 'panaroma' to 'panorama' appears several times in Van Eyck's texts from 1957 on. It is obviously meant to emphasize that our sensorial experience is more than visual alone – although he does not make it explicit anywhere.



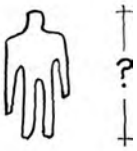


Figure 22: 'The enigma of size': the question of right-size illustrated by the marabout (mausoleum) of Sidi Aissa in Ghardaia, Algeria – photograph: Aldo van Eyck, 1951 (wr [1962]: 1:90).

architect or urban planner should not just study architecture, but man as well. If he does so, it opens the eye to understanding what makes existing places attractive to people. As Van Eyck himself observed:

> *Places that really attract us magnetically towards them, places we like to rediscover again and again, have this in common that they are both large and small – their unity and diversity ensures this because they contain different kinds of sameness and the same kind of differences. They are imbued with the right kind of order which always gives scope for order's twin sister – chaos. It is always a great thing to discover similarity in different ways and to recognize real differences as variations of the same – as great as it is to experience a similar kind of occasion repeated in different places and different kinds of occasions occurring in the same place. (This can happen anywhere, of course, in spite of architecture, but it can also happen because of architecture.) (ibid.: 1:93)*

It is such a frame of mind and observing eye Van Eyck wished architects and urban planners to have. This explains why he was so interested in in many different topics: history, art, literature, ethnology, anthropology, et cetera – everything that could help him understand people and the way they related to physical spaces – make them turn into places. The positive examples he gave to explain how right-size works – Saint Peter's Square in Vatican City, the Pantheon in Rome and the gothic cathedrals of England (ibid.: 1:94-7) – furthermore reveals that it was not to be considered an attack on monumentality as such.

Right-size is in Van Eyck's theory related to the perception of space, to *spatial* comprehensibility. In *The Child the City and the Artist* (1962) he also described another quality that – initially – is related to *temporal* comprehensibility: labyrinthian clarity. He introduced this concept with an example of a walk between two places in the city of Venice, with all its tiny roads, cannels, bridges and other details. Here we see duration in action: the walk takes quite some time, but the urban quality makes it appreciated as a short walk – once one knows the route. The first time one walks it, though, all the urban details – the same ones that make the route pleasant to walk – make it hard to know where exactly one is and where one has to go. The urban fabric appears as a true labyrinth. But then if one walks the same route more often, every time more details are remembered and charged with meaning "*as occasions, which take place en route, make you remember ones and anticipate others*." The route becomes more and more comprehensible. "*The labyrinthian impact the distance first gave makes way by degrees for a rich variety of size qualities, all of which confound the limited quantitative meaning of small and large, many and few, far and near. The diversity and complexity of the experience will increase as the comprehensibility increases but also the unity and simplicity. This is the temporal meaning of labyrinthian clarity.*" (ibid.: 1:98)

Labyrinthian clarity is not only to be understood as a way to understand the temporal experience of the built environment, but also as an answer to the functionalist urge to clean up the chaos of the traditional city and replace it with an open and clear, neatly organised, easily comprehensible – but ultimately very monotonous – urban fabric:

> *Labyrinthian clarity implies consecutive impression simultaneously sensed through repeated experience. It implies that clarity of place articulation grows – should grow at least in time. This kind of labyrinthian clarity is quite different from overall instantaneous clarity, though instantaneous clarity from place to place is a prerequisite for the achievement of the kind of overall clarity remembered and anticipated as you move from one place in a house to the other – or one place in a city to the other. Labyrinthian clarity, this must be stressed, is therefore not a quality which relies on confusion, disorientation or amorphousness. It represents ultimately none of these negatives, though during a first encounter with a configuration that possesses labyrinthian clarity the impression may be imparted that they are present. City and house are, after all, not conceived for single short accidental visits. (ibid.: 1:100)*

It is this last understanding of the term that returns in some of his later texts: "*The house-like city with city-like houses (buildings), gratifyingly comprehensible and chaotic; homogeneous and kaleidoscopic at the same time (I call this labyrinthian clarity)*." (wr [1967]: 2:410-1). He describes it as "*inclusive ambiguity and scope for multimeaning*" 'nourished by and nourishing all twin phenomena together' (ibid.: 2:405) "*It points, moreover, towards a particular kind of clarity neither house nor city can do without. A kind which never quite relinquishes its full meaning.*" (ibid.: 2:472)

The paradox in the last quote – neither house or city can do without it, while it

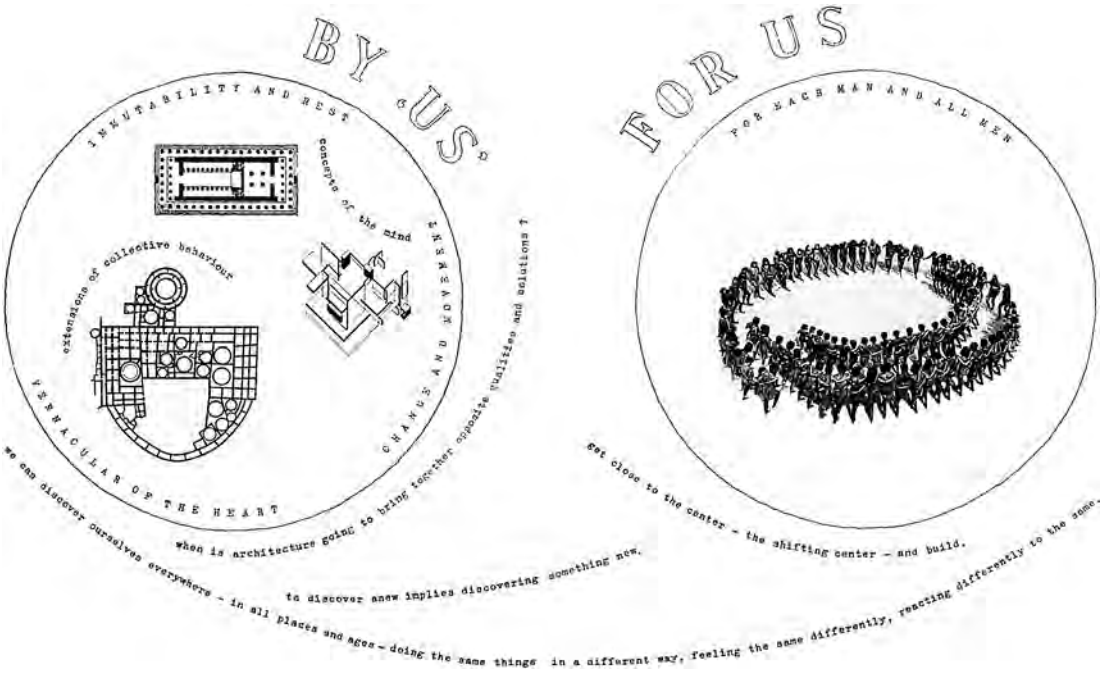
never relinquishes its full meaning – refers to what one might call the great paradox in architecture and urban planning as a discipline: the world we build for is so complex – and necessarily so – that analysis could not be enough to understand it, while nevertheless we have a moral obligation to at least try to understand, because what we design inevitably has an influence on people.

Otterlo Circles again

Now that we understand most of the important concepts making up Van Eyck's theoretical body, the moment has come to return to the 'Otterlo Circles'. Along with development of his theory, he kept changing this diagram (figure 23). It still represented the role of the architect and of architecture (including urban planning) and the basic composition did not change. What did change are the textual elements – things were added, phrases were changed – and more notably the choice of pictures. The left circle now shows three different illustrations, still representing the same partial aspects of architecture: a ground plan of the Parthenon (Athens, 447–437 BC) representing classical harmony, another of Van Doesburg's contra-constructions of 'Maison Particulière' (1923) representing harmony in motion and a ground plan of Pueblo Arroyo (New Mexico, twelfth century) representing the collective building of common people. The right circle now shows just one image: a photograph of a dancing group of Kayapo Indians (Orinoco basin, Venezuela).

Figure 23 (bottom) shows a diagram explaining how the 'Otterlo Circles' must be read in the light of Van Eyck's theory. The two circles represent the twofold relation we have with architecture: it is both our product – by us, builders – and the world we live in – for us, residents, 'for each man and all men'. This implies that architects and urban planners should both understand the way we build – not just one way, therefore: 'when is architecture going to bring together opposite qualities and solutions?' – and who we are and how we live, both individually and collectively. But who we are – our constant and constantly changing identity, our human nature and culture – keeps changing. Nevertheless we have to do our best to understand and 'get close to the centre – the shifting centre – and build'.

Together both circles represent a network of twin phenomena (that could be extended endlessly), but they also represent an attitude, a frame of mind: in a world of relations, where neither the world nor the relations are static absolutes, but dynamic and therefore might change, architects should keep trying to understand and use their understanding to make architecture – to aim for place-potential, right-size and labyrinthian clarity. In this changing world – where furthermore the past is part of memory and thus of the present – this means that we cannot stop trying to understand, because 'to discover anew implies discovering something new'. Even more so because our world is so incredibly complex, which also implies that in order to understand ourselves we must look further than the here and now, because 'we can discover ourselves everywhere – in all places and ages – doing the same things in a different way, feeling



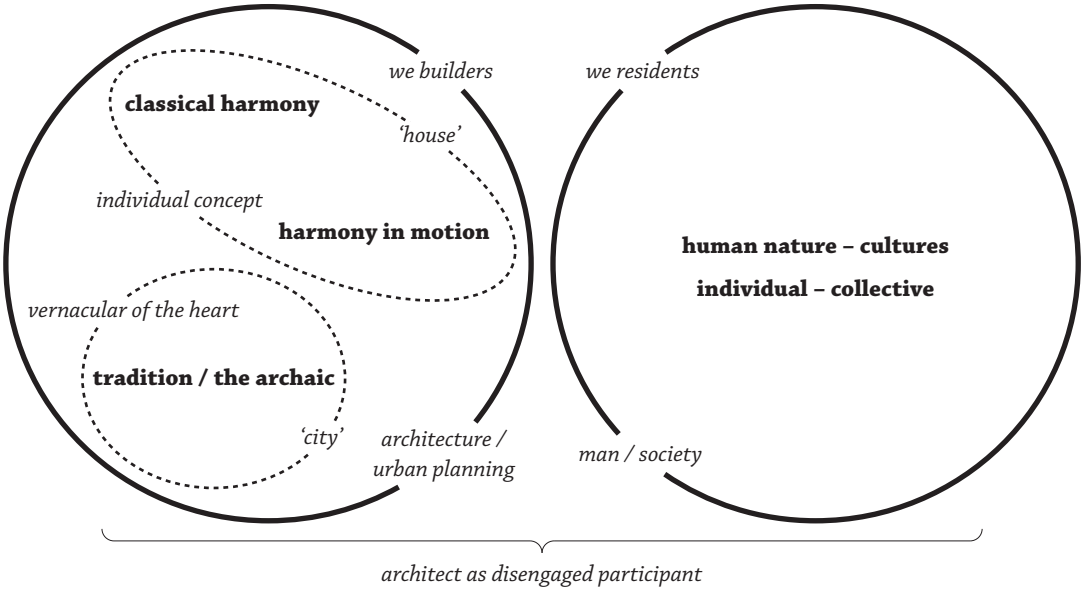


Figure 23 top: Final version (1967) of Aldo van Eyck's 'Otterlo Circles' firstly presented in 1959. This is an extension of a version made in 1962, which, beside a minor change in layout differs in that it did not have the words 'concepts of the mind' and 'extension of collective behaviour' in the left circle and that the phrase next to this same circle read 'when is architecture going to reconcile essential aspects?'; bottom: Aldo van Eyck's 'Otterlo Circles' (versions of 1962 and 1967) explained.

the same differently, reacting differently to the same'. What the architect should be is a 'disengaged participant': someone "*fully part and disengaged part of contemporary reality.*" (wr [1962]: 1:138) Only if they make use of disengaged participation, intuitive diagnosis and imaginative action architects and urban planners could be able to have a grip on the complexity of urban life – and be artists (ibid.: 1:139).

The aesthetics of number

Now we understand what the two circles represent together, as we have seen as well what the right one meant to illustrate. For the left one, though, we need to dig a bit deeper into some of issues that have not been discussed yet. They are related to the compositional approach, which Van Eyck developed in early in his career and which he kept returning to as 'aesthetics of number'.

Already in his first designs it is clearly visible that Van Eyck paid a lot of attention to the composition. Inspired as he was by the modern avant-garde, he was obviously influenced by modern composition methods such as asymmetrical shifts and rotations. By his education, though, he was also familiar with classicist formal methods such as symmetry and centre. Remarkably he did not commit himself to one language of form:

> *while some of the speelplaatsen [playgrounds] are conventional and unremarkable in their adherence to formulaic classical garden design, […] in others Van Eyck delves into Dutch precedents, more specifically into Theo van Doesburg's diagonal 'counter-compositions' […]. But a new compositional invention appears in the Zeedijk playground (1956), one which combines within the same work both classical and anti-classical De Stijl, 'joined in a perfect amalgam'. Van Eyck's effort was to develop a so-called 'syncretist' or inbetweening canon, combining elements that had previously been viewed as mutually exclusive. (Lefaivre & Tzonis 1999: 72-6)*

For Van Eyck both approaches represented different aspects of composition. Classical harmony works perfectly "*to impart order within a singular thing – to make it rest within itself*". "*The capacity, however, to impart order to a multiplicity of things is […] not yet ours*" (wr [1962]: 1:168). It is this multiplicity that the 'problem of number' refers to. It occurs for example in cases of multi-centrality or non-hierarchal order, but more importantly it is what Van Eyck considered to be the central problem in the monotony of large scale urban extensions. The scale of these projects was new to architecture and Van Eyck recognized in them an incapacity to successfully handle this scale – after all: there was no previously developed approach for it available. It is for this problem that Van Eyck has tried to come up with a suitable answer (the idea of a configurative discipline was such an attempt).

Where classicism has the answer for the singular – 'immutability and rest' as he called it in the 'Otterlo Circles' –, he saw a lead for the plural and the changing – 'change and movement' in the search for relativity of modern art. In particular he was inspired by compositional experiments of De Stijl and of Richard P. Lohse (1902–1988). From

the modular and serial experiments of the latter (figure 24) he borrowed the idea of aesthetics of number:

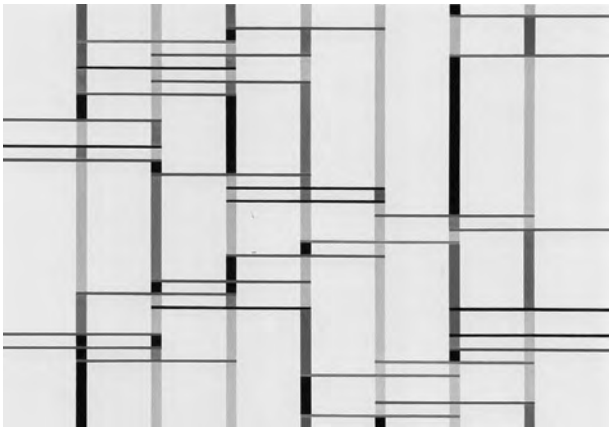


Figure 24: Richard P. Lohse, 'Konkretion III', 1947, oil on pavatex.

> *In search of the further principles of a new form language, the Swiss painter Lohse discovered the aesthetic meaning of number. Imparting rhythm to the similar, he has managed to disclose the conditions that may lead to the equilibration of the plural. The formal vocabulary with which man has hitherto imparted harmony to the singular and particular cannot help him to equilibrate the plural and the general. Man shudders because he believes that he must forfeit the one in favour of the other; the particular for the general; the individual for the collective; the singular for the plural; rest for movement. But rest can mean fixation – stagnation – and movement, as Lohse shows, does not necessarily imply chaos. The individual (the singular) less circumscribed within itself will reappear in another dimension as soon as the general, the repetitive is subordinated to the laws of dynamic equilibrium, i.e. harmony in motion. (wr [1952]: 2:56)*

This idea of aesthetics of number or harmony in motion helped Van Eyck to overcome the static, hermetic order and the centrality of classicism, without abandoning it altogether. Nevertheless he has never been able to find a satisfying answer to the problem of number. That is one of the reasons he kept asking: 'if society has no form, can architecture build the counterform?'

Vernacular of the heart

To understand the relation with the third illustration in the left circle – the Pueblo village – we need to refer to Van Eyck's travels, in which he studied historic and non-Western places. In all these historic and cultural anthropologic cases two stand out: the Dogon people in Africa and the Pueblo people in North America. What these two had in common is that they were highly autarkic cultures that had developed with very limited external influences and that even when Van Eyck visited them (in 1960 and 1961) they were not much influenced yet by modern Western culture. This interest is to be understood in terms of the difference between what he called 'vernacular of the heart' and 'individual concepts' or – as in the 'Otterlo Circles' – 'concepts of the mind'.

The importance of these two concepts is related to the changed role of architecture and the search for an adequate approach. Traditionally "*The architect has always been*

concerned with single buildings or a complex of single buildings. These were always particular buildings, commissioned by particular members of society. The humble multitudes, those that moved about in the countless little houses and streets, were never his clients. His attention was never directed towards them – sometimes indirectly, but in such cases his client was certainly another, like himself, socially and emotionally an alien." (wr [1962]: 1:129) From the late nineteenth century on architects became more and more involved in building for the masses (and therefore the anonymous client). The problem now was that the tradition of architecture has never developed answers to the specific questions this new role raised. The history of building has always drawn most of its attention to the great architects and the particular buildings they built, while "*So little attention is accorded to the creative potential of the countless millions and what they made for themselves through the ages in humble multiplicity – what I wish to call the vernacular of the heart.*" (ibid.) The work of architects has always been very different from the vernacular of the heart: it is not predominantly the result of collective forces – 'extensions of collective behaviour' as it is called in the 'Otterlo Circles' –, but of individual intellectual adventure (individual concept), aiming mostly for individual buildings and open spaces.

While architects got involved with what traditionally was the domain of the vernacular of the heart, they lost touch with their collective forces. This raises some important questions for architecture and urbanism; questions to which Aldo van Eyck at best only gives a first attempt to an answer – questions also that today are still being discussed: "*Can architects meet society's plural demand? Can they possibly substitute the present loss of vernacular and still build a city that really is a city? – a liveable place for a very large multitude of people. Vernacular was always able to cope with limited plurality in former times. How are people to participate in fashioning their own immediate surroundings within a conceived overall framework?*" (ibid.)

The vernacular of the heart and the individual concept are not unrelated; they have always influenced each other (so they are twin phenomena): "*There is 'mind' behind vernacular and 'heart' in individual concept, for ultimately human beings are responsible for both – the* same *human beings moreover.*" (ibid.: 1:133) They also have always existed side by side. That is what made the European city:

> *Had this not been so, cities could not have come into existence for it was vernacular – collective concept – sustained by and also sustaining individual concept that coped with multiplicity – with limited multiplicity at any rate (this restriction is important). The habitat was conceived within an overall framework, whether this framework – its actual projection in a form-idea – was the result of individual concept or was dictated by tradition and the existing unquestioned socio-religious order. (ibid.: 1:134)*

The conclusion should be that Van Eyck does not oppose the new role of architecture and urbanism, but that in order to be able to cope with the anonymous client and the multiplicity of the masses (the multitude of individuals) and to be able to make the city into some kind of unity it is necessary to gain access to the collective concept; to understand it and to involve it in one way or another into the design process. There-

fore he put it in the left one of the 'Otterlo Circles'.

Imagination

What Van Eyck wanted his theory to be was not so much a method, but a frame of mind. This is to be understood in relation to the stringent rationalism of CIAM functionalism as opposed to the more holist understanding of the relation between art and knowledge he had grown up with (cf. P.N. van Eyck 1935). He resisted the functionalist urge for science and analysis, because it meant the rejection of art instead of recognizing the avant-garde project shared by art, science and philosophy, and a simplification of reality:

> *The wonderful thing about architecture is that it's an art – just that. The terrible thing about architects today is that they're not artists. Worse, they're semi-artists comfortably engaged in something super. But architecture, I tell you, is neither a semi nor a super art – it's an art. [...] For almost half a century architects have been tampering with the principle of art, squeezing it into the jacket of semi-science – not science, oh no – semi-science applied! I mean technology and the kind of rubbish that clings to technological progress, weak mechanical thinking, grovelling naturalism; sentimental pseudo-social thinking – antiseptics compared with the other arts. Compared with science, architecture (especially urbanism) has made a very poor show. Far from expanding reality as the others have done, architects have often contracted reality, sidetracked the issue of contemporary creativity.*
>
> *For whilst constituent contemporary art, science and philosophy, etc. joined hands wonderfully for half a century, reconciling split polarities through reciprocal thinking, tearing down the stifling barriers between them, architecture, and urbanism especially, has drifted away, paradoxically indulging in arbitrary application of what is essentially anti-deterministic, thereby increasing the thickness of the deterministic patina society cherishes and defends. In the light of what the others have managed to evolve – a relaxed relative concept of reality – what architects and urbanists have failed to do amounts to treason. All the more since what is done is done. (Nobody is forced to look at a bad painting, read a bad poem or listen to bad music.)*
>
> *Tackle what defies metric measurement. Get close to things that fall through the coarse mesh of analytical thinking; avoid the built graphic surfaces with hollowness on both sides and everybody a nobody on either side!*
>
> *[...] It wasn't the pioneers that started flirting with science, but the hordes that came after; they flirted with what they imagined science to be. For you can't really fall in love with what science really is without somehow falling in love with what art really is. (Perhaps you can, but I personally can't see how.) (wr [1962]: 1:58-9)*

Instead of semi-scientific analysis Aldo van Eyck suggested that architects and urban

planners should use their imagination – that is what makes it an art, and that is what he observed most of his contemporaries not doing:

> *As it is, architects still tend to remain antagonistic to imagination and those regions of reality that lie beyond the scope of the limited senses and thus elude the coarse mesh of rational estimation. The imponderable is taken for quicksand, so they step onto hard rock – what they take for hard rock at least – but fail to understand why such hard rock gives way, as it always does. They are attracted to the dress but not to the body of a great idea; they are wary of the magician because he actually effects transformation, and attracted to the juggler because he merely affects it. They, furthermore, flirt with some of the isms that seem to them comprehensible excluding those that shed light on the realm of poetic association and the real perplexities of the mind – the inner world. They turn towards technology like schoolboys, hail material progress with a kind of confidence at once naïve and embarrassing and either sever themselves from the past willy nilly or insult it by poking their noses into what they cannot understand: the trap of eclecticism. (ibid.: 1:48)*

So how should we interpret this idea of imagination? Francis Strauven traces it back to the ideas of William Blake and P.N. van Eyck he grew up with (Strauven 1998: 113). The latter held in 1935 an inaugural lecture titled '*Kritisch onderzoek en verbeelding*' ('Critical research and imagination') when he became professor in Dutch Literature, its History and Aesthetic Critique at Leiden University. He considered imagination as a faculty of cognition (P.N. van Eyck 1935: 22), the working of which he described as follows:

> *The precondition for the operation of imagination […] is always: to develop an aspiration to distinguish as many as possible characteristics of an object to be studied as accurately as possible and to comprehend their mutual coherence, to the extent that a […] compelling connection is achieved or approached, whereby the intuition, or if you prefer the imagination, is impelled into action and manifests itself as operative in a vision of the totality, which is such that our knowledge of its components and their relationships is automatically amplified and enhanced. (P.N. van Eyck 1935: 17-8)*[23]

Aldo van Eyck, whose elaborations on the subject can mostly be found in his earlier writings, seems to have interpreded it similarly: "*Imagination is and remains the only faculty capable of registering the qualities of a changing worldview simultaneously. It is the eye for reality, the eye behind the eye.*" (wr [1949]: 2:43) He emphasized that imagina-

23 "*De voorwaarde voor het optreden van de verbeeldingswerking […] is altijd: het streven om zoveel mogelijk kenmerken van een te bestuderen object zo zuiver mogelijk te onderscheiden en in hun werkelijke samenhang te begrijpen tot zo ver voort te zetten, dat het […] dwingend verband bereikt of benaderd is, waardoor de intuitie, of wilt ge de verbeelding tot werking genoopt wordt en in zulk een totaalvisie als werkzaam openbaart, waarin onze kennis van haar bestanddelen en van hun verhoudingen automatisch aan gevuld en verbeterd blijkt.*" (translation based on Strauven 1998: 305)

tion is not the same as common sense (wr [1947]: 2:34, 36; [1962]: 2:41), the former being dynamic, the latter static (wr [1947]: 2:40), and neither the same as fantasy (wr [1951]: 2:51, 70) – "*Working magic with reality and performing tricks external to reality are two completely different occupations*." (wr [1949]: 2:44; [1958]: 2:137).

For Van Eyck imagination is a way to approach reality more poetically – like an artist, whose work is neither detached from reality (wr [1951]: 2:70) – than the reductionist analytical approach of functionalism, while at the same time it is a way which gives better access to the full complexity of reality (cf. wr [1962]: 1:139). That latter aspect suggests that the problematic conflict he saw between analysis and imagination is related to the difference between analysis and synthesis (cf. Willemsen 1992: 15), but also to the difference between a positivist, mostly quantitative approach (inspired by the natural sciences and in particular physics) and a more speculative, qualitative approach (cf. Routledge 2000: 696). The problem with analysis in relation to synthesis is that the former is the (artificially) splitting of reality in different parts, which involves the trap of expecting the larger whole to reappear by synthesis of the parts, even though some aspect may have been lost in the analytical process. Nevertheless it is impossible to describe reality without splitting it (its full complexity), so the problem is not so much analysis as such, but the way one understands and applies the results of it.

Although Van Eyck was very negative about CIAM's functionalist analysis, it does not mean that we should interpret his critique as a rejection of analysis as such. To understand the relation between analysis and imagination in terms of conflict would after all mean the introduction of a dualism and hence the splitting of a twin phenomenon. Analysis is, like imagination, a cognitive faculty – to follow P.N. van Eyck. If we focus on the praxis of design or research anticipating design, however, we need imagination, as it, necessarily, involves speculation into the future. Aldo van Eyck recognised the relation between imagination and analysis: although he was very critical of the analytical approach of many of his contemporaries in architecture and urbanism, he did not reject analysis as such. It is just nothing but one part of the job: "*It is the moment of realization that counts in the art process [...] and it does not simply follow the moment we have done our homework assiduously! [...] We may have to start that way, but we shall not encounter what we are really after anywhere along the route. Sooner or later we shall have to risk it. That is the moment of realization; the jump, the risky jump*." Design can never be a purely rational process, but depends on intuition as well. "*The realization process can cling to the analysis of data until its frontier is reached; can grow with it, coincide with it, but there will be no architecture without the crucial jump. Intuition can make us effect the right jump long before the frontier mentioned is reached*." (wr [1962]: 1:141) A more recently published research (Groeneveld 2006) confirms this observation, as we will see in chapter three.

Chapter Three

Towards a Theory for Tomorrow

As I wrote in the first chapter, the aim of this thesis is to search for an approach to the relation between man, society and the built environment from the perspective of the architect or urban planner. In order to do so I have studied the writings of Aldo van Eyck to see whether they provide a point of departure. In chapter two I have unravelled Van Eyck's theory, so now the question remains: does it provide a clue for how to approach this problem?

That question is what I will try to answer in this final chapter. Therefore what follows is an assessment of Van Eyck's approach: what are its essential characteristics in term of strengths and weaknesses? In order to overcome some of its limits I will than introduce, briefly, a theory which has its roots in science and technology studies: mediation theory. It is, like Van Eyck's theory, based on relativity and focuses on the role of technologies (in the broadest sense of the word, thus including the built environment) in the relation between man and 'world'. I will show that it does have the potential to shine a light on the relation between man, society and the built environment (or in other words: the role of the built environment in the relation between man and 'world'). Being a theory under development by mostly researchers and theorists with a background in philosophy, sociology and anthropology, and focussing mainly on the praxes of science, engineering and industrial design, it does not fit the praxis of architectural and urban design, though. A combination of Van Eyck's theory and the theory of mediation may provide a solution for this problem.

The current architectural debate might request a renewed attention for the relevance and broader social and human aspects of architecture and urban planning, fact is that we are currently rather far off an architectural approach that could provide an answer. Van Eyck's attempt to develop one in the 1950s and 1960s might give is a clue for where to search, as could more recent development in mediation theory. Nevertheless a lot of work needs to be done. This thesis only provides a first step into such a

direction. To show the potential of the presented perspective this chapter is followed by an epilogue in which an example is given of a project of which its success cannot be understood by its architecture alone, but requires a much broader perspective.

Van Eyck's approach: a verdict

In the chapter two we have seen how Van Eyck's ideas form a coherent theory. Based on the idea of relativity – the core of his theory – he introduced three abstract and mutually related concepts: an ontology based on the notion of *twin phenomena*, an epistemology based on the notion of *interiorization*, and a more spatial notion of the *in-between realm*. All these concepts are based on *reciprocity*, i.e. symmetric relations where both sides constitute each other in their relation along other constituting relations. The notion of *interiorization* refers to the notions of *duration*, *memory* and *anticipation*, thus connecting the human experience to time and hence history and the expectation of the future – they make *association* possible. This becomes architectural in the in the twin notion – *twin phenomenon* – of *place* and *occasion*: experienced space and time. *Occasions* give meaning to space – by *memory* and *association* – and make it become *place*, while *place* by *association* and *anticipation* provides the space for things to happen, making mere time to become an *occasion*. *Place* and *occasion* constitute each other. Furthermore every *place* needs an *in-between*, but also is one. Both 'house' and 'city' are a web of *in-between places* – a '*bunch of places*'. In order, then, to understand both man and the built environment, Van Eyck uses the concept of *identity*, interpreted as *what is constant and constantly changing*, but also as built *homecoming* and a sense of *belonging*: the *identity* of a 'house' or 'city' opens it up for *homecoming*, which makes it become part of a person's *identity* as he *identifies* himself with it, i.e. as he experiences as somewhere where he *belongs*. In the urban tissue there are *identifying devices* of all sorts which make human *association* possible: they make the built environment comprehensible. That is also what Van Eyck introduces the concepts of *right-size* and *labyrinthian clarity* for. The former once again emphasizes the *relativity* of qualities, while the latter is purposely a paradox: everything is *ambivalent* – everything has *multi-meaning*. The role of the architect and urban planner in this is not to provide meaning or identity, nor to design places. It is to provide *place-potential*, i.e. the *potential* for human *association*.

Strengths

The question, now we've unravelled Van Eyck's theory, is what we could learn from it for our search for an approach to the relation between man, society and built environment in the context of today's architectural debate. Therefore I will point out some important positive qualities of his approach; qualities we should aim for in a theory for tomorrow. Subsequently I will look for the weaknesses in Van Eyck's theory. Only that way we may be able to come up with a satisfactory and convincing approach – after all

we need to know what else to search for in other theories.

An open and inclusive approach

One very important strength of Van Eyck's theoretical body I already introduced in the first chapter: its openness and inclusiveness. I would like to point at three different ways it is an open and inclusive theory: its adaptability, its non-dualism and the freedom it provides with regard to method.

The openness and inclusiveness in the sense of being adaptable is what in the first chapter was put forward as an argument to study Van Eyck in the first place. If it was not an open theory it would not have been worth the effort after all, because what we are looking for is not a study of history, but an approach for the future – an approach that includes aspects of the built environment which are not or not sufficiently included today. As we will see in the next section, though, also Van Eyck's theory does not include all important aspects. Thus parts of it need to be replaced or adapted in order to be able to provide an answer to our main question: how to understand the relation between architecture, man and society from the perspective of the architect and urban planner.

The way in which Van Eyck himself developed his theoretical body shows the explicit openness and inclusiveness of this process. His entire search was based on only one – today in science and philosophy generally accepted[24] – principle: relativity. He did not start from a specific architectural approach or solution that he needed a theoretical foundation for, neither did he start from a political or social ideal that he wanted to translate into an architectural approach.[25] Thus the focus of his architectural approach changed over time from a De Stijl-inspired way of composition, to a search for a 'configurative discipline', to an inner city contextual approach, without radically changing the core of his theory. If his theory was not this adaptable, it would never have been possible to keep developing it for so long, while the main challenges of the

24 Exceptions might be found in some of the more fundamentalist positions, in particular in religion and politics.

25 Although Van Eyck's writing definitely has a normative side, it has never become political. There was a clear anti-hierarchal element in his reasoning, but it never became explicitly egalitarian – only 'aggressive social, economic and spiritual differences' should, in his opinion, be 'reasonably' equated (wr [1962]: 1:144). Even when in the 1970s he became involved with action groups against large scale urban renewal (meaning tearing down everything including the existing road structure and replace it by a planning according to modernist principles), it appears to have been his own critique on modern planning that drove him and not socialist or Marxist ideals. In fact, the only time Marx is referred to in *Writings* is in a negative sense when he criticises the postmodernists (wr [1981]: 2:538). Elsewhere one could read between the lines that Marx is no longer relevant anyway, because "*cities are no longer (or will soon no longer be) the burdened handmaids of an economical and productive system*" (wr [1962]: 1:143). This is important to note, because for many in the Netherlands Van Eyck has become associated with the Dutch architecture of the 1970s, which was also the time that architecture (as many things in society) became politicalized. While Van Eyck certainly had a strong influence on the architecture of that period, it is definitely not because he advocated this politicization.

architectural praxis changed. He was able to include those new directions – up to the emergence of postmodernism, to which I will return later.

With what I call openness and inclusiveness in a 'non-dualist' sense, I mean to say that Van Eyck does not make a distinction between an architectural and a social or human realm. For him they are inextricably one – a twin phenomenon, as he would have called it. Nevertheless he made a clear distinction between the forms of human life or life in society and the 'counterform' architecture should provide. This counterform is not a 'three-dimensional expression of human behaviour', as Bakema saw architecture, but "*an autonomous architectonic form rooted in its own tradition*", as stated by Ligtelijn and Strauven, "*It is only by virtue of its (relative) autonomy that architectonic form is capable of contributing to the quality of the life it shelters*." (wr: 2:710-1)

The problem in this quote is the word 'autonomy'. Although Van Eyck has written about the 'autonomy of architecture' himself, he did so not in the context of counterform, but of the debate on the integration of arts – an idea he opposed, because "*We also know the other story: architect, space is for you; sculptor, plasticity is for you; painter, colour is for you – in this great whole! Hocus pocus – and there goes autonomous painting, there goes the autonomous sculpture, there goes autonomous space!*" Instead he stressed that colour, plasticity and space are part of all these arts, but nevertheless they have their own aims and means (wr [1962]: 2:176-7). His argument, here, is once again an argument against splitting and in favour of a more holistic approach, which nevertheless is not homogeneous or uniform – as that would mean a denial of reality's complexity as well.

When later the 'autonomy of architecture' became a fashionable subject in the postmodern debate, he rejected the word 'autonomy' in their sense as being almost the opposite of how he used it before:

> *A drawing, painting, poem, play, films, song etc. can be as intentionally unreal, real or surreal as one wishes and still remain a painting, a poem etc. But no so a building. So actually you are cheating both ways: withholding from a two dimensional medium what belongs to it specifically – autonomy – (pulling it down to the level of social realism) in order to 'illustrate' what it is you wish to saddle architecture with – again autonomy – which does not, should not and cannot belong to it. The kind of autonomy architecture should claim and maintain in order to survive as such – exist – cannot be dissociated from what a building is meant to fulfil in terms of usability and appreciation. (wr [1979]: 2:530-1)*

This rejection of postmodern 'autonomy' is not to be understood as rejecting aesthetics as such, but as including it into this theory of interiorization by memory and anticipation. "*Aesthetic place intensity is seldom autonomously appreciated because the lasting appreciation of a place is effected not only circumstantially, but also by the varied place experiences it is able to evoke and absorb. Place beauty thus charged merges with further place beauty, because one place experience merges in memory and anticipation with another place*

experience." (wr [1962]: 1:85)

The form of the social or human realm and that of the realm of architecture could thus better not be regarded as having a '(relative) autonomy', but as being symmetrically related: neither facilitating the social or human architecturally, as for example Le Corbusier suggested in his 'Ville Radieuse' concept (cf. Corbusier 1964 [1933]: 94), nor the other way around, which for example Bakema suggested. There is in Van Eyck's theory no primacy for either one of them – they are not even independently existing realms. That is why I called it open and inclusive in a non-dualist sense: it approaches the humane and the formal aspects of the built environment as one, not as a two worlds: one of subjects and one of objects. This is a very important quality – and very much in line with the 'nonmodern' approach Latour was looking for in *We Have Never Been Modern*, as we have seen in the first chapter.

The last sense of openness and inclusiveness I introduced is with regard to method. To be more specific it is Van Eyck's inclusion of both analytical and imaginative approaches. Against CIAM's strict rationalism he advocated an imaginative approach – Van Eyck's intervention at CIAM 6 (Bridgwater, 1947) was backed by Le Corbusier who responded: "*Enfin l'imagination entre les CIAM!*" (wr: 2:30) We have seen that this call for imagination does not relieve the architect or urban planner from his moral obligations; it does not make architecture a 'free' form of art. Imagination is for Van Eyck not the same as phantasy. Just like analysis is a tool to make sense of the past and current situation, so is imagination. It is making use of memory and associations to interpret the past and current situation and to anticipate the future. The world is far too complex to fully understand analytically (in a rational sense), let alone to predict the future. Therefore we need our imagination to be able to make a design that may do what we intend it to do (may, because we can never be entirely sure). In other words: we need to speculate, but we have to do it well-informed.

Imagination is related to intuition, although they are not necessarily the same. Imagination is for Van Eyck a design and research strategy and thus a conscious activity. Intuition, on the other hand, is a notion about which many disagree, but which is nevertheless generally understood as an immediate way of knowing. In the last decades intuition has again become an important topic, in particular in psychology. Recently the Dutch psychologist Robin Groeneveld (*1964) published a research on the role of intuition in the process of design (Groeneveld 2006). Based on a literature search he concluded that intuitive and rational thinking may need each other: they work together.

> *Designing is a creative process, in which the creativity necessary for making a new and original product is given shape through the dialogue between the rational methodological and intuitive sides in the design process. The intuitive sides stem from the domain of the unconscious and are capable of bringing about a synthesis of all (contradictory) details. The foundation for this synthesis is laid in the intuitive, in this case, the designer's moment. The rational methodological sides stem from the domain*

> *of the designer's conscious mind and possess the power to create a cohesive whole. The more frequently a designer is able to successfully complete the dialogue between the intuitive and the rational methodological sides, the better the design result. (ibid.: 349-50)*

Obviously a design process usually starts and finishes in a more or less rational way: starting with a problem, a question, an assignment; finishing with something that could be produced, built, drawn, written down. The process in-between is where rationality and intuition come together – an insight commonly known as 'eureka-moment' (attributed to the ancient Greek scholar Archimedes in a story in its oldest known version appearing in Vitruvius' *De architectura*, ca. 15 BC) and 'aha-experience' or '*Aha-Erlebnis*' (Karl Bühler, 1907). Groeneveld conducted a series of in-depth interviews with designers, which confirmed the inextricable relation between rationality and intuition:

> *From the interviews, it appears that most designers do indeed use their intuition during the design process, but also that intuition functions spontaneously and is not always consciously applied. Consciously learning to manage one's own intuition in each design process requires considerable effort on the part of the designer. Each design process is a new challenge to push one's own boundaries and framework and to materialise intuitive insights into a concrete product. As by 'non-dualistic design', no distinction is made between the development of the designer and the development of the design process, this integral manner of designing is more a way of life than a design method. Through this the designer learns more about himself and his way of design, thus the designer's perception of a complicated programme of requirements is broadened. (ibid.: 351)*

This conclusion is not only important because it supports Van Eyck's plea for an imaginative approach, but also the opposite: that an appeal to intuition does not exclude rational methods. Groeneveld did his research in the field of industrial design.[26] No architects or urban planners where included. Is this important? Yes, because if one compares what is written in the field of industrial design theory, with the theory of architecture and urban design, a striking difference is revealed: compared to industrial design, the field of architecture and urban design show very few publications on design *methodology* – and neither is methodology an important issue in architectural education. Although there is no reason to assume that the combination of intuition and rationality, as shown by Groeneveld, is any different in the *praxis* of architectural design, it shows a difference in self-image: while industrial designers (in particular the ones educated as engineers) might see themselves as more rational that they are, architects (today's architects – probably not the functionalists of the CIAM period) tend to see themselves as more intuitive than they are – at least in their design approach.

26 The people he interviewed where mostly industrial, but also graphic, jewellery and fashion designers.

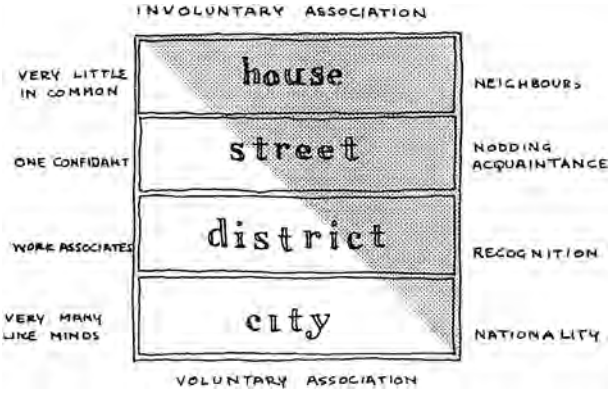


Figure 25: Alison & Peter Smithson's 'scale of human associations' as presented at CIAM 10 (Dubrovnik, 1956).

To return to the openness and inclusiveness of Van Eyck's approach: his understanding of imagination is not the same as intuition in the sense of immediately and unconsciously knowing. It is much more a process that needs effort – I have compared it to speculative research. In the light of Groeneveld's research on intuition one might say that Van Eyck's notion of imagination combines both intuition and rationality. It thus is the sort of 'non-dualist' approach to design Groeneveld advocates. Therefore its strength is not only that only by imagination the architect or urban planner may come close to grasping enough of the full complexity of reality, but also that it comes close to the way the praxis of designing works.

An approach abstract enough not to get out-dated easily

An aspect of Van Eyck's theory that is related to its openness and inclusiveness is its level of abstraction. He has not produced an approach or methodology in the sense of a book of recipes and neither did he provide a well-defined model for society's order and the way it is related to an architectural order or form. He did even reject the possibility of defining the "*elusive and never-to-be-defined network of human relationships – a network of such simultaneous complexity that no sociologist can figure it out*" (wr [1974]: 2:513).

If one is looking for an approach that can easily be applied or that gives quick and straight answers, this abstractness might seem to be a weakness. To understand why it nevertheless is a strength, I would like to point out a difference between Van Eyck's approach to relations and that of the Smithsons. While both recognised that we live in world of relativity, the Smithsons were interested in much less abstract relations, which they called 'associations' and 'patterns of associations'. Inspired by and in response to traditional community life, which they regarded no longer compatible with twentieth century social and technological reality, they came up with a view on social cohesion based on 'looseness of grouping and ease of communication'. It was a view not based on groups or communities as geographical unities – as in neighbourhood planning – but a notion of a hierarchy of human associations, based on house, street, district and city (figure 19; figure 25). In particular the street had their interest. Furthermore mobility became almost their obsession in the 1950s and 1960s. As Strauven puts it:

> *This obsession is inherent to their concepts from the outset. Not only does mobility dominate the street but it determines the scope of the next level of association. The traffic network formed by all the roads is not to be curtailed by the boundaries of the traditional neighbourhoods but extends over an entire urban region or 'district'. The same applies to their other patterns of association. In fact the Smithsons identified 'association' with 'ease of communication', which in practice generally amounted to smooth-flowing traffic and fluent connections. They did not seek to express their patterns in something like the 'shape of the in-between' [like Van Eyck did] but in tangible, material forms. (Strauven 1998: 248)*

The Smithsons' search for a contemporary version of the house–street relation "*such that each individual can choose his degree of contact [...] in the machine-served society*" (Smithson & Smithson 1974: 19), led to the idea of 'streets-in-the-air': open galleries or 'decks' (figure 26) that could be extended from one building to another, thus integrating the building into the city's socio-cultural fabric. This idea was already present in the Golden Lane housing project (1952, London, non-winning competition entry), which they presented at CIAM 9 (Aix-en-Provence, 1953), but it was not until the end of the 1960s before they were given the chance to put their urban theories into practice in the 'Robin Hood Gardens' (1966–1972). It was a complete failure – not only because the idea of 'streets-in-the-air' did not work, though (cf. Risselada & Heuvel 2007: 174). From that moment on the Smithsons have not produced any new urban theory.

What this example shows is that a theory that too directly tries to connect theoretical or existing relations to specific forms – in the case of the Smithsons by literally building human relations into 'infra-structures' – has a high risk of getting out-dated; either because the suggested connection does turn out not to work – as in the example – or because identified human relation happen to change – think of the influence of new media such as the internet and mobile phones. A more abstract theory, such as developed by Aldo van Eyck, allows searching for a suitable architectural solution, even in a context that was not foreseen.

A frame of mind, not a framework

By keeping his theory abstract and not providing ready-to-apply solutions, Van Eyck not only made his theory adaptable and hence less likely to get completely out-dated, it also prevents us from falling in the trap of applying a solution or strategy that has worked before, without asking oneself whether the circumstances are similar enough. What he provides is more a *frame of mind* than a *framework*; more a way of thinking and a set of concepts that help to ask the right questions (whether in architectural research or in design), than a predefined structure and concept that could easily be translated into built form.

This providing a frame of mind is a very powerful quality: it is the only way to provide a general – call it holistic – approach to architecture that is not only suitable in

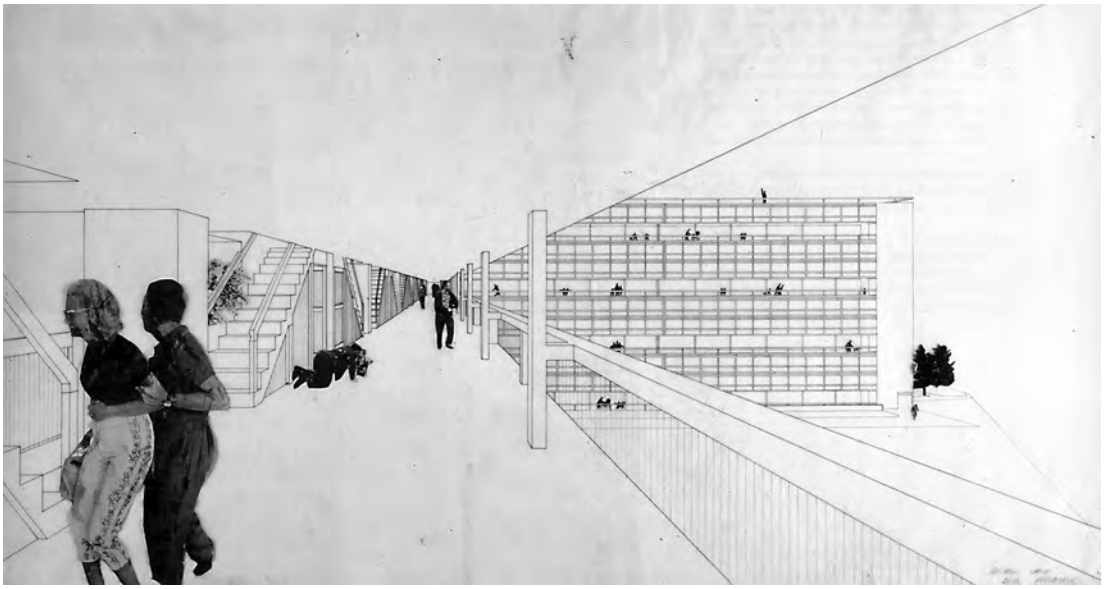


Figure 26: Alison and Peter Smithson, 'Golden Lane Project' (1952).

very specific cases. On the other hand it means that every new project needs its own investigation – whether brief or extensive – into the required approach given its specific circumstances. That might always be a good thing to do. After all, our society has become too complex to understand it based on one, easily comprehensible ordering principle – if that even has ever been possible. This does not mean that there is no order at all, but that there are many orders next to each other, while there are also many non-hierarchal, 'horizontal' relations. As the Dutch social psychologist Hans Boutellier (*1953) concludes: it requires improvisation to picture in every case the relevant relations and ordering mechanisms in the seeming chaos, i.e. not to focus on the order as such, but on the way it realizes itself (Boutellier 2011). Note two similarities with Van Eyck's approach: the similarity between improvisation and imagination – both based on skills and knowledge, but also creativity – and the approach to chaos, which by neither of them is considered to be a problem as such that needs to be resolved, although they both recognize that we cannot do without any order. In Van Eyck's words: "*order can mean nothing other than making chaos possible – making sure that chaos does not choke on itself, does not change from a positive to a negative factor*" (wr [1974]: 2:513).

A constructivist rather than structuralist approach

That Van Eyck does not provide a framework to understand society and its relation to the built environment brings me to the last strength of Van Eyck's approach that I would like to elaborate upon. It has to do with the way he approached relations: he was not trying to identify the essential relations that make society and architectural form *structured* (either as being in themselves or in their mutual relation), but how both

society and the built environment *gain* form. That makes his approach more related to *constructivism* than to *structuralism*.[27]

Structuralism is a line of thought that has its roots in structural linguistics. It involves the search for hidden systems, structures, powers or laws behind cultural or social phenomena – i.e. the underlying structures that make them possible (Routledge 2000: 865-7; Scott & Marshall 2005: 642-4). With 'constructivism', I refer to the way Bruno Latour extended the meaning of 'social constructivism' by removing the emphasis on the social – by including 'nonhumans' – and keeping the emphasis on construction:

> *When we say that a fact is constructed, we simply mean that we account for the solid objective reality by mobilizing various entities whose assemblage could fail; 'social constructivism' means, on the other hand, that we replace what this reality is made of with some other stuff, the social in which it is 'really' built. An account about the heterogeneous genesis of a building is substituted by another one dealing with the homogeneous social matter in which it is built. To bring constructivism back to its feet, it's enough to see that once social means again association, the whole idea of a building made of social stuff vanishes. For any construction to take place, non-human entities have to play the major role and this is just what we wanted to say from the beginning with this rather innocuous word. (Latour 2005: 91-2)*

Both in structuralism and in constructivism the world is understood in terms of relations, as did Aldo van Eyck. The difference is in the notion of *action*: in social sciences the word 'structuralism' is used in its most general sense for any approach in which structure or order is given priority over action. In that sense most network and system theories in sociology and social geography could be seen a version of structuralism. In constructivism, on the contrary, not only 'nonhumans' are included as possible actors, the relations themselves are considered to act as well. If we recall Latour's analysis of the 'project of Modernity' (see chapter one), we may recognize that the common network approach is in fact not so much different from the linguistic approach, as both consider the relations between entities as mere intermediaries and not mediators – i.e. they just connect, while they leave the object–subject dichotomy intact.

If we now return to the way in which Van Eyck approached relations – in particular between man and the built environment – one word stands out: 'potential'. What architecture and urban planning should provide, in his view, are qualities such as 'experience potential', 'meaning potential', 'place potential', 'occasion potential' and 'association potential' – in terms of 'action' all these qualities are for the built environment *potentials to act*.

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27 To prevent any misunderstandings: I do refer to the constructivism and structuralism as philosophical and scientific terms, not to the early twentieth century 'constructivist' movement in Russian art and architecture, and neither the 'structuralism' of architects such as Blom and Hertzberger – an architectural movement inspired by the work of Van Eyck, although the latter himself was never involved in it (Strauven 1998: 466-8).

So why is this important? It is so because it helps to understand how we could – or in fact inevitably do – have an influence on man and society, while what we create are mostly material things – 'mediated' by material things, as we will see. It is also important because it is not the failed, naïvely deterministic understanding of the influence of the built environment on man and society so common in modernist architectural theories – 'if we would build a new kind of buildings and new kind of city, a new kind of man and society will appear, more appropriate to our machine-age' –, while neither it allows the nihilism postmodernism has often tended to – 'everything goes'.

Weaknesses

In our search for an approach to the relation between built environment, man and society from the perspective of the architect we could not only learn from the positive qualities Van Eyck's theory might provide, but also from where it goes wrong. Obviously something went wrong in his presentation, because has not been able to present his own theory in a comprehensible way. That is nevertheless not the sort of limits I would like to emphasize in this section. Instead I would like to discuss two other weaknesses: where he became too abstract, and what aspects he missed that were articulated by later – postmodern – theories.

Too abstract and confusing for many architects

While discussing the strengths of Van Eyck's approach I have praised the abstractness of his approach because it contributes to its ability to be appropriated to new circumstances. Nevertheless abstractness could also be a weakness. This is definitely the case where most of his readers probably did not understand what he meant or might have been confused by Van Eyck's choice of words: in particular with regard to the concept of interiorization.

So what are the problems with interiorization? Van Eyck's use of the word in a non-conventional way has already been mentioned, as has the abstractness. Another problem might be that it has so little direct connection to the praxis of architectural design and research. It is my observation (not based on research) that many designers tend to read in an uncritical way: i.e. more with and inspiration-seeking eye than with the question in mind how they should understand what they read, whether it is applicable and whether it makes sense (cf. Lammers 2006). This might be perfectly understandable from the different aims they have and both ways can be legitimate ways of reading. In the case of a theoretical text that (in Van Eyck's case) is to communicate a frame of mind, it is meant to be read for understanding. This raises a question: how much theory do we need to frame an approach for architecture?

In the case of the concept of interiorization in Van Eyck's theory, it might be a good idea to search for another concept that could replace it – a concept more recognisably connected to architecture (as process or as product). It is absolutely necessary to include the connection between space and time, between physical space and its 'multi-

meaning'. Derived concepts such as place and occasion are surely valuable notions to understand the relation between man, society and the built environment, but do we need a theory of mind, or might there be a more easily comprehensible concept to bind all different notions?

Another notion that might need revision is the concept of identity: although the verb 'to identify with' fits perfectly well in the larger scheme of Van Eyck's theory, the noun 'identity' causes too much confusion – not so much in the way he used it himself, but in the way it is and has been used in the broader architectural debate: it is often used for an absolute essence of a thing, person or group, but as often it is assumed to be that could be given to a design or could be chosen as a person. My suggestion, therefore, is to avoid the use of the word 'identity' altogether.

'Absolutes' still exist and reciprocity turns out not to be a 'medicine' after all

The second weakness I would like to discuss appeared where Van Eyck's relativism became slightly utopian, while also blinding him to a fundamental human paradox. His relativist worldview not only led to the conclusion of cultural relativism (wr [1962]: 1:121-3), but also to an anti-authoritarian view on society – be it in a moderate way: society 'reasonably equated'.[28] In an urban society, in his opinion, that means that "*Although the city of tomorrow must in principle be able to assimilate a maximum of positive differences, it cannot possibly cope constructively with vast disintegrating differences; in fact it cannot even cope with more than very limited social disequilibrium.*" Therefore a real city must be inhabited by "*One highly differentiated reasonably integrated and equated lot [...] in complex human association*" (ibid.: 1:144).

Thus, so he reasoned, "*each sub-area within the city should possess beyond its specific identity tuned to those that live there, an added identity which makes it valid for all citizens [...], thereby inviting all citizens to participate in one way or another in as many such areas as possible.*" (ibid.: 1:144-5) That way, he hoped, "*if each part of the city is meaningful for all citizens and gladly accepts and absorbs them, the kind of narrow localized place affinity, prevalent today within the city, will probably change for the better.*" (ibid.: 1:145) Therefore he proposed the decentralization of 'important city-scale elements', "*a gamut of truly civic elements more or less equally distributed and relevant to all citizens*", bringing

28 In none of the texts included in *Writings* did Van Eyck explicitly elaborate on the anti-authoritarian nature of his worldview. It nevertheless became clear in his stand against the hierarchical structure of the faculty of Architecture in Delft, from the moment he became professor in 1966. He was an ally for progressive students and in turn encouraged them to stand up for their views (at that time, in 1967, the conflict was about the appointment of a successor for Van Eesteren's chair). Only a few years later, though, student groups radicalized and accused Van Eyck of being the prototype of the reprehensible modern 'artist-architect'. What they were after was not an anti-authoritarian, but an anti-capitalist point of view. To a reporter of *de Volkskrant* he commented in 1976: "*They are convinced that they have made the school more democratic, but actually they conform to the most dogmatic, conservative side of Marxism. I have nothing against having Marxists around me, as long as they think sensibly. But they are as old-fashioned as the Communist Party. They have understood not a whit of Provo. And their index is even stricter than that of the Vatican.*" (Strauven 1998: 524)

"*a varied specific identity to each sub-area*" and inducing "*citizens to go to parts of the city otherwise meaningless to them.*" (ibid.: 1:165) He wanted to get rid of a static, vertical hierarchy in the city, and instead perceive it as a dynamic, multilateral kind of hierarchy (ibid.: 1:145-6).

History has proven this idea to be utopian: even in The Netherlands, in terms of income developed into one of the most equated countries of the world (although today the trend is moving in the opposite direction), where since the urban renewal of the 1970s and 1980s no slums are left, no real no-go areas do exist and urban functions have become more decentralized, where everybody has the opportunity of education and where no group in society is really dominant, even there society seems to have developed into more and more heterogeneity, and along came distrust and a sense of disharmony (cf. Boutellier 2011). It is clear that Van Eyck's idea of the future city has not come true – and I doubt it ever will.

The problem here is that Van Eyck overestimates the harmonizing power of the 'medicine of reciprocity'. He seems to presuppose that there is a natural tendency toward balance in society. What he did not see is that even in a world of relativity, people have a desire for absolutes (including 'absolute' differences).[29] The success of marketing shows this very clearly: every marketer knows that even when people know they are being presented with false absolutes, they are still susceptible to them. That aspect is better understood (thought its role over-estimated) in postmodern debates such as the role of narratives and the 'readability' of historic layers. Recently, though, the Dutch City-marketing Professor Gert-Jan Hospers (*1974) concluded that 'warm' marketing is more successful than 'cold' marking – i.e. if a marketing campaign is not just a hollow story or slogan, but is rooted in what the city, town or village already had to offer and emphasizes these qualities (Hospers 2009). Although many postmodern architectural and urban theories tend to reduce the relation between man, society and the built environment to some sort of – mostly visual – communication (Lammers 2009), they might hold a possible addition to Van Eyck's approach, because it is exactly that aspect which he seems to have missed.

Mediation theory: reconnecting Van Eyck's theory

The theoretical body of Van Eyck was mainly developed in the 1950s and 1960s and lost its prominent position in the architectural debate somewhere around 1980, when a multitude of postmodern views took over the mainstream architectural debate. In order to make it possible for an approach to the relation between man, society and the built environment to connect to the debate of today, we need to connect not just to a theory of half a century ago, but also to contemporary ones. That raises the question where to search for such theories.

29 Paradoxically even Van Eyck's own writings show a search for the absolute in his search for human nature.

The most dominant in the architectural debate of the last decades has probably been the neorationalist movement and its focus on typology and typo-morphology. It came with a trend toward formalism and 'autonomous architecture', thus explicitly excluding social aspects. Only recently some attempts are made to reintroduce the social into the framework of typological research, for example at the Chair of Architectural Design and Urban Cultures at the Eindhoven University of Technology, showing there is at least an urge towards a more inclusive approach. Nevertheless there is no major contemporary approach that provides what we are looking for.

Looking outside the architectural debate

So if the architectural debate does not provide what we are looking for because it has been mostly excluding social aspects for the last couple of decades, might it than be sociology that could fill the gap? We have to answer in the negative, unfortunately. As Bruno Latour makes clear in his book *Reassembling the Social* (2005), sociology reduces society to a limited set of *human* relations and predefined structures. Other aspects are considered to be 'external forces' – the context, society, the economy, politics, the system, technology, nature, et cetera. Latour rejects such reasoning, because it implies postulating causes, which contradicts the principle of relativity.[30]

Sociology's problem, from our perspective, is indeed that it excludes the explicit role of things in human relations. Therefore it will not give any answer to question what architecture's role in society is and might be – not even how to approach this question in the first place. This problem is also recognisable in the improvisation idea that I introduced before: Hans Boutellier (2011) investigates several ways in which order is formed in society, based on social, critical and political theories, but also network and system theories developed in social geography, physics and information sciences. The result is very interesting, but provides no clue at all about what role there might be for architecture and urban planning. It confirms Latour's verdict: things – including the built environment – are excluded in Boutellier's model. Furthermore he tries to understand how order is formed in a society that forms an incredibly complex network, but he does not ask the question how the 'nodes' in this network are formed; his approach to networks leaves little room for creative action. It shows that his approach is more structuralist than constructivist.

One might put forward that Boutellier's blind spot for the role of things in the development of order is inherent to his background and the audience he wrote the book for: he holds the Security, Safety and Citizenship chair at VU University Amsterdam, is general director of the Verwey-Jonker Institute (an organisation for social scientific research) and his book is, according to the back flap, meant for 'politicians, political scientists, public administrators, public administration scientists, social workers

30 Latour even goes so far as to conclude that social sciences have never truly made the step towards relativity: external forces, hidden structures and predefined social structures are for social sciences what aether was for natural sciences before Einstein's special theory of relativity.

and sociologists, policymaking officials, magistrates, leading officials in police forces, students and concerned citizens' – no mention of architects or urban planners. One might also conclude, though, that the problem of how to understand the relation between man, society and the built environment is not only an urgent one for architecture and urban planning, but for public administration and policymaking as well, because also these fields tend to overlook the complexity of the possible (positive and negative) influence of architecture and urban planning on, for example, such issues as safety and security.

We might thus conclude that architecture has excluded almost the entire social world, while sociology almost entirely excluded the material world – thus showing the importance of Latour's analysis of the 'project of Modernity' as introduced in chapter one. This explains why it is so difficult to connect those two realms. The question thus remains: where do they come together? One field in which there has always been room for a more interdisciplinary approach is anthropology, as also noted by both Latour and Toulmin. Rooted in the study of non-Western societies – the kind of studies Aldo van Eyck was fascinated with, as we have seen in the second chapter – anthropologists developed a more holistic approach compared to sociologists who studied their own societies and could take the context for granted. Today anthropologists have diversified the subjects of their studies – which now could be any kind of culture or subculture – and also their approaches. It nevertheless remains a more holistic field of study than sociology. (Scott & Marshall 2005: 603-5)

An example of an anthropological study that is interesting from the point of view of our search for the relation between man, society and the built environment – and for the example I conclude this thesis with – can be found in the book *City of Walls. Crime, Segregation, and Citizenship in São Paulo* by the Brazilian anthropologist (teaching in the United States) Teresa Caldeira (2000). From a diverse range of perspectives she analyses how the Brazilian city of São Paulo has changed over time. She combines researches into discourses (in particular the 'talk of crime': the remarkable phenomenon that many of the people she interviewed tended to connect all sorts of negative experiences to the problem of crime), social and political developments (economy, democratization, problems with corruption, violence and crime, et cetera) and spatial and architectural developments such as the influence of real estate developers on the city's urban planning, the development of typical middle class apartment buildings, the way the lower class build themselves and the role walls and fences started to play in the urban environment. It is an interesting example of how social and material aspects of urban development could be investigated in unity and how this could be done empirically. It might thus provide clues for an approach toward a specific project's context in its full complexity, but not for the more general approach – the knowledge to nurture a frame of mind, one might say – we are looking for here. For that the anthropological approach limits itself too much to description.

The concept of mediation

In the first chapter I already introduced an author with yet another perspective: Bruno Latour. In this chapter we have seen that he developed a constructivist approach, which can also been recognized in Aldo van Eyck's theory. Latour is one of the key authors that have brought about an important turn in the philosophical reflection on technology. While 'classical' philosophers of technology (usually not limiting themselves to this topic alone) such as the German psychiatrist and philosopher Karl Jaspers (1883–1969), the German philosopher Martin Heidegger (1889–1976) and the French philosopher, sociologist and theologian Jacques Ellul (1912–1994) wrote about technology *as such* and mostly in terms of the presupposed thread it poses to humanity, the last couple of decades showed an 'empirical turn' – not empirical as in empirical sciences, but empirically informed (Verbeek 2011a: 37-8) –, focussing not on technology as such, but on specific technologies and their reciprocal relation to man and society – man and technology cannot be understood separately (Achterhuis 2001; Verbeek 2005).

This development led to the emergence of 'mediation theory', which in fact is not *one* theory, but an approach that is still in the process of crystallizing out and is still more a collection of different theories about man–technology or man–thing relations from different fields of study, than it is one coherent field of study.[31] Having its roots in science and technology studies, it is now developing into an approach with a much broader scope, particularly including industrial design. My claim is that also Van Eyck's theory can be understood as a mediation theory, albeit in a raw, implicit way. It thus may have the potential to extend the mediation theory into the realm of architecture and urban planning, but also to connect the architectural debate to broader debates concerning the built environment, as I will show in an example later on.

What the different approaches making up mediation theory have in common is that they focus on technologies and things and their relations to man and the role they play in relations between people or between man and 'world' – i.e. the world as he knows and experiences it. 'Mediation' refers to these relations, but not as a process connecting two entities – instead, but as the Dutch philosopher of technology Peter-Paul Verbeek (*1970) puts it, "*mediation should rather be seen as the origin of entities, not as an intermediary between them*." (Verbeek 2011b)

In this last quote we recognize what I have called a constructivist rather than structuralist approach, which I connected to the work of Bruno Latour. That is indeed one of the two most important roots of mediation theory: the 'postphenomenology' of the American philosopher of technology Don Ihde (*1934) and the 'actor-network theory' of Bruno Latour. I will give a very brief introduction to both approaches and to some other ones – not to describe them thoroughly, which would be beyond the scope of this thesis, but just to give an impression.

31 A concize introduction to mediation theory can found in the book *What Things Do* by Peter-Paul Verbeek (2005).

Postphenomenology

In his book *Technology and the Lifeworld* (1990) Don Ihde introduced a new approach to understand the way in which technologies 'mediate' our relation to the world. It is an extension of Heidegger's phenomenological tool analysis: if one uses a hammer to drive nails, the hammer will withdraw itself from our direct experience. It becomes, in Heidegger's words, 'ready-at-hand' ('*zuhanden*'). If now the hammer would break, it will return to our experience and become 'present-at-hand' ('*vorhanden*'). These two ways different ways of relating to a tool inspired Ihde to develop a 'postphenomenological' approach to technologically mediated human–world relations.[32]

The core of Ihde's postphenomenology consists of four human–technology–world relations (figure 27). The relation similar to Heidegger's being ready-at-hand is the *embodiment relation*. An example is wearing glasses or a hearing aid: the user experiences the world *through* an artefact, that thus becomes 'transparent' (metaphorically, not necessarily in a visual sense). It becomes part of its user, as it were: user and artefact relate together to the world, thus changing the human–world relation. Another example is the way in which an experienced driver focuses on the road and on traffic without paying attention to the car – it has become an extension, so to speak. In architecture this sort of relation can for example been seen in the way a building mediates our experience of the world, as the Danish philosopher Søren Riis has noted:

> *Our homes with their stable weather-proof walls and their locked doors have helped establish a secure space, from which the 'outside-world' is attributed a meaning of being relatively more contingent and dangerous than the 'inside-world'. In other words: we embody our homes, or our homes embody us, which amounts to the same hybrid being. From the inside-world, the outside-world is disclosed in an abstract yet specific way. Thus the formula of the embodiment relation reemerges: (human–homes)–world. (Riis 2010: 291)*

While Riis formulates it in a way which very much reminds postmodern dystopian analyses in such terms as 'capsular civilization' (cf. Cauter 2005), by emphasizing the dangerousness of the outside world, the same figure holds if the inside is the more dangerous or less desirable, for example for an inmate in prison.

Another possibility is that one does not relate *through* but *to* an artefact, that in turn reveals something of the way in which it relates to the world. This is a *hermeneutic relation*. A thermometer is an example: I have to relate to it in order to perceive a property of the world I could not perceive directly, i.e. without technical mediation. The used technology and the world thus become one, in this relation. In architecture

32 Ihde calls his approach 'postphenomenological' rather than 'phenomenological' because he is not searching for a foundation, i.e. does not want to make the absolute claims traditional phenomenology has been criticized for. Instead he sees himself as a more pragmatic, 'non-foundational phenomenologist' (Eason et al. 2003).

Don Ihde:

embodiment relation:	(human—technology)→world
hermeneutic relation:	human→(technology—world)
alterity relation:	human→technology(—world)
background relation:	human (technology / world)

Peter-Paul Verbeek:

immersion relation:	human←(technology / world)
merging relation:	(human / technology)→world

Figure 27: Different human–technology–world relations as identified by Don Ihde (1990) and Peter-Paul Verbeek (2011a).

and urban planning it can be, for example, that one is able to recognise the purpose of a building – what is happening there – by the perception of the building itself (cf. ibid.: 292). Such a hermeneutic relation can be very explicit, for example with a sign at the entrance of a building, or in the postmodern understanding of architecture in a semiotic way, but also very implicit, for example if the atmosphere of a place makes clear that one is not supposed to feel welcome. The idea of an identifying device in Van Eyck's theory can be understood as working hermeneutically as well: by being able to associate to this 'device' one associates to much more than the 'device' itself – it helps to situate oneself in the world, so to speak.

In some cases the world even seems to disappear from the relation: one relates then to the artefact *as such*. One could for example love a car, or get angry at a broken hammer – hence the similarity with Heidegger's being present-at-hand. Another example is an 'interactive' user interface which could to a certain degree act autonomously and respond to my behaviour. In such case the artefact becomes a quasi-other. Therefore Ihde calls this an *alterity relation*. In this case the artefact becomes completely opaque towards the world. In the case of architecture and urban planning the perspective of the tourist can be such a relation towards a building or urban scenery. An example of a very different kind – an example also that shows that such a relation does not need to be visual – is what the stairs at the entrance of the Vertigo building (department of Architecture, Building and Planning) at the campus of the Eindhoven University of Technology do to people entering or leaving the building: because they have such dimensions that one has to make uncomfortably large or uncomfortably small steps, it keeps drawing the user's attention to the stairs (and the way one has to walk them) even after innumerable times going up and down.

The last of Ihde's human–technology–world relations is an unnoticed one – a *background relation* – it is a case where a technology does have an influence on man's relation to the world, but he is not aware of it. An example is a heating system controlled by a thermostat, or the electric light that makes it possible for me to work at this thesis after dark. While these examples already have a clear architectural relevance, Søren Riis notes that in particular the interiors of such buildings as museums and concert halls are usually good examples of this sort of relations: such buildings are at their best when they make us experience the exposition or performance as well as possible, while not drawing any attention to the building itself (cf. ibid.: 296-7). In fact the built environment is experienced as background – i.e. unconsciously – most of the time,

as the German philosopher Walter Benjamin (1892–1940) already noted in his famous essay *The Work of Art in the Age of Its Technological Reproducibility* (Benjamin 2008 [1935]: 40).

In Ihde's postphenomenology mediation is particularly understood as the *transformation* of perception: the embodiment relation and the hermeneutic relation could in that sense been seen as both ends on a scale (figure 28): glasses transform the world only slightly as they enhance visual properties which are then visually perceived – they have a low 'contrast' in Ihde's words; temperature on the other hand, can be read visually from a thermometer, while the warmth it measures is a property we are not visually aware of – here there is much more transformation, and hence a higher contrast.

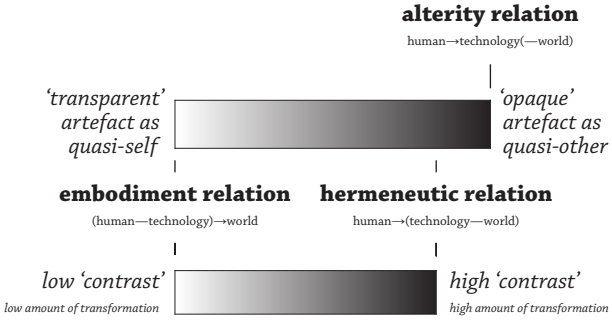

Figure 28: There is a gradual difference between Don Ihde's different human–technology–world relations (cf. Lammers 2009: 61) .

Technically mediated human–world relations are not to be considered neutral. Not only because they transform, but also because of their 'intentionality'. Ihde extended this concept that is used in phenomenology for the mind's directionality toward the world (thus rejecting the dualism of object and subject): also artefacts have directionality. "*Technologies, by providing a framework for action, do form intentionalities and inclinations within which use-patterns take dominant shape*." (Ihde 1990: 141) As an example he points at the difference it makes whether one writes using a dip pen, a typewriter or a word processor – in terms of speed, the specific editing activity, but also the effect it has on the style of writing (a word processor, for example, makes it much easier than the other two technologies to edit an already written text). Nevertheless this intentionality is not a matter of determinism: there might be different trajectories possible for the same technology. This he calls '*multi-stability*' – note the similarity to Van Eyck's emphasis on 'multi-meaning': although Ihde's 'stability' in the first place relates to use and thus is not exactly the same as Van Eyck's 'meaning', both terms are meant to underline essential ambivalence and hence a rejection of determinism.

Two more human–technology–world relations are added to Ihde's postphenomenology by Peter-Paul Verbeek (2011a), extending the scope to the kind of configurations of man and technology which are not to be understood as user relations. He therefore adds an *immersion relation* and a *merging relation* (figure 27). The latter, though, is not very relevant for a discussion on architecture and urban planning, because it refers to cases such as implants, genetic engineering and artificially produced human tissue – where human and technology literally merge in a much stronger sense than in Ihde's embodiment relation. Such cases of mergence will most probably never become the domain of architects.

More interesting is the *immersion relation*, because it is a more interactive version of Ihde's background relation – it is more than a context. One example of immersion relations Verbeek gives is the development of 'intelligent environments': environments reacting to people's presence and behaviour, for example in the programme of 'Ambient Intelligence' initiated by Philips. This is where architecture, industrial design and ICT merge. Verbeek's second example is 'persuasive technology': technologies that try to persuade people to change their behaviour. He seems to think in the first place of interactive technologies such as a 'mirror' that is not a mirror but a camera and a screen showing how one would look like within a couple years without changing one's lifestyle.

The idea of persuasion, however, has also been an important part of behaviourist urban planning theories as developed by such researchers as the American sociologist and urbanist William H. Whyte (1917–1999) and the Danish architect-urbanist Jan Gehl (*1936) since the late 1960s (Whyte 1988; Gehl 2006). Whyte was a pioneer in the use of film cameras for the observation of the way people behave in public space. What he did in New York, Gehl did in Copenhagen. They both did not limit themselves to mere observing and describing human behaviour, but also translated it into principles and rules of thumb for urban planning. Although both of them have had considerable successes in transforming urban spaces, some critiques to their approaches are possible. In the first place one may question their one-to-one translations from observed behaviour to elements of urban planning such as benches, low walls and stairs – the majority, by far, of their examples are from central or sub-central urban areas were the potential number of pedestrians is high. This suggests a high context dependency. A second critique is that, although their scientific approach seems to be objective, there is in fact a strong idealist presumption in their urban planning approach: it is all about encounter. Put in stronger words: it is about everybody encountering everybody – hence no processes of inclusion and exclusion are allowed. While this may be a valid point of departure for important parts of urban centres and sub-centres, I doubt it is the case everywhere in the realm of urban planning, and even less so in architecture. So once again there is a strong context dependency. The approach of mediation theory may help to extend the scope: it does not exclude the insights resulting from behaviourist research, but allows it to be interpreted in a broader perspective.

Actor-network theory

The idea of persuasive technologies brings us at the other important root of mediation theory: the actor-network theory of Bruno Latour. I have already introduced him as a constructivist: he analyses both acting humans and acting nonhumans in relations which themselves are considered to act as well. That is what he means by 'actor-network': "*an actor-network is what is made to act by a large star-shaped web of mediators flowing in and out of it. It is made to exist by its many ties: attachments are first, actors are second. [...] From now on, when we speak of actor we should always add the large network of attachments making it act. As to emancipation, it does not mean 'freed from bonds' but*

well-*attached*." (Latour 2005: 217-8) Here he refers to the hybrid networks he wrote about in *We Have Never Been Modern* (1993), as we have seen in chapter one. In that same book he also referred already to it as the domain of mediation. However, where in Ihde's approach *perception* and *experience* are what is mediated, Latour's approach provides in the first place an approach to the mediation of *action*. In *Pandora's Hope* (1999) he elaborates upon it and describes four meanings of mediation, representing different aspects of it: translation, composition, reversible blackboxing and delegation (ibid.: 178ff; Verbeek 2005: 173ff).

For the concept of mediation as *translation* Latour uses the example of a man and a gun – inspired by the famous statement of the United States' National Rifle Association: 'guns don't kill people, people kill people'. Say a man is angry at another man and wants revenge – that would be his '*programme of action*' – but he is not strong enough to do him physical harm – his programme of action is blocked. In order to find another way to fulfil his goal of revenge, he decides to make a 'detour' and get a gun. The gun's programme of action is not to take revenge, though, but to burn the bullet's powder and fire it. The bullet does possibly do much more harm than a bare fist would have done – the combination of both man and gun into one hybrid actant[33] – man-gun – results in the '*translation*' of both programmes of action and goals: the goal of revenge and the goal of shooting a bullet are *translated* into the goal of killing. According to Latour this translation is entirely symmetrical, because it changes both actants:

> *You are different with a gun in your hand; the gun is different with you holding it. You are another subject because you hold the gun; the gun is another object because it has entered into a relationship with you. The gun is no longer the gun-in-the-armory or the gun-in-the-drawer or the gun-in-the-pocket, but the gun-in-your-hand, aimed at someone who is screaming. What is true of the subject, of the gunman, is true of the object, of the gun that is held. A good citizen becomes a criminal, a bad guy becomes a worse guy; a silent gun becomes a fired gun, a new gun becomes a used gun, a sporting gun becomes a weapon. (Latour 1999: 179-80)*

This brings us to Latour's second aspect of mediation: the hybrid actant man-gun in the previous example is a *composition* and has a *composed* programme of action. To reach their goals, human actants associate themselves with other human actants, but also with nonhuman actants – hence the term 'sociology of associations' Latour uses as a synonym for actor-network theory, joking even: "*I wished I could use 'associology'*" (id. 2005: 9).

A difficulty is that it is hard to determine which actant is responsible for what fraction of the collective, composed 'agency' (capacity to act) of a composed actant. Every new actant in a composition changes, after all, the composed programme of action. The subprogrammes of the actants making up the composition may thus become com-

33 Latour uses the word 'actant' instead of 'actor' to emphasize the word could be used for both humans and nonhumans.

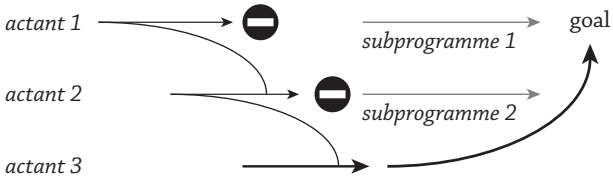

Figure 29: If several actants are combined, the subprogramme of each of them is blocked and 'translated' into one 'composed' programme of action leading to a single goal. If the 'composed' actant appears as one single actant it has become a 'reversible black box' (cf. Latour 1999: 181).

pletely unrecognisable (figure 29). Even more so because a new actant added to a composition may also be a substitution for another one, in order to reach the same goal in a different way.

Composition may, to make it even more complex, have unintended effects, beside the intended goal. Latour calls such an unintended programme an 'anti-programme'. A good example illustrating composition, programme and anti-programme is the bulky key ring of a hotel room key (id. 1997: 52ff). If a hotelier just gives his guests the key of their rooms, without bulky key ring, most people will take it with them when they leave the building. To persuade the guests, the porter may ask them to return the keys, which will have some effect; a bit more even if there is a message at the door. The number of people not returning the key may be reduced even more by adding a bulky key ring to the composition. Its programme of action may be very different – making the keys unwieldy to keep them in one's pocket – the goal, however, remains the same. Nevertheless this last addition introduces a new, completely unintended anti-programme as by its extended size it becomes a potential toy for a guest's dog to run away with (figure 30).

Because usually we are unaware of the composed character of an actant, and not interested in it either, Latour introduces a third aspect of mediation: behind every actant making up an actor-network hides another actor-network, which has become invisible because it is '*blackboxed*'. If we would open the 'black box' – which we could because blackboxing is *reversible*, according to Latour – it reveals many other actants (each being black boxes), including material parts, but also involved people, connotations, histories, et cetera. Every black box is thus a composition of actants, as well as a folding of time and space. Sometimes a black box suddenly opens, for example when an overhead projector breaks down in a lecture room:

> *The crisis reminds us of the projector's existence. As the repairmen swarm around it, adjusting this lens, tightening that bulb, we remember that the projector scarcely existed, now even its parts have individual existence, each is its own 'black box.' In an instant our 'projector' grew from being composed of zero parts to one to[o] many. How many actants are really there? [...] The crisis continues. The repairmen fall into a routinized sequence of actions, replacing parts. It becomes clear that their actions are composed of steps in a sequence that integrates several human gestures. We no longer focus on an object but see a group of people gathered* around *an object. A shift has occurred between actant and mediator. (Latour 1999: 183)*

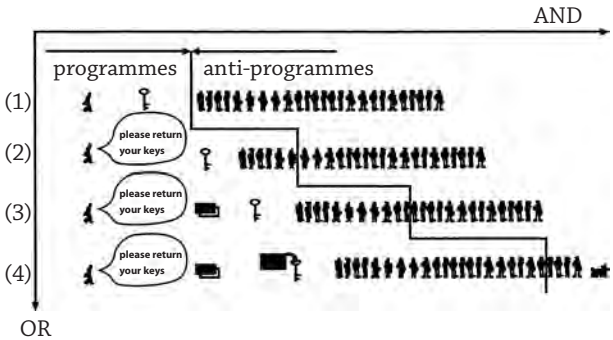

Figure 30: To persuade guest to return the key of their hotel room (1) the porter may ask for it (2) and there can be a written message at the door (3). The hotelier may also add a bulky key ring (4), making it unwieldy to keep in one's pocket – that, however, introduces an unintended 'anti-programme', as for the guest's dog it becomes a toy he may run away with (cf. Latour 1997: 58).

The fourth of Latour's meanings of mediation is in his opinion the most important: the concept of *delegation*. It distinguishes actor-network theory from semiology and semiotics, because it is a way in which artefacts not only have meaning (as signs in semiology and semiotics), but also generate it. He illustrates this with the way a speed bump on campus forces drivers to slow down. The speed bump translates the (moral) goal 'to slow down drivers to reduce danger for students' into the goal 'to slow down not to break the car's shock absorbers' – quite a difference for the driver, but the result is the same. The traffic engineer has thus not articulated his action programme 'to slow down drivers at campus' by a warning or traffic sign, but has *delegated* it into concrete. He has made a detour toward a thing – note the informal synonym for speed bump: 'sleeping policeman'.

In building a speed bump morality has been delegated to the '*script*' of a thing – a programme of action has been '*inscribed*' into it. Not only have goals been translated, so has the medium of expression. Nevertheless this should *not* be understood as the objectification of a human discourse into nonhuman matter: the speed bump has become an actor persuading drivers to slow down. The task of a policeman – a human actant – has been delegated by substitution into the script of a speed bump – a nonhuman actant –, which will also be there if the policeman has gone home to sleep.

In Latour's concepts of delegation and script we easily recognize their meaning from the perspective of a designer or in our case the architect and urban planner: by giving the built environment its form one also delegates goals with regard to the user to it; one inscribes them, thus translating them into architectural form. It is an approach focussing on the resulting human behaviour, in a way – though explained in very different terms – very similar to the behaviourist approach of Whyte and Gehl. It is also, in another way, very much related to Aldo van Eyck's understanding of architecture in terms of potential: providing place potential can be done by creating a composition of action programmes, although one never knows for sure what the composed programme or script will turn out to be, because it is multi-stable and accompanied by unforeseen anti-programmes.

In Van Eyck's terms we may add that this also depends on people's ability to associate to it and anticipate its use. Therefore he emphasized the role of memory – we may even say it is *mediated by memory*. Memory and history are very much related in

Van Eyck's theory. History also plays a role in Latour's actor-network theory: it is part of what makes up the actor-network. The difference, however, is that – if we stay in the realm of architecture and urban planning – in Latour's perspective the focus is on the history of the place, while in Van Eyck's perspective the focus is on the history of the person associating himself to the place. In order to include the place's history, he needed the rather complicated notion of interiorization. If we would combine the idea that a place is a black box including its history, and a person's ability to connect to it depends on the place's potential, as well as on the person's memory, than we do not need the problematic concept of interiorization anymore. We may even add the role narratives play as a sort of collective memory. As mentioned before, the anthropologist Caldeira has showed what that narratives could in fact have a very strong influence on urban development, both in a social and an architectural sense – in her case the role of the 'talk of crime' in the city of São Paulo. That way a reconciliation between Van Eyck's and postmodern theories might even be possible – Aldo van Eyck would turn in his grave reading this.

Mediation by domestication and disciplinary processes

Ihde's postphenomenology and Latour's actor-network theory reveal two different ways of mediation: the former focuses on mediation of perception, the latter of action. Verbeek (2005; 2006) emphasizes the complementarity of both views and combines them into one vocabulary for technical mediation (figure 31). Note that the aspects of mediated experience and mediated action can also be recognised in Van Eyck's twin notion of place and occasion: we may say that place depends on mediated experience, while occasion depends on mediated action – and both depend on each other.

Although there are many more ways of mediation possible, I will indicate only a few here briefly. The Dutch philosopher Petran Kockelkoren (*1949), for example, has focused on the relation between technologies and worldviews (Kockelkoren 2003; 2007). For this he uses the concept of *technoèsis*, introduced by the British artist and new media theorist Roy Ascott (*1934): the capacity of technology to open up reality and shape culture. This capacity can be found, according to Kockelkoren, in the *co-evolution* of technologies, images and ideas. The introduction of new technologies is supported by groups concerned who need to gain wider support. New technologies, while in the process of design, come with images of the future, and guiding metaphors. Only slowly they crystallize into a product and even after market introduction the product undergoes a further stabilizing process. In a case of *technoèsis* in its strongest form, a new technology challenges guiding philosophical ideas. In such a case people get confused about who they are or what they experience: two *technologically mediated regimes* compete for supremacy. The new one can only become successful if it is *domesticated*. A stabilizing process is required, by Kockelkoren called a '*disciplinary process*', referring to the French philosopher Michel Foucault (1926–1984). In this process the technology changes world views, but the technology and its regime are changed as well – that is the co-evolution. There is an important role in this process, according to Pe-

tran Kockelkoren, for both art and entertainment: by experimenting with new ways of mediation they help people to get familiar with them. Thus they are part of the cultural disciplinary processes and they pave the way for the domestication of new technologies.

experience	↔ **praxis**
mediation of perception	mediation of action
technological intentionality	script
transformation of perception	translation of action
amplification and reduction	invitation and inhibition
delegation	& multistability
deliberate inscription of scripts and intentionalities	*context dependency of scripts and intentionalities*

Figure 31: Peter-Paul Verbeek's vocabulary for technological mediation, based on the postphenomenology of Don Ihde and the actor-network theory of Bruno Latour (cf. Verbeek 2006: 368).

The writings of Michel Foucault are also an inspiration for the Dutch philosopher Steven Dorrestijn (*1977). While Foucault's concept of disciple is often quoted in dystopian analyses of 'control society', Dorrestijn interprets it in terms of mediation (Dorrestijn 2004; 2008; 2009): *disciplinary processes as learning technologically mediated routines*. Foucault, for example, describes how a child learns to write by practicing. For new technologies this means that they could not become successful if people have not learned to use them. This can be achieved in many ways: marketing for example, or by art and entertainment, as Petran Kockelkoren suggested. Probably the most powerful strategy is to adjust a new technology to the way people have already learned to use an already successful product. An example is the keyboard of a computer, which is still the same it was on a typewriter, although the original typing mechanism it was designed for has disappeared.

The ideas of domestication and a disciplinary process, interpreted in the way Kockelkoren and Dorrestijn have done, give us yet another clue about the role history plays in the relation between man and the built environment: we can only associate to a place if we have learned to do so. Most importantly this means that a new building or urban planning concept would only work if it aims at least partly for the same ways of association people are already familiar with from the already existing built environment – that is probably the most important reason why the modernist idea of building a new kind of city which would lead to a new kind of man and of society made no chance in the first place: a completely new start is just impossible.

Mediated ethics

In the 1980s Foucault moved his attention to the way subjects fashion their own existence in relation to disciplinary powers. He did so by studying ethics in classical antiquity – hence pre-modern ethics, not based on the submission to moral codes (Foucault rejected such an absolute foundation) but on the question how people fashion their own life: 'auto-stylization' or 'the arts of existence' he called it. It is based on the concept of *subjectivation*, which gives structure to our way of life and of being. Dorrestijn translates this concept into the question how becoming a moral subject in an every-

day life is mediated by things; interpreting the technologically mediated character of human life not as a thread, but as specific ways of subjectivation. Thus he introduces an ethical perspective into mediation theory – even more so because he relates it to the notion of freedom, which is one of the most important fundamental principles of Modernity. Following Foucault's notion of auto-stylization, Dorrestijn emphasizes that we should regard freedom as *practice*, rather than *principle*: freedom as result, as experience of sufficient control.

Dorrestijn's interpretation of Foucault is further developed by Peter-Paul Verbeek. He connects it to a search for a 'nonmodern' – not postmodern – approach in line with Latour's *We Have Never Been Modern* (1993). Ethics, after all, has not escaped the project of Modernity and its dualism – the dichotomy of object and subject. Therefore it approaches technologies – hence things, including the built environment – 'externalistically': the human realm and the realm of things are regarded as two mutually exclusive domains. What we need instead, according to Verbeek, is an 'internalist' approach that neither regards technology as thread, nor as neutral extension or instrument; neither should ethics of technology or things be based on *mistrust*, nor on *implicit trust*. Instead it should aim for a wise way of *entrusting* people to a technology (Verbeek 2011a: 117-8).

Verbeek has also adopted Dorrestijn's concept of freedom based on Latour's auto-stylization. He further developed this notion in such a way as to emphasize the moral responsibility of designers:

> *Freedom is not a lack of forces and constraints; it rather is the existential space human beings have within which to realize their existence. Humans have a relation to their own existence and to the ways in which this is co-shaped by the material culture in which it takes place. The material situatedness of human existence creates specific forms of freedom, rather than impedes them. Freedom exists in the possibilities that are opened up for human beings to have a relationship with the environment in which they live and to which they are bound. (id. 2008: 98)*

Verbeeks aim is to show the relevance of ethics for engineering and design and so to redefine the role of the ethics as accompanying the design process – actively working together with designers – instead of contemplating from a distance and setting limits (id. 2011a: 119-20, 128). My focus here, however, is not the perspective of the ethicist but that of the architect or urban planner. For the relevance of Dorrestijn and Verbeek's ethical perspective there is no significant difference between the designing praxis of engineers, industrial designers, architects and urban planners: there is an explicit moral dimension to all of their work, because acting morally is always mediated by the things around us and designing these things will not only mediate people's behaviour and experience, but also their moral choices. In Verbeek's words inspired by Latour: "*Designers 'materialize morality'; they are 'doing ethics by other means'.*" (id. 2008: 99)

This ethical approach to mediation makes it explicit that architects and urban plan-

ners have access to the realm of the good life in much larger extent than the common idea of providing a good climate of life in terms of a healthy (by some also interpreted as sustainable) environment – they provide possibilities for people to constitute themselves as subjects, to paraphrase Foucault. If we now return to (part) of a quote already given in the second chapter (p. 55) we may recognize a possible link between Van Eyck's notion of interiorization and Foucault's notion of subjectivation: "*There is [...] no difference between sense of duration and sense of being, not for that matter between these and the sense of the present, for the present is experienced as extending into the past and the future; past and future are created in the present. This implies self-realisation. Yes, man is 'at home' in duration.*" (wr [1962]: 1:74) Where Foucault wrote about 'auto-stylization', Van Eyck wrote about 'self-realization' and 'homecoming'; the message of both is the same: people must make their world to become part of themselves. For architecture and urban planning this means that people need to be able to associate themselves to their built environment. The message is to aim for people to be able to *live well*, which is a *practice* that emerges from the reciprocal relation between people and the built environment they live in and which thus cannot be understood in terms of solely people or solely built environment.

Van Eyck and mediation: a promising combination

In the first part of this chapter I have assessed the value of Van Eyck's approach for what I am looking for: a way to understand the relation between man, society and the built environment from the perspective of an architect or urban planner. The conclusion was that important qualities are its open and inclusive character, its being abstract enough and that it provides a frame of mind rather than a framework – all these qualities are obviously related. The most important quality, however, is that it is a constructivist, rather than structuralist approach, referring to the notion of *potential*. It is in this aspect of Van Eyck's theory that it overlaps with the more recently developed idea of a mediation theory. Does the latter allow a reconnection of Van Eyck's theory in order to develop an approach for the problems of today and tomorrow?

As we have seen Van Eyck's theory also has a few weaknesses: particularly that in some aspects it became so abstract that the he seemed to have lost the connection to what architects can relate to their design praxis. How could a theory that has its roots mainly in philosophy provide an answer to this problem? That sounds paradoxical. Nevertheless that is what I will contend.

For the very same reason the idea of interiorization in Van Eyck's theory proved to be problematic – being much too abstract and not having a clear relation to architecture or urban planning – the theory of mediation as it has been developed so far by such authors as Ihde, Latour and Verbeek cannot directly give an answer to our problem, because it is missing the aspect of the architect and urban planner's perspective. Some concepts related to mediation introduced in this chapter seem easy to translate to the architectural realm – the notion of script, for example, or the idea of multi-

stability. Other ideas, however, seem to be much more difficult, such as most of the postphenomenological man–technology–world relations: they seem to be more related to tools, instruments, medical technologies and interactive user interfaces and environments. The core idea behind the postphenomenological model, however, which is that our experience is to a large extent mediated by the things around us, is absolutely relevant for what we are looking for. The problem is that the mediation terminology as I introduced it was never developed with architecture and urban planning in mind.

Here a connection between Van Eyck's theory and the theory of mediation appears as the start of a solution. As we have seen Van Eyck's theory can also be understood as a mediation theory. Its most important message, with regard to mediation, is to understand the built environment in terms of *potential*: not giving a building identity or designing place quality, but aiming for place potential and the potential for people to identify themselves with the built environment, or even more in general: to associate to it. This perspective allows us to understand that human and material relations are inextricably connected and that different things can *happen* in these relations. What is important for architects and urban planners, is to keep in mind is that although their most important medium of creation is formal and material, designed for people and by people, it nevertheless only appears *as if* we could make a distinction between a world of things and a world of people. Van Eyck's twin concept of place and occasion is meant precisely to make this clear. So does the perspective of mediation. The challenge is, for a designer, to anticipate what a design is going to do once built. This requires contextual knowledge – for which an anthropological approach may be suitable – as well as imagination.

What remains is the problematic notion of interiorization. As I suggested earlier in this chapter it might be worth searching for an alternative for it, as it is rather confusing. In the introduction of the mediation theory we have seen two concepts showing similarities to the notion of interiorization: Latour's actor-network as a black box, which includes the temporal aspect of a thing as its history is part of the actor-network, and Foucault's notion of subjectivation, which makes a thing become part of a subject. Together they allow time and space, object and subject, and past and present to merge – thus covering all aspects of Van Eyck's notion of interiorization, while being much easier to explain concepts.

If we now return to Van Eyck's three key concepts based on the core idea of relativity identified in chapter two (figure 15) – twin phenomena, the in-between realm and interiorization –, we can see that that not only interiorization, but in fact also the other two can be explained in terms of mediation – i.e. acting relations: twin phenomena are qualities or properties that require a relation to their counterparts to come into existence and so can an in-between realm only exist depending on how it relates to other realms. We may thus replace the whole core of Van Eyck's theory by the notion of mediation. However, while I do suggest to abandon the notion of interiorization, I would not do so for the notions of twin phenomena and in-between realm; these notions are in fact much easier to connect to a design process than the idea of mediation as such – they have the power to give direction to a frame of mind; as rules of thumb

– but abstract ones. That is what makes many of Van Eyck's concepts – e.g. twin phenomena, in-between realm, memory, anticipation, place and occasion, identifying device, right-size and labyrinthian clarity – so valuable; even more so because their scope is so much broader than the formal and the visual, as in most postmodern approaches.

The combination of Van Eyck's ideas and the more recent mediation theory thus holds a promising lead for extending the scope of the architectural debate and overcoming the legacy of the postmodern urge for autonomy. To really understand its full potential, however, much more work needs to be done. This thesis is nothing but a first step, many questions remain and other tracks need to be explored – for example the postmodern concept of narratives or the aspect of society, possibly related to Boutellier's improvisation society, or how to study potentials.

Epilogue

An Example

To illustrate the potential value of the mediation approach to the understanding of the relation between man, society and the built environment, I will conclude this thesis with an example: the headquarters of the Brazilian bank Itaú Unibanco, the 'Centro Empresarial Itaú' in São Paulo (figure 32), designed by the Brazilian architect Jaime Marcondes Cupertino et al. and built in three phases (1982–1985, 1985–1990 and 2000–2005).[1] It is a very successful, though highly unusual project in the context of São Paulo.[2]

The project is situated along Avenida Engenheiro Armando de Arruda Pereira, a major avenue under which in the 1970s São Paulo's first underground line was built. The government had acquired properties along this line with two goals: urban renewal and developing building lots to recover some of the money invested in the underground. The Itaú project is in fact a combination of both. It is an example of public-private partnership, which in Brazil was absolutely unusual at the time. It was the answer to a double problem: the municipality wanted enough public space for the entrance of the Conceição underground and bus station, while the Itaú Bank needed more space than the available lots had to offer for building their headquarters. The solution was to allow the bank to extend their site onto public grounds and in turn provide and maintain public space on their privately owned site. (Meurs 1993; Cupertino 2009)

The result is one of the better functioning public spaces in São Paulo. Even while in the 1980s and 1990s Brazil was in a deep economic crisis, shops moved to large, closed shopping malls, the middle and higher classes moved to *condomínios fechados*

1 What follows is a more extensive elaboration on an example also included in my Philosophy of Science, Technology and Society master thesis (Lammers 2009: 107-8).

2 The remarkable quality and design process was for its main architect Jaime Marcondes Cupertino reason to analyse it in a master thesis (Cupertino 2009).

Figure 32: Jaime Marcondes Cupertino et al., Centro Empresarial Itaú, an integration of a bank's headquarters, public spaces and the entrance to an underground station –photographer unknown.

(gated estates or apartment buildings) and retreated from public space (Caldeira 2000), the project remained successful. This raises the question what it is that gave it so much potential.

There are several aspects that contributed to the success. A first is in the layout of the site. It slopes down from the avenue at the top to a park at the bottom. Behind the park are residential neighbourhoods. To connect these neighbourhoods to the underground and bus station at the avenue, a public route crosses the bank's site. Being at a slope the site is divided into terraces of which some are publicly accessible and connected by stairs, while others provide access to the office buildings. The result is a series of spaces articulated by height differences, corners and low walls that allow people to sit on (inspired by the ideas of William H. Whyte, as Cupertino told to Hans Lammers). People are invited to use it and it is a very popular place for teenagers to hang around (figure 33). In Van Eyck's terms the site thus works as a bunch of places, and shows it the idea of in-between in many different forms: in-between public and private; in-between height levels; in-between inside and outside (at the entrance of the underground station for example, as figure 33 shows – note that diffuse inside–outside relations are rather common in São Paulo's subtropical climate); in-between commuters and teenagers hanging around; and in-between classes (Brazil has a strong class division). As Van Eyck understands the in-between in terms of place potential, it may also be understood as a mediating relation: it is the built environment that *makes certain relations between people possible*.

The inviting character is strengthened even more by the way publicly accessible and private areas are separated. While São Paulo became a 'city of walls' (ibid.) which in many streets only strengthens the impression that the street is not a safe place to be, the Itaú site has no visible fences. Separating public and private is done by differences

in height and by water (figure 34). In Van Eyck's terms it creates an ambivalence between the twin phenomena openness–enclosure and public–private. In mediation terms it can be explained as the translation of the script 'don't cross this border' not into a fence with the script 'you must be kept out, so you we have made it impossible for you to cross this border', but into water with the script 'you will get wet if you cross this border' – the result is the same, the experience, however, is completely different. Whether from public to private or the other way around, a fence emphasizes separation. At the same time it emphasizes, implicitly, the potential danger of those at the other side (in particular at the public side) – hence a negative sort of association. The use of water instead of a fence, on the other hand is experienced much more as continuity between both sides, while there is in fact separation. The result is a more positive association and a much friendlier atmosphere at both sides.

Figure 33: Teenagers are allowed to gather and do so in large amounts, while on right commuters pass by; note the ridges in the pavement (top photograph) to discourage the teenagers to go skating where the commuters walk – top photograph by the author; bottom: Hans Lammers.

A very interesting phenomenon that can be observed at the Itaú site is an unexpected use that actually contributes to the quality of the site. At one place the publicly accessible area borders directly to a façade of mirror glass. This place has become a popular hangout for teenagers who use the mirror glass to practice their dance moves (figure 35). This sort of use is very much welcomed as a positive side effect. This sort of appropriation of the site by teenagers is not welcomed everywhere, however. In the route towards the entrance of the underground station a variation on Latour's example of the speed bump can be found: ridges in the pavement to make it very uncomfortable on skates (figure 33). Thus the teenagers are convinced not to cause conflicts with commuters by delegating this into materials.

Cupertino et al. have done a very great job understanding the particular urban context of São Paulo, as well as in finding ways to translate ideas developed by Whyte for

Figure 34: Water instead of fences or walls to separate private from publicly accessible areas – photograph: Hans Lammers.

projects in New York to the context of this site. They have been able find a solution that worked and kept working. Contrary to many projects in São Paulo where the relation to public space as intended by the architect is later made impossible by the addition of fences and walls, the Itaú project kept its inexplicit distinction between private and public. Obviously the conditions of the public-private partnership have contributed as well to the preservation of the urban and spatial qualities of the project. Just like any office park (or shopping mall, or school, et cetera) in São Paulo, security and control is not only delegated to physical distinctions between public and private, but to cameras and private guards as well. While in most cases, however, the owner or manager has set very strict regulation and the guards are there to enforce them as well as to keep certain groups of people out, at the Itaú site the guards are given instruction only to intervene when people harass others or break the law. The combination of strategically placed cameras and private guards has thus resulted – in this particular situation – in a privately owned public space that is in fact more safe and more successful as public space than most publicly owned public spaces in the city of São Paulo.

Figure 35: Unintended effect: mirror glass façade used by teenagers as dance mirror – photograph: Hans Lammers.

What this example shows is how the social success of a project of architecture and urban planning can be explained in terms of mediation (where Van Eyck's theory in considered as one of mediation as well). The combination of architecture, the layout of the site, surveillance by guards and cameras, and public-private partnership has in this case proven to be successful. It is not based on restricting people, but on the sort of freedom Steven Dorrestijn and Peter-Paul Verbeek have written about: allowing people to appropriate the space

in their own way and at the same time making the space itself to stimulate certain uses, while other ones are discouraged. Only when a situation becomes really problematic the guards have to intervene. We are talking here not about a supposed conflict between absolute freedom and limits that need to be enforced, but about providing the *experience of sufficient freedom* for the public and of *sufficient control* for the bank manager.

Figure 36: Mediation theory allowing an intermediary approach in which for example architecture, administration and surveillance technologies are considered together in order to establish a sense of safety and security.

What the analysis of this example shows furthermore, is that mediation theory allows a perspective in which different aspects that are usually the domain of very distinct disciplines – in this case architecture and urban planning, administration and policymaking, and surveillance technologies – can be understood in a mutually dependent and reciprocal way (figure 36). This not only broadens the perspective of architecture and urban planning into the realm of administration and non-architectural technologies, but also the other way around. It thus seems to be very promising to once again understand the social relevance of architecture and urban planning – not only from the architect's perspective, but from the perspective of urban policy making as well.

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Abstract

After three decennia of architectural theory focussing on autonomy, formalism, image and communication, architects and urban planners are now searching for ways to broaden their perspective and to re-establish the relevance and significance of their work. This thesis is meant to be part of that search for a broader approach, which translates into the question *how to understand the relation between man, society and built environment from the perspective of an architect or urban planning*. This question is obviously a very broad one and it is impossible to answer it – convincingly – in the scope of one year of working at a graduation project. What this thesis provides is thus a first step.

To be able to broaden the perspective, the first chapter begins with an analysis of where the rather difficult distinction between man and society – the world of psychologists, sociologists, et cetera – as something separate from the built environment – the world of architects and urban planners – comes from. It is traced to the early history of Modernity at the turn of the sixteenth and seventeenth century, and the dichotomy between objects and subjects – as absolutely different entities – which has dominated our worldview ever since. More holistic worldviews, although they never disappeared entirely, became increasingly rare. In order to understand the relation between man, society and the built environment, however, the object–subject dichotomy is problematic. It is therefore that I introduce one of the rare twentieth-century architects that actually have tried to develop a more holistic approach and that I furthermore suspected to have done so in a way that today may still be a valuable point of departure. This architect is Aldo van Eyck (1918–1999).

The second chapter is devoted entirely to a study of Van Eyck's recently published collected writings. Although he seems to have been a great lecturer and he definitely had a talent for aphorisms, short statements and polemics, he was not such a great writer of essays and books. This may have been an important explanation why hardly any of his critics and followers has understood the coherence of Van Eyck's theoretical body. *That* there is such coherence is not a new conclusion – it is also one of Strauven's conclusions –, *what* this coherence is, however, was not studied yet. Therefore this chapter presents the unravelling of Van Eyck's theory.

Three key concepts are identified at the core of Van Eyck's theory, all based on the idea of relativity: 'twin phenomena', 'the in-between realm' and 'interiorization'. By studying – almost close reading – how he used these notions in different text passages, their intended meaning, their development and the ways in which they relate to other concepts in his theoretical body are reconstructed. In a similar way other important notions, which could all be related to these three core concepts are identified and described: 'duration', 'memory', 'anticipation', 'association', 'place', 'occasion', 'identity', 'identifying device', 'right-size', 'labyrinthian clarity', et cetera.

The relation between Van Eyck's theoretical notions and his approach to architectural and urban design is illustrated starting from two versions of his own 'Otterlo Circles' diagram. Finally another important aspect of Van Eyck's approach is discussed: the role of imagination. It is showed to be understood as a well-informed way of speculation, being an inevitable aspect of design praxis.

The aim of this thesis, however, is not to study Aldo van Eyck as such, but to make a first step towards a possible approach for the problems of today and tomorrow. That is the subject of the third chapter. It begins with an assessment of the strengths and weaknesses of Van Eyck's theory. One of its strengths is showed to be its openness and inclusiveness, making it possible to interpret, adapt and extend it (even though Van Eyck as a person was not always so tolerant towards people interpreting his ideas). Another one of its strengths is its abstractness in the sense of not being too specific and too much dependent on a certain context and thus making that the core of his theory does not get out-dated easily. A third of its strengths – very much related to the previous two – is that it does not provide a strict and rigid framework, expecting himself or other architects to follow, but a frame of mind, thus, though not giving ready-to-apply answers, potentially being useful also in never expected and anticipated situations. The most important strength, however, is that Van Eyck's theory is not so much an example of structuralism (in the philosophical and scientific sense), but of constructivism: it does not consider relations as mere connections, but as acting relations – i.e. connections in which things happen. The key notion to see this in Van Eyck's theory is 'potential' – e.g. 'place potential' or 'association potential'.

It is this aspect which allows to show a possibility to reconnect Van Eyck's theory to contemporary theoretical developments – be it not in architectural theory, but in philosophy of technology and industrial design: mediation theory. A brief introduction is given to several of the different currents making up this theory, thus introducing perspectives of mediated experience, mediated action, a mediated co-evolution of culture and technology (i.e. the material world, including the built environment) and mediated ethics. What is showed is that Van Eyck's theory can be understood in terms of mediation as well. Mediation theory, furthermore, provides a solution to the most important weakness of Van Eyck's theory: the too abstract character of some aspects of it – in particular the notion of interiorization. Replacing Van Eyck's entire theory by mediation theory, as it has been developed so far, can however not be the solution, as it would introduce problems of a similar kind: having its roots in research and debates that were not, or hardly, related to architecture and urban planning, many of the mediation concepts developed so far are difficult to be integrated into architectural praxis. It is precisely therefore that the combination of the theory of mediation and the architecture and urban planning based concepts of Aldo van Eyck make up a promising combination as a first step towards an approach to understand the relation between man, society and the built environment from an architect or urban planner's perspective.