

Design Lessons from Practice

Professionals reflecting on design processes



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Preface

The Academy of Architecture Amsterdam occupies a unique position among European design schools. Our students in architecture, landscape architecture and urbanism gain professional experience as part of their studies, and they are taught by active practitioners in these fields. As a consequence, students have to be very aware of the different positions a designer can take towards designing. That is why the Academy considers it necessary to not only organise design studios or exercises on certain aspects of design, but also to offer a reflective track in which design processes are discussed. Over the years, we have observed that students value this opportunity to speak about design in general, and *their* work in particular, without the usual pressure to come up with a brilliant design. It can be a relief to focus for a moment on what happens on the road, and to learn that professionals also struggle with or throw away their initial ideas. It is very instructive to realise that these professionals are, *nevertheless*, able to achieve impressive results.

It is typical of our school that we do not want to theorise in abstract terms on what design is and how design processes unfold. We stick to experience derived from practice and believe that it is the active confrontation with different practice-based experiences that help students find their own path. This reader is a product of our series on Design Methodology and it presents six essays on design processes written by Dutch professionals, with a particular focus on their personal design process. We are proud to give the floor to a number of our respected teachers and professionals in this reader and hope that this can also ignite a discussion within other design schools.

Madeleine Maaskant
Director Amsterdam Academy of Architecture

Exploring mundane stories of invention

Harma Horlings
Noël van Dooren

Introduction

An ethnography of design

The work of the architectural firm OMA has been published so often, that the designs are part of the collective consciousness of designers. Nevertheless, we know very little about how those designs came into being. The extent to which we know about them is mostly because Rem Koolhaas, or one of the other designers from the firm, told an anecdote about the realization in a lecture. Those anecdotes are relevant because they correspond with the 'true story' from the designer's viewpoint. The work of Albenga Yaneva offers another point of view. As an anthropologist, she was given the opportunity to study the daily practice at the firm over the course of two years and recorded this in *Made by the Office for Metropolitan Architecture: An Ethnography of Design*. In reaction to an anecdote by Koolhaas about the design for the Casa di Musica in Porto, Yaneva wrote: 'One would never expect such a mundane story of invention to be told. Stories of reuse, of scaling up of rejected concepts, of collecting and recycling existing models are not told that often, and certainly not in public.'¹ Yaneva does not present the true story, but a *possible* interpretation of what occurs within the design process. That provides new insight and enables us to look in an original way at the use of models in a project, which is typical to OMA, and also the interaction between models and projects in particular. She prefers to talk about 'trajectories', with which she means to say that design processes build on that which exists and, for example via physically available models, pass on experiences with regard to a possible continuation, independent of the actual product that the firm presents at a particular moment. In this way, she reveals something that is generally important in order to understand what lies behind designs. Yaneva's book is one of a growing number of publications about creativity and design processes. As Nigel Cross puts it, 'For thirty years now, there has been a slowly growing of understanding about the ways designers work, based on a wide variety of studies of designing'.² This includes observation of designers at work, of which Yaneva's study is one example, so-called protocol analyses, in which the designer is asked to talk while he or she designs, and theoretical discussions about the nature of design processes. Such publications contribute to a better understanding of how the work of designers looks like 'behind closed doors'; a metaphor that describes both the firm, the hard drive of the computer, as well as the brains of the designer.

1 Yaneva 2009: 86.

2 Cross 1990: 130 and Cross, N, (ed.), *Developments In Design Methodology*, Wiley, Chichester, 1984.

Reflecting on design processes

This reader intends to tell 'mundane stories of invention' contained within six essays originating from experienced practitioners in the disciplines of architecture, urbanism and landscape architecture, reflecting on their own design process, as well as from researchers who observe designers with a sense

of curiosity. Knowledge *from* the practice and knowledge *about* the practice are thus given a platform. In the world of (landscape) architecture, the emphasis lies strongly on finished products. This focus is understandable because a designer is usually judged on the finished product, but that offers no insight into the rich inner world that lies behind the projects and contributes little to understanding precisely what happens in design processes. This reader actually demonstrates what precedes the presentable design, starting with the first idea.

It offers a better understanding of design as process, which is in fact the goal of the lecture series *Ontwerpmethodiek* (Design Methodology), from which this reader arises. Since 2005, students of architecture, landscape architecture and urbanism have attended this series in the second year of their Master's study at the Amsterdam Academy of Architecture. In this introductory essay, we – as coordinators – want to document the idea behind this lecture series and pass on the experiences of ten instalments.³ We hope in this way to contribute to a productive discussion about design processes.

3 The series started in the year 2005-2006 and has since had a new edition every year.

Our starting point is the view that there is not only one route through the design process, and that there is not one correct method of designing.⁴ The fact that each design assignment is essentially unique contributes to this, but is not the main point. It is about the freedom that the designer has to mould the design process. Through his or her knowledge, skills, opinions and, in particular, previous experience, the designer knows what to do and when to do that.⁵ The motivation for the lecture series actually arises from our own biography. The landscape architecture study programmes that we completed in the 1980s sought a systematic approach to design and design education, but at the same time conveyed the message that you either have talent or you don't. The creative process appears then to be mysterious, or even a black box. This image was and still is reinforced by the many anecdotes in which the design process is reduced to a crucial moment of invention: eureka! In this reader, we want to demonstrate, supported by recent literature, that that is an idea which appeals to the imagination, but is in fact nonsensical.

4 See Lawson 2006: 200.

5 See for example Anderson 2011: 6 and De Jonge 2009: 136.

An oft-heard anecdote from the world of architecture tells of how Frank Lloyd Wright saw a vision of *Falling Waters*, perhaps the most famous house in the world, in a creative flash when he first visited the location. Nine months later, he would subsequently draft the complete plan in one go – in just two hours.⁶ Whether or not this anecdote is true or not is not important. What is important is that such an anecdote leaves little room for reflection and feeds the mystification surrounding creative processes. Talent at work! The emphasis on talent is, of course, justified. Talent is a major asset for a designer and must be nourished. However, emphasising talent as a fixed idea

6 See, among other authors: Weisberg 2011.

ignores the fact that creativity can also be learned, as recent literature demonstrates incontrovertibly.⁷

Creativity researchers, such as Weisberg, demonstrate the complex mix of factors, such as intellect, motivation, environment, knowledge and memory, within which design occurs and highlight specific thinking strategies, which help one arrive at an idea. Weisberg refers to the ability to think via analogies and metaphors. In this way, the design problem can be approached from different angles, which increases the chance of a creative solution. Lawson and Dorst talk about this saying that ‘the use of metaphor is often heavily encouraged in design education and appears to be a common and very powerful tool in creative thought and the processes of expert designers’.⁸ Weisberg demonstrates in an article about the design of *Falling Waters* that there is a much more complex story behind that one flash of inspiration.⁹ Luck and chance definitely play a role in design, but ideas rarely appear out of nothing. ‘*Dans les champs de l’observation le hasard ne favorise que les esprits préparés*’, a statement made by Louis Pasteur in relation to scientific observation in a lecture in Lille in 1854, describes that (inadvertently) well: Chance only favours the prepared mind.¹⁰ ‘A prepared mind’ can, for example, contain a rich collection of examples and references. Each new design uses existing ideas and concepts, and relies on a ‘reservoir of knowledge’. The importance of that library of design solutions is that the designer can *recognise* a design situation.¹¹ Recognise is an interesting word in our opinion: that suggests an ability to observe well more than having talent. That requires extensive training, which begins during the design study programme.

7 See for example Sawyer 2012: 83 and 93, Lawson and Dorst 2009: 18, Nickerson 2007: 400 and 407.

8 Lawson and Dorst 2009: 138. See also Sawyer 2012: 116 and 119.

9 See, among other authors: Weisberg 2011.

10 See http://en.wikiquote.org/wiki/Louis_Pasteur.

11 See Lawson 2004: 447, 448.

Theoretical frame

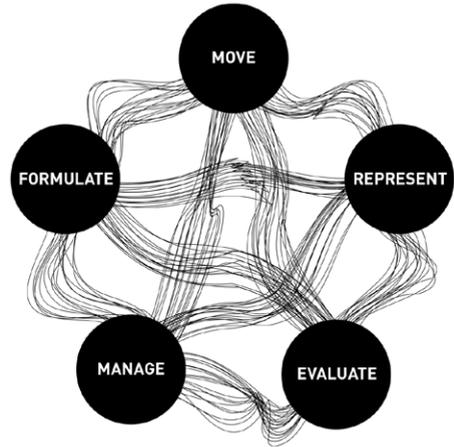
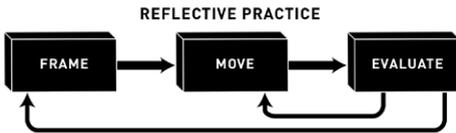
A handy vocabulary

Through this lecture series and reader, we want to contribute to the demystification of the creative process, by allowing experienced designers to speak in an open and detailed way about how design processes occur in practice. We do that supported by literature, through which knowledge about design is introduced. First and foremost, literature provides a handy vocabulary with which design processes can be described. Cross talks, for example, about ‘designerly ways of knowing and thinking’ and describes this as a specific, intuitive and synthesis-focused knowledge acquisition.¹² Another example is alluding to design problems as ‘wicked problems’, as Rittel and Webber do, or talking about ‘messy situations’, as does Schön.^{13, 14} Those two are connected. Rittel indicates that design problems are complex and often intrinsically contradictory, and Schön argues in particular that the environment in which design problems are solved is often obscure. Lawson elaborates

12 See Cross 1982.

13 See Rittel and Webber 1973.

14 See Schön 1983.



The Schönian frame-move-evaluate model of designing

Design activities

on this arriving at the opinion that design requires a certain way of thinking and reasoning: a ‘solution-based approach that is goal-oriented, in relation to programme and design.’¹⁵ Information about the nature of the design problem is not so much obtained by studying the problem extensively, but by generating, testing and evaluating probable design solutions.¹⁶ With every experimental step, something is contributed to the reformulation of the problem posed.

15 See Lawson and Dorst 2009: 36.

16 See Lawson 2006: 44 and Dorst 2006: 44.

The knowledge that is required to solve a design problem partly depends on the approach that the designer chooses. A design problem is not approached blankly; the designer acts on the basis of guiding principles. That is a set of values, opinions and previous experiences that guide – albeit unconsciously – the deliberations.¹⁷ Numerous authors therefore talk about ‘tacit knowledge’ in relation to the design disciplines. This knowledge is built up tacitly, and is tacitly applied ‘in action’: you learn how to design through doing.¹⁸ The complex difference between ‘tacit knowledge’ and explicit knowledge has been broadly accepted since the publication of Nanaka and Takeuchi’s book *The Knowledge-Creating Company*.¹⁹

17 See Lawson 2004: 443-457, Lawson and Dorst 2009: 178-181 and Lawson 2006: 159-181.

18 See among other authors Polanyi 1966.

19 See De Jonge, 2009: 21.

The previously mentioned guiding principles help, as idea, to better understand how the initial phase of a design process works, namely that it is about the *reformulation* of the problem. Lawson uses the word ‘precedent’. He means with this that designers have a metaphorical or literal library with references. Those references can function as precedent in a concrete assignment.²⁰ In fact, an experienced designer recognises potentially successful solutions, based on that outline. In that sense, literature about design processes supports what we intuitively know: the importance of travelling and observing,

20 See Lawson and Dorst 2009: 128-32, 140, 148 and Lawson 2004: 449.

copying or discussing projects. That takes time, but is a crucial investment that is 'paid out' later in concrete design processes. In his famous book *The reflective practitioner*, Schön describes the design process as a 'reflective conversation with the situation'. This is a beautiful formulation, which also indicates that design processes are partly guided by external impulses, and those can also be drawings: '[The designer] shapes the situation, in accordance with his initial appreciation of it, the situation "talks back", and he responds to the back-talk.'²¹ Goldschmidt uses the notion of 'backtalk' too.²² She thus argues that drawings function as a form of external memory and enable the designer to relate lines of thought of a longer duration to acute insights that require attention. That refers to physically present drawings. They have become artefacts that are brought into being outside the head of the designer, and enable him or her to test, integrate and communicate new ideas with others. In fact, this is precisely the way in which Yaneva looks at models.

21 See Schön 1983: 79.

22 See Goldschmidt 2003.

In the lecture series, we do not provide such literature as a knowledge asset that needs to be learnt and remembered, but a framework within which experienced designers reflect on their way of working. We ask these designers to step outside their daily practice and observe their own design process with a reflective interest. Literature reveals that there is not only a gradual distinction between students and experienced designers, namely experience in years, but also a fundamental difference. The experienced designer has been able to develop a specific way of doing in order to be able to produce designs in an efficient way. This often seems to be more of a habit than a conscious strategy. Jormakka says about this: 'What we call intuition is often better described as expertise: only someone who has internalized the knowledge of her field [...] can arrive at correct conclusions rapidly, without conscious deliberation.'²³ The previously mentioned recognition of ideas plays an important part in this. Lawson compares this to how experienced chess players operate.²⁴ Without analysing all possibilities, they recognise or 'see' the potential of a proposition and subsequently take up a position. Lawson uses the word 'gambit', an opening in chess whereby the player sacrifices a piece in the hope that he or she will gain a tactical advantage, as a way of describing that a set of ideas about organisation, process, existing repertoire, context, function, material etc. can be used for the development of a line of thought. He borrowed that partly from the ideas of Jane Darke, who has earlier developed a theory about the 'primary generator': a relatively simple idea that functions as the motor of a design process, as a result of which a process of further development of ideas can be set in motion.^{25, 26}

23 Jormakka 2008: 81.

24 Lawson refers in the article 'Schemata, gambits and precedent: some factors in design expertise' (2004: 447-448) to research by the psychologist De Groot which studied experienced chess players. The source is: Groot, A.D. de (1965) *Thought and choice in chess* (The Hague: Mouton). See also: Lawson and Dorst 2009: 174-176.

25 See Darke 1978.

26 See Lawson 2006: 46-49 and Lawson and Dorst 2009: 36.

Experienced professionals, even if they are hardly actively aware of it, have a whole repertoire at their disposal in order to hold their own within the complexity of the design process.

However, the question regarding what they precisely do along the way often remains difficult to answer. When the shiny finished product is presented, everything that happened beforehand, from failed drawing to rejected idea, no longer counts: mission accomplished. That is further reinforced because the finished product is often an implicit but conscious rewriting of the history of the project. Architects must seduce both the client and the public with a convincing story. They operate in a social environment in which they need to handle their image carefully. Such a rewritten history often suggests that the subject arose out of a brilliant and inevitable idea, which was elaborated on with a steady hand into a detailed solution. ‘The various design fields have never built up such a strong repository of cases’, as Lawson and Dorst put it, as ‘many of the case descriptions of projects in architecture and design reside in design journals, where they tend to be rather superficial, and often uncritically described “success stories” of design projects.’²⁷ It is precisely for this reason that opinions about one’s own design process are, partly based on sketches, illustrative. Sketches and other interim products are looked upon as ‘screenshots of the creative process’.²⁸ They show steps that in retrospect appear to be essential, or simply the result of failures and perhaps even strokes of luck. They enable one to reconstruct the process – to a certain extent – and verify the story of the designer.

27 Lawson and Dorst 2009: 135.

28 See Boon 2014.

A productive conversation on designing

In our own biography, two masters can be pointed to who have inspired us to set this lecture series in motion. In the first instance, that is the Dutch landscape architect Hans Warnau who wrote a lecture synopsis for the Amsterdam Academy of Architecture two decades ago.²⁹ In this publication, he analyses his own work and that of others, and comes to the notable conclusion, for example, that design is ‘the elimination of stomach pain’. As first step towards a productive discussion about design, Warnau is inspiring because he is generally seen within Dutch landscape architecture as a giant, while at the same time talking slowly and full of doubt about his own designs. In spite of that doubt, he took up powerful and ideological positions, whereby the equality of people, rich or poor, is essential. He showed how an outspoken social vision can steer design processes. The second source is the French landscape architect Michel Courajoud who gave shape once again to the landscape architecture programme at the *École Nationale Supérieure* in Versailles in 1980s and laid down his vision on design processes and design education in a so-called *Lettre aux étudiants* [A letter to the students].³⁰ Corajoud, who passed away in November 2014, chose the style of a letter for this text, in which he talks to the students directly, outside of his lectures and studios. What the letter states, in nine steps, is: ‘design, this is how you do it’. However, in the last sentence of his letter he calls upon students to have faith, above all, in their

29 See Warnau 1988.

30 See Corajoud 2000.

own ideas - a power that is necessary according to Corajoud in order to be able to deal with the hard work and criticism from others. One crucial idea that Corajoud conveys is the *hypothese de travail* (working hypothesis). Design problems are characterised by lots of, and often contradictory, information, little time and no security about the exact spatial problem. It requires effort to gain a clear picture of all aspects, but at the same time an exhaustive analysis can also obscure the picture at the heart of the design problem. That is why Corajoud wants students to draw up a working hypothesis. The working hypothesis can 'spark' the exploratory work and, above all, offer help in recognising which answers to questions advance the project. In fact, the *hypothese de travail* is strongly reminiscent of the 'primary generator' of Darke and Lawson. This idea of a working hypothesis is, in our opinion, a very productive approach to the design process, because it helps one deal with the uncertain initial phase. This is essential for starting designers: doing something is, by definition, better than doing nothing, because everything that is produced makes 'backtalk' possible.

It is in the spirit of Warnau and the *Lettre aux etudiants* that we have written and composed this reader. In addition to sharing our own experience, we particularly want to give a platform to a series of experienced designers and connect them with each other. The lecture series *Ontwerpmethodiek* (Design Methodology) takes place at the Academy of Architecture, which is part of the Amsterdam School of the Arts. It is also

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The design studio



a typical practical training course: it is a school for future professionals, who learn the profession from experienced practitioners, a model that is more than one hundred years old. What is unique is that this occurs at Master's level.³¹ It embodies the idea of a designer who is both practically and reflectively skilful, who is able to steer the creation of pieces of work and who can also place ideas in a broader social and philosophical context. The lecture series *Ontwerpmethodiek* (Design Methodology) seeks to contribute to both sides.

31 It is no coincidence that till 2015 the Academy opted for the title MLA, instead of the more standard MSc.

The design studio

The reflective practitioner

One unique aspect of the Academy is that students work within the professional practice and do the study programme in the evenings and on Friday. This is significant in relation to what is seen as the heart of the architectural education: the design studio. The design studio is a completely self-evident idea within architectural education, and yet it is a concept that manifests itself at various schools in very different guises. At the Academy, the design studio is not a physical space where the material is produced. It is rather a didactic concept, a mental space in which ideas can be tested and a professional framework of acting and assessing is offered. A group of approximately eight students meet the teacher one evening per week during a period of eight to sixteen weeks. The most important aspect is perhaps that a relatively fixed form of discussion is sought between teacher and student. It would be interesting to compare the protocol of such a discussion with Schön, who gives a prominent place to the recorded discussion that teacher Quist has with student Petra in *The reflective practitioner*.³² The Academy teacher reacts in a constructively critical way to the weekly progress. The other students are also present and are expected to relate the lessons to their own work.

32 See Schön 1983: 78-93.

Theoretical reflections on architectural education mostly consider the studio to be a simulation of the professional practice, which enables one to practise by answering complex questions; questions that would not, in fact, be simple to answer via the application of knowledge alone. That has its roots in the arts and craft-oriented education, in which the 'master' trains the 'pupil' while working in practice. The model of the *École des Beaux-Arts* is often mentioned.³³ Students there worked on an *esquisse*, a quick exercise with which a product has to be delivered in a short space of time that can be judged as a piece of work in competition and which can be exhibited. The *Beaux Arts* tradition has made an important contribution to the strong focus on the drawn finished product, and for drawing as craft.

33 See for example Anderson 2011: 15, Carlhian 1979 and Green and Bonollo 2003.

The focus lies on the work in the design studio within the Academy. Not only due to the time that that form of education

takes up in the curriculum as a whole, but also due to the weight that is attached to it by both students and teachers. Based partly on recent discussions in literature, we have come to the conclusion that this focus has its limitations. Lawson is also well-disposed to that opinion: 'One of the weaknesses of the traditional studio is that students, in paying so much attention to the end product of their labours, fail to reflect sufficiently on their process'.³⁴ The studio introduces a strong project-oriented attitude: the short time span in which a complex assignment must be solved and the focus on the finished product offers little space for reflection on the design process itself. Students are focused on perfect drawings, which also preferably display mastery of the newest techniques, certainly in these excessively image-oriented times. But that distracts greatly from what an architectural study programme should be about, which is: what happens along the way? On the one hand, in order to provide the teacher with insight, and on the other hand as a form of self-evaluation it must be clear how a first concept was formulated, how via drawing sections, for example, a deeper insight was obtained, and how inspiring images of a trip could be made productive. The discussion that we want to enter into with the students and the lecturers is: how do you pick yourself up during a difficult time when the project appeared to have been all for nothing? What was the crucial moment when the definitive idea was struck upon, and in which drawing could that be recorded?

34 Lawson 2006: 7.

These are not simple questions – although they actually are in a way. Given that the students at the Academy have previously completed a Bachelor's degree, they have by definition some experience with design. Many students implicitly trust that they will be able to see the design problem through to a successful conclusion. They have often learnt a strategy or trick in the first years of their study programme in order to make a design. However, at the same time it turns out that they generally find it difficult to express *how* they do that and, where necessary, to follow a different path. We believe that the answers are, to a certain extent, implicit in the work they have done so far and ask the students to observe and reflect upon the path they have taken as hands-on experts. By publicly discussing the question: 'how do you start a design project?', it becomes immediately apparent that different students start in very different ways. Students learn that such different starting points are apparently acceptable and that they can lead to a sufficient result.

In much ethnographic and reflective design research, making a logbook plays an important role.³⁵ That is no coincidence. It provides insight into 'the intricate and messy happenings' that make the conceptual leaps in the design process possible. That is why we ask students to keep a diary of the ongoing design project and note down in it which steps have been taken. This reflection also forms the basis to formulate a plan for the following project. The students must ask themselves the

35 Armstrong 1999: 13.

question what they can and want to do differently in the new project, what will be tested with that, and how this integrates insights from their earlier projects. Students learn to see, for example, that it actually can be more effective to discard an idea rather than hold onto it out of fear that the project will not be finished on time otherwise. We assume that such a reflective attitude contributes to the ability to design.³⁶

Lessons from practice

Contradictory ways of doing things

The guiding principle that the Academy follows is that there is not one fixed way of working. The student is, as it were, bombarded with different and, sometimes, contradictory ways of doing things, from which a personal approach must be wrought. We are firmly convinced that it is good to assign the responsibility of finding a personal path to the student. That does, however, require insight and reflection. That is why the lecture series is conceived as a collage of different approaches, strategies and techniques set up by experienced designers. In this way, it becomes clear that choices are possible in the design process. We do that on the basis of three lines of approach, and we also specifically seek out practitioners who can actually give insight into their motivations, how they arrive at drawings and how they managed the design built.

Line of approach 1: The design process as a series of steps

In the first instance, we look at the design process as a series of recognisable and recurring steps. During an introductory lecture, we make it clear that 'design methodology' by no means suggests that the process always has to proceed according to the same series of steps. It should also not necessarily be a linear process. But at the same time there are obvious and coherent paths. A lecture about the development of a concept is well-suited for this purpose. Having a strong concept is urgently needed by most students in order to have faith in a good outcome. However, there are many opinions about what a concept is precisely, how you lay it down and how you translate it into reality. Architect Tom Frantzen manipulates the ambiguity of the idea perfectly by stretching the range of the concept far into the domain of conceptual design. This is supported by distinct, striking examples from his own work, such as the prize contest entry *Ruffhouse* from 1998, which envisions a house consisting solely of roof dormers, in order to circumvent rules.

Furthermore, we devote attention to research, which can be viewed as a stage in a design process. Designers like to use high-sounding language but are seldom prepared to familiarise themselves with the mechanisms of good research. That is why we invite a researcher from academic circles connected to design, who impress upon students the requirements good

36 The idea that a reflective attitude contributes to the learning process is based on the action theory of the philosopher Dewey, as described for example in Van Woerkom 2012 and Logister 2005. John Dewey is considered to be the initiator of the concept of reflective thinking as an aspect of study and education. Logister: 'Dewey's action theory can be considered a theory about experimental (or experimenting) study. [...] This means that we can only obtain knowledge by acting. But it will become clear that acting in itself is a necessary, though insufficient, condition for obtaining knowledge. It is the combination of reflection and action, of symbolic operations and existential operations that leads to knowledge'.

research needs to fulfil. That creates distance of course: the chaos of a design process often allows no space at all for ‘tidy’ and methodically correct research. At the same time, we ask three recent graduates to reflect on the research in their graduation project, as a result of which the ‘tidy’ research is directly put into perspective. It is notable that that request alone challenges graduates to consider their work in a new light. The focus is not on the finished product, but the path taken to get there, including all the wrong turnings. What was the role of research in reaching the finish line? Did research guide the design, or is the opposite the case? The external expert places these stories in a larger context. In this way, students see various research styles and the significance that research can have in the different phases of the design process. Looking at the design process as a series of steps can also be observed in creative processes of other disciplines. Architect and filmmaker Jord den Hollander sees designs as a form of storytelling. In his opinion, the design process has a narrative logic that determines how objectives and design ideas are given a place in the storyboard. The approach of Den Hollander is reminiscent of the work of Tom Ingold, who states that ‘we are accustomed to think of making as a *project* [...] I want to think of making, instead, as a process of growth’.³⁷ Designers are strongly inclined to see their design as a project, which starts with a blank page and ends in a definitive design that will hopefully be built. Ingold talks about ‘trajectories’. The project is merely a phase in the existence of a piece of landscape, or a building. Along those lines, Den Hollander considers a design as a scene in the life story of a location or area. The story was already under way before the designer entered the picture and continues after the designer exits the stage. That is a healthy way of putting the significance of the design into perspective. Somewhat related to this is the contribution of Paul Roncken who makes students aware of their public. What does that public want and expect, and how do you relate to that as designer? What does it mean to be on the stage with a design, both literally and metaphorically? This is a springboard for discussing the fact that students often differentiate too much between the steps that are taken along the way and the final presentation. Can the design process and the unavoidable final presentation be better connected, so that the one flows naturally from the other, and so that the design process is also guided by the way in which the finished product will later be communicated?

37 See Ingold 2013: 20, 21.

Line of approach 2: Tools

The second line of approach for the series concerns the tools that designers use, such as drawings. That is an almost inexhaustible domain for reflection. The drawing as object is addressed by Noël van Dooren, who will obtain his doctorate on that subject at the start of 2016.³⁸ Every student, and every practitioner, attaches major importance to drawings. But the discussion is rarely just about the drawing itself. It is mostly seen

38 The doctoral research *Drawing Time* took place between 2010 and 2015 at the Amsterdam Academy of Architecture and the University of Amsterdam. Erik de Jong supervised the research. An official publication is expected to follow in 2016.

in the context of a proposal for a park or a building. We want to discuss if it matters that the drawing was a diagram, model or section. Was it important that it was roughly drawn, or actually drawn very precisely? What is the impact of drawing by hand or using certain software? Drawings are guided by implicit beliefs; messages that the designer wishes to impart. We want to contribute to students learning how to reflect on drawings as a world in itself, rooted in a broad cultural range of meanings and traditions. Urban planner Frits Palmboom shows how drawing can be used as a way of thinking. Palmboom is a striking example of the reflective practitioner as described by Schön – his drawings offering clear ‘backtalk’. Palmboom’s method of working also leads to *The Thinking Hand* by Pallasmaa, a theoretical work which reflects on the meaning of drawing by hand.³⁹ Palmboom traces the map of the existing landscape countless times and thus detects lines, patterns and themes in the landscape.⁴⁰ That serves as point of departure for further steps. Palmboom demonstrates that old-fashioned style use of transparent paper has the same significance whether digital or analogue. This technique of overlays was already described by Steinitz, and Palmboom shows what it achieves in practice.⁴¹ It teaches us that a good idea is often not so much a creative discovery with capital letters, but rises up, as it were, from tracing. It leads to interesting discussions: is a way of drawing awkward because it progresses slowly, or is that actually an advantage because it offers room to think? Another appealing lecture in this category is that of architect Jan Peter Wingender about making models. On the basis of models from his own firm, Wingender demonstrates the role a model can play in the presentation of a finished product, but especially as part of a design process. A good example of this is a very simple, quick model made with spaghetti left over from lunch. This model offers insight into the structural questions, in spite of the banal background. Wingender makes it clear how a model can have a decisive role as 3D model in the communication with clients and the public, by actually being very small, so that it can be passed on to each other, or very large, so that you can walk around it. Using an extensive series of photos of architects and their scale models, he shows that this this poses many questions with regard to the presentation of the model, beginning with the pedestal upon which the model is placed. One of the valuable effects that this lecture has is that it gets students thinking about *when* a model needs to be made.

Line of approach 3: Framing

A third line of approach is shaped by the way in which practitioners make the complexity of the design process manageable by ‘framing’ the assignment. By using personal beliefs and fascinations, or by emphasising specific aspects of the assignment such as the programme and the context, the number of possible solutions is reduced.⁴² Architect Jan-Richard Kikkert demonstrates how well-known design solutions

39 See Pallasmaa 2009.

40 See Palmboom, F. (2010) *Drawing the Ground. Landscape urbanism today. The work of Palmboom urban landscapes* (Basel: Birkhäuser GmbH).

41 See Steinitz, Parker and Jordan 1976: 444-455.

42 See Lawson and Dorst 2009: 34, 35, 50, 59, 202.

of other architects can be used as inspiration for one's own work. Translating old references to the present day is not always simple, but it is relevant. Kikkert shows how he is inspired and influenced by the American architect John Lautner (1911-1994) in his own work and argues that it helps to regard a model example of an architect as a 'hero': it can generate courage for exploring uncharted territory. Architect Herman Zeinstra makes it clear that students have a choice regarding how they organise steps in their design process. It can be useful to make decisions about materials and the details of the structure at an early stage. That requires craftsmanship, but it prevents the design being frustrated by the many routine and pragmatic requirements that buildings have to fulfil. Zeinstra therefore talks about thinking along two parallel tracks that represent the two halves of our brains. One of the tracks is rational and opts for meticulous research and a critical mindset. The other track represents the emotional, intuitive, dreamy way of thinking. Zeinstra advises students that it is possible and necessary to switch between these two tracks during the entire design process. A focus on material and detail at an early stage specifically for landscape architecture and urbanism students is refreshing: that is unusual in those fields.

Many examples can be found in history where the notion of accident represents the driving force behind creativity.⁴³ Whether deliberate or not, a change, combination or reversal can stimulate the imagination, as a trigger for information from the unconscious. Architect Anne Holtrop uses this as point of departure and consciously approaches the design process as an experiment. There is no sense of a preconceived goal. Each action is the starting point for the following one. Holtrop demonstrates that this experiment can be started by making 'random' ink shapes and patterns on paper, which subsequently form a breeding ground for further actions.

43 See Jormakka 2008: 36.



Inkblot

Anne Holtrop





Anne Holtrop, Temporary Museum (Lake), 2010

Anne Holtrop, Temporary Museum (Lake), 2010



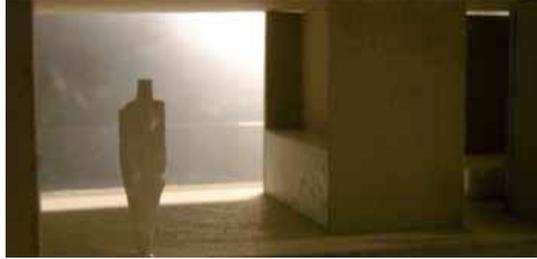
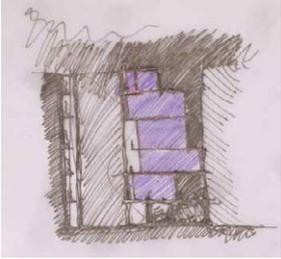
Student reports

How do we know what parts of these lectures make a lasting impression on the students? As previously mentioned, we ask students - in the form of a report - to reflect on the examples from practice as given in lectures and their own design project, thus arriving at a personal conclusion. The reactions of students are often revealing, such as in the case of Anna: 'That a design method can also be intuitive was a real eye opener for me. I had never realized this is legitimate.' In the aforementioned quote, Anna is actually getting to the heart of the ideology of the Academy: there is not one right path; the student makes his or her choice. Eva reacts to the lecture about models: 'Next time I will start making models earlier. In doing so, I will discover the problems in my design sooner.' This is precisely what we are striving for: raising awareness about what to do and when to act. It strikingly illustrates what is referred to as backtalk by Goldschmidt.⁴⁴ In the reports, we see a willingness to observe and assess personal actions. For example, Vincent writes: 'Photographing my drawings for this report in fact is a useful reflection on my own work. You start to look differently if you document it all.' A similar remark is made by David: 'I started writing down my idea in week 5 again, and compared it with what I wrote in week 1. I realized my design is much sharper now, and more concrete.' These comments reveal how effective documenting the design process can be.

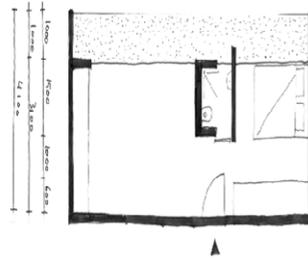
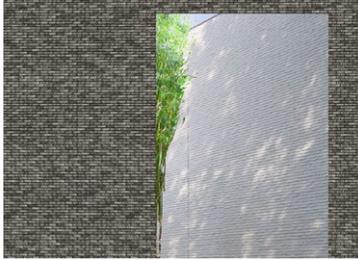
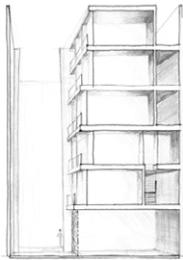
44 See Goldschmidt 2003.



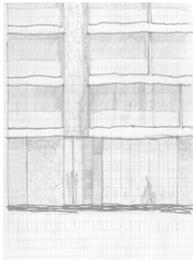
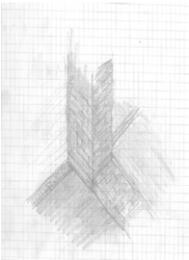
week 1



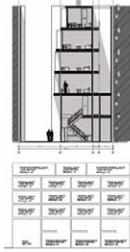
week 2



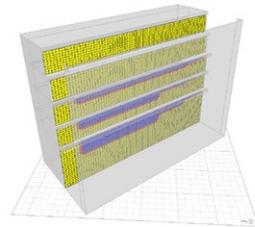
week 3



week 4

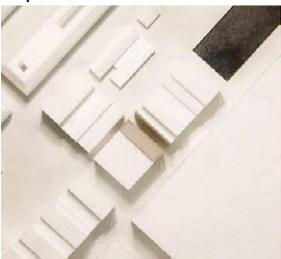


week 5



week 6

Report student Vincent van Leeuwen, 2012.



week 7

The lecture about concepts generally turns out to evoke a lot of reactions. It makes students confused and cheerful, but above all the penny drops by a number of them that the concept is not an unambiguous idea stated in a code or in history: the concept is a conscious choice, on one's own authority and strategically deployed. That is a difficult reality for some people, while for others it is liberating. For example, Janine writes: 'What I intend in my next projects, is to be aware that even though my concept is a guiding principle during the design process, this process creates different things and can change the concept.'

The students turn out to be open-hearted about moments of crisis. Irma notes in week 5: 'Stuck! No improvement. Damn! But with groaning and moaning something interesting came out...' As designers, we prefer to forget such moments of crisis, but through consciously observing this, it becomes clear that it is often precisely in those periods of apparent stagnation that progress is made. The reports make it clear that students feel relieved to know that experienced designers from the professional practice also have recurring periods of doubt and discard ideas.

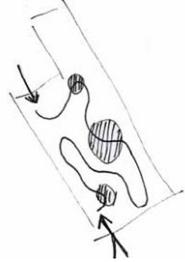
Critical questions must, of course, be asked about the value of such a personal report, especially if we assume that students would like to obtain a passing grade and write down what they think we want to hear. However, that is no different to the presentation of a design, and that problem is solved by assessing autonomy, coherence and persuasiveness. That is supported by the supplied selection of drawings, which are made *during* the project. It should then be about images, which mark substantial progress in the eyes of the student. That adds a 'layer of proof', because it enables statements to be verified. For that reason alone, we argue for sketches to be treated carefully and stored. Even if their value is not directly visible, they make it possible to check in retrospect how an idea materialised. They invite the student to reflect on the choices that are mostly made unconsciously or semi-consciously. Through focusing on sketch drawings, we also advocate an appreciation for the drawing in itself, even if that is sometimes rejected for good reasons further into the design process. It is crucial that a student learns to see that is not good to rigidly hold on to a certain idea. You must learn to trust that you can spend days of uncertainty about the follow-up step, and can then ostensibly take that step all of a sudden. Rimaain writes about this in his report: 'By simply sketching and asking myself questions about why I am doing this, I have been able to design better.' Chloe has this to say about the subject: 'I will redraw more maps from the existing site and be more confident by my hand drawing sketches from the beginning because I really feel like my work and my ideas improve this way. Be confident in my thinking hand.' This approach does, of course, have its limitations as didactic tool: drawing personal conclusions is only relevant if they are



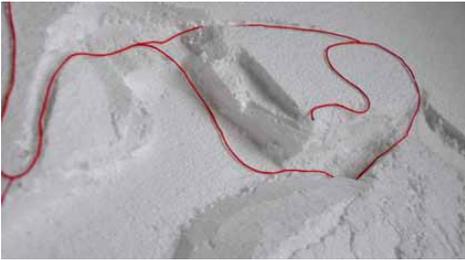
week 1 (intuition)



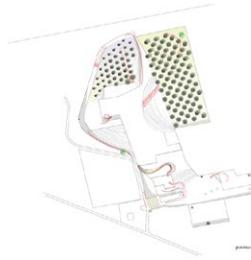
week 2 (visiting the location)



week 3 (concept design)



week 4 (3D sketching)



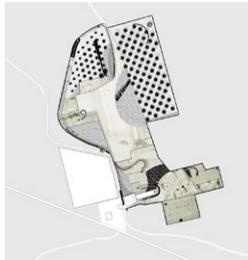
week 5 (map)



week 6 (plantation)



week 7 (first and last image)



Final design

Report student Irma van Weeren, 2012.

subsequently implemented. We suspect that at least some students will heed their own intentions, but we do not (yet) have the means to also record that. The most practical solution is, of course, to come back later and to check with the student to see if and how their intentions led to another approach. Until we reach that point, we will try to distil statements and thoughts that possess a certain solidity from the reports and make the progress that the student has made seem credible.

Conclusions

The multitude of texts about design methodology, which we collected in the slipstream of this lecture series, make it possible to talk about design processes in a more orderly fashion, and utilise knowledge from other fields, such as psychology. That is somewhat different to direct applicability in design projects. By closely integrating lectures by experienced professionals with the design studio, space arises for the student to reflect on his or her own design process, without the pressure to make a finished product. It may be somewhat exaggerated to say that this is a missing component in architectural education. But there is some truth to this. There is insufficient focus in architectural education on the area between the knowledge components, such as construction or botany, and the design studio. We think that the lecture series described here, in combination with students reflecting on their own work, can close this gap and that their versatility in the design studio is positively influenced as a result of that. It is essential that students follow their design process in an open and curious manner, including the failures and difficult periods. When that happens, designing itself becomes a domain of reflection. Reflecting on one's own work brings up difficult questions, but stimulates the autonomy of the student as independent designer, who searches for and finds his or her own path within a confusing range of possibilities. By working on the basis of the structure of the design process, the tools that the designers use and the various approaches that designers appear to follow, we can offer a richly coloured range of viewpoints and experiences which the student can use to hone his or her skills.

What once began as a lecture series has expanded into a larger project with reports in the form of texts and drawings, this reader and contributions to conferences and journals. From the specific niche of the Academy, we hope to enrich the debate about design and the organisation of design education. The system of reports, which requires the student to draw personal conclusions, certainly needs a stronger footing. That refers to a more general problem in architectural education: how do we come to grips with the significance of specific parts of the study programme for the development of students as a whole? This element of education sets a systematic line of self-evaluation in

motion, parallel to the design projects, supported by knowledge and practical experience. We believe that in this way we are making an essential contribution to architectural education.

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A Shared and Sublime Passion: you and your audience

Paul Roncken

Introduction

Looking back on my own experience as landscape architect, only a few designs were so successful that I dare to visit them at any moment of the year. Many of the executed designs deteriorated during the building process, were doomed to fail in advance (whatever I did), were too beautiful to be true (and therefore turned out to be unfeasible) or are ultimately reasonably satisfactory. These are not the designs which I was looking forward to. In a certain sense, the designs which I dreamed of turned out to be unfeasible. The best possible designs are ultimately those few exceptions or they are landscapes which are totally not designed. Designs of others sometimes appear to succeed so easily, whereas my own designs still have such a searching nature. Or is this 'searching nature' actually a sign of a good design?

The other way around, it always surprises me that a client is more easily satisfied than I am myself. A client does not automatically have good taste or accurate insight. The expert, that's me. This is often a lonely responsibility. Only if I manage to get my client excited about a growing awareness of choices and unavoidable quality, can we ascend together beyond our starting points. A design process then becomes a transfer of passion; an almost romantic ideal that reminds one of the Medici family of the Italian Renaissance. In practice, however, a substantive client cannot always be designated sharply. In many cases there are simply too many players around by means of quality teams and project managers. As a result, there are all too many projects that roll off the conveyor belt without a transfer of passion and almost anonymously. Who or what do I focus on in order to arrive at a magnificently passionate design? Is it perhaps better to make your design independent of a client, not overly influenced by thoughts that are too fashionable or populist? Isn't it the case that design, as it is taught within a study programme, actually benefits from the absence of a client and the accompanying pragmatic noise? Goodbye audience, welcome architectural clarity? I believe that designing without an audience is absurd, like burying one's head in the sand. Without an audience, you only have yourself and how well do you know yourself? Be honest!

Overconfidence

Within the field of social psychology, there are phenomena that may help to better understand the conditions for a shared passion. Two phenomena are particularly relevant and known as 'overconfidence' and 'heuristics'¹. What this boils down to is that the less we know about a situation, the greater the chance that we accept bizarre and completely unreasonable logic as an explanation. 'Overconfidence' is the phenomenon in which an excess of confidence arises as a result of an adrenaline rush that belongs to a 'winning mood' or as a result of compliments directed at you. 'Heuristics' is the phenomenon

Nota bene:

For the sake of clarity: a client is not always the same as your target audience, because a municipality (client) can request a park for a certain neighbourhood (target audience) and, in addition, various people from outside the region can also express their wishes (outsiders). In order to bring clarity to this linguistic confusion, I will work with the general term 'audience', which is comparable to the audience of a theatre performance. In an audience, experts and laymen are represented by each other.

1 Kahneman, D. (2011) Thinking, fast and slow (London: Penguin Group): 499.

that arises when you have to learn something of your own accord without resources, thus through improvisation. In such cases, you are inclined to become self-referential; to search for learning opportunities that you already know. These two phenomena combined offer an almost irresistible sensational drift to humans. By suddenly feel euphoric and at the same time defining your own patterns while improvising, feels like a splendid ride. In my argument, this is translated as follows: the less you know, as a designer, about your audience or yourself, the greater the chance that you will search for bizarre and completely unreasonable assumptions that are, in fact, only a projection of your own thinking patterns. This can be expressed through falling back on design principles, without having \neq or wanting to have – any proof of the accuracy of these principles. Within the field of architecture, this manifests itself only too often in repeating architectural styles and aesthetic preferences over and over again, because we simply always embrace these euphorically, as if in a haze, a winning mood. In this way various bizarre and completely unreasonable architectural fantasies remain, such as those of Archigram and Le Corbusier, but also MVDRV and OMA. Bizarreness can remain fashionable among a new generation of designers by means of ‘overconfidence’ and ‘heuristics’. These principles arouse a false sense of security, ostensibly supported by the tradition of a field of study, while all underlying facts and studies are missing.

The explanation for this phenomenon is sought by social psychologists in strongly intuitive and automatic behaviour, cultivated by educators, media and the masses. It is far from an individual psychological process. It is actually a social process. It is a subconscious tactic to be able to reach consensus even in the absence of knowledge within a group. You are personally less aware of it because it is only given shape within a group process. In the context of my argument, this means that it is almost impossible for you as an individual designer to gain access to these assumptions of your audience, unless you become part of the same group. However, as an individual designer you are more often influenced in a similar intrusive way by the ‘overconfidence’ and ‘heuristics’ which dominate within the group which you are quite obviously part of at that moment: your fellow students, your teachers, your employer or the architectural movement you value so much. You understand where these rules of the game lead to: you can hardly escape a certain professional acceptance of bizarre and completely unreasonable assumptions within your field of study; and at the same time it is difficult for you to successfully delve into the still unknown assumptions of the audience for whom you are designing.

Sublimation

A helpful term with which you can further study these subconscious processes is: sublimation. Sublimation is a phenomenon introduced by Sigmund Freud, derived from the word sublime, a term from the 18th century,^{2,3} which is still of lasting influence^{4,5}. During a sublimation, individuals distort their suppressed instincts, in order to be able to lend them a socially acceptable form⁶. For instance, I am craving for chocolate all day long but am suppressing this need by drinking a lot of coffee. Seen from a designerly point of view, sublimation is a search for the correct form in the case of a publically unacceptable impulse: sexual, perverse, timeless, explicit, morbid, aggressive and a-moral. The search itself begins over and over again when the impulse presents itself. Because this is such a general and socio-biological phenomenon, that a whole range of many and diverse accepted forms for frequently occurring impulses have cultivated over many centuries. It is my strong believe that what we consider as art-history or design history entails the development of those forms and designs that are the result of an on going process of sublimation. Yet due to the strong imprints of forms, the process of sublimation itself is a hidden cause because we only consciously conceive the celebrated effects.

As designers we should not repeat forms that have been cultivated as a response to an outdated need for sublimation. I believe, that to gain a shared passion with your audience, we have to engage in the process of sublimation and learn to create new forms. Let me take myself as an example once again. How can sublimation be recognised in my work as a landscape architect? My personal, childish expectation when designing landscapes is that they offer gateways to another reality. My hidden impulse is to break away from reality and enter an intelligent and emphatic environment where I can communicate with animals and plants. I am seeking for mirrors that, on reflection, offer a passageway to another place. Other may have other reasons for wanting to design a landscape to sublimate an obscure impulse. For example, landscapes which represent the bestial rawness of aggression and stamina. Or more sweetly: to conceive hidden details that represent the slow and imperceptible influence of the growth of leaves and roots. However, some forms are so strongly conditioned by many revolving reproductions of paintings and movies and books during my youth or of the dominant culture in the Netherlands or of the design-culture within the landscape architectural scene, that I barely recognise the sublimation they represent. Which suppressed impulse, for example, is the basis of my blind trust in an elegant rolling meadow with a tree that grown old here and there? Whichever sublimation you study, you can assume that half of them are based on harmonic fantasies (you in the best of moods) and the other half are based on dissonant fantasies (you with cruel aversion).

- 2 Burke, E. (1759) *On the Sublime and Beautiful* (London: Penguin Books, second ed.).
- 3 Kant, I. (1951) *Critique of Judgement* (New York: Hafner Press, first printed in 1790).
- 4 Kirwan, J. (2005) *Sublimity: The Non-Rational and the Irrational in the History of Aesthetics* (London: Routledge).
- 5 Costelloe, T.M. (2012) *The Sublime: From Antiquity to the Present* (Cambridge: Cambridge University Press).
- 6 Freud, S. (1949) *The Ego and the Id* (London: The Hogarth Press Ltd.).

What to do?

Imagine, your audience is confused and searches for support in the park you designed. What do you focus on then? One of the first landscape architects, Frederick Law Olmsted, read the book *Solitude* by the Swiss physicist Georg Zimmernan in his youth.⁷ It discusses how powerfully a certain scene can influence someone's mood. Olmsted was convinced from that moment he didn't actually want to influence mood, but wanted to liberate a stream of moods. And his architectural answer was that you should, above all, not offer kitsch and diversion, but wide and empty sightlines with variable scenes to be able to wander through them. Through that sober and characteristic way of designing, Olmsted still helps New Yorkers to make space for personal sublimations, without burdening them with overly strong, new forms, which would prevent access to their own, simple mood swings.

The philosopher Peter Sloterdijk offers another way to study sublimations. One that is more contemporary as I believe. He describes relatively simple rules for converting suppressed impulses into socially acceptable forms. He discerns five types of antropotechniques to gain an improved sense of self.⁸ These concern probing themes, such as 'dealing with a lack of material and food', 'physically exerting yourself past the point that you become tired'; and more ethical themes such as 'dealing with sexual urges', 'alienation from and toward ourselves' and 'accepted forms of dying'.

Olmsted opted for a modest, almost theme-less architectural execution. He perfected his style to a height of modest control without any trace of compulsiveness. That was his universal answer to the aesthetic question: how you can give a socially acceptable form to suppressed impulses of city dwellers. In the meantime, we know many more accepted forms, such as those, for example, described by Sloterdijk. Since Central Park, we have started to accept an increasing amount of sublimated forms in public life, such as graffiti, explicit fashion attire of the extreme cultural diversity of a metropolis. If completely accepted forms of personal impulse are hidden herein, and if we recognise those within a certain community, then we can use them to develop new form experiments as designers.

In conclusion

And yet, within all these excellent opportunities to closely study a certain audience with its own distinct forms of sublimation, you will have to train yourself well, because sublimations are often kept extremely well hidden. Train yourself in many diverse ways of empathy and regard your own 'heuristic overconfidence' in the blind form acceptance of architectural principles. Because before you know it, you think you know what gender, gentrification or terrorism is; according to your limited knowledge of them. At such a moment, you will start to believe in bizarre and unreasonable assumptions, and design accordingly. Keep connecting, therefore, with the

7 Martin, J. (2011) *Genius of Place, the life of Frederick Law Olmsted, Abolitionist, Conservationist, and Designer of Central Park* (Philadelphia: Da Capo Press Books).

8 Sloterdijk, P. (2011) *Je moet je leven veranderen, over antropotechniek* (Amsterdam: Uitgeverij Boom).

social psychological process that is the basis of the continual developments of new sublimations. Become part of the group you define as your audience; do not become an outsider. Remain someone who searches.

Design is a field through which you can communicate with an audience you are yet to discover. Design is necessity, but is at the same time only the temporary expression of an impulse that seeks a socially accepted form. In that sense, your design is a tool, a temporary existing form, in order to arrive at a vertical relationship between the ineffable and the commonplace. You will be able to find sublimation in complex technology and unprecedented high-rise building, or the organisation of millions of people together, or perhaps even in the fantasy of an amalgamation of technology and human tissue. The sublime form is then the impressive aesthetic contribution that you, as designer, can deliver.





During the field research in the Po Valley (Italy 2014), Zeno Franchini documented how the rural landscape once celebrated by Goethe became industrialized and lost its traits of specificity. A landscape can be mesmerizing in this broken state, but without traits, habits and daily routines it remains left behind, lacking a worthy meaning. Traits, still present in the form of Folk-crafts, have lost their connection with the surrounding and daily life, becoming folklore. By making use of embroidery, a technique still very pervasive throughout farmers' families, the artist Zeno Franchini developed a social and embodied interaction concerning the impact of genetic innovations on farming. The resulting visual language and manual labour is intended to restore the cultural project of sublimation that was broken by industrial farming.





Socrates is a philosopher

The relationship between concept and design

Tom Frantzen

There are numerous ways to start an essay, a number of which I will specify:

- Start with an anecdote from everyday life that has something to do with the subject and is linked to more academic and philosophical insights in the essay.
- Start with a meaningful quote from previously published material about the subject, which is subsequently used in the essay as a sparring partner for one's own arguments.
- Start with a metaphor that is already obvious to the observant reader, but which is extensively explained in the rest of the essay for the sake of clarity.
- After some 'googling', find something on Wikipedia¹ and with some good 'copy-paste' work, the essay outline is created.

1 E.g.: en.wikipedia.org/wiki/concept

To first illustrate a conceptual way of working, I will select the latter option in this essay. It often turns out, in fact, to be an effective strategy to step outside of the expected frameworks due to the surprise effect, which comes across as original and, therefore, creative.

Strategy

Artists and designers are often characterised as conceptual creatives when they are more preoccupied with 'how they conceive something' than with 'making it'. When the way in which a creative work is conceived plays the key role, a complex relationship between the working method and the product arises. What is the most important creation and where should the attention of the observer be devoted?

If you look it up on Wikipedia, you will find many nuances under the heading 'Conceptual Art', but something that connects all artists in this artistic movement is that they design strategies in order to create their physical work. Sol LeWitt has this to say about it: 'In Conceptual Art the idea or concept is the most important aspect of the work. When an artist uses a conceptual form of art, it means that all of the planning and decisions are made beforehand and the execution is a perfunctory affair. The idea becomes a machine that makes the art.'² In this vision, the intellectual value of the idea prevails over the aesthetic qualities of the work. Nevertheless, Sol LeWitt calls the physical work 'the art' and he calls the idea – the strategy – 'a machine'. The artistic achievement presents itself in a paradoxical way, especially in the idea, and the physical work is only a representation of this.

2 LeWitt, S. (1967) 'Paragraphs on Conceptual Art' Artforum: June.

Essentially, architecture has already been a form of Conceptual Art for a very long time, since the architect is no longer involved himself or herself in the production of the building, the creative conception instead being laid down in drawings and scale models, representations of 'the idea'. Analogous to the way in which architecture is constructed, the early works of Sol LeWitt were executed by random draftsmen, simply by meticulously following a written instruction drawn up by the artist.



Left: Sol LeWitt, Wall Drawing 630, 1990 and right: Wall Drawing 614, 1989.



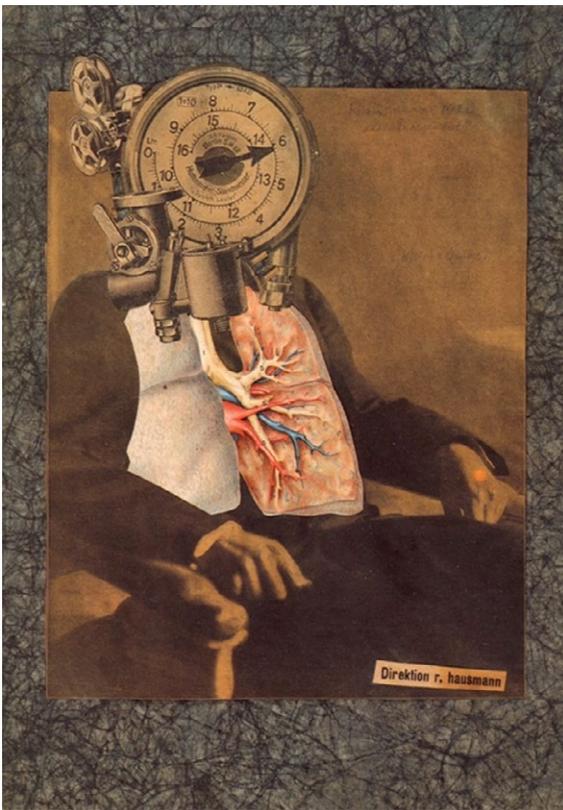
Marcel Duchamp, The Fountain, 1917.

Tradition and concept in art

Although the term 'concept art' was first used by the artist Henry Flint in 1961 as the title of an article in a predecessor of the Neo-Dada magazine Fluxus³, the seed of conceptual art was sown when Marcel Duchamp introduced his 'readymades'. In 1917, when he submitted a signed version of *Fountain*, the famous urinal, for the exhibition of the Society of Independent Artists in New York, the most important difference between traditional art and conceptual art was revealed Duchamp's *Fountain* was rejected because an everyday object like a urinal could not be considered art, according to the curators, if it was not made by an artist, the object was not manufactured with artistic intentions and if it did not possess any of the aesthetic qualities expected of art, which could be found in traditional art objects. The hand of the artist can always be discovered in art, while in conceptual art this is not necessarily the case.

In 1919, Kurt Schwitters was not accepted by the Berlin Dadaists to their 'anti-art' movement precisely for this reason. Although Schwitters, just like Duchamp, made use of fragments from non-artistic material that already existed for his collages, his work was, in contrast to the political and activist slant of Dada collages, primarily aesthetic in nature. The aesthetics of Schwitters was clearly recognisable in the work. Richard Huelsenbeck, leader of the Berlin branch of Dada, branded his work as traditional and bourgeois for this reason, and rejected him as member. Schwitters therefore started his own 'Merz' movement in Hannover and is now considered one of the most important Dadaists along with Duchamp; Schwitters on one end of the spectrum, Duchamp at the other extreme.

3 An Anthology of Chance Operations, 1961. In this article, he also states that the word concept is often explained differently and can, therefore, easily be discredited. This is how the confusion about 'concept art' begins.



Raoul Hausmann, Selbstportait des Dadasophen, 1920.



Kurt Schwitters, Merzbild 410, 1922.

***A posteriori* and *a priori* concepts**

A concept is a ‘thought or opinion, general notion or idea, esp. one formed by generalisation from particular examples [fr. L. concipere (conceptus), to conceive].⁴ Freely translated, this means that a concept is a quality or characteristic, which various objects have in common. This similarity can be found in retrospect (*a posteriori*) via generalisation, or the similarity is simply present (*a priori*). On Wikipedia, there is a good example of an *a posteriori* concept: ‘...I see a fir, a willow, and a linden. In firstly comparing these objects, I notice that they are different from one another in respect of trunk, branches, leaves, and the like; further, however, I reflect only on what they have in common, the trunk, the branches, the leaves themselves, and abstract from their size, shape, and so forth; thus I gain a concept of a tree.’⁵

The German philosopher Kant (1724-1804) believed that the human mind consists solely of *a priori* concepts which, contrary to *a posteriori* concepts abstracted from individual perceptions, have their origin in the brain itself⁶, or in other words ‘Socrates is a philosopher’. With his work *Fountain*, Duchamp demonstrated for the first time in art that *a priori* concepts must exist. Although traditional art and the urinal seem to be miles away from each other, they must have something in common

4 Lexicon Publications (1991) The New Lexicon Webster’s dictionary of the English language (New York: Lexicon Publications): 202.

5 <http://en.wikipedia.org/wiki/Concept>

6 http://en.wikipedia.org/wiki/Immanuel_Kant

with each other to still be considered as art almost a century later; the concept 'Art', which evidently cannot be reduced to common physical characteristics. 'All art (after Duchamp) is conceptual (in nature), because art only exists conceptually.'⁷

7 Kosuth, J. (1969) 'Art After Philosophy' Studio International 179/915: 134-137.

The why of conceptual architecture and why conceptual architecture can also be traditional.

When an architect is asked to translate a desire into a building, the desire is mostly stated unambiguously: a property developer has a standard plan and wants a nice facade around it that sells well and is not too expensive. This assignment can be solved well with traditional craftsmanship, because there is a clear picture of the expectations and possibilities. But how does an architect approach an assignment where that is not the case? W.H. Walsh had this to say about it: 'Whenever two things are totally different from each other, yet must interact, there must be some common characteristic that they share in order to somehow relate to one another.'⁸

8 Walsh, W.H. (1958) 'Schematism' Kant-Studien 49: 95-106.

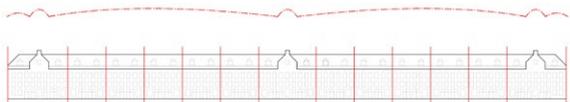
The architect often also receives an assignment, as it happens, for which no simple answer can be formulated; there needs to be a large programme at a small location, the building must be sustainable, but the budget is small, the building must be extremely functional, but the user is not yet known, the building must be made from brick given the surroundings, but due to daylight requirements made from glass preferably. I designed

Tom Frantzen, De Keyzer, 2008.

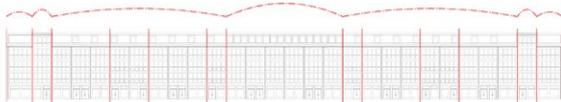


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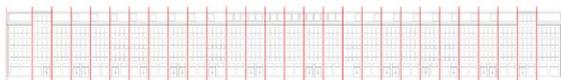
compositie nieuwbouw "De Keyzer"



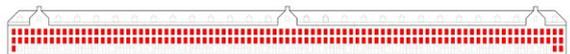
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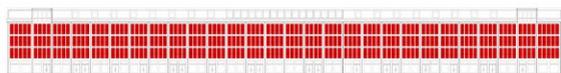
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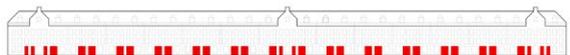
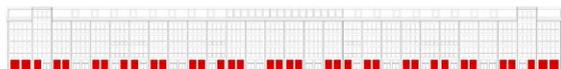
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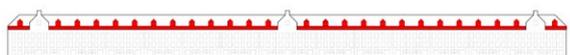
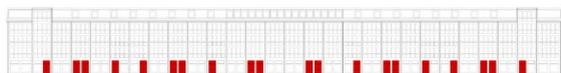
4. Enkele Gevelopeningen



5. Dubbele Gevelopeningen



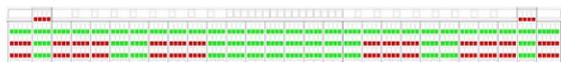
6. Deuren



7. Dakkapellen en godtijt



8. Muurankers



9. Gevelspringingen



Translation of compositional scheme of the original building into the design of De Keyzer as its replacement

© 2008-2010, Frits de Jongh

the residential building *De Keyzer* in the centre of Amsterdam in such a context. Many aspects of this assignment could be solved with traditional architectural craftsmanship, but to truly connect all issues, an abstraction had to be formulated that already potentially contained all possible solutions for the problems posed, as a result of which the intellectual context was established in order to assess design decisions, a binding idea ...a concept.

The hypothesis upon which experimental 'conceptual' design is based is: It is possible to build an imaginary machine that guides design decisions to be taken, independent of the exact person who is responsible for the execution of the design? If the architect is able to formulate design concepts, then his or her employees can realise their own execution of that with relatively great freedom. That can yield very traditional buildings in the sense of aesthetic aspirations and craftsmanship displayed, without the chief architect having to worry all the time whether or not his or her penmanship in the design is legible. The theme in the work can also, in fact, be the consistency of the chosen design strategies, instead of penmanship recognisable through visual characteristics. In spite of the seemingly impossible difference in appearance, the amoral approach in my design for *De Keyzer* applying the 19th century compositional means from the demolished building very literally to the design of the replacement building, is of the same order as the strategy to design a home in an amoral way for my submission for a design contest about architecture without rules, which complies with existing rules in a legal sense, while completely not complying with those rules substantively.

Tom Frantzen, The Ruff house (competition Het Wilde Wonen, 1998)

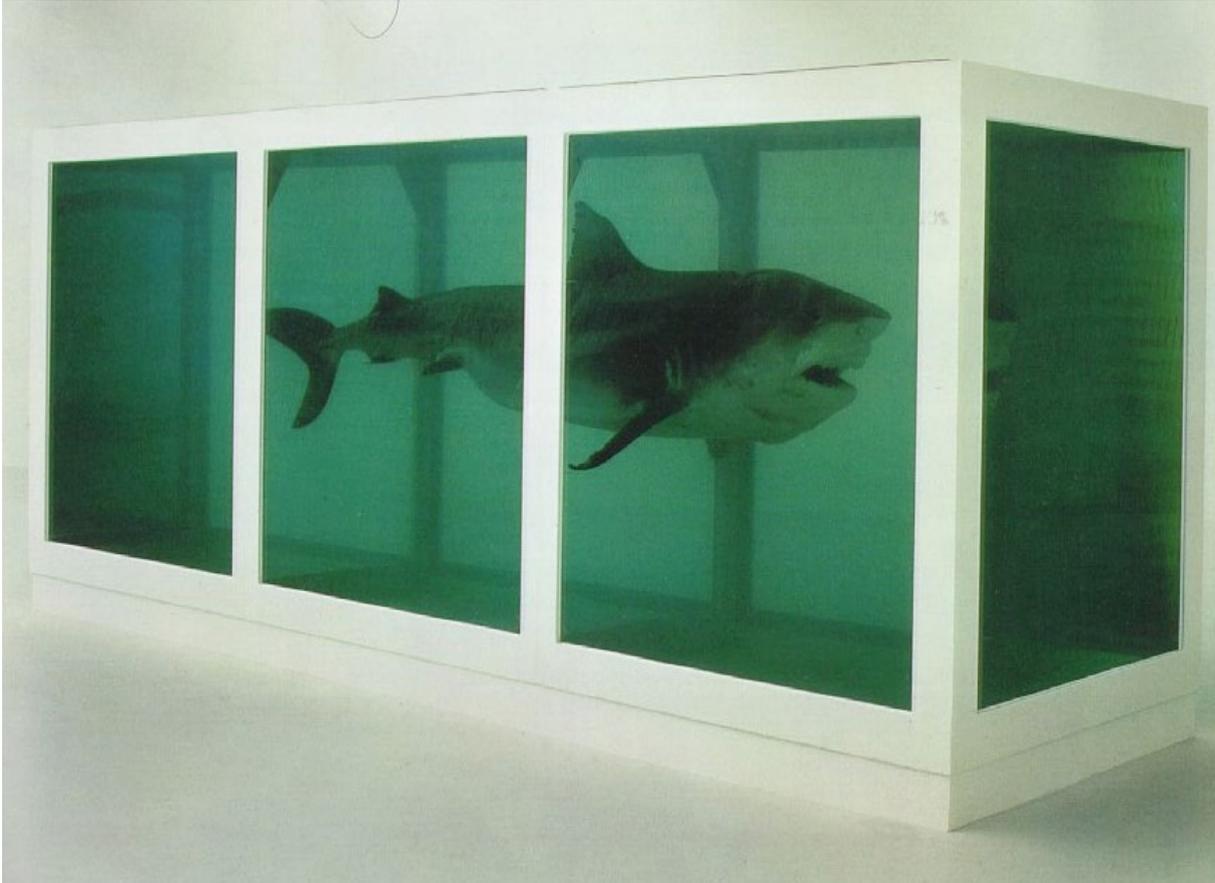


Conceptual versus Concept

Ideas such as 'concept' and 'conceptual design' are often used interchangeably, which leads to confusion. 'Conceptual' is often equated with crazy, funny and especially different. An idea is formulated, mostly in the form of a metaphor, that has the potential to generate an iconic image. The result is often then merely an illustration of the idea. However, conceptual design was never intended to be like this! The confusion regarding this idea was partly caused by the art world. The term 'conceptual design' is derived from the pure design strategies from the Conceptual Art movement. However, when the group Young British Artists (YBA) was launched in the 1990s by the advertising guru Charles Saatchi, that designation became synonymous for art that has the blatant intention of breaking away from traditional techniques like sculpture and painting. To oversimplify things... everything that was clearly meant as art, but was not made with traditional techniques, was suddenly called conceptual, while the YBA work should maybe be considered more as commentary on the (*a priori*) concept 'Art', instead of having come into being in a conceptual way.

For example, the way in which Damien Hirst's *The Physical Impossibility of Death in the Mind of Someone Living* (the shark in a glass display case filled with formaldehyde) came into being

Damien Hirst, *The Physical Impossibility of Death in the Mind of Someone Living*, 1991.

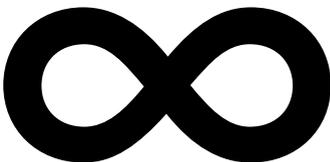


is considerably less important than the qualities of the image as (artistic) icon, while the image simultaneously evokes the question of what sculpture actually is. However, the strategy with which the Chinese artist Wang Du makes his images is clearly discernible in the composition and syntax of the images, and does actually tie in again with the pure tradition of Conceptual Art, while the images themselves actually unequivocally belong to the tradition of sculpture. Wang Du translates news photos from the two-dimensional field to photo-realistic three-dimensional representations of them, which only correspond with the two-dimensional source image from one point of view (that of the photographer). If an image is cut due to the framing of the original photo print, then that is also the case with the physical image.

The notions of 'concept' and 'conceptual design' are so complex that a designer who voices the notorious sentence: 'My concept is....' only actually proves that he or she does not know what he or she is talking about! 'My concept is...' actually presumes that there can be a one-on-one relationship between the concept and something else, while a concept is by nature a characteristic that numerous entities have in common. The most tangible example of a concept may well be theory on infinity of the mathematician Leibniz, who argues that there is a series of numbers that can no longer be represented as an exact quantity, but that can only exist still conceptually. Following on from Leibniz' theory, Isodore Isou developed the idea in 1956, several years before the term Conceptual Art, of an artwork that by nature can never be executed in physical reality, but that only be enjoyed via intellectual contemplation. That is what makes real conceptual design often so intriguing: Even without being executed in reality, they manage to evoke the pleasure of a physical work.

With thanks to Wikipedia.

Symbol lemniscate





Wang Du, Parade#3. Installation at Les Abattoirs, Toulouse, 2004.

Architectural references as design tool

Jan-Richard Kikkert, with
Christine Yadlowsky

André Le Nôtre-Vaux le Vicomte



Although I first started visiting architecture out of interest and curiosity, over time I realised that such a broad collection of buildings can function as a potent device for the design process. Characteristics of a building can serve as reference points for the outward appearance of a design, but also the organisation of the programme, the material use, the circulation, the construction, etc. Themes distilled from these references can also shape how we think about and approach the design process and can be further transformed to surpass the original. Another reason to build up a broad range of reference points is in order to predict and calibrate the effect of your own design decisions. Moreover, it is important that the references are accurate and verifiable. The establishment of first-hand knowledge can only be accomplished by the designer him or herself and cannot be emphasised enough. Architects use all sorts of references and apply them in many different ways but in this essay I will concentrate on architectural buildings as an employable source of inspiration.

References can provide a strong impulse to set the design process in motion. First ideas are based on pattern recognition, which requires a specific way of looking. An architect develops this ability through prior knowledge and experience. One could call this cognitive intuition.

I am always drawn back to Sjoerd Soeters, who I invited in this same series of lectures some years ago. He described Alfred North Whitehead's definition of the design process as a cycle with three stages. A design begins with the 'romance' phase, where the first ideas begin to materialise after hearing the assignment. The following phase is 'precision'. Here an attempt is made to capture the first visions, either through drawing or modelling. Most designers would attest to the fact that these notations never adequately represent what we had in our head. The last phase is 'generalisation'; evaluating the shortcomings and what the consequences are for the first idea.¹ And then we cycle through the phases again, elaborating on the first vision and reinforcing it with new ideas. Therefore, the design process is not a linear path, but a repeating cycle that gradually evolves.

1 Whitehead, A. N. (1929) *The aims of education & other essays* (New York: Macmillan Co.)

I believe that collecting and using reference points is a powerful instrument for the development of your own design method. Part of the process of becoming a designer involves the formation of concepts that can last a lifetime. Naturally, some are combined and others intersect, but through developing specific preferences a designer highlights his or her personal evolution, and these preferences act as a 'design conscience'. With some examples, it is difficult to imagine later why they served as inspiration, while others remain and grow in stature over time. For example, I came to appreciate Le Corbusier's later, more mature work over the course of time, having previously preferred the conspicuous approach of his early work.



Adolf Loos, Haus Müller, 1930



Le Corbusier, Villa Savoye 1931

One architect who has remained a lifelong inspiration is Adolf Loos. He owes his fame to the banishment of decoration, but for me he was much more interesting for the way he dealt with spatial development.² Loos' system of rooms with their own dimensions and proportions was called a 'Raumplan'.³ The dimensions of a room are programmatically determined and linked to a proportional height and finishes. This complex system of rooms was given an autonomous façade, which reveals little about the inner workings from the outside. The clarity of the basic premise combined with complexity of execution remains fascinating. A visit to Haus Müller (1930) in Prague – the house where the 'Raumplan' is most explicitly displayed – revealed the truth behind Loos' view that architecture cannot be photographed, but must be experienced instead. Loos disconnects sight and spatial axis from physical accessibility. The sequencing of the rooms, from the street side entrance via an intimate hall opening onto the grand salon and to the terrace, is unprecedented. The visit to the building surpassed the studying of photos and drawings, even the making of models. The position of oneself as an observer in a specific space is impossible to recreate or represent exactly. Even the effect of actually being in your own designs is still a revelation in comparison to every attempt to simulate it.

The work of Le Corbusier has always been a rich source of inspiration, in part because he carefully published his own work extensively. His ideas, drawings and photographs of building work were, therefore, easily accessible to scholars. His position as a trailblazer of modern architecture is unassailable and his work has been used as a reference point from the time they were built across several generations of students and architects. In his publications, Le Corbusier highlights the fact that he himself was mainly inspired by non-architectural objects such as airplanes and factories. The famous photo of Corbusier studying a weathered piece of wood emphasised his position breaking with past architectural references and forging an original autonomous point of reference.⁴ It is perhaps ironic then that his architecture is so often referenced.

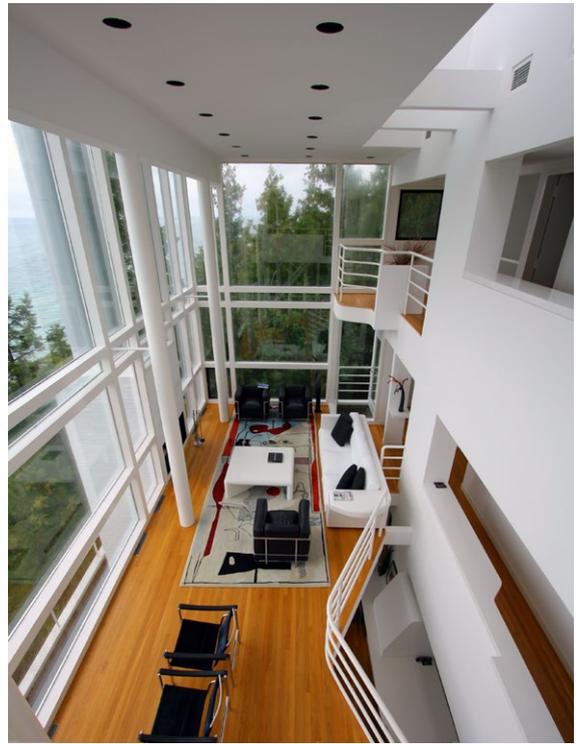
2 Beek, J. 'Adolf Loos: Patronen stadswoonhuizen' in: M. Risselada (1987) *Raumplan Versus Plan Libre* (Delft: Delftse Universitaire Pers): 25-44.

3 Kulka, H. (1979) *Adolf Loos, das Werk des Architekten* (Wien:Löcker)

4 Benton, T. (2008) *Corbusier: le Grand* (London: Phaidon).



Le Corbusier, Chapelle Notre Dame du Haut, 1955



Richard Meier, Douglas house, 1973

The more famous the reference point, the more recognisable its use is. Because Le Corbusier's work was so ground-breaking and recognisable, it is fairly easy to see when it has acted as an inspiration for others. That being said, it is more difficult to decipher when the philosophy or method of an architect is being referenced. That one architectural reference can lead to different interpretations is illustrated by the following two examples: the Douglas House by Richard Meier from 1973⁵ and the Villa Dall'Ava by Rem Koolhaas from 1991.⁶

To me, as to any observer, it is obvious that the work of Richard Meier leans heavily on an interpretation of Le Corbusier's villas from the period between 1922-1928, from the Maison-atelier Ozenfant up to and including the Villa Savoye.⁷ Meier uses elements from Le Corbusier's purist period; the search for pureness and abstraction, the use of ramps, stairs and abstract elements such as light. Looking further, even Meier's characteristic white square facade cladding is borrowed from Le Corbusier, in this case a house design that was never executed in Vevey for Marguerite Tjaker Harris. You could say that Meier continued the path that Le Corbusier exited in 1929 with the Villa 'de Mandrot', when his designs veered towards the rustic. His visible use of Le Corbusier's elements may have contributed to establishing his architecture because of its familiar nature and his repetitive use of them has made his work easily recognisable.

5 Meier, R. (1984) Richard Meier, architect, 1964/1984 (New York: Rizzoli).

6 Koolhaas, R. (1998). OMA Rem Koolhaas living, vivre, Leben. (Bordeaux: Arc en rêve centre d'architecture).

7 Ando, T. (2001) Le Corbusier: Houses (Tokyo: Toto).



OMA, Villa Dall'Ava, 1991



Ludwig Mies van der Rohe, Barcelona pavilion, 1929

That the same reference can deliver a totally different response is evident in Rem Koolhaas' Villa Dall'Ava. When I visited the house it felt like a festival of recognition, a complex collection of influences, discoveries and ideas, the most prominent of which were the work of Le Corbusier and Mies van der Rohe. The organisation of the house can be seen as an interpretation of Le Corbusier's Villa Savoye, with its elevated main floor, the double helix of the spiral staircase and the ramp, and the celebration of body culture on the roof – a pool found here instead of sunbathing. But whereas Corbusier emphasised the pureness of the shapes by painting the villa mainly white and adding some coloured walls to the interior, Koolhaas materialises his design in a Miesian way with outspoken materials and fabrics. For anybody who missed the references, Koolhaas published a photograph of the living room with Mies's couch 258 and Le Corbusier's chair Lc1 in his monograph 'S,M,L,XL'.⁸

8 Koolhaas, R., Mau, (1995). S, M, L, XL. (Rotterdam: 010 Publ.).

Lautner⁹

Because the intuitive nature of using references is difficult to follow in retrospect, even for the designer himself, I experimented with consciously using reference points as a design tool while designing a house in Virginia in 2013. In this case, I chose the work of Lautner as a reference point, because I have been studying his work intensively the last few years and because Lautner is so embedded in the American landscape and the culture of daring and adventure. I wanted to experiment with the use of elements from his work to guide the design process. The assignment was fictitious in the sense that the client and the location were real, but there was no commission for a house. The couple was planning to build a storage shed, but the site simply asked for more. What is left of Lautner's work consists mainly of private houses, that brought me to nearly a hundred different locations.¹⁰ The visit sometimes lasted the whole day and sometimes I was allowed to spend the night. These visits, especially the ones where I was not just a visitor but a resident, left a deep impression. Apparently time enables the visitor to move from the role of observer into the realm of

9 Lautner, J. and Escher, F. (1994) John Lautner, architect (London: Artemis).

10 Kikkert, J.R. en Saariste, T. (2016) Louter Lautner (Arnhem: Artez press).



John Lautner, Stanley Johnson House, 1965



John Lautner, Turner House, 1982

user. The question of Lautner as an inspiration lay both on an abstract level in the way he speaks about nature and infinity, as well as one of practical solutions of materials and construction.

In his case, it is nearly impossible to imagine what he would have done in any particular place, because he never repeated himself. I was not aiming to create an 'original' Lautner, only mine his incredible range of site response for inspiration.

The piece of land in question rises at a 30° sharp angle from a lakeshore. In work of Lautner, there are number of examples in similar locations. The most famous are the house built on one central column (Chemosphere 1960) and the house where the hill is excavated to reveal enormous rocks, which support the roof (Elrod 1968). As inspiration for this site, I thought of a series of stepped floors that descend with the hill as in the less known house for Stanley Johnson (1965) in combination with the enormous concrete shell roof used in the Turner House (1982). In this way, a countermovement of floors stepping down and a roof soaring up emerged, as well as a roof where the edge, as in so many of Lautner's houses, does not per se follow the built mass, but cantilevers at strategic locations. The stone wall is derived from the entrance of the Schwimmer House (1982) that in compliance with the express wishes of the client looks like a castle, complete with rough stone blocks and towers. The use of this material emphasises solidity and the connection with the earth.

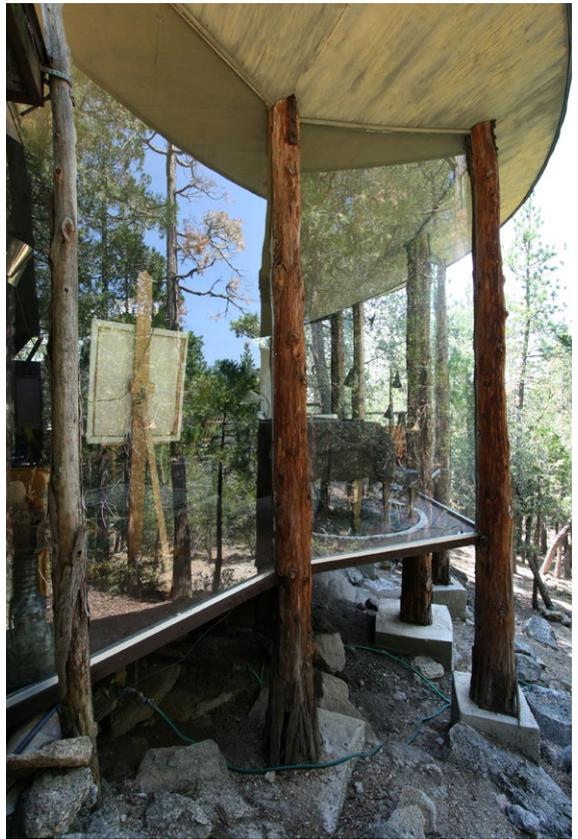
A ramp connecting the different floor levels refers to a house built for his uncle, Ernest Lautner (1958), and runs downward in a large arc, slowly revealing the view. In order to diffuse the border between inside and outside, similar to the Pearlman Cabin (1957) and the Harpel 2 (1966), results in a highly-faceted facade. In the lower floor sleeping area, the facade leans outward to emphasise the connection the surrounding nature, as in the Bosustov Cabin (1972).



John Lautner, Schwimmer House, 1982



John Lautner, ErnestLautner House, 1957



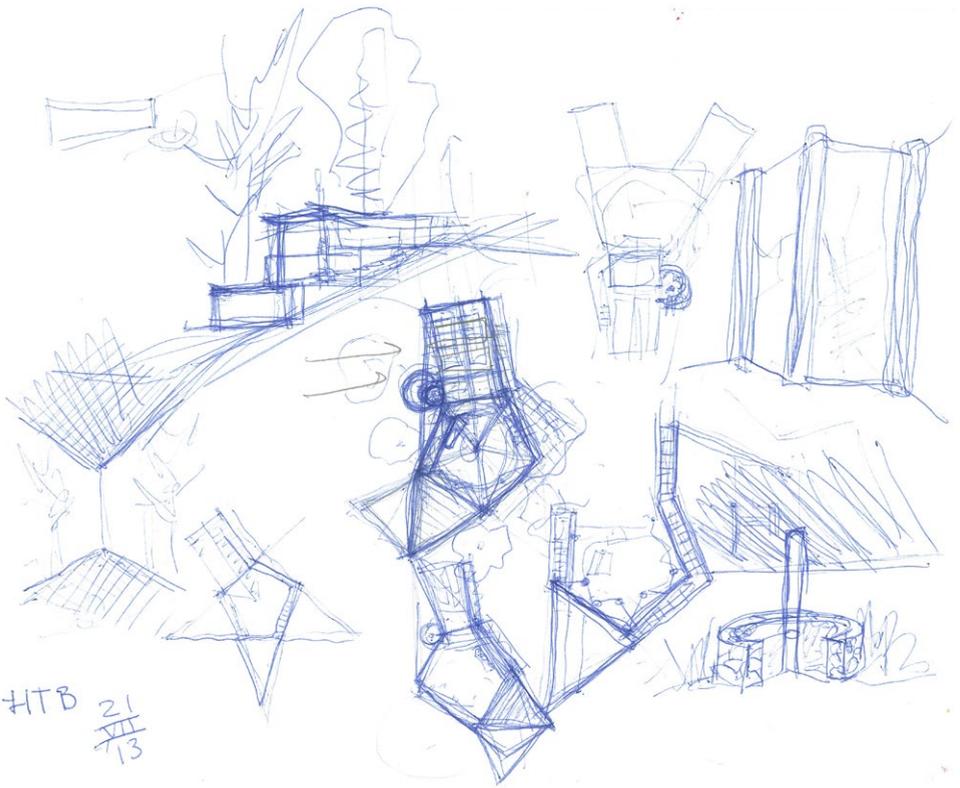
John Lautner, Pearlman cabin, 1957



John Lautner, Bosustov cabin, 1972

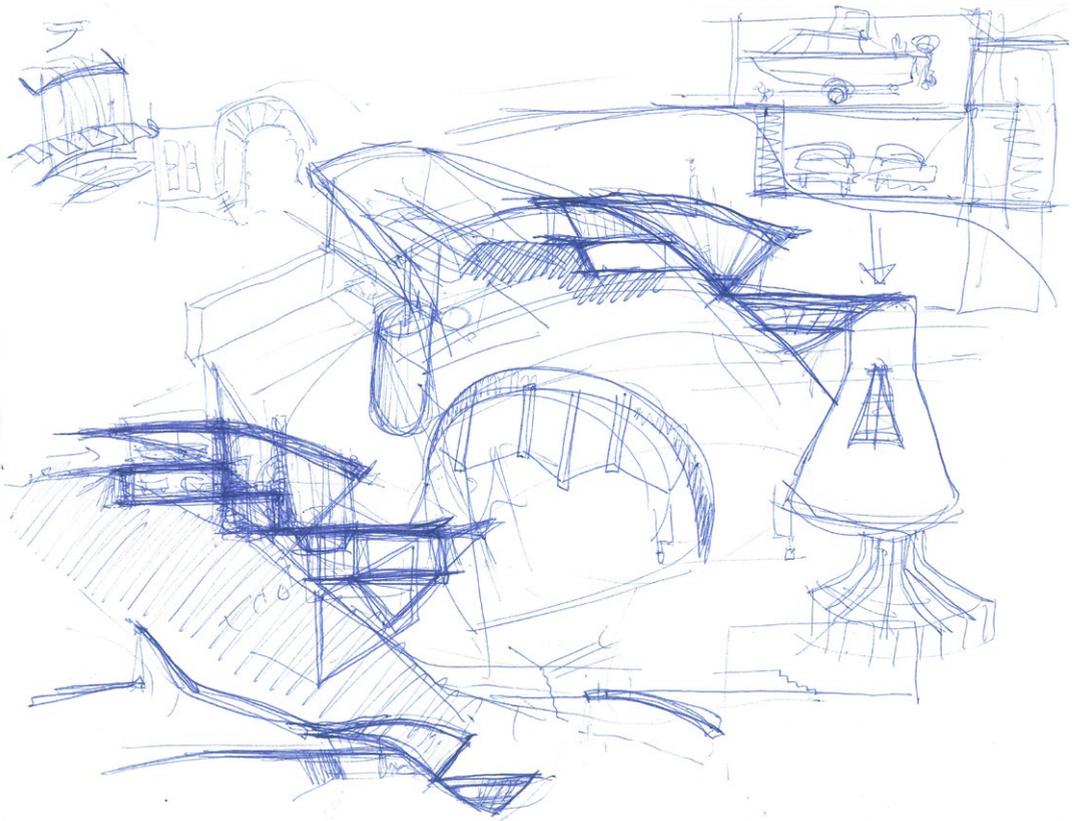
In this case I have tested the conscious application of references as a design tool. The complex use of many and diverse reference points separate the design from a style exercise. Even though the house leans heavily on the work of another architect, the result has its own character. This is not only due to the unifying materialisation. In the design process, the different reference principles are transformed under the influence of each other and in relation to the pursued objective. They are a tool, an instrument, and should in general not be used as a literally target image. And that is the aim when using references; they serve to bring the design process into motion and to keep it going. Once they have found their place in the whole the references evaporate.

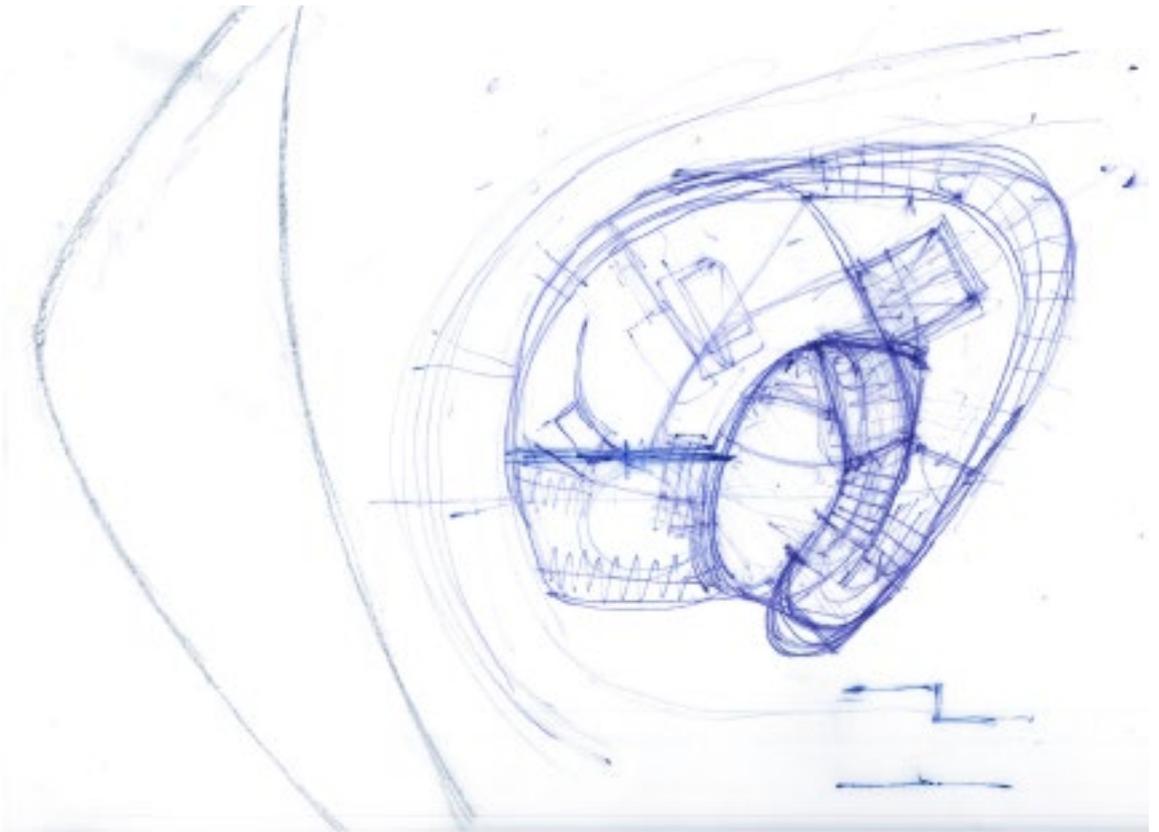
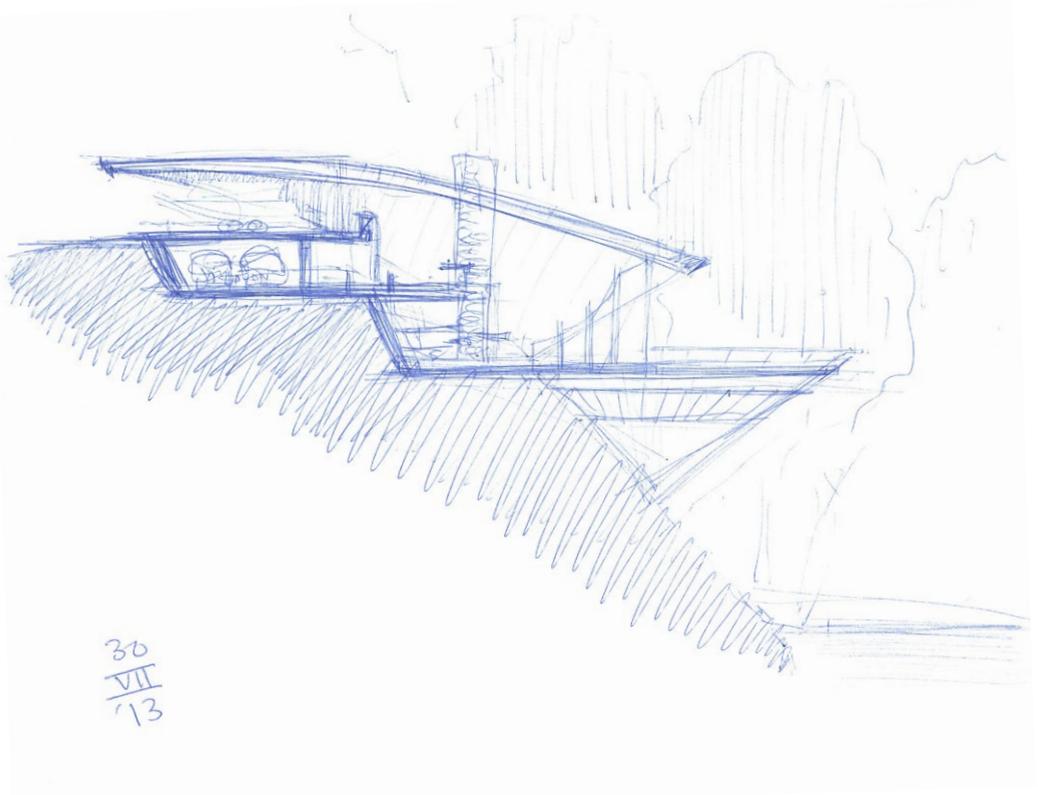
In my opinion, it is inevitable that designers use references, whether that is conscious or not. These reference points are formed by studying examples and architectural experiences, which trigger all senses. In the build-up of experience, the role of references becomes more and more complex. Architectural references blur with non-architectural experiences and references to other designers mixes with references to one's own body of work. The experiment with the conscious and exclusive use of the works of one specific architect illustrated that the result might be too limiting. Behind the direct use of references lies an engraved set of rules and beliefs shaped by experience. These are formed in an early stage of professional education and are calibrated during a professional life. It is, therefore, the responsibility of every designer to feed him/herself with relevant references. These should unquestionably be first-hand experiences.



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Sketches by Jan-Richard Kikkert: House for Tammy & Buddy House, Virginia 2013





Thinking with the pencil

Frits Palmboom

From childhood, I have cherished a number of passions: for travelling and looking around me, for studying maps and for drawing. These are ageless fascinations and cognitive pleasures that are not reserved for professionals, but in my case have merged with my skills as urban designer over the course of time. Everyone can recall the childlike pleasure of drawing: the movement, the fact that you leave traces with it, that you can grasp something in your fingers, that you can show something and that others have an opinion about it, and that you can make something which did not yet exist. Drawing is not only important as a tool for the designer. Ways of drawing are connected with ways of seeing and thinking; with *opinions* about urban design and about designing. I am in favour of drawing *by hand* in particular: as bodily activity, with which you feel what you do, and see what you make. It is a tool for involving all our senses in the creative process.

The assignments in urban design often arise from a spectrum of social, economic and ecological desires, which are in themselves not always spatial in nature. Criteria are formulated in objectives, numbers and revenues. Many urban designers therefore operate in a strongly problem-oriented manner. A design is 'good' if the social problem is solved on the basis of these criteria. However, the answer of the designer is always inextricably linked with an intervention in the space. The space is no 'void without characteristics', but has its own dimensions, materials and meanings, which we experience via many senses. It is a great challenge for the designer to also master the characteristics of the space on an urban scale and to make those visible and discussable. Drawing plays a crucial role in this. Designing is discovering, drawing is thinking with the pencil.

The creative mistake

Different words are spoken with every drawing; different drawings can be made with each word. Word and image refer to each other, but do not coincide. The relationship is not driven by laws, but by conventions. They are 'relationships of possibility'. Drawings are instruments for exploring and specifying these relationships of possibility. The *sketch* is an expression of a not yet crystallised thought – searching, incomplete, a figure whose meaning is often not yet clear. The *planning map* aims to give a more objective representation of a future reality outside of ourselves. The legend is a trusted tool to encode the intended meaning of the symbols on the map. The conventions, on the basis of which we 'read' drawings, are volatile and subject to change. You can always make discoveries in them. That is the room for manoeuvre which we make use of as designers.

What is fascinating is that you can make a drawing with a certain intention, but that you can also read the result as a 'painting', as an overall picture, without the intervention of a legend. The drawing can tell its own story, in addition to the information that you want to 'convey' with it. You can also read

it according to what it literally has in mind, but also according to the more metaphorical, unintended connotations. A sketch, for example, can help you come up with unexpected ideas. I call this the 'creative mistake' when reading the drawing.

Drawing as dialogue

In the urban design practice, the *map* of the street plan of the city plays a key role. As opposed to the floor plan of a building, the urban street plan concerns the vast landscape, the ground area on which our lives play out. It is the surface on which we physically stand and move, but which simultaneously stretches beyond our field of vision and thus threatens to elude our direct understanding. That is why the urban design assignments are often experienced as abstract and distant. Many urban plans remain trapped in a technocratic approach, in which the language is dominant. Drawings are then solely used as illustrations of policy documents and prognoses. Lines and symbols are stuck on the map as diagrams; their spatial impact on the concrete urban landscape are often taken for granted, as a kind of unavoidable 'collateral damage'. The question is how we can connect the interventions on an urban and regional scale with our sensory experience of the concrete space.

The ground area of city and landscape is marked by the time. It bears traces of its geological formation, of the parcellation and cultivation of the land, of the streams of movement of animals, people and vehicles, and of rigorous interventions for the purpose of urbanisation. All these traces are layered on top of one another. The times where they have faded from witnesses, but the traces that they have left behind are present around us in concrete terms. What we do as urban designers is to prepare this 'sediment' for new transformations, by re-arranging existing lines and adding new ones. As Harma Hurlings and Noel van Dooren state in their introduction, 'the project is just a phase in the existence of a piece of landscape, or a building (...); and scene in the life story of a place or a building'.¹

An urban design is definitely never an isolated, ageless object; a past always filters through and it casts a shadow into the future. The design process is not primarily about projecting an autonomous idea onto a neutral foundation, but about a dialogue between programme and locations, between intervention and foundation. Drawing is a tool for conducting this dialogue.

The signature of the city

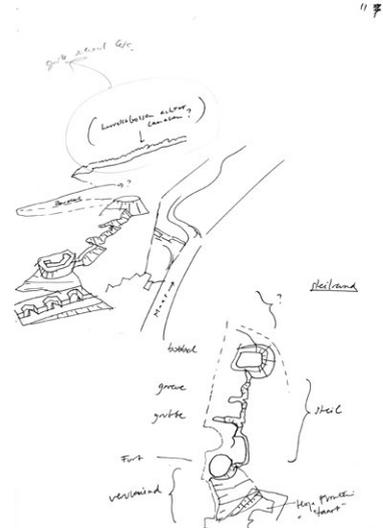
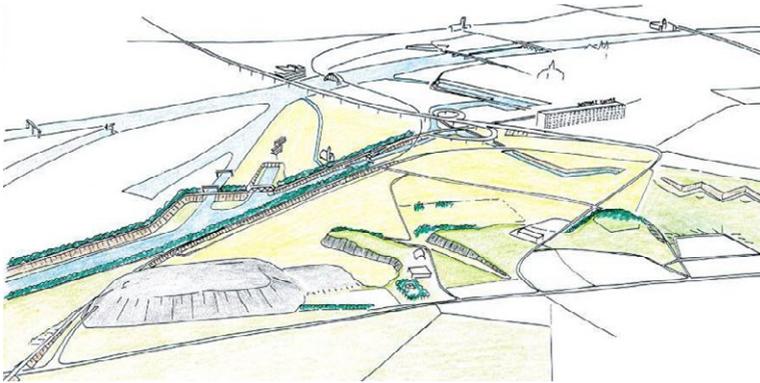
Cities and landscapes display both traces of 'natural' lines and geometric patterns. The natural lines are the result of physical forces, such as land and water, which influence each other, guided by natural laws, but without preconceived form. The geometric lines are (mostly) the result of human thinking. You can construct them in your head and project them on a surface aided by technical tools (ruler, computer). You can only (re) construct the forces that are the basis of the natural lines

1 Hurlings, H. and N. van Dooren (2015) 'Exploring mundane stories of invention' in: *Design Methodology* (Amsterdam: Amsterdam Academy of Architecture).

by 'repeating' them on paper. In architecture, the geometric systems, 'the lines of the brain', usually play a decisive role. In urban design, you cannot limit yourself to this, but you must also understand the natural lines. The 'physical understanding' is essential. What interests me in particular is what happens in the process of the tracing itself, Strictly speaking, that tracing can be done by hand and with the computer, but in the first instance the process can be experienced more directly. Drawing as *physical* activity is about the interaction between hand, eye and head. While we trace the layers which are already present, we interpret the plan of our locations. Tracing means: following the lines of the location with pen or pencil, literally mastering and *understanding*. Whether it is about relief, the rivers, the paths or the plot boundaries: what do those lines do to each other? What is their '*motor system*'? Which patterns are evident therein? How do they determine the *signature of the city* together? My experience is that you need to do the tracing and sketching frequently. The repetition creates a kind of automatism, the understanding is internalised or 'embodied' as Sennett writes, as a result of which you become increasingly acquainted with the location in time and can even sketch by heart. This gradually provides an enormous freedom to interpret the pattern traced and to intervene in it.²

2 see Sennett 2008.

Project Belvédère, Maastricht



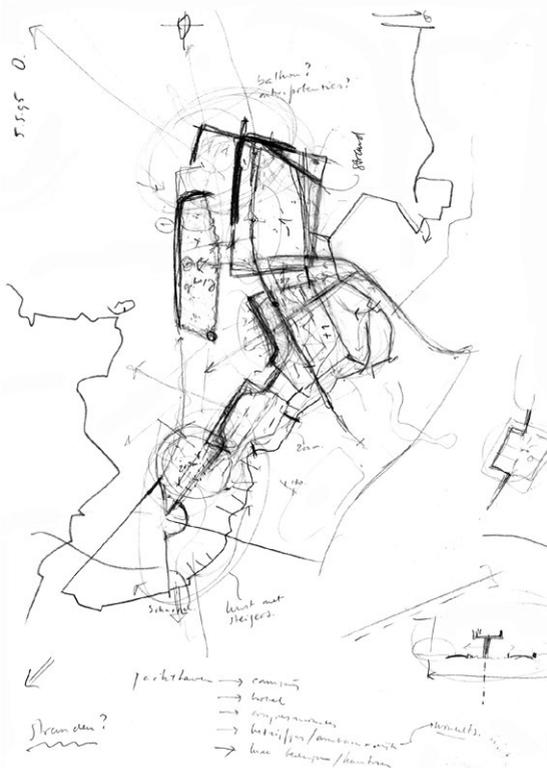
Drawing lesson 1: Use the tracing paper

When tracing the map and making sketches, transparent paper is a simple yet magical tool. You can still try out vague ideas and see how they relate to the map or drawing that is underneath. In this way, the sketch becomes a 'conversion' of an underlying theme. The more transparent the sheets lying over each other, the vaguer the image of the foundation becomes. By choosing, omitting and emphasising during tracing, the map become separated from what it literally represents, and translated into an interplay of lines, a graphic pattern. This pattern reveals compositional relationships in the map image. What are the constituent parts? Where is the cohesion, where is the contrast? What is unique and what repeats, what is the rhythm?³

3 see Schön 1983 and Goldschmidt 2003.

The more transparent sheets that are placed on top of each other, the more uncertainty increases about what is underneath, but also the freedom to interpret. It makes a leap possible from 'reading the map as it is intended' to 'reading the map based on what it could further represent'. A crucial moment is removing the sheets in-between again and confronting the final interpretation once again with the initial drawing. Considerable deviations usually emerge with each new layer. This is also a creative moment: confusing, but also a stimulus to look at the location, and the new pattern that has emerged in the meantime, with a fresh pair of eyes. The cycle of 'a sheet on top' can begin once again, with increasing accuracy.

IJburg, Amsterdam

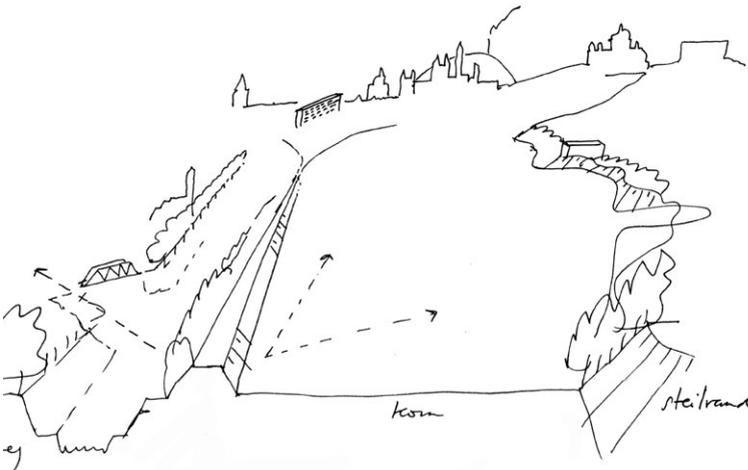


Drawing lesson 3: Combine scale levels and drawing methods

There are numerous methods while drawing to connect the human point of view with the abstract plan, which can, in principle, be extended without restriction.

You can place the plan *in perspective*. It shows how the urban areas follow one another, from up close to very far away. Saul Steinberg, for example, manages to connect New York to the island of Manhattan in one image *9th Avenue*, and ultimately to his position on a global scale. Le Corbusier shows the entire spatial system of Venice in one sketch: from the dead-end alleys in the labyrinth of alleys, to the Piazza San Marco, where the panorama opens out onto the lagoon. You can combine the steep plan with the *elevation* of the surrounding buildings, such as in old medieval drawings, or in axonometric projections. In this way, you escape choosing and favouring a specific point of view, from where the perspective unfolds. You float above the city, but you can, however, imagine 'walking around in' it. It is noticeable in the *cross-sectional profile* how the lines are bordered or guided by walls and differences in height, and how those are in proportion to human dimensions. The cross-sectional profile, in fact, forms a 'window' to the horizon. By raising the point of view to a *bird's eye view*, you can place this information in a wider context, which goes beyond the actual field of vision. You can display connections that you would only experience in reality by taking the time and moving through the city.

Project Belvédère, Maastricht.



Drawing lesson 4: Take the time

Tracing implies a process of selection, and thus omission. Beginning, determining order, choosing, adding, omitting: all exercises in searching for the essence, for the correct order or ranking, hierarchy. Sketching takes time. You must 'complete' the lines. In this way, you experience their length and their rhythm.

Drawing occurs in a certain *order*. For every line, you must choose a direction. You must decide where you begin and what you have follow what; what you fix and what you still leave open; what is essential and what is of secondary importance. In a certain sense, you can *re-enact time* by means of tracing. By doing that often, you discover variations and you can examine what is essential. Omission, in particular, requires experimentation. The first blow rarely hits home, and by making series of sketches you discover more. It cultivates a sense of routine and self-confidence. It does not have to be beautiful, and by no means always realistic. It is all about searching – and finding!

During the design process, I often find myself longing for the uncertain interval between stretching the boundaries of drawing and wanting to preserve the vagueness. The longer you can tolerate uncertainty and delaying the moment of 'solidification', the greater the ultimate obviousness that emerges from the drawing.

Drawing lesson 5: Come out from behind the screen

The professional instruments in urban design have developed rapidly. The computer plays a key role in this as a tool for processing information and with which to draw. The computer has a number of characteristics, which have both advantages and disadvantages in comparison with drawing by hand. The benefit of drawing with the computer lies in the speed, the enormous variety of information that can be processes, the precision, being able to zoom in and out infinitely, the direct access to communication tools. It is very tempting, because preliminary results also look immediately real and realistic. However, in my practice those benefits are usually gained once the first ideas have already crystallised and the design is worked out in further detail.

One disadvantage is that the computer is by definition legend-oriented, operates unambiguously and is bi-polar: something is one thing or the other. The computer does not make mistakes, and is also not 'creative'. The computer is activated by pressing the button, not by a physical involvement in time. It switches off the physical sensory perception of the hand as sensor and memory. Through commands on the keyboard, you let the computer construct the image at top speed; and you are subsequently *observer* of the result. Many students do not, as a result, understand yet what they are seeing and what they can do with it. Through drawing by hand, you construct the image step-by-step yourself; all lines go through your fingers.

You are the *constructor* of your own drawing; if you have stayed focused, you know the image inside out.

One should also take into account that sketching often occurs while *talking*, with numerous designers sitting next to each other, jointly focused on the map with the tracing paper on the table. In those ‘talking sketches’, the hand also communicates, through its gestures.

In conclusion

Ways of drawing are connected with ways of seeing and thinking. Drawing is not a neutral technique, which serves to get a design that you already have in your head onto paper. It remains a miraculous fact that we can grasp the world around us by moving our hands across a piece of paper, on a scale that far exceeds our field of vision; that we can thus expand and stimulate our imagination enormously, and that we can ultimately design things which are not yet there. The most important lesson may be to not only see these human capabilities as technique, but above all to enjoy and fully develop them as well.

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Tales from Nowhere¹

Jo Barnett

1 William Morris (1892) *News from Nowhere* (London, Kelmscott Press). A description in novel form of an ideal society. He proposed political change through a series of lectures, his novel was another way to communicate his ambitions.

2 Original traces of paint and wallpaper from attachments to timbers and walls were left as discovered in a renovation project.

Detail from completed house renovation, Berger Barnett Architects 2011²



'I seemed to understand that the imaginary narrative had sprung out of the scholarly one, and that the compulsion to invent was in some way related to my own sense that in constructing this narrative I have had to insert facts about myself, and not only dry facts, but my feelings, and now my interpretations. I have somehow been made to write my own story, to write in very different ways...' *The Biographer's Tale* by A.S. Byatt³

3 Byatt, A. S. (2001) *The biographer's tale* (New York, A.A. Knopf).

In her novel, the writer A.S. Byatt brilliantly articulates something fundamental about creative process while simultaneously weaving a wonderful story. Written text can be a very interesting place to begin when thinking about the making of space and how we describe it.

'Stuff' and What to Do With it?

Most projects begin with a visit to a site. When we encounter a new project it is important to try and understand the previous levels of existence, as well as the present, be they cultural, natural, social, or historic, they are all around us.

There is always a registration of the use of ground, and through that the culture of those that made and used it. In a country like Holland, the scale of its manmade landscape, brings with it a unique challenge in terms of cultural and natural context.

In Holland the making of the land *is* its culture. Most other 'inhabited' places have had more time to 'accumulate,' not unlike a house that has been lived in over time. This accumulation of 'stuff' clutters but also informs us about the inhabitants.

By observation of this 'stuff', by recording and evaluating one arrives at a design accuracy between a proposition and any given site. Each site and programme will yield its own set of rules and actions. Perhaps at first these relationships to design are not clear but these relationships if cultivated can be used as tools for a design.

What Language are You Developing?

'Excellent graphic exemplifies the deep fundamental principles of analytical design in action.'⁴

As architects we are trained to use the conventional language adopted to relay how something is to be built, for example the use of plan, section, elevation, details to scale, models, etc. This language is usually used to communicate between the architect and the other parties that are involved in its construction as well as our clients.

Is it any wonder as we navigate the treacheries of a programme, the building regulations, a shrinking budget and the realities of getting something made in the real world from real materials, we often neglect to develop a personal language that will communicate to ourselves? We also need to record, map, model, respond, sketch, photograph, evaluate etc. to communicate with ourselves as we design.

4 Tufte, E. R. (2006) *Beautiful evidence* (Cheshire, Conn: Graphics Press).

Action and Production

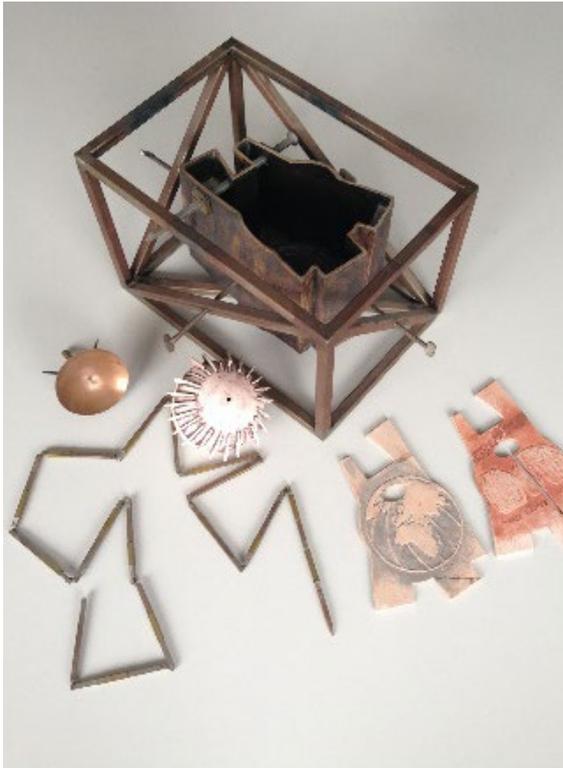
Extending the conventional representation of architecture into a personal language will ultimately help us produce an appropriate architecture. I was lucky enough to be tutored by Peter Salter⁵ when a student. Peter Salter often asked his students to produce what he called *Touchstones*. These were personal emblematic objects of / for / about, the given site. They held within their material and form a connection to place and a signal to the possible materialization of a future architectural proposal as perceived by the individual student. These fragments, truths, questions and stories, (contained within the touchstone) can then be used as one designs. The touchstone becomes a simultaneous 'collage' of information, that starts to bring out possible ways forward, and also allows you to remember and question your choices as a design evolves. 'Collage is a demonstration of the many becoming the one, with the one never fully resolved because of the many that continue to impinge upon it.'⁶

The illustration shows a touchstone I made at the starting point of a project. It evolved into a primitive devise for reading time (a sort of portable sundial) for two separate places, the site I was investigating (in Denmark) and the site of my childhood (in England). It allowed me to locate two completely remote

5 Peter Salter – Architect, tutor and visionary now currently Professor of Architecture at Welsh School of Architecture, Cardiff. Currently involved in constructing 4 houses in Walmer Road London.

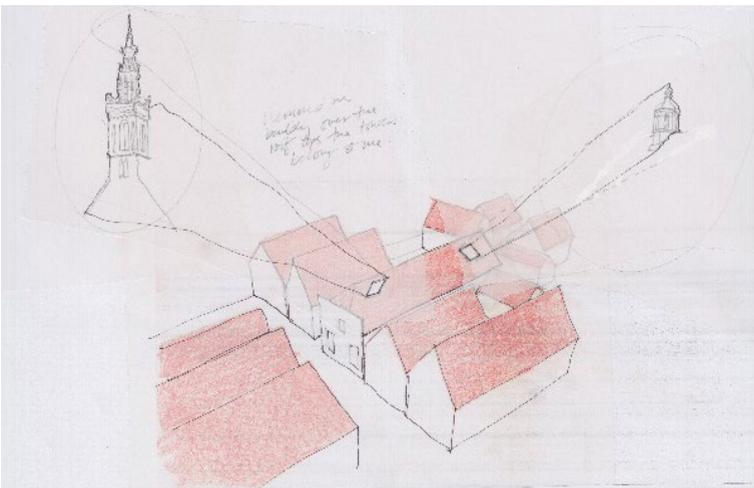
6 Donald Kuspit, 'Collage: The Organising Principle of Art in the age of the Relativity of Art' in Craigie, B. J. (1983) *Relativism in the arts* (Athens: University of Georgia Press).

Example of a touchstone.



Huis Edam, Berger Barnett Architecten, 2011. New roof lights were cut into the roof that corresponded to not only to light penetration but for the capturing of strategic glimpses of surrounding church towers.





Sketch for Huis Edam, Berger Barnett Architecten, 2011.

locations and relate them together at any given place. It was made combining a handmade ceramic box with brass, steel and found objects from the site.

One project from our office – a house in Edam – was a complete renovation of an old bakery that was barely standing. In the end very little remained of the old tiny subdivisions that had grown up in the interior over years of use. We chose to retain what we could of the structural original timbers un- cleaned along with any fragments that were attached. In the end the old could be read simultaneously with the new as memories of former inhabitations.

Artists and Poets : What Other People Do

It is useful to look outside architecture at other forms of production and action that are used to communicate ideas to offer some pointers as to how we might develop our own personal design language. I offer a couple of favorite examples here.

The work of the artist William Kentridge⁷ is amazing and enjoyable for its simultaneous nature of information. Kentridge is a remarkable artist that works in a variety of mediums that ranges from performance to animation. His films use charcoal hand drawings that are then rubbed and redrawn as filmed often on the same sheet of paper. The composite drawings are also often displayed alongside the animation films each an essential part of the same story. The present is somehow always shadowed by the past, both in reality and his production, and this in turn is part of what he speaks about in his work.

The physical forming of space by inhabitation in the artwork of Franz Erhard Walther⁸ cannot help but resonate with the act of designing for architects. In his *Lexicon of Terms and Concepts* one finds all the terms one might call into play as an architect. ‘....*Inside-Outside, Built, Distance, Link, Movement, Structure Connection, Modulation, Proportion, Body, Time, Change, Transition..etc.*’⁹

7 William Kentridge (1955) is a South African Artist who involves himself in performance, print making, theatre design drawings, and animated films.

8 Franz Erhard Walther (1939) is an artist who’s work ranges from minimalist sculpture through conceptual art to performance.

9 Walther, F.E. ‘Die Begriffe’ in: Walther, F.E. (1977) *Stirn Statt Auge: Das Sprachwerk* (Ostfildern, Cantz)



Page from Franz Erhard Walther, Lexicon of Terms and Concepts.

Walther has a huge body of work but I particularly like his early walking 'performances' which deal with the notion of space, measurement, scale and the individual in landscape. I only discovered his work a few years ago but it has a particular resonance with me because of an action I took for a student project that involved investigating a landscape through walking. Walther's Lexicon creates 'instruments' for interaction from fabric elements that can be worn carried, shared, changed etc. The instruments could be used either inside or outside in the landscape. The wore pieces or fabric elements, create a measurable interaction or relationship to the context and to others. I quote here¹⁰ two instruction from one 'action', many of these instructions were often contradictory:

10 Franz Erhard Walther, Workset (1963-69)

One person may-may not alter his position in relation to the others:

The instrument instigates changes of site and position – The instrument restricts one to the site and position.

Order-Chaos: I try to order the work-process-I try to enable the work process to expand freely in time and space so that something can emerge which would not otherwise occur.

For my project, I grasped the scale of landscape under investigation by carrying out a straight line walk. A line along which I had marked points equally. I walked and visited each point on the line. Each point displayed different characteristics as the landscape changed subtly on the walk. I recorded each point on the line with objects I had brought with me for the purpose. The final architectural proposal incorporated these differing characteristics together in a 'collection' of buildings that were an archive for the local inhabitants.

A written description of space by the 19th century French novelist Emile Zola in his book *Nana*¹¹ not only describes the spaces and forms of a place in Paris, the but also a vivid sense of its physical inhibition.

11 Zola, E. (1880) *Nana* (Paris: Charpentier)

He describes a man waiting outside the back door of a theatre for his mistress who he suspects of being unfaithful. In the text he describes the waiting and in the waiting, the movement of the man. The man stands, he looks about him, he notices others waiting too or others passing. His embarrassment at being noticed forces him to move about the Passage, to examine in detail the contents of shop windows that are of no interest to him. He moves to the edge of the Passage where he looks out at the weather and the passersby. His anxiety leads him back to the theatre door, and further descriptions of the space he inhabits, the lighting, the sounds, the changes in temperature, his lack of ease.

The same space, the Passage des Panoramas, is described in Walter Benjamin's *Arcades* project of 1927¹² but this time through a selected collection of texts, notes, essay, fragments of social history, and quotations. These types of description could be said to be 'facts' about a place rather than the 'fiction' by Zola. However this eclectic 'collection' is very personal involving a unique categorization by him, unique to this book.

12 The *Passagenwerk* by Walter Benjamin (published posthumously in the 1980s) was written between 1927 and 1940. The book is a collection of observations, quotes, textual 'snapshots' about the 19th century Parisian covered passages. Among others: Benjamin, W. (2002) *The Arcades project* (Cambridge, Mass: Belknap Press).

Other more conventional 'descriptions' of the Passage des Panoramas are also available to us in Johann Friedrich Giest's *Arcades, the history of a building type*¹³. Here we have access to old plans and sections etc. His work in contrast catalogues arcades from all over the world in alphabetical order.

13 Geist, J. F. (1983) *Arcades, the history of a building type* (Cambridge, Mass: MIT Press, first published 1969).

These are all very different ways of describing the same space/ place, and equally useful. Each one offering its own rules and context, each one helping us to an understanding of the place. It is the combination of these differing languages that gives us the more rounded and more personal understanding. It is this combination of personal and factual representation that we should be aiming to 'collect' as designers.

To conclude

The combination of the use of a 'tool,' (instrument, action... call it what you will) walking and inhabiting physical space and



Entrance of the Passage des Panoramas, rue Saint-Marc, Paris.

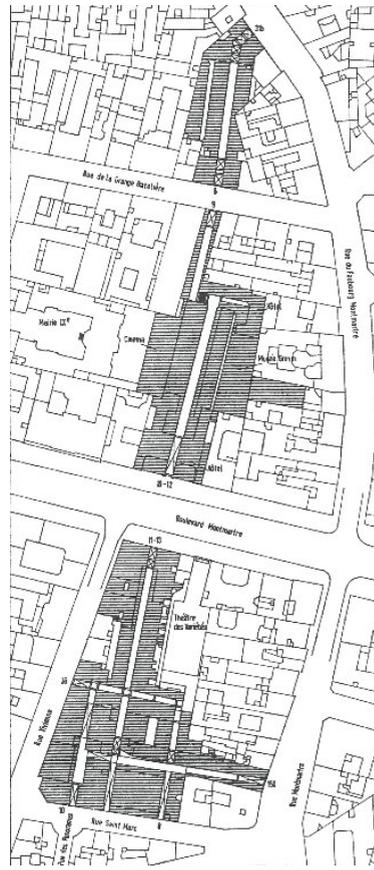


Illustration from Johann Friedrich Gieseler's *Arcades, the history of a building type*.

recording, are already in fact part of the designers palette. However to do so self/consciously in response to place, and to evaluate, and to be open to all possibilities a given context might offer, will help us develop a personal design vocabulary that can sustain us throughout a design career. As a project develops, using differing personally developed representational languages allows your designing to be more flexible. Ultimately it allows for a more responsive approach to design, and ultimately a more appropriate design proposition.

Conversation Pieces

Notes on the making and use of
architectural models

Jan Peter Wingender



Studio Office Winhov

*‘Architects are dealers in models. The model is their personal lie. There are two laws regarding models:
1. If the model is ugly, then the result later will be ugly
2. If the model is beautiful, then the result later will also be ugly’*
Gerrit Komrij

It is no coincidence that the author and critic Gerrit Komrij directed his attention towards the role of the model when he accused architects of making a poor contribution to the Dutch city at the end of the 1970s. Models are the most tangible record of a design in development. They do not require the professional ability of being able to read a drawing, and they make the design process accessible for a wide audience. The use of models is deeply rooted in our civilisation. Firstly, in the form of miniatures; for example, the miniatures of gardens in Egyptian graves, the miniatures of the buildings from the Holy Land, which were widespread across Europe in the Middle Ages, and the doll’s houses from the 17th century, like that of Petrolella Oortman.¹

It is this long tradition and our resulting intuitive understanding that lend models their power. The transition from miniature to model is a substantial step, which has developed since the beginning of Greek civilisation. Whereas the miniature is a scaled three-dimensional representation of an existing building,

1 Smith, A. C. (2004) *Architectural model as machine: A new view of models from antiquity to the present day* (Amsterdam: Elsevier, Architectural Press).



Jacopo di Chimenti, The presentation of the San Lorenzo by Michelangelo to Pope Leo X, 1617-19. The model has been preserved and shows the balance between abstraction and detail.



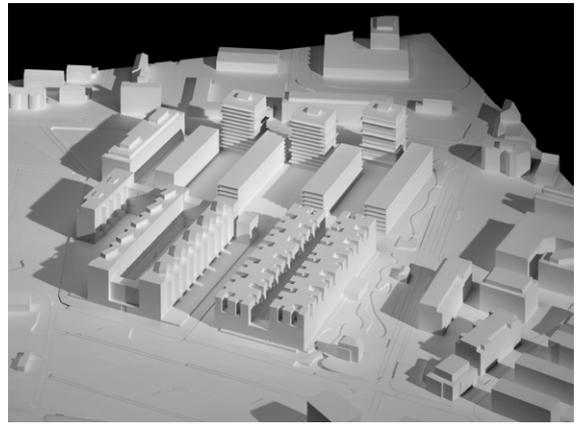
Basilica di San Lorenzo, model, 1517, Wood, 210 × 280 cm, Casa Buonarroti, Florence

the model is a scaled three-dimensional presentation of a design. In contrast to the miniature, the model is a projection; it is a tool for looking forward to the future. The model is a conversation piece in the design process. It is a temporary, independent crystallisation of a design and, as such, talks back to the designer; it questions the design and its underlying ideas. As a result of its accessibility, the model is also a conversation piece in the negotiation process that is inextricably linked to the design and execution of buildings.

The deliberate use of models in the design process blossomed in the Renaissance. Beautiful wooden models have been preserved from competitions for the designs of the cathedrals of Como, Milan, Bologna and Florence. The assessment of the entries occurred partly through comparing the models that the teams of architects, painters and sculptors submitted.²

In addition to the accessibility of the model for clients, the mutual comparison of models is easier than in the case of drawings. These require a thought process in which numerous drawings, for example a plan and section, are combined into a mental, and thus subjective, representation of the design to come. When using models, there is a suggestion of objectivity, which continuously arises in the discussion about drawings and models. In 1900, the Royal Institute of British Architects banned, for example, the use of perspective drawings in competitions. There was also strong criticism in the Netherlands regarding the misleading nature of perspective drawings. In the case of the competition for the Rotterdam town hall in 1913, plaster

² Milton, H.A. 'Models in Renaissance Architecture' in: Milton, H. A., and L.V. Magnago (1997) *The Renaissance from Brvnelleschi to Michelangelo: The representation of architecture* (New York: Rizzoli): 53.



Plaster model as part of the competition entry for the Freilager Albisrieden in Zurich. Freilager Albisrieden, Office Haratori and Office Winhov. Zurich has a complete city model. The integration of new plans in this model forms part of the negotiation process with the municipality. Urban plan Leutschenbach Mitte, Office Haratori and Office Winhov.

models were, therefore, a compulsory part of the entry.³ Although visualisations now occupy a dominant position in the presentation of designs, the use of uniform plaster models is, for example, still a compulsory part of a competition entry in Switzerland.

3 Smit, E. (2006) 'De Rotterdamse Raadhuismaquettes' *Architectuurbulletin* 1/01: 53-62.

Influenced by the Italian developments in architecture, the first models emerged in the Netherlands at the beginning of the 16th century. The word 'maquette' (model) came into use as architectural term in the Netherlands via sculpture round about 1915.⁴ In the Netherlands, we use the terms model and 'maquette' interchangeably, but the difference in meaning says a lot about the intentions of the maker.

4 Tieskens, R.W. *Het kleine bouwen, vier eeuwen maquettes in Nederland* (Zutphen, Uitgeverij Terra).

The word 'maquette' can be traced back to the Italian *macchietta* (raw sketch). The meaning in Dutch is: 'A three-dimensional miniature model of a building'. The 'maquette' is, therefore, somewhere in-between a raw sketch and an accurate three-dimensional scale representation of an (existing) building. The 'maquette' mainly concerns the object *an sich* (itself). It is a more or less precise and objective representation. It is fixed scale and a true-to-life representation of space, structure and materials. Irrespective of the phase in which the design is in, the 'maquette' suggests an end point; it is a *presentation*.

The word model is derived from the Latin *Modulus* (measure, knowledge). In addition to the meaning of 'copying on a small scale', the word has a larger scope. For example, a model is also 'an example on the basis of which a work is executed', 'an interpretation of a system' or 'a paragon of something (role model). With regard to the 'maquette', the model offers opportunities for abstraction, essence and suggestion. The model plays another role in the design process; the emphasis shifts from presentation to study, reflection and even inspiration. The model is at the service of *the idea* that is at the

basis of the design. Scale invariance and material play a further role in the model. The meaning shifts from presentation to *representation*.

The model is, in contrast to the 'maquette', a tool for examining a design and the underlying idea. At the same time, the model is a seducer *pur sang*, with which client and public is convinced. It is a conversation piece for a simultaneous internal and external discussion about the design. The model is in this way one of the most explosive tools that is available to us as designers.

A model has no rear side

In the design process, it is crucial to confront ourselves with the spatial, volumetric and formal consequences of an idea. It is not rare for a design to develop from a particular perspective. This can literally be the image of the building on a street of a central space in a building. This mental perspective often appears in the choice of drawings; a kind of tunnel vision occurs in the process. Images that are similar to this mental perspective and which suit the building best are often chosen in drawings and visualisations. The quality of the image prevails in that case over the design of the entire building.

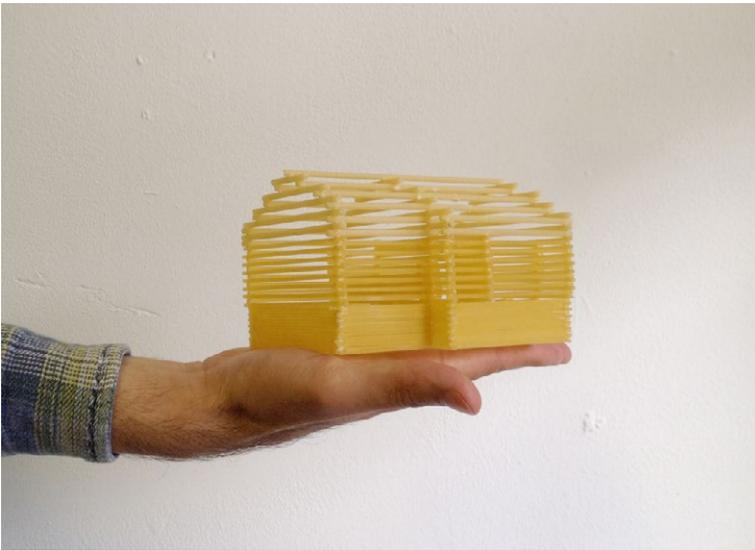
In *De Re Aedificatoria* (1452, *On the Art of Building*), Leon Battista Alberti argued in favour of the use of models. "For this reason, I will always commend the time honoured custom, practiced by the best builders, of preparing not only drawings and sketches but also small scale models of wood or any other material."⁵

The rear side of a drawing is meaningless. That does not confront us with that which is not devised or drawn. A model has no rear side. The model forces us to literally study a design from all sides. It creates distance, literally offers new perspectives and 'talks back' to the designer. That is liberating, because the mental design perspective is put into perspective.

5 Alberti, L.B. (1452) *De Re Aedificatoria* cited in: Milton, H. A., and L.V. Magnago (1997) *The Renaissance from Brvnelleschi to Michelangelo: The representation of architecture* (New York: Rizzoli).

In this man-sized model, the facade for the inner courtyard could be studied from all directions. W Exchange Amsterdam, Office Winhov.





The construction of a wooden barn represented in a model of dry pasta. Alpine Loft Maten, Office Haratori and Office Winhov.

Models are made of materials

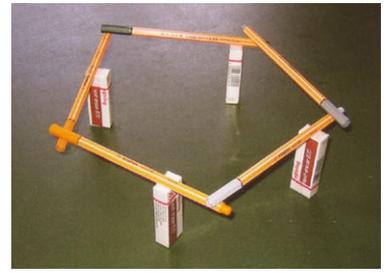
Alberti continued his argument by saying: 'Better than that models are not accurately finished, refined and highly decorated, but plain and simple, so that they demonstrate the ingenuity of him who conceived the idea, and not the skill of the one who fabricated the model'. He stood firm against the extravagantly executed models of his time which, not infrequently, overshadowed the design. He, nevertheless, raises an essential question. How, and from which material, is a model made?

A model is a project in itself within the design process. The choice of materials says a lot about the underlying architectural idea. A plaster model of a design (heavy, out of focus, monochrome, no material direction) has another expression than a wooden model (light, well-defined, differences in colour, direction of grain and end-grained wood) from the same project. The only way to examine those differences in expression is by doing. The lack of a workplace is no limitation. A solid model of layers of cardboard has another expression than a hollow model with cardboard walls. Improvise; even a model made from dry pasta can be extremely effective.

Models bridge the gap between thinking and making. Which material suits the expression of the idea? How is the model made? What is the role of joints and transitions between materials? How is the model finished? These are the same questions that are posed for the architectural design. The way in which these questions are answered in the model says a lot about the actual architectural design. Models anchor the thought process in materials and execution techniques in a design process. They are a crucial step in the transformation of an idea into a building.

Size does matter

A fixed scale, for example 1/100, is not interesting in the design of a model. What is important is the question of how the observer can relate to the model; how large is the model and what can be achieved with it? Size does matter. Small models are often brought up in discussions. That breaks through the distance; someone can appropriate a design. For this reason, it is sometimes useful to present large buildings in small models. Conversely, a large-scale model of a small building can entice one into bending over backwards in order to gain a clear picture of the design. You can also make a model very sturdy, for example out of concrete, so that it, or the idea, cannot be easily set aside. A gossamer-thin, fragile model, on the other hand, which nobody dares to touch, or which slowly disappears, because it is made from ice for example, could give the design discussion a surprising twist.



A 2-minute model with 5 pens and 4 erasers, which clarifies the refined construction of a new football stadium. Zurich Stadium, Conzett Bronzini Partner, model by Juerg Conzett.

The complex transformation of the former Rijkskantoor voor Geld- en Telefoonbedrijf (Government Office for the Amsterdam Money and Telephone Company) in an extendible (demolition) and retractable (new addition) model. The model can be held in one hand. W Exchange Amsterdam, Office Winhov.





The height of the tables were a given in the exhibition. In order to present the building equivalently and at eye level, the pillar foundations of the building were used under the building as 'extended' plinth. Woongebouw Galenkop (Galenkop Residential Building), Venice Biennale, Office Winhov, model by Bart van der Salm.

Plinths and base plates are a problem in themselves. A small model can benefit from a large plinth, even if it is merely to present the model at eye level and lend a sense of weight. The lack of a base plate is sometimes useful. The model is then more an object in itself that one can hold and turn around. A plinth must support the aim of the model and form an inseparable whole with the model. As a result of the choice of size and plinth, you steer the presentation of a model to a large extent. Does it form an aside, or is it actually the centre point of the presentation? Do we walk around it, do we have to stand on our toes or actually drop to our knees? The model is a seducer; good models move the observer both literally and metaphorically.

Model photos

The aim of a model can be a photo or collage. Photos of models can be effective when researching and presenting 'softer' design considerations, such as the atmosphere of a space. They literally offer a stage for aspects that are more difficult to lay down in drawings. Moreover, the photos of (interior) models have an alienating effect. They create a certain distance; recognisable and simultaneously abstract. They have a suggestive power more than the model itself. The images imply a story.

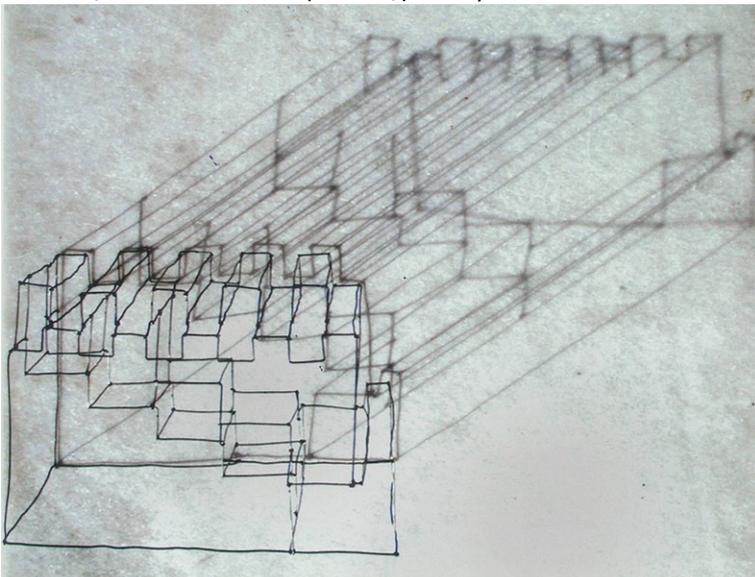


Recognisability and alienation alternate in this image of the living room of a fire station. Antwerp Fire Station, Happel Cornelissen Verhoeven Architects.

In *Supermodels*, photographer Hisao Suzuki groups model photos parallel to the design process into the categories ‘inception’, ‘organisation’, ‘blooming’ and ‘experiential’.⁶ Although the photos are of various projects and architects, the series shows how these stages can be presented equally next to each other by means of photos. A premature finger exercise is given the same weight as a fully developed facade study. It is noticeable in Suzuki’s photos how he guides the perception of the viewer. Especially in the category ‘inception’, the scalelessness of the objects, and the combination of sharpness and blurring in the photo, are a means of giving this fragile stage of a design process its own unique, powerful expression.

6 Suzuki, H. (2013) ‘Supermodels, photographed by Hisao Suzuki’ A+U 522: 8-129.

In this photo, lighting of a fragile, premature wire-frame model creates a powerful suggestion of a plan in development. Model Fine Arts Museum of Castellón, Mansilla + Tuñón Arquitectos, photo by Hisao Suzuki.





In the case of the model for a visitors centre, the packaging was as important as the model itself. The opening of the packaging formed a key moment in the presentation of the plan. De Hoge Veluwe Visitors Centre, Office Winhov, model by Bart van der Salm.

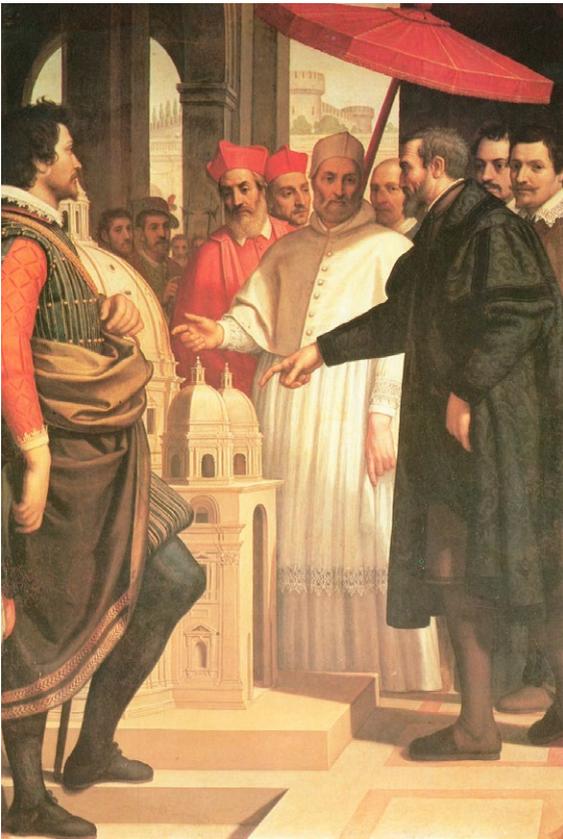
‘It’s Showtime’

‘Being smaller, the object as a whole seems less formidable. By being quantitatively diminished, it seems us qualitatively simplified. More exactly, the quantitative transportation extends and diversifies our power over the thing, and by means of it the latter can be grasped, assessed and apprehended at a glance.’
Claude Levi-Strauss

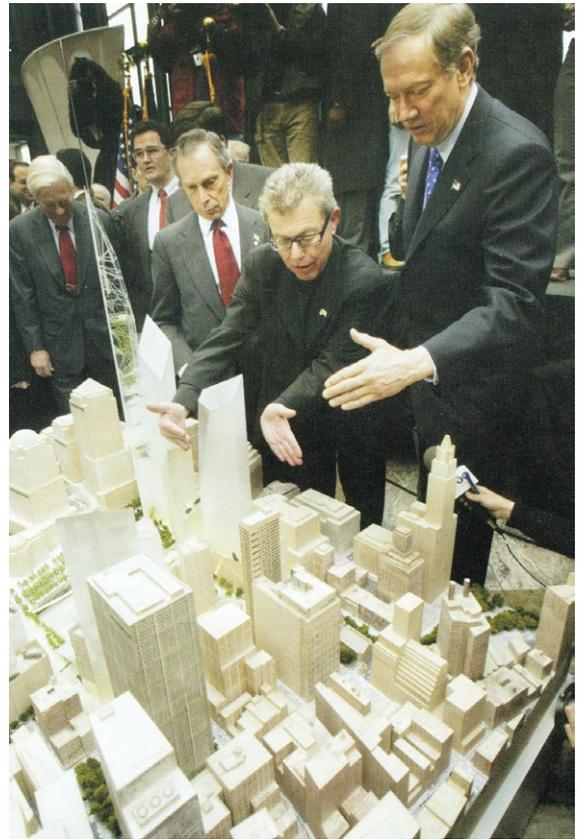
It is this ‘power over an object’ that makes a model a peerless attribute in the negotiation process that is part of designing. As a designer, you temporarily give discussion partners control over an idea or a design. ‘Size does matter’, but with the presentations of models ‘It’s showtime’ also applies. Gilian Schrofer noted ‘The appeal to the childlike sensation of going around with your diorama is also a not unimportant aspect of the show, which is always a presentation of a sketch design’.⁷ Whether it concerns a design studio or a public presentation, the moment and the manner in which the model is presented contributes to a large extent to the success of the presentation.

7 Roode, I., P. Gerhards and E. Eulen (2008) Models of concern: Een selectie interieur maquettes = a selection of interior models (Amsterdam: Architectura & Natura).

The similarity between the presentation of Michelangelo of the St. Pieter to Pope Paulus IV and Liebeskind’s presentation of the plan for Ground Zero to Mayor Bloomberg of New York is informative. The models are the conversation piece. They are placed low so that the clients have an ‘overview’; the plan does not surpass the person. The model stands apart in the space so that the clients and the entourage can gather around the model. The models are both light. They form the radiant centre point. In contrast, the architect dresses in dark clothes; it is all about the plan and not himself. Finally, there is the physical relationship



Domenico Cresti, Michelangelo presenting the Saint Peter Model to Paolo IV, 1618 (Casa Buonarroti, Firenze)



Representation of the plan for Ground Zero by Daniel Libeskind to Mayor Bloomberg and Governor Pataki of New York.

of those present to the model; note the role of the pointing and indicative hands. Both images are carefully staged moments. The client gives permission to be recorded with the model; it is a moment of public commitment. The model has at this point more than fulfilled its role.



The new development in the centre of Grave is executed in a darker type of wood and forms a contrast with the existing situation. The entire block of buildings is in 3 dimensions at scale. That environment is executed as a minimal relief in order to give a sense of scale and space. The base plate is exaggerated and solid, and gives the model a sense of weight. Grave city centre plan, Office Winhov.

An aim in itself

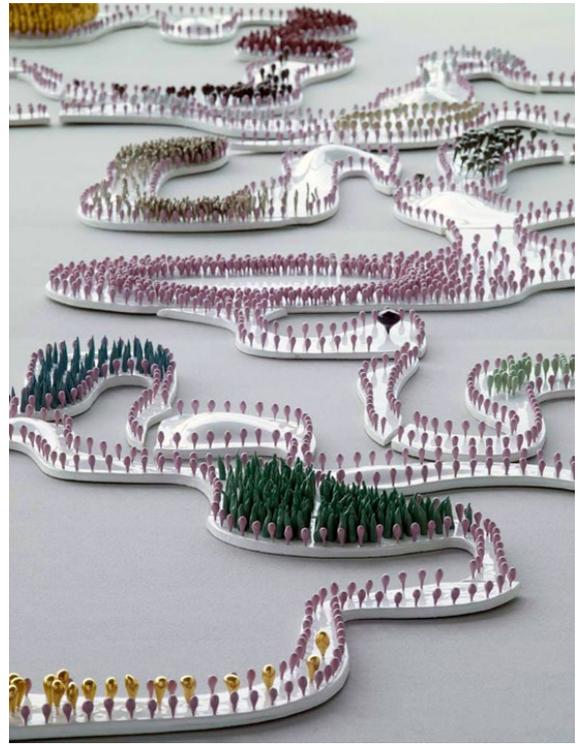
'It seemed that models, like architectural drawings, could well have an artistic or conceptual existence of their own, one which was relatively independent of the project they represented.'

Peter Eisenman

Drawings and models serve the design process and the presentation, but they also have, as Eisenman notes, a conceptual relevance themselves. The model offers the opportunity to thematise and imagine phenomena. For example, the phenomenon 'time' can be examined in a model in a totally unique manner. Can a model literally 'grow' or actually develop its own transformation as a result of disintegration and erosion? In the case of urban planning and landscape design, the third dimension can be a problem as a result of the larger scale of models. By letting go of the connection of scale between the second and third dimension, a model can actually examine the topography in a plan. The model is then no longer the 'true-to-life' representation of a plan, but thematises the essential characteristics and underlying concepts.



Anne Holtrop, A Tower



Anouk Vogel, Prix de Rome 2010, Porcelain model.

The result of a design process does not have to be a completed building. It is possible that the model is actually the final product. If it is clear at the start of a design process that the aim is not a project to be built, the production of models and drawings can be seen from a different perspective. Examples of this are recent projects of Anne Holtrop and the Prix de Rome project of Anouk Vogel. The models represent an idea, but as a project are also conceived as final result of a design process. In both examples, presentation (the 'maquette') and representation (the model) come together in a single project.

The bearer of ideas.

In a digitalised world, our studios and workshops are becoming emptier. Hanging up a drawing and placing a model is an extremely conscious act in a 'paperless' office. Models are the bearer of ideas and can influence other projects. Consider the model as a source of inspiration for future projects. The stream of models generates new ideas. As a result of their presence, those ideas pass from project to project, often in mutated form. A form in a plan can be transferred to the section in a following project, as Albert Yaneva observes in the studio of OMA.⁸ A facade composition can transform and return in a following project. In this way, the making of models not only serves the design and negotiation process, but the underlying stream of insights and ideas that leads us ever further in our field. Komrij accused architects of a lie; of creating an illusion that turned out to be disappointing anyway. In his book 'Models and

8 Yaneva, A. (2009) *Made by the Office of Metropolitan Architecture: An ethnography of design* (Rotterdam: 010 Publishers).

machines' Albert Smith offers an alternative to that notion of disillusionment/illusion. He positions the model as 'an allusion', that is to say as an innuendo or insinuation.⁹ In short, the model as a style figure, whereby a well-known event or text is references, according to a general fact, making use of indirect references or through working towards the above-mentioned, while not naming it explicitly. In his opinion, the model thus concerns forms of 'insinuation'.

9 Ibidem note 1.

Smith's note of insinuation places the model diametrically opposite the supposed objectivity. The model is ambivalent and multi-faceted, therein lies its power. It connects objectivity to suggestion, recognisability to alienation, research to presentation, and idea to material. The model can thematise, inspire and has a life of its own in the design studio. It is a conversation piece for us, as part of the design process, for the discussion with others in presentations and negotiations, and finally a bearer of ideas and source of inspiration in our daily working environment. Making models, and learning to master their possibilities, goes hand in hand with the development of a personal design signature. At its best, both means and aim can no longer be seen separately.

The model as visor. From the surrounding streets, the incorporation of the new development in the amorphous urban space can be assessed. Flats and shops Nieuwstraat Apeldoorn, Office Winhov.



Biographies

Jo Barnett is originally from London and studied Fine Art. While working in a public access arts project on the notorious Aylesbury Housing Estate in South London, but living in an idyllic squat in North London, she developed an interest in the wider issues of the built environment. She later became involved in the Housing Cooperative movement, which required a great deal of hands-on building work. Embarking on an architecture degree made perfect sense, and combined interests and skills that she had developed. Finishing her studies at the Architectural Association under the tutelage of the brilliant Peter Salter brought her full circle, and back to a sensitive precision and accuracy of intension in design. She has been lucky enough to combine practice with teaching since graduation, which has allowed for a constant reflective space while making buildings. She moved to Holland in 1998 and started Berger Barnett Architects and is currently involved in the design of schools and collective housing projects. The work of the practice is regularly published.

Noël van Dooren, is a landscape architect, writer and researcher. He has worked at H+N+S Landscape Architects and as the head of the Landscape Architecture department of the Amsterdam Academy of Architecture. He will shortly receive his doctorate from the University of Amsterdam with a thesis on the representation of time in contemporary landscape architecture, focusing on its application in professional practice and education. Van Dooren is a member of the editorial board of the *Journal of Landscape Architecture*. Since 2006, he has coordinated the C3 Design Methodology series at the Academy.

Tom Frantzen started as an independent architect after winning the Charlotte Köhler Award in 1996 for a range of projects at the intersection of visual art and architecture. Since then, his office has won several competitions and completed a number of high quality buildings. Frantzen has recently taken on a more entrepreneurial role by developing architectural projects from initiation to completion as an architect-developer. Since 2008, he has been chairman of the Environmental Design & Cultural

Heritage Committee Utrecht, which advises the city council on the spatial qualities of all building activities in the area. In 2011, Frantzen was appointed at the Creative Industries Fund as the chairman of the advisory committee on Local Architectural Institutes and as a member of the interdisciplinary advisory committee on Architecture, Design and E-culture.

Harma Horlings is a landscape architect (AvB) and has been affiliated with the Academy of Architecture as a guest lecturer since 2000. She is coordinator of the lecture series about design methodology and conducted literature research into creativity within that context. Since 2006, she has been working as senior advisor at the Dutch National Forest Service (*Staatsbosbeheer*). Before that, she worked for H+N+S Landscape Architects. In addition, she is a member of the *Qualityteam des Beemsters* (an interdisciplinary team that advises on new developments in the Beemster Polder World Heritage Site) and the advisory committee of alumni working in the field at the Van Hall Larenstein University of Applied Sciences. She is particularly interested in activities at the interface of practice, research and teaching.

Amsterdam-based architect **Jan-Richard Kikkert** graduated with honours from Delft University of Technology. After working for several years at internationally acclaimed firms, he continued his education at the Berlage Institute Amsterdam. After graduating with a thesis on 'Beauty', he started his own office 'Architectenbureau K2', where he still practices. K2 was named one of the 20 most promising architecture practices in Holland with the exhibition 'The Elite of Tomorrow' and has won several competitions including Europan6. He is currently teaching at the Amsterdam Academy of Architecture as well as the Umeå School of Architecture. He has also taught at the Münster School of Architecture, as well as at most of the architecture schools within the Netherlands. In the last five years, he has researched the works of John Lautner and was made a member of the advisory committee for the John Lautner Foundation. He was awarded a state grant for his research.

Frits Palmboom is professor of practice at the Van Eesteren chair at TU Delft Faculty of Architecture and the Built Environment. This chair deals with urban design in relation to the physical conditions of the Dutch delta landscape. He studied urban planning and design at the Technical University of Delft. He has been running *Palmboom Urban Landscapes* (Rotterdam) with Jaap van den Bout and Jeroen Ruitenbeek since 1990, working on designs for spatial planning, landscapes and outdoor spaces. Palmboom was responsible for the urban design of IJburg (Amsterdam) and Ypenburg (The Hague). He has published in many professional journals and books.

Paul Roncken studied landscape architecture at Wageningen University and returned to work at his former department after seven years of commercial design experience at landscape design offices such as H+N+S, B+B, Copijn Utrecht and the municipality of Nijmegen. In his current job as BSc coordinator and design teacher/researcher, he focuses on design education and sublime aesthetics. His writing touches on subjects including design critique, new agricultural landscapes and creative methodology.

Jan Peter Wingender studied at Eindhoven University of Technology and the Berlage Institute in Amsterdam. He worked for Rudy Uytenhaak and then set up his own firm, Wingender Hovenier Architecten, together with Joost Hovenier. In 2013, he established Office Winhov together with partners Joost Hovenier and Uri Gilad. In addition to his involvement with the office projects, Jan Peter Wingender regularly gives lectures, writes about architecture and is a member of various advisory committees and juries. He is frequently invited to be guest lecturer and critic at various architecture schools in the Netherlands and abroad. From 2003 to 2007, he was head of the architecture course of study at the Amsterdam Academy of Architecture. Since 2010, Wingender has been lecturer researching *Tectonics in Contemporary Brick Architecture* at the Amsterdam University of the Arts.

Colophon

This publication was developed as a learning resource for the C3 Design Methodology course, which forms part of the curriculum of the Amsterdam Academy of Architecture.

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Amsterdam Academy of Architecture

Architect, Master of Science

Urbanist, Master of Science

Landscape Architect, Master of Science

Architects, urbanists and landscape architects learn the profession at the Amsterdam Academy of Architecture through an intensive combination of work and study. They work in small, partly interdisciplinary groups and are supervised by a select group of practising fellow professionals. There is a wide range of options within the programme so that students can put together their own trajectory and specialisation.

With the inclusion of the course in Urbanism in 1957 and Landscape Architecture in 1972, the Academy is the only architecture school in the Netherlands to bring together the three spatial design disciplines under one roof.

Some 350 guest tutors are involved in teaching every year. Each of them is a practising designer or a specific expert in his or her particular subject. The three heads of department also have design practices of their own in addition to their work for the Academy. This structure yields an enormous dynamism and energy and ensures that the courses remain closely linked to the current state of the discipline.

The courses consist of projects, exercises and lectures. First-year and second-year students also engage in morphological studies. Students work on their own or in

small groups. The design projects form the backbone of the syllabus. On the basis of a specific design assignment, students develop knowledge, insight and skills. The exercises are focused on training in those skills that are essential for recognising and solving design problems, such as analytical techniques, knowledge of the repertoire, the use of materials, text analysis, and writing. Many of the exercises are linked to the design projects. The morphological studies concentrate on the making of spatial objects, with the emphasis on creative process and implementation. Students experiment with materials and media forms and gain experience in converting an idea into a creation.

During the periods between the terms there are workshops, study trips in the Netherlands and abroad, and other activities. This is also the preferred moment for international exchange projects. The Academy regularly invites foreign students for the workshops and recruits wellknown designers from the Netherlands and further afield as tutors.

Graduates from the Academy of Architecture are entitled to the following titles: Architect, Master of Science; Urbanist, Master of Science and Landscape Architect, Master of Science.

