Het kritisch residu: creativiteit en orde in architecturale ontwerptheorieën, 1972-2012

The Critical Residue: Creativity and Order in Architectural Design Theory, 1972-2012

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In my final year at the University of Ghent I asked my supervisor, Maarten Delbeke, what had made him pursue a PhD. He answered that when investigating something particular, he felt an unbridled urge to push his inquiry beyond the prevailing scope of knowledge. Later, when I was enjoying my first years in practice at the office of Neutelings Riedijk Architects (NRA), I recognised a similar attitude of persistency in the peculiar design ambition of the leading partners, Willem Jan Neutelings and Michiel Riedijk. I realise that these two forms of perseverance have blended into the symbolic self I tend to pursue on my better days. The birth of my two daughters, Fem and Asa, naturally initiated a period of introspection — a moment in which I suddenly and vividly remembered Maarten’s motivation to pursue a PhD. My career at the NRA office had been intense but fruitful, best described as a rollercoaster ride, which culminated in that moment of both personal and professional reflection. That moment of reflection seemed a welcome one for me, Kathleen and the girls (little did I know…).

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Summary

This dissertation studies design theories of the last four decades and how they have influenced our understanding of creativity in the design process. Often architects legitimise design decisions by means of rational arguments, which is at odds with a creative process that thrives on associating freely. How do contemporary theories attempt to legitimise contingent design decisions, and why? Why is creativity perceived as one of the primary means of architecture? These questions can be approached from different perspectives: a historical point of view, examining the means that constitute the architectural task, and why they are replaced or adjusted; an analytic-contextual interest, or what makes a design theory legitimate and unambiguous; or an operative perspective, understanding how these theories relate to practice. The last perspective ultimately takes primacy in this dissertation, through reflections on the work of Peter Eisenman, Léon Krier, Willem Jan Neutelings and Michiel Riedijk, Christopher Alexander, Robert Somol, Sarah Whiting, Patrik Schumacher, and Harry Francis Mallgrave. The critical thinking of Richard Rorty, Slavoj Žižek, and Reinhold Martin inspire a continuing examination of new forms of theory.

For many architects and theorists in the ’70s the worlds of academe and publishing provided sheltered environments for exploring new ways to define the role of architecture in society. By arguing for a level of expertise in design by which an intellectual order could constitute the creative process in one way or another, a new basis for architectural theory and critique could emerge. Today ‘creativity’ is still represented as expertise, for several reasons. First, contemporary theory builds upon the legacy of former theoretical production. Second, terms such as ‘design’ and ‘creativity’ have become the common currency, and the ultimate in expertise, for many disciplines. And finally, the reorganisation of European architectural education initiated a debate about the falsifiability of architectural creativity as research method and output. The problem created through the persistence of creativity as expertise is that while architectural theories aim to legitimise knowledge about the creative process, they are confronted with the inherent paradox of trying to project an intellectual order into what appears to be an entropic process.

Expertise is usually understood as applying knowledge to arrange facts into an intellectual order. This order does not need to convince — by definition, it is assumed to be ‘true’. Creativity, on the other hand, is usually explained as a process in which supposably ‘free’ associations play a vital role in arriving at a compelling and new kind of order. Due to its contingent character this newly emerged order is rarely recognised as a ‘truism’, or, if so, is approached with skepticism. How can compelling but contingent creative orders be equal to the fundamental knowledge of an expert? Or is the knowledge of an expert contingent on the creative process too and therefore only propositional knowhow in a pluralistic reality? And how is one to differentiate between these options when, in fact, clarity is only possible through an impossible external perspective? These questions closely relate to themes discussed by philosophers of science. However, as soon as theory proposes a central role for creativity in defining architectural expertise, these questions become a substantial part of the architectural discourse.
The intensified debates in architecture in the '70s and '80s resulted in a plurality of design theories that were all confronted with these epistemological questions. The ideological and philosophical frameworks these theories called upon (post-structural philosophy, social theory, systems theory, cognitive sciences, and so on) were adopted (and adapted) to become part of architecture's theoretical grammar. This intense period of theoretical production resulted not in a single unified body of theory for architecture but rather a plurality of competing theories. Even today, on a regular basis, new attempts are made to clarify the enigma of the architect’s creative faculty — in the form of conferences, monographs, manifestos, manuals, and even treatises.

One way to cope with a plurality of theoretical propositions is to apply categories and study the principles of each. Another way, which is pursued in this dissertation, is a ‘critical reading’ of seminal and exemplary theories — an established method for contemporary thinkers and critics such as the American philosopher Richard Rorty and the Slovenian philosopher Slavoj Žižek — which allows the juxtaposition of arguments, even if these theories differ in historic and socio-geographic context. This method is viable because the aim is to expose implicit premises of the juxtaposed theories, rather than to evaluate them. By revealing these premises this method contributes to ongoing debates and reformulates their confinements.

This dissertation, therefore, focusses on deepening our understanding of creativity in the architectural design process rather than presenting an anthology of contemporary theoretical positions. Three contemporary frameworks are selected that provide a ‘closed’ evaluation system for architectural design in a completely different way: the pragmatic approach of the ‘projective movement’, the systemic and analytic approach of the ‘parametric project’, and the historic and neurobiological approach of a renewed phenomenology in architecture. These frameworks, according to their authors, are plausible evaluation systems of contemporary practice, though they explicitly lean upon various theoretical positions produced in the '70s and '80s. Nevertheless, all three frameworks require similar leaps of faith to be considered ‘closed’ systems. This dissertation inquires into these leaps of faith in two ways: first, by revisiting the formation of theoretical positions of former generations that serve as a basis for the contemporary theories, and second, by investigating contemporary critics that problematise the ‘closed’ character of the systems. This study of these systems reveals certain apparently irreconcilable contradictions.

One is a particular principio principii — that which is to be proven is assumed a priori — occurs in the idea that the creative architect is potentially critical, proactive, and catalysing, which is proven by assuming that a (possibly inborn) critical faculty is critical, proactive, and catalysing. There is apparently no room in the conceptualisation of creativity for uncritical personal desires and preoccupations, implicitly equated with a loss of professionalism in the discipline. These contradictions result from an episode in which architectural theory employed ‘critical theory’ from the socio-philosophical Frankfurt School. Two responses are elaborated to the paradoxes revealed in this dissertation. The first is a concept of creativity in which the uncritical is incorporated without any loss of expertise. The second is a chapter dedicated to discussing how the theoretical insights might translate into practice.
Samenvatting

Dit proefschrift bestudeert ontwerptheorieën van de laatste 40 jaar en hoe ze onze interpretatie van creativiteit in het ontwerpproces beïnvloeden. Veelal wordt een ontwerpslissing gelegitimeerd aan de hand van een rationeel argument — een intellectuele ordening van gedachten. In weze staat dit haaks op een creatief proces dat vooral gekenmerkt wordt door vrije associatie. Daarmee dringen zich enkele vragen op. Hoe en waarom proberen hedendaagse theorieën dit te doen? Waarom wordt creativiteit als één van de fundamentele middelen van de architect beschouwd? Men kan dit vraagstuk benaderen vanuit verschillende invalshoeken: vanuit een historisch perspectief kan men zich afvragen wat de kerntaken zijn geweest, hoe ze de essentie van architectuur bepaalden, en waarom ze werden bijgesteld; vanuit een analytisch-contextueel perspectief kan de vraag gesteld worden wat een ontwerptheorie legitiem en eenduidig maakt; of vanuit een operatief perspectief kan er onderzocht worden hoe deze ontwerptheorieën zich tot een hedendaagse praktijk verhouden. Het is met name het laatste perspectief dat leidend is binnen dit doctoraal onderzoek, dat verder ingaat op het werk van protagonisten zoals Peter Eisenman, Léon Krier, Willem Jan Neutelings en Michiel Riedijk, Christopher Alexander, Robert Somol, Sarah Whiting, Patrik Schumacher, en Harry Francis Mallgrave. Het denken van Richard Rorty, Slavoj Žižek en onder andere Reinhold Martin fungeren als voorbeelden van kritische benadering om solide gedachteconstructies terug open te breken en in vraag te stellen.

Rond de jaren 70 wordt in verschillende editoriale en academische settings gezocht naar nieuwe, alternatieve invullingen van de taak van architectuur door een intellectuele ordening in het creatief proces vast te stellen. Deze ordening moest de basis vormen van een nieuwe architectuurtheorie en -kritiek. Er zijn verschillende redenen waarom vandaag regelmatig ‘creativiteit als expertise’ het centrale onderwerp is van debat en theorievorming. Enerzijds kiezen de huidige theorieën om voort te bouwen op de theoretische productie van voorgaande generaties. Anderzijds zijn termen als ‘design’ en ‘creativiteit’ heilige gralen geworden voor menig discipline. Daarbij komt dat de herstructurering van het Europees academisch onderwijs een debat aanzwengelt door de falsifieerbaarheid van ‘architecturaal ontwerp en creativiteit als onderzoeksmedium en output’ in vraag te stellen. Het probleem dat ontstaat wanneer architectuurtheorie zich tot taak stelt om kennis over het creatief proces te legitimeren is dat ze geconfronteerd wordt met de inherente paradox om een intellectuele ordening te projecteren in iets wat een entropisch proces lijkt te zijn.

Expertise betekent doorgaans met kennis van zaken een intellectuele ordening brengen in feitelijke gegevens. Deze ordening poogt niet te overtuigen — zij hoort per definitie ‘waarachtig’ te zijn. Creativiteit wordt doorgaans begrepen als een proces van ongenschijnlijk willekeurige associaties waarbij gezocht wordt naar een mogelijke, overtuigende nieuwe ordening — in al haar toevalligheid wordt deze nieuwe ordening niet direct als ‘waarheid’ beschouwd, of toch als nieuwe ‘waarheid’ enigszins gewantrouwd. Hoe kunnen de toevallig overtuigende creatieve ordeningen gelijkwaaardig zijn aan fundamentele ‘waarheden’ van een expert? Of zijn de ‘waarheden’ van een expert ook afhankelijk van creatieve processen zodat ze gereduceerd kunnen worden tot proposities in een pluralistische werkelijkheid? Daarenboven kan men zich afvragen wie in staat zou zijn om werkelijk het verschil vast te stellen omdat zoiets een onmogelijk
externe perspectief vereist. Deze vragen leunen aan bij gekende thema’s bestudeerd door wetenschapsfilosofen. Ze worden echter ook een substantieel onderdeel van het architectuur discours van zodra architectuurtheorie het creatief proces poogt naar voor te schuiven als de kern van de architecturale expertise.

De verhoogde intensiteit van architecturale debatten in de jaren 70 en 80 levert een veelheid aan ontwerptheoriciën die allen op zeker moment geconfronteerd worden met epistemologische vragen. De ideologische en filosofische referentiekaders waarop ze zich beroepen (post-structurele filosofie, sociale theorieën, systeemdenken, kenniswetenschappen enzoverder) worden, al dan niet in geadapteerde vorm, onderdeel van het vocabulairium. Die intensieve theoretische productie resulteerde niet in één duidelijke algemene ontwerptheorie, integendeel, vandaag kennen we een veelheid aan ontwerptheoriciën. Met de nodige regelmaat worden er nog steeds pogingen ondernomen tot theoretische uitklaring — in de vorm van conferenties, monografische voorbeelden, manifest-achtige publicaties, tot zelfs handboeken en traktaten.

Eén manier om grip te krijgen op een veelheid van theorieën is het toepassen van categorieën om vervolgens hoofdprincipes per categorie vast te stellen. Een andere methode, die in dit proefschrift gehanteerd wordt, is de ‘kritische lezing’ van prominente theoretische werken — een beproefde methode die kenmerkend is voor hedendaagse denkers en critici zoals de Amerikaanse filosoof Richard Rorty en de Sloveense filosoof Slavoj Žižek — die toelaat verschillende argumenten (zelfs met verschillende historische en socio-geografische context) in juxtapositie te bestuderen. Dit is mogelijk omdat het doel niet bestaat in het toetsen van inhoudelijke coherentie maar eerder zoekt naar gelijksoortige (vaak impliciete) premisses. Het problematiseren van deze premisses voegt cruciale thema’s toe aan een publiek of disciplinair debat en herformuleert het kader waarbinnen het debat gevoerd wordt.

Dit proefschrift richt zich op het verscherpen van een debat in architectuur over het begrip creativiteit in het ontwerpproces en beoogt dus geen anthologie van hedendaagse theoretische posities. Er wordt een drieluik van representatieve denkmodellen geselecteerd die ieder op zijn manier een ‘gesloten’ evaluatiesysteem voor het architecturale ontwerp poneren: de pragmatische benadering van het projectieve denken, de systeem-analytische benadering van het parametrisch denken, en de historisch-neurowetenschappelijke benadering van het hernieuwde fenomenologisch denken. Deze drie denkmodellen worden door hun auteurs voorgesteld als plausibele evaluatiesystemen voor de hedendaagse architectuurpraktijk, terwijl zij expliciet verder bouwen op de verschillende posities vanuit de debatcultuur van de jaren 70 en 80. Er zijn echter telkens fundamentele aannames noodzakelijk om deze modellen als ‘sluitend’ te beschouwen. In het proefschrift wordt er daarom gericht uitklaring gezocht op twee manieren: enerzijds wordt er teruggegaan naar het referentiekader van de voorbije generaties die de basis vormen voor de hedendaagse positionering; anderzijds worden er hedendaagse stemmen opgevoerd die het ‘sluitend maken’ problematiseren. Deze doorgedreven denkoefening brengt enkele ogenschijnlijke tegenstellingen aan het licht.
In verschillende argumenten doet zich het principio principii voor — hetgeen bewezen moet worden wordt aangenomen als waar om het bewijs te onderbouwen. De idee dat de creatieve architect kritisch, proactief, en katalyserend kan zijn wordt bewezen door aan te nemen dat een (al dan niet aangeboren) creatieve faculteit an sich kritisch, proactief, en katalyserend is. Het lijkt alsof de idee geweerd wordt dat creativiteit ook gestuurd zou kunnen zijn door persoonlijke verlangens en preoccupaties, hetgeen impliciet gelijk gesteld wordt aan een verval van architectuur als professionele discipline. Deze tegenstellingen zijn het resultaat van een periode in architectuur die sterk beïnvloed is door ‘Critical Theory’ zoals die gekend is van de sociaal-filosofische Frankfurt school. Twee gevolgtrekkingen worden als antwoord op deze paradoxen onderzocht. Enerzijds wordt er een benadering van het concept creativiteit uitgewerkt waarbij het ‘onkritische’ geïncorporeerd wordt zonder dat de expertise in vraag gesteld wordt. Anderzijds worden experimenten besproken om een aantal theoretische inzichten in een ontwerppraktijk te vertalen.
0. Introducing the Critical Residue

Architecture today is free to define itself. Everything is potentially architecture and everyone can become an architect. It is not a privilege nor is one obliged to follow a specific design method. There is no king, landlord, maecenas, or clerical authority to confine the format for architecture. While they still exist (and sometimes make polite suggestions), they no longer lay down rules to define the utility, representation, or mode of construction to which the architectural apparatus is supposed to comply. Without one leading theoretical voice or design lexicon, architects can literally come up with almost anything. A downside of this freedom is the difficulty to find consensus over what is ‘good’ or what is a ‘priority’, which in turn leads to doubts about what makes architecture a profession. Ultimately, for all choices during the design process that do not relate to any explicit requirements — choices that are called contingent design decisions — architects can only rely on their own value judgment to make the ‘right’ calls.

At the turn of the 21st century an architecture emerged with distinct characteristics. We have seen architecture being produced in a traditional style by architects such as The Krier brothers, Quinlan Terry, Andrés Duany and Elizabeth Plater-Zyberk, and Robert Adam. Others such as Peter Eisenman, Zaha Hadid, Daniel Libeskind, and Alejandro Zaera-Polo produced folded or curved architecture that expresses the decomposition or deconstruction of typical forms. For architects such as Norman Foster, Richard Rogers, or Santiago Calatrava, the art of engineering is a central theme, making architecture that looks more high-tech. The iconographic and evocative architecture of for example Rem Koolhaas, Peter Zumthor, Jacques Herzog and Pierre de Meuron, and Willem Jan Neutelings and Michiel Riedijk sometimes tips over into architecture of the spectacle that is associated with some work of Winy Maas or Bjarke Ingels. This enumeration of work is only a coarse empirical categorisation based on appearances, however. The aim of this dissertation is to look beyond this pluralistic range of examples and to discover the narratives — the fabricated frameworks — that architects call upon to rationalize specific design decisions. Therefore, I juxtapose specific moments and cases to unravel patterns and leaps of faith in the arguments of leading architects and critics — arguments that influence the design process.

When making architecture, architects aim to identify the best ideas. Therefore, while navigating through the design process, they fabricate sense-
making narratives. First they convince themselves, then they prepare to convince others. Ideas and legitimizing narratives are construed out of an amalgam of impressions, inspirations, and analogue solutions — bits and pieces extracted and abstracted from reality. The narratives can turn into identifiable and repeatable manoeuvres. As such, the narratives can form the basis of a fabricated legitimizing framework. Today a plurality of frameworks exists with varying distances in relation to the work they refer to. I entered into architecture within this pluralistic context.

Plunged into Architecture

I graduated at the University of Ghent in 2000 completing an architectural education that focuses on design, theory, history, and engineering. Next to unfolding various aspect of architecture, the curriculum had introduced us to several architectural firms that had to account for new sensibilities in architecture at the turn of the century. This introduction helped us choosing our future working environment. When I finally had to apply for a job going to the Netherlands seemed more challenging than remaining in Flanders. Dutch offices made a daring impression on me. They appeared to be more internationally oriented and generating an architectural community that embraces experiments and grand gestures. Flanders seemed a market too provincial with offices typified by a minimalistic interpretation of the modern design legacy — I oversimplified of course but how else was I supposed to make clear choices.

I moved to Rotterdam to join the office of Neutelings-Riedijk Architects (NRA). Rotterdam is a city of which the historic centre had been destroyed for ninety percent during the Second World War and which after its reconstruction achieved a reputation for its experimental building environment. The city embraced all sorts of idioms and styles making the centre a collage of contemporary architectural propositions. It also became the place for many firms to hold office such as the Office for Metropolitan Architecture (OMA), Klaus and Kahn Architects, MVRDV, KCAP, Maxwan, West 8, and so on. With the TU Delft close by, many architects could combine a teaching position with their practice which generated a proximity to architectural students — often future employees. The Berlage Institute, an international masters founded in Amsterdam in 1992 to the model of the AA-School in London, had been relocated to Rotterdam reinforcing the international architectural community that had already emerged due to the concentration of a building economy.
During the day Rotterdam behaved as one big business district. During the evening the vibrant city life converged in districts such as the Old Harbour, Witte de Withstraat, Westersingel, and Meent known for their bars, restaurants, and cultural activities — leaving large areas of the city centre deserted. During the weekend Rotterdam proved to be a popular place to visit, providing remarkable sight-seeing tours, multiple musea, a diverse shopping area, and coffeeshops where it was still legal to buy softdrugs. The city had lots to offer pursuing and embracing the metropolitan qualities, at the same time lacking somehow the tools to turn these areas into real neighbourhoods — one could never really belong to these places as they all primarily served to host a city life rather than any particular community.

For an architectural émigré the city offered a specific lifestyle. My social life existed for a large part of meeting architects — friends and colleagues sharing the same environment, going to similar places, and dealing with comparable personal and professional challenges. I was one among many young foreign architects for whom, on an abstract level, Rotterdam had served as a promised land. Although the weekly routine was not all that spectacular, for a long time my first years as an architect felt like a big adventure. On Tuesday I enjoyed the Berlage lectures having dinner afterwards with a Belgian delegation at the Bijenkorf. Most other days I was working late or going to the occasional parties organised by office colleagues or friends from the Berlage institute. During the weekend I either returned to Belgium or renovated the house I had bought in Rotterdam. I met many people with whom I discussed architecture extensively. With some of them I later collaborated in teaching design studios or started a private practice.

Kersten Geers and Stan Aarts, both colleagues at the NRA office at the time, were my neighbours in the Burgemeester Meineszlaan — Pier Vittorio Aureli lived across the street but I had no direct contact with him. His future office partner Martino Tattara lived in my house for a certain period, as did other colleagues or Berlage students such as Joachim Declerck or Bart Melort. When Martino was living at my place I saw him developing the masterplan called City Walls, as part of an international competition for a new multi-functional administrative city in the Republic of Korea — a project for which Dogma in collaboration with Office KGDVS received the first prize. Wonne Ickx, also working at the NRA office, was living close by, in Delftshaven, always organising something: a party, a neighbourhood happening, or even a movie festival. Although we did not form a tight community we were closely involved in each others personal and professional developments. We celebrated Wonne’s
thirtieth birthday on Kersten’s rooftop, some time before Wonne moved to Mexico.² I saw Kersten being the paranymp of Pier Vittorio when the latter had to defend his PhD at the Technical University of Delft. Discussing architecture became part of our daily conversations — that is sharing strategies to acquire astute projects or discussing the assumed high standards as well as troubling inconsistencies. Sharing houses as well as ambitions and uncertainties all mingled in the daily quarrels of our young adult lives. Helping each other with projects on the side or helping one move or refurbish was part of the job. We were all plunged into architecture to a depth that it became much more than simply work.

Francisco Adao Da Fonseca was a Portuguese colleague who combined his studies at TU Delft with an internship at the NRA office. I remember he once made a bench with a plexiglass on top, enclosed by a blackout curtain, and with a daylight lamp on top. With this project Francisco had hoped to become more aware of his decision making while designing. Francisco would lay on his back on the bench with his arms folded around the plexiglass modelling clay interiors. While doing so he aimed to bypass any abstraction such as sketched plans or sections approximating not only the modelled space itself but also aiming the nullify of the discrepancy between ‘the making’ and ‘judging the making’. For me the black curtain symbolises another kind of abstraction — one in which all external influences are supposedly excluded — denying the complexity in which architecture relates to reality. It brought us close to debating which mechanisms were at play during the purely creative moments in an architectural design process. Francisco was one of these friends with whom I regularly discussed styles, methods, projects, competitions, theoretical propositions, lectures, and the role we thought we architects must play in all this. Often we encountered questions beyond style or method, involving integrity, legitimacy and fundamental grounds for evaluating design choices.

In the NRA office was no room for debating such questions. We were trained to perform in a design routine that involved foam models, hand sketching, and computer drawings — all regarded as primary tools to generate substance for a project. Design intentions were checked in open team discussions where we passed judgement on primary models in combinations with typological schemes, drawings and materials put on sample boards. We produced booklets that wrapped the outcome into one coherent story, starting with a concept, followed by the necessary drawings, model pictures to explain spatial intentions, and foldout drawings showing how materials on walls and
ceilings were expected to align, form a pattern and integrate mechanical requirements.

Design decisions were made in the speed of this complex but highly efficient routine. However, not all decisions were made during design meetings. Often decisions sneaked into proposals from the model room or the correction set Neutelings or Riedijk made over the weekend. We were not hesitant to do it all over and over again until we got the feeling we got it ‘right’ — ultimately that meant waiting for Neutelings or Riedijk to approve whatever had been produced. When I achieved the position of project leader I started to notice that in the meandering process more design proposals and remarks of myself survived and turned out to be design decisions. Yet one could never be sure about which design proposal would survive the process. Hence why we vigorously continued debating design choices on breaks and after work gatherings.

Getting In Control

To start our own offices we were all hoping to have a jump start by landing a big assignment. Winning a Europan competition or a Prix de Rome was one way to go. Jago Van Bergen was an older colleague at the NRA office who had been project leader of the design for the new Shipping and Transport College (STC) in Rotterdam. I took his position as project leader of the STC when he left the office. He had ranked second in Prix de Rome and got a starter’s grant from the Dutch ‘Stimuleringsfonds’ — an agency of which the main goal was to invest and promote young architects and promising architectural projects. Together with another colleague, Evert Kolpa, he used the momentum to start their company. Kolpa was overseeing the construction of large housing blocks as part of the new development on the Mullerpier in Rotterdam, a task he could continue for NRA from within his own new company.

Another colleague, the Portuguese architect Helena Casanova, won a Europan competition and on that account she started her studio together with her husband Jesus Hernandez. A similar course of events happened for the Italian Berlage student Pier Paolo Tamburelli who won two Europan competitions within a single edition providing the sufficient exposure to position himself within an international scene. I entered twice, came close once, but never won. I got my first opportunity after I had finished the STC for NRA. Under the guidance of Pier Vittorio Aureli and Elia Zenghelis, the second year students among which the former mentioned Martino Tattara, Joachim Declerck, Bart Melort, Pier Paolo Tamburelli, Martino Sobota, had
made an urban study for the city of Tirana including its central park. They conducted design research and made alternative models for restructuring the growing city of Tirana. Tirana had known a communistic regime until 1992. Ever since the city planning and the building market has been open for private investors. The mayor of the capital at the time Edi Rama — elected as the mayor of the world in 2004 and today the prime minister of Albania — considered the collaboration with the Berlage studio a mutual opportunity inviting a number of students to work on developments after they finished the studio. Martin Sobota was one of these students. He had several leads in Tirana and asked me to join in his endeavours. For example, we had to make a scheme for the renovation of the socialist headquarters, we had to design a large housing development near the lake, and we made design proposals for offices and other housing projects. We started a little office in Rotterdam which had to expand rapidly due to the unexpected increase in workload. The politics of Tirana, however, were in troubled waters blocking and thus eventually eradicating all projects within a timeframe of six months. Our jump start ended with a hard landing. We were without jobs in a couple of months.

I moved back to Belgium and started to work for the American architectural office Skidmore Owings and Merrill (SOM) as a liaison for the design of the new NATO headquarters in Brussels coordinating between the London office, the Chicago office, the New York office, and the client — the Belgian military who would lease the building to the European nations. I also started working for other companies and soon I was back at NRA, working on the designs for a new tax office in Groningen, a museum in Cincinnati, and the Kolizej opera house for Ljubljana. In 2009 I made a second attempt to start an office, this time with Paul Michielsen, a NRA colleague, and Nik Naudts, a Belgian architect who had been working at the West 8 office in Rotterdam. Paul left after one year to take over his father’s company. I continued with Nik for another year but we failed to make the office profitable. With Nik I laid the brickwork for some theoretical work I would later develop during the research for this dissertation (see the Delta Wall project in chapter five).

**Lingering Questions**

By 2010 I had enjoyed a decade of intense practice. During that first decade I saw both my optimism and that of a larger architectural community being blurred with skeptics. Most probably global dynamics and tensions must stirred or even initiated this change of perspective. And surely, my growing awareness of the complexity of the world in which we have to operate must have played a refraining part. The economic crisis of 2008, however, had an undeniable
impact on architecture, disrupting the optimistic course of the profession bankrupting many architectural firms in the Netherlands and abroad.

This disrupting episode also changed the way we discussed architecture. I noticed architects distancing themselves from the notion of star architecture — associated with architectural firms that could afford experimenting with new forms and materials. For many this experimenting represented the artistic value of the particular architect and his work, while others considered it as a certain excess. The 2008 crisis was a wake up call appealing to the responsibility of architects rendering the experimenting as too excessive and even as inappropriate. Sustainability, a topic that most of us had considered inherent to the job, after 2008 more frequently took premise over all other design intentions or legitimations. Conversations in architecture focussed on sustainability, agency, and the important value of even the smallest intervention. The global crisis helped reviving terminology such as public support, participation, and co-creation. Non of this was new. All these themes and positions had been part of the architectural debate, only in different constellations and with different weight given to it. The events of 2008 merely changed the balance of the debate — reorganising the hierarchy of the agenda, one could say, assuming that such agenda would even exist.

During my first years as a professional architect I found that certain aspects of a design process were difficult to discuss or simply not spoken off. Things that even the 2008 wake up call had not made more explicit — why one style or method should be chosen over another while both might arrive at equally qualitative solutions. It felt as if we lacked the means or format to discuss one’s making of contingent design decisions. I had seen architects proposing new evaluation systems in design — even first-handedly since I was working at Neutelings Riedijk architects when they, in 2004, published *At Work*,\(^3\) which was supposed to be a manual for whomever wanted to understand their way of working. I knew other propositions as well. *Complexity and Contradiction*,\(^4\) by Robert Venturi and Denis Scott Brown had been, and still is, one of the basic references within many curricula of architectural education. The same counts for widely distributed books such as Aldo Rossi’s *the Architecture of the City*,\(^5\) Christopher Alexander’s *Notes Around the Synthesis of Form*,\(^6\) and Rem Koolhaas’s *SMLXL*.\(^7\) The latter had been a tough nut to crack during my time at the university because it read as a surreal collage. Koolhaas’s *SMLXL* and *Delirious New York*\(^8\) seemed to me to liberate any architect who wants to overcome an architectural debate on method versus style. Paradoxically, these books also appeal to a keen eye for coolness, a peculiar swiftness, that subjugate
any architect to questioning the criticality of his work when he strives for a similar pragmatic practice.

After ten years of being involved in design practice certain questions about the design process lingered on and a research grant offered the opportunity to confront these questions. Rather than investigating how design itself works, I study the intellectual arguments architects or theorists make while discussing the taxonomy of design steps. This is why I choose a more conventional research format than implied by for example research by design or research by practice. The narratives of my interlocutors — written texts, arguments made in public debates and conferences, and manuals or catalogues that refer to a specific body of work — are subjugated to a critical reading in search for mechanisms, common boundaries, and deviations to discuss contingent and even superfluous design choices. I engage with their narratives as a curious practitioner rather than approaching their work as a historian or a believer. This inquiry discriminates between two lingering questions: one, how can we speak about and discuss contingent design choices, and two, which narratives are used in the conversation of several interlocutors. What I learn from pursuing these two questions is that the urge to position oneself seems inversely proportional to the actual diversity in positions. The problem seems not to be the existence of all sorts of legitimisations but rather the need to make absolute claims, without truly clarifying the relevance of contingent design choices.

This research is rooted in a personal quest aiming to make a critical position for architectural design explicit. I do this from within a contemporary practice inquiring into an important chunk of architectural theory produced over the last four decades. Next to serving as part of my intellectual environment, this portion of theory influenced a generation of architects reaching the age of forty. What I pursue within this research also reflects on how we can think, discuss, and write about intentions in architecture today, which contributes to a larger conversation even beyond the discipline. Although the debates on architecture are captured by big issues, and specific goals, I am convinced that the ability to discuss the grounds on which we make design choices should remain an essential part of the debate. At a most fundamental level, the different angles that will be pursued throughout this dissertation aim to open up a debate about our relevance as architects.
Rethinking Theoretical Underpinnings

In the absence of universal standards or widely accepted treatises, one way to establish the astuteness of architecture is through the disciplinary debates or written arguments. Moreover, it can be argued that architecture receives parts of its meaning solely and precisely in these textual or spoken reflections. To a certain extent proof that architecture matters — that whatever one designs is more than finery or veneer — is founded in the exigencies of a project. But narrowing down the conversation to exigencies alone would obscure whether all other contingent design decisions are equally relevant. When meaning is accrued to these decisions without discussion, this meaning will be unaccountably transferred whenever the architecture involved is interpreted or used as a source of inspiration by another architect, implicitly contributing to the differentiation of competing narratives.

Coping With Pluralism

With the existing plurality of frameworks, the architectural agenda is multiplied without convergence, which is a challenge for the profession. The plenitude of venturous narratives paradoxically eradicates the venturous capacity of all. Some architects and theorists suggest accepting pluralism, because no one really has the authority to lay an organizing principle over all narratives. During the design process an architect constantly has to prioritize to advance the design. From a designer’s perspective, prioritizing is a large part of the architectural discipline. Due to the strong correlation of design choices and legitimizing frameworks, prioritizing in design inevitably involves making value judgments about frameworks. Applying a form of intellectual correctness — that is, denying the ability to prioritize among the legitimizing frameworks — insinuates an internal conflict into the heart of the profession. Must architecture then hope for a natural selection? Will the most relevant frameworks obtain the upper hand on their own? One aspect that defines the success of a framework is its persuasiveness. As a defender of a particular framework, an architect can anticipate the mechanism by making the framework more sound. When that framework’s audience increases, becoming more synthesizing and generalizing entails risk, and can tend to becoming totalizing and dogmatic. It seems that an architect’s only choice is the lesser of two evils.

An initial impulsive response might be to question a framework’s partiality. It might be easy to punch holes in the rhetorical constructs. Proving that there is no grounds for partiality would then nullify the legitimacy of a framework. The number of frameworks could be reduced to a handful (imagine a top ten of
best design theories). Yet it would imply that the problem is, in fact, the partiality of the framework. But that is precisely its nature. History proves that architects have always fabricated partial frameworks (some more totalizing than others). In this dissertation I pursue another option. I look for what the semblance of pluralism has in common: the inability to rationally ‘close’ the fabricated framework. A leap of faith is always required. To set the stage for this dissertation, I introduce the work of three architect-theorists in which that leap of faith emerges in different ways. They do not account for the full scope of contemporary architectural theory. Yet, as this introducing chapter will show, they frame my perspective on significant work and moments in architecture over the last forty years.

First, I am drawn to Neutelings-Riedijk Architects (NRA) because they came to my attention in the 1990s, when they caused a furore while I was at the Ghent university. That is why, from 2000 till 2009, I worked in their office. Curators and critics use NRA as an example of good practice, which is illustrated by their desire to produce a design manual. The result, At Work, published in 2004, is a design manual without a meta-narrative — no foundational text legitimizes decisions outside architectural design (the larger issues that would bestow ultimate legitimacy on architecture). This book, that expresses the firm’s approach to design, was a central reference at the Projective Landscape conference, organised at the university of Delft in 2006. It is remarkable that this work can be a leading reference in current debates on architectural theory and at the same time be mute about theoretical underpinnings. The making of the design manual as such is considered as a critical act. The foundational narrative is not required to serve as an example of good practice. While the Projective Landscape conference embraces this condition, my goal is to understand how this leap of faith works and how it affects our understanding of design choices being critical.

Second, Zaha Hadid remains one of the most well known architects of the last decades. Her firm continues to produce strong signature architecture worldwide. Her office partner, Patrick Schumacher, wrote a treatise in 2011 called The Autopoiesis of Architecture. The book explains their parametric approach. It is a strong hermetic narrative that results in quite a different approach than NRA’s. Where At Work is a design manual, The Autopoiesis of Architecture is a more traditional treatise that defines principles for what is deemed to be the most valuable in contemporary architecture. The treatise is also rooted in practice but its theory is assumed to apply to all architecture, everywhere. The foundational narrative is included. In this case, this
dissertation wants to understand the key to the plausibility of totalizing claims made in a pluralistic world.

The third case is a book by the architectural theorist and historian, Harry Francis Mallgrave. His seminal anthologies and historical surveys on architectural theory give him authority. In his book *The Architect's Brain: Neuroscience, Creativity, and Architecture*, published in 2010, he deploys his historical work to provide a new phenomenology in architecture with scientific footing. Throughout the book the writer assumes a voice that attributes value, which makes it a treatise in disguise. Mallgrave tries to naturalize the leap of faith by looking at the source: the architect’s brain. He suggests that what architects do is not a matter of discourse, but simply one of biology. Mallgrave conflates creativity and expertise abolishing any possible doubt about contingencies in the design process.

Mallgrave, Schumacher and NRA are active in different professional realms. How they approach the fabrication of a framework differs, and seems unrelated. In fact, the three examples span a range of possibilities. Schumacher starts from a bird’s-eye view on the system of architecture. NRA starts from a position within a reality of practice. Mallgrave starts his conceptualisation from the constituents of thoughts, ideas and concepts, leaning on neuroscientific insights. However, all three demand a leap of faith to ‘close’ the argument and make the framework coherent. They share the need to reinvent a legitimising framework, a burden they inherited from the recent past.

**Setting the Scene of the Last Forty Years**

To set the primary scope for this dissertation I revisited theoretical positions of the former decades in search for moments in which ideas about design taxonomy travel and morph over different narratives. Many architectural theorists recognise a peculiar shift in the production of architectural theory around 1970 that throughout the research proved to be a natural demarcation of my inquiry.

The global protests of 1968 mark a first decisive moment. The Vietnam war, political repression, and a non-democratic organization of society became the object of protests. Civil rights, women's liberation, and better labour conditions for the working class were fought for. Individuality overruled the authority of thinking in standards. The needs of the individual became as important as the needs of the collective. The ‘masses’ was no longer seen as one homogeneous substance but as a collection of groups, niches, and individuals. A general
dismay fuelled the revolts. At the same time, the fact that so many people joined the protest showed that the ‘baby-boom’ generation was optimistic about its ability to change the system. Whether it was in joyful endeavours (free love) or in serious revolt (free humans), it culminated in a spirit of ‘total’ experience.

In architecture, this momentum found its expression in the work of the New Brutalists, Team X, Archigram, Archizoom, The Independent Group, Superstudio, and the like, supported by such intellectual voices as Guy Debord, Henri Lefebvre, Jane Jacobs, Raynar Banham, Michel Foucault, Jean Francois Lyotard, and Roland Barthes. But the general mood changed in the years that followed — the prelude to the economic crisis of the 1970s. Charles Jencks uses the demolition of the Pruitt-Igoe project to historicize the moment modernist architecture ended, placing the marker at 1972 to introduce the postmodernist era. The disruptive force of the crisis created new testing grounds. It brought, for example, a reorganization of architectural education in England. As a result, the Architectural Association School of Architecture (AA School) underwent a major restructuring under the guidance of the new dean, Alvin Boyarsky. The new policy brought a generation of teachers (Léon Krier, Rem Koolhaas, Bernard Tschumi, Peter Cook, and so on) whose vocabularies and opinions continue to resonate today.

Within this dissertation I revisit arguments made after 1972. More precisely, I review theoretical cases that aimed changing the understanding of the task of architecture. Cases such as ‘the critical turn’ in architecture have shaped our current design decisions and the value we attribute to them. With NRA’s At Work book, Schumacher’s treatise, Mallgrave’s elaboration on the architect’s brain, and the position statements of many involved with the Projective Landscape conference, all produced in the first decade of the twenty first century, the timeframe of the last forty years provides sufficient theoretical case studies to inquiry into the mechanisms of traveling design ideologies. Over a span of forty years (1972 — 2012) the debate on the architectural task has raged (see maps 1 and 2 for a visual overview of people, moments, and specific work mentioned in these paragraphs). People have criticized and opposed and influenced and promoted one another. In these entangled vocabularies are the roots for how architects today speak about creative choices at the design table — that is, I believe, with a residue of a very particular interpretation of criticality — the architect’s ability to enhance the human condition through architectural interventions, both in practice and theory.
I am interested in the (trans)formation of ideas, concepts, and the taxonomy of design steps as part of evolving theoretical propositions. As these propositions reflect on particular architectural practices, they are abstractions and reduce the complexity of any project to match a rhetorically consistent argument. Whether or not these theories also account for the actual criticality of that practice would be a value judgement I am not willing to make. Therefore, while studying these theoretical arguments I deliberately keep the actual architectural designs at arm's-length. I am interested in the mechanism of the mind, not the architectural designs per se. While investigating the work of former generations I encountered others — such as Robert Gutman, Carroll William Westfall, and Anthony Vidler — that call for a similar introspection of architects.

**A Form of Reduced Theories**

In 1977 Robert Gutman, an eminent sociologist working on architecture, published an essay on the role of the architectural profession in society.\(^{17}\) According to Gutman, architecture in the 1970s found itself in a crisis for two reasons: many architects were unemployed and the profession was clearly riddled with doubts about the basics of the profession. Gutman argued that, to avoid further disruption of the profession, architecture had to deal with the confusion about its role in society. Gutman wondered whether architecture was going to continue claiming that design improved the quality of life, even though many public authorities and users did not experience it that way. Or was it more likely to pursue a new path of autonomous design and argue little about satisfying user requirements? Gutman was not sure over which area architecture was going to resume authority. But it was clear to him that architecture no longer complied to a basic economic rule of filling a top priority need. Architects no longer had a clear unique selling point. The profession had to rethink its theoretical underpinnings.

Although Gutman was no leading authority in architecture, he diagnosed a key problem of the 1960s and 1970s, which had already begun to stir a lively debate within architectural theory. New theoretical positions came in the form of treatises, manifests, dictums, handbooks, and typological studies. The claims for new theories are legion. Christopher Alexander argued for a new theory of the design process and Peter Eisenman talked about a ‘general priority system’. Christian Norberg-Schulz discussed an ‘integrated theory’, Robert Venturi suggested an ‘inclusive theory’, Léon Krier called for a ‘global theory’, and Koolhaas talked of a ‘new theory’. More recently, we have seen claims for a ‘projective theory’ or an ‘absolute theory’.\(^{18}\) There is some truth in Madelon Vriesendorp’s ironic depiction of the *SMLXL* book as the new Bible [fig. 1] —
or that Schumacher, for example, calls his treatise the first full-blown theory since Durand’s *Précis* or Le Corbusier’s *Towards a New Architecture*.¹⁹ No single discourse for the entire profession has emerged. None of the new theories respond fully to Gutman’s call for clarity. In fact, it can be argued that they amplify confusion and distort the concept of theory all together.

**A New Order**

When screening recent history for more signs that problematised the diffusing dynamics in architectural theory I encountered another telling position statement of Carroll William Westfall who wrote an article in *American Arts Quarterly* titled ‘Why We Need a Third Treatise,’ in 2006.²⁰ Westfall is known for his long career in art and architectural history at the University of Notre Dame and the University of Virginia. His study of the patronage of Pope Nicholas V, *In The Most Perfect Paradise* (1974),²¹ is a renowned example of his extensive writing.

In his article for a third treatise, he implied that the two former treatises were Vitruvius’ *De Architectura Libri Decem* and Alberti’s *De Re Aedificatoria*. For Westfall, theory and practice complete each other. This goes back to Vitruvius, who had stated that architecture requires the interaction between practice (fabrica) and reasoning (ratio). Westfall argued that the practice of traditional and classical architecture (including urbanism) had been firmly reestablished. According to Westfall, architecture was back on track and tapped once again into the course of history. He, therefore, argued that it was not just a random momentary practice that needs a supporting theory (as we have seen, many such theories had passed over the last decades). But this time, he claimed, it was about a vital turn in history for architecture and urbanism. He explained why the most primal treatise, the treatise of Vitruvius, on which all others are based, needed to be revised a second time:

*The topic that seems most missed today concerns the subject that moved Alberti to revise Vitruvius’ treatise, namely, the position architecture occupies in the moral structure of the universe. That topic formed the central core of both treatises, the one that gave coherence to all other topics. Vitruvius’ universe was pagan, Alberti’s Christian, so Alberti had to revise Vitruvius’ treatise. Ours is different again, although like theirs, it is stable, coherent, rational and moral. Like theirs, it rests on the foundations of natural law. Nevertheless, it differs in that the moral framework of our political structure exists outside an established institutionalised religion.*²²
fig. 01 - Madelon Vriesendorp. St Jerome reading Rem Koolhaas SMLXL. 1997
Westfall stated that for architectural theory the real is orderly and coherent (yet, beyond comprehension). He, therefore, believes in a moral order that is adequate for humans to ‘flourish’ in a just society. The task implied for theory is to describe architecture in relation to the morally transcendental signifying frame. Good decision making in the creative process should be described by theory in relation to a transcendental moral order — which is not pagan nor Christian. Nevertheless, it should be based on a Vitruvian code of conduct. Because, fundamentally, Westfall appreciates Vitruvianism for its ethical and universal dimensions. The idea remains that a Vitruvian man is an ethical man. Could it be that simple? Was architecture not focussed enough to come up with a third treatise?

Westfall’s earlier writing is important to look at here. While Westfall implies that architecture could be less wide ranging if it recognized its historical course, critics of his early writing reveal problems with his very perception of architecture’s history. The Italian architectural historian and critic, Manfredo Tafuri, wrote an extensive critique on Westfall’s classic In The Most Perfect Paradise, published in 1974. According to Tafuri, Westfall wrongly portrayed Rome of the fifteenth century as belonging to the popes. Tafuri argues that one should see it rather as a city in conflict, with popes trying to regain power. Tafuri aimed to rectify Westfall’s reading of Alberti as the first city planner (by the grace of Nicolas V) and the acclaimed ethical agency. Tafuri’s critiques on Westfall stemmed from a more general position. Tafuri did not believe that any architect could become the sole initiator of a new era. However, Westfall did not seem to take Tafuri’s criticism to heart; in 2006, some fourteen years after Tafuri’s critique, the idea that Alberti, or Vitruvius, is the origin (and not just a welcomed byproduct) of a new theoretical era still fuels Westfall’s expectation that such a theoretical turn must be possible.

Westfall did not say who he thought would become the new authority. With Tafuri’s critique in mind, the whole idea of a new fundamental theory that starts a new era seems implausible. However, despite Tafuri’s misgivings, architects and architectural theorists have continued to attribute such instigating qualities to particular architects and their theories. For example, Westfall’s call for a third treatise echoes Culot and Krier, who, almost three decades earlier, demanded the reconstruction of a global theory. Schumacher, too, presented his theory as a new treatise (which Schumacher did not call ‘the third’, because he does not want to recognize Vitruvius’s as the first, but that is a different story). While Westfall’s proposal sounds odd at first, it shows that in the thirty years since Gutman diagnosed the missing theoretical underpinnings, no one had resolved
the problem. What Westfall problematized in 2006 was an issue that many people in architecture were concerned about, and from whom many theories and various conferences on architectural theory emerged. For example, in 2011, five years after Westfall’s call for a third treatise, the British-American architectural theorist Anthony Vidler set out to account for the range of theoretical interventions that caused the present condition of theory.

A Form of Post-Theory

According to Anthony Vidler, the present condition (2011) is a form of post-theory that on the surface seems to reject traditional theorizing altogether. He wrote that the theory of his time ‘resides and flourishes in the experimental practices, somewhere between art, architecture and science, that take on in a different mode, the urgent tasks of inventing a theoretical practice for an uncertain ecological future’. Vidler saw roots for this troubled state of theory in the editorial environments of magazines such as Architectural Review, Architectural Design and Casabella, in a period between the 1950s and 1970s.

Vidler’s first essay, ‘Troubles in Theory Part 1’, which appeared in Architectural Review in 2011, set the stage, presenting key figures such as John Summerson, Reyner Banham, Manfredo Tafuri, Colin Rowe, Peter Eisenman, and so on. Summerson, a British curator and historian, was one of the leading voices in the 1950s that had pushed for a unified theory to explain the nature of modern architecture. Inspired by Summerson, Banham worked to evolve a new architectural canon (‘Une Architecture Autre’, as he called it for a while). Banham started his rally under the umbrella of the Architectural Review’s editorial board (Hubert Hastings, Gordon Cullen, Eric de Maré, and Nikolaus Pevsner), the members of which had their own agenda set on interpretations of the recent modern architectural phenomena. A series of new theoretical paths by, for example, Venturi, Rowe and Eisenman, followed.

In five more essays (so far) Vidler expanded on hot issues that were troubling architecture’s theoretical environment between the 1950s and 1970s: Rowe’s attempt to define a posteriori what modernism truly was about; Hastings, Pevsner, and Cullen (followed by Venturi) reviving techniques of visual complexity; and Pevsner’s quest to revive aspects of the English picturesque. Vidler further elaborated on Banham’s interest in industrial design and technology (soon amplified and advanced by Kenneth Frampton and others in Architectural Design), and on Ernesto Rogers, who, as chief editor of the Casabella magazine and supported by Tafuri, clashed with Banham’s optimism. Vidler broadened the inquiry by reflecting on architecture’s social side stirred by
the cultural critic Guy Debord and French philosophers such as Henri Lefebvre, Roland Barthes, and Michel Foucault.

What Vidler intended as a trilogy turned out to be a series of six essays, with all essays focussed within the range of his own PhD (Histories of the Immediate Present: Inventing Architectural Modernisms, 1930-1975). The leap forward to the present condition is yet to come. However, it is more likely that the initial objectives of the trilogy were revised along the way. Instead of tracing lines from the roots to current forms of theory, the series of essays expands on subsequent issues itself.

In retrospect, the small note on the side from the author on the first essay is telling. Before Vidler took on the task of accounting for the range of theoretical interventions in order to distill some kind of new unified theory, he excused himself from fully completing the task: ‘I will be unable to come to a definitive conclusion’. Vidler’s note is a euphemism for saying that concluding on a new unified theory is near to impossible. Should architects then conclude that they ended up, as Schumacher suggests, in a war of styles? This dissertation is based on a different assumption. The question that remains for architecture is not ‘which theory’ but rather ‘what is this form of post-theory’ and ‘what are its foundations’.

Looking for Foundations

Architecture does not stand alone in questioning the foundations of its knowledge production. With the tradition in philosophy of science the element of instability has become part of any practice of science. Philosophers such as, Thomas Kuhn, Karl Popper, John Dewey, and Donald Schön (with Dewey and Schön mostly focused on the educational realm) introduced notions such as ‘paradigm’, ‘falsifiability’, ‘tacit knowledge’, ‘organizational learning’, and so on, to incorporate the awareness of instability and to make the practice of science amendable. They worked out theories that would explain how ‘the element of change’ and the ‘untenable other’ can be incorporated into a scientific discourse. This dissertation does not elaborate on these particular insights because it focusses on a specific subset: the designer’s quest for normative grounds. Most designers act self-assured about their design decisions. Paradoxically, however, if one questions in what this self-assurance is grounded, then no clear answer can be provided. What’s more, as soon as a designer’s theoretical underpinnings are challenged, it seems architecture’s entire role as a discipline comes into question. In my quest to overcome this instability, the American philosopher, Richard
Rorty, proves a useful guide. I consider his thinking as a toolkit to revisit and recalibrate architectural discourse.\(^{30}\)

Rorty was educated in Anglo-Saxon analytical philosophy — a positivist philosophical current that pursues absolute and neutral knowledge by means of analytical thinking. For twenty years he taught within this analytical tradition at Princeton University, until, in 1982, he decided to confront and disrupt this tradition. He took on a new position at the University of Virginia, where he began discussing misconceptions present in the Anglo-Saxon tradition and its European continental counterpart, criticizing in particular the desire for absolute knowledge he saw present in both traditions. According to Rorty, this desire is not human by nature, but is in fact fabricated and kept alive by a profession. In *Objectivity, Relativism, and Truth*, published in 1991, Rorty argued that the pursuit of absolute knowledge was the only way, thus far, to claim validity as a discipline and to protect an intellectually respected position in society. He said that the traditional striving for objectivity makes any truthful theory implausible. Therefore, he claims, one should not focus on the great philosophical questions that come from this desire. Rather, he suggested favouring the suppressed questions. In chapter one I will further expand on how his thinking applies here.

One way of reading architectural dynamics in the 1970s and 1980s is considering these dynamics as an attempt of many architects to reinvent their position in society — which I believe is primarily a disciplinary problem. They hoped to advance the discipline by synthesising their narratives into theoretical statements. These statements had to serve as stable footing for their work, but by expansion also for the discipline to regain its credibility in society. I would argue that these architects aspired to erase any possible confusion about the architectural profession and were generalizing their beliefs with a pursuit of objective knowledge similar to the way Rorty came to critique in philosophy. A similar disciplinary agenda can be recognized: fabricating a desire for absolute knowledge of which the pursuit alone was supposed to constitute the discipline. While the lines between Rorty and architecture do not cross, his discourse can be useful to screen the various positions in architecture. For the sake of the argument I will map these positions in four strains.

**Pacesetters of the Last Forty Years: Reference OMA**

The first attitude is provided by the exhibition *Reference OMA: The Sublime Start of an Architectural Generation*,\(^{32}\) held in 1995. The exhibition was organized at the Dutch Architectural Institute (NAi) in Rotterdam. Whether
the exhibited architects represented a new generational approach or an intellectually gathered collective in which Bernard Colenbrander and others were looking for coherence, the fact is that the recurring framing of this group, in turn, triggered a debate on how to label this new ‘collective’. According to Colenbrander, these architects adopted a pragmatic point of view from Koolhaas. Since the publication of Koolhaas’s *Delirious New York*, Koolhaas has come to symbolize the erasure of architecture’s social obligations through an opportunism that seemed culturally acceptable and valuable. The architects of the exhibition all advanced motives that were possible within the constraints of the project. As one of the recurring players in the group, NRA was invited to exhibit work, give lectures and engage in teaching design. NRA thus became the object of both theoretical and critical reflections in leading texts, magazines, and other publications. Their book *At Work*, published nine years after the exhibition, amplified Colenbrander’s reading of a pragmatic force that he saw present in *Reference OMA*. Even after the exhibition, the group of *Reference OMA* continued to expand. Sarah Whiting, for example, worked at OMA in the early 1990s.33

**Pacesetters of the Last Forty Years: Reference Peter Eisenman**

A field of artist-intellectuals could also be assumed for whom it is a moral obligation to improve reality through artistic-intellectual actions. One such major pacesetter was, and still is, Peter Eisenman. Eisenman has almost single-handedly changed the way we approach architectural theory today. With his PhD on a reinterpretation of the modernist agenda, he became a regular opponent of others who created alternatives for the modernist agenda too. He is generally recognised, alongside Michael Hays, as the father of critical theory within architecture. Hays and Eisenman both adopted from critical theory the idea that thoughts are instruments of action — thoughts can resist, interfere with, and alter reality. From the start, Eisenman was convinced that the single preoccupation of theory could no longer be — if it had ever been — the pure historiography of architecture or the prescriptive guidance of good practice. He argues that an architect, in fact every architect, is obliged to question and advance the discipline. Consequently, a large part of the critical and meaningful task is intellectual — a reflective element of the discipline. This fundamental tenet has been present at all phases of his career, starting from his formal syntactical study during his doctoral research, through an intensive period with French structuralists and post-structuralists, his appropriation of conceptions of minimal art, and so on. Above all, he has maintained an intellectual critical position between engagement and detachment. For Eisenman theory is a tool to set the agenda — to stimulate change — but it is also a defense mechanism
to protect the profession from forces outside the discipline. On this basis, Eisenman stands for an intellectual attempt to make architecture retreat into an autonomous — self-referential and self-steering — discipline of high-culture.

Although, to my knowledge, no exhibition or book exists that is called ‘Reference Peter Eisenman’, it would not be difficult to imagine. A number of prominent and influential figures such as Patrick Schumacher, but also Robert Somol, Sarah Whiting, Jeffrey Kipniss, Stan Allen and Mark Wigley, and many others, belong to a generation on which Eisenman had a defining impact. This generation inherited Peter Eisenman’s intellectual struggle, which serves as a backdrop to the formation of their own perspective on architecture.

Pacesetters of the Last Forty Years: Reference Léon Krier

A third group can be described as the traditionalists, for which Léon Krier became a famous protagonist as his career progressed. One of its main principles is that, in architecture, rather than untested innovating formulas (both material as well as ideological), one should always choose existing concepts that have proven itself to work well. Other new traditionalists who work with the same convictions include Quinlan Terry, Allan Greenberg, Jaquelin T. Robertson, Robert Adam, Demetri Porphyrios, Robert A.M. Stern, and others. These traditionalists emerged as a distinct collective through such initiatives as the Congress for the New Urbanism (CNU) and the Richard Driehaus Prize.35 Krier is one of their leading voices, having vividly challenged other positions. Although Krier is less present in the international architectural forum today, he was one of the new teachers at the Architectural Association School (AA School) after Alvin Boyarsky became director.

Critics often castigate new traditionalists36 as nostalgic and conservative. Even today, the opposition of modernists against traditionalists, which had its heyday in the 1980s, lingers on. In a public talk entitled ‘Urgency’37 at the Canadian Centre for Architecture (CCA) in 2007, Peter Eisenman called Léon Krier his ‘nemesis’ and ‘the embodiment of the enemy’. In 2005, the Belgian critic Geert Bekaert may have gone even further, referring to the Krier era as an episode better forgotten. For Bekaert, Krier was counterproductive in the attempt to advance the architectural discourse of the day.38 In contrast, at the Projective Landscape conference organized at the University of Delft in 2006, Robert Somol referred to Seaside — a new urbanist project in which Krier collaborated — as an example of best practices in projecting otherworldliness. New urbanism, which originated in America in the 1990s, incorporated many tenets of the new traditionalists. Somol repeated this in his contribution to the
public lectures at the AA School that same year. In 2007, the Hungarian architectural theorist and historian Ákos Moravánszky compared the new urbanist proposals to the work of Koolhaas on the basis of its social merits. And, in the last chapter of *Utopia's Ghost*, published in 2010, the American architectural theorist and historian Reinhold Martin refers to Krier and his *counterprojects* when reflecting on the performative quality of architectural imagination.

**Pacesetters of the Last Forty Years: Reference Christopher Alexander**

Within this dissertation, Christopher Alexander represents a fourth category, that of the positivist analytics. One could argue that his ideas and beliefs overlap with what I just called ‘reference Léon Krier’. Already in the early 1990s, The Prince of Wales’ Institute of Architecture,\(^{42}\) known for its quest to preserve the traditional qualities of the built environment, welcomed Alexander as one of their key representatives. By extension, the new urbanist community, for which Léon Krier is a visionary, embraced Alexander, and the CNU gave him the Athena Award in 2006. The same year, a website affiliated with the CNU\(^ {43}\) reissued the debate that Alexander had with Eisenman in 1982, on the contrasting concepts of harmony in architecture.\(^ {44}\) Thus, Alexander moved in the same circles and took on the same opponents as Krier. Nevertheless, certain specific qualities support the idea of a fourth category, namely, Alexander's background in mathematics and cognitive studies.

Alexander earned a master's degree in mathematics, took his doctorate in architecture at Harvard University, working at the same time on transportation theory, computer science, and cognition and cognitive studies. His dissertation, later published in 1964 as *Notes on the Synthesis of Form*, clearly shows the influence of positivist scientific reasoning. In this book he renders design as a problem-solving activity in which architects of the day fail because they do not apply an analytic strategy. Instead, they base their design decisions on intuition. He developed his argument in a second book, *A Pattern Language: Towns, Buildings, Construction*, published in 1977.\(^ {45}\) In this book Alexander approached the architectural design as a set of interdependent variables that form a complex system. Alexander argued that one cannot act intuitively in a design process, but instead, one should develop a scientific method. This way of thinking neutralizes the designing ego and results in the democratization of the design process. His arguments were most influential, even (more) beyond the architectural discipline. Alexander's mathematical concepts and cognitive orientation continue to influence students in computer science.\(^ {46}\) Patrick Schumacher reinforces these qualities (except for the ego-neutralizing aspect) in
parametricism and Harry Francis Mallgrave recognizes Alexander’s cognitive angle — breaking down a design into modules — as the prelude of a renewed phenomenology in architecture grounded in neuroscientific insight.

Since the object of study is the traveling and morphing of design taxonomy explained by means of other solicited frameworks, at times I will have to make the necessary detours to expand briefly on the frameworks used by my protagonists. The multitude of theoretical positions illustrates the democratization of the profession that came with another factor that intensified the phenomenon: the emergence of a new intellectual attitude. New protagonists in architecture opted for a detached global mobility instead of taking on a fixed position. They refrained from holding chair in a single institution. As a result, to be authoritative the new protagonists had to be more direct, polemical — more flamboyant, tapping into the undercurrents of anxiety.

This dissertation thus focusses on four typical attitudes that echo through current theories: the new pragmatist, the traditionalist, the artist-intellectual, and the positivist analytic — exemplified by leading architects (Rem Koolhaas, Léon Krier, Peter Eisenman, and the early Christopher Alexander). These four gradually made way for others as the research developed, since each narrative — its constellation of ideas, beliefs and intentions — formed or influenced another generation of pacesetters. The global forum that grew out of these figures fuelled the expectation, if not for a new unified theory, then at least for a shared architectural agenda exhibiting a new form of design intelligence.47

What follows is a brief overview of themes and topics that will be further expanded on in the next chapters. The overview here allows me to introduce the structure and context of each chapter.

Research Scope: Recalibrating Criticality

The histories of the four categories mentioned above are entangled. Various overlaps blur their boundaries. However, applying these four categories allows the selection of a particular voice for each and the isolation of its characteristics. The pacesetters locked horns on several occasions, during which positions are more firmly established and the particular reinterpretations of architectural design are proselytized. These confrontations burdened next generations with binary oppositions that complicate any elaboration of architectural design and creativity.
For example, Peter Eisenman, said he began his PhD research in reaction to Christopher Alexander’s doctorate. While Alexander aimed to neutralize the artistic ego, Eisenman was looking to reinstate the architect as an artistic intellectual. On these moral grounds they had to distance themselves from each other’s ‘camp’. As a result, Eisenman’s reproach that Alexander rendered the design process too simplistic, became a symbolic anthem. Colin Rowe, Eisenman’s mentor in the 1960s, argued that Alexander’s architectural design process was ‘obviously a “clean” process dealing with “clean” information, atomised, cleaned and then cleaned again, everything is ostensibly wholesome and hygienic’. Peter Eisenman had adopted influences of critical theory in his writing to express the complexity of architecture’s relation to reality.

Critical theory, a current of social studies associated with the Frankfurt School, inspired the pursuit of progress by resisting a dominant culture. The notion of resistance had begun appealing to architects in the 1960s. In fact, for those who spent their adolescent years in the late 1960s, such as Rem Koolhaas and Léon Krier, resistance more or less became second nature. By extension, the culture of resisting and opposing became part of the intellectual attitude of those pacesetters who climbed the stage in the 1970s and 1980s. Many public debates and reports in architectural magazines, such as Architectural Design (AD) and Oppositions (hence the name), took the binary format of one confronting the other. In 1984, Michael Hays, too, appropriated the framework of critical theory, with his seminal text Critical Architecture: Between Culture and Form.

The editorial environment in the 1970s and 1980s installed a culture of confrontations, made public in talks and academic debates such as the debate between Eisenman and Alexander on harmony (1982), or the debates between Eisenman and Krier on worldviews (1983) and ideology (1989). As a result, any next generation was confronted with an ‘either-or’ interpretation of the designing task. Getting past this binary thinking became the object of many academic conferences.

By the end of the 1990s architectural theory — or the form of post-theory as Vidler calls it — was pursued through various modes of thinking. In a quest to renew its theoretical underpinnings, architecture adopted specific methods through its proximity to social sciences, cognitive sciences, and the humanities. Remarkably, the main sources of inspiration to provide theoretical backing comes from frameworks such as critical theory, system theory, and new pragmatism embedded in post-structural philosophy.
These frameworks affected architectural theories that lean on it. It is, for example, interesting to see that for a distinct period, from the 1940s until the 1980s, critical theory — as associated with the Frankfurt School — is valued more highly than the positivistic systems theory. The origin of systems theory goes back to the Austrian biologist Ludwig von Bertalanffy, who wanted to describe systems with interacting components. The American sociologist Talcott Parsons used Bertalanffy’s general systems theory to discuss social interactions. Parsons also translated the work of the German political economist and sociologist Max Weber, importing the latter’s ideas on how the basic processes of society are influenced by culture and religion. Parsons’ positivism (that is, the idea that authoritative knowledge can be deduced from experience through reason and logic) gave systems theory its totalizing character. The German sociologist Niklas Luhmann had met and studied under Parsons in the 1960s. With the influence of Parsons, Luhmann made it his project to generate a ‘grand’ social systems theory. Weber influenced the Frankfurt School by revealing the self-destructive elements in enlightenment rationalism. But the main writer whose oeuvre was to influence postwar sociological thinking, for Adorno and the other members of the Frankfurt School, is Karl Marx. The Frankfurt School’s profound suspicion towards a totalizing systems theory in postwar Germany played an important part in their choice of Marx.

When in the early 1980s, Michael Hays and Peter Eisenman solicited a current position in social research to define an effective role for the architect within society, they adopted critical theory. It was only when Jurgen Habermas — as a second generation member of the Frankfurt School — incorporated insights of pragmatism and systems theory in his critical theory of communicative action (1984), that systems theory regained its position as equally valid. From that moment on, the range of possible thinking frames widened. In 2000, Joan Ockman and others have considered a return to pragmatism as an alternative for the critical theory that seemed to translate difficult into a wide range of architectural practices.

In 2002 Robert Somol and Sarah Whiting wrote about an emerging projective architecture. Their position is a reinterpretation of the critical embracing the positivism of a renewed pragmatism. In 2011 Schumacher combined Eisenman’s deconstructivism — which he sees as the avant-garde of parametricism — with the mathematical thinking of Christopher Alexander. Schumacher then adds insights from Gestalt psychology to the combination. His resulting theory is the architectural subsystem that completes Luhmann’s societal systems theory (as Luhmann had not covered architecture as a
Schumacher thus combines the earlier opposing dynamics that existed in social theory. The goal of deconstructivism is to resist the forces of dominant mainstream architecture. It is therefore a typical offspring of the critical approach, whereas Luhmann wanted to explain the dynamics of a societal system in a neutral way, without an underlying ethical plan of action to interfere with the system.

The cognitive sciences — interdisciplinary sciences focussed on the mind and its processes — progressed with great leaps during the last decades of the twentieth century. The immense progress triggered anxieties between hope and despair. For example, films such as Blade Runner, directed by Ridley Scott in 1982, and The Matrix, directed by the Wachowski Brothers in 1999, popularised the idea that groundbreaking insights into genetic material would bring us close to understanding the essence of what makes us human: consciousness, self-awareness, identity, and free will. While the plots balance apocalyptic defeat and salvation, their bottom line suggests that this knowledge is within reach. These movies, although labeled science fiction, lead us to expect that these kinds of insights can be inferred from the sciences. For architecture, the promising evolutions in the cognitive sciences triggered questions such as whether decisions can be legitimized based on neuro-physiological insight. Hence Mallgrave’s argument for a refashioned phenomenology.

In 2006, the Supercritical symposium was held at the AA School, in London. As keynote speakers, Eisenman and Koolhaas discussed their understanding of a critical design practice. They both argued that architectural work should be understood in relation to something beyond the specifics or contingencies of any given project. Eisenman suggested that the critical aspect of his architectural work lies in his expertise on form and in how this expertise helps to develop the discipline from within. For Koolhaas, the critical quality stems from the effort to become a public intellectual — an intellectual who is able to contribute in domains beyond architecture. Parallel to the Supercritical symposium, in the same year, the Projective Landscape conference was organized in Delft. This conference gathered prominent figures such as Reinhold Martin, Sarah Whiting, Robert Somol, and Willem Jan Neutelings. The Projective Landscape conference can be seen as one attempt to recalibrate the critical faculty within architectural design. However, as the Supercritical symposium shows, Eisenman was not yet ready to abandon his post.
In the next four chapters, I will subject these specific moments and positions in architecture to a critical reading. The first chapter of this dissertation explores why a large part of architecture today is still challenged to claim criticality as a crucial faculty. It reflects on the larger phenomenon of a rising design ideology and how it complicated matters for architecture. In an attempt to reformulate the unique expertise of architecture (in an ever more differentiated professional environment), design seems a plausible proposition. But the ubiquity of design requires architecture to be more specific, and thus, for example, to claim criticality as design's crucial faculty. Such profound claims are in conflict with liberal thoughts about the coexistence of several legitimizing frameworks. To cope with such a conflict, this dissertation chooses to expand on Rorty and his potential to serve as both model and mediator.

The second chapter presents two cases that exemplify the inevitable exclusion (and inclusion) that comes with setting an agenda. The first case centres around the Atlantis project of Léon Krier (since the early 1990s, Krier has been largely excluded from an academic discourse because the modernist point of view seems to have prevailed). Krier traveled around the world with the Atlantis project, using the project to illustrate his active oppositional discourse. Its story allows to render how strong ideological positions instigate processes of exclusion. The second case reflects on NRA's At Work publication and how it has been embraced by the projective project as an example of good practice today. This second case exemplifies how a pragmatic approach towards underlying ideological choices installs anxiety about the possible loss of quality and high standards in general.

In chapter three, after retracing how architecture became involved with critical theory, I focus on three contemporary attempts to redefine architecture's criticality: the projective theory of Sarah Whiting, the parametric theory of Schumacher, and the neuro-based phenomenology of Mallgrave. These three frameworks were fabricated to provide a coherent legitimizing theory upon which the architectural agenda can be organized. A shift from thinking about how architecture works to what it can do allows these practitioners to work expanding on the critical faculty as such. In other words, the propositional quality makes it easier to take a leap of faith. How precisely this works is subject to study.

Chapter four reopens the 'closed' constructs of chapter three. By twisting the theoretical propositions, 'missing' elements are exposed. The Slovenian philosopher Slavoj Žižek challenged the recent debates in architecture. He
also argues that the debate should turn towards the attribution of value in ‘the leap of fate’, to give architecture a politico-ethical twist. Reinhold Martin makes a similar plea with his book *Utopia's Ghost*, in which he says utopia should be complemented with realism. Akos Moravánszky promotes a continuous debate on vocabulary. Arguably, the question for appropriateness complements every attempt to redescribe criticality.

The fifth chapter contains ‘field experiments’ that report on the impact of this dissertation on my own architectural practice and teaching. Parallel to taking inventory on theoretical positions, I experimented with my own triangulated final vocabulary in the making, which I call *purposeful hybridity*. Throughout this research I also wanted to investigate how the insights gained from this study can affect (my) practice for the better — making my work more astute and my position less dependant. The emerging cues help to formulate design challenges or assignments in practice and teaching. For example, I took drawn manifestos, such as the *counterprojects*, as a central theme for several assignments. A counterproject is a specific tool Léon Krier and Maurice Culot used in the 1980s to influence the reconstruction policy of European cities. This tool enabled the new traditionalists to project otherworldliness in new design proposals, which Robert Somol argues is a positive feature. Inspired by such drawn manifestos, I proposed academic assignments that aimed to turn Reinhold Martin’s *utopian realism* (a term that will be explained in chapter four) into practice.

I rather talk about experiments than design research because, as described in the beginning of this introduction, the context of these experiments depended on a variety of opportunities (an emerging practice, an exhibition, a conference contribution, or a teaching design studio) that could not match the required stability for consistent research. Also, I believe that my conviction hinders a full investigation of how critical intentions can trickle down in all aspects of architecture. I believe that any design vocabulary refers to multiple meanings, and visa versa that any meaning can be expressed through a variety of design vocabularies. I believe that architecture can contribute to express ethical standards and social conventions, but not in a singular way and not independent from its context. Similar to the words of a song, architecture provides parts that when placed in context convey meaning. However, I would argue that any diffusion of meaning comes from either denying architecture any form of meaning — for example, calling the architectural vocabulary a dead language — or mistaking architecture for being the song. Therefore, I do not believe that an unambiguous correlation exist between what we do in
architecture and maintaining ethical standards, social conventions, and cultural preferences. I do not deny the existence of such correlation — I argue, however, that it only exists ambiguously, which makes studying the cause and effect of bits and pieces of practice highly speculative. In other words, my own fabricated framework is as biased, as partial as all others that are discussed in this dissertation. The right balance between setting an alternative agenda — in my case being proactive and catalysing — and starting a conversation on the cause and effect of my design customs is a speculative endeavour. What remains of my investigation in chapter five, thus far, is a general reflection on the criticality of a hybrid position and the possibility to control a strong agenda for architecture.

This inquiry and its outcome relate to many things. It happens in the course of architectural teaching, or debating architecture’s academic components. It also happens while maintaining a professional discourse, or conducting practice. But the focus remains on redescribing criticality within the practice of architectural design. This dissertation generates a position from which to cope with the plurality of provisional frameworks that all have a propositional quality. By expansion, it contributes to broader disciplinary questions: Can we identify a single concept underlying the profession of architecture? What is the territory of architecture? What is the self-image of the architect? How is creativity understood in relation to the complexity of architecture? And ultimately, what do we consider relevant about architecture?
The portrait itself is not necessarily taken at the age of 40.)

ACTORS AT THE AGE OF 40
(While the picture is placed on a timeline at the age of 40, the portrait itself is not necessarily taken at the age of 40)

- Alvin Boyarsky, age 40 @ 1968
- Christopher Alexander, age 40 @ 1976
- Harry Mallgrave, age 40 @ 1987
- James Stirling, age 40 @ 1966
- Peter Eisenman, age 40 @ 1972
- Léon Krier, age 40 @ 1986
- Colin Rowe, age 40 @ 1960
- Robert Venturi, age 40 @ 1965
- Aldo Rossi, age 40 @ 1971
- Rem Koolhaas, age 40 @ 1984
1995: REFERENCE OMA EXHIBITINO @ NAI

2000: JOAN OCKMAN THE PRAGMATIST IMAGINATION CONFERENCE

2006: WESTFALL CALLS FOR A THIRD TREATISE

2010: MALLGRAVE WRITES THE ARCHITECT’S BRAIN

2011-2012: SCHUMACHER WRITES TREATISE FOR PARAMETRIC ARCHITECTURE

1995

1996

2002

2006

2006 (PHD 1963)

2006

2010

2011-2012

POST-CRITICAL TURNS

THE PROJECTIVE TURN

THE NEUROSCIENTIFIC TURN

THE PARAMETRIC TURN

Map 1: infographic of key moments & events of most protagonists in this dissertation
CHICAGO:
CHARNLEY-PERSKY HOUSE
SOMAI (1986) KRIER, EISENMAN, GRAHAM
SOCIETY OF ARCHITECTURAL HISTORIANS (SINCE 1995)

1989 DEBATE: MY IDEOLOGY IS BETTER THAN YOURS
EISENMAN VERSUS KRIER
SOMOL DIRECTOR OF SCHOOL OF ARCHITECTURE
AT THE UNIVERSITY OF ILLINOIS CHICAGO (2007)

LOS ANGELES:
UCLA: LYNN, LAVIN...
ANFA: ACADEMY OF NEUROSCIENCE FOR ARCHITECTURE
IN SAN DIEGO (2003) EBERHARD, MALLGRAVE...
SALK INSTITUTE FOR BIOLOGICAL STUDIES (KAHN)

HOUSTON:
SARAH WHITING
DEAN OF RICE UNIVERSITY (2010)

NEW YORK - IAU (1967-1984):
OPPOSITIONS (1973-1984)
DELIRIOUS NEW YORK (1978)
EISENMAN, KRIER, KOOLHAAS, ROWE, TAFURI,
ROSSI, FRAMPTON, TSCHUMI, VIDLER...

NEW YORK - MOMA:
THE BEAUX-ARTS EXHIBITION (1975)
KRIER / BOFILL EXHIBITION (1985)
DECONSTRUCTIVIST EXHIBITION (1988)
JOHNSON, DREXLER, EISENMAN...

NEW YORK:
CONGRES NEW URBANISM (SINCE 1993)
PLATER-ZYBERK, DUANY, KRIER, ALEXANDER...

MONTREAL:
CCA (CANADIAN CENTER FOR ARCHITECTURE)
URGENCY DEBATE (2007)
LAMBERT, EISENMAN, KOOLHAAS
ARCHIVE PETER EISENMAN

MONTREAL:

EAST COAST UNIVERSITIES:
HARVARD (EISENMAN VERSUS ALEXANDER, 1982)
YALE (EISENMAN VERSUS KRIER, 2002)
COLUMBIA (REINHOLD MARTIN)
PRINCETON (EISENMAN VERSUS KRIER, 1983)

MIAMI

CHICAGO:

CHICAGO: CHARNLEY-PERSKY HOUSE
SOMAI (1986) KRIER, EISENMAN, GRAHAM...
SOCIETY OF ARCHITECTURAL HISTORIANS (SINCE 1995)

1989 DEBATE: MY IDEOLOGY IS BETTER THAN YOURS
EISENMAN VERSUS KRIER
SOMOL DIRECTOR OF SCHOOL OF ARCHITECTURE
AT THE UNIVERSITY OF ILLINOIS CHICAGO (2007)

LOS ANGELES:
UCLA: LYNN, LAVIN...
ANFA: ACADEMY OF NEUROSCIENCE FOR ARCHITECTURE
IN SAN DIEGO (2003) EBERHARD, MALLGRAVE...
SALK INSTITUTE FOR BIOLOGICAL STUDIES (KAHN)

HOUSTON:
SARAH WHITING
DEAN OF RICE UNIVERSITY (2010)

NEW YORK - IAU (1967-1984):
OPPOSITIONS (1973-1984)
DELIRIOUS NEW YORK (1978)
EISENMAN, KRIER, KOOLHAAS, ROWE, TAFURI,
ROSSI, FRAMPTON, TSCHUMI, VIDLER...

NEW YORK - MOMA:
THE BEAUX-ARTS EXHIBITION (1975)
KRIER / BOFILL EXHIBITION (1985)
DECONSTRUCTIVIST EXHIBITION (1988)
JOHNSON, DREXLER, EISENMAN...
Both Dogma, the office founded by Pier Vittorio Aureli and Martino Tattara, and Office KGDVS, founded by Kersten Geers and David Van Severen were no fulltime practices and had a portfolio consisting mainly out of conceptual projects.

Wonne Ickx is now founding partner of the Mexican firm Productora.


Architectural theorists such as Charles Jencks and Karl Kropf often face great difficulty in proposing a clarifying classification of many current manifestations within architecture. Charles Jencks and Karl Kropf, Theories and Manifestoes of Contemporary Architecture, 2nd ed. (Chichester, England ; Hoboken, NJ: Wiley-Academy, 2006).

Zaha Hadid recently passed away in March 2016.


Foremost, Schumacher’s treatise is written to promote paramatricism as an architectural style. However, Schumacher also claims in his book that his treatise is the first full-blown theory since Durand’s Précis or Le Corbusier’s Towards A New Architecture, implying that his new insights should affect the entire profession. The Autopoiesis of Architecture: A New Framework for Architecture. Vol. 1.


The American Pruitt-Igoe complex was a social housing district in St. Louis, Missouri, built according to CIAM rules. It was first occupied in 1954 and demolished in 1972. Ever since Jencks called this a mediatized demolition to exemplify the death of modern architecture: 1972 is often recognized as the start of post-modernism. Also, for example, Reinhold Martin and Lara Schrijver refer to that project as being the end of modernism. Charles Jencks, The Language of Post-Modern Architecture (New York: Rizzoli, 1977); Schrijver, Radical Games: Popping the Bubble of 1960s Architecture; Reinhold Martin, Utopia’s Ghost: Architecture and Postmodernism, Again (Minneapolis: University of Minnesota Press, 2010).

Coincidentally, it mirrors the format of Lara Schrijver’s Radical Games of 2009. In her book, she places a fork that spans from a period in the 1960s to ‘current times’. Only her ‘current times’ start from a new pragmatic turn (circa 2000) that culminated in a projective conceptualization (circa 2006). She argues that the period in the 1960s holds the roots of particular views active in ongoing talks — that is, when the book was written (around 2006). Schrijver puts the focus on the decade before the crucial turn in the 1970s.

In the wake of the oil and money crisis in Western countries and the implosion of the building market by the second half of the 1970s, Robert Gutman studied the state of affairs of the architectural profession. Robert Gutman, "Architecture: The Entrepreneurial Profession," Progressive Architecture 58 no. 5(1977): 55-58.


In This Most Perfect Paradise; Alberti, Nicholas V, and the Invention of Conscious Urban Planning in Rome, 1447-55 (University Park: Pennsylvania State University Press, 1974).

"Why We Need a Third Architectural Treatise."
I owe the insights of this reflection of Tafuri on Westfall to Maarten Delbeke. How Tafuri challenges Westfall's treatment of Alberti can be read in the chapter on Nicholas V and Leon Battista Alberti in Manfredo Tafuri, Interpreting the Renaissance: Princes, Cities, Architects (New Haven Conn. Cambridge, Mass.: Yale University Press; in association with Harvard University Graduate School of Design, 2006 (originally published in Italian 1992)).

See Léon Krier and Maurice Culot, Contreprojets, Controprogetti, Counterprojects (Archives d’Architecture Moderne, 1980). However, they never really produced a global theory. Krier, often in close collaboration with Culot, participated in exhibitions, public debates, design teaching, and popular performances. They were involved in the Atelier de Recherche et d’Action Urbaines (ARAU), whose goal was political activism, urban research, and citizen participation. They produced counterprojects to provide a large audience — architects, critics, academics and laymen — with legible alternatives for the reconstruction of the European city. They also produced books, always choosing the strong position over the subtle nuance if the latter would lead towards a non-effective position. Krier produced very powerful and rhetorically convincing drawings and wrote equally strong position statements. But it never resulted in a new global theory. It did, though, make Krier's critical faculty highly legible.

I refer to conferences such as the Projective Landscape conference and the Pragmatist's Imagination (as discussed elsewhere in this dissertation), or Michael Speaks' Design Intelligence series in the Japanese journal Architecture and Urbanism (A+U) that also seeks to define a form post-theory or post-truth. Krista Sykes gathered these emerging propositions into an anthology: Krista Sykes, Constructing a New Agenda: Architectural Theory 1993-2009, 1st ed. (New York: Princeton Architectural Press, 2010).


In the third essay the author's note is replaced by an editor's note, explaining that ‘Anthony Vidler, rather than concluding in this article, will examine subsequent issues leading up to the present day’. "Troubles in Theory Part Iii the Great Divide: Technology Vs Tradition," The Architectural Review (August 2012): 96.

A series of publications called ‘Thinkers for Architects’, edited by Adam Sharr, where Richard Rorty is not yet featured, equips architects to build legitimizing theory. It introduces architects to particular thinkers and their context, in a quest for a critical framework (for example, Deleuze and Guattari, Heidegger, and Derrida are the subject of three of the thirteen editions of the series). The series offers insight into seminal essays and particular terminology of those ‘thinkers’, as well as the general reception of that thinker in architecture. With architecture’s turn to pragmatism towards the end of the twentieth century, an edition on Rorty could be considered to expand the series. See for example: Andrew Ballantyne, Deleuze and Guattari for Architects, Thinkers for Architects (London ; New York: Routledge, 2007); Adam Sharr, Heidegger for Architects ibid; Richard Coyne, Derrida for Architects ibid. (Abingdon, Oxon England ; New York, NY2011).


A book with the same title accompanied the exhibition. B. Colenbrander, Reference Oma: The Sublime Start of an Architectural Generation (NAi, 1995).

Whiting is listed as a team member for the Hilton Hotel Design for The Hague (1990) and the Randstad Transfèria competition (1991), together with Winy Maas and others. See the website of OMA: http://oma.eu/projects.

Eisenman, "The Formal Basis of Modern Architecture."

The Richard Driehaus foundation campaigns for the preservation and enhancement of the built and natural environments. Since 2003 The Driehaus-prize for Classical Architecture was organised as a counterweight to the Pritzker-prize for modern architecture. After Léon Krier won the first edition, it was successively won by Demetri Porphyrios, Quinlan Terry, Allan Greenberg, Jaquelin T. Robertson, Andrés Duany & Elizabeth Plater-Zyberk, Abdel-Wahed El Wakil, Rafael Manzano Martos, Robert A.M. Stern, and Michael Graves.

The difference between new traditionalists and new classicists or new urbanists are abstracted here. Krier is a key player for all these groups. This article focusses on how critique formulated on any of these groups applies to Krier.


Geert Bekaert and Christophe Van Getrewey, Rooted in the Real : Writings on Architecture by Geert Bekaert, Vlees En Beton (Gent: WZW editions and productions), 396-419.


Reinhold Martin, Utopia’s Ghost : Architecture and Postmodernism, Again (Minneapolis: University of Minnesota Press, 2010).
Since 2001 known as ‘The Prince’s Foundation for the Built Environment’ until 2012, and today called ‘The Prince’s Foundation for Building Community’, is a non-profit organization founded as one of the Prince’s Charities to promote the principles of traditional architecture and urban design.

www.katarxis3.com, of which the editor, Lucien Steil, is a former collaborator of Culot and Krier at the AAM in Brussels.


For example, Christopher Alexander is teaching material in computer sciences. Dr. ir. Kurt Driessens, currently appointed at Maastricht University, teaches a.o. computer programming and object oriented design. According to Driessens, a leading reference that refers to Alexander’s definition of a ‘design pattern’ is Erich Gamma et al., Design Patterns : Elements of Reusable Object-Oriented Software, Addison-Wesley Professional Computing Series (Reading, Mass.: Addison-Wesley, 1995).

Again, borrowing Michael Speaks denominator for the after-theory intellectual dominant: design intelligence.


Hays, ”Critical Architecture: Between Culture and Form."


For a clear overview of the recent history on the dynamics within sociology between systems theory and critical theory, I refer to Uta Gerhardt, ”Worlds Come Apart: Systems Theory Versus Critical Theory. Drama in the History of Sociology in the Twentieth Century," The American Sociologist 33, no. 2 (2002): 5-39. Gerhardt elaborates on an episode that spans from the 1940s to the 1960s in which the relations between the two approaches turned from a shared interest towards a total opposition. The shift was due to personal issues between Theodore Adorno and Talcott Parsons and thus, by extension, between the Frankfurtt School that had developed critical theory on a Marxist legacy and an American school of academics that had built its systems theory on the more neutral and positivist approach of Max Weber.


Schumacher returns to the Alexander’s first seminal work: Alexander, Notes on the Synthesis of Form.

For the first movie, this knowledge is based on the progress made in bio-engineering. Central to this movie is what might happen if we control the technology to genetically engineer replicants that are indistinguishable from humans. For the second movie, the central theme is a fusion of artificial intelligence and neuroscience: the world and its sensations as we humans experience them can be reproduced by the electrochemical stimulation of the brain. Our physical existence is reduced to a vegetative state. All human bodies are trapped in an artificial womb preserved in a vast laboratory. Through high-tech wiring, our brains are interconnected and artificially stimulated by a supercomputer. The human brains are tricked into believing they are experiencing a real world and real sensations, when in fact they are merely receiving electrochemical stimulation.

Other movies that had a similar impact: The movie, 2001 A Space Odyssey by Stanley Kubrick — based on the novel by Arthur C. Clarke from 1968 — and A.I., produced and directed by Steven Spielberg in 2001 — based on preparatory work by Stanley Kubrick. There are also other specific moments that anticipated the fascinating progress made in cognitive sciences. The incredible leap forward, as the world-wide web seemingly developed overnight; the intriguing reports about Deep Blue — the famous chess computer that defeated Garry Kasparov in 1997; and the news in 2003 of ‘the successful completion of the Human Genome Project more than two years ahead of schedule’ (see the press release on April 14, 2003).

Steele, Supercritical: Peter Eisenman & Rem Koolhaas.
Žižek is often questioning running narratives for their hidden ideological drivers. Dane Depp reports that Rorty added Žižek to the list of ‘ironist’ philosophers, in 1994. Rorty’s concept of an ‘ironist’ will be explained in chapter one. 


I refer to Žižek’s lecture in New York on April 23, 2009. The main theme for this lecture was the interstitial space — a theme that, at the time, had become a central theme for architects such as Peter Eisenman, Gregg Lynn, Stan Allen, Libeskind, Alejandro Zaera Polo and other protagonists of the post-critical movement. They consider the interstitial space as the only space by which architecture autonomously and cunningly can play its role within the ruling market mechanisms. Now, for Žižek, this is not enough. For Žižek the interstitial space is the proper place of utopian dreaming and a reminder of architecture’s great politico-ethical responsibility. Nadir Z. Lahiji, "Lecture Transcript: In Interstitial Space: Zizek on "Architectural Parallax"," international Journal of Zizek Studies Vol. 3, no. 3 (2009).

Martin, Utopia’s Ghost: Architecture and Postmodernism, Again.

Morávanszky, "Architectural Theory: A Construction Site."

Krier and Culot, Contreprojets, Controprogetti, Counterprojects.

Cfr. infra. I refer to the case on Krier and his Atlantis project in chapter two.
1. Architectural Design and The Critical Faculty

From a pragmatist point of view, to say that what is rational for us to believe may not be true, is simply to say that somebody may come up with a better idea. It is to say that there is always room for improved belief, since new evidence, or new hypotheses, or a whole new vocabulary, may come along.¹

In the introduction I explained that the written arguments I intend to inquire are selected for their different taxonomies of design choices. While it is my intention in the next chapters to further inquire into the evaluation systems that these arguments propose, this chapter takes a wider perspective to, first, share my thoughts on why the theoretical propositions I investigate can be understood to have design and creativity as their central agenda and second, to expand on how Richard Rorty serves as guide.

Key moments at the turn of the 21st century show that design ideology is omnipresent. ‘Ideology’ is the reduced form of a set of beliefs dissociated from their context, which Slavoj Žižek describes as conveniently forgetting the background noise that would provide the actual meaning.² The belief underlying design is that it can change the world for the better. According to the believers (see for example Mau and Florida in this chapter) this capacity for change is driven by creativity. If design effectuates change for the better, it appears that creativity must always be directed to the good. Creativity, therefore, requires some ability to guarantee the world-changing quality of design. This ability is one by which a designer supposably recognizes the kind of change needed for design solutions to be successful, to see the change required for a design to serve the right purpose, function, or representation. I will refer to this assumed ability as the designer’s critical faculty. When design is conflated with this faculty to creatively assess, the idea of progress through human intervention is substituted by this new design ideology — criticality. The question of how design achieved such capacity disappears in the background. It is my belief that rather than banishing a melioristic agenda design simply replaced this agenda by developing a social, ethical, and aesthetically component. As argued in this chapter design thus became a key constituent of almost every field of expertise.

Architecture, too, had to make its claims to be an authority on design. Progressive differentiation within the building industry as well as within the architectural design process narrowed down the task of the architect in
practice — I allude to the differentiation of work (engineering, architecture, conservation, interior, and so on) and the specialisation within the design process (CAD drawing, 3D modelling, imaging, calculating, detailing, and so forth). Architects compete by proclaiming their added value, both among each other and with other experts involved with architecture. On many occasions, architects could only resume authority by claiming design as their unique province. The fact that other disciplines claimed to have a design component too diffuses the matter, to a level where it became a real problem for architecture. How to resume authority over the one thing that, due to its omnipresence and its many generic definitions, had become so hollow? Resuming authority over design had to be done by piecing together various position statements on architectural design.

Proclaiming authority over design is one thing; finding a consensus for what design means is another. Over the last forty years many architectural design theories emerged, but none as the final (overall) theory. Is design, for example, a rational technique that serves the making of form? Or is design the mastering of contingent processes, or is it any other interpretation on the ‘form versus agency’ spectrum? And which format served to define that particular critical faculty? Today, the discourse is pluralistic, which makes debating the relevancy of design choices fragile.

This fragility spills over into, for example, architectural education. European architectural education is now completely incorporated in the academic institutions, as opposed to being a purview of university colleges as well. This change amplifies the idea of claiming design as a key expertise in architecture. At the same time the move to academic institutions led to renewed debates on ‘architectural research’, which pushed the background noise to the center of the debate. Explaining creativity, and its associated faculty for critique, according to academic standards remains problematic to this day.

The debate on architectural research exemplifies that how to sharpen theoretical underpinnings based on criticality in design is not self-evident. Arguably, it becomes even more difficult when the inquiry focusses on the design process as such. A clear understanding of how to attribute value to the design process seems not to exist. How, for example, does a designer decide to choose between invention or convention? How should a designer explain what constitutes a moment of creativity? Legitimizing design choices would become impossible with a mere pluralistic theoretical apparatus to back it up. Architects
can only assume that within creative moments a critical faculty attributes the 'right' value to design options, contexts, and results.

If the assumed critical faculty is crucial for the architect and for the discipline, then how to cope with its elusiveness? The architect finds himself caught between being dogmatic or being dissolved in pluralism. Neither position is satisfying. This dissertation is not the first to problematize the in-between position. Using the Schumacher-Mallgrave-axis (from a god’s perspective to the atomic view), I organize recent theoretical statements, none of which truly provides epistemological ground for the critical faculty. While studying the recent theoretical statements, in an effort to reach beyond the deadlock, the strategy is to constantly switch from an internal to an external perspective. Richard Rorty has shown the productiveness of such a method.

I use Rorty’s thinking methodology as both mediator and model. The divide of ironist versus metaphysician allowed Rorty to read protagonists with a particular focus. How do they define the boundaries of their discipline? How do they legitimize their action in relation to their perceived territory? In a similar way I can browse through different pacesetting narratives in architecture. Each pacesetter (old and new) represents the production of partial theory. Today’s discourse reads as a palimpsest with strong traces of the vocabularies of those who have gone before. Rorty’s method allows to a mediation of partial theories and a comparison of their confinements.

Rorty’s thinking also serves as a model to cope with pluralism. By abandoning the traditional picture of the human condition he created a format in which all narratives could be seen as valid. He was able to find a position between rationalism and relativism and to prove that while all theoretical positions fail they all matter. The key was to question the idea of a mediating faculty — in this case, the critical faculty.
1.1 Design’s Omnipresence and Elusiveness

1.1.1 The ABC of Design

With an essay on Bruce Mau’s exhibition *Massive Change* (2005), the American architectural theorists, Robert Levit and Evonne Levy, captured the momentum of design ideology at the beginning of the 21st century. Bruce Mau is a Canadian graphic designer who became known in architecture as the ‘designer’ of the *SMLXL* book by Rem Koolhaas (1995). He is one of the few graphic designers whose name has become a global brand. As an authority on design, Mau was asked by the Vancouver Art Gallery to curate an exhibition on the history of design. Instead, Mau organized a futurama, *Massive Change*, to show that design has the potential to bring massive change for the better. Levit and Levy titled their essay about that exhibition ‘Design Will Save the World!’ to capture a combination of Mau’s optimism and an indiscriminate notion of design.

The essay foregrounded the fact that when something becomes omnipresent it also stops being discussed and critically assessed. Mau had organized the exhibition based on eleven economies for which the prepositions were: urban, movement, energy, information, image, market, material, military, manufacturing, living, and wealth & politics. For each economy Mau provided a slogan that declaimed the promise of what design can do. For example, ‘we will banish all waste’ had to promise that manufacturing economies could rely on design. Mau’s format for the exhibition implied that design had settled itself in the control room of many disciplines, including, as listed by Levit and Levy, biology, material engineering, urban panning, graphic design, mechanical and civil engineering, and economics. The belief in the power of design grew equally to the diffusion of its meaning. Levit and Levy also referred to the world’s fair in Hannover in 2000. Compared to Mau’s exhibition, the expo in Hannover was more focused on what had been achieved up to that point due to design, which Levit and Levy suggest was based upon assumptions about that diffused meaning and role of design.

Levit and Levy questioned whether the term ‘design’ is one and the same thing in computer design, business design, graphic design, product design, infrastructural design, and so on. Or was the term simply a more catchier way of saying programming computers, administering businesses, laying out graphics, engineering all manner of things, and so forth? For Levit and Levy, stretching the term causes misconceptions and wrong expectations. They further
argued that design did not replace the expertise of the related disciplines, which made design's precise role questionable.

In their exposition of the pervasiveness of design, Levit and Levy called upon, among others, Richard Florida's *Rise of the Creative Class*, and Hal Foster's *Design and Crime (and other Diatribes).* The latter is intentionally reminiscent of Adolf Loos's *Ornament and Crime* from a century ago. To paraphrase Loos, the omnipresence of ornament undermined the reference of good standards. In a similar way Foster problematized the inability to differentiate design qualitatively (by critically assessing the evolution in the work of Frank Gehry and Rem Koolhaas). Foster also drew a parallel to the world of art, because he saw that foundations of art, too, are troubled by a growing dispersal of interpretations.

Florida's 'creative class' exemplified the rejection of elitism associated with a knowledge economy. His theory on the potential of the creative class originated in research on regional economic development. Spurred by the idea that 'companies were moving to or forming in places that had the skilled people', Florida saw a fundamental role for creativity, as a source of economic growth. In a Marxist way (workers of the world unite!), Florida called the new social class to order. If the group of creative people found a better cohesion, their role as the key force in society could increase. Yet Florida defined creativity as broadly as design. Florida's lists of creative people — scientists, engineers, architects, designers, writers, artists, musicians, programmers, and so on — assumes a common understanding about what constitutes creativity.

By integrating all these seminal references in their essay, Levit and Levy created a perfect record of the status of 'design' (and creativity) in 2005. Although, they primarily wanted to review the exhibition, they expanded their argument towards the crisis of purpose that museums are facing. They questioned 'what design really does, which is much more than decorating but much less than making the world'. Ultimately, Levit and Levy acknowledged Mau's exhibition as a historic moment that redefined not just the work of practitioners of design but the very nature of design and creativity. Their essay thus opens the door for presenting a condensed reading of what I would call 'the ABC of design'.

The 'A' stands for the intention to adjust something according to the needs of its environment, user, or market niche — making it more appropriate. The 'B' of business refers to the capacity of design to generate new niches or to
optimize business. Design itself became (the generator of) business. The ‘C’ of cool, or culture, adds an ambiguous layer to the notion of design. If something is cool, its design does not necessarily have a function or value other than its aesthetic quality — it only makes something more beautiful, thus making it more cool. When the enhancement of something by design, on the other hand, adds ethics to the aesthetic endeavour, it takes on the value of culture. Cool and culture overlap if one believes that design has the ability to mediate ethical behaviour through its aesthetics. An affinity with design then guarantees the right thing will be done. The ABC of design (appropriateness, business, and cool) makes the notion of design omnipresent. Levit and Levy perfectly described how design seems to hold the key for recognizing the successful change the market requires. They claim that ‘instead of progress we now speak of creativity’.

In 2008, as a keynote speaker for the Design History Society, Bruno Latour gave his point of view on the ‘extraordinary career of this term [design]’. Similar to Foster and Levit and Levy, Latour recognized design’s incremental entanglement in all aspects of the world we live in. Latour argued that the notion of design expanded from simply adding a veneer of form to others’ creations (in a modernist era), to its current all-encompassing role. Levit and Levy had also described this primary mode of design: the idea of optimizing utility and legibility (which they called one of the great shibboleths of modernist design).

Latour presented five characteristics of contemporary design (modesty, a focus on details, semiotic skills, remedial function, and ethics) that reveal its overall quality to serve. Unlike Foster, Latour made this strategic reading of design align with his ‘we have never been modern’ argument. Latour argues that design is no (longer) tabula rasa: it is the ‘new revolutionary energy’ that instigates a socio-political agenda in every matter of concern. ‘[T]he new revolutionary energy has to be radically careful, or carefully radical’.

While Levit and Levy dwell upon the work of Mau the (graphic) designer, Foster is a cultural critic who discusses evolutions in art and architecture, Florida is an economist and social scientist who studies the driving forces for economic development of American cities, and Latour is a philosopher who thinks about the sociology of science and technology. These seminal voices (Levit, Levy, Mau, Foster, Florida, and Latour) demonstrates that design is omnipresent, but by adding their personal agendas, they also (be it indirectly) contribute to the stretching of the notion. This reflection on the status of design
and creativity, at the beginning of the 21st century, shows the indiscriminate use of 'design' by a widening sphere of disciplines. They all embraced 'design' as the new holy grail. Architecture was but one of these disciplines.

1.1.2. Architectural Design as Expertise

The way I read the arguments of many architects in the 1970s and 1980s is to resume authority by theorizing on method, meaning and the formal language of architecture — by claiming design specifics as their area of expertise. Instead of converging upon one unified understanding of architectural design, a plurality of competing theories emerged. The general dispersal of understanding design and creativity had also occurred within architecture itself, particular presumptions about a critical faculty falling like sediment to the dim bottom of the pool of discourse. The resulting plurality required the discipline to be armed with knowledge from various perspectives, which complicated the soul-searching for clear foundations. At the beginning of the 21st century, the lack of clarity on design and creativity continues to haunt the discipline. However, as argued before, architecture cannot be satisfied with the pretence of pluralism, because the vagueness of design and creativity forms a real problem in many situations.

The first intimation of this problem arises in the ambiguous relationship practitioners have with academic institutions. Practitioners sometimes distance themselves from an alleged bureaucratisation of academic institutions, suggesting that practice in reality can continue to exist without the guidance of the pluralistic — read confusing and hermetic — theoretical practice of the institutions. However, it would be a very confrontational situation for the discipline if practice could indeed distance itself from institutions and their theory. But the architectural community that is involved with real practice still depends on the institutions. Sometimes, a teaching position provides a minimal and stable income, or architects compete to be picked up by the institutions as a leading example, which reflects well on their private practice. Being endorsed by an institution is a powerful asset in the acquisition of work. Or, practitioners simply use the institutions to establish (by comparison) a mode of conduct in their private practice. I believe the ambiguous relationship of practitioners with academia is rooted in the vagueness of design and creativity.

Another example of how, in recent years, the epistemological problem of design and creativity is magnified to a real problem for discussing architectural
design practice, can be found in architectural education. The challenge for theoretical clarity is fuelled — at least in European countries — by the reorganisation of universities according to the Bologna agreements. All architectural education has to comply with academic standards. Future academic partners try (and often fail) to understand architecture’s theoretical underpinnings. Triggered by academic reorganisations, these questions become primary focal points for the discipline. Due to ongoing restructuring and reevaluation of curricula within academia, architectural research, the basis for knowledge production, is the topic of lively debate. The question being asked is whether research in which design plays a crucial role truly results in novel insights. The following paragraphs give pause to a typical ‘research by design’ discussion, that will reveal the vital urge to define design, and the ambiguity of its main driver, creativity, comes to the fore. Academics can discuss when and where creativity happens in the design process, but we have only a vague understanding of how it works, let alone how to defend its critical faculty. Proponents of architectural research, therefore, argue that research into the thing itself — a ‘practice turn’ — is so initial, a method I will explore in chapter five.

A method with non-falsifiable steps

In 2011, the Antwerp School of Architecture — at the time a University College — was on the verge of becoming part of the Antwerp University as the new Faculty of Design Sciences. For the school, this was an opportunity to review its curriculum and present itself to its future academic partners. An intense period of introspection, prospection, benchmarking and debating professional and academic qualities followed. As a PhD researcher with a history in practice and design teaching — and with a critical stance toward the use of design teaching studios in research — I was drawn into the orbit of the ongoing research by design (RbD) debates. One of the recurring questions was to what degree design-driven research contributes knowledge related to architecture. This is a crucial question for the architectural discipline if it wants to see its education and research valued according to academic standards. It is important to mention these ongoing debates for their critical examination of design as a medium, without turning the inquiry into an assessment of RbD. Therefore, I will only shed light on how in the RbD debates the background noise of design ideology starts to play a crucial role.

It is in the best interest of an institution to make its primary field of expertise and the domain(s) to which it most abundantly contributes as clear as possible. Schools of architecture often stipulate that design is the main focus of
their architectural education. Thus, when asked about their field of expertise, several institutes will answer ‘design’, and in relation to research, they will answer ‘research by design’. However, at the same time they often present RbD as a field that has emerged only recently. They do so, hoping to get special treatment of funding agencies, because the general reservation resounds: the quality of RbD cannot be guaranteed because a standard falsifiable RbD methodology has not yet been proven to future academic partners or funding agencies.\textsuperscript{19} Claiming to be both a young field and a field of expertise results in a paradox, which is the main impetus for recurring debates on architectural research in relation to architectural education.

**Design Compared to Research**

One of the academic voices making a progressive case for design is the Anglo-Irish design researcher, Ranulph Glanville. In his 1998 article, *Researching Design and Designing Research*,\textsuperscript{20} his primary interest is to create a historiography that provides the ongoing debates with points of reference. His main concern is the scientific character of design. If ‘research is a subset of design, not the other way round’, then the problem is not whether design is scientific per se, but rather to convince others that it is.

Glanville builds his argument on the idea that in any research, in whatever field, the experimenter, and not the experiment, is the most crucial factor. The experimenter designs the experiment, predicts the outcome, and determines when a desired outcome has been reached, and it is the experimenter who observes and reports. That is why Glanville prefers ‘knowing to knowledge, because knowing requires an agent to know whereas knowledge appears to be knower-free’.\textsuperscript{21} Theory, according to Glanville, turns observations into science, which is understood as the knowing of the world we live in. Theory, he further argues, reports on a process of finding patterns, and continues to interpret, clarify and reflect extended understandings. Thus, theory also requires agents. He argues that agents — that is, experimenters, observers, or theorists — are not looking for ‘the truth’. Rather, agents are looking for affirmation from — and recognition by — a respected community of fellow experts.

A refashioned pragmatism permeates Glanville’s argument, which is specific and compelling. If design’s scientific nature is questioned because it depends on a creative agent, then, by the same token, the scientific nature of all research should be questioned. Or inversely, the moment one recognises that the creative agent is the most significant determining factor in all scientific or other research, then design is scientific by nature. Glanville assigns a crucial role to
creativity (of which the main mechanisms remain elusive) in any form of research. He believes we have the opportunity to reach a higher level of complexity and intelligence, but striving for universal certainty — ‘the truth’ — prevents the non-universal — ‘the local truth-equilibrium’ — from being recognised as an opportunity. Glanville adds that it is obviously true that ‘there are qualities essential (and all too often forgotten) in design which are remembered and given primacy in (scientific) research, such as rigor, honesty, clarification and testing, and the relative strength of argument over assertion’. Glanville argues that respecting these essential qualities guarantees a qualitative systemic methodology, a rhetorically solid defence. Nevertheless, Glanville does not make explicit whether the agent in question is being creative in the same way for both design and research. Nor does he make explicit what creativity is in this context.

**Architecture and Design**

The British architect and theorist Jeremy Till builds a similar case for architectural research in a paper written in 2005 for the RIBA’s Research and Development Committee. In it, the problem shifts from design to creativity. Whereas Glanville directs his arguments outwards to protect the inner circle of designers, Till directs his arguments inwards. On the one hand, he warns us who practise and research architecture not to rely on ‘the twin notions of genius and autonomy’ because that will eventually drive architecture into irrelevance. On the other hand, he warns the discipline not to divide itself into parts that turn to other disciplines for authority. Finally, he also breaks with the idea that a private practice is equal to a laboratory, which would otherwise make practice synonymous with research. He believes that architectural research can live up to the triple test of originality, significance, and rigour. However, architectural practice needs to overcome its current state of being tacit research. For this reason, academia needs to perform

> an archeology of the processes of architectural production ... [F]unding for research has to shift from sliced areas of knowledge ... to a more coherent strategy, ... and money needs to be made available directly to practices in order to enable and (importantly) communicate primary research.

Again, this is a solid case for overcoming the general reservation concerning the guaranteed quality of RbD. The ‘archeology of the process’ suggests a clarification of what happens in the creative intervals. Yet suggesting we inquire into the process of creativity is not the same as problematizing creativity itself.
Strikingly, the arguments of both Glanville and Till circumvent any further elaboration on the notion of creativity. They are primarily interested in convincing others that architectural research — or RbD — can potentially meet academic standards. But for others (academic partners and funding agencies), time and again, the creative process appears to be a confused mass of heterogenous decisions, without much theoretical underpinning. If creativity is one of the constituents of the architectural task, then different interpretations of creativity imply different understandings of the task.

One of these current interpretations, used in what Till calls 'myth one', is that the creative process is associated with the individual, subjective, and thus non-falsifiable process of conceiving — understood as the genius receiving transcendental insights from the Muses. The genius-creator is a widespread notion often recognised as the primordial interpretation of how creativity occurs — at least within the arts and, thus, often also within architecture. In his paper of 2005, Till dissociates himself from this genius notion without mentioning an alternative. But in *Architecture Depends*, written four years later, the allusion to the above-mentioned notion is telling: Till states that 'the uncanny thing about architectural creativity is that, despite many attempts, it resists complete explanation'.

A seminal anthology in contemporary psychology, *The Handbook of Creativity*, for example, lists six ‘roadblocks’ that explain why creativity has been an underdeveloped research topic. First, the origins of the study of creativity were based in a tradition of mysticism. Second, the study of creativity had a pragmatic approach towards techniques and theory, making it more a commercial endeavour than scientific research. Third, early work on creativity was seen as peripheral to the central concerns of psychology. Fourth, in an attempt to remove creativity from any sole association with the genius creators of society, alternative studies that involved the common man led to criticism that the research topic and outcome had been trivialized. Fifth, the cognitive approaches to studying creativity (based on mental representations and underlying processes) subsumed creativity as a special case of what is already being studied. Sixth, and finally, the social-personality approaches to study creativity focussed solely on environmental, motivational, and personal variables, which results in an unsatisfactory vision of creativity. The book argues that only by the end of the 1990s an integral approach emerges in which the confluence of all approaches generates new insight.
Ultimately, Till and Glanville make good cases for the undeniable role of creativity, but unfortunately without peering into the creative phenomenon itself. Freud once defined scientific creativity as ‘the interplay between daringly playful fantasy and relentlessly realistic criticism’. By doing so, Freud clearly recognized a non-critical component of scientific creativity. Neither Glanville nor Till arrive at a similar specific identification of the creative phenomenon. While the RbD debate acknowledges a vital role for creativity, I believe that the circumvention of any further identification comes from an anxiety to erode current design ideology.

**Confined Moments of Creativity During the Dreaming Phase**

Architects need to make their position on creativity explicit in more than discussions on ideology. Two more examples come from the practice of teaching design and from design management in an architectural office.

During the design process, young designers need to be aware of two important pitfalls: the blank sheet and the doodle-drifting phase. The blank sheet is a symptom of having no clue where to start. While it seems wise to take their time in finding a good way to begin, the only idea that develops is that there must be a better starting point than the one they have in mind. The second pitfall is to get lost in the doodle-drifting phase in which they continue to draw unfinished impulses, while at the same time due to the belief that they will never arrive at an inspiring outcome, a dissociative distance grows. Their minds become observers transfixed by these unfinished doodles. These two pitfalls can lead to complete inhibition. To avoid these pitfalls one needs to confine the creative moments.

In one of the design studios that ran parallel to the research for this dissertation, students were introduced to a minimum of creative techniques. One technique that is easy to grasp is Walt Disney’s thinking strategy. It consists of three creative development phases: dreaming, engineering, and critiquing. The key is to set a time limit for each phase and to make sure they do not overlap. In other words, they should not critique an uncensored dream that bounces off different irrational or surreal associations. Afterwards, students were able to articulate where in the design process they were inventing something and where they were producing along the lines of convenient techniques. At the same time, in this situation, understanding moments of creativity seem to be an ambiguous endeavour. When discussing contingent design decisions with students, finding arguments for what should happen in the dreaming phase is difficult. It is the most elusive part of the creative process.
The problem does not restrict itself to teaching. Also in the context of a private practice the elusiveness of creativity (and thus design) is often problematized. Clients, regulators, board of directors, or user groups rarely question the contingent design decisions. They are mainly concerned with the exigent aspects of the design, one of which is to keep the developmental phase as short as possible. The clients expect a highly efficient working method. Since the creative moments are risk factors in design process management, designers must improve their design dexterity. Thus, clients do not necessarily demand an explicit creative process. However, a design manager would be keen to control creative mechanisms.

**Design dexterity**

These examples (debates on architectural research and education, a designer at work, and questioning the ‘dreaming’ phase) show that architecture is constantly challenged to conceptualize what precisely happens while making design decisions. During the design process choices are balanced between a quest for compelling inventions and the implementation of appropriate conventions. How to decide when and why to choose one over the other? Is invention more meaningful than convention or is it the other way round? A designer at work faces these questions every time he needs to make a design decision. Design decisions are either exigent or contingent, either concerned with explicit requirements (clearly set in rules, regulations, and demands) or dependent on personal associations of the individual designer. The latter can be rephrased as a designer making contingent design decisions.

In these moments the designer must decide either to be creative or to choose practical solutions. The ABC of design suggests that good entrepreneurship today depends on creativity and innovation. Does that imply that architects need to be poietic — literally, making a new thing — in every product that rolls off their table? Is it helpful to explain the architectural task today with abstract terms such as engagement, commitment, intention, or criticality? Or is it more useful to define it in a straightforward statement such as for example, ‘Our main priority is housing - financed by the government — for the lower and middle income group’, or ‘Let us construct buildings that can have a lifespan that reaches beyond two hundred years’? The underlying belief of the question-sentences in itself is questionable. Can we reduce all decision making to a single framework that legitimises logic without bumping into epistemological problems?
Today a designer faces the abundance of ‘new’ types, models, configurations and impressions. It seems almost impractical to process this input. Acting decisively on the plurality of choices often presents itself as a substitute for the explicit attribution of value. Making consistent choices has become more important than debating the fundamentals that underlie the choices made. The difficulty of mapping and giving value to examples is not a new phenomenon. We can leave aside the fact that this activity might recently have become very intense. For one thing, the pool of examples is, ipso facto, constantly growing. For another, the effort to include or exclude examples in the world of references is inherent to the discipline. Even if it is true that the accumulation of references is evolving rapidly, the process of making choices and attributing value remains unaltered. The issue highlighted here is that choosing a style cannot be a substitute for a debate on value and purpose. If we want to go beyond a point where we only problematise pluralism we have to be explicit about the claims we make about validity.

There are two aspects of a designer at work to consider in this context. On the one hand, he constructs a personal world of references. He studies examples, dismantles them, and puts the pieces back together. This process contributes to a mental mapping of design options. Drawings, models, impressions, evocations, and technical data are produced and reproduced, thought over, theorised, and debated. References need to be checked against the exigencies of an ever-changing context. On the other hand, when a designer tries to solve a design problem, he strolls through his mental archive pondering a variety of options. Both mapping and strolling are, in large part, open-ended activities that follow a non-structured pattern. Above all, some kind of critical faculty that attributes values is at work within this activity. It is, however, not evident that this critical faculty works strictly within the confines of architecture’s version of critical theory. From a practice perspective, this dissertation considers recent architectural design theories as tools to penetrate the enigma of a critical faculty in the creative process.

1.1.3. Creativity As Expertise

During the last few decades, many new theories have emerged within the discipline of architecture, often soliciting conceptual frameworks outside the field. Any framework, however, struggles to explain the nature, effect, and function of design and its creative intervals. When studied for their guidance on creativity, none of the new theories passes as final. The Schumacher-Mallgrave
axis exemplifies the outer ends of a spectrum of theoretical approaches, whose focuses can never exist at the same time.

Symptoms of an epistemological problem in this range of theory occur when architectural design is questioned in relation to method, validity, scope, and any distinction made between justified belief and opinion. The question is how to be creative and why be creative. The rise of design and creativity combined with the epistemological challenge of grasping their meaning also gave rise to much theory on the matter, in psychology, philosophy, and other cognitive sciences.\(^{38}\) I do not question whether today design or creativity is explained to a satisfactory level. Rather, I want to show how, while these notions were in full expansion, architecture resumed authority over design and creativity as its supposed unique province. To cope with a theoretical vagueness about creativity, architecture installed in it a particular interpretation of criticality. Eventually (in chapter four), this dissertation will propose how to cope with current models of creativity, not as a final solution, but as a status report on the notion of creativity. The interim model should then allow a discussion of critical assumptions and ethical drivers more specifically.

**The Focus Paradox**

Juxtaposing Mallgrave and Schumacher — which is further elaborated in chapter three — means juxtaposing neuroscientific specificity and societal complexity. These are quite opposite perspectives. Mallgrave begins from the dark corners of the brain. Schumacher begins from an aerial view on how a societal system works. The different approaches align with the questions, do we understand our relation with the world through understanding how our senses process it, or do we make sense of our relation to the world through understanding how its systems work?

Promising evolutions in neurosciences, cognitive sciences, and artificial intelligence are the impetus for continuing to mine the brain for a source of intelligence that, for example, kept intriguing Leonardo Da Vinci. He dissected brains in the conviction that thoughts resided in the core of the brain. Modern sciences allow us to dig deeper and to make more elaborate assumptions. But even if we could reveal the cornerstone that houses a thought, there is still the challenge to understand what makes this thought reappear — or, how it is influenced by larger processes of socialisation.

Architecture grew closer to systems theory, behaviourism, and social sciences. Different knowledge fields use different approaches to break the
creative phenomenon down to constitutive elements or modules. In breaking it down to its bare components there comes a point in any knowledge field where its practitioners must realize that knowledge has been developed so far, and it cannot (for now) be taken any further because we have reached the limits of our current inquiry devices. As architects we lean on these insights of various fields for the simple reason that we do not have the expertise to do certain specific research on, for example, brain matter or linguistics.

On the one hand, it is appealing to try to discover and understand the essential components of creative thinking, while on the other hand, we need to consider the impact of all external influences. Both oppositional paths lead us to different levels of abstraction. We need to zoom in, almost to an atomic level, if we want to single out each component and its role that contributes to a creative phenomenon. The first abstraction largely contradicts the other, with the ambition to make an all-inclusive analysis of the influences at play. At the heart of the matter lies a focus paradox. In a holistic polygraph of external powers, there is no room to isolate the specific role of one essential component. At the same time, there is no way to keep the whole in view while zooming in on a single essential component.  

The Provisional Framework

Conceptualisations such as NRA’s *At Work* book are attempts to circumvent the paradox. The cornerstone for every creative thought is cast aside as a personal matter that can be excluded from any debate. The same counts for principles that would be defined on a meta level. The merits of their work must be judged within the confines of a provisional framework. The absence of an ideological substratum reduces *At Work* to a pure manual that explains design steps, techniques, and principles, without providing a theoretical blueprint to discuss any composition to which the proceedings lead.

Nevertheless, *At Work* introduces another problem: it erases the grounds to penetrate the critical faculty all together. While how architecture copes with this erasure is studied in chapter two of this dissertation, the *Projective Landscape* conference provides an opportunity to look behind the curtains. Since the conference embraced NRA’s *At Work* as one of the leading examples of what a projective practice might look like, the projective theory of Sarah Whiting is a way to see how creativity is conceived in theory that explicitly works with provisional frameworks. In a tripartite of theories Whiting’s projective theory will thus expand our understanding of a theoretical argument that starts from within practice.
The aforementioned Schumacher-Mallgrave-axis,\textsuperscript{40} with Whiting representing the middle road, is useful to sort out existing theories based on their insights towards creativity. Crucial to all three perspectives is that they build upon recent theory. However, they do not simply take one theory and then advance it. Rather, they sample the best of various useful theories. If we want to inquire into the resulting palimpsests to unravel presumptions about a critical faculty, we are obliged to revisit the former positions too. Richard Rorty's methodology provides a specific format by which to study the narratives in juxtapositions.
1.2. Rorty's Thinking Methodology

Before turning to the next chapter and start studying the first cases I want to expand on Rorty's thinking methodology and explain how he copes with different contexts while studying cases in juxtaposition. Over the course of Rorty's long and diverse academic career, he initially remained faithful to the philosophical current knowns as the positivistic Anglo-Saxon analytical tradition. Several decades later he came to reject the idea that knowledge involves the correct representation of the real (which he saw as one of the main drivers for the Anglo-Saxon tradition). Of a wide range of published writings, three major works elucidate the aspects of his thinking methodology that is applied in this dissertation: *Philosophy and the Mirror of Nature* (1979), *Contingency, Irony and Solidarity* (1989), and *Objectivity, Relativism, and Truth* (1991).

1.2.1. Questioning an Established Profession

For twenty years Rorty belonged to the inner circle of the Princeton University's philosophy department. Leaving Princeton in 1982 for a position at the University of Virginia symbolises a shift, when Rorty broke away from the philosophical establishment. That a break was coming is clear in writings that culminated in the publication in 1979 of *Philosophy and the Mirror of Nature*. He perceived a deficiency in the pursuit of objective truths, a problem in both the Anglo-Saxon philosophical tradition, which he critiqued first, as well as in that tradition's European counterpart. He argued that the pursuit of objective truth is based on the wrong idea, namely, that knowledge should bring clarity in our relation with nature.

Rorty used *Mirror of Nature* as a metaphor for a history of foundationalism in philosophical thinking. To avoid infinite regress some beliefs need to be self-justified to form the foundations to all knowledge. According to Rorty all attempts to provide self-justified beliefs are questionable. For Rorty this is problematic in all epistemologies. But the problem is not only the quest for foundational beliefs. The whole idea that knowledge had to provide a correct representation of an external reality is wrong. He goes so far as to see that the Plato-Aristotelian divide — we know the world through preconceived ideas or through our experience — comes down to the same belief. In the end, he argues, we believe that a form of ahistorical knowledge is within reach, and more, it is the raison d'être of our thinking, but this makes all metaphysical thinking problematic. He concludes that the idea that our mind exists primarily
to produce authentic knowledge is a mistake. For Rorty this idea that is 2500 years old dead-ends in the inability to ever achieve any objective truths. Thus, whether we like it or not, we are stuck with the ‘other’ of objectivity, whatever that may be.

These arguments brought Rorty worldwide recognition and criticism at the same time. He adopted a postmodern attitude by which he rejected any metaphysical thinking. During the second part of his career opponents accused him of undermining his own profession. The accusations follow this logic: If, philosophical thinking no longer orients towards understanding our relation with nature — in order to advance the human condition — then all critical thinking is doomed. Philosophical thinking would become irrelevant. This was a critique Rorty took seriously. He wanted to prove that a valid position for contemporary philosophers was still possible, and so he looked to a renewed form of pragmatism, the ironist position, a position he himself held for the rest of his career.

1.2.2. Irony, Contingency, and Solidarity

One of Rorty’s attempts to counter the accusations was his seminal work *Contingency, Irony, and Solidarity*. In this book Rorty reads the work of important figures against the backdrop of his own interpretation of the ironist versus the metaphysician. He draws from that body of work to identify a final vocabulary, which comprises a set of inherited beliefs whose contingency — a ‘final’ vocabulary is subject to change — we tend to ignore. A final vocabulary refers to a mode and an apparatus by which one expresses oneself, without further questioning the mode or apparatus as such. Thus, when I use Žižek’s notion of ideology, for example, which refers to a simplified set of beliefs of which one forgets the crucial ‘background noise’, I see it underlying the new intellectual attitude of pacesetters. It is the method by which pacesetters construe and convey a theoretical argument — as flamboyant, oppositional, and dialectical framing. It is also thus that partial theories can be defined as ‘fabricated legitimizing frameworks’. Rorty’s concept of final vocabulary, in fact, comprises the three particular notions: design ideology, fabricated legitimizing framework, and intellectual attitude.

Rorty argued that we generally operate within someone else’s final vocabulary. We acquire a final vocabulary rather than create one ourselves — unless(!) we possess a sense of irony. In this case irony means resisting the acceptance of a common understanding and mode of expression. It is a
resistance against impressions gained from authority figures. And it serves to create an authentic ‘Self’. In fact, a central theme in the book is, ‘How do we overcome authority without claiming authority?’ Rorty detected this same question within the work of figures such as Nietzsche, Freud, Heidegger, Proust, Foucault, Habermas, Derrida, and others. What occurs after the moment one raises doubts about the final vocabulary in which one is socialised? Rorty warns of the danger of relapsing into metaphysics.

Rorty drew an interesting scheme for this dilemma. He saw irony as the ladder by which one can climb out of an inherited final vocabulary. This requires recognising the contingency of existing beliefs and trying to redescribe these beliefs within a temporal reality. The critical moment comes towards the end of the ladder when the ironist narrative tends to synthesise the redescriptions again into general tenets. Therein lies the pitfall. Irony serves to create a private authentic Self, while the intent of theory is to synthesise for the public at large. The private ethic of self-creation does not correspond well with the public ethic of mutual accommodation. According to Rorty, the end of the ladder pitfall can be avoided only by trying not to fuse private and public purposes. Thus, for Rorty, irony and theory do not go well together. At best, the end products of ironist theorising were mere fantasies or suggestions for the like-minded, bits and pieces that resemble a coherent narrative.

The mismatch of irony and theory allowed Rorty to differentiate generally between two types of philosophers. On the one hand are the philosophers who are only relevant in the private realm, while on the other, are those who continue to engage in the public sphere. It would be wrong to use the discourse of one in the realm of the other. According to Rorty the work of, for example, Nietzsche, Sigmund Freud, and Jacques Derrida can only be appreciated in the private realm. That is why Rorty considered Derrida’s writings as critical assessments that are only relevant to whomever feels related. Rorty defined Jurgen Habermas — with his theory for communicative action — for example, as an ironist who pursues a discourse with a public purpose.

Rorty explained the end of the ladder pitfall by reflecting on, for instance, Heidegger. He read Heidegger’s ‘house of Being’, a central expression in Being and Time, as a metaphor for language and thus — in Rorty’s own terminology — as a final vocabulary that falls victim to contingency. Alongside this final vocabulary, for Heidegger, there are some stable, universal words — elementary words. These words (phonemes) gather the essence of Western being over time.
For Rorty, this raised an important question that is relevant in my inquiry into architects’ claims about a critical faculty:

*How does Heidegger know an elementary word when he sees one, a word that has force rather than just use? If he is as finite, as bound to time and place, as the rest of us, how can he claim to be able to recognise an elementary word when he hears one without turning back into a metaphysician?*

### 1.2.3. The Pursuit of Solidarity

For others the ironist position seems to be a slippery slope by which a philosopher risks falling back into metaphysics or sliding towards relativism. For Rorty denying both epistemology (looking for self-justified foundational beliefs) and metaphysics (the quest for objective truths) forces philosophy to become a purely ethical endeavour. The turmoil of the second part of his career heralded a final phase in which he tried to counter the criticisms, focussing further on how to avoid metaphysical claims without falling into irrelevance.

Rorty questioned the whole idea of the expected outcome from knowledge production. To explain why he considered it a misconception, Rorty referred to ‘the traditional image of the human situation’. In this image, human beings have a core self that contains private beliefs and desires. In the traditional image, the human self is placed in opposition to reality. Private beliefs and desires can thus be criticized because they may or may not correspond to reality or to the essential nature of the human self. Within the traditional image, a third element mediates between the self and reality, a medium by which we understand things to either represent reality or express the essence of the self. Throughout Western history this medium has been, successively, God, man, mind, reason, consciousness, unconsciousness, and language. As long as we replace one mediating transcendental signifier by another, the traditional image stays intact. Rorty can thus pose provocative questions about the medium:

*Does the medium between the self and reality get them together or keep them apart? Should we see the medium primarily as a medium of expression — of articulating what lies deep within the self? Or should we see it as primarily a medium of representation — showing the self what lies outside it?*

For Rorty, these questions addressed the elements of the traditional image, but left the picture intact. However, when the stable elements that construe the image are questioned, the image lost its instrumentality. Ironist questions made
the image fall apart: Is there but one reality? Or does an essential nature of the
human self even exist? Or does our language truly stand in some determinate
relation with the self and reality?

In Rorty's lecture 'Solidarity or Objectivity?', is the opening chapter of
Objectivity, Relativism and Truth, he explores a possible third way to
characterise reflective human beings. His goal with this lecture was to counter
his critics' argument that the alternative for rationalism would be relativism. In
it, Rorty argues that this assumption only holds within the traditional picture
of the human condition — that is, if our beliefs and desires correspond in some
determined way to the intrinsic nature of things. Rorty claims that his critics'
'rationalism' referred to a process that aimed to justify their beliefs and elevate
them to 'knowledge'. In their alternative all becomes relative and dependent on
opinion. But, Rorty further argues, an ironist who denies the traditional picture
of the human condition does not embrace relativism — he only redefines
rationalism to the confines of pragmatism. Thus, before the pendulum of
common sense swings all the way to the other side, Rorty sees a third way out of
the dilemma. And that is a pragmatist position.

For Rorty, the pragmatist position escapes what he calls 'the Cartesian fallacy
of seeing axioms where there are only shared habits'. Yet the pragmatist
position is not aligned with other key ideas that hold true for the relativist: (1)
every belief is as good as every other, (2) the word 'true' has as many meanings
as there are justifications, (3) human nature is a useful moral concept, and (4)
the inner nature of men would always converge into a better and ultimate
human condition. That leaves the pragmatist with the liberal hope that his
justification is better than others, without it turning into a new theory about
the nature of things. Rorty does not want to condemn all fundamental thinking
or scientific engagements: there is nothing wrong with such thinking as long as
we do not divinise it. It will not lead us to objective certainties, but it might
express the hope we have in finding the best justification available.

With his new pragmatist interpretation Rorty abandons the need for
foundational beliefs. At the same time he eradicates the notion of the ultimate,
the ideal, or 'Grenzbegriffe', to which any form of insight would converge.
Inquiry then can be viewed as 'the continual reweaving of a web of beliefs rather
than as the application of criteria to cases'. If beginning and end (ahistorical
foundations and Grenzbegriffe) are removed, the whole idea of one consistent
theory crumbles. There can no longer be opposition over which theory
outperforms the other. Eclecticism becomes a virtue. Any argument can then
build on the best practical justifications available. Conceptualizations become inclusive, in the sense that they derived ideas from a broad and diverse range of sources. Although Rorty stood for a new pragmatism, his version goes beyond the strict systematic analysis of habitual behaviour. With his ironist attitude, he wanted to revise his own profession. He wanted traditional philosophical practice to stop focusing on the wrong questions, questions that only existed, according to Rorty, to maintain a self-established professional discourse. With Rorty, new pragmatism became an instrument to make ethical dilemmas the centre of philosophical talks.

Dismissing meta-narratives in favour of an open dialogue meant that any single dominant voice could express a promising thought. The flip side of this idea was that without any normative voice a minimal quality was not guaranteed. And even more pessimistically, a counterproductive or destructive voice could gain the upper hand. Rorty attempted to quell such a revival of pessimistic skepticism. As an alternative he proposed the optimistic notion of liberal hope in the pursuit of solidarity.

1.2.4. Rorty’s Concepts Applied to Architecture

In the safe zone of this dissertation we can further ignore the critical reservations about Rorty’s optimistic approach. Rorty’s lens is useful for reading and comparing recent architectural rhetorics. If we give up the idea of an ultimate architectural theory, the alternative is not necessarily ‘anything goes’. With Rorty we have a perfect guide to help avoid a fall into relativism. Rorty’s apparatus allows us to ply between the best of both worlds. Therefore, we should read the big narratives of today as primarily a collage of sublime imaginations. We no longer have to think in opposites as we search for the most sense-making unified theory. Instead we can discuss an inclusive argument that builds on the best of everything.

This dissertation addresses the designers that share Rorty’s irony. These designers have radical doubts about the final vocabulary used at the design table, because they recognize that other vocabularies are as plausible as their own, if not more so. For these designers, while choosing a ‘style’ and staying consistent may give a sense of coherence to their work, they are convinced that the weight given to coherence and consistency today suppresses a fundamental inquiry into underlying mechanisms of making value judgements. They also know that to continue working within the same final vocabulary will not dissolve their doubts. However, these designers do not believe that any design
legitimising vocabulary is closer to reality than others, nor does one particular vocabulary express any more profound meaning or more truly represents the real than another. For Rorty the opposite of irony is common sense, in which one takes the final vocabulary for granted. If Rorty’s common sense would rule architecture, then architects cannot but accept current pluralism. But as soon as the understanding of creativity reaches a level of ambiguity, then for the ironist that ambiguity demands for an intense inquiry into current theoretical underpinnings of creative terminology. The reflection that lies before you is only relevant to those who share this ironist point of view.

Therefore, inspired by Richard Rorty’s concepts, this dissertation further aims to unravel the notion of criticality in the creative process. Rorty’s perspective reveals an epistemological problem. We cannot determine a single understanding of creativity in architecture. No fundamental basis exists for what and how to create, because, according to Rorty, no intellectual frame — or no final vocabulary — has transcendental value. The lack of stable footing for architectural creativity is only a problem when architecture goes beyond the regular scope of pragmatism, that is, when the goal of the discipline, too, is to report on more than design habits and to legitimize what and how to create. In fact, the aim of theorizing beyond technical instructions relates to the peculiar bond between practice and theory that Vitruvius problematized two thousand years ago.

Seen through Rorty’s lens, the three examples that form the Schumacher-Whiting-Mallgrave axis elucidate how contemporary theory, while taking on a form of pragmatism, continues to struggle with concepts such as Grenzbegriffe, foundational elements, or irony. Mallgrave’s neuroscientific insights in the architect’s brain is a form of theory that starts from foundational elements. Schumacher, on the other hand, starts from the Grenzbegriffe to which a system converge, that is Schumacher’s preconceived idea of the continuous drive for innovation. NRA’s design manual based on a provisional framework per project starts from within the confines of practice. But as soon as Whiting underpins such an example of projective practice with a theoretical evaluation system she struggles to incorporate the ironic aspect of a final vocabulary — the contingency of the evaluation system itself. This dissertation explores the field of recent architectural design theories through these familiar examples. Within Rorty’s research format using examples is the only valid approach. We start from our own understanding of references and aim to expand the notion of ‘us’ — those for whom the examples mean more or less the same thing — as far as
possible. The examples represent final vocabularies that we can recalibrate by studying them in juxtaposition.

1.2.5. Maintaining a Professional Discourse

The notion of the traditional image, as described above, has an equivalent in architecture. It reflects the idea that an architectural canon mediates between the essence of architecture and the external reality — either by representing the real or by expressing innate architectural qualities. As long as we accept this image, we can discuss what the canon represents or expresses. If, on the other hand, we denounce the traditional image as such, we can no longer discuss such things.

The questions Rorty asks of the idea of the traditional image can be transposed to architecture, too. Is there but one reality to which architecture relates? Does the means by which the essence of architecture is related to its external reality — which we might call the architectural apparatus — have its own essential nature? Does the architectural apparatus truly stand in some determinate relation with the essential nature of architecture or its reality to which it contributes?

Guided by Rorty’s concepts, this inquiry will focus on the current friction in which any fabricated legitimising framework becomes metaphysics as soon as it leaves the private sphere. If we embrace the idea of denying any form of meta-narrative, then we may also have to accept that theory becomes irrelevant. However, theory is more present than ever. It seems that today we reverse the idea of theory giving substance to the real: the real gives substance to theory; practice tells us what to theorize. The issue becomes one of setting an agenda of priorities within practice. Using Rorty’s concepts in the realm of this dissertation thus allow me to expand on current angles of conceptualisation. He considers the inclusive collage of theories, or a purposeful hybridity, as the best justification available to serve practice.

1.2.6. On Creativity and Solidarity

In contemporary theories creativity and solidarity seem to be two crucial variables. The pursuit of solidarity, of an agenda, an idea, or an opinion agreed on by many, provides the substratum to construct, for example, an architectural agenda. But just because an agenda, an idea, or an opinion is agreed upon, the best option is not necessarily guaranteed. According to Rorty, that solidarity
must be combined with irony to constantly challenge the acquired nature of the solidarity.

Translated to architectural theory, solidarity becomes a matter of inclusion and exclusion. By pursuing that which many agree upon, boundaries for the architectural task arise: styles, personalities, proper design choices, and so on. Consistent with postmodern intelligence, we can perceive architecture's reality as a multiplicity of narrated practices. Rather than becoming boxed in by competing narratives, we can then concentrate instead on the missing element, that is, the assumed critical driver — the ability to, at once, both read a system and see the proper way to advance it.

Architects often claim design as their sole province. Design is driven by creativity, of which the capacity to be critical is explained through different frameworks. While this capacity of creativity — the critical faculty — is simply assumed, it must be present both practically and ideologically. Creativity must be critical, able to make judgements, on a practical level, and on an ideological level, the supporting solidarity of the architectural community also needs to be critical. Only when the assumption of criticality on both levels is valid, can architects consider their position as critical — implying that their attitude and actions are also critical, are also responding to the faculty of assessing. Yet, as further inquiry will show, neither creativity nor solidarity can be assumed critical by nature, which installs aporia in contemporary architecture.
CHAPTER 1 ENDNOTES

1 Rorty, Objectivity, Relativism, and Truth, 23.

2 Cfr. infra: Slavoj Žižek on Ideology. See chapter two and four.

3 Rorty is also a model in a literal way. Rorty’s new intellectual style compares to the architects’ intellectual style that came to dominate the discourse in the 1970s and 1980s. In confrontation with their own discipline, the pacesetters (Krier, Eisenman, Koolhaas, Alexander, and so on) behaved in a similar way as Rorty. They gained authority by disrupting the discipline.


5 The Massive Change exhibition originated in Vancouver after which it was moved to Toronto.

6 Hannover had slightly different themes: knowledge, mobility, communication, health, nutrition, environment, basic needs, etcetera, which indicates that Mau’s aim for an encompassing overview on the power of design could still be expanded.


10 Levit and Levy, "Design Will Save the World!,” 88.

11 Ibid., 89.


13 A Cautious Prometheus?: A Few Steps toward a Philosophy of Design (with Special Attention to Peter Sloterdijk), 7.
To hold an academic position today means to meet with growing expectations towards research development and the publication of innovative outcome. Architectural teachers from a former setting have difficulties to meet these expectations. The mantra: 'I am not a writer and certainly not a producer of footnotes', is often heard to explain the refusal to comply to academic standards. One could, however, argue that since this mantra reduces architecture to a mere commodity it is more likely that the production of footnotes will be all there is to it.


Primary source: Peter De Graeve, "No University without the Arts," (2010). For more information on the Bologna declaration I refer to the EHAE website http://www.ehae.info

I can refer to, for example, the PhD program developed by the School of Architecture and Design at RMIT University: https://practice-research.com/about/ which has close collaborations with the Faculty of Architecture at KU Leuven.

Research by design is, strictly speaking, not a new concept, nor is it a strictly European issue. For a broader idea of the ongoing research by design debates in European schools of architecture, I refer to the 2012 conference proceedings, Theory by Design, and the work of the European Association for Architectural Education (EAAE). Further readings that offer a more global perspective on architectural research are: the 1958 report of the RIBA Conference (in Oxford) on Architectural Education by the Chairman, Sir Leslie Martin; the 2011 article, Experimental Cultures: On the 'End' of the Design Thesis and the Rise of the Research Studio, by David Salomon, Cornell University, in the Journal of Architectural Education, in which he refers to the first issue of the Journal of Architectural Education in 1947, asking "what exactly are we (architects) talking about when we talk about ‘design’ and ‘research?’"; Michael Joroff and Stanley Morse’s 1984 compilation of essays entitled, Architectural Research; Jeremy Till’s 2005 discussion paper at RIBA, London, What is Architectural Research? Architectural Research: Three Myths and One Model; and the 2012 contribution of Andrew Leach to Footprint, entitled, Inventory - Architecture Culture and the Question of Knowledge: Doctoral Research Today, in which he refers to a 2005 contribution to the unthinkable doctorate conference.
To finance its research, an institute must apply for funds from private or public agencies. Generally, the quality of research is guaranteed when: first, a known methodology is used, second, the researcher or research team works within its field of expertise and, third, the research contributes to its domain and beyond. As a new field, RbD hopes to get financial stimuli as a sort of investment in its potential to become a field of expertise, while it cannot yet guarantee its quality of research. Nevertheless, it can be argued that RbD is an older and recurring phenomenon (cfr. supra), in which case it cannot demand special treatment and simply has to comply with academic standards. Another way out of the catch-22 may be to lobby for a separate niche among the funding agencies, which would then be dedicated especially to RbD (however, this falls outside the scope of this dissertation).

Ranulph Glanville was an external and independent advisor to the steering committee of the Antwerp University College for Architecture. The committee was set up to prepare and guide the existing school in becoming the new Faculty of Design Sciences of the University of Antwerp in 2013. The author discussed the intention of Glanville’s article in relation to creativity in a personal interview, July 2011. Ranulph Glanville, "Re-Searching Design and Designing Research,” Design Issues 15(1998).

The voice of Bruno Latour is present in Glanville’s argument. Latour, for example, is generally recognised as one of the key philosophers to have popped the certainty bubble for science and to have foregrounded the notion of agencies and their behaviour within a network.


Robert J. Sternberg, Handbook of Creativity.


In 2009, I was involved in a design teaching studio on alternative prison types for Belgium. The federal Minister of Justice commissioned a report that had to provide innovative design hypotheses for the Belgian prisons. Up to that moment, the official guidelines still followed the Ducpétiaux model, which is characterized by its star-shaped layout. A research statement had to be extracted from the work produced in the studio. The entire setup — including the report and the presentation to the Minister of Justice — is often referred to as an example of design research that serves community purposes. It is presented on various occasions by the Antwerp School of Architecture when presenting itself to other institutions. The specific conditions for this studio assignment required efficiency of the students’ design process.

The study of creative techniques is often perceived to be merely of commercial interest and, therefore, considered peripheral to the core research in psychology. Cfr. Supra.

This phrase refers to how the primary task for architecture was defined at the first Congrès Internationaux d'Architecture Moderne (CIAM) in 1933.

I make an elaborate case for the making of a world of references in my contribution to the 2012 Theory by Design conference at Antwerp University College. The world of references, out of which we sample solutions, exists synchronically at any given moment in time. Nevertheless, it is important to realise we study this world of references and how it evolves diachronically. Sven Verbruggen, “Building a World of References; Reinhold Martin’s Utopian Realism into Practice: Counterprojects Revisited,” in Proceedings of the Conference Theory by Design at the University College of Antwerp, ed. Els De Vos, et al. (Antwerp: UPA University Press Antwerp, 2013).

Peter Eisenman, for example, is known for this method of constructing new forms of architectural design theory based on the appropriation of other conceptual frameworks. Noam Chomsky’s syntactic structures served as a basis for Eisenman’s first work. At the same time, he appropriated concepts that were prominent in minimal art — such as the notion of ‘presentness’ as discussed by modernist art critic, Michael Fried, in his essay ‘Art and Objecthood’, published in: Gregory Battcock, Minimal Art: A Critical Anthology (London,: Studio Vista, 1969). Later, Eisenman adopted structuralist and post-structuralist vocabulary.

Robert Sternberg provided an overview on research into creativity. Mihaly Csikszentmihalyi is one of the leading references on creativity in psychology. Richard Florida studies creativity as an aspect of economic development. More recent, also neuro-based research inquires into the creative phenomenon, with people such as Semir Zeki or Dick Swaab. And thus, with Mallgrave, also in architecture the term creativity makes its way into the title of theoretical work. Also biosemiotics (a combination of semiotic signs theory and systems theory) studies how the creative phenomenon emerges in complex organisms. Csikszentmihalyi, Creativity : Flow and the Psychology of Discovery and Invention; Sternberg, Handbook of Creativity; Semir Zeki, Splendors and Miseries of the Brain : Love, Creativity, and the Quest for Human Happiness (Chichester, UK ; Malden, Mass.: Wiley-Blackwell, 2009); Mallgrave, The Architect’s Brain : Neuroscience, Creativity, and Architecture; Florida, The Rise of the Creative Class : Revisited; Victoria N. Alexander, ”Creativity: Self-Referential Mistaking, Not Negating,” Biosemiotics 6, no. 2 (2013); Dick Swaab, Ons Creative Brein (Amsterdam: Uitgeverij Atlas Contact, 2016).
Sternberg, although phrased differently, reported this problem as one of the main roadblocks to arrive at an integral study of creativity. Sternberg and Lubart, “The Concept of Creativity: Prospects and Paradigms.”

This dissertation looked at different models in theory that organizes existing theory based on their angle towards creativity. Neither prescriptive, nor prescriptive or critical theory — to follow for instance Kate Nesbitt’s categories — uses the creativity question as a sorting mechanism. Kate Nesbitt, Theorizing a New Agenda for Architecture: An Anthology of Architectural Theory, 1965-1995, 1st ed. (New York: Princeton Architectural Press, 1996).


Contingency, Irony, and Solidarity.


Rorty, Essays on Heidegger and Others.

Contingency, Irony, and Solidarity, 116.


Rorty, Contingency, Irony, and Solidarity, 11.

Objectivity, Relativism, and Truth, 21-34.

Ibid., 26.

Ibid.

Rorty’s original definition of an ironist: ‘(1) She has radical and continuing doubts about the final vocabulary she currently uses, because she has been impressed by other vocabularies, vocabularies taken as final by people or books she has encountered; (2) she realises that arguments phrased in her present vocabulary can neither underwrite nor dissolve these doubts; (3) insofar as she philosophises about her situation, she does not think that her vocabulary is closer to reality than others, that it is in touch with a power not herself.’ Contingency, Irony, and Solidarity, 73.

This answers to one of the main critiques on Rorty’s method. It presupposes that someone has to be already an ironist to achieve an ironist position. If you are not an ironist, then an ironist point of view will not help you resolve your thinking problems.

As mentioned above, this dissertation further leaves aside Kühn, Popper and Dewey because they approach the problem of ‘stable’ knowledge mainly as an analytical, systemic question. Whereas this argument aims to bring a rhetorical and ethical perspective. There is, of course, an overlap through the large focus on behaviour in the pragmatist tradition. Rorty’s renewed pragmatism is indebted to, for example, Dewey, Peirce and Wexner. Therefore Rorty is not portrayed as the better option.
2. Two Case studies: The Atlantis Project of Léon Krier Versus The At Work book of Neutelings Riedijk Architects

This chapter will juxtapose two case studies: the ambiguous history of Krier’s Atlantis project whose otherworldliness recent theorists anxiously keep at distance, and the At Work book by Neutelings Riedijk Architects (NRA), singled out by the Projective Landscape conference to exemplify new emerging practices.

Krier is a figure whom some critics claim to distrust. Yet his work continues to intrigue and inspire. Because Krier has a strong ideological agenda, he seems to be placed outside the critical and post-critical agenda for architecture. Neutelings, meanwhile, keeps his ideological choices strictly personal, which is one of the vital reasons why the pro-projective people embrace NRA.

NRA is an example of a practice that critics seem to trust but are skeptic about. The appreciation for NRA is not unconditional. Critics hope that the NRA’s work is more than mere pastiche. Yet there are no theoretical underpinnings available to be sure. Paradoxically, this results in a situation where, with Krier, ideological clarity is excluded, while NRA’s ideological vagueness seems to be accepted.
2.1. The Atlantis Project of Léon Krier: The Excluded Ideology

In 1986, Hans-Jürgen Müller commissioned Léon Krier to design the Atlantis project. Müller, the owner of an art gallery in Germany, planned to host think-tanks at a remote location in Tenerife. His plan was to foster the preservation of a European culture, a culture that for Müller sets standards for proper manners and good behaviour through art and cultural activities. The artistic and architectural setting mediated and cultivated these standards, the blurring of which causes crisis that Müller sees in the world. For Krier the project was affiliated with the *Rational Architecture* exhibition of 1973 and the Reconstruction of the European City Movement. While Krier no longer shares the limelight with those who embrace modernistic architecture, he is now in the cross-hairs of many of them.

The reception of the Atlantis project is coloured by three factors. First, from the beginning of the 1970s to the early 1990s, Krier went from being included in the selected group of AA School teachers to becoming an outsider of that same group and its intellectual sphere. Second, the client for this project wanted to be a pioneer in the cultural sector and use its larger socio-political influence for ideological purpose. And finally, in specialized press and popular media, Krier, the clients, the project, the ideological statements, and a diffuse mixture of all were often negatively received.

The Atlantis project came at a decisive moment in Krier’s career. At the same time the project’s history is emblematic of a crucial turn in architectural discourse. The oppositional narratives within a post-modernist framework had gone from a possible conversion to a complete expulsion of each other, based on vague ideological perceptions. It makes a practical appreciation of the architectural project almost impossible. As a result, the idea that a renewed traditional discourse could belong to one unified architectural agenda emerged and evaporated beyond Krier’s control.

2.1.1. Introduction

When Krier designed the Atlantis project in 1986, it was intended to be built — though it was a long shot. Half a decade later, it turned out to be a virtual project that enhanced the perception of Krier as a utopian character. Many explanations are plausible for why the Atlantis project was not built. For example, Krier’s design required twice the area of land owned by the clients. Additional funding and the expansion of the property could have resolved these
problems, but not only were they not forthcoming, the clients also encountered great difficulties obtaining a building permit for any phase of the project. In addition, the controversies associated with Krier — such as his book on Albert Speer (1985) that most likely upset many of his Jewish connections — might have complicated the attempt to rally support. By the same token, the clients themselves had to defend their sweeping statements about the proclaimed cathartic quality of the project. In the end, they failed to raise enough money. Because the project was not realized, it could never overcome the turmoil of the promotional talks, reports, and exhibitions that often looked like public defences.

Much has been said about the project. What remains is the question of how to identify its place in history: as an architectural project or as an ideological statement? In case of the latter, which statement: the reconstruction of the European city or the rescue of the European culture? Or did the Atlantis project cause a fusion of these two agendas? If so, how did it affect Krier? The problematic preparatory process shows that the Atlantis ideology — that is, the cultural politics of the Müllers, combined with Krier's mission to marry modernity with traditional building typologies and tectonics, and the perception of this mixture by others — was out of touch with aspirations of those from whom the project was hoping to get support. Nevertheless, considering that the project inspired Prince Charles to commission Krier with the masterplanning of a new town, Poundbury, parts of that ideology did find their place after all.

Arguably, some aspects of Krier's work do not fall outside the (post-)modernist mindset. The Atlantis project came along when Krier's architectural vocabulary had reached a mature state. The responses of clients, critics and colleagues often dramatized the ideological perception. In particular, the influence of critics such as Colin Rowe, Maurice Culot and Anthony Vidler problematized, as well as amplified, the rather new style of intellectualism deployed by Krier, Eisenman, Koolhaas, and others of their generation. The Atlantis narrative is, therefore, emblematic for an architectural discourse of the 1980s that instead of dialectically synthesizing into one unified agenda, curdled into almost parallel worlds. Krier and his new traditionalist view ended up in disjunction with particular intellectual realms.

The dynamics of that particular moment emerge by investigating a set of questions that build upon each other: (1) How did Krier enter the architectural profession in 1968 (when a radical questioning of authority had destabilized the
architect’s position) and how did he become part of the AA school 1970s legacy? (2) How did the clients come up with an ambitious assignment without the available financial resources? (3) What enhanced the primarily ideological reading of the Atlantis project? (4) How did both the Atlantis ideology and the project decline? (5) How did that decline affect Krier, his architecture, and the pro-traditionalist discourse in general?

2.1.2. Becoming Part of The AA School’s Legacy of the 1970s

Today, from a perspective indebted to modernists, Krier’s contribution is definitely less than those modernists, but this was not always the case. In the late 1970s and the early 1980s, he was sharing the stage with many architects who are notorious today. In 1968, when Krier was 22 years old, he dropped out of university in Stuttgart. Krier’s time in Stuttgart would later prove to have been crucial to being given the assignment for the Atlantis project. The client, Hans-Jürgen Müller, was the owner of an art gallery in Stuttgart at the time, and he recalls having met Krier at the gallery. After leaving Stuttgart, Krier went to work with James Stirling. Krier was fed up with the prevailing modernist discourse at the University of Stuttgart and had hoped to find an alternative practice at the Stirling office.

Such an act of protest was not uncommon. It was a period in Western architecture in which architects actively gathered and institutionalized a voice of protest, expressing disciplinary doubts, anxiety and strident critique. In 1968, for example, the Belgian architect and educator, Maurice Culot, founded the non-profit association Archives d’Architecture Moderne (AAM) in Brussels, to counter the dismay towards post-war architecture and urbanism. AAM’s primary initiatives were to support exhibitions, contribute to research and to publish books. From 1975 to 1990 it published an international magazine on architecture and urbanism, bearing the same name as the association. One year after founding AAM, Maurice Culot founded the Atelier de Recherche et d’Action Urbaines (ARAU), which complemented the AAM initiative with political activism, urban research, and citizen participation. It is with Culot that Krier was to contribute the counterprojects to the Venice biennial in 1980.

Krier worked at the Stirling office from 1968 to 1974. He was in charge of putting together a book about the office, for which he provided most of the graphics. He was also involved in the 1973 triennial exhibition in Milan, dedicated to Rational Architecture and called Architettura-Città. The impact of this exhibition resonated throughout Europe and the United States. It expressed
a growing critique that had emerged in Italy in the 1960s — more specifically, in Rome, Venice and Milan’s architectural academic, intellectual and editorial environments — proposing to counter the abstract approach of functionalist modernists by redefining architecture in relation to the historic city. The seminal texts that provided the methodological and theoretical underpinning to this approach were *The Architecture of the City* and *Architecture and Utopia.* In 1975, Krier was involved in bringing this exhibition to London.

At the age of 29 Krier was among the first teachers, including Elia Zenghelis, Peter Cook, Bernard Tschumi and Rem Koolhaas to be part of the internationally oriented curriculum of the AA School in London, a curriculum that was reformed in 1972. With Peter Eisenman initiating much of the transatlantic debates, Krier was regularly invited to contribute his ideas about the classical and the vernacular qualities of architecture. Through these initiatives Krier entered a circle of intellectuals who were on their way to becoming highly influential. A decade after the questioning of authority, several position statements emerged that marked specific territories in architectural discourse, such as *Delirious New York, Collage City,* and Eisenman’s seminal text *Post-functionalism.*

When he brought the exhibition dedicated to rational architecture to Brussels in 1978, Krier co-wrote a manifesto with Maurice Culot as an introduction to the exhibition’s London showing. The manifesto was entitled *The Brussels Declaration: Reconstruction of the European City.* The protection of building heritage was the main theme. Repairing the city was to be done with an architectural vocabulary entrenched in characteristics of the historic city. Any formal reference to functionalist architecture had to be denounced because it represented the common culprit that had harmed European cities. Therefore, even the non-historic centres were approached with the same formal architectural apparatus. The promotion of this new traditionalism masked the fact that the origin of the movement’s vocabulary lay within the modernist’s formal language because it appropriated the intellectual framework of the neo-rationalists, a framework Krier judged as still incomplete and insufficient. For Krier the neo-rationalist framework had to be deployed strictly for the reconstruction of the European city. Therefore, traditional architecture and urbanism should be the single modus operandi, with Otto Wagner and Eliel Saarinen honoured as the originators of the polycentric model.

With the acclaim Krier won for his *reconstruction* discourse, he became connected to the British establishment, and was thus invited for teaching
positions worldwide and offered several jobs. He was also regularly asked to share his thoughts in writing and speech. The momentum prompted him to rehabilitate the architecture (not the person) of Albert Speer. The resulting book, first published in 1985, pushed the modernist versus traditionalist dialectic to its extreme. It turned out to be a career move over which he lost clients, intellectual support, and eventually, for a while, the ability to work.

2.1.3. Et in Arcadia Ego — The Atlantis Project on the Rise

In 1982, Hans-Jürgen Müller and his wife Helga opened a gallery space in Cologne and set up the Atlantis Kunst + Design GmbH company. Out of this company four years later, the cultural project of Atlantis was born. The Müllers wanted to create a meeting place for politicians, entrepreneurs, scientists and artists who would try to resolve the crisis they saw in the world of art and culture at large. On 26 April 1986, when the preliminary ideas for the site were still evolving, the Chernobyl disaster occurred. The Müllers experienced it as the confirmation that initiatives such as theirs were of utmost importance. In that year, 1986, they approached Léon Krier, already in the limelight, to design the Atlantis project.

The Müllers requested that the design resemble ‘die Kunst des Lebens’. It was to be an ‘Ort der Schönheit’, the key to reset ethical standards. The project was expected to be finished by the year 2000. At the new location a think-tank would develop ways to cope with the major challenges facing the world. It was presented as a gift to the world: ‘Atlantis Geschenk 2000’. To achieve this goal the Müllers intended to establish a foundation, to which about 100,000 people were to invest 25 marks per month. The Müllers planned a world tour to promote the project and raise money for the foundation. The tour started at the Frankfurt Architecture Museum on 11 December 1987.

Nevertheless, right from the beginning — the moment Krier first presented his design proposal — divergent expectations or interpretations became apparent. The client owned a site of 2.3 hectares, while Krier’s design needed about 5.83 hectares. Helga Müller had expected something in line with the work of Luis Barragan or Tadao Ando. Instead, the project had a traditional appearance, because Hans-Jürgen Müller considered traditional architecture as the right vocabulary to express his ideological agenda. In time, however, both the Müllers came to appreciate its appearance and size. Eventually, the controversial style would make a stronger impact, and doubling the area confirmed their growing ambition.
According to Krier’s plans, he had designed a settlement with clusters of buildings that created an organically shaped public space made up of small streets and squares. All of the buildings had vernacular and classical architectural elements, such as pitched roofs, lintels, plinths, archivolts, arcades, columns, architraves and frontons. The whole village was planned on the south-east side of the Arona hill facing the morning sun, while avoiding the afternoon heat. Of the intended constructions, approximately 12,800 m² would be enclosed spaces and 6,100 m² would be sheltering constructions, such as pergolas, patios, atria, porticos, sheds, colonnades and canopy roofs. This meant that one third of the built area would remain available for open-air constructions. Less than half (44%) of the enclosed space was designated for residences. Taking into account that all of the buildings would have a maximum of two levels, the number of residents would be about 300. A little over half of the spaces (56%) was dedicated to other urban functions such as museums, hotels, restaurants, sport facilities, and a concert hall. A clear north-south axis divided Atlantis into two parts. The axis began at the ‘Acropolis’ — a raised and independent platform framing all of the museums — and ended in the middle of the lateral ‘corniche’ promenade overlooking the terraced landscape.

Public functions were located to the left and right of the axis, including hotels, restaurants, a covered market, a carpenter’s shop, a refectory, a lecture hall, a publishing house and a laundry. On the west side was a zone with buildings dedicated to leisure activities; on the east side, a library, an open theatre, and a piano room. This created two distinct zones for housing in the middle, on either side of the axis. Krier did not include any other typical urban function — no schools, kindergartens, small industry, waste management, healthcare facilities, or public transport. Although it was designed as a small city district, the Müllers requested none of the latter functions, since they had no desire to create a place for permanent residence. The intent was to provide a sanctuary to which intellectuals could temporarily retreat. At first, Krier had argued that such a mediterranean ‘super-club’ needed a beach and promenade connected to the sea. The idea was dismissed by the client because the lower sites, closer to the sea, were too expensive.

Many of Krier’s imperatives were integrated into the project. Natural building materials determine the construction process on a human scale and, thus, traditional tectonics. Krier also believed that only using natural materials reduces maintenance costs over time. Rather than limiting building height, he proposed to limit the number of floors to achieve a varied skyline. According to Krier, a relative quantity of public space, between 25 percent and 35 percent,
determines the optimum proportion. Proximity ensures that public spaces belong to the civic realm rather than to traffic. He argues for creating cities within the city, in tune with the pedestrian. An animated city is achieved by planning the dispersal of civic uses rather than their concentration. And he promoted the idea that symmetry belongs to the type — not to an arbitrary conglomerate. All of these tenets find their way into the Atlantis project. But most fundamentally, Krier did not design Atlantis as a single building. Although many different monolithic convention centres could have corresponded with the ‘think-tank’ setting requested by the Müllers, he opted for a conglomerate of smaller buildings, arranged as a city district.

If the Müllers had the financial resources from the start, or if they had found a Maecenas along the way, they probably would not have searched the spotlight as often as they did. The fact is that the public exposure they sought challenged them to ‘over’-explain the ambitions of the project. It drove the rhetoric to its extreme, revealing the differences between Krier and the Müllers. To find broadly based support the design had to prove applicable and inspiring to others as well. It had to stand out in style as much as it did in intention. Therefore, the project had to be presented as a model in which the basic ideas superseded the temporal constraints — as a contemplative model that criticizes contemporary architecture, urbanism, and politics. It was at this level that the points of view of Krier and the clients differed. More precisely, the clients saw the project as a critique of the cultural or moral aspects of architecture and urbanism. They considered the focus to be on how this setting would facilitate a renewed awareness of shared cultural values. For Hans-Jürgen Müller, in particular, the project had to address the crisis in art and culture in general, which lead Müller to start a political party called Die Europäische Culturpartei [fig. 8]. For Krier, however, the Atlantis project was a testing ground for a new architecture and urbanism. At the time, it was the most complete collage of the principal ideas that could be used to oppose current neo-modernist discourses.

Different agendas aside, the strategic aspect of the project included an international tour to promote and finance the project. In the catalogue of the first Atlantis exhibition in Frankfurt in 1987, curator and architectural historian Frank Rolf Werner explains that Krier was the only option for the Atlantis project because no other architect in the world had the audacity to campaign so vigorously for the reconstruction of the European city. He argued that Krier was a social revolutionary and that his intellectual contributions had grown in volume and weight in the preceding two decades, which by far compensated for the small number of projects he had actually built at that time.
After Frankfurt, the project was shown in Brussels, Stuttgart, Zürich, Bologna, Milan, Paris, Los Angeles, New York, Tokyo, New Heaven, and Hannover. Finally, it was shown at the international conference of the Club of Rome in 1989.  

### 2.1.4. The Ideological Reading of Atlantis And Krier

For the Brussels show, Léon Krier, Maurice Culot, and their Greek colleague, Demetri Porphyrios, also a new classicist representative, undertook a second exhibition catalogue, published by AAM. In the introduction, Culot and Porphyrios closely identify the Müllers’ humanist agenda with Krier’s architectural project, and turn the association into a programme. At first, the project is presented in conformity with the client’s vision of a means to an end: ‘a place where eminent persons specialized in various disciplines will meet for open discussions on the important questions of our time, the objective being to sublimate the temptations of mass determinism and find other solutions for Humanity’. It was to be a framework that facilitates ‘men of action’ — as Culot called them — to change the world for the better. At that time, Atlantis was not meant to be a preview of a new world, but rather as facilitating the work of responsible people engaged in creating a model for the ideal society. Their common goal, according to Porphyrios, was a revival of humanism. However, as the introduction continues, the level of hyperbole increases and the description of Atlantis — which is equated with utopia — becomes an ode to Krier and his work:

*It matters little if Atlantis is built or not ... utopia is made into reality by the written word ... What the Goddess (Aphrodite) once offered to Pygmalion, she is now offering to Léon Krier. Under her guidance, Atlantis is undergoing a rebirth and discovers herself to be made in the image of the archetypal European city ... an island of perfection ... at the center of the world.*

Thus, Atlantis is ultimately presented as the ideal city, inspired by the most perfect models of Ancient Greece. The client commissioned Carl Laubin, an expert in depicting architecture in a classical manner, to paint Krier’s work for the Atlantis project [figs. 9-11]. The central image clearly makes a rhetorical reference to Raphael’s painting *The School of Athens*, which emphasizes the idealization of Ancient Greek humanism, its society and its cities. The Atlantis project was the culmination of all Krier’s architectural and urbanist imperatives combined with the rhetoric necessary to gather support at an international level, fused with the ideals of an exceptional client.
What happened in the exhibition catalogue is a case of architectural language conflating with ideology, which was a tendency at the time that was rooted in the traditionalist-modernist debate. It sets the stage for an ideological reading of Krier’s design.

As mentioned above, with the 1975 Art Net exhibition in London and the 1978 revision in Brussels, Krier had articulated his critique on the 1973 Milan triennial *Rational Architecture* exhibition. Eisenman’s text, *Post-functionalism*, had also formulated a critique of the perceptions generated by the *Rational Architecture* exhibition in Milan and the MoMA exhibition, *The Architecture of the Beaux-Arts*, in 1975 in New York. According to Eisenman, these exhibitions were based on a misreading of ‘the modernist sensibility’, due to their objections towards functionalist principles as the core of the modernist movement. For Eisenman, the true modernist sensibility lay in the fact that modernists had recognized the displacement of humanity from the centre of the world. Thus, rather than rejecting the modernist project on the basis of a simplified association with functionalism, Eisenman wanted to cultivate this sensibility to arrive at a post-functionalist condition. He concentrated on the formal to present an alternative reading of the meaning of form.

With this reinterpretation of the modernist sensibility, along with his study of the rationalist Terragni, Eisenman claimed to be the true heir of the modernist intellectuality. Krier, in his turn, claiming to be an advocate of a more stringent rationalist idea, chose not to invent form per se but to find its architectural essence in traditional forms. With Koolhaas putting programmatic desires before formal ones, the spectrum of pluralistic views on the formal aspect of architecture was complete. What all these views had in common is that the value of form was not expressed in aesthetic terms, but rather by means of an ideological position.

Vidler’s text *The Third Typology* of 1977 provides a final opportunity to discuss Krier’s work with a strict focus on the architectural apparatus. In 1978, Culot and Krier solicited the text for the Brussels edition of the *Rational Architecture* exhibition. The basic intent of Vidler’s essay was to define the new rationalist perspective as an essentially architectural rather than a social stance. The nature of the city in their designs is

emptied of specific social content from any particular time and allowed to speak simply of its own formal condition. ... born of a desire to stress the continuity of form and history against fragmentation produced by the
elemental, institutional, and mechanistic typologies of the recent past. ... It denies all the social utopian and progressively positivist definitions of architecture for the last two hundred years.\(^{38}\)

According to Vidler, the rationalists merely wanted to focus on the contingencies of any project in which architecture aims to combine modern ideals with vernacular architecture. He argues that rationalism looks for the basic elements that constitute European cities and translates these into appropriate new forms. The City Hall project in Trieste by Aldo Rossi is an example [fig. 12], notable for an absence of urban life or human activity. The same is true for the images that (six years later) illustrate the special Architectural Design (AD) issue of 1984, dedicated to Léon Krier.\(^{39}\) In the pictures drawn by Krier — or painted by his wife Rita Wolf [fig. 13] — the main subject is architecture. In colour, style, and technique, the images resemble the work of Giorgio Grassi [fig. 14] and Aldo Rossi, which similarly stage the architectural object in the absence of urban life. If a social agenda is at stake here, it is articulated in purely architectural terms, not in mechanisms of human interactions.

The ideological reading is further developed in the AD issue of 1984, which was guest-edited by Demetri Porphyrios and introduced by Colin Rowe. Rowe projected four qualities onto Krier. First, he claimed that Krier deliberately placed himself completely outside the culture of modern architecture; second, he argued that Krier presented a complete rejection of modern architecture; third, he considered that Krier repudiated the formal, the technological, and functional premises of modern architecture; and fourth:

Finally, that, with all this, in terms of his inferred sociology, the obvious socialist content of so many of his projects, Leon Krier, more visibly than anyone else, has sustained and maybe, amplified a strand of Modern architecture’s pedigree which, for a long time has been in frightful danger of getting lost.\(^{40}\)

Rowe and Vidler exemplify a tension that is inherent to the perception of Krier’s work at that moment (at the same time also affecting Krier’s way of thinking). The difference between Rowe and Vidler has much to do with the social activist agenda of the counterprojects that Krier contributed to the biennale in Venice in 1980, in collaboration with Maurice Culot. As the architectural critic Isabelle Doucet\(^{41}\) recently argued, the social activist connotation was less a concern of Krier than of Culot. While the social agenda
was integral to the architectural proposals of the *counterprojects*, it was mainly Culot who was responsible for this social content. Doucet’s analysis emphasizes the difference between a first series of *counterprojects* under the guidance of Culot and a second series in which Krier was principally involved. While the former series focused on local activism characterized by a variety of stylistic pluralism, the latter developed general themes within a unified traditional style. Krier’s involvement was less related to the original social activist agenda than with an architectural intention.

The exhibition catalogue of the counterprojects states that the projects were inscribed within working-class struggles. The projects rejected large-scale solutions to problems of energy management or urban planning. The question of mobility — the key to industrial urbanism — was regarded as a sign of alienation. Instead, Culot and Krier argued for the organization of the city into complex quarters, where everything would be at walkable distances and in which real innovation would emerge from working-class districts. The traditional architectural elements were singled out as the sole interpretation of the vernacular vocabulary. The counterprojects focussed on local solutions to preserve the European city.

Thus, the momentum of the counterprojects allowed a shift in perception of the same architectural imagery. Once aligned with Vidler’s view of ‘a formal continuity in traditional architectural solutions’, Rowe expanded the perception with a social-activist agenda. The different receptions amplified the ideological connotation, as if a more profound purpose was discovered in Krier and his work.

In 1983, Krier had explained his position quite clearly in a public debate with Eisenman at Princeton University. Eisenman described Krier’s worldview ‘in terms of the moral position that it seems to hold in relation to society and to the role of the architect’. This point sparked a more general debate between the two speakers about the contemporary definition of humanity’s place in the new cosmology and how that place was reflected in both the profession and in architecture in general. Eisenman claimed that the traditional succession of triadic cosmologies of theocentrism, anthropocentrism, and biocentrism were now joined by contemporary technocentrism. According to Eisenman, God, man, and nature, and, most recently, forces beyond the control of human beings had become the mediators of worldviews. Krier, in contrast, wanted to remain practical about the use of philosophy, theology or any kind of theoretical endeavour. These intellectual disciplines were just useful tools in times of
confusion and assisted in making a distinction between universal ideas and particular phenomena.

During the debate, Krier stated that the task of the architect is to create beautiful, solid, and comfortable buildings — objects of timeless beauty: ‘The art of building is concerned with creating an environment that is pleasing to all our senses without being alienating to any of them. Architecture is not about expressing existential anxiety or opinions of any kind. Architecture is not concerned with the private realm. It shapes the public domain, the Common world’.45 Eisenman opposed Krier’s position, arguing that ‘[a]rchitecture is about expressing the contemporary condition of man’.46 Where, for Krier, universal ideas exist, consisting of the most intelligent and best solutions that have proven themselves in the past, for Eisenman, deep-rooted or built-in structures of things exist that need to be expressed. On the basis of this discussion it is difficult to argue that the social benefits of architecture or its capacity to instigate social revolution took central stage in Krier’s or Eisenman’s considerations.

Whether Krier intended to be a social revolutionary and custodian of European culture is therefore highly questionable. Krier’s proposals intended to counter the failed attempts of modernistic interventions in European cities. This agenda does not however make him a socialist. According to Krier, the quality of being-of-the-time, acting in relation to the Zeitgeist, does not in itself guarantee the best solution. For Krier, if a conventional solution results in a better fit, then this should be considered the better option. Likewise, if an older paradigm better suits the occasion, it should be solicited. New or contemporary does not, a priori, mean better.

Such a view still does not make Krier the custodian of European culture. If anything, it shows that Krier was a rationalist who adopted a pragmatic approach when considering design solutions. The traditional canon became his habitual means to counter neo-modernists such as Peter Eisenman, because it stood for all that the modernists’ legacy did not. For Krier the formal and spatial qualities of architecture always come first. Others in turn, such as Rowe, Vidler, Culot, Werner and the Müllers, connected Krier’s vocabulary to social objectives.
2.1.5. The Decline of the Atlantis Ideology

The many press articles on the Atlantis project fill several catalogues (literally, as the Müllers collected all copies of news items on the project into binders). The general tone of these articles went from negative to devastating, with a few positive exceptions. Only some critics appreciated it as a beautiful setting, uncomplicated and more advanced, recognizing a sense of order that springs from ‘a high ethical and aesthetic consciousness’. Most, however, saw a staging of trivial mythology that lacked postmodern irony [fig. 15]. At times, Krier was even reproached for bringing back nazi-architecture in the guise of a romantic setting. The Müllers, in their turn, had to defend the narrative of their project. Was it really necessary to reactivate a nostalgia for the lost paradise by calling it ‘Atlantis’? And was calling it ‘a gift to the world’ or suggesting a ‘world redeeming effect of art’ not simply too pompous? These were colossal ambitions that at times even Krier felt the need to distance himself from, by claiming that he merely aimed to design an harmonic and coherent town.

In 1969, a popular ballad called Atlantis, by the Scottish singer/songwriter Donovan Leitch, became a worldwide success. It rehearses the myth of how the Atlantian culture had colonized the world by sending out the poet, the physician, the farmer, the scientist, the magician, and so on. The song ends with a melodic repetition of the longing for the lost culture. If one is not willing to see the irony then the message was as lame as it was popular. Donovan’s Atlantis song became an anthem of the hippie movement. For that reason, Martin Scorsese used it in the 1990 film Goodfellas as a soundtrack for a scene in which Robert De Niro’s character is beating his opponent to death. How critics in popular media treated the Atlantis project (at times referring to the song) was often closer to Scorsese’s cynicism.

In 1989, when Krier promoted the Atlantis project on a tour across Europe, the model of the project accompanied him in a customized van. The project, designed in a traditional canon, was now associated with a revival of humanism and infused with social and moral intentions. In that year, AD magazine published a second discussion between Léon Krier and Peter Eisenman, entitled ‘My Ideology is Better Than Yours’, a transcript of a discussion held that same year in Chicago. The debate obscured the issue of legitimate design decisions and intentions by only discussing fabricated ideological frameworks.

Krier had opened the debate by sketching out an opposition between the two antagonistic philosophies underpinning the traditionalist movement and
the modernist movement. For Krier, the central terms ‘invention’, ‘innovation’, and ‘discovery’ had very different meanings in the vocabularies of each movement: ‘In traditional cultures invention, innovation and discovery are means to improve handed-down systems of communication, representation, thinking and building ... in Modernist cultures, by contrast, invention, innovation, and discovery are ends in themselves’. 49 Despite the ideological opposition, the two speakers agreed on many issues. 50 They even agreed on the value of tradition, and only disagreed on the formal architectural vocabulary that should be deployed. For Krier, tradition provides us with the types and the vocabulary to address new needs. According to Eisenman, tradition shows us the way to find new types and new vocabularies, but does not provide them per se. If there was ever a time to recognize each other as both sides of the same coin, this was it. Eisenman used the concept of ‘presentness’ to value the relevance of contemporary discourses. 51 Krier argued that recognizing universal aesthetic and ethical principles is a moral obligation — especially when designers have become public figures. Eisenman used Tafuri to explain the difference:

*At the time of Alberti and Brunelleschi, Brunelleschi was looking forward and Alberti was looking backward. Alberti introduced the subject of the Classical typology whereas Brunelleschi introduced an invention from science called perspective. ... Leon is certainly Alberti. I aspire to being Brunelleschi.* 52

Eisenman’s exaggeration of the Alberti-Brunelleschi opposition resembles a wider perception. Where Alberti represented tradition, Brunelleschi stood for a commonsensical understanding of change. In 1989, the year the Berlin Wall came down, ‘change’ was the prevalent force, starting with the fall of Communism in Eastern Europe, resulting in the collapse of the Soviet Union, immediately ending the anxieties of the United States and allied countries concerning the Cold War. And with the crumbling of Cold War anxiety, one of the hidden drivers behind the Atlantis project began to dissolve.

Since 1989, the interest in publishing on new classical issues diminished in inverse proportion to the projects under construction. In 1990, the London-based Greek publisher, Andreas Papadakis, sold *Architectural Design* — in which Krier’s work had regularly appeared — to the well-known publisher Wiley. 53 The AAM also ceased to exist in that year. *Oppositions* had already been replaced in 1984 by *Assemblage* magazine, founded by Michael Hays, to which Krier did not make any contribution. Krier was in fact working on a book entitled *New
In 1986, Bruce John Graham, as a partner of Skidmore, Owings and Merrill (SOM) and instigator of the SOM Foundation, set up an architectural institute with the model of the Institute for Architecture and Urban Studies (IAUS) in mind. Krier was appointed the first director of the *Skidmore, Owings and Merrill Architectural Institute* (SOMAI). He wrote a policy statement that echoed the ambitions aired by his clients in ‘Atlantis Geschenk 2000’. As the first director of the SOMAI Krier intended to create a Charter of Chicago that would counter the Charter of Athens and launch a fourth industrial revolution: the ecological revolution. The SOMAI was to make primers in printed and audiovisual form. The first primer, the Civic Primer, would be about the ecological renewal of the city and the country, that is, it was a revised version of the reconstruction discourse of European cities manifesto already republished by Krier a couple of times. The SOMAI was also to publish pamphlets on a regular basis, which would report on polemical discussions between the deconstructivists and the *new classicists* in the same way AD had done. To reach an even larger number of people, Krier wanted synoptic versions of the primers, a children’s book, a film produced by Walt Disney Productions, and toys produced by Revell. In addition, the SOMAI had to produce monographic studies and publications on under-evaluated architectural subjects and personalities. Finally, in 2000, a world fair was to be organized in Washington DC, where the *World Academy of the Environment* (also to be set up by the SOMAI) would have a seat. However, Krier resigned after only six months because of a disagreement with Bruce Graham; he was replaced by John Whiteman.

With the fallout of the Speer book, published in 1985, Krier’s career experienced an early twilight. Combined with the knowledge that the realization of the Atlantis project seemed less and less likely, Krier chose to stress the ideological aspects of the project, seeing an opportunity to make statements about architecture and urban design. The Atlantis project thus came to represent Krier’s design lexicon. Up to that point, the lexicon consisted of tenets that were still design hypotheses. They promoted his belief in a different
approach. Atlantis is a fascinating scenography. Krier gave weight to its performance as a whole, supported by the clients, the tour, the public talks, and the exhibitions. When the design is not read as a collage of small narratives but rather as a general statement about a better society the basis for judging Krier’s architectural apparatus is distorted. Then Krier’s reconstruction of the European city also entailed a reconstruction of a global theory and even the reconstruction of society. Along the way, this bold narrative gained the upper hand and intensified the mismatch with the dreams of the clients.

The polarized reception and the many setbacks made the Müllers doubt their plan of action and to eventually alter it. Perhaps their decision was also motivated by the waning sense of cultural doom. Perhaps it was the discrepancies between their views and Krier’s, which had been there from the beginning of the project. The fact is that in 1990, for the first time, the Müllers had real doubts about the project as it had thus far been developed by Krier. They had difficulty raising sufficient funds. The project was not approved by the local authorities, with all requests for a building permit failing. For all these reasons, the Müllers began to think about scaling back the project. They commissioned Frei Otto [fig. 16] to create an alternative to Krier’s proposal for the Atlantis project. This time they called it the ‘Cultural Project Mariposa’. It was planned for the same site in Tenerife but on a smaller scale, intended to house a maximum of 30 people. They did not follow through on Frei Otto’s design. Briefly, they also flirted with the idea of abandoning the project altogether, but clung to the hope that they could overcome the obstacles that were piling up concerning Krier’s design.61

In 1992, when Krier was 46 years old, Hans-Jürgen Müller convinced Jan Hoet to exhibit the work for the ‘Atlantis Geschenk 2000’ as part of the Documenta IX exhibition.62 Hoet allowed Müller to build — across from the Fridericianum, in the area for food and beverages — a temporary pavilion that was supposed to exhibit the Atlantis project in the same way it had been shown when it first toured. Just before the opening, two Molotov cocktails were thrown at the pavilion, which then caught fire [figs. 17,18] destroying all drawings, images and models of Krier’s work.63 As a result, a temporary art installation was created instead. According to the Müllers, this was the final blow to the project. In the Kassel pavillion, they decided to further pursue the Atlantis idea on their own. Today, there is a resort on Tenerife bearing the name Mariposa which is run by Helga Müller. It was not built according to the design of Léon Krier.
The course of events is emblematic of the decline of the Atlantis ideology, the separate drivers of which, one by one, drifted away from reality. In the years after, Krier enjoyed meeting a growing interest in his new traditionalist discourse outside the intellectual realm to which he had belonged for more than twenty years. With his contribution to Seaside, a new traditio-vernacular built town in Florida, Krier was embraced by the *New Urbanist* movement in the United States, as a visionary and founding member. He continued his professional focus on the realisation of projects such as Poundbury in the United Kingdom or Cayala in Guatemala. In 2003, he was the first to receive the *Richard Driehaus Prize*.

### 2.1.7. Conclusion

The Atlantis project was never built. When mining for cause and effect, separating aspects of controversy from genuine changes in underlying common beliefs and interests will always be a peculiar task. What has been more important in this argument is to discern Krier’s personal design choices against the backdrop of a rhetoric in the public sphere. In the early 1980s the international debate in architecture was captivated by a perceived opposition of a modernist versus traditionalist stance. The disagreements over the formal architectural apparatus were not discussed in aesthetic terms, but rather by ideological association and visual representation. The confrontations between Krier and Eisenman obscured how both sides were indebted to a new rationalist intellectualism. In fact, the affinity with new rationalism shows that a sociopolitical agenda also played no real part in the opposition. Eventually, the real root of the opposition lies with the quest for a new respected intellectual position for the architect within society. If the societal position is what was really at stake, then we have to question the true value of that ‘opposition’.

The history of the Atlantis project allows the clarification of a specific rhetoric from the 1980s about the formal apparatus of architecture and what it came to represent. It shows that by the end of that decade architectural discourse had moved away from this *reconstruction* versus *deconstruction* rhetoric — both narratives that had expected to become the new theoretical ground of architecture. The fact that this rhetoric centres around the formal apparatus without hardly any reference to a debate on aesthetics is remarkable. This lacuna was circumvented by an attempt to connect the formal apparatus to aspects of various ideologies. Eisenman made a connection with an anxiety that he believed stemmed from the displacement of modern human beings. Krier connected the formal apparatus with anxiety about the future of our built
environment. Others, such as Rowe and Culot, interpreted Krier’s formal apparatus as the vocabulary of a social utopianism. For the Müllers, the project had to return to ethical standards, because in their ideology our culture was declining dramatically. The latter was often disavowed as typical end-of-the-millennium apocalyptic doom watching, a cultural defeatism that permeated the new traditional discourse so much that it drove a wedge in the architectural pluralistic discourse that had been pursued up to that point.

The value of ‘tradition’ is often placed in an opposition to the value of ‘change’. Depending on the perspective, ‘tradition’ stands for identity, working concepts, and social order — or conversely, conservatism, nostalgia, and status quo, and so on. By the same token, ‘change’ stands for progress, liberty, and hope — or plurality, confusion, and loss of values, etcetera. This brief history of the Atlantis project shows that, in that particular moment, by ideologically generating them as oppositional forces, ‘change’ trumped ‘tradition’ — Brunelleschi got the upper hand. Instead of realizing a discourse in which tradition and change do not behave as antagonistic notions, during the 1990s any coherence of the discourse dissolved. The opposing sides ended up with the coexistence of complete disjunctive narratives acting in parallel worlds. The traditional style would need a decade or more to recover from this blow. The way the Atlantis project fared at Documenta IX is emblematic. Contemporary art seeks its legitimacy in the potential to foster a concern that is recognized by a larger group. The strong resistance to the Atlantis project, symbolized by the second-rated location Hoet had given it and the Molotov cocktails debacle, indicate that the Atlantis ideology no longer had such a potential. At the same time, the strong resistance to it also demonstrates that the performative quality of the architectural imagination is hard to suppress. The otherworldliness anticipated in the Atlantis project remains inspirational to this day. Maybe today we are getting closer to making intellectually respected cross-overs, recognizing the synthesis of the modernist versus traditionalist dialectic and erase some boundaries. When it comes down to architectural merits, Alberti and Brunelleschi are equally respected.
2.2. Cavity in NRA’s Design Theory

Whereas Krier is the culprit within the critical legacy, NRA is embraced as a possible projective architectural office, a new critical practice to the next generation. At the Projective Landscape conference, organized in Delft in 2006, Willem Jan Neutelings contributed a reflection on their At Work book. Considering the fact that the history of the critical notion goes hand in hand with the expulsion of meta-narratives, NRA did the right thing in At Work to exclude any theoretical substratum. Big principles are set aside as a provisorium of minor importance. This makes NRA a welcome example in an attempt to redescribe the notion of a critical architecture. At the same time it introduces a new desire for intellectual clarity.

After more than a decade of being involved with practice and teaching, NRA organized their thoughts into this design manual. In addition to the private conveniences of such a manual, it complied with the idea of a profession at risk. As mentioned before, this is often the argument to produce theory, such as was the case for Christopher Alexander. The juxtaposition of Alexander’s Notes on The Synthesis of Form of 1964 and NRA’s At Work of 2004 goes beyond this first common suggestion of architecture being at risk. It sheds light on a generational shift from a formal to a language problem and the loss of clear goals. In NRA’s discourse, evocation substitutes for any form of architectural agenda. With NRA architecture is committed solely to the provision of possibilities. It leans on the liberal hope that the unthought and the unexpected will enrich the architectural proposal.

2.2.1. The At Work Book: A Treatise for the Projective

The general framework for this dissertation was set in 2010 but the project was driven by a hunch that can be traced back to a moment in 2004. At the time, I was working for NRA in Rotterdam. The office had opened in 1989 after Willem Jan Neutelings left the Office for Metropolitan Architecture (OMA), led by Rem Koolhaas. In 1992, Michiel Riedijk became a partner and the office took the name of Neutelings Riedijk Architects (NRA). In the 1990s, NRA was part of an intellectual and professional group of Dutch offices that was first identified as a ‘Reference OMA’ and later often referred to as a ‘Dutch School’. When I joined the office in 2000, it was renowned throughout Western European architectural communities and was trying to land more important assignments at an international level. My first five years in the office — I was dedicated to building the Shipping and Transport College in
Rotterdam — coincided with the preparation and publishing of *At Work*, a book by which NRA promoted a straightforward approach to architecture, explaining at once how they worked. Publishing this book was part of the office strategy to reach a wider audience and to demonstrate to future clients that the office was well established and had a clear position, an important portfolio, and a very efficient design method. At the same time, the book functioned as a statement on other current approaches to the architectural task. In the 1990s, both Neutelings and Riedijk taught at various schools of architecture, including the Harvard University Graduate School of Design, the Berlage Institute and the Delft School of Design, where Riedijk still holds a position today. At the time, they were convinced that the profession was expanding tremendously, creating all sorts of fields of interest, but that it was also reaching a point at which the core of the profession was about to be marginalised. Most of the students and young architects they encountered were unfamiliar with fundamental notions of practice — ‘practice’ being the skills to design and build real buildings. According to Neutelings and Riedijk, the profession was losing a basic and collectively shared vocabulary used to talk about good practice. As a result, the profession was at risk of ceasing to be a profession.  

While *At Work* could clearly be seen as an office manual — on the basis of which every project leader in the office would know exactly how to organise the work of his team — the book still revealed some incongruity between the vocabulary that is made explicit in the book and the vocabulary that is used to discuss important design steps. True, once an assignment is given to NRA, the constraints of the project dictate how to cope with the program, the budget, regulations and codes, and what motives can be put forward. From that point on, however, the book provides a clear roadmap for what to do. Nevertheless, in the office, a team member is, for example, supposed to creatively evoke a certain lifestyle or invent a specific pattern — words that are loaded with meaning, but not made explicit in the book. *At Work* only provides snapshots of possible outcomes. It does not explain how to get there. Moreover, with regard to the question ‘Why?’ the book is less clear. A small but crucial statement in the introduction of the book is self-referential — the ‘why’ seems an unnecessary complication:

> Our decisions differ per project and are tested on their consistency for that particular task. Considerations of an idealistic nature are only temporary structures, shored up by the coincidental circumstances of the project without ideological premises or pre-established aesthetic desires.
2.2.2. A Profession at Risk

At the *Projective Landscape* conference Neutelings presented NRA’s *At Work* book as

*an attempt to explain our work in sixteen chapters, each named after one particular architectural term, such as sculpture, pattern, ensemble, silhouette, texture, structure, arrangement and so forth [use, weight, system, context, senses, scenario, cavity, position, stacking, building]. Terms that are purely architectural, terms that are apt to describe architecture, to measure it, to discuss it, to critique it.*

Neutelings presents the book as a call to reinstate a common language from within architectural grammar itself. The central problem of the contemporary debate, he says, is that former generations have been using only terms outside of architecture to discuss architecture. He argues that without a common language we cannot talk about architecture. As a result, we cannot critique or judge each other. And without judgment anything goes so that, eventually, the profession will die. But on what is Neutelings’ judgement based? How can we judge the quality — right from wrong — of a pattern or sculptural proposal, for example?

Precisely 40 years before the publication of *At Work*, Christopher Alexander had built on a similar argument to write his *Notes on the synthesis of form*. According to Alexander, architects of that time caused misfits. Alexander argued that architecture was essentially a discipline that solved how form fits context. The problem he saw was that the complexity of contemporary society surpasses the capacity of the designer. This caused misfits whenever a designer tried to solve a design problem single-handedly. Hence the designer needed a new theory. For Alexander designing was a problem-solving activity that could be rationalised with mathematical precision. He drew a generic scheme to solve design problems. For design challenge \( A \) one had to come up with design solution \( A' \). For an overall design it came down to define subsets to \( A \), that is \( A_1, A_2, \ldots, A_n \) and then answer them with \( A_1', A_2', \ldots, A_n' \). The problem could be broken down into an infinite set of variables that may be interdependent. The interdependencies can differ between sets of variables. Therefore, clusters of variables, among which the interdependencies are substantially higher, can be treated as separate subsystems of which the level of complexity is lower than the problem of which they are a subset. Alexander concluded that by solving these subsystems, eventually the entire problem could be solved effectively. The goal was to find a form that solved the problem, which was defined by the context.
According to Alexander, designers were failing their task. He recognized that most designers are self-conscious, and so they ignore their restrictions — primarily the inability to deal with a limited degree of complexity and a limited amount of issues simultaneously. Alexander argued that these designers, rather than defining the right subsets, break down the design problem in a structure of arbitrarily chosen concepts. The fundamental problem Alexander saw with those arbitrarily chosen concepts is that they showed no overlap whatsoever with the subsystems. This meant that decisions made according to concepts did not relate to the interdependencies of the variable subsets. For this reason, the self-conscious designer would never arrive at an optimal solution. Forms would never fit their context.

Alexander was mainly reacting against the non-rigorous approach he associated with modernist architects. At least two important assumptions stand out immediately: First, that forms did or did not fit their context, or else they were forced to. And second, the essence of the architectural discipline needed to be considered as form-fits-context, with the possibility of achieving a harmonious and beautiful whole — not purely aesthetically, but in consideration of how form fits its context. But the real problem was not whether forms fit their context, but that the failure to fit was not satisfactory for society.

The parallel to *At Work* is remarkable. Both Alexander and NRA discuss the possibility to subdivide the task in subsets. Adding up the solutions of every subset results in a satisfying outcome to the design process. More than with NRA's *At Work*, however, the higher purpose of Alexander's design theory is made explicit. Both are presented as a necessary intellectual intervention for a troubled discipline. Yet the risks involved are very different. For Alexander, the contemporary architect failed his task of making harmonious designs. For Neutelings, no one fails his task per se, but the lack of a common language would lead to the disappearance of the profession. There would be no way to guarantee or agree on quality. The problem mutated from an existential problem, for Alexander, to a language problem, for Neutelings. The solution is rather similar: a design process subdivided according to clear variables to systematically cope with complex design tasks. However, with the problem posed less significantly, the solution also became less clear. If we could, in retrospect, apply Alexander's theory to Neutelings' sixteen chapters, it would remain unclear whether the sixteen themes are arbitrarily chosen concepts or effective subsets.
In the 40 years between Alexander’s publication and NRA’s, more claims were made for a common language — or a rationally acknowledged set of subsystems. Christian Norberg-Schulz talked about a new secular symbolic order; Léon Krier argued for a global theory to reinstate the universal themes of the classical and the vernacular; Peter Eisenman suggested a general priority system that focussed on design integrity and presentness; Robert Venturi and Denise Scott Brown called their Complexity and Contradiction an inclusive theory to talk about architectural form; and Alexander completed his formal language as suggested in his dissertation with the publication of A Pattern Language. These claims echoed Alberti’s endeavour to construct ‘a humanistic Latin vocabulary, with the help of which architecture can become the subject of civilised discourse, and thereby take the first, essential step toward conceptualising and defining the theory and practice of architecture’. They were all aiming to propose a new design theory that could be agreed on without the presence of a project and its contingencies. NRA, on the other hand, starts from within their own practice. As a result they feel obliged not to claim validity. The validity reflection is excised and placed outside the personal narrative.

2.2.3. No Ideological Premises or Pre-established Formal Desires

For Neutelings and Riedijk, the solution to the language problem would not necessarily lead to an overall legitimising narrative. ‘Considerations of an idealistic nature are only temporary structures, shored up by the coincidental circumstances of the project without ideological premisses or pre-established aesthetic desires’. This quote, extracted from the opening statement in the book, was slightly adjusted for the conference, where Neutelings said ‘The ideal considerations are an interim construction, temporary structures, shored up by the chance circumstances of the project without ideological premisses and pre-established aesthetic or formal desires’. By making explicit that no pre-established formal desires exist, Neutelings sharply opposes some central ideas of the form(er) generation.

As mentioned before, Alexander stressed ‘form’ in the title of his dissertation Note on The Synthesis of Form. So did Eisenman in his dissertation The Formal Basis of Modern Architecture, which was an alleged reaction to Alexander’s dissertation. Also, in the note to the second edition of Complexity and Contradiction in Architecture Venturi and Scott Brown said ‘I now wish the title had been Complexity and Contradiction in Architectural Form [...] In the early
60’s, however, form was king in architectural thought, and most architectural theory focused without question on aspects of form. For Hays, the ‘Form’ in the title of *Critical Architecture, Between Culture and Form* represented the autonomous character of architecture that allowed architecture to withdraw from reality (whereas the ‘culture’ of Hays’ title was the architectural position from within, or part of reality). The form(al) position in particular was questioned by Somol and Whiting in their 2002 article Notes around the Doppler Effect and Other Moods of Modernism, the seminal text in which the whole idea of a projective architecture is grounded.

With the formal position attacked, the only possible position left for architecture would be from within reality. That was the re-calibration of the critical attitude Somol and Whiting had suggested in their article. To endorse this conviction became their main intention at the *Projective Landscape* conference. Regardless of whether the adjusted statement of Neutelings — to explicitly oppose pre-established ‘formal’ desires — was intentional or a lucky coincidence, Neutelings’ statement served perfectly to amplify the central message: the bigger plans — the signifying narratives — are nothing more than the sum of small narratives that can be made within the contingencies of any given project.

The search for bigger narratives may end because the only option, if one does not want to alienate them from reality, is to discuss the small narratives. This coincides with how Neutelings and Riedijk suggest *At Work* should work. If one were to divide a design problem into the sixteen categories of their book and find a matching solution for each category the whole design would be nothing more than the sum of these solutions.

### 2.2.4. Evocation as a Substitute for Meta-Narratives

In his talk at the conference Neutelings argued that the three central constituents for the architectural profession are *knowledge*, *skill*, and *evocation*. Evocation is the key notion that gives meaning to the small narratives, since it proceeds from words and images that play within a system of references. It shows routes or paths where to go, which new frontiers to explore. Deciding what to evoke is based on *intuition*, *taste*, and *one’s own preoccupations*. Neutelings used a compelling mantra, ‘like sex in the fifties’, to explain that ‘all architects do it but never speak about it’. In analogy to the guilds’ keystone secret — the right way to carve the bow centrepiece — architects avoid talking about the substratum of evocation. The critical faculty is considered personal
and is kept outside the debate. But can the common language, as proposed by Neutelings, provide a framework for discussing the outcome of evocation? Arguably, without addressing the ‘why’ or ‘how’ to pass judgement on the sixteen tools, it will not grant access to the underlying deciding mechanism. Is this something one can still expect from such a design theory?

The Dutch theorist Lara Schrijver, in her turn at the conference, named extra qualities of, amongst others, NRA’s work in an attempt to set new goals that suit the Projective agenda. As an example she looked at the design for the Veendam printing office by NRA [figs. 19,20]. The letters on the facade of the industrial warehouse together with the green patio show what could be labeled as a projective approach. The warehouse typology is taken for granted, as is the commercial capitalist context. Both the letter-facade and the patio, however, are tools to provide a surplus from within the contingencies of the project. It was a first attempt. What became clear is that NRA talked about tools while Lara Schrijver pointed at possible goals, but neither developed a discourse to critique and judge either tools or goals. They seemed to agree that evocation alone is sufficient to pass as the new critical or projective approach.

2.2.5. Cavity: In Solidarity with the Provisorium

It is NRA’s intention to maintain a dichotomy between tools and goals. They reaffirm this in an interview with Enrique Walker for a second monograph on their work. By saying ‘we give clients what they want but not what they expect’, they circumvent the idea of making other goals explicit. They have good arguments to do so. Neutelings, who studied in the 1970s, truly does not believe that imposed goals work. At best, buildings can offer ‘unexpected possibilities’. They can have an impact on the environment, perhaps on public life and on the way people perceive the city. But there is no way to anticipate this. On top of that, there is nothing to win with stipulating an architectural agenda. On the contrary, once goals would be explicit one can only fall short in realizing them.

By working with the At Work tools, themes reoccur in various projects. Combining, for example, old and new references to optimize the organization of plans and sections result in the redefinition of types. By developing the building’s sculpture parallel to, for example, a stacking organization or the building’s material ‘outfit’, there is no direct relationship between the inner organization and the outer context. There is, however, one tool that, according to Riedijk, outperforms the other fifteen, namely, ‘cavity’. It refers to space
that is not demanded in the exigencies of the program. Nimble design skills are needed to create such a space without exceeding the budget; such a building can only come into existence by a smart organization of the required spaces. Once created, it is central to define the character of the building and houses all non-planned activity. This theme was first and most consciously elaborated as a design trick in the Minnaert building in Utrecht [figs. 21,22]. The compact spatial layout with the shortest routes made it possible to combine all traditional corridors into one big lobby. A similar approach allowed them to create the grand hall of the Institute for Sound and Vision in Hilversum, the upward spiralling street in the Museum At the Stream (MAS) in Antwerp, and the central room as part of the public domain of the Forum for Music, Dance and Visual Culture in Ghent [figs. 23-25].

Cavity brings in the unexpected. But NRA defines cavity in a negative way. It is not that NRA cannot define the ‘other’ of the expected life; they just are not willing to. For NRA, the unexpected can only be expressed through evocation. And because evocation is grounded in the personal sphere (intuition, taste, and own preoccupations), evocation can be nothing more than a metaphor for ‘possibilities’. NRA imagines and projects a possible unexpectedness in their models, images and virtual scenarios. NRA’s position towards evocation is not to be misconstrued as laziness, vagueness, or lack of commitment. Again, they truly believe that a designer cannot impose meaning. They leave it for others to do so. The At Work manual is open ended and therefore demands a progressive leap of faith, of which the counterpart is an anxiety precisely about the decline of a critical notion.

2.2.6. Parody or Pastiche

With NRA, new (virgin) ideas are vulnerable because there is no strict meaning attached. They can be associated with any meaning that might come along. This may be the downside of such an open-ended approach: when it becomes the task of others to give metaphors their profound meaning, the door is opened for allegorical criticism. At least, this is the way Frederic Jameson defined it in his contribution to the last ANY Conference: ‘Allegory always arises from a crisis in representation’. Applied to NRA, the meaning of cavity is what others make of it. To maintain a dichotomy between tools and goals is to recognize the autonomy of public possibilities over personal affinities, and, it thus also means keeping a metaphor from becoming a moral or ethical judgement.
In retrospect Neutelings comes to the conclusion that ‘architecture has the ability not to transform the social sphere, but to provide possibilities that may become transformational’.\textsuperscript{83} In fact, what Neutelings is saying is that their architecture (and by extension their architectural theory) cannot be allegorical in the sense that it cannot reflect hidden moral or political meaning. This is precisely what troubles critics. It opens the door to superficiality or populism.

With two \textit{El Croquis} monographs and multiple entrees (some winning first prize) for invited competitions around the world, NRA has become a globally recognized architectural firm. However, for a long time they adopted the strategy of realizing only projects in Belgium and the Netherlands. The projects could be followed closely, only rules and regulations they were familiar with applied to these projects, and the necessary cooperation with local partners seemed more efficient. As a result, a dichotomy exists in the perception of NRA. From a global point a view NRA is perceived through its competition entries, its publications, and its theoretical or editorial reflections on NRA’s work. From a local point a view, that is, within Belgium and the Netherlands, NRA’s realized work causes a more integral discussion. That is why the most critical voices heard are active in local fora.

When, for example, the Belgian critic Maarten Delbeke discussed NRA’s Hollainhof project [figs. 26-28] in a contribution to the \textit{Horta and After} book, he argued ‘If one scraps off the medieval and religious image from the beguinage — in other words, if it is taken out of history — what remains, according to NRA, is an intrinsically neutral typology.’\textsuperscript{84} In fact (if one follows Frederic Jameson’s definition), Delbeke conducts a form of allegorical criticism. It is not the possibility of a neutral typology that is put forward here. Rather, it is the historical and religious meaning Delbeke connects to the architectural proposal. It shows that the idea of purposefulness, the critical aspect of architecture, is left for people such as Delbeke to come up with. What happens when such people abandon their post? Does the critical aspect of this ‘projective’ architecture then dissolve?

A second example is the reflection of another Belgian critic, Bart Verschaffel, on the idea of ‘the street’ as associated with the cavity in the MAS.\textsuperscript{85} Verschaffel is sceptical about a typical interpretation of ‘the street’, especially when it is called upon to suggest that ‘the street’ guarantees the museum’s concerns for the common man. In this case ‘the street’ is associated with the most democratic forum that organizes public life. By that same logic, Verschaffel argues, any semi-public institution applies filters and introduces barriers. Traditionally,
museums or academic institutions are physically less accessible to and intellectually less penetrable by the public at large. Therefore, one could argue that such institutions do not represent nor address the true concerns of the public. What happens in these institutions can thus be considered elitist, peripheral, a subculture. To discuss the central societal concerns one has to turn to ‘the street’. This is why, in an attempt to dissolve all barriers, contemporary cultural politics embrace the idea of ‘the street’ that merges with the museum. But, Verschaffel turns this whole argument around by saying that semi-public institutions create a — although somewhat artificial — setting in which one is freed from spurious forces. As a result, one is not required to discuss what is popular but instead one can inquire into what is necessary and profound. ‘The street’ as such has no room for critical substance. So, according to Verschaffel, the idea of the street as the best keeper of civic life is a myth — a myth that might make popular consumption subjugate the MAS. In other words, without Verschaffel’s intervention the cavity in the MAS, the street, might not overcome being associated with a degenerate form of popular culture.

Similar to the critique on Rorty’s liberal hope, one can be cynical about the loss of critical attitude when one installs a dichotomy between tools and goals. Triggered by that same cynicism, one could argue that cavity also stands for an ineluctable void of critical substratum. And, by extension, one could argue that Schrijver’s pro-projective argument, therefore, is balancing on a tightrope. NRA’s projective quality, as discussed thus far, is only guaranteed by the virtue of an external critical faculty. Jameson once defined pastiche as a juxtaposition without normative grounding. If NRA’s architecture is unable to independently represent a moral judgement vis-à-vis societal norms, it cannot be considered as allegorical or parodical critique on its own merits. And as soon as it looses the critical backing of an intellectual community it seems to be in danger of becoming mere pastiche.
2.3. Less or More?

As Krier became more influential, a distinct group of like-minded adopted his final vocabulary. The shifts from *Rational Architecture*, to *Reconstruction* and *New Classicism*, to *New Urbanism* and *New Traditionalism*, go hand in hand with the crossing of different environments. The perpetuating process of reinterpretation happens every time agents acting in different environments appropriate Krier’s work differently according to the environment they themselves are subject to. It is exemplified by different understandings of words, such as tradition in relation to invention, innovation, and discovery. The reflection on Krier’s personal narrative revealed key moments in which his own final vocabulary also shifts. Revisiting these moments generated an awareness of both intentional and non-intentional misreadings. It showed how an author can be caught up in an ongoing reinterpretation from which there is no escape or return to an authentic original state. In fact, it is precisely this amalgam of final vocabularies and strategic adaptations that NRA recognizes as a provisorium (personal baggage) that is externalized through evocation.

Both cases show that any fabricated legitimizing frameworks, any final vocabulary, cannot erase ambiguity. For example, if tradition is aligned with a conservative and restraining attitude (as some associate with Krier’s work) new possibilities seemed to be missed. If Alexander provides a simplified reading of the architectural task (as argued by Eisenman and Rowe) his theoretical frame seems to fall short in recognizing complexity. If, in case of NRA, the pursuit of meaning is shifted to the public sphere, NRA’s work may lose critical profundness. In all these examples we are at risk of getting less.

On the other hand, if tradition provides the most optimized solution, rather than the barren experiment, then, according to Krier and the *New Traditionalists*, tradition enriches new proposals. Or, if others use the opportunity of cavity (as provided by NRA) to complement space with the unthought and the unexpected, then presumably, more proposals may arise.

The allegorical or critical aspect of the work discussed above lives an ambiguous life. The work as such invokes both the promise of progress and the anxiety for regress. Neither the strong ideological position, literally postulating meaning (as Krier claims with his work), nor the retreat from meaning (that is NRA’s cavity) can guarantee a successful impact on reality. The work thus requires a leap of faith in a similar way as argued for Rorty’s liberal hope. As mentioned before, Rorty’s critics doubted whether liberal hope was a sufficient
condition to arrive at a more profound engagement with the real. The same doubt is applicable to Krier and NRA. How do they know that their design action (their expertise) will turn out for the better?

Both Krier and Neutelings seem to be confident that their work will have a positive impact on reality, implying that they adopted a belief or trust that a critical faculty is at work when they are designing. Many theories of late can be read as trying to solve the coexistence of self-confidence about the purpose of architectural design and the ambiguous reception of it. The next chapter will illuminate precisely this self-assurance about a critical faculty.
fig. 2, 3
Drawing and model picture of the Atlantis project
View to the Acropolis. Designed by Léon Krier.
Source: Atlantis 1988
fig. 3
Close up model picture of the Atlantis project
Entrance to the Acropolis. Designed by Léon Krier.
Source: Atlantis 1988
fig. 5
Plan of the Atlantis project. Designed by Léon Krier.
Source: Atlantis 1988
fig. 6 - above
Plan of the Atlantis project made by the author.

fig. 7 - below
Portret of Léon Krier with the model and painting of the Atlantis project.
Source: Private archive Helga Müller
fig. 8
Gründung der Europäischen Kultur-Partei
Source: Private archive Helga Müller
fig. 9 - above
The central square of the Atlantis project, designed by Léon Krier and painted by Carl Laubin. Source: Atlantis 1988

fig. 10 - below
The School of Athens - Fresco by Raphael, 1509-11.
fig. 11
Atlantis at sunrise, designed by Léon Krier,
painted by Carl Laubin.
Source: Atlantis 1988
Aldo Rossi, Regional Administration Building, Trieste, 1974

above - image source: Anthony Vidler’s text ‘The Third Typology,’ 1977
below - image source: New Classicism 1990
fig. 13
Léon Krier, Piazza Sedile, Filadelfia, Calabria, 1983
(Watercolour by Rita Wolff)
Source: New Classicism 1990
fig. 14
Georgio Grassi, Student Housing, Chieti, Abruzzo.
1976-80
Source: New Classicism 1990
fig. 15
Atlantis painted by Milan Kunc
Source: Atlantis 1988
fig. 16
The alternative project made by Frei Otto, 1991.
Source: Private archive Helga Müller
Source: Private archive Helga Müller

Burned down Atlantis/Mariposa pavilion at Documenta IX in Kassel.
Source: www.lamott.de

Plan and facades of the Veendam Printing Office. Designed by Neutelings Riedijk Architects
Source: El Croquis

Veendam Printing Office. Designed by Neutelings Riedijk Architects
Source: El Croquis
fig. 21 - top
The central lobby of the Minnaert building, Utrecht
Designed by Neutelings Riedijk Architects
Source: El Croquis

fig. 22 - bottom
The Minnaert building, Utrecht
Designed by Neutelings Riedijk Architects
Source: El Croquis
fig. 23 - top
The central hall of the Institute for Sound and Vision, Hilversum
Designed by Neutelings Riedijk Architects
Source: El Croquis

fig. 24 - bottom
Forum for Music, Dance and Visual Culture, Ghent
Designed by Neutelings Riedijk Architects
Source: El Croquis
fig. 25 - top left
The Museum At the Stream, Antwerp
Designed by Neutelings Riedijk Architects
Source: El Croquis

fig. 26 - bottom left
The Hollainhof, Ghent
Designed by Neutelings Riedijk Architects
Source: Horta and After

fig. 27 - top right
The Hollainhof, Ghent
Designed by Neutelings Riedijk Architects
Source: Horta and After

fig. 28 - bottom right
Scheme of the Hollainhof, Ghent
Designed by Neutelings Riedijk Architects
Source: Horta and After
Social housing Hollainhof, Ghent, 1993-98
CHAPTER 2 ENDNOTES

1 Krier had worked on a book on Albert Speer in 1981 believing that Speer had not been fully aware of the horrors that Hitler's inner circle was planning. In 1983, when the book was about to be published, Speer died. With his death evidence came to light that Speer had always known about Hitler's plans. In turn, people began to question Krier's integrity. In an open letter to Joseph Rykwert, dated June 2013, Krier refers to Rykwert as one of the critics who intentionally ridiculed his inquiry into vernacular and classical architecture in relation to the work of Speer. In that same letter Krier says that the slander, which started in London in 1985 with the publication of the book on Speer, caused a tremendous professional setback. Krier claims that due to the slander he had lost, for example, the assignment for the design of the National Gallery extension — which afterwards went to Robert Venturi. Krier also claims that his integrity was questioned once more when, in 1988, he accepted a commission from HRH the Prince of Wales. Krier had to build a new town called Poundbury according to Prince Charles's architectural principles, which aimed to conserve typical qualities of British settlements. With the 'carbuncle speech' the Prince had given in 1984 to the Royal Institute of British Architects on its 150th anniversary, the Prince criticized the National Gallery extension proposal of Ahrends Burton and Koralek, and thus, the Prince had overtly denounced modernist inspired architecture. Many architects were offended and openly disapproved of it. After that speech many architecture-related initiatives from the Prince would be mocked. Léon Krier and other pioneers of New Classicism defended the Prince.

2 In this argument 'ideology' is not simply referring to some kind of creed or collection of ethics and beliefs. It is precisely, as Slavoj Žižek would call it, referring to the underside of customs. Ideology as rhetorical mechanism appeals to our commonsensical faculty in order to accept an argument in its reduced form — that is, simplified to its essence while conveniently forgetting the 'background noise'. However, it is precisely the suppressed 'noise' which would provide the actual meaning. Žižek develops this understanding of 'ideology' in: Slavoj Žižek, Living in the End Times (London ; New York: Verso, 2011).

3 Cfr. supra, Prince Charles commissioned Krier to design Poundbury, a job which Krier has been holding ever since. Today, in 2016, the town is over half built. Many architects, developers and politicians from around the world regularly visit the place to study its example.

4 Hans-Jürgen Müller remembers that Krier attempted to sell him some paintings at the gallery in Stuttgart. Hans-Jürgen Müller, Die Geschichte Einer Idee: Mariposa: Unvollständiger Tatsachenbericht (Stuttgart: Neuer Kunst Verlag, 2007), 10. Krier has a different recollection of the early encounter in Stuttgart; he only remembers buying a lithograph by J. Pfahl at Müller's gallery in 1967. In any case, the remembrance of the encounter is now seen as the beginning of a relationship of trust.

5 1968 was the year the Club of Rome was founded, against the backdrop of a ferment of intellectual revolt opposing authority. Powerful protests against the Vietnam War were occurring throughout the West, with students and most of their professors at the barricades. Roland Barthes' The Death of the Author was published in 1968. Guy Debord's Society of the Spectacle was published one year earlier and Foucault's What is an Author? one year later. These leading academics had an important impact on this perception of authority.
In 1967, for example, Peter Eisenman founded the Institute for Architecture and Urban Studies (IAUS), an independent non-profit agency concerned with research, education, and development in architecture and urbanism. He received help from Arthur Drexler to fund this endeavour. The institute became important because it was responsible for distributing the intellectual production of a number of architectural representatives of the time, including Krier and Koolhaas. From 1973 to 1984, the IAUS produced a leading architectural journal called Oppositions, which introduced many of Peter Eisenman’s European connections to an American audience — that is, Colin Rowe, Kenneth Frampton, Anthony Vidler, Bernard Tschumi, Rem Koolhaas, Leon Krier, Aldo Rossi, Manfredo Tafuri and others. Similar initiatives also occurred on the European continent. The same dynamics are present in the Italian or British editorial and academic environments, with leading figures such as Manfredo Tafuri and Reyner Banham, and influential magazines such as Casabella and Architectural Design (AD).

Rationalism in this context refers to an architectural current of the interwar period that derives not from a unified theory but rather from a shared belief in logical and rational solutions. Although it opposes a pure historicism as such, it was not a real break with tradition. History is considered a fecund source of a creative formal vocabulary. In Italy, rationalism is associated with Gruppo 7, that existed out of young architects such as Giuseppe Terragni, Adalberto Libera, Luigi Figini, Gino Pollini and others. In the early 1960s a second generation of rationalists consisted of Carlo Aymonino, Aldo Rossi, Massimo Scolari, and Giorgio Grassi. They represented a new rationalist movement called Tendenza. With the support of Manfredo Tafuri the work of the new rationalist movement Tendenza was exhibited at the triennial in Milan. References: Nava, XV Triennale di Milano, Catalogo ufficiale, Milano, 1973. Architettura Razionale, Milano, Franco Angeli Editore, 1973. Cristina Manzzoni, La Tendenza: Une avant-garde architecturale italienne, 1950-1980, Marseilles, Editions parenthèse, 2013.

Rossi et al., The Architecture of the City.


According to Krier, the Art Net exhibition was a critique of the 1973 triennial.

In 1972, a major shift had taken place in the educational philosophy of the school due to the loss of government support. Alvin Boyarksy became the new dean and started working on an international platform. At the time, Krier was part of this new approach. In 1975 Zaha Hadid was one of Krier’s students.

In 1978, Rem Koolhaas’ notorious Delirious New York was published; Colin Rowe and Fred Koetter published Collage City; Peter Eisenman’s seminal text, Post-functionalism, first published two years before, was translated into Spanish; and Krier staged the Rational Architecture exhibition in London and Barcelona for a third time.

Jencks and Kropf, Theories and Manifestoes of Contemporary Architecture, 176-77.

Cfr. supra: Tendenza.
Krier was not the only one to consider the rationalist framework incomplete. The idea to progress the work of the first rational movement was, for example, also discussed at the last CIAM conference, in 1959. Both Bakema and Smithson repeatedly explained the main idea of the Otterlo Conference, reaffirming that the crucial task — as defined at the first CIAM — was the provision of housing. However, the state of affairs of the first modernist projects — which had not turned out the way they were supposed to — demanded alternative solutions. According to Bakema, the first CIAM meeting had provided an incomplete definition of the task. Notions such as 'Gestaltung' and 'imagination' were key to advancing Terragni’s rationalism.

Conversation between Krier and the author, 8 August 2016.

At this point in his career he was in contact with members of the Board of Trustees of the National Gallery in London, among whom were Lord Rothschild and Sir Stuart Lipton. He was invited to teach at Yale. After an intense cooperation with his brother had ended over stylistic differences and client ethics, he was invited to join other firms. In 1985, at the request of Arthur Drexler and Philip Johnson, Krier and Ricardo Boffill landed an exhibition at the MoMA in New York. Shortly after, Boffill offered Krier to become partner (which did not proceed because of issues over being the name partner).


According to Krier, the idea that the client expected a different style is a post facto statement. Helga Müller, on the other hand, remembers the discrepancy as almost causing a divorce. Based on private conversations the author pursued with both parties.

Hans-Jürgen Müller talking about the first moment he saw Krier’s proposal: “Mich traf fast der Schlag — aber auch meine Frau studierte kopfschüttelnd die Ergebnisse monatelanger architektonischer Überlegungen. Was sich unseren Blicken bot, war — oberflächlich betrachtet — eine kleine, an griechischen Vorbildern orientierte Stadt - konzipiert für etwa dreihundert Menschen, mit Marktplatz, Museen, einer Kirche, Ateliers, Wohnhäusern ... Ohne auf die gelegentlichen Bemerkungen meiner Frau “Das darf doch nicht wahr sein” oder “Ausgerechnet wo wir Architekten wie Barragan und Tadao Ando nahestehen” einzugehen, überlegte ich die weiteren Schritte. Wir mussten zu unseren Wahl in jedem Fall stehen ... Und je länger ich mir die Tempel, Arkaden und Säulengänge anschauete, desto besser gefiel sie mir. Im Zusammenspiel mit einer mediterranen Landschaft — und die war auf Teneriffa ja gegeben — würde man einen überzeugenden Kontrast zu den einfalllosen Urbanisationen der Insel schaffen können. Auch das Bauvolumen und die zu erwartenden Kosten machten mir keine Sorgen. Wenn man für einen Tarnkappenbomber, der auf einem einzigen Flug sieben Länder atomisieren kann — das muss man sich einmal auf der Zunge zergehen lasse —, eine halbe Milliarde bezahlt, dann sollte eine solche Summe in gemeinsamer Anstrengung auch für ein Jahrtausendgeschenk aufzubringen sein,” from Müller, Die Geschichte Einer Idee: Mariposa: Unvollständiger Tatsachenbericht, 17-18. Krier remembers, on the contrary, that it was he who expressed his opinion about the incompatibility of their art collection with the spirit of his project.
22 With the lower tourist settlements, such as the Ten Bel resort in Las Galletas, only four kilometres down the coastline, the setting is much like Krier’s heimat, Luxembourg, where the elevated Chemin de la Corniche separates the historic centre from the lower city.

23 Quoted from a letter to the client on 20 March 1986. The letter is part of the private archive of the Müllers.


25 Today the best collage would probably be Poundbury or Cayala, Krier’s project in Guatemala.


27 A group of world-leading scientists who expressed their strong concerns about the future of the world.


29 Ibid.

30 Ibid.


32 Eisenman saw a disturbing basic setting in both exhibitions. The exhibitions, however, were quite different endeavours. The 1973 triennial was creating a group and a relation between Europe-America. The 1975 Beaux-Arts show was bringing back drawings in the MoMA and legitimizing the postmodern discourse within the most modern institution.

33 Hence, one could no longer base form-giving on an a priori functional relationship between an individual and the physical environment. He considered abstraction, atonality and atemporality, for example, as perfect formal tools to externalize the awareness of displacement.

The question of form had been part of the ongoing revisits of the modernist framework. At Otterlo, for example, Peter Smithson had condemned Giancarlo de Carlo for simply choosing forms loaded with meaning rather than inventing new ones. In a discussion with the American participant, Lovett, Peter Smithson emphasized the severity of form and what it represents in the specific historical situation of Europe. Smithson associated the forms that de Carlo and Rogers had chosen for their buildings with the communist world and therefore rejected their work as a possible new alternative for architecture. Peter Smithson in: Group for the Research of Social and Visual Inter-relationships. and Oscar Newman, Ciam ’59 in Otterlo, Dokumente Der Modernen Architektur (Stuttgart,: K. Krämer, 1961).

When Rem Koolhaas published Delirious New York, his position also became apparent. He suggested that the impact of architects is questionable and that it is an illusion to think that architecture has control of culture — including society — as it is being formed or transformed. The coexisting forces in the making of New York translated into a Cartesian grid for the city, an architecture with a rational and pragmatic plan, and overall shapes that allowed for the maximal freedom to house both real and surreal aspects of the city’s lifestyle. For Koolhaas, the debate on form, therefore, had to be separated from the debate on architectural performance.


Rowe in: Ibid., 8.


Krier and Culot, Contreprojets, Controprogetti, Counterprojects.

That the traditional architectural elements were the sole vernacular vocabulary is in contrasts with other European interpretations of the rationalist intellectual heritage. For example the ‘the Black Madonna’ housing project of Carl Weeber in the Netherlands, or the projects by Mario Botta in Switzerland are both regularly associated with new rationalism. They do not, however, use a traditional style in the strict sense.

The record of reports in the popular press is very long. The polarized perception as sketched within the confines of this argument is based on a selection of press releases of 1987 and 1988. For example, the article *Nochmals als Regenwurm anzufangen hat keinen Zweck*, in the *Esslinger Zeitung* of 31 December 1987, reports on a discussion between the Müllers and serial-editors Friedhelm Röttger and Johannes Häussler, where the Müllers have to explain their pompous speech. In another example, it was Jürgen Pahl who made reference of the nazi architecture, in the January edition 1988 of *Der Architekt*. Dieter Bartetzko problematized the missing postmodern irony within the trivial mythology that reminded of Donovan’s folklore song, the *Frankfurter Rundschau* of 2 January 1988 (The comparison to Donovan’s song reappears in the *Alpina Revue Maçonnique Suisse* nr. 2, 1990). In the *Stuttgarter Zeitung* nr. 44, 23 February 1988, Krier distanced himself of the colossal ambitions of the client. Krier also suggested that Le Corbusier, based on his plans for Paris, might have provided Hitler with a much more inhumane setting, if he would have been appointed by Hitler instead of Speer. In the *Metropolitan Review* of July/August 1988, there was a much more positive approach towards the project.

They both stressed the importance of environmental concerns and the importance of addressing ecology, economy, technology and social conditions. They agreed that architecture needs to place itself on the political agenda in order to demand policy changes that will produce more enduring buildings. It was argued that prioritizing long-term use over short-term consumption would prevent increases in the enormous maintenance bills that were already common.

He believed that only new types and a new formal language could effectively deal with the sensibilities with which we live. According to Eisenman, Koolhaas’ Dance Theatre in The Hague had presentness, the Parthenon does not. For Krier, the induced uncertainty and temporality of presentness would lead to the future irrelevance of architecture and the increasing deterioration of the built environment.

Andreas Papadakis opened the Academy Bookshop on Holland Street, Kensington, in 1964 and moved into publishing as Academy Editions in 1968. in 1975 Andreas Papadakis bought the financially troubled magazine *Architectural Design* (AD) — which he sold in 1990 to the well-known publisher Wiley. By the time he sold his publishing company to Wiley it was called Academy Group Ltd. He stayed with the group until 1992. After selling AD to Wiley Papadakis was not allowed to publish for five years due to a non-competition clause. Andreas Papadakis promoted various styles in architecture, with him organising regular pluralist debates, conferences and exhibitions. During the 1970s and 80s he published many books among which, for example, of Bernard Rudofsky, Reyner Banham, Rudolf Wittkower and Charles Jencks.

Contributions to the book by prominent names such as Aldo Rossi, Manfredo Tafuri, Demetri Porphyrios, Carroll William Westfall, Giorgio Grassi, Ignasi Solá-Morales, Charles Moore, Michael Graves, Christian Norberg-Schulz, Robert Stern, Colin Rowe, Allan Greenberg, Quinlan Terry, Robert Adam, Charles Jencks, Robert Venturi, Andrés Duany, Elizabeth Plater-Zyberk and Jaquelin T. Robertson were bound to give weight to the movement.

Painted by Rita Wolff, who was Léon Krier's wife at the time.

The selecting panel included Frank Gehry, Stanley Tigerman, David Childs, Bruce Graham and Thomas Beeby (based on an interview the author had with Krier, on 8 August 2016). These were members of the board. Peter Eisenman was also a member of the board. Yet, it is unclear whether he was also part of the selecting panel. Nicholas Adams, Skidmore, Owings & Merrill: Som since 1936 (Milan: Electa Architecture, 2007); Elizabeth Snowden, Richard Ingersoll, and John Parman, "Dialogue: John Whiteman," Design Book Review 15 Fall 1988; Bruce Graham, "Oral History of Bruce John Graham," in Chicago Architects Oral History Project (interview by Betty J. Blum, c.1998).

The 'Charter of Athens' is a document published by Le Corbusier in 1943 as the outcome of the fourth CIAM in 1933. It reflected on the theme 'the functional city' based on Le Corbusier's Ville Radieuse. The Charter was most influential in urban planning in the years after the Second World War.


Krier's brother, Robert, had worked for Frei Otto's office in his early career.

Although the Müllers pursued different paths to realise the project after all, they stayed close friends with Krier.

Documenta is a recurring event in Kassel. It is considered the world fair for art. In 1992, the curator for Documenta IX was Jan Hoet. The exhibition catalogue does not mention the Atlantis project or the Mariposa project.
Relating to the Documenta exhibition there are a dozen reports in the newspapers, such as Südw  est Presse, the Darmstädter Echo, The Hessische Allgemeine, the Abendzeitung, the Frankfurter Rundschau, and so on. But most of them provide a neutral report on the fire incident and what the pavilion was supposed to exhibit. Only a couple reports, from before the incident, provide a vague insight on how receptive peoples were at the time. In the Stuttgarter Nachrichten of 31 March 1992 it is mentioned that the Müllers so far had failed to find sufficient sponsors for the pavilion. Das Kulturmagazin Living of February 1992 provided an extended section on the Atlantis project, with the professor Bazon Brock making a plea to overcome the short-sighted critique on the project — claiming that documenta only has a future if it wants to be Atlantis: a place where all who want to orient themselves towards our ‘questionable future’ can come together. The arson attack was never claimed.

Seaside is a project by Robert & Daryl Rose Davis, initiated in 1981. The architects and urban planners were Andres Duany & Elizabeth Plater-Zyberk in collaboration with Dhiru Thadani, Léon Krier, and the Miami University architectural students.

Since 1993 The Congress of New Urbanism holds annual meetings in Florida. It concentrates on making walkable and well-designed authentic cities, towns and neighbourhoods. The movement made a charter that speaks about design intentions. Krier did not sign the charter as it lacks his point on building style — the human scale construction process — and the idea of limited floor numbers in relation to the optimum density.

This is based on the fact that they were published on a regular basis in leading magazines and anthologies such as Archis, Oase, El Croquis or for example The Metapolis of Advanced Architecture.


"A 5000 Year Old Profession."

The fact that some design variables are recognizably more interdependent than others is an important assumption. Otherwise, according to Alexander, the problem is to complex to be resolved within an acceptable timeframe.


Neutelings and Riedijk, At Work : Neutelings Riedijk Architects, 7.
"A 5000 Year Old Profession." Italics are mine.

Venturi and Scully, Complexity and Contradiction in Architecture, 14.

Hays, "Critical Architecture: Between Culture and Form."

Somol and Whiting, "Notes around the Doppler Effect and Other Moods of Modernism."


Ibid., 21.


3. Taking Inventory of Architectural Turns

We have seen that a critical faculty that attributes the ‘right’ value in a design process must be active on a practical and ideological level. However, chapter two showed that neither an outspoken nor a retained position resolves ambiguity about the attribution of value in architectural design. To understand the particularities of what is assumed of the architect’s capacity to make the correct design choices, we must revisit some architectural design theories of the last decades the proposed alternative taxonomies of design choices. To talk about this critical faculty we must also discuss criticality and its legacy in architecture. Although I frame these propositions as ‘turns’, in reality most of them did not cause a full turn of the profession. Nevertheless, I believe their influence leaves behind a residue that transfers to the thinking of next generations.

This chapter is a comparative study of theoretical propositions that will start with elaborating on architecture’s critical turn. From the various attempts to develop and promote the critical notion this chapter further focuses on three currents: (1) the notion of the ‘projective’ as developed by Sarah Whiting and Robert Somol, (2) the parametric approach of Schumacher, and (3) Mallgrave’s renewed phenomenology based on neurobiological arguments. These are relatively new currents that took a mature form after the turn of the twenty-first century. They all solicit external frameworks to justify the way they set priorities in architecture. The appropriation of presets from external frameworks causes different interpretations of a critical faculty that remain at work in the background. By juxtaposing the different approaches this chapter brings these background interpretations to the foreground.

Because the critical faculty is assumed to bring order in the creative process while it continues to remain elusive, other questions arise. How is the critical faculty conceived? Is it a strictly human quality (one associated with the architect’s creative process) or does it also apply for architecture? How can architecture be critical? What is the role of a particular theory, when it seems necessary to evoke that criticality?
3.1. Architecture’s Critical Turn

In the first half of the twentieth century, a group of Jewish thinkers — Max Horkheimer, Theodor Adorno, Walter Benjamin, Erich Fromm, Herbert Marcuse and others — associated with the Institute for Social Research, founded in Frankfurt am Main and became known as the Frankfurt School. They are considered the pioneers of critical theory. Their journey, in both a literal and a figurative way, sheds light on its origin. The war forced them to leave their home basis in Heidelberg (near Frankfurt), to stay briefly in Geneva and Paris. When tensions escalated too high, they fled to America, where they stayed in exile for fifteen years, working at Columbia University, in New York, to return to Germany in 1947.

In an attempt to penetrate social dynamics, they studied the phenomena of mass culture. Their primary interests included mass media, music, literature, ‘modern’ art, and Freudian theory. They expanded the basic Marxist critique on a capitalist society with ideas (inspired by Weber) on bureaucratic domination, the ‘false’ reification of modern aesthetics, and a primacy of bourgeois ideology. At first, both the heterogeneity and the speculative character of their critiques made it difficult to produce a coherent body of theory. Only by the time they returned to Germany had they established a recognizable strand of societal critique: in every aspect of an advanced capitalist society they saw proof of alienation due to economic, political, cultural and psychological domination.

Critical theory gained a wide influence. It even formed a source of inspiration for architectural theory, particularly in the 1970s and 1980s. Rather than providing a historical review, this chapter takes Peter Eisenman as a point of reference to understand how critical theory was introduced in architectural discourse. Eisenman is one of the main figures who appropriated a critical theory for architecture and who had a strong influence on much of the architectural theory that followed — including the currents that aim to reformulate how architecture can remain critical.

In a quest for his own theoretical foundations, Peter Eisenman adopted the crucial assumption of Colin Rowe, namely, the idea that an intellectual order provides the premise for the formal aspects of architecture. Eisenman was convinced that architecture needed such an intellectual order to rid architecture of ongoing confusion. This key assumption enabled the building of what Eisenman called a comprehensible systemic theory for design and criticism. Eisenman’s first attempt to give form to an intellectual order was based on
Chomsky’s language system, which ordered the meaning of language by differentiating surface structure from deep structures.

Based on Rowe’s assumption that an intellectual order exists, Eisenman began to develop a design methodology, for which he struggled to provide solid theoretical underpinnings without alluding to metaphysical grounds. Throughout his career he adjusts his theoretical framework several times to solve or work his way around any metaphysical component. Eisenman’s solicitation of the critical framework must be seen in this light.

Eisenman’s adaptation, inspired by critical theory, had to dissolve or shift focus away from metaphysics. In an attempt to abolish the metaphysical component completely, Eisenman affiliated himself with deconstructivism, a philosophical current of the 1980s associated with the French philosopher and Eisenman’s friend, Jacques Derrida. However, the adoption of the deconstructivist framework could not fully resolve the matter. Therefore, Eisenman continued to pursue his version of critical theory, even though it contained a residue of an unaccounted metaphysical component.

3.1.1. A Road to Criticality

Colin Rowe’s Lead

The groundwork for Eisenman’s first theoretical position was laid in the United Kingdom, in the early 1960s. After a scholarship in France, Eisenman began to teach at Cambridge University, where he met Colin Rowe. At Cambridge he began research for his PhD dissertation, ‘The Formal Basis of Modern Architecture’. He aimed to construct an alternative theory of modern architecture that rearranged the relative importance of function, form, and structure with an emphasis on form. It was Rowe’s project to intellectualize the grammar of form. At the time Rowe had already published two substantial essays in Architectural Review: ‘The Mathematics of the Ideal Villa’ and ‘Mannerism and Modern Architecture’, in which he elaborates on the perseverance of the ideal form as a mathematical and Platonic absolute. In the second essay Rowe recapitulates the basic crux for architectural theory of the nineteenth century:

When Hume was able to declare that ‘all probable knowledge is nothing but a species of sensation’, the possibilities of an intellectual order seem to have been demolished; […] and it was not until the fiuore of the [Romantic]
movement had spent itself that late nineteenth century ‘realism’ came to regularise the situation.

Rowe revisits the architectural theory of the nineteenth century that meandered from the English picturesque to Gothic revivalism, new classicism, rationalism, and eclecticism. He distills a scheme that applied to all positions. Every theoretical position, he perceives, consisted of a doctrine paired with a moral order. These doctrines formulated rules and regulations defined by the latest scientific insights and technical developments. By implication, the doctrines adapted at the pace of progress. The moral order that complemented each doctrine was constituted by social conventions. If society changed, the constituents of a moral order changed as well. For Rowe the history of architectural theory in the nineteenth century could be summarized as a complex period out of which the intellectual order based on platonic absolutes prevailed. For Rowe, the ongoing debates on styles were, in fact, a quest to bring a hierarchy to the multiple moral orders at play.

Rowe’s second article discusses more specifically mechanisms in early modernist work that he believed were analogous to sixteenth-century mannerism. The white panel in the facade of the Villa Schwob, in La Chaux-de-Fonds, designed by Le Corbusier in 1916, was a crucial example for Rowe’s argument [fig. 29]. In it, Rowe sees a strong formal resemblance to the facades of Casa di Palladio in Venice (1572) or to Zuccheri’s casino in Florence (1578) [figs. 30, 31]. He concludes that a juxtaposition of these projects and the related intellectual timeframes could reveal similar reactionary attitudes.

Rowe defines mannerism of the sixteenth century as the ‘human desire to impair perfection when once it has been achieved, and at the same time, to represent a collapse of confidence in the theoretical programs of the earlier Renaissance’. Mannerism, Rowe argues, became the visual index of an intellectual disturbance, and thus, mannerism confronted the spiritual and political crisis of that time. Architecture of the sixteenth century remained in the classical language of the Renaissance, yet it began to show aberrations that challenged the public symbolism of objective truths.

With Villa Schwob as a primary example, Rowe identifies a similar mechanism in the work of early modernists. His article set out to inquire into the contemporary version of an intellectual disturbance. For Rowe, architecture in the beginning of the twentieth century faced a crisis of styles. A liberal eclecticism caused a dehistorization, oversymplification and neutralization of
architecture. It reduced architecture to being solely in the service of a ‘sophisticated observer’. The architectural outcome depended on the artist’s sensation, reducing architecture to a purely visual, pictorial experience. What lingered, according to Rowe, was the organizing power of the natural rules of Phileban geometries. The ideal geometries continued regulating that organization, whether a romantic collage, a revivalist structure, a rationalized plan, or a realist construction. Thus, if a modern mannerism had to become the visual index of an intellectual disturbance, one that confronts the crisis of styles and represents some idiomatic fallacy, it could only do so by introducing aberrations in the ideal geometries — changing scale, proportions, or harmony. Rowe further argues that to achieve more than only what pleased the eye, architecture had to pursue a complexity of which the element of delight was revealed to the intellect. Modernists no longer aimed for visual completion but rather they aimed for intellectual satisfaction.

Rowe’s pair of articles were a quest to define modernism post factum. They redefined modernism as a logical next step in architectural history, challenging the idea of modernism as a break with history. Rowe emphasizes that the notion of absolute forms persisted throughout the rise and decline of successive idioms, from the Renaissance to the beginning of the twentieth century, an idea that Eisenman was eager to pursue.

**Eisenman’s Intellectual Order**

In an extract of his PhD dissertation published in 1963, Eisenman explains that ‘a general priority system must be proposed, [to compete with] Mannerism and the cult of self-expression without regard to a total order, and […] such a system must necessarily give preference to absolute over temporal ends’. Eisenman suggests that establishing a priority system can bring total order, in both the design process and the outer world.

Eisenman also imputes the key role in architectural conception to form. In doing so, he adopts Rowe’s lead, which would cause ambiguity in his theoretical developments in the years that followed. With form as the central organizing element, Eisenman often borders on a metaphysical position. On the one hand, such a position made it easy to resume authority over design by means of an autonomous formal language. On the other hand, discussing architecture’s engagement with the contingencies of reality became extremely complicated.

In the extract of his PhD, Eisenman postulates that the equation to give architecture its total meaning consists of five elements: concept or intent,
function, structure, technics, form. Eisenman also states that every creative act in architecture is structured by thinking about these elements. To enhance architecture’s clarity or comprehensibility, the lack of which causes much of the ongoing confusion, Eisenman argues, that one had to recognize a profound intellectual order of these elements. For Eisenman, Gestalt psychology provided the proof that comprehensibility depended on simple essential forms. Thus, first one defined the generic form, which follows Platonic universal laws, after which one could apply specific forms, an aesthetic and subjective response based on factors such as proportions, surface, structure, symbolic relations, etcetera. Specific form was conceived from a critique of intent and function, understood in both a physical-utilitarian and metaphysical-symbolic sense, which gave these two elements a lower rank in the intellectual order of the elements. The final elements, structure and technics, came last in the hierarchy of the design process. The outcome of such a design process would form a conceptual whole. Following Rowe, this conceptual whole, rather than a perceptual whole, would bring intellectual delight. As a result, the intellectual order during the design process would also create a well-ordered environment.

Eisenman’s first attempt to deal with Rowe’s lead was to perform a formal analysis of architecture in a mathematical way. Inspired by the linguist Noam Chomsky, Eisenman focuses on a deep-rooted syntax of form. He assumes that this quest for deep-rooted syntax would cleanse architecture from time-bound meanings and provide the basis for a new autonomous practice and theory.

3.1.2. Marrying Autonomy with Engagement

The Autonomy of Architecture

Eisenman’s engagement with semiotics, as developed in his PhD, forms part of a larger tendency to consider architecture as a system of signs. In the 1960s and 1970s many tried to transpose the conceptual framework of semiotics to architecture. The adaptation of semiotics points to the disciplinary challenge of that time. It seemed that the architectural apparatus had become meaningless. A semiotic framework was supposed to restore meaning. Geoffrey Broadbent’s article, ‘A Plain Man’s Guide to the Theory of Signs in Architecture’, offers good insight into the earlier engagement of semiotics in architecture.

Two phenomena led to the situation in which architecture looked for salvation in semiotics. The classical canon, as a closed formal system — or language — was problematised when the modernist project suggested that it obstructed human emancipation. The representation of status or power had to
be avoided. In this light one has to remember the notorious arguments from architects such as Adolf Loos, Louis Sullivan, Le Corbusier, Gropius for a more ‘honest’ architecture. However, as John Summerson pointed out, a break from the classical canon would eventually result in a new architectural canon. Thus, even when trying to avoid it, representation of some kind would always finds its way back into architectural language. Another phenomenon that initiated the first semiotic turn occurred because many were convinced that by the mid-1950s the meaning of functionalist architecture had been reduced to its single economic basis. Architecture appeared to have been completely subordinated to a capitalist system that reduced the architectural task to superficial styling. These two obstacles — on the one hand, the attempt to deny representation or meaning but still ending up with a new kind of meaning, and on the other hand, anxiety about the erosion of the profession — led many prominent figures to solicit the semiotic framework in the early 1960s. By incorporating the conceptual framework of semiotics, the architectural apparatus was interpreted as a sign system for which meaning was to be unraveled by an ontological quest for each of its elements.

According to Broadbent, this first solicitation of the semiotic framework was thus key to reinstating a new common language in architecture ‘... that will help us to understand all buildings better’. The theories of signs or signification that had been introduced by the fathers of semiotics, Charles Sanders Peirce and Ferdinand de Saussure, were the general points of reference. Architects involved with the semiotic turn had to choose between a triadic or a dyadic semiotic system. Eisenman was drawn to the dyadic version which would later colour his interpretation of critical theory.

The Purpose of Architecture

The crucial difference between a focus on intention or technique in the design process is directly related to the choice between Peirce and de Saussure. Peirce’s model of signs is triadic, while Saussure’s is dyadic. For Peirce, there are three parts to signs: the sign or the interpretamen, the interpretant, and the referent or object. A simple example is the stop sign. The ‘sign’ is the board placed along the side of a road. The object is that people ‘stop’. The interpretant is that people understand they must stop at the junction. In other words, a sign stands for an object which is interpreted through the sign. The interpretation is conditional. According to Peirce, we interpret signs according to a rule, a habitual connection. This tenet is the cornerstone of Peirce’s pragmatism. In essence, Peirce focuses on the behavioural aspects of the sign-interpretation. His
The triadic model shows a shift between the interpretant and the object and the connection based on habit.

Saussure’s model is dyadic. A sign is made up of the binary relationship between the signified and the signifier. A known example here is the relationship between a ‘tree’ and the Latin word ‘arbor’. The signified-signifier relationship is both arbitrary and differential. It is arbitrary because the signifier — in this case the word ‘arbor’ — that refers to the signified has no a priori or universal connection. At the same time the relationship is differential, because we understand the signs by what they are not. In this dyadic model of signs the focus lies on the structure of sign systems.

This triadic-dyadic difference is important to architecture because it stands for either a focus on purpose or a focus on structure in communicative sign systems. As Broadbent explains, the first turn to semiotics architecture was mainly associated with a structural approach to establishing a new architectural design vocabulary. Christian Norberg-Schulz was one of the first to turn to Saussure’s model only to move on to Peirce. He moved from the dyadic to the triadic model because he preferred the emphasis on habitual behaviour. Eisenman, in contrast, developed his first formal jargon based on Chomsky, a post-Saussurian semiotician, because it better suited his intellectual ambition to reframe the modernist sensibility as an autonomous language.

Saussure’s dyadic model, rather than Peirce’s triadic model, aligned with Eisenman’s interests that would lead towards an arbitrary and autonomous architectural apparatus. The dyadic approach allowed Eisenman to elaborate purely on form; the idea of purpose could be discarded for the time being. Eisenman’s approach focusses on the system without making assumptions about the sense it made — which is why it was described as arbitrary. In Saussurian thinking value is given by a differential relationship, that is, through binary thinking: we know, for example, what is ‘good’ by knowing its counterpart of ‘bad’.

Under the influence of his own private practice in the early 1970s, Eisenman felt the need to re-describe his theoretical framework. His autonomous theory was complemented in practice with conceptual transformations of ‘EL’-shaped forms. In so doing, he appropriated current themes from conceptual and minimalist art. The ‘EL’-shaped forms and syntax experiments were central
themes in the minimal artworks of Robert Morris, SoLeWitt, and Donald Judd. With terminology such as ‘presentness’ and ‘no to transcendence’, the minimalists wanted to free art from any metaphysical connotation. The ultimate artistic experience was supposed to be purely between the artwork and the beholder. This would be the only way for art to regain its autonomy.\textsuperscript{12} Both the dissociation from metaphysics and the aspired autonomy inspired Eisenman to adopt parts of their terminology.

Eisenman struggled to apply his dyadic evaluation system in practice. The system’s ambiguity about value made it problematic to legitimize any form of engagement. Both the purposeless — or the self-sufficient structural thinking — and the binary constitution of value were problematised at large by post-structuralist philosophers such as Jacques Derrida, Michel Foucault, Gilles Deleuze, Jacques Lacan, Jean Baudrillard and others. This is why Eisenman adjusted his vocabulary to incorporate conceptual thinking of these aforementioned philosophers.

The need to further revise his own vocabulary occurred around 1975, when he was finishing House 10 [fig. 32], the last of a series of small projects. He believed that he was exhausting the methods that stem from his first theoretical groundwork, such as ‘conceptual transformation’. Larger projects demanded a vocabulary that dealt with new complexities such as context, for which a total autonomous vocabulary was inadequate. In this period Eisenman talked about a design technique called ‘artificial excavation’ — based on the analogous design process\textsuperscript{13} and textual readings. He talked about ‘artificial architecture’ and ‘architecture as text’. His design vocabulary began to centre around arbitrary forms, heuristic approximation, difference, absence, presentness and decomposition.\textsuperscript{14} Eisenman's seminal text, \textit{Post-Functionalism}\textsuperscript{15} (1976), is an attempt to abolish the metaphysical residue in Rowe’s intellectual order based on Platonic absolutes. But Eisenman did so without distancing himself completely from Phileban geometries. He bases his post-functionalist theory on what he called the modernist dialectic, that is the co-existence of two non-corraborating and non-sequential tendencies towards form.

\begin{quote}
One tendency is to presume architectural form to be a recognizable transformation from some pre-existent geometric or Platonic solid. [...] This tendency is certainly a relic of humanist theory. However, to this is added a second tendency that sees architectural form in an atemporal, decompositional mode, as something simplified from some pre-existent set of non-specific spatial entities. [...] The former tendency, when taken by itself, is a
\end{quote}
reductivist attitude and assumes some primary unity as both an ethical and an aesthetic basis for all creation. The latter, by itself, assumes a basic condition of fragmentation and multiplicity from which the resultant form is a state of simplification. Both tendencies, however, when taken together, constitute the essence of this new, modern dialectic.16

Thus, after the first calibrations of his theory, Eisenman continued to acknowledge some primary unity that brings ethical and aesthetic order. However, he wanted to elevate the reductive claims by adding a basic condition of fragmentation. While the latter seems to negate unity, it remained a primary, basic condition. For Eisenman, the combination of the two provided theoretical grounds that could go beyond the mere functional — the mere cultural, time-bound meaning. By pushing the ‘cultural’ influence down the ladder, it remained unclear what kind of engagement with a societal or cultural context was to be expected from Eisenman’s architecture. An attempt to resolve that issue crystallized in a next seminal text, a decade later.

3.1.3. Critical Theory Appropriated by Architecture

The twenty-first issue of Perspecta (1984) discusses the engagement of architecture with the social, intellectual, and visual culture as opposed to architecture as an autonomous medium. It foregrounds, among others, two seminal essays — ‘The End of the Classical: The End of the Beginning, The End of the End’ by Peter Eisenman and ‘Critical Architecture: Between Culture and Form’ by Michael Hays.17 Each in their own way appropriates critical theory. Hays argues that a certain level of autonomy of architecture is a necessary condition to obtain a critically engaged position. Rather than describing a critical position, Eisenman aims to be the embodiment of it.

Critical theory in itself had been evolving from a revolt against capitalism to a more general struggle to transform the human condition. The production of theory was seen as a practical instrument for a profound skepticism towards a dominant social structure — in fact, towards any system, culture industry, form of belief, or ideology. The signature work of critical theory is Dialectics of Enlightenment written in 1944 by Max Horkheimer and Theodor Adorno and reissued in 1947. It opposed what they call ‘the totally administered society’ that controls all aspects of life and thus subverts the enlightenment ideal of autonomy. The general recurring claims are that the idea of a ‘single whole’ is false and that ‘historical progress’ is an illusion. The only option is to maintain a
negative dialectic, that is, a permanent critical position that resists and confronts those illusions.

Key notions of critical theory reappear in and structure Eisenman’s text, in the sense that Eisenman also challenges enlightenment values. In ‘The End of the Classical: The End of the Beginning, the End of the End’, Eisenman portrays ‘representation’, ‘reason’, and ‘history’ as the three fictional cornerstones of classical architecture. These fictions serve the purposes of providing ‘meaning’, ‘truth’, and ‘timelessness’, respectively. The classical view sustains the illusion of completeness by defining architecture in terms of a beginning and an end — design then becomes the valuable transformation towards a goal. Eisenman’s challenge of the ‘whole’ as a false conception eradicates Alberti’s identification of composition to be a perfect ‘whole’. If beginning and end, or value and goal, are fictions, so is the process of transformation, which is value or goal oriented. What remains is architectural design as pure modification of form.

In the essay, Eisenman concludes, ‘once the traditional values of classical architecture are understood as not meaningful, true, and timeless, it must be concluded that these classical values were always simulations’. Even modernist architecture, although completely different stylistically from any preceding architecture, works within the classical frame of thought — simulating meaning, honesty, and zeitgeist. According to Eisenman, a cause of anxiety is people becoming conscious of the fictions of the classical frame. It is a duty of architecture to express this anxiety. The only option is an architecture that does not simulate. Eventually a form of negative dialectic is translated into architecture, both a skeptical theoretical stance and a formal architectural language based on autonomy, modification and dissimulation.

The close collaboration with the post-structuralist philosopher Jacques Derrida for the first competition of park La Villette inspired Eisenman to represent his recently reformed design methodology as deconstructivism, of which the Wexner Art Center [Fig. 33], realised in 1984, is a good example. The architectural forms of the art center are abstract and intentionally refuse to simulate any functional reference to the type or use of the building. The anachronistic collage of modified formal types — such as the broken watchtower or the half-cut, half sunken classical arch next to the geometric steel wireframe that forms the entrance but is not a real covering canopy, and so on — should make it impossible to accrue meaning to any of the elements. At the
same time, the anachronistic collage exposes the illusions of meaning, truth and timelessness by eradicating value and (unity as) goal.

Even though Eisenman claimed that value and goal were out the window, the residue of an unaccounted metaphysical component remained. He persisted in claiming that architecture had a duty to express anxiety and resist a dominant culture, which is in fact a kind of value and a goal. This ambiguity got him in trouble with his friend, Derrida. Adapting Derrida’s terminology to apply it to architecture seemed to eventually free Eisenman from the seed planted by Rowe — Rowe’s possibility of an intellectual order. However, whereas Derrida’s deconstruction proclaimed the impossibility of ever knowing the absolute meaning of anything, which is a philosophical position, the ambiguous use of a similar terminology by Eisenman had no such purpose. Eisenman still wanted to legitimize an intellectual order that brings hierarchy to the architectural agenda. One should remember, for example, that in 1989 Eisenman referred to deconstructivism as his ideology in the public debate with Léon Krier. Derrida was disturbed by Eisenman’s reinterpretation of the deconstructivist discourse and expressed his concerns in a personal letter to Eisenman:

_This discourse regarding absence or the ‘presence of absence’ puzzles me, not only because it deploys so many ruses, complications, and traps that the philosopher, particularly if he is a bit of a dialectician, knows too well and fears finding you ‘caught up in’, but also because it authorises many religious interpretations — if not to say vaguely Judeo-transcendental ideologisations — of your work. I suspect you of having somewhat enjoyed and encouraged these interpretations even as you discreetly denied it with a smile, ensuring that the misunderstanding remains more or less a misunderstanding._

After 1989 Eisenman dropped the term deconstructivism as a denominator for his work and profiled himself as an outspoken ‘critical’ architect. His later vocabulary kept on shifting, due to, for example, the intense debates of the ANY conferences. But his view on critical theory made a decisive mark on the way the next generation coped with architectural theory. The other major influence on architectural theory through an incorporation of critical theory came from Michael Hays.

**Michael Hays’ Criticality**

In Hays’ article, ‘Critical Architecture: Between Culture and Form’ (1984), his goal is to counter the opposing theories he identified at the time. On the one hand, forms of theory turned to history and tradition to define architecture.
On the other hand, theories emerged about architecture as an autonomous formal system. Hays brought critical theory to architecture to find a position in between, a position that resists a dominant culture and thus remains autonomous, while resistance at the same time is also understood as a form of engagement. In this context, he defines ‘culture’ as a massive body of self-perpetuating ideas; and ‘form’ he understands as an autonomous frame free of circumstances separated from time and place. The dichotomy Hays recognised is that architecture is either seen as an instrument of culture or as autonomous form. Because either position is impossible to hold, Hays proposes a middle ground. Architecture needs to be resistant enough to avoid complete subordination and at the same time architecture needs to be in the world to avoid complete irrelevancy. Hays defines critical architecture as an intellectual tool to resist and critique a dominant culture. Mies’s early work serves as an example for this ambiguous position that critical architecture needs to hold.

According to Hays, Mies’s projects cannot simply be broken down into constituent parts that refer or represent original aspects of a historic culture. Nor can the constituent parts be understood as a mere sum of formal operations without external references. In fact, for Hays, Mies’s projects succeed in addressing and opposing the debilitating dismay experienced in the modern city — described as a *blasé attitude* by Georg Simmel and seen as the contemporary phenomenon to be resisted and critiqued by the intellectual.

In this context, one has to remember that two decades earlier, Robert Venturi provided a different reading of Mies’s work in *Complexity and Contradiction in Architecture*. Venturi argues for a vocabulary of architectural form that conveys meaning in all its complexity and contradiction. For Venturi, the work of Mies falls short of representing complexity and contradiction. He argues that Mies was highly selective about which architectural problems he would solve. As a result, Mies’s clear buildings were at risk of being separated from the experience of life and the needs of society. Clarity was understood as simplification and thus as an inability to express the complexity and contradiction of its time. For Venturi the work of Mies serves as an example of clarity and therefore of simplification. While Venturi, with his critique of Mies, wants to close the door for the modernist project, Hays, in addition to resolving the dichotomy he saw in architectural theory of that time, also rehabilitates Mies’s formal vocabulary connected to the modernist and realist agenda, proposing at once a way for translating critical theory into practice.
Hays and Eisenman became the fathers of critical architecture. On many occasions they appointed a younger generation of architectural writers, theorists, practitioners or educators. Sarah Whiting and Stan Allen, for example, were among the original consulting editors of Hays’ *Assemblage*, the architectural journal that replaced *Oppositions*, and were later to be joined by Mark Wigley and others. Robert Somol was a regular contributor to the journal. They all collaborated with Eisenman at some point: as part of a project team for an international competition, an exhibition at the MoMA in New York or for a book publication. In short, they were among the first to capture the ‘critical’ notion in architecture, and they became part of the field that spread ‘critical architecture’. A decade later they were to become the most prominent critics of ‘criticality’.
3.2. Post-Critical Turns

3.2.1. The Projective Turn

The goal of many architecture-related conferences has been to advance the critical notion. The Projective Landscape conference, held in March 2006 at the University of Delft, was one of them. It was organised only a couple of days before another, competing, conference, titled Supercritical, organized at the AA School in London. The keynote speakers of the second conference, Peter Eisenman and Rem Koolhaas, are the intellectual fathers of almost all participants of the Projective Landscape conference. Willem Jan Neutelings was one of the speakers invited to the first conference (as part of the ‘reference OMA’ group, he was a good alternative to Koolhaas himself). By revisiting this conference, the following paragraphs shed light on Sarah Whiting’s attempt to calibrate the critical notion, and how she copes with the unaccounted metaphysical component — the critical faculty, as we have called it in chapter one — that was present in Eisenman’s narrative.

The Projective Landscape Conference

To understand the origin of the ‘projective’ idea, it is necessary to look at how the term *projective* became related to the idea of the *critical* in architecture. The thirty-third issue of *Perspecta* (2002) was entitled ‘Mining Autonomy’. Somol and Whiting contributed the essay called ‘Notes around the Doppler Effect and Other Moods of Modernism’. In that essay they argue for the ‘projective’ as an alternative to the dominant but by then exhausted paradigm of ‘criticality’. Criticality had been focussing on the autonomy of the discipline in a negative, dialectical way, whereas Somol and Whiting see opportunity in other disciplinarian approaches. Instead of focussing on how architecture works, they argue for a shift in focus towards what architecture can do. They suggest talking less about self-referential disciplinarity and more about the intended effect of projects — for which the work of Rem Koolhaas was the main example. The ‘projective’ is considered a perfect denominator for a discourse that wanted to talk both about the project as such and about what can be projected into reality by architecture.

The ‘projective’ project was not a sudden break with ‘criticality’. Criticality itself had been redescribed several times since it entered architecture. The question of how a critical practice could stand in the world or could deal with context had been a challenge from the beginning. The idea of confrontational resistance as a prerequisite of a critical practice had already gradually shifted
towards a more smooth and cunning way of achieving critical work. Already in 1993, for example, Gregg Lynn, in his essay 'Architectural Curvilinearity: The Folded, The Pliant and The Supple', talks about the tactical opportunities to be found in the ‘interstitial space’ — a catchword in the 1990s that referred to either, literally, space in between function and the outside or, figuratively, to room for interpretation within the complex exigencies of a project. Stan Allen’s essay ‘Field Conditions’ (1999) focusses much more on the forces that immediately influences the architectural project. Or, John Rajchman’s article ‘A New Pragmatism’ (1998) proposes the diagram as a tool to map forces of contemporary life that affect the architectural project. All these voices, and many more, had already questioned the operativeness of critical architecture before Whiting and Somol wrote their influential ‘Notes around the Doppler Effect’. Terms such as ‘new pragmatism’, ‘post-critical’, ‘the interstitial’, and ‘operative optimism’ were proposed to capture these gradual shifts.

In 2004, the Canadian critic and professor of architectural theory George Baird reviewed the latest theoretical developments — calls for a more projective, performative, pragmatic architecture — at East Coast universities. He discussed the new generation of theoreticians, such as Michael Speaks, Sarah Whiting, Robert Somol, Stan Allen, and Sylvia Lavin, who initiated polemical attacks on criticality. Baird expanded on the new generation’s world of references. After exposing their oedipal relationship with Eisenman, Hays, and to a certain extent Tafuri, and after showing earlier resistance in the work of Rem Koolhaas, Baird raised some opposing thoughts to warn the academic community about the danger of a lack of theory:

[I]t is clear that a new projective architecture will not be able to be developed in the absence of a supporting body of projective theory. Without it, I predict that this new architecture will devolve to the ‘merely’ pragmatic, and to the ‘merely’ decorative, with astonishing speed.

Another upcoming East Coast academic, Reinhold Martin, leaned on Baird’s insights to further question the projective or post-critical project. With his article ‘Critical of What? Toward a Utopian Realism’, he challenged his fellow academics to articulate by which criteria their project was to be judged. Point taken. A body of ‘projective’ theory was needed. This was enough reason for the Delft university academics Lara Schrijver and Jasper De Haan, together with students of the Stylos foundation, to organise the Projective Landscape conference and to invite all of these players: Michael Speaks, Robert Somol,
Sarah Whiting, Stan Allen, Michael Hays, Reinhold Martin, and Christine Boyer.

**Skepticism at the Conference**

The *Projective Landscape* conference intentionally brought together American and European theoreticians and practitioners for an intellectually stimulating debate. The organising committee wanted to relate and elaborate current theories in both America and Europe that focused on practice once again. Therefore, a list of European speakers was invited as well: Peter Trummer and Roemer van Toorn, both connected to the Berlage institute; Arie Graafland and Hans van Dijk, both from the Faculty of Architecture in Delft; practice-based architects Willem Jan Neutelings of Neutelings Riedijk Architects, Kamel Klaasse of NL Architects; and from abroad, Nikolaus Kuhnert, Wouter Vanstiphout, Ole Fisher, and Naomi Stead. One of the key figures who could not make it was Manuel Gausa, the Spanish architect and theorist who had just published a book titled *Operative Optimism in Architecture*.

The conference’s main goal was to find common ground on theoretical principles that could support the newly emerging practice in architecture. It was an attempt either to break away from criticality or to reinvent its framework all together. At the same time, in London, Peter Eisenman was also reinventing criticality for contemporary conditions. The public debate called ‘Supercritical’ was held only a couple of days later at the AA School in London. A followup debate titled ‘Urgency’ took place one year later at the Canadian Centre for Architecture (CCA) in Montreal. Also there the criticality protagonists where reframing what a contemporary critical practice could be.

At the Projective Landscape conference, the lineup of the American speakers in itself had some strong opposition. Moreover, as suggested by Baird, the new Delft School of Design and the Berlage Institute planned to challenge the American hegemony. According to Lara Schrijver, this resulted in rather reserved, sometimes defensive, and often cynical contributions from the American speakers, who were wary of overseas attacks and friendly fire at the same time. The way Stan Allen opens his contribution is a good example:

*I have to admit from the beginning to a bit of a sense of puzzlement over the intensity and persistence over these recent debates around the critical and what has been called the post-critical or the projective. Puzzlement because first of all the current debates seem to me both all too familiar and rather belated. I really thought we covered this ground long ago. But second because*
I suspect the positions held are probably irreconcilable. Call me a pessimist, but I doubt that as result of anything said here today Reinhold Martin is going to turn around and say ‘you know, you guys were right all along’. 38

Reinhold Martin’s contribution was a repetition of his earlier ‘critical of what’ critique. He questions notions such as ‘matters of concern’ or ‘the sum of small narratives’, for they would not sufficiently explain what the projective ideas add up to. This set the final hurdle that the speakers at the conference had difficulty overcoming. According to Schrijver, the closing debate and some afterthoughts left everybody in doubt as to whether the projective discourse had gained in precision. 39

**Robert Somol’s Contribution**

Robert Somol repeats the intention of the projective concept and issues a state of affairs of the ‘movement’. He claims that the projective was not the opposite of the critical — because that would be commercial architecture which surrenders completely to a market-driven policy. He was, therefore, not willing to recognise a debate about which movement is the most conscious or engaged. For Somol the critical paradigm as such had been exhausted and needed to be reviewed or replaced by a new paradigm that connected to the new emerging sensibilities in architecture. He uses the ‘hot’ and ‘cool’ way of acting as metaphors to explain a modus operandi where one focusses either on method or on performance. ‘Hot’ aligns with the disciplinarian method acting. ‘Cool’, on the other hand is demonstration without pleading. These hands-on metaphors were a crucial tool for solving a profound contemporary intellectual challenge, namely, how to theorise about a bigger plan without falling back into metaphysics.

Somol gave two examples. He describes Eisenman’s project The City of Culture of Galicia in Santiago de Compostela [fig. 34] as triggering a ‘wow!-what?’ effect on its audience, whereas Rem Koolhaas’ design for the Seattle Library [fig. 35] has the reversed ‘what?-wow!’ effect. Eisenman’s project, Somol argued, will initially be impressive but will give the viewer, after further thought, nothing more than a self-referential puzzling discourse. Koolhaas’s project, in contrast, might puzzle the viewer first, after which the viewer understands that it installs a new lifestyle.

Thus for Somol, the ‘hot’ is aligned with the ‘critical’ because it focusses on method, the disciplinal and the oppositional. In contrast, the ‘cool’ aligns with the ‘projective’ because it demonstrates possibilities in a positive way without
making bold statements. The standard skeptical attitude of the critical inhibits engagement with reality in a positive way. The cool way, on the contrary, makes it possible to project a bigger plan without pleading that it would be the one and only transcendental signifying plan. There is a way to project otherworldliness into reality in the form of smaller narratives.

Controversially, according to Somol at the time, the new traditionalists succeeded best in projecting otherworldliness because the new traditionalist narrative, more than any other, seemed to appeal to popular expectations of architecture. Somol never made it explicit whether this was due to a traditionalist discourse that was more accessible, or due to a better relation to active powers in the building industry, or simply because the traditionalist narrative was closer to the ‘true’ essence of architecture. When he suggested stealing this skill back from the new traditionalists, he was appealing to a primal faculty that allows the judgement of which smaller narratives are accepted to form the bigger plan. Somehow, for Somol, this faculty to judge what is cool and what is not needs no further explanation.

**Lara Schrijver’s Contribution**

The Seattle library was also one of Lara Schrijver’s examples to show what the projective might consider as good practices. More specifically, Schrijver refers to the enormous living room in the public space that projects new possible use and behaviour in the public realm. Another example she gives is the design for the Veendam printing office by Neutelings Riedijk architects [figs. 19,20]. For Schrijver, the letters on the facade of the industrial warehouse together with the green patio show what could be labeled as a projective approach. Schrijver argues that the warehouse typology is taken for granted as well as the commercial capitalist context. Both the letter-facade and the patio, however, are tools to provide a surplus from within the contingencies of the project. Given the circumstances, she concludes, the architects looked for opportunities to project alternative realities. Other examples, for Schrijver, are the facade pattern of the library in Eberswalde, in Germany, by Herzog & de Meuron, and their renovation of the Tate Modern gallery, in London — with which they were able to turn a politically incorrect building into a popular hotspot. She backs up these representative projective approaches by Bruno Latour’s notion of ‘matters of concern’ — the same way Noami Stead had done earlier at the conference. Matters of concern are those smaller narratives that sit within various projects and can be appreciated without turning them into abstract truths.
Sarah Whiting’s Evaluation System

Sarah Whiting was grateful that the conference had adopted their projective notion and that the conference was trying to advance it on her behalf. She, in turn, wanted to show how the projective had built upon recent theories and how it gathers all prevailing considerations. Rather than a break with criticality, this made the projective the next phase of it. But she did not intend the projective to be only an evolved criticality. By incorporating theoretical influences, apart from the critical legacy, she argued, the projective became a more hands-on criticality.

At the conference Whiting presented a system to evaluate a projective design. It contained three sub-categories that described crucial components. Whiting uses Venturi as a reference to explain her first category called applied legibility, which she associates with the application of metaphors known from the semiotic projects in the 1970s. The second category, for which Whiting refers to the work of Colin Rowe, she calls process legibility. Whiting describes that in the formalist project of the early 1940s, which continued into the late 1960s, meaning is derived from the process of design — the process would offer regulating lines. The third category is called experience legibility. Whiting mentions Christian Norberg-Schulz and Bachelard to explain that meaning in experience legibility is obtained from the phenomenological and perceptual experience of the building. According to Whiting, this would typically result in a setting with well-defined perspectives.

A projective project is thus given meaning through a combination of metaphor, design process, and experiential aspects of architecture. To match the architectural expression with current times, Whiting presents upgrades for the three categories as follows: the ‘metaphor’ of the applied legibility becomes the ‘figure’ (less representation, more abstraction); the ‘regulating lines’ of the process legibility becomes the ‘darwinian regulating lines’ (less general, more context related); and the ‘perspective’ of the experience legibility becomes the ‘glance’ (less framing, more hinting at possible relations). The three upgraded terms of ‘figure’, ‘darwinian lines’, and the ‘glance’ are intended to be more project-related.

Whiting proposes a fourth category, one that integrates all three preceding categories. Whiting calls it the contingent and open-ended compound meaning or totality. For Whiting, totality is no longer a taboo word ever since Fredric Jameson extensively used it in his book A Singular Modernity.40 Jameson explains totality as contingent and open-ended but defined enough to be
intelligible. This would be the upgrade of all three evaluation systems or categories as listed above, which Whiting associates with ‘the Doppler Effect’ — the term she had coined together with Robert Somol — and which formed the theoretical frame for the projective.

**The Doppler Effect**

The Doppler Effect refers to a perceived change in the frequency of sound, light, or other waves when the source and the observer move in different directions. With the Doppler metaphor Whiting shows that the critical project entailed a reductive understanding of both ‘autonomy’ (the source of architecture) and ‘culture’ (the way architecture is observed in the world). The critical project had focused on the necessity for critical architecture to remain in-between. The idea of autonomy had installed a fixation on disciplinarity, whereas, she proposed to define architecture’s field in its inherent multiplicities: material, program, writing, atmosphere, form, technologies, economics, etcetera.

At the conference Whiting also rehearsed the ‘elements’ (to use Eisenman’s term) that define architecture. The compound totality is derived from form, figuration, program, organisation, technology, materiality, and atmosphere — all working in concert. Whiting makes clear that it is not useful to place one above the others — thus clearly denying the intellectual order that had been vital to Eisenman. To distance herself from the weight given to technique in the critical project she presented the following analogy. Serving and eating an artichoke is easy, efficient and effective. To eat a quail, which is intricate and entangled with fine bones, is complicated and in the end it tastes like chicken. She argues that one might not get much out of a project that is loaded with technique alone. Technique needs to be paired with propositions and ambitions. For Whiting, the right propositions and ambitions, or the primary condition that brings ethical and aesthetic order is not universal and atemporal (as with Eisenman), but must be discussed in relation to the public sphere.

For Whiting, architecture is critical when it manages to form a compound totality. The complexity of her argument needs some further consideration. At the conference she explained it as follows:

*A compound totality necessarily invokes contemporary notions of the public sphere, which have helped to evolve the concept of the subject beyond the singular, idealized and homogenized subject, to a collection of subjectivities.*

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Thus, compound totalities invoke ‘something’ that helps to evolve the way we see ourselves, and the way we see ourselves in the world. This ‘something’ is a contemporary version of the notion of the public sphere, which, according to Whiting, is different from how Jürgen Habermas conceived the notion in 1962. She claims that it no longer refers to a singular entity — consensus arising from public discussion — which was intended to be clearly separated from the private sphere (family, individuality etcetera). For Whiting, the public sphere consisted of new collectives — groups, audiences or productive units, all with their own agreements, commonalities, and climates of receptivity. In short, for Whiting, the public sphere is less singular, less hermetic, and less idealized than the original notion suggested. As a result, the self-image is also less singular, idealized or homogenized. We accept the coexistence of multiple subjectivities (see fig. 36, which illustrates this argument).

Whiting’s argument is circular. As seen before, the compound totality is arrived at after applying three evaluating categories: applied legibility, process legibility and experience legibility. The creative process that involves applying these legibilities is assumed to be critical in relation to the contingencies of new collectives, which constitute the public sphere. As a result, compound totalities both result from and give rise to the public sphere. A invokes B, while B is a precondition to create A. Eventually, Whiting’s argument is self-referential and self-perpetuating.

I do not necessarily question the circularity; rather, I am interested in the legitimizing impetus. It seems that Whiting accepted the overall circularity based on an assumed positive evolution. For the evolution to be positive, the collectives involved in the creative process must have a critical component. Whiting left her audience with two aporia: first, creativity is somehow steered by a natural (to the architect) critical faculty, and second, the pursuit of solidarity replaces an ethical framework. The first is never proven. The second falls short due to an ideological reduction — that is, one has to assume that solidarity aligns with the good. The fact that solidarity could possibly also be achieved for a wrong idea is a form of skepticism that is ignored (as background noise) in the projective ideology.

For Whiting formulating a new framework by which to evaluate architectural designs was a necessity to advance the discipline beyond the negative and reductive project of criticality and its binary thinking. It was necessary for theory to toe the line again with practice. The approach of Whiting, however, showed a prudent attitude towards the overall claims of
theory. Backed up by Jameson’s theory on contingent totalities, she managed to avoid talking about what drives the pursuit of these totalities and what are their goals. Her evaluation system provided a methodological tool. How to make good decisions while using her system seemed to be an innate ability of the artist-intellectual expert. Remarkably, this implied trusting the same unspoken critical faculty that somehow let architecture be derailed into negative and reductive thinking under the guidance of the critical project.

With the projective position, the critical method is expanded and the goal is altered. What the intention of a projective project needs to add up to is circumstantial and contingent — at least when we consider the architectural apparatus. A subversive goal remains unquestioned: that the architect must aspire to become a public intellectual whose skeptical mind is smart enough to know which forces to oppose and which forces to align with. The projective position differs from Eisenman’s critical position in the sense that the intellectual expertise is now considered to expand beyond the architectural discipline.

### 3.2.2. The Parametric Turn

**A New Treatise**

Other theoretical roots brought Whiting closer to an all encompassing theory without her claiming it to be as such, a thin line Whiting avoided crossing. For Schumacher, such prudence is not necessary. A few years after Whiting’s projective turn, Schumacher saw the time was ripe for a new full-blown theory. The constituent elements for such a theory could be found in avant-garde work similar to that which Whiting had built upon. In 2010, the first volume appeared of Schumacher’s treatise *The Autopoiesis of Architecture*, to be followed by a second volume in 2012. At the time, Schumacher was already a partner at Zaha Hadid Architects and had founded, together with Brett Steele, the AA Design Research Lab at the AA School in London. Schumacher’s treatise is a discourse analysis perceived through Niklas Luhmann’s lens:

> [O]ne of Luhmann’s primary insights: contemporary society is far too complex and too dynamic to establish clear and fixed hierarchies of values/priorities that would in turn allow the societal division of labour to be conceived as chains of instruction whereby centrally/democratically set purposes are to be fulfilled by the various appointed function systems. Instead each function system appoints itself, defines its own purposes and rules supreme with respect to the appropriate selection of means. The various subsystems of society are
For Schumacher Luhmann’s principles explain that whatever architecture should engage in, whatever the most important thing is an architectural project should address, or whatever needs to be invented in architecture, is up to the discipline. ‘Architecture has no external guidance. It is thrown back upon itself when it comes to the definition of its tasks and values’. Architecture is seen as a system with its own operations, structures and processes. Schumacher’s intentions are twofold: first, to provide a full-blown architectural theory, as he calls it, and second, to provide the missing theory for parametricism, a term primarily referring to a design methodology. The notion of parametric design is widespread, in use beyond architecture. Structural, mechanical, and thermodynamic engineers, product designers, software engineers, and 3D modellers specialising in Building Information Model (BIM) applications, are all well acquainted with parametricism. But in the form of a design theory, as produced by Schumacher, parametricism is relatively isolated.

For Schumacher, parametricism also refers to a style of architecture composed of animated geometrical entities. Parametric architecture, he argues, should not show rigid forms, simple repetition, isolated or unrelated elements, rigid functional stereotypes, or segregative functional zoning. Schumacher even formulated parametric dogmas: (1) all forms must be soft; (2) all systems must be differentiated and interdependent; (3) all functions are parametric activity scenarios; and (4) all activities communicate with each other.

According to Schumacher, a full-blown theory should comprise three types of sub-theories: (1) Problematising theories — problem formulation on a general level; (2) Generative theories — describe a range of possible solutions, that is spatial and morphological possibilities; and (3) Analytic-predictive theories — analyse and predict performance. His new theory thus also allowed Schumacher to categorize circulating architectural theories — past and present. He recognized Venturi’s Complexity and Contradiction in Architecture, and Eisenman’s Diagram Diaries as purely generative. Rowe & Koetter’s Collage City and Koolhaas’s Delirious New York are problematising with generative ambitions, and Christopher Alexander’s Notes on the Synthesis of Form is problematising with an analytic-predictive agenda. The most important full-blown theories, in Schumachers opinion,
include Alberti’s Ten Books, Durand’s Précis and Corb’s Towards a New Architecture. However, the sophistication of their analytic-predictive theorising is rather limited, marked by the lack of a precisely defined conceptual apparatus and a resultant vagueness and tendency towards over-generalisations.48

Schumacher is convinced that the architectural profession — understood as an autopoietic system based on self-description, an architecture constituted by the virtue of theory — begins only with Alberti and the Italian Renaissance. It is also within the Italian Renaissance that the figure of the architect is perceived for the first time as creator and author whose designs and drawings lead the process. Since architectural theory needs to be involved with the advancement of contemporary architecture, and since Vitruvius did not advance his contemporary Roman architecture, Schumacher rules out Vitruvius as the initial point of reference.

Schumacher’s Communication Structures

Within his evaluation system, Schumacher defines permanent and variable communication structures. The variable communication structures are harmony, proportion, decoration, structure, ornament, composition, space, and field. The weight given to these communication structures fluctuates through time. The permanent communication structures are form versus function, avant-garde versus mainstream, and utility versus beauty.49 Schumacher introduces a new permanent communication structure, ‘articulate organisation’, which contracts ‘articulation’ — that is, perception as defined by Gestalt psychology — combined with ‘signification’, as known from semiology, and ‘organisation’, that is, mathematics, as explained by Christopher Alexander in Notes on the Synthesis of Form. The full set of permanent communication structures is complemented with an explicit priority to innovate. An autopoietic function system is considered a self-regulating mechanism with forward drive.50

According to Schumacher the validity of his theory does not depend on the confirmation of the architectural community. Compared to, for example, Krista Sykes’ anthology Constructing a New Agenda (which followed the approach of Kate Nesbitt’s Theorizing a New Agenda),51 Schumacher bypasses the new pragmatic attitude — hidden in the words ‘constructing’ or ‘theorizing’ — by simply calling his 2012 volume A New Agenda for Architecture. With statements such as ‘most great architects are also important architectural theorists’, Schumacher explains the necessity of his theoretical work. He saw the time was right to conclude on an episode of avant-garde experiments and start naming
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<thead>
<tr>
<th>Schumacher’s types of theory versus Whiting’s ways of evaluating</th>
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<tr>
<td><strong>problematizing theories:</strong> problem formulation on a general level</td>
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<td>- Venturi &amp; Eisenman</td>
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<tr>
<td><strong>Generative theories:</strong> describe a range of candidate-solutions spatial and morphological possibilities</td>
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<td>- Rowe &amp; Koolhaas</td>
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<tr>
<td><strong>analytic-predictive theories:</strong> analyze and predict performance</td>
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<td>- Alexander</td>
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<td><strong>Full-blown theory:</strong> Autopoietic system</td>
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<tr>
<td>aligned with Parametricism</td>
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<tr>
<td><strong>applied legibility:</strong> meaning is attached to architecture [e.g. metaphor] related to the semiotic project</td>
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<tr>
<td>- Scott Brown &amp; Venturi</td>
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<td><strong>process legibility:</strong> meaning is derived from the process of design [e.g. regulating lines] related to the formalist project</td>
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<tr>
<td>- Rowe</td>
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<tr>
<td><strong>experience legibility:</strong> meaning is obtained from the experience of the building [e.g. perspective] related to the phenomenological and perceptual project</td>
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<tr>
<td>- Bachelard &amp; Norberg Schulz</td>
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<tr>
<td><strong>compound meaning or totality:</strong> contingent and open-ended but defined enough to be identifiable [e.g. doppler effect] related to the projective project</td>
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fig. 37 - Comparing scheme made by the author.
the prevailing qualities that became mainstream. According to Schumacher, architecture is a self-steering, self-defying, and self-referential subsystem within a cluster of societal systems. Making explicit what and how this system runs is a moral obligation. In that sense, he argues, one simply cannot afford to question the validity of an overall theorisation. Schumacher explicitly claims that his treatise is a new framework to give meaning to contemporary architecture. With the overall forward drive, he appoints a new transcendental signifying force that seemed to exist independent of the public sphere.

Criticality in Schumacher’s context is appointed primarily to the person (in this case, Schumacher himself) who gathers the prevailing qualities into one unified body of theory. For those who follow his theory, the criticality of their architecture is guaranteed by the transcendental signifying force that aspires to the innovation of public space. However, one level of criticality remains unaddressed. Schumacher, too, assumes without further consideration the existence of a critical faculty that allows the wise navigation through several design steps. The theory Schumacher built on that assumption followed a logic similar to Whiting’s.

Comparing Evaluation Systems

Schumacher was not present at the projective conference nor was his work closely related to any talk or discussion at the conference. The reason for juxtaposing the evaluation systems of Schumacher and Whiting is not to unravel whose attempt is the most solid one but, rather, to show that the idea of something totally uncritical being crucial for a design falls outside these theories. Yet I would argue that precisely these uncritical factors in the design process are responsible for the large differences in appearance of the architecture they each assume results from their evaluation system.

Schumacher’s evaluation system shows strong similarities to the categorisation Whiting used during her presentation at the conference [fig. 37]. They both constructed a system with three sub-categories that add up to a fourth overall category. What Schumacher calls problematising theories, Whiting calls applied legibility. They both use the work of Robert Venturi as an example. While Schumacher revisits Venturi for his general problematization of architecture, Whiting does so because he exemplifies an episode in architecture for which the application of metaphors was a central theme. They also use the same reference for the second category, the work of Colin Rowe. Schumacher associates it with a variety of formal candidate-solutions and called it generative theory, and Whiting recalls Rowe for his emphasis on the process of design to
provide form with meaning, which she calls *process legibility*. The third category is *analytic-predictive theory*, according to Schumacher, and *experience legibility*, according to Whiting. Here they differ on the work they chose as a reference. Where Schumacher mentions Christopher Alexander, Whiting names Christian Norberg-Schulz and Bachelard. As mentioned earlier, these three categories led to one overall category that Schumacher calls a the *full-blown theory*, and Whiting names a *compound totality*.

In both evaluation systems criticality of creative decision making is explained by implicitly assuming an overall critical impetus. For both Schumacher and Whiting the recalibration of the theoretical frame suffices to further deduce ways to either ‘communicate’ or ‘evaluate’ design decisions. Strikingly, while the theoretical format is almost identical, the practices these theories are intended to underpin are in no way recognised as belonging to one and the same category. Thus, rather than mining their theoretical apparatus any further, we should problematize the assumptions they make about how a designing architect decides within the evaluating system. This sets the stage for questioning how to manoeuvre within the new design conventions.

The question is not how ‘cool’ is Whiting’s theory or how ‘hot’ is Schumacher’s theory. The question is whether these rhetorical fabrications touch upon the constitution of a contemporary critical behaviour. The design process is rendered as the process of evaluating or communicating. Evaluation and communication lead to conventions that, in turn, guide good practice. As a result, the outcome is a conventionalized practice based on the conviction that any decision is critically driven and not based on some random obsession. For Whiting architecture is critical if it relates to the public sphere. For Schumacher it is critical as long as it innovates the public space.

In chapter two, we saw that NRA claimed that evocation is based on personal affinities. Whiting, meanwhile, did not appear to consider the private sphere. There is, however, a backdoor by which the private sphere can become part of the evaluating discourse. The public sphere is recognised as comprising multiple new collectives, with no dominance given to any one in particular. Personal affinities that are picked up or shared by a collective can therefore become a shared interest in the public sphere. The pragmatic attitude towards accepting and equally valuing multiple new collectives is crucial to understanding the full scope of the projective or the parametric. The do’s and don’ts for architecture are, therefore, dependent on the contingencies of the new
collectives. Whether these new collectives fall completely within, overlap, or fall outside the discipline cannot be assumed a priori.

3.2.3. The Neuroscientific Turn

In his early work, Peter Eisenman worked with Chomsky’s linguistic framework, as we have seen. Chomsky was influential in many fields, as a renowned linguist, philosopher, historian, and social critic. But he is also remembered as one of the founders of cognitive science, which originated in the field of behaviourism and caused its immediate decline. In the 1950s, cognitivism acted against the idea that psychology could only be an objective science if it limited its scope to observable behaviour, excluding any form of inquiry into mental processes. This idea was key for pioneers in traditional behaviourism, such as Ivan Pavlov and Burrhus Frederic Skinner. Chomsky’s quashing review of Skinner’s work contributed to the disruptive breakthrough of cognitive science.

When, for example, the biology department at Massachusetts Institute of Technology, Chomsky’s home university, brought together biology, chemistry, physics and mathematics, or with the founding of the department of neurobiology at Harvard Medical School, in 1966, a territory was created for a cognitive project. Its main objective: to study the meaning humans give to their experiences and formulate hypotheses about the underlying mechanisms. With the early alliance with computer sciences, neurological circuitry could be simulated and reverse engineering could be used to speculate about mental processes.

Cognitive scientists study the mind to explain mental faculties, such as perception, language, memory, learning, and reasoning. The field benefited from the steep progress in computer sciences, for example, in simulating advanced and complex neuronal models. But the most progress happened in the 1990s due to the substantial improvement of brain scanning techniques. For the first time, direct imaging of neuronal activation in the brain could be done without having to operate on the patient, having the subject ingest substances or expose the subject to ionising radiation. Theoretical assumptions could be confirmed with scientific proof. The interdisciplinary alliances from the early days in the 1950s and 1960s expanded rapidly.
A History of Metaphors

According to Harry Francis Mallgrave, it seems we cannot understand the architect’s creative faculty without understanding the mind as a whole. Mallgrave borrows latest insights of the neurosciences to create a model of the mind. But before we elaborate on Mallgrave, it is important to record the wider history of metaphorical models used to show the common pitfalls and challenges when knowledge is proposed by analogy. The number of publications on insights of the brain and its models has grown exponentially. Yet the book *Metaphors of Memory: A History of Ideas about the Mind* (1995), by the Dutch psychologist and historian Douwe Draaisma, remains a good point of reference. Draaisma provides a useful overview of Western European models that explained by analogy how our mind is intended to work. In his book he addressed the mind as a wax tablet, a house (be it an abbey, cathedrals, or theatres), or a phosphorescent substance. From recent centuries, Draaisma identifies mind metaphors such as a clockwork, a switchboard of a telephone operator, a phonograph, and a cinematograph. And as part of the twentieth century, he covers Freud’s wax-based ‘mystic writing-pad’, the holograph, and the computer system.

Draaisma thematizes two aspects while he advances through the centuries to discuss the successive models. First, he shows the proximity of the models to the currently available technology. Second, he rehearses the pitfalls of the various metaphorical models, finding that using one thing to enlighten another has its limits. Therefore, Draaisma concludes his book with a reflection on the *homunculus* problem. The *homunculus*, which in its original meaning referred to an artificial intelligent design imagined by alchemists, points to a theoretical problem in all models of the mind. The equivalent term in logic is ‘petitio principii — assuming what has to be proved’. Somewhere in every model, Draaisma argues, one needs to call upon the existence of a *homunculus* (little man) that ‘reads out’ memory as it is processed, stored, and summoned again. Take, for example, the mind explained with the metaphor of a photograph. If the mind stored snapshots of every bit of an impression or experience, then cells would have to exist in which memory can be stored or traced — they are called ‘engrams’. The model is unimaginable without an entity that reads the engrams. This entity, the homunculus, in turn needs to process what it sees in the engrams. The question then becomes how the brain of the homunculus works. The problem is also known as one of infinite regress. Thus, if we discuss the evaluating unconsciousness, which in this dissertation we have been calling the critical faculty, the *homunculus* problem lurks around the corner for every explanation that uses a model of the brain.
Draaisma’s book was published whilst a ‘new’ model was being forged — the emergent system. The first signs of this new model were already present in the evolution of what Draaisma’s calls the computer model. Thus, on a general level, Draaisma introduced this ‘new’ model too. The central thesis has been circulating for some time: ‘the whole is more (or different) than the sum of its parts’. This thesis goes back as far as to Aristotle, who thought about the concept of life, consciousness, religious beliefs, and the existence of a life force. What made the emergent system as a model particularly new was first, the fact that it seemed to apply to many complex phenomena, studied in different fields, and second, emergence came with a tantalizing hypothesis that no central control exists for the achieved intelligence of complex systems or organisms.

The hypothesis that in an emergent system ‘control’ happens without clear authority confronts the familiar idea of an hierarchic mechanical organization, the way we see organizations such as the military work: with soldiers, commanders and chief commanders in a topdown hierarchy. The emergent model stood for a decentralized system in which spontaneous order emerges. Again, Draaisma does not mention the emergent model in his book. Yet he does touch upon the principle idea when he leans on the American philosopher of consciousness and artificial intelligence, Daniel Dennett, to discuss the computer metaphor of the mind.

Dennett appeals to the model used in computer science focussed on data-structures, machine learning and artificial intelligence. Computer scientists write programmes to make the computer execute complex tasks, such as to make online bookstores learn about your preferences or to make Deep Blue (the chess computer) play chess. The software programme consists of a combination of very simple scripts that interact. Small scripts store one or two steps you make while scrolling through books or to store the success-rate of a particular chess move. Other scripts try to find patterns in the first scripts. This goes on until enough data is gathered to allow an educated guess about other books that you might like or which move the computer should make next during the chess game. The small scripts require proportionately less intelligence. Draaisma draws an analogy to the human mind, by which

one can imagine the human mind as a hierarchy of functions which like the routines and sub-routines in a programme are equipped with intelligence in varying degree. The lowest level of functions Dennett calls an ‘army of idiots’.

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The computer metaphor anticipated the homunculus problem (simple scripts or modules breaking the chain of infinite regress). Draaisma seems to agree with Dennett that the computer metaphor proves that the mind could operate without an interpreting or supervising agency. While Draaisma concluded his *Metaphors of Memory* on this optimistic note, placing the computer model as the latest in a series of models of the mind, however, others had singled out the emergent model in an attempt to expand its application.

For example, in 1994 the American writer and founding executive editor of *Wired* magazine, Kevin Kelly, published the groundbreaking work, *Out of Control: The New Biology of Machines, Social Systems, and the Economic World*. Kelly’s book is considered a classic on decentralized emergent systems, such as revealed by studies on hive mentality, which showed that a swarm of bees had no single guiding intellect. While the classic computer model did not question the operator — the programmer who writes the simple scripts — the advanced model began working with a new idea of intelligence. Intelligence had transformed from a centrally steered phenomenon to a phenomenon that emerged out of the synchronic behaviour of constituent elements. Kelly argues that our changed conception of intelligence preludes a new biological paradigm for a whole set of scientific and cultural phenomena: virtual reality, self-controlling robots, nanotechnology, network economics, and so on.

One of the things *Out of Control* argues is that American-style ‘free market’ capitalism was not a peculiar social creation, but an ahistorical natural self-organizing eco-system. Critics reproach Kelly for simply rephrasing (rediscovering) a Darwinian strand of social theory of the nineteenth century, such as the Weberian theory in *The Protestant Ethic and The Spirit of Capitalism*, in which the individual work ethic is seen as an important force behind the unplanned emergence of modern capitalism. Others criticize the mystifying character of emergence. With a definition such as ‘the whole shows a form of intelligence that is not present in its constituent parts’, a door was opened for speculation about divine intervention. But these critiques disappear into the background of the overall positive reception of the book and the emergent model.

The launch of an *Emergence* magazine in 2005 exemplifies how the concept of emergence became more popular in complexity studies. The emergent model inspired many neuro-affiliated scientists to explain some aspects of the brain’s complex cognition. In architecture, for example, Christopher Alexander adopted the term ‘emergent urbanism’ to discuss urban complexity.
Architecture and the Emergent Model

Architecture did not suddenly jump on the bandwagon. The first semiotic turn, exemplified by Eisenman’s appropriation of Chomsky’s linguistics, and the more general focus on meaning and architecture in the 1960s and 1970s show architecture’s proximity to the developments in cognitive science. One of the branches of cognitive sciences that focused on the behaviour of neuronal systems, known as systems theory, formed (through Maturana and Varela) the basis for Niklass Luhman’s social theory and, thus, Schumacher’s autopoietic theory of architecture. With computational power and neuro-oriented research both growing, several subthemes inspired architecture. Charles Jencks and Karl Kropf aimed to capture these fascinations in the complexity paradigm, as they called it. For example, the book Emergence: The Connected Lives of Ants, Brains, Cities, and Software (2001) by the American popular science author Steven Johnson, fell into their complexity category. The book, largely inspired by Kevin Kelly, drew cross-disciplinary connections between intelligence on various complex phenomena, some of which are in architecture and urbanism. Kelly could relate, for example, to Jane Jacobs study of the city, in which he recognized an argument for sidewalks as basic elements of a self-organizing city district. The model of the emergent brain played a crucial role in illuminating and validating most theses of his comparative study.

The rapid accumulation of scientific insights on mental faculties increased the curiosity of theorists in architecture to rephrase the general cognitive questions in architectural terms. Many academics became eager to link neuroscientific research with architecture. For example, in 2003 in San Diego, California, the Academy of Neuroscience for Architecture (ANFA) saw the light of day under John Eberhard. The ANFA works closely with the Salk Institute for Biological Studies, housed in the buildings designed by Louis Kahn. On its advisory council is Harry Francis Mallgrave.

Mallgrave, best known for his seminal anthologies of architectural theory, deploys his outstanding body of knowledge to provide a renewed phenomenology in architecture with neuroscientific footing. In Mallgrave’s book The Architect’s Brain: Neuroscience, Creativity, and Architecture, topics on creativity are heavily influenced by the work of Semir Zeki, a professor of neuro-aesthetics at University College London. Zeki is a leading proponent of brain-based theory that explains abstract notions such as beauty, love, art, and creativity.
According to Mallgrave, architects alter their principles of evaluation according to the growing accuracy by which they understand knowledge and the brain. He claims that architects have the ability to control their creative faculty. Based on assumptions of how creativity works on a neurological level, Mallgrave thus rephrases the question of criticality. Ultimately, a critical faculty is rooted in the architect’s brain, which would make the architect critical by nature. Mallgrave places his hopes on future developments in neurosciences to make a persuasive argument about the biological grounds for the architect’s critical faculty. Within the neurosciences, however, explaining how a network of neurons produces complex cognitive processes is still a difficult challenge. The architect’s creative faculty may well be one of these complex cognitions.

Semir Zeki and the Formation of Concepts

To understand the underlying mechanisms of notions such as beauty, love, art, and creativity, Zeki argues that it is necessary to study the knowledge-acquiring system — the concept-forming capacity — of the human brain. Zeki conducted experiments to analyse differences in brain activity in response to various visual stimuli. He used psychophysical techniques: the functional magnetic resonance imaging (fMRI), which measures brain activity by detecting associated changes in blood flow, and the electroencephalogram (EEG), which detects electrical activity throughout the brain. The research method is standard procedure in neuroscientific laboratories. However, the working hypotheses that Zeki develops on the basis of this source material are still waiting to be confirmed:

*There is little doubt that the thought process involves quite complex neural operations but we still have not figured out how to study the contribution that individual cells make to this process. More complex thought processes are unique to man and therefore even more difficult to study at the level of brain cells; we just do not have the adequate technology at present. In approaching the problem, we therefore have to limit ourselves to generalities and to hints derived from such neuro-physiological studies as we possess.*

The belief that this technology and knowledge is within reach provides the impetus for Zeki — and thus also for Mallgrave — to pursue a neurobiological understanding of creativity.

Zeki starts from the idea that the primordial function of the brain is to seek knowledge through the formation of concepts. Zeki talks about ‘inherited brain concepts’ and ‘acquired synthetic brain concepts’. The ability to register a
specific frequency of the colour spectrum, for example, Zeki calls an inherited concept. Inherited concepts organize incoming signals. The ability to recognize an impression as, for example, a ‘hat’ is something we acquire over time. We perfect the ‘hat’ association, Zeki argues, by comparing multiple impressions that we relate to the ‘hat’ concept that existed prior to the impression. The concept formed is the synthesis of all preceding comparisons — an acquired synthetic brain concept. Although it is unclear what the physical manifestation of a concept is — what it looks like in brain matter — Zeki is convinced that these concepts must exist. If this was not the case, we would not be able to make any sense of even the slightest signals.

**The Visual Apparatus**

Research shows that multiple areas of the brain are simultaneously solicited to process a particular visual stimulus. These specialised areas become involved only when their specialisation is part of the impulse. Both Zeki and Mallgrave provide drawings of the brain that present the specialised areas generally recognised by neuroscientists. As Zeki’s research mostly deals with visual stimuli, both Zeki and Mallgrave provide a more detailed map of the visual processing areas [fig. 38].

From his expertise on the visual processing areas, Zeki extrapolates that other parts of the brain must behave in a similar way. Following Zeki, Mallgrave also expands on other parts of the brain. The hippocampus, for example, is associated with short- and long-term memory, and spatial orientation or navigation, and the thalamus is a central hub that connects to all parts of the cortex; ‘although neuroscientists shy away from referring to it as a control center’, says Mallgrave, ‘the thalamus both scans and helps coordinate the various activities of the brain’.

**Zeki’s Concept of Ambiguity**

Zeki concludes that the brain abstracts and draws out the essentials by scanning for constants. These constants are the inherited concepts the brain is equipped with from the beginning. Zeki suggests that these inherited concepts reside in sub-compartments of neural pathways he calls ‘nodes’. The brain is recognised as genetically pre-wired with inherited concepts related to specific areas. The wiring continues in a post-natal brain with the acquiring of synthetic concepts that are formed through the influence of ‘higher’ areas, such as the reward and pleasure system found in the frontal lobes.
The question of where the synthetic concepts reside is more tantalising. When discussing, for example, a landscape painting, Zeki argues that the reward system compares the image of the painting with the brain's synthetic concept of the ideal landscape. He differentiates between the reward system and the concept, and acknowledges the limitations of current science:

_This is not to imply that the concept itself resides in the reward system but rather, through some as yet unknown mechanism, that the reward system is capable of signalling that the viewed landscape matches as closely as possible the synthetic concept in the brain. Where the concept itself resides is problematic. It is very likely that specialised visual areas are involved._

To explain his approach to localizing synthetic concepts, Zeki expands on the notion of ambiguity. His neurologically based definition of ambiguity — 'the certainty of different scenarios, each one of which has equal validity with the others' — is different from the common understanding of vagueness or uncertainty. Drawings of false perspectives provide an example of this, where the viewer is either hovering above or looking up from below [figs. 39, 40]. We are able to switch between these different ways of reading the image and recognise them as multiple but equally apparent options, even though the physical stimulus does not change. According to Zeki, ambiguity is a peculiar human quality that allows us to cope with deceptive stimuli in the world. As to why the brain has developed such a capacity, Zeki can only make assumptions. However, the fact is that he measured brain activity in multiple areas when a test person is confronted with an ambiguous image. This suggests that the brain solicits multiple areas to form alternative options. The brain unites these options into a single concept applied to incoming signals:

_We perceive what the brain has finished processing. It also tells us that there is not an area in the brain that waits for all the processing systems to terminate their tasks. Rather, at any given moment 't', it binds what has been already processed and therefore rendered into a percept._

**Becoming Conscious About Ideas**

How is the conflation into a single concept possible and where does it happen? To answer this question, Zeki looks to the increasing activity in the nodes of neural pathways. Electrochemical signals pass through nodes in waves in a process that obtains feedback from other parts of the brain. Zeki explains that when reverberating signals intensify neural activity beyond a certain threshold, the concept emerges. This also means that the processing sites
become perceptual sites when the neural activity passes a certain threshold. This conscious correlation can thus emerge simultaneously at different sites within the brain with equal validity.

According to Zeki, it seems that we form synthetic brain concepts through the formation of a complex pattern of interconnected neuronal pathways. Once this is formed it lies ‘still’ in the brain until it is activated beyond a certain threshold of electrochemical stimulation. Only then will the concept come to the fore as a highlighted, pulsating part of the brain. At this point we become aware of the concept. Zeki calls this the achievement of micro-consciousness. Hence, he defines human consciousness as the sum of all micro-consciousnesses.

**Zeki’s Concept of Creativity**

Zeki explains creativity as the effort to realise a copy of the synthetic brain concept in the real world — an adventure that faces great difficulty. Thus, his neurological approach to creativity is based on the idea that the brain aims to perfect its concepts; after the assumed concepts, this is Zeki’s second leap of faith. At best, the acquired synthetic brain concept can approach perfection in an asymptotic way. It is probable that the reward and pleasure system — located in the orbitofrontal cortex — is the engine that keeps the search for perfection going. It stimulates us to find a reflection in the outer world of a synthetic concept formed in the brain, a concept that ‘seriously prevents the satisfaction of the pleasure principle, or the optimal excitation of the reward centers in the brain, is the synthetic concept.’ Zeki concludes that ‘creativity therefore is, in a way, the brain’s way of making up for its shortcomings’. 77

Zeki’s framework of thought forms the basis for Mallgrave’s argument when he inquires into the architect’s brain, allowing Mallgrave to suggest that we have some kind of control over our creativity. Zeki, however, does not explicitly suggest such an interpretation. For Zeki, creativity is a basic operational mode of the brain. It is an ongoing activity that provides options that assist in satisfying the brain. However, Zeki is not explicit about who or what is launching the assistance, nor is he clear about who or what receives it. Creativity is just there to compensate for the dissatisfaction. His model does not give substance to the critical faculty that attributes value, nor does it allow us to say that we directly control our creativity. Zeki’s model makes no distinction between, for example, public-oriented interests and private idiosyncratic fixations. Any form of association that is ‘pleasing the brain’ fits the model.
Mallgrave’s Moral Imperative and the Ability to Control Creativity

We have discussed Zeki’s line of thinking as an introduction to Mallgrave’s argument in *The Architect’s Brain: Neuroscience, Creativity, and Architecture*. Mallgrave uses the progressive insights of neurobiology to provide creativity and the architect’s brain with a moral imperative. Because of the architect’s prominent position in society, the architect has a moral obligation to develop his creative capacity, Mallgrave says.

In 2006, the cognitive neuroscientist John Kounios and his colleagues reported on their research on neural activity related to sudden insights. They wanted to discover the neurological equivalent of the ‘Aha-Erlebnis’ or the ‘Eureka’ moment. By comparing the brain activity measured during a moment of sudden insight with other moments of concentration, they discovered a significant pattern. When people concentrate the standard random brainwaves become more directional circuits. For Kounios and his team, this meant that people are able to suppress irrelevant thoughts when they prepare to focus. If the directional circuits fail to provide a satisfying result, then the waves break away from the pattern and make sideways connections. In their experiment, ‘a sudden burst of gamma-band oscillatory activity in the right anterior superior temporal gyrus’ is associated with a sudden insight or the Aha-Erlebnis moment.

For Mallgrave, this is the first part of the proof that creativity can be neurologically explained and, to a certain extent, controlled. According to Mallgrave, one’s creative ability can be trained, on the one hand, by concentrating, and on the other, by aiming for synaptic growth. The more neural pathways that are formed, the more likelihood that a ‘sideways’ connection will be made. Based on the findings of studies of the synesthesia phenomenon (associating, for example, a colour with a number) the neuroscientist Vilayanur Ramachandran attributed such sensory crossovers to a more creative brain. According to Mallgrave, Ramachandran provides the second part of the proof. The more ‘loopholes’ that exist, the more creative a person can be. ‘Ramachandran therefore speculates that creativity is an outgrowth of “hyperconnectivity,” which allows a person to be more prone to metaphor and therefore relate seemingly unrelated things’.

Memory

Mallgrave endorses Zeki’s notion of memory based on inherited and acquired concepts. Autobiographical impulses are deposited in our brain. The brain abstracts impressions into essential impulses. These impulses stimulate
synaptic growth, with neural pathways being formed and micro-consciousnesses flaring up when the reverberating electrochemical pulsation passes a certain neural threshold of activity. Mallgrave believes that it is the central thalamus that controls and scans the brain activity.

Mallgrave combines Donald Hebb’s theories, which understand all forms of learning as synaptic change, with Nobel Prize-winner Gerald Edelman’s ‘theory of neuronal group selection’. This theory stipulates that in addition to the pre-wiring of the brain before birth and the wiring through experience after birth, there is also a third stage, in which the brain repeatedly maps and synchronises different neuronal groups. This is a capacity that only humans have developed, which Edelman called ‘reentrant mapping’. Paired with Zeki’s angle on ambiguity and the emergence of micro-consciousnesses, Mallgrave binds these insights to picture a brain training its creativity.

Random Association or ‘Critical’ Creativity

Mallgrave further argues that in understanding what these essential impulses are, scientists lean toward identifying these as basically metaphorical. He says that ‘metaphors are not just flourishes of language; they are the essential rudiments out of which we conceptualise or think about the world. They are the brain’s way of carrying abstractions back to an experiential or perceptual footing’. The cognitive linguist George Lakoff and the philosopher Mark Johnson hypothesize that metaphorical categories are hard-wired into our neural maps. Mallgrave summarizes the process: First, an impression translates into impulses, then the impulses break down into essentials that are linked randomly with other parts, and finally, strongly associated parts behave as possible stand-ins. As a result, the random ‘loopholes’ are the physical substance for thinking through metaphorical analogies.

Mallgrave combines ‘metaphorical conceptualisation’ with the ability to imitate behaviour and feelings. In the 1980s, a group of Italian scientists discovered a specific type of neuron in the brains of rhesus monkeys which they called ‘mirror neurons’. These neurons are part of the frontal and parietal cortex and provide the basis of the ability to mirror (parts of) the behaviour of others. Mallgrave uses Ramachandran again to assert that these mirror neurons are responsible for learning emotions, language, culture and morality. For Mallgrave this is the final and most vital piece of the puzzle. The mirror neurons are responsible for a reverberating thalamic circuit that stimulates synaptic growth in a particular set of neural connections. As a result, a hierarchy is imposed on the random associations that are key to creativity. This last step is
fundamental for Mallgrave’s theory. To this point, he had been building a
neurophysiological understanding of random associations, or a non-critical
creativity. The mirror neurons bring value into the equation. This final piece
enables Mallgrave to conclude that the architect’s creativity has a natural critical
faculty because it anticipates the needs of others.

**Mallgrave’s Historical Hunch**

Mallgrave provides a historiography of brain models based on the hunch
that a critical faculty exists. Mallgrave argues that, as our understanding of the
brain gained in precision, the hunch progressively turned into a certitude. He
traces paradigmatic shifts in knowledge of the brain and relates the parallel
criticality of architecture. He recognizes nine successive brain models
since the Renaissance: the humanist brain, the enlightened brain, the
sensational brain, the transcendental brain, the animated brain, the empathic
brain, the Gestalt brain, the neurological brain, and the most current one, the
phenomenal brain.

For Mallgrave, it is as if older notions that discussed the architect’s ability to
make the proper choice — concinnitas, purposiveness, will, Einfühlung or
empathy, embodiment, and Gestalt — tried to grasp the knowledge we now
possess about the neurological processes behind creativity. According to
Mallgrave neurobiology has succeeded in explaining the element of mystery that
intervened in all these notions.

For example, he compares Immanuel Kant’s eighteenth-century notion
‘purposiveness’ with Leon Battista Alberti’s fifteenth-century notion
‘concinnitas’. While ‘concinnitas’ somehow had to stand for the innate ability to
make an aesthetic judgement based on the recognition of a beautiful whole, in
‘purposiveness’ the purpose in a creative act is attributed by someone (or
something) explicitly outside the context. In both cases an unassigned assistance
appears to steer creativity. Mallgrave draws a parallel between these two notions
and how the brain functions. In fact, he writes, ‘the similarity of Kantian
purposiveness with Alberti’s concinnitas is striking, for it implies that the beauty
of a work of architecture resides in the way the brain finds some accord with the
appearance of the work of art’.  

Mallgrave draws, for example, another parallel to Arthur Schopenhauer’s
notions of ‘representation’ and ‘will’, which he then explains with a current
understanding of the brain. For Schopenhauer ‘the representation … is the
ordered human perception of events, and will is a kind of vital energy, what
today we might call the biological, electromagnetic, chemical, and gravitational forces of the world’.  

According to Mallgrave, philosophical inquiry of the twentieth century, complemented by psychology, physiology and neurology, had crucial effects on architects’ notions of making legitimate decisions. These fields of knowledge reflected on concepts such as Einfühlung (empathy, embodiment) and Gestalt, These were concepts that indicated an ability to recognize perfect form, composition, proportion, etcetera. Today, according to Mallgrave, the mystery element can be confirmed as an inborn capacity or a natural critical faculty, a faculty that we can develop and make stronger. It entails a combination of brain functions that only recently have been unraveled, and Mallgrave is convinced that future discoveries in neurosciences will prove that the architect’s long-existing hunch of a critical faculty has been right all along.
3.3. Conclusion

Peter Eisenman has always been convinced that architects could do a better job by agreeing on an intellectual order within the design process. Inspired by Rowe he began of his primary theory with the idea that a universal, atemporal principle, from which value and order would derive, would bring hierarchy into the decision tree during the design process. Confronted with the fact that the metaphysical claims were incompatible with contemporary philosophy, and the fact that his theory translated into practice with difficulty, Eisenman revised his theory to turn the focus away from any metaphysical component. However, it can be argued that even in his latest position a residue of an unaccounted metaphysical component remains; the expression of anxiety and a mode of resistance as ‘value’ and ‘goal’ implies a critical faculty that makes the right judgement calls during the design process.

With the leap forward to the three examples of contemporary post-critical turns, we have seen that whatever the approach is, ‘closing’ the fabricated frameworks is possible by not addressing the assumptions about a critical faculty. This dissertation began by stating that the partiality of different theories is not the problem addressed here, but rather the leaps of faith that take on different guises and are connected to peculiar interpretations of the critical faculty. Different qualities and values are summarised in the next paragraphs.

Eisenman’s Critical Faculty

Gestalt psychology had taught architecture that clarity enhances comprehensibility. Of all forms the Phileban geometries would be perceived as the clearest. Ergo, the Phileban geometries should form the basis for any design intervention that aspires to enhance comprehensibility. If a critical faculty is at work during the design process, it must somehow adhere to these clear geometries. This assumption gave the critical faculty ahistorical grounds, a metaphysical residue inherited from those who considered the geometric forms as universal and principal. Under the influence of Eisenman, Hays, and critical theory in general, the critical faculty acquired a local component too. Form had to express current anxiety to give resistance to a dominant culture.

Already in the 1990s the critical notion proved itself difficult to translate into practice. In addition, practice seemed to thrive well on its own. Many academics tried to make theory toe the line with practice, advance the critical notion by including insight from other knowledge fields embracing a renewed pragmatism, such as systems theory and cognitive sciences. By incorporating
theoretical influences from outside, the projective position became one of the more pragmatic post-criticalities.

To avoid the reductionist trap, the argument that should explain how the critical faculty is capable of picking up the right sensibility is never unfolded to the bitter end. Rather, practice and theory is pursued with a residue of an unaccounted metaphysical component. Therefore, the final and most implicit component of the critical faculty is that the artist-intellectual naturally knows right from wrong.

**Whiting’s Critical Faculty**

With Whiting the focus returned to practice because proof of engagement was to be found in the project. Within the contingencies of a project lay both opportunity and limitation of engagement. ‘Projective’ referred to both the project and the engagement that is being projected. A total order made way for matters of concerns. The failure of the bigger narrative had been a theme for the critical position, while making serial, smaller narratives became the theme of the post-critical. A possible bigger narrative — the whole is a lie — only existed in projecting and adding up smaller plans. The projective used the hot versus cool metaphor to shift the focus from method and how architecture works, to what architecture can do; the notion of agency subverted the formal. Interdisciplinary debate had to replace disciplinary talks, and, instead of resisting, theorists and architects looked for opportunities within dominant cultures.

Whiting wanted to advance criticality and so had to deal with some of its challenges too. She completed the erasure of Rowe’s universal rules by revoking form’s privileged position that it had acquired under Eisenman. The price Whiting paid for erasing Rowe’s universal rules, was that she had to place her trust in solidarity as the regulator of the public sphere. She not only preserved the expansion of the critical faculty — the innate ability to choose right — but she had to expand it once more by assuming that solidarity in itself guaranteed a critical component too.

**Schumacher’s Critical Faculty**

Schumacher returned more or less to Eisenman’s position. He did not deny the complexity of the public sphere, but with Luhmann’s societal system, architecture regained its autonomy. As a result, the expertise of the architect was confined once again to the architectural apparatus. And so value and legitimacy, too, had to be derived from pure architectural considerations. The formal returned, the Phileban geometries making way for fluid spatial forms, and
clarity was replaced by innovation — the new transcendental force. ‘Form’ became ‘space’; architecture would be critical if one innovated public space.

Schumacher had a more radical position than Whiting, but with a comparable outcome. He too aimed to converge leading theoretical contributions of the last decades into a single new body of theory. Whiting talked about a necessary update. Schumacher claimed that the particular theories had reached their mature state. The fermenting process could finally be closed with the birth of a new treatise, one that pointed towards a new style: parametricism. According to Schumacher, the current complexity of society demands an autonomous architecture that self-describes its purpose. The autonomous language that comes with it is defined by the parametric style. The critical character of architecture is guaranteed when it pursues innovation.

**Mallgrave’s Critical Faculty**

Mallgrave turned to neurosciences to explain how creativity works within the brain. All concepts, both inherited and acquired, are broken down into smaller constants that relate to certain nodes in the brain. With every sensation or impression the brain scans for constants. Ambiguity is the certainty of different but equally valid scenarios; the brain solicits multiple areas to form alternative options. Memory is conceived as a complex pattern of interconnected neural pathways, and making multiple sideways connections is a sign of hyperconnectivity which allows the relation of more unrelated things and renders accessible more physiological metaphors, the neurological substance of creativity.

One of the reasons behind the growing interest in architecture to unravel the creative process with the help of neurosciences appears to be the desire to prove that the artist-intellectual naturally knows right from wrong. However, the solicitation of the neuroscientific framework does not bypass any form of bias towards creativity. Many assumptions are made about why the ‘critical’ associations get the upper hand. Reentrant mapping, a capacity unique to humans, implies that metaphors are not just flourishes of language. Random loopholes are the physical substance for thinking through metaphorical analogies. Apparently, a hierarchy is imposed on random associations by multiple drivers: (1) the brain aims to perfect its concepts; (2) variability — that is sampling constants in ambiguous formations — has a biological purpose; (3) actions that lead to synaptic growth pleases the brain; and (4) imitating behaviour and feelings. The mirror neurons are associated with the ‘unassigned assistance’ in the creative act and thus confirm the notion of concinnitas,
purposiveness, Einfühlung, or empathy. ‘Choosing’ the better metaphor is related to the empathic ‘reading’ of a group or community — Mallgrave’s version of solidarity. However convincing this may be, it all awaits scientific confirmation, and thus requires the same leap of faith as the other fabricated frameworks. Whether the architect’s creative faculty is critical by nature is far from proven.

**Petitio principii**

The juxtaposition of the projective theory of Whiting with the parametric treatise of Schumacher and the neuroscientific-based approach of Mallgrave together can be used to explore current conceptualisations. The projective position builds upon a renewed pragmatism that begins from the potential within practice. It concentrates on the method and intentionally excludes beginning and end. In turn, the parametric approach begins from a bird’s-eye view on the societal sub-system that is architecture: a neutral record of how the system works combined with a sense-giving goal to innovate. The neuroscientific approach, meanwhile, wants to build theory from the bottom up, thus primarily expanding on the beginning of any conceptualisation. A focus on beginning, middle, and end forms a perfect tripartite. The insight we gain with this tripartite shows how architecture could be critical, if two conditions are met: that the architect develops his assumed inborn critical faculty and that a form of architectural design theory evokes the critical faculty. In all cases, the petitio principii applies; they all claim a form of criticality by assuming that a critical faculty on some level exists.
Villa Schwob, La Chaux-de-Fonds, 1916
Designed by Le Corbusier
Source: The Mathematics of the Ideal Villa

The plan of Villa Schwob
fig. 30 - top left
Casa di Palladio (Casa Cogolo), Vicenza, 1572
Designed by Andrea Palladio
Source: The Mathematics of the Ideal Villa

fig. 31 - top right
Casino dello Zuccheri, Florence, 1578
Designed by Federigo Zuccheri
Source: The Mathematics of the Ideal Villa
Most houses are conceptually vertebrate. That is, in addition to their literal, necessary condition of structure they are metaphorically vertebrate. They have a center, usually a hearth or a stair; their roofs pitch from the center, and their construction exhibits a concern for an overall centrality. The center expresses both the functional core and conceptual unity of the house. In House X, the center is nothing.

The vertebrate house is also mimetic; it mirrors man’s upright, axial condition. In an attempt to produce a conceptual distance between man and object, House X is nonvertebrate; to this extent, it is nonmimetic. There are no exposed linear elements – columns or beams. These are covered by solid vertical and horizontal surfaces, and further, two of the major horizontal living surfaces are void. This is a distortion of the Modern Movement’s preferred section – two solid horizontal planes – as well as of the house’s traditional mimesis of anthropocentric man, who stands on a solid horizontal surface and “dominates” the landscape.

The specific configurations of House X can be understood initially as the juxtaposition of four squares. This configuration is only an initial analogue, a heuristic device used to approach a more complex sign condition, which in itself is only a possible approximation of the reality it signifies. In fact, the final configuration is a cumulative attempt to dissolve its own seeming connection with any initial analogue. In other words, the final plan is only a series of traces that refer, in a sense, forward to a more complex and incomplete structure rather than backward to a unitary simple, and stable structure. It thus becomes a kind of pre-distillation of a more complex “future” condition.

The 8,000-square-foot private residence was designed for a large, wooded, sloping site, adjacent to a country club and surrounded by a swimming pool, tennis court and summer house. The design used the slope in such a way that the natural landscape ran through the house, splitting it into four quadrants to reduce the scale.
fig. 34 - top
The City of Culture of Galicai, Spain, 1999 - ongoing
Designed by Peter Eisenman

fig. 35 - bottom
The Seattle Library, 2004
Designed by Rem Kollhaas and the Office for Metropolitan Architecture
Source: http://www.brucemaudeesign.com
fig. 36
Slide explaining the public sphere – the coexistence of multiple subjectivities
Part of Sarah Whiting’s lecture at the Projective Landscape conference, 2006
Source: Stylos foundation
The cerebral cortex consists of a left hemisphere that is generally associated with language, analysis and details, and a right hemisphere generally associated with spatial skills, grasping an overall view and the processing of feelings. The left side covers rational thinking such as, for example, required in mathematics or logical reasoning. The right side is responsible for intuition, emotions, spontaneity and imagination. Both hemispheres are divided into frontal, parietal, temporal and occipital lobes. Within these lobes, areas are dedicated to planning, reasoning, feeling, hearing, seeing, etcetera. The visual processing areas (V1-V5) that form the visual cortex as part of the occipital lobe at the back of the head. In these areas, they can appoint function with more precision. Input from the retina reaches the V1 primary visual cortex, which distributes it to other visual processing areas according to wavelengths. Lines and shapes are further processed in V3, colours in V4 and visual motion in V5.
fig. 39 - above
Gaetano Kanizsa cube

fig. 40 - above
vase - faces illusion
With Karl Marx's legacy in mind, the institute was founded in 1923, in Frankfurt am Main. In 1930, Max Horkheimer became director and soon had organized the group of thinkers around him that became known as the Frankfurt School.

As mentioned before, until the 1940s the members of the Frankfurt School respected insights form Weber's social theory as much as they respected Marx's. Only after a dispute with Talcott Parsons they outspokenly distanced from Weberian thinking. Cfr. supra.


Ibid., 35.


As suggested in: Broadbent, "A Plain Man's Guide to the Theory of Signs in Architecture." Karina Van Herck and André Loeckx refer to Christian Norberg-Schulz as the first one to incorporate semiotics into architecture. At first he looked to the conception of De Saussure after which he moved towards the pragmatist interpretation of Peirce. This way they suggest that De Saussure was the first reference for architecture. Hilde Heynen and et al., 'Dat Is Architectuur’ : Sleutelteksten Uit De Twintigste Eeuw  (Rotterdam: Uitgeverij 010, 2001), 801-17.

Charles Sanders Peirce was an American scientist, who is generally recognised as the father of pragmatism and semiology. Ferdinand de Saussure was a Swiss linguist, who is now widely seen as the other father of twentieth-century semiotics/semiology. John F. Dewey, who was a student of Peirce’s, is responsible for spreading the philosophy of pragmatism and its influence on education, and thus, also architectural education. Noam Chomsky's Syntactic Structures built on Saussure's structural linguistics and became a seminal work in structuralism. His theory of syntax, known as generative grammar, and the notions of "surface structures" and “deep structures” in particular, were appropriated by Peter Eisenman in his dissertation, The Formal Basis of Modern Architecture.

The early work of Peter Eisenman, including his PhD, was exclusively dedicated to establishing a sign system based on a structural semiotic framework derived from the work of Noam Chomsky.

In the triadic system of Peirce lies the start of reading an embedded intention in architecture.

For the Cannaregio project in 1978 Eisenman was in close contact with peoples from the Venice School, such as Manfredo Tafuri, Francesco Dal Co and Aldo Rossi. In 1982 the IAUS published the English translation of Rossi’s The Architecture of the City, with an introduction of Eisenman. The close contact with Rossi and his concept of the analogous reading of the city inspired Eisenman. According to Eisenman the concept of analogy brings architecture into the realm of psychology. ‘Analogous’ follows closely the idea of Carl Jung, who had placed ‘analogical’ in contrast to ‘logical’. According to Jung, logical thought can be expressed in words, while analogical thoughts are archaic, unconscious, deep-rooted and symbolic. Rossi et al., The Architecture of the City, 3-12. Reprinted in Eisenman, Eisenman inside Out: Selected Writings, 1963-1988, 133-42. C. G. Jung and Marie-Luise von Franz, Man and His Symbols (Garden City, N.Y.: Doubleday, 1964).


Ibid., 87.


Eisenman, ”The End of the Classical: The End of the Beginning, the End of the End,” 164.


The ANY conferences were organised annually, starting from 1991 until 2000, by writer and editor Cynthia Davidson, Eisenman’s espouse at the time. ANY was an acronym for Architecture New York. Each conference was thematised starting from a wordplay based on the acronym: Anyone, Anywhere, Anyway, Anyplace, Anywise, Anybody, Anyhow, Anytime, Anymore, Anything. For a record of these conferences I refer to the proceedings such as: Cynthia C. Davidson, Anyone (New York: Rizzoli International Publications, 1991); Anyhow (Cambridge (Mass.): MIT press, 1998); Anything (Cambridge (Mass.): MIT press, 2001).

Hays refers to Simmel’s essay ‘The Metropolis and Mental Life’, where he describes this condition as the intensification of nervous stimulation resulting from the rapid crowding of changing images, the sharp discontinuity in the grasp of a single glance, and the unexpectedness of onrushing impressions. A blasé attitude is a psychological condition of indifference which the metropolis creates.
Robert Venturi said to like hybrid elements rather than pure, or ambiguous elements rather than articulated. 'Ambiguity' was understood as the origin of art. Venturi and Scully, Complexity and Contradiction in Architecture.


A followup debate titled Urgency took place one years later at the Canadian Centre for Architecture [CCA] in Montreal.

Somol and Whiting, "Notes around the Doppler Effect and Other Moods of Modernism."

First appeared in Architectural Design 63, no. 3/4 (1993): 8-15. It is a plea for an alternative 'cunning' approach. The straw figure that Greg Lynn erected in his text to legitimate all that follows is condensed into the following quote: 'In response to architecture's discovery of complex, disparate, differentiated and heterogeneous cultural and formal contexts, two options have been dominant; either conflict and contradiction or unity and reconstruction. Presently, an alternative smoothness is being formulated that may escape these dialectically opposed strategies'. Lynn suggests that the oppositional debates such as the 'whites' reevaluating the modernist fundamentals versus the 'greys' referral to an architecture tradition — or the deconstruction versus reconstruction extremities — can be replaced with a further to be defined smoothness. Hence, why this text is often considered as the beginning of the post-critical. At first this smoothness is explained more on the metaphorical level. Characteristics of sensible behaviour, mediating capability, and cunning tactics are promoted by making comparisons with cooking, viscous mixtures, pliant systems, viscous fluids, and sticky and flexible forms. The characteristics are required to be able to deal effectively with the complex architectural task. The vocabulary related to the comparisons is transposed from the metaphorical realm to the realm of form making and visa versa. The cunning tactic here is only to use vocabulary that has double meaning, one for each realm. For example, when talking about an applied force it can be both gravity or contextual power. 'The smooth spaces described by these continuous yet differentiated systems result from curvilinear sensibilities that are capable of complex deformations in response to programmatic, structural, economic, aesthetic, political and contextual influences. This is not to imply that intensive curvature is more politically correct than an uninvolved formal logic, but rather, that a cunning pliability is often more effective through smooth incorporation than contradiction and conflict.' This recent work may be described as being compliant; in a state of being plied by forces beyond control. The projects are formally folded, pliant and supple in order to incorporate their contexts with minimal resistance. Again, this characterisation should not imply flaccidity but a cunning submissiveness that is capable of bending rather than breaking.' It is a double definition, about a strategic attitude and about form prescriptions. Greg Lynn, "Architectural Curvilinearity: The Folded, the Pliant, and the SUPPLE," ibid. (1993).


A students organisation at the TU Delft that also was involved in the *Critical Landscape* publication. Speaks et al., *The Critical Landscape*.


cf supra.

"... it is one of the intentions of the Berlage Institute's new doctoral program and of the creation of the new Delft School of Design to challenge this American hegemony [architectural theory on the American East Coast] - and recent events suggest that these challenges are meeting with some success." Baird, "'Criticality' and Its Discontents."

[Hence, why for example no proceedings were made. Yet, in retrospect it is clear that the organising committee succeeded in bringing together several influential thoughts or position statements. Almost all intellectual positions were integrated into the anthology of A. Krista Sykes *Constructing a New Agenda: Architectural Theory 1993 - 2009*, published in 2010.


Whiting leans on this particular law of physics that was first developed by the Austrian physicist Christian Doppler, in 1842. See: Somol and Whiting, "Notes around the Doppler Effect and Other Moods of Modernism."
Sarah Whiting, The Projective, Judgment and Legibility, (Lecture at the Projective Landscape Conference, organized by the TU Delft and the Stylos foundation, recorded in Delft, march 2006).


See the interpretation of the notion of ideology as used in chapter two (second endnote).


Ibid., 177.

Ibid., 39.

Ibid., 43.

Also in the ‘utility versus beauty’ communication structure the Vitruvian frame is broken down. ‘It is easy to see that the traditional trinity can be collapsed into the double code of utility and beauty. Firmitas (stability, durability, material and technical performance) can be eliminated. Its concerns have been taken up by the building engineering disciplines. (Prior to the existence of separate building engineering disciplines these technical concerns could have been absorbed under a generalised heading of utility).’ Ibid., 222.

Schumacher makes it clear that innovation is a necessity several times throughout his treatise. For example: ‘Alberti’s explicit drive towards innovation is the pivotal moment in the constitution of architecture as a self-confident, discursive system of communication. Innovation is the raison d’être of the formation of all modern function systems.’ And: ‘Generally, the value of innovation does not require an elaborate defence - except, curiously, in the case of architecture as evaluated outside architecture by society at large. Architecture is often associated with values of longevity, primordial desires, archetypes, eternal values etc. Occasionally these external pressures find their internal spokesmen. For instance, Prince Charles found support in architects such as Léon Krier and Quinlan Terry, using his ‘Academy’ as institutional vehicle. One might also refer to Roger Scruton’s theoretical regressions in his The Classical Vernacular: Architectural Principles in an Age of Nihilism. However, the material (rather than ideological) societal pressures demand continuous innovation.’ Ibid., 392.


Schumacher gives multiple reasons why a full-blown theory is supposed to be self-evident, such as for example: ‘The irreversible result of societal differentiation is a society without centre and therefore without unified, hegemonic self-description that could become a vehicle of utopian self-projection’. Schumacher, The Autopoiesis of Architecture: A New Framework for Architecture. Vol. 1, 177.
To only consider choices that can be legitimized in relation to the public sphere would imply that all other choices must be discarded from any evaluating discourse. If the private sphere would be excluded from all forms of evaluation, then a possible dichotomy would enter architecture. This would make, for example Neuteling’s position, in which many design decisions are based on personal affinities, irreconcilable with a projective approach. Paradoxically, the At Work book is one of the leading examples for the projective.


All sorts of subfields are known in neurosciences today, such as for example neurobiology, neuropsychology, neuroaesthetics, neurolinguistics, neuropharmacology, neuro-oncology, neurophysiology, and so on.

Draaisma, Metaphors of Memory : A History of Ideas About the Mind.

Ibid., 212.

Ibid., 156.

Also published as Out of Control: The Rise of Neo-Biological Civilization. It was precisely Kelly’s book that Keanu Reeves had to read when he was preparing for his role in The Matrix. Kevin Kelly, Out of Control : The Rise of Neo-Biological Civilization (Reading, Mass.: Addison-Wesley, 1994).

The idea that the built environment emerges as an intellectual product of a community rather than by the artistic act of singular designers must have looked appealing to Alexander. Arguably, the concept of emergence could be his ultimate comeback at Peter Eisenman in attempting to neutralize the designing ego of the artist-intellectual.

‘Meaning’ was thematized in architecture by theorists, such as Charles Jencks, George Baird, Christian Norberg-Schulz, Geoffrey Broadbent, and others. See for example: Charles Jencks and George Baird, Meaning in Architecture (New York;: G. Braziller, 1970); Christian Norberg-Schulz, Meaning in Western Architecture (New York: Praeger, 1975); Intentions in Architecture. Under a heading ‘Complexity Paradigm’ they list, for example, The Fractal Geometry of Nature (Benoit B. Mandelbrot, 1977), Diagrams (Ben Van Berkel and Caroline Bos, 1999), Animate Form (Greg Lynn, 1999), Metacity/Datatype, (MVRDV, 1999) Machine Architecture (Lars Spuybroek, 2001), Emergence (Steven Johnson, 2001), and Explosions; Compressions; Swarms, Aggregations, Pixelations; Carved Spaces, Excavations (Zaha Hadid, 2004). Jencks and Kropf, Theories and Manifestoes of Contemporary Architecture.
Johnson (like Kelly) refers to discoveries in biology to explain *emergence*. One of Johnson’s leading examples is the study on how ant colonies are organised, made by the American biologist, Deborah Gordon. For a long time, researchers had thought that ant colonies were somehow organised top down like a military hierarchy. Ants, however, are rather ignorant agents that do not individually possess the capacity to understand the complex organisation of the colony. They cannot anticipate the outcome of the decisions they make. Ants do not have the brains for this. Therefore, it was hard to profile any ant as pacesetter. To paraphrase, all ants can only follow a pheromone trail, look to their neighbours and act accordingly. Nevertheless, the territorial organisation of the colony demonstrates very intelligent behaviour. Seen from the outside, the whole shows a level of intelligence that is not present in its constituent parts. The intelligence emerges from the system. Steven Johnson, *Emergence: The Connected Lives of Ants, Brains, Cities, and Software* (New York: Scribner, 2001).

See the mission statement for the Association of Neuroesthetics in Berlin at [http://www.association-of-neuroesthetics.org](http://www.association-of-neuroesthetics.org). The academy of neurosciences houses regular conferences to advance the relation between the cognitive sciences and architecture. It aims to deepen the understanding of concepts such as emotion, experience, embodiment, einfühlung, and creativity of the designing architect. The ANFA website reports on biennial conferences since 2012, at which people such as Mallgrave, Eberhard and Albright are regular speakers. Eminent keynotes are among others: Juhani Pallasmaa on ‘imagination and empathy’ in 2014; Steven Holl in 2016, topic still to be confirmed; and also in 2016, dr. Eric Kandal, the American neuroscientist and recipient of the 2000 Nobel Prize for his research on mapping memory between synapses and the hippocampus.

While John Eberhard is an architect, the second president, Fred H. Gage, is a professor in the genetics laboratory of the Salk Institute.


For a nuanced understanding of how Mallgrave presents the historical material and his personal interpretation, one should read the successive historical essays as one coherent thought experiment. I will only briefly touch upon this to provide context to the second part of his argument on creativity.

When a test person is presented with a visual stimulus, the fMRI allows the drawing of maps of brain parts that show an increased blood flow. If the correlation to a specific function or activity is significant — repeatedly associated through various experiments — the parts of the brain that light up are recognised as specialised areas. Combined with response time experiments, measured by an EEG, Zeki can record sequences of brain activity and deduce a processing pattern.

Although, at first sight, this hints at Universal Ideas, Zeki sets himself in diametrical opposition to Plato. The perfect idea of a ‘hat’ does not exist independently and prior to human beings. The perfect ‘hat’ concept is approached over time as a synthesis of serial comparisons. It is always a temporary synthesis of experiences built up until that particular moment: ‘It is the result of comparing the input at any given moment with past inputs belonging to the same category, and stored in memory, and adding to the stored memory and thus modifying it’, Ibid., 44.


Ibid., 88.

Another example is the Kanizsa cube, which is an axonometric wire-frame drawing of which one can perceptually interchange the front and back of the cube; or the black-and-white image of two faces looking at each other — an image in which one can either see the faces or the counter-form of a vase.

Zeki provides a Darwinian explanation. Ambiguity, understood as the capacity to project multiple interpretations onto a specific setting, allows the individual to judge and anticipate possible danger. Hence, it is understood to originate in the quest for survival.

Ibid., 38.

Ibid., 212.


Test persons were asked to solve word puzzles. Presented with a series of three words, they had to find a single word that would allow them to form a compound word with each of the three words. For example, when they were shown the words ‘pine’, ‘crab’ and ‘sauce’ they were supposed to find the word ‘apple’, which would form the compound words ‘pineapple’, ‘crabapple’ and ‘applesauce’. Through fMRI and EEG scanning, the researchers were able to determine when and where brain activity took place. At the same time, the test persons had to press a button when they experienced a sudden insight.

Ibid., 883.


Ibid., 176. This knowledge is supported by neurological experiments. In a test person’s brain, for example, when presented with the metaphor ‘she is a warm person’, the part that deals with temperature shows increased activity, as does the part that deals with emotions. There seems to be a hard-wiring of the ‘affection is warmth’ metaphor. Mallgrave further calls upon the work of behavioural neurologist Kenneth M. Heilman, psychologist Steven Pinker, cognitive linguist George Lakoff, and philosopher Mark Johnson.
Mallgrave relies on the work of the neuroscientist V.S. Ramachandran, whose research inquires into the link between the mirror neuron system and the emergence of culture based on the human ability to imitate others. For example, Raymond Tallis questions Ramachandran's research, arguing that it is too speculative and based on false assumptions. A single cell cannot be responsible for the complex behaviour of seeing, sensing and imitating emotions. For Tallis, the basic mistake is ‘the anthropomorphisation of brain-cell activity’, Raymond Tallis, Aping Mankind : Neuromania, Darwinitis and the Misrepresentation of Humanity, 1st pbk. ed. (Durham England: Acumen Pub., 2012), 189.

Mallgrave refers to John H. Zammito’s discussion of this term in The Genesis of Kant’s Critique of Judgement to explain why he translates Kant’s original term ‘Zweckmässigkeit’ as ‘purposiveness’. For the sake of the present argument, it is more important to look at how Mallgrave links it to architecture than to pursue alternative meanings of Kant’s ‘Zweckmässigkeit’.


Ibid., 59.
4: Stretching the Constraints

In chapter three, we have seen Schumacher thematizing the forward drive based on innovation. We have seen Whiting arguing a compound of smaller narratives that will advance the performance of architecture. And we have seen Mallgrave claiming that the architect’s brain has the inborn capacities of einfühlung and hyperconnectivity — the cornerstones for a critical creativity. Despite their differences, the theories of chapter three have the same agenda: to make a closed construct that can legitimize contingent design decisions. While the construct borrows from knowledge fields whose endeavours are bound to historical and geographical conditions, the main idea is ‘to restore the architect as a critical and legitimate actor in society’.

By trying to create contingent closed constructs, their endeavours are paradoxical. Rorty explains this paradox with the notion of final vocabularies. Personal vocabularies, although constantly morphing, are ‘final’ in every phase of their development. They have to be, because at any given time decisions need to be based on a ‘solid’ framework. Our vocabularies are ‘final’, Rorty says, because they gather all conceptualizations, known to us up to that point, into that coherent framework. We adjust, develop and twist our final vocabularies through irony and solidarity.

The paradoxic nature of the fabricated frameworks is also recognized by contemporary critics that reflect on a meta level. This chapter, therefore, will explore the critiques of the architectural historians Akos Moravanszky and Andrew Leach, the contemporary philosopher (and late ironist, according to Rorty) Slavoj Žižek, the academic architect-theorists Reinhold Martin, and the leading neuroscientist Raymond Tallis. Through each critique — questioning, respectively, the ideo-aesthetical, the politico-ethical, the utopian, and the metaphysical silence — a missing element within the closed constructs of chapter three is explored. These critics look at the under-addressed drivers to pursue theory; theory should point in the direction of the ‘gap’, the ‘interstitial’, the ‘consciously unthought’, or the ‘utopian ideas’ in which desires are substantiated.

However, while these critics reopen the constructs that the protagonists of chapter three tried to close, the presumed critical constitution of the contingent creative act remains notably absent — even though identifying what constitutes this creative act would provide the ultimate legitimation of the
architect’s design expertise. To close the theoretical construct as a ‘solid’ framework instead of reopening it as a model of negotiation, two antagonistic pursuits in architectural theory meet with aporias. Thus, after having explored these pursuits, we will have to triangulate a status report on architectural creativity that avoids aporias but still allows a more precise discussion of architecture’s unique selling proposition.
4.1. Twisting The Constructs

4.1.1. The Ideo-Aesthetical Twist

... the elimination of aesthetics as a means of evaluating architecture as a product of human labour radically limits the means of making a critical judgement vis-à-vis the product (which is a pity, since the real differences between the proposals of Rem Koolhaas and the architects of New Urbanism lie in their respective aesthetics, rather than in their social programs).¹

Ákos Morávanszky is titular professor of theory of architecture at ETH Zürich, and Andrew Leach is associate professor of architecture at the University of Sidney. Each formulate an ideo-aesthetical critique on aspects of contemporary theory, by which they suggest that a pragmatic approach might imply a neglect of ideology and the interrelated discourse on aesthetics. The next paragraphs will juxtapose two articles by these authors whose similarities reinforces each other. In ‘Architectural Theory: A Construction Site’, Morávanszky’s question is, ‘what kind of specific tasks does architectural theory have to tackle, what kind of inquiries does it intend to pursue’.² He intends to define the territorial boundaries of architectural theory, especially of theory in the realm of architectural education, and moves back and forth between theory in general and theory as taught in schools of architecture. His reflection on architectural theory in general applies to the argument of this dissertation. Leach also addresses general questions about contemporary architectural theory in ‘Inventory: Architectural Culture and the Question of Knowledge: Doctoral Research Today’,³ in particular the ongoing debate in architectural education about the viability of PhD research by means of architectural design.⁴ Leach points at the broader phenomenon on which this debate is surfacing: ‘The pragmatic turn in architectural culture of late has provided an excellent substratum on which to build up a strong case for architectural research by “architectural” means, for thinking through architecture rather than about architecture’.⁵ Through the questions on design as a PhD medium, Leach touches upon the problem of the renewed pragmatism in current architectural theories.

The central theme for both Leach and Moravánszky is distance, as a key constituent for architectural theory — even when distance seems to be less favourable today. To do so, Moravánszky and Leach, both historians, build a case in favour of architectural history. Moravánszky refers explicitly to the Greek origin of the word theoros, meaning an observer who reports back to the polis.
about an oracle’s utterances. ‘The meaning of theory’, Moravánszky extrapolates, ‘indicates a particular way of observing; the way of the detached and uncommitted spectator, rather than the participant’. Through a knowledge of history observers such as Moravánszky and Leach learn about paradigm shifts that occur within architectural theory as a discipline.

Their aerial view helps us to question the limits of contemporary approaches. Moravánszky’s and Leach’s crucial insights about theories that designers use today to rationalize contingent design decisions, are reflections on contemporary theory — and are therefore a specific kind of architectural theory in itself. Both authors argue that today architectural theory participates too closely in defining modes of practice. They pinpoint the origin of the problem in the ‘participatory’ theory promulgated by issues of *Oppositions* and *Assemblage*, discussed in the previous chapter. Moravánszky argues that the tension between observation/reflection and participation is not new, identifiable in earlier paradigm shifts:

One major shift was the crisis of Vitruvianism in the seventeenth century and the subsequent rejection of nature and the proportions of the human body as models for architecture. Another blow, still resounding in the writings of Aldo Rossi, was delivered by Etienne-Louis Boullée, who rejected Vitruvius’ statement that architecture was the art of building and stressed the production de l’esprit as the constitution of architecture.

According to Moravánszky, in the 1950s a theory of the symbolism of space replaced the theoretical system of the nineteenth century that attempted to guide architecture toward a unified style by looking at extra-architectural variables such as production, technology, and material. In the 1960s, the conjunction of architectural history and politically engaged architectural criticism resulted in a theoretical system that avoided talking about the aesthetics of architecture. The real significance of architecture was then seen to be in its socio-economic context. The next shift, Moravánszky says, was when the editors of *Oppositions* revised their original goal of revisiting the design principles of modernism. They moved towards a new methodology of architectural theory that became the appropriation and application of vocabulary of extra-architectural discourses. *Assemblage*, founded by Michael Hays, succeeded *Oppositions* and became the gateway for appropriating critical theory for architecture. As discussed before, this gave rise to a new pragmatism, the post-critical, or the projective.
Leach also refers to this moment as the pragmatic turn, immediately after which a problematic phenomenon occurred: the declining interest in the quest for knowledge for the sake of knowledge alone. The pragmatic turn seems to result only in applied knowledge. According to Leach, this trend has the upper hand today and needs to be countered, otherwise a critical distance will be lost. But Leach’s article is not a call for launching the counter-trend of retreating into architectural historicism, but rather intends to raise awareness within architectural theory of the pitfalls that exist when research focuses solely on professional exigencies: the loss of the longer-term and non-economic-related knowledge that is important to preserve culture and society. Moravánszky too recognises shortcomings of the post-critical alternative. For one, ‘its [projectivity] claim of performativity lacks the program to regain its organising power over contributions from other specialised disciplines and practices,’ and for another, ‘the original meaning of *theoria* leaves no space for a pro-“projective” interpretation, with its interest in performance and production’. 8

Contemporary theoreticians have only two options left, it seems: either they dedicate themselves to the *recherche patiente* of a particular masterwork or they return to their roots in architectural history. Moravánszky sees a third way: the practice of theory has to remain rooted in language, and should affect the use of language. Architectural theory should investigate the precise meaning of terms, a task that by definition is never complete. Moravánszky honours the classical interpretation that observation in itself is intellectual participation from a distance and, thus, theory in itself is a form of practice. More importantly, he also makes explicit that architectural theory should be neither a return to architectural historicism nor a design theory whose only purpose is to justify a design practice, but nor should it be a metaphorical appropriation of extra-architectural vocabulary to justify decisions of architectural design.

Leach and Moravánszky question whether the rigour of theory is guaranteed once a mere pro-projective or pragmatic attitude becomes mainstream. 9 Moravánszky makes a plea for a continuous debate about the exact meaning of terms. Moreover, he calls for the return of ideology as a filter to avoid the diffusion of meaning: ‘Instead of condemning ideologies as documents of false consciousness, we should regard them as the possibility of the mind, capable of transcending the determinacy of knowledge by the actual social situation’. 10 A similar reflection is also made by Reinhold Martin. There is, however, a crucial difference: Moravánszky sees ideology as a societal mechanism that shapes language, whereas Martin sees ideology as a remnant of utopia.
More people use the notion of ideology to criticize recent pragmatic positions. While Moravansky and Martin take on a position from within the architectural discipline, Slavoj Žižek formulates a critique on contemporary architecture as a philosopher. Žižek, makes an elaborate case for how the mechanism of ideology might undermine a pragmatic practice of architecture.

4.1.2. The Politico-Ethical Twist

Slavoj Žižek is a philosopher who reflects on architecture only sporadically. In 2009, Žižek gave a talk on interstitial space in architecture, at the Jack Tilton Gallery in New York. Not coincidentally, interstitial space had been a theme in the 1990s and early 2000s for architects such as Peter Eisenman, Gregg Lynn, Stan Allen, Daniel Libeskind, and Alejandro Zaera-Polo. These architects understood the interstitial as the only part left of an architectural project in which architecture can claim full autonomy. Looking back at this theme, Žižek finds their interpretation too vague and not committed enough. In contrast, Žižek wants to consider interstitial space as the proper place of utopian dreaming and a reminder of architecture’s great politico-ethical responsibility.

How does he argue this point? Žižek identifies dialectical forces as the drivers that alter the human condition. In his activist reading of these forces he assigns them a social dimension that forms part of a Marxian class-struggle. For Žižek, ideology is always present, maybe precisely where you expect it the least. To discover the ideological choices, he argues, one should look at the underside of customs. Žižek goes so far as to call upon Lacan’s formula 1 + 1 + a (in which the object ‘a’ refers to some kind of excess) to explain that the presence of an underlying, more fundamental problem can be recognized in the excessive quarrels that maintain a popular opposition. The fact that the opposition does not end up in a peaceful symbiosis of two different species, he argues, proves that the superficial antagonism is maintained to obfuscate the true intellectual challenge. In some of his public talks Žižek uses Rumsfeld’s categories of available intelligence on Saddam Hussein to explain where ‘ideology at its purest’ resides. Rumsfeld talked about known ‘knowns’ (to refer to weapons we know the Hussein regime possess), known ‘unknowns’ (to refer to weapons they must have but of which we have no proof) and unknown ‘unknowns’ (to suggest that Hussein might possess powerful weapons which we would not even expect). To this logic Žižek adds, in his witty way, the category of unknown ‘knowns’: the ideological choices we know but which we do not even consider as part of any debate.
When Žižek translates this to architecture, ideology — understood as a display of unresolved social antagonisms — is encoded in the formal play of architecture (we have seen a comparable assumption in Colin Rowe’s interpretation of mannerism). He sees a ‘cultural tension’ because society commits to a democratic egalitarianism by means of an explicit anti-elitist discourse which, in fact, reveals underlying class differences that constitute society. For Žižek, this tension is most apparent in the conception of art venues in the early twenty-first-century. Art centres are commonly perceived as elitist buildings, paid for with public funds. In a politically correct society, they must appear inclusive. Much space is given to the public realm, which nevertheless remains under private control. The result is a false openness. For Žižek, ‘what is false about the anti-elitism of performance-art venues [...] is not that they are secretly elitist, it is their very anti-elitism, its implicit ideological equation of great art with elitism’. This case exemplifies the actual deadlock of the present social antagonism and thus shows the political unconsciousness of architecture.

To reinforce his point, Žižek also returns to Fredric Jameson’s reading of Frank Gehry’s private residence in California, a traditional bungalow clad and expanded with American wasteland materials. His design shows the deadlock of another social antagonism, namely, the inability to unite traditional achievements with prosperity of modernization, including its byproducts: poverty and waste. Regardless of whether Gehry intended to represent this antagonism, for Žižek it is definitely part of the architectural meaning of the building.

Žižek claims that a way out of these deadlocks lies in appropriating the interstitial spaces ‘that arise as necessary byproducts of another decision in design, and not as adaptations for direct utility in themselves’. They relate to the architecture in the same way that leftover spaces relate to the city. Žižek uses the Deleuzian term ‘disjunctive inclusion’, which refers to places that exist in the city but are not part of the city’s ‘ideal-ego’ and are thus disjoined from its idealized image of itself. Žižek argues that society is driven by our wish to identify with whomever we dream of being. By associating the interstitial with the gap between the ideal and the real, he reformulates the interstitial in a Lacanian way: the displacement as imagined between the symbolic, the imaginary, and the real.

In the philosophical realm Žižek’s approach is clear: To appropriate the interstitial one should not look at the superficial ideological choices, because
they maintain current social antagonisms, but rather focus on the utopian dreaming. Žižek considers the interstitial space as a potential political and ethical agent. How this should play out in the hands of an architect is left open.\textsuperscript{16}

I elaborate on Žižek’s argument for two reasons. The first is that it provides a way to reveal underlying tensions of popular oppositions. He reads these excessive quarrels as markers of unresolved social antagonisms. Although Žižek does not refer to it, I read the ideological dialectic of Krier versus Eisenman\textsuperscript{17} as another popular opposition that both authorities and their entourage maintain rather than evolving towards a peaceful symbiosis. Following Žižek would imply identifying the underlying problem that maintains this excessive quarrel. While I agree with Žižek’s argument, I do not read the ideological dialectic of Krier versus Eisenman as primarily emerging from a social dynamic of class differences. The deadlock of the so-called antagonistic forces in the Krier-Eisenman opposition, I would argue, stems from the underlying desire of many architects to regain or acquire the respected position architects once seemed to have had in society: the architect as a holder of moral, ethical and aesthetical standards — even if this might be based on a false idea of the architect’s historic position in society.\textsuperscript{18}

The second reason to elaborate on Žižek is that in his argument he holds the universities to the task of ‘radical thinking’, an idea we also find with Reinhold Martin. Žižek explains this with the Kantian notion of the ‘public use of reason’ — as opposed to the ‘private use of reason’, by which experts solve the problem without questioning the basic. Žižek argues that ‘radical thinking’ not only looks for solutions, but also dares to question why problems exist in the first place and how we perceive them.\textsuperscript{19} Because we live in a time where ethics are not institutionalized, Žižek demands that every discipline develops its own form of ‘radical thinking’. In the case of architecture, this implies understanding the interstitial as an politico-ethical agent. Therefore, Žižek concludes that in architecture’s utopian dreaming lies a great politico-ethical responsibility.

Thus while Leach and Moravánszky advocate the preservation of a necessary distance in order to guarantee the wholistic and rigorous pursuit of architectural knowledge, Žižek argues in more detail that such a distance is needed to reach beyond false oppositions and reveal unresolved social antagonisms. The failure of pragmatism to resolve pseudo oppositions that lead to false diagnostics for the architectural discipline, however, is behind the case Reinhold Martin makes
for ‘Utopian Realism’, a pragmatism called to order, challenging contemporary practice and theory in architecture.

4.1.3. The Utopian Twist

For if we were truly and fully postmodern we would not experience even a twinge of frustration when confronted by the failure of these built-in architectural narratives to add up. But I think we do.²⁰

Reinhold Martin’s essay ‘Critical of What? Towards a Utopian Realism’ first appeared in Harvard Design Magazine 22, and was republished in the anthology Constructing a New Agenda: Architectural Theory 1993 – 2009.²¹ This essay is preparatory to his book Utopia’s Ghost.²² The text can be read as a plea to take a clear stand, to be transparent about intentions as an architect, especially about the world the architect envisions to which architecture contributes. His text also discusses who has what kind of power over the discipline and, thus, who bears what kind of responsibilities. Regardless of whether the architectural discipline is autonomous or not, one can state that it is a system governed by steering mechanisms. Martin makes an overt attempt to address one of these steering mechanisms within the architectural discipline. He pins tremendous responsibility on academic architects for producing the references for good standards. This is not a conservative claim for an elite to rule the discipline, but rather a call to attention to the responsibilities of a well-defined group within the system, leaving aside their specific weight. That is why, according to Martin, academic architects should excel in ‘Utopian Realism’.

To define the aforementioned task for academic architects, Martin draws on George Baird’s inquiry of the post-critical project and rehearses the recent history of criticality. According to Martin the post-critical sees the critical — with Eisenman as its main protagonist — as a discourse without political relevance because it strives to be autonomous and hermitic, impermeable for the public at large. While the post-critical denounces the critical ‘language’ that only few can speak and understand, it also incidentally denounces the academic realm in which it is produced and proselytized. Martin returns the focus of the debate towards the moment where the academic position was marginalized. He does so to reveal a tendency in the debate to move away from the methodological and theoretical to the practical and pragmatic — from the ‘hot’ to the ‘cool’ version of the discipline. The booming market of the 1990s, provided a variety of interesting contemporary examples of real projects produced outside the academic realm, resulting in a setting for the architectural
discipline by which (a market-driven) practice dictates the standards. Martin
wants to counter this because ‘the problem is not that architectural discourse is
too academic to have any political relevance, but that it is not academic
enough’. Although he welcomes Bruno Latour’s ‘critique of facts’, he is not
satisfied with the middle road (matters of concern) as a possible outcome. For
Martin, being more academic means being more precise and taking a clear
stand. Hence, his questions: ‘By what criteria is the “post-critical” asking to be
judged, beyond mere acceptance and accommodation of existing societal,
economic or cultural norms?’ And ultimately, he asks of practitioners ‘just what
sort of world they are projecting and affirming in their architecture and in their
discourse?’

He pitches his solution, Utopian Realism, with an ironic nod to Colin
Rowe. According to Martin, Rowe reduces the potential of utopian thinking to
a collage based on post-utopian irony. But in fact, the case Martin makes for
‘utopia as a tool’ echoes the two types of utopia Rowe and Koetter pose in the
first part of Collage City. The first, classical utopia, anterior to the French
Revolution, is essentially an object of contemplation, a heuristic device, an
image rather than a prescription, while the activist utopia of the post-
Enlightenment is a political instrument. The activist utopia was abandoned as a
tool by architecture and urbanism, the authors argue, and replaced by the
positivist social utopianism of early modernists. Two basic sources are
identified for the modern approach of society and social utopianism: Saint-
Simon’s ideas, which are responsible for the creed of society as a social contract
and thus the French mechanical model of a constructible society; and Edmund
Burke’s influential reasoning on the organic growth of society, which counters
the idea that one can interrupt and reconstruct society anew. According to
Rowe and Koetter, the marriage of the two led to the grotesqueness of
modernists’ social utopianism, which oversimplified urban planning policy and
design and made the architect both messiah and scientist — essentially what the
authors of Collage City intend to counter.

Rowe and Koetter call upon Levi-Strauss’s notion of the bricoleur versus the
engineer to argue that the knowledge systems of both architecture and urbanism
can never be complete. The idea of scientific precision is at odds with the
complexity of architecture and urbanism due to the endless variables at play.
The best one can do to respect the complexity is to recognise the urban fabric as
a collage, and to adjust planning policy and urban design accordingly.
Therefore, they advocate a return of the classical utopia as an object of
contemplation. Its mode of existence will be quiet and perhaps, even somewhat
ironical. The renewed classical utopia will not behave as a directly applicable political instrument but, rather, as an heuristic device. Envisioning future urban transformations can be useful if presented in a classical utopian way and dealt with according to the rules of the collage, ‘a method deriving its virtue from its irony’. However the collage is also ‘a technique for using things and simultaneously disbelieving in them’, and so

it is also a strategy which can allow utopia to be dealt with as image, to be dealt with in fragments without our having to accept it in toto, which is further to suggest that collage could even be a strategy which, by supporting the utopian illusion of changelessness and finality, might even fuel a reality of change, motion, action and history.\textsuperscript{27}

Martin’s utopia closely resembles Rowe’s \textit{classical utopia}. Yet in his discussion of utopia he chooses Derrida’s metaphor, a ‘specter’, that is, ‘a ghost that infuses everyday reality with other, possible worlds, rather than some otherworldly dream’.\textsuperscript{28} Due to the irony and the practical aspects in Rowe’s reading the collage is open-ended and not committed enough. By complementing ‘utopia’ with ‘realism’ Martin wants to overcome the mere propositional quality of the pragmatic position.\textsuperscript{29} It is clear that he has some ground to cover to reinstate the notion of utopia. If for the sake of argument we accept that Martin succeeds, then his main argument is compelling: pragmatism introduced an ambiguity into theory and accidentally dismissed the legitimacy of an academic attitude, precisely the attitude that was in a position to counter the vagueness of post-critical intentions.

\textbf{4.1.4. The Metaphysical Twist}

In a quest for what is a prerequisite to maintain the relevancy of architecture and its discourse, we have seen arguments for adding up smaller narratives, maintaining distance, reintroducing a debate on ideology, and reintroducing utopia as a tool. Even a plea to reinstate metaphysical thinking exists, and ironically this plea comes from the corner of neuroscience, where one hoped explaining the architect’s critical faculty without the need of metaphysics. Raymond Tallis, a clinical neuroscientist, philosopher, and cultural critic, militates against the popular enthusiasm towards his science.\textsuperscript{30} According to Tallis, metaphysics is a more proper place to unravel the enigma of creativity rather than the neurosciences:
[O]ne of the greatest problems for the claim of cognitive neuroscience to be a science (as opposed to a creed) is the lack of empirical evidence for the existence of any modules. Even the most widely accepted, Noam Chomsky’s famous ‘language acquisition device’, the inspiration for modular thinking, remains a mere construct.\textsuperscript{31}

Tallis highlights the danger that exists in the common appropriation of notions such as ‘brain processing’, ‘storing in memory’, or ‘brain location’. Too often one assumes these are factual accounts of scientifically proven concepts. For this reason, he contests the work of Zeki and Ramachandran, for example — because it is based on the same speculations. In his writing and public speeches, before sharing the larger philosophical challenges, Tallis repeatedly presents three crucial reservations that people should consider before building on neurological insights.

First, the exact knowledge of how brain signals work within a human brain is simply not available. Nobody has ever measured an electric potential difference along the surface of a neuron in a human brain. No instrument available can measure this precisely. So far, any knowledge about electrochemical behaviour along the surface of a neuron has been acquired by studying the neurons of a squid. The squid’s neurons are, at present, the only ones big enough to conduct scientific experiments on. Thus, what we know of human brain neurons we only know through analogy with the squid’s neurons.\textsuperscript{32}

Second, when we research brain activity we do not measure the signals directly. Instead, we measure the difference in blood flow that is associated with an increase in brain activity. There is a margin of error due to a minimum of difference that cannot be measured.\textsuperscript{33} Behaviour in the neurological circuitry is thus measured indirectly.

Third, what is measured is reverberating electrochemical waves. It is unclear where they originate from and where they die out. In fact, they are always actively present. Thus, if we speak of dying out, we mean the dying out of temporarily intensified activity. It is therefore difficult to talk about a neurological pathway that connects locations as if the signal travels from one location to another: ‘Given that nerve impulses never stand still, and have no clear point of arrival, the very notion of travelling to a location is problematic’.\textsuperscript{34} As a result, the notions of processing and storing are problematic as well.
If the only activity that we can record in the dark matter of the brain consists of electrochemical waves, Tallis argues, how can we then explain the concept-forming capacity of the brain? How can we go from incoming impulses to reverberating waves in the brain to knowing that the totality of the signals is to be understood, for example, as a ‘hat’? How can we understand the reverse of incoming signals, that is, the outward projection of qualities? Or, how do we recognise different unities? There are several theoretical approaches that work around these problems. According to Tallis, none of them qualify as a valid option.

Tallis’s reservations problematize one of the cornerstones of Mallgrave’s view, as discussed in the previous chapter: the concept-forming capacity of the brain is conceptualized as a complex pattern of oscillating brainwaves agitated by an impulse or a combination of impulses. Imagine a pulsating Quick Response Code (QR) that uniquely refers to a specific concept. This would imply that the equivalent of a QR-reader exists within the brain — some part of brain matter that is able to scan the complex brainwaves and interpret them. We would have to turn to the thalamus, according to Mallgrave, or the claustrum, as suggested by Koch. However, Tallis warns against making the mistake of anthropomorphising brain matter in the same way that it happens with qualities given to mirror neurons. We would have to imagine these brain sites as ‘the leader’s office where “the parliament of little men” would be called to order’.

Tallis sees two dangerous tendencies within emerging neuro-based ‘scientific’ arguments, which he terms ‘neuromania’ and ‘Darwinitis’. Both tendencies, he argues, are eating away at scientific rigour and result in bold reductive claims. By ‘neuromania’ he means that scientists choose to raise their research credibility by building on neurological insights, while, in fact, there is no crucial contribution of the neurosciences to the outcome of their research. With the term ‘Darwinitis’, Tallis contests the idea that everything is consolidated in brain matter and has the survival of the species as its main objective; we would then be only one step from discussing free will. If everything is determined by the neurological wiring of the brain, then we are our brain. Tallis sees an even greater danger: the return of a political scientism based on neurological assumptions. All this leads him to strongly contest the rejection of metaphysics:

*There is a bitter irony for me in this swing to biologism. It is now hard to remember that, in the later decades of the twentieth century, academics in the humanities questioned the very truth of science. Under the influence of writers such as the French maitre à penser Michel Foucault and the American*
philosopher Richard Rorty, humanist intellectuals were prone to assert that knowledge was inseparable from power.\textsuperscript{38}

According to Tallis, using brain sciences to explain human experiences and behaviour means using an inquiry device that has several blanks. He therefore argues that the field of metaphysics is the more appropriate realm to investigate complex phenomena such as creativity. Thus, Tallis says, even when intellectuals in the humanities shy away from it the question of metaphysics has to be put back on the table. Validating creative design steps in all its complexity can not be found in just brain matter. Tallis points out the limitations of the optimistic search for the constituents of creativity in brain matter alone. He calls for a return to metaphysical thinking that might close the gap between things observed on a microscopic level and their relationship to the non-physical world of our narrated lives.

Tallis’s argument renders Mallgrave’s position as a neat but nonetheless fragile construct. While Mallgrave’s framework helps organise thoughts in architecture, it becomes speculative as soon as it prescribes the so-called inborn critical faculty to bring order into the design process.
4.1.5. A Status Report On Architecture And Creativity

Pragmatism found its way to the centre of many post-critical turns in architecture. The critical had set an agenda for architectural theory to conflate autonomy with engagement. By trying to build on the critical legacy, post-critical theories also became entangled with this ambiguous ambition. The shift to the many things architecture can do may have temporarily pushed back the challenge to clarify architecture's theoretical underpinnings. If the critical and the post-critical offered temporary solutions but left the fundamental challenge unresolved, then what is the legitimate task of architecture?

The progressive division of labour reduced the architectural task. Architecture continues to turn to design and creativity as its unique province while at the same time claiming that it runs on a critical faculty with specific features, such as being corrective, proactive, and integral in its problem solving. The idea remains that intellectual autonomy combined with creative expertise guarantees 'good' architecture, leaving behind a residue of the unresolved problem: what constitutes good decision making for architects?

The projective framework was vulnerable, criticized for setting the bar too low. Mere projecting was no sufficient condition to guarantee criticality. And it was considered an anomaly not to project all it needed to add up to. The critiques ignored the initial raison d’être of this framework: to bring theory in line with practice. Theory so far insufficiently acknowledged changing notions of ‘form’ (architecture) and ‘culture’ (architecture being perceived or consumed), argued by Somol and Whiting, with the metaphor the ‘Doppler Effect’. Both architecture and its reception were no singular phenomena, but heterogeneous constructions that constantly morph. Architectural practice at the turn of the century had produced magnificent examples that in several ways were ‘autonomous’ interventions causing strong ripple effects in ‘culture’ at large. The agenda of the projective was to express this phenomenon in theory, primarily relating theory to practice, not the other way round. Therefore, the agenda did not need to justify what it all would add up to, for the proof already existed. The projective did a fine job of capturing this historical phenomenon of theory.

The real challenge lay in applying this projective evaluation system as an architectural design theory — the legitimation of new architectural creative production and its unique and indispensable quality. With the projective, as a prescriptive design theory, the assumption is that if the architect manages to catch on to some way in which architecture and its reception change, then
express this change and even project a possible deviation (that is, a 'better' future), then the architect and his architecture remained critical. Arguably, the problem only becomes a real problem when descriptive theory becomes prescriptive — then the twists, discussed in this chapter, reveal that something more is needed to validate this prescriptive capacity: ideo-aesthetical debates, politico-ethical discussion, utopian realism, and metaphysical thinking.

The same counts for the parametric turn. If its theory is approached as an attempt to historicize the last forty years in architecture, it provides an ingenious reading. In that sense, it is no coincidence that the juxtaposition of the parametric with the projective revealed a strong similarity. They both aimed to capture the historic relevancy of more or less the same intellectual heritage. But, it also accounts for how confusion emerges as soon as the parametric framework is proposed as a future theory for guiding architectural design. Many dogmas about formal restrictions and the forward drive, in fact, needed to be declared to account for a parametric creative theory.

Arguably, both turns also built upon a specific ideological preset of criticality — namely, the symbolic self of the architect as one of society's natural authorities. Žižek’s reflection suggested that this might have been the true underlying impetus of the many staged oppositions during the critical episode in architecture. Maintaining a constant antagonistic struggle of traditionalist versus modernist views signified the shared wish of rehabilitating the architect in society. In Žižek’s argument, as long as the wish is not granted, one needs to assume that the architect has a critical faculty that comes naturally. It is precisely the unspoken idea of a natural critical faculty that gives meaning to a projective or parametric architectural design theory.

The neuroscientific turn discovered an untapped area that could advance the architectural discourse in arguing its unique creative expertise. Neurobiology was about to deliver proof of the fact that the architect's creativity runs on an inborn critical faculty. But the 'about to' turned out to be crucial. The hope for a proof for a natural critical faculty installs a leap of faith in architectural practice that is similar to the one needed in the projective or parametric framework. The record Mallgrave makes on the historical neuroscientific progress and how it affects the way we understand our actions in architecture is groundbreaking. However, as prescriptive guidance his theoretical reflection runs into the same aporia as the other turns.
From a practice perspective the body of post-critical theories reads as a palimpsest of theoretical frameworks possessing similar assumptions about creativity. The missing clarity or consensus about creativity diffuses the theoretical apparatus, which is a crucial inconvenience when theory foregrounds creativity as expertise. In architecture, theory has a peculiar bond with practice. As mentioned before, this bond goes back to Vitruvius. However, at least since the architectural turn of the 1970s, the explicit quest for architecture’s unique province changed the Vitruvian binary code into a ternary proposition: practice, theory, and the skill unique to the architect, which is a form of creativity that has the natural quality of being critical.

The reason a unique skill is differentiated as a third constituent (and not simply listed as part of practice) is precisely to foreground the potential selling point inherent in the practitioner and outline an exclusive field of expertise. This presumes that in a specialized work environment the unique skill is the sole province of the designing architect. All other skills are shared with other experts (the model maker, the graphic designer, the drawing expert, the building engineer, and so on). The unique skill is often summoned for a particular drive: to provide opportunity for societal change. Neutelings, for example, proposed knowledge (theory), skill (practice) and evocation (the unique skill) as the three constituents of the architectural profession. Evocation had the power to make way for the unthought and the unexpected (see chapter two). Others, too, presented one particular driving skill: expressing an essential anxiety through an expertise on form (Eisenman), making rigorously innovated space (Schumacher), making a beautiful built environment that builds upon and confirms the values of tradition (Krier), giving the practice of architecture an agency by which to deal with expertise beyond architecture (Whiting), and so on.

The problem is not which description is the most accurate one. Again, the real challenge is to account for the assumptions about the intellectual order and the deduced ‘critical’ qualities. This chapter’s analytical twists challenge the idea that architects are ‘programmed’ to be critical, or that, paradoxically, theory is somehow needed to properly evoke criticality (the leap of faith concealed in the a priori critical condition would, in fact, bypass the need for theory). It is not just a matter of adding the missing elements to one of the applied theories in chapter three. In the end creativity would remain an enigma.

One of the residues of the critical framework in contemporary design theory is the assumption that the architect’s creative ability also passes as an agency
with regenerating qualities. The architect is supposed to have the ability to spot crucial flaws and cure them with his architecture, or if that is not possible, then expose them. This critical residue implies that the design expert knows intuitively what needs to be invented. It is more likely that we do not fully believe the ‘knowing’ part, but are more likely to deal with design proposals as expert’s opinions that require validation from others. The pursuit of solidarity has to compensate any doubt about the expert’s ‘opinion’. But, in fact, what happens is that the a priori assumed criticality is then expected to emerge from solidarity without further questions (or irony).

When architecture’s design theories have to account for the astute quality of its unique skills, it seems to meet with aporia. Is the assumed ‘critical faculty’ of architects truly critical? If we want to avoid a petitio principii we would have to further leave the assumed critical faculty out of the equation. Eventually, this is what the analytical twists build up to: are we so lost if neither creativity nor solidarity are critical by nature? Can we replace the leap of faith with an explicit discourse on ethics, aesthetics, ideology and politics? And how would it affect architectural design theory? A precondition for an unbiased theoreztization of creativity is a theory of creativity that would be freed from the a priori and obligatory critical faculty.
4.2. An Interim Model of Creativity

After meeting the aporia we have to rearrange the pieces of the puzzle. In a quest for a generic framework to discuss creativity, I will revisit knowledge fields, not to appropriate the entire conceptual frameworks again, but rather to sharpen our terminology.

Scientific domains such as biosemiotics, neuropsychology, and artificial intelligence currently use the emergent model (see 3.2.3., ‘The neuroscientific turn’) to conceptualize creativity. They provide specific variables that constitute or influence a creative act. Nevertheless, some challenges remain. How can these insights be translated to the realm of architecture? And, the emergent model insufficiently (that is, without assuming a critical faculty) explains how to conceptualize complex external influences. For example, how processes of socialization and conditioning translate into local brain behaviour is at present scientifically unaccounted for. I propose a combination of insights to cope with the two remaining challenges before drawing conclusions on the assumed qualities of any unique selling proposition.

A contemporary biosemiotics triadic model is used to model the general behaviour of a designer making design steps.42 A short revisit of neurosciences allows us to allocate decisions about basic architectural elements. Through a specific angle of social theory we can pinpoint where in the triadic model intentions (the more complex influences) resides.

Through a generic triadic model and its terminology, we can discuss the architect’s creative process. The triadic model is not a designer’s tool. It is a theoretical reading glass by which to delineate the constraints of creativity. With constraints and interferences on the table, we can subject architectural creativity to an ethical discussion. When all creativity axioms are lifted, we are able to work with the inclusive collage of theories as the best justification available to serve practice.

4.2.1. Models of Creativity

A triadic Model to Discuss Creativity

The American biosemiotician Victoria Alexander asserts that creativity and artistic selfhood are emergent phenomena. Biosemiotics aims to provide generic theory that has a cross-disciplinary application. Unlike Mallgrave, Victoria Alexander does not study creativity to become a better creator, but rather to
understand what we already do: ‘To better understand creativity (poietics)’, she argues, we need ‘to supplement and enhance our understanding of already-established habit (semiotics)’. In the previous chapter we have discussed architecture’s history with semiotics. What is different in this case is that we are not exploring biosemiotics to ‘understand all buildings better’, as was the case in architecture’s first semiotic turn, but to better understand creativity.

The interest in the behavioural aspect of decision making relates to a Peircian tradition. Recent semiotic work focuses on improving Peirce’s original triadic model. Alexander’s model [fig. 41] incorporates much of the proposed improvements. According to Alexander, one basic constant exist in biosemiotics: the main objective of any system is a form of self-preservation or self-confirmation. The latter is to be understood in the widest sense of surviving. For example, if one responded to a trace in the sand by recognising it as a footprint, the ‘objective’ is to reaffirm one’s conceptual notion of a footprint. For Alexander, the objective is always to reinforce a habit of reading signs in a specific way: ‘This makes the triadic semiosis more objective (to call upon the sense of the adjective form) than the dyadic semiosis of, say Ferdinand Saussure [sic], whose semiosis is inescapably subjective because it is not grounded in purpose, which either confirms the response or not’.

A common particularity in the semiotic conceptual framework is that a sign stands for an object that in itself can also be understood as a sign of another object. Alexander’s example of a wolf reading signs of the scent of a rabbit shows how the immediate object, the idea of a rabbit, relates to a deeper dynamic objective, namely the survival of the wolf. To survive, the wolf needs to eat. Eating a rabbit fulfils that need. Both the rabbit and the scent of the rabbit relate to the need. Whether the scent really belongs to a rabbit or not will not affect the behaviour of the wolf. He will follow the trail, which is represented with a progressive triadic model. Within this model Alexander defines ‘interpretation’

as a response to something as if it were a sign, but whose semiotic objective does not, in fact, exist. If the response-as-interpretation turns out to be beneficial for the system after all, there is biopoiesis. When the response is not ‘interpretive’, but self-confirming in the usual way, there is biosemiosis.

Alexander argues that due to the self-preserving or self-confirming objective, response is habitual and thus semiotic. To have poiesis — a radical novelty for the system — one has to deliberately, or else by mistake, go against the habitual
association. Only when the non-habitual association turns out to be beneficial, and thus purposeful to the system, is the response poietic. This argument has strong implications for the concept of an autonomous, self-describing, and self-reproducing system: consistently following habitual associations means repeatedly running through complete semiotic cycles to confirm and maintain the system. Hence, a system is autonomous only if it is semantically closed — running cycles of self-confirmation. Creative behaviour, understood as purely poietic, falls outside this semantically closed or autonomous system.\textsuperscript{50} These definitions allow us to better discriminate between invention and convention.\textsuperscript{51} With Alexander the model is grounded in purpose and that purpose is defined as the reconfirmation of habits. In biosemiotics the ‘habit’ concept is abstracted. There is no distinction between a ‘good’ and a ‘bad’ habit.\textsuperscript{52} As a result any ethical evaluation of purpose is excluded.

For the way we relate to the outside world, Alexander refers to the relation between the philosophical notions the ‘self’ and the ‘other’. She claims that we have no concept of the latter.\textsuperscript{53} If, fundamentally, the ‘other’ cannot be seen as ‘not-self’, then we cannot learn about the ‘other’ through the negative of the ‘self’, that is, through self-negating; we can only learn about the other through notions with which we are familiar. Thus, a concept of the other is formed by mistaken notions that are familiar to the self. This implies that learning occurs through self-mistaking and not self-negating. If I translate this implication to a designing architect, then the architect can resist habitual associations only as far as a deliberately mistaken association remains somehow familiar. For example, a Rorschach image makes sense as soon as the beholder sees in it something recognisable.\textsuperscript{54} Every step of a series of associations must then contain something familiar. By implication, a radically new idea can only be reached through a trail of connected familiarities. Ergo, familiar pieces of this radically new idea must already exist in the mind of the designing architect.

A designer is often intentionally trying to be creative (which the wolf in Alexander’s example is not). In fact, any designer is familiar with this deliberate ‘self-mistaking’. For example, architects are commonly advised to turn their drawing or model literally upside down when they find themselves stuck in the design process. When this helps, it can be considered a textbook poietic act. Training oneself in such techniques can be part of the designer’s task. Moreover, to resist a habitual association in itself can become a habit. Designers know they are drifting when they deliberately go looking for non-habitual associations. They know that the pathway to a possible poietic act might turn out extremely barren.
Alexander provides a triadic model which postulates a mechanism of self-mistaking (and not self-negating) to explain creativity. Her approach binds creativity with habitual behaviour and, therefore, installs a causality between invention and convention. Invention is only possible in the realm of conventions. For Alexander, self-referentiality and poietic behaviour are mutually exclusive. Thus, if self-referentiality is a fundamental concept in being creative, then paradoxically any assumption that creativity would lead to something unprecedentedly new is based on a false premise. I am inspired by Alexander’s insights into semiosis (the naming or re-creating of things) versus poiesis (the making or creating of things), because these insights affect how we conceive terms such as interpretation, free association, evocation, invention, and creativity. If the idea of newness is over-emphased when using these terms, we risk forgetting the causal relation with habitual behaviour.  

If I want to use Alexander’s model — based on the notion of self-mistaking — to discuss the architectural design process I must identify what counts as ‘self’ and ‘not-self’. In an architectural design setting, the self would have to refer to the whole of a designer and his ideas about architectural elements. The elements within the whole then consist of their characteristics (form, material, shape, pattern, texture, composition, sensation, reflection, and so on), and their meaning (symbolic, representational, allegoric, metaphoric, evocative, etcetera). When a designer studies ‘what an architectural thing wants to be’, he considers the combination of elements and meanings. The self then refers to the designer, his ideas about architectural elements, and their meaning.  

In my case, Alexander’s model serves to reflect on habitual and non-habitual behaviour of complex phenomena such as the creative process of a designing architect. If the model is a convincing way to explain the semiotic cycle for simple elements, it should also be sufficient to get an idea about the semiotic mechanism for the more complex, deeper dynamic objectives, the possible meaning of the architectural elements and the whole of elements. The model, however, does not serve to prove that certain objectives are guaranteed. Thus if architects want to describe their unique expertise as making space with ‘critical’ qualities (being proactive, problem solving, catalyzing, corrective, topical, integral, meaningful, evocative, and so on), there is no way the model can prove that these qualities have been or will be achieved. The model describes and visualizes semiotic mechanisms but offers no guiding principles for a guaranteed acquisition of deeper dynamic objectives.
Therefore, before applying this interim model to architectural design theory, I want to expand it with insights from other fields to discuss the elements and complex phenomena more specifically. First, we will use the emergent brain model to see on how the designer’s brain works with the elements. For the more complex phenomena of meaning, it remains difficult to find sufficient argumentation. For example, neuropsychology currently does not provide conclusive insight on the neurophysiological correlate of social influences. Therefore, we will expand the model through input from the social sciences.

**Creativity as an Emergent Phenomenon**

To use insights from the emergent brain model we cannot simply begin with Mallgrave or Zeki, because Mallgrave wants to prove the critical faculty and Zeki already interprets brain matter behaviour by means of positively assumed drivers. These authors short-circuited the whole idea of a neutral model to discuss creativity by assuming that creativity always works towards the good. Therefore, we return to an early protagonist, Steven Johnson, who conceptualized intelligence by means of the emergent brain model, arguably a more neutral model when considered teleologically.

Johnson defined emergence as the phenomenon of a self-organising complex that shows a higher level of intelligence than its constituent parts, or agents. He argued in favour of the emergent model by reflecting on patterns in brainwaves (which he compared to patterns formed by ant colonies, organic growing cities, and other complex organisms). Electrochemical impulses in the brain are transmitted through a network of nerve cells or neurons. Each neuron is interconnected with a thousand other neurons by axons and synapses. A flash of brain activity triggers an array of neural circuits. It is not an electrochemical signal that travels a linear neural pathway, but a blast of signals simultaneously firing off in all directions. Because each neuron that receives a signal goes through the same firing-off process, which then goes through all its other interconnections, chances are that certain circuits will reverberate. When this happens the signal grows stronger and the circuit is likely to turn into a mental pathway.

With his references to Ramachandran and others, Johnson uses sources similar to those of Zeki and Mallgrave. ‘Associations’ are visualised as pathways that link certain parts of the brain. If we associate observation ‘A’ with notion ‘B’ we assume that on a cellular level there is a strong circuit that links the parts where one processes ‘A’ and where one has ‘B’ stored. We know that prior to this link observation ‘A’ would initiate an omni-directional flash of brain activity
that appears to be a random scouting for stronger connections. This process takes time because neurons require a ‘reset time’. Hence, the time needed to process information depends on the complexity of that information. If that information involves the recognition of a pattern, such as remembering a face or creating a metaphor, then the advantage of 100 billion neurons all working at the same time will result in a minimum of process time needed. However, if that information is a complex problem that needs to be solved serially, the necessary processing time will increase dramatically. That is why it is common to assume that we are more skilled at recognising patterns than in thinking through logical combinations. As we saw with Zeki and Mallgrave, some people are inclined to conclude that the brain ‘prefers’ patterns over complex problems, straight lines over irregular ones, or colour over motion, simply because it is quicker to process, while others argue the opposite — that the brain is ‘pleased’ to struggle with complex problems because this is a way to achieve synaptic growth.

The self — the designer and his ideas about elements and their meaning — is associated with modules and in the process, parts in the brain become involved. A habitual connection to the self would have to comprise a combination of strong neural pathways. The more complex phenomena such as meaning and external influences are assumed to operate in a similar way, but then as a more complex pattern of oscillating brainwaves. Impulses are conceptualized as brainflashes, random connections, and strong neural pathways.

Through Johnson’s description of emergence we can picture our brain at work when we are designing and associating a given ‘A’ with the notion ‘B’. Be that as it may, what we have not gained is an understanding of why this particular pathway is formed from this random flash and not another one. Associations are random and not ‘critical’ as implicitly assumed in many applied theories. What determines or influences this circuitry? What causes the associations we make while pondering design issues? And what constrains these associations?

Consider, for example, hyper-connectivity, the notion Mallgrave embraces as the key constituent of a creative brain. If we picture hyper-connected neural pathways as a dense network of deltaic rivers, and imagine that the water in them represents the oscillating brainwaves, then when the amount of water flowing through the river system exceeds a certain threshold, the rivers deepen, the nodes grow in size, and even the water traces new connecting paths. The deltaic rivers would morph from one state into another. Within this
phenomenon it is difficult to imagine that a creative force ‘willed’ it, let alone that the new state ‘approves’ of itself as a good alternative. Brainwaves and synaptic growth alone are insufficient to provide a neurological account of how creativity entails value judgements.

We have seen that Mallgrave adopts the idea of mirror neurons that would steer the omni-directional flash in a pool of 100 billion neurons towards the ‘right’ association. Some question whether mirror neurons can truly have such capacity, and even if they do, there is no guarantee that mirror neurons pick up the ‘right’ sensation; however, I prefer not to confirm this particular leap of faith. The emergent brain model provides arguments for how a designer’s brain acts in moments of creativity. Hyper-connectivity, ambiguity, scanning for constants and modules, using metaphorical stand-in solutions — all argue in favour of random associations without a natural critical order. Simple forms, modules, patterns, and repetition seem to be confirmed as essential characteristics in the associative process.

**What Constrains Imagination?**

We can embrace notions such as the complex intelligence that Kelly suggests. We can welcome the useful analogies of emergence as elaborated by Johnson. The synthetic brain concepts of Semir Zeki are powerful concepts, and the eureka brain flash of Kounios provides a useful perspective on sudden insight. Synaptic growth, as described by Hebb, helps in understanding the process of learning. Ramachandran’s notion of hyperconnectivity is an enlightening metaphor for creativity, and, Alexander’s interpretation of creativity as a self-referential mistake that turns out to be beneficial to the system helps to show the importance of established habits. All these notions give us a better grasp of the notion of creativity — but not of creativity itself, nor its drivers. Thus, while we can better discuss the creative brain, we still have not found proof of what there is about creativity that would count as unique for architects, because the uniqueness resides in the acclaimed ‘critical’ qualities of designed spaces, forms, or buildings. To shed light on where in the model the critical qualities, the questions of appropriateness, or ethical value would interfere we turn to the other already solicited framework of social theories.

**4.2.2. On The Ethical Component of Creativity**

Alexander’s and Johnson’s models are ethically neutral. They comply with my idea of a creative moment as a series of non-critical associations. Nevertheless, the model I aim to construct should explain how to bring order into the design
process, or how to introduce an ethical choice. We have seen Žižek using Lacan to discuss social antagonisms, even the architectural interstitial space. In particular he uses Lacan’s model to name all aspects of the self [fig. 42]: the ‘real’, the ‘symbolic’, and the ‘imaginary’. The real exists without any ordering conceptualization. It is a harmonic state without desire or deficiency. The notion of the symbolic and the imaginary changes this. Through processes of socialisation the symbolic installs a potential difference, or displacement, which at the same time introduces a deficiency and a desire to overcome the displacement. The imaginary aspect of the self is argued to consist of fixations, temporarily fixed ideas that exist in the form of metaphors. What if we were to use Žižek’s reflection on Lacan to introduce an ethical component into the model?

The ethically neutral models of Alexander and Johnson, as we have seen sofar, align with the setting described by Žižek and Lacan as the ‘real’ unordered associations. If we apply the dynamics introduced by the symbolic and the imaginary, the model would no longer be grounded in a generic purpose of reconfirming habits, but in the displacement between the symbolic, the imaginary, and the self. This transitional phase Lacan calls the *metonymic displacement* in between two *metaphorical states.* I would argue that whatever happens in the design process, critical or non-critical, happens during metonymic displacements. Habitual behaviour then has something to do with displacement rather than being a natural critical faculty. Personal desires and collective drivers are appointed as the reason for metonymic displacement and new metaphorisations and thus ultimately as constituents of creativity.

In this context, one has to remember that within Rorty’s new pragmatic approach an ambiguous relationship exists between a private ethic of self-creation and the public ethic of mutual accommodation. Idiosyncratic desires do not necessarily serve the greater good and pursuing mutual accommodation does not guarantee the best solution for any particular opportunity. Thus, if we identify personal desires and collective drivers as that which steers creativity, then we can no longer assume that the creative faculty brings some natural order to the design process, or that the creative faculty has a natural melioristic quality. These things can only be achieved by subjecting the desires and drivers to ethical debates.

Around a design table you often hear expressions such as ‘coming upon something new’, ‘being creative, inventive or innovative’, ‘acting poetically’, or ‘looking for something radically novel’. When dealing with contingent design
decisions these expressions are a green light to begin a meticulous screening of non-habitual associations for potentially more fruitful applications. It is the start of a time-consuming process of freely associating and self-mistaking, a quest for familiar associations that may lead to something new, something which has not yet been made operative. The overall process of metaphorisation consists of a series of metonymically displaced associations until a more mature metaphorical state is considered fit for implementation.

In a quest for the critical qualities of an architect's creative interventions we must investigate whether the metonymic displacements during a design process correspond to the ‘right’ public drivers. While these displacements follow a combination of private desires and public drivers of all sorts, we must divide a creative process in metonymic moments and discuss the relevancy and appropriateness of the drivers and desires that interfere in these particular moments.

4.2.3. Architecture and Creativity

The relevance of these reflections concerning creativity and architectural design theory is borne out in the body of post-critical theories discussed in the previous chapter. These theories pay only limited attention to legitimizing the drivers of creativity, because they operate on the implicit assumption that these drivers automatically point towards a rational, purposeful and just design solution. According to these theories, a design that follows their set of rules or principles will be meaningful, that is having a critical, melioristic quality — somehow improving the world through its intervention. In this view, the failure of a project does not signify the ineffectiveness of the design theory, but the failure of the architect. This failure is then, again implicitly, attributed to a lack of knowledge, awareness, or talent.

The voices discussed in this chapter (Westfall, Tallis, Martin, Moravánszky, Leach, and Žižek) implore us to stop beating around the bush and confront hidden assumptions about creativity and criticality, by pointing to the gap between the ideal of a natural critical faculty and reality. The gap between the ideal designer and the real designer is precisely the origin of the diffusion of meaning. The ‘applied’ theories remain ambiguous until the assumptions intended to close the gap are made explicit. Catchwords such as talent, genius, empathy, or tacit knowledge are not sufficient to cover this problem. For this reason, I turned to theories about creativity developed in other fields — psychology, social sciences, cognitive sciences, biosemiotics, and complexity
theory — to arrive at a model that discusses the constituents of creative acts more explicitly.

In my model, creativity occurs in the form of associations, concept formations, and metaphorisations. In this model, too, there is no reason to assume that rationality, purpose, logic — the critical — are naturally embedded. Non-narrated creativity is random. We can only establish an ethical appreciation vis a vis our narrated lives. There is no reason to assume criticality simply exists. At best, it emerges if we rigorously question *metonymic displacements* in the creative process and discuss the appropriateness of personal desires and collective drivers.

Architecture happens also without design theories, but then it cannot be guaranteed to be critical and it cannot be claimed as unique expertise. Prescriptive theory that intends to provide direct solutions — or positive feedback — can only provide instruction on conventional design decisions — already established habits. By implication, guidance toward innovating design ideas can only be given by reflecting upon what constrains creativity. Thus, an essential part of theory should provide negative feedback and clearly address what not to do and which conventions — which habitual design behaviour — should be debated, both on an individual level as well as on the level of the discipline. Architectural design theory could help to evoke criticality, not by describing mere conventions, such as the habit to look for metaphors, but by continuously approaching the conventions with irony, such as why a particular design habit might be appropriate. Theory's focus on conventions has to be turned towards the habitual design behaviour that we want to put up for debate. Here we could extend Riedijk's provocative statement, 'we only draw what needs to be invented', with a theoretical equivalent: 'we theorize which design behaviour should be invented'.

**The Interim Model Applied To Architectural Theory**

Two diagrams that problematize the notion of creativity and solidarity, based upon Whiting's conceptualization of the public sphere [fig. 36 and 43], reflect aspects of how creativity and solidarity are defined in contemporary architectural design theory. In the progressive image creativity is presented as a solid faculty with an assumed critical kernel. The contingently closed construct (CCC) consists of a plurality of smaller narratives and solidarities. According to this picture, both the whole of solidarities and the critical kernel (CK) guarantee legitimate decision making. Pluralism is acceptable because we assume that within creativity there is a kernel that guarantees its key features:
corrective, instrumental, integral, proactive. Architectural design theory (ADT) helps to evoke the critical faculty during the process and vouches for the criticality of the final project. The private sphere can potentially become part of a collective or form its own public sphere, the fetish group.

A conservative version of the image copes with the fact that no proof for the assumed critical kernel exists. Maybe a critical kernel to creativity exists, maybe it does not. ‘Free’ associations are metaphoric, ambiguous, idiosyncratic, and a hybrid of experienced bits and pieces. How designers chose associations has to do with their narrated lives and their accommodation of others. For the conservative picture mere accommodation remains too vague for guaranteeing a critical quality of architecture. Therefore, the selection is subjected to a continuous debate on ethics. Only then can creativity, with its unidentified kernel, freely bounce between associations and strict ethical boundaries. Architectural design theory works in an indirect way, by discussing which conventionalized behaviour we put up for debate. The way the private sphere penetrates the public sphere is indirectly subjected to ethical debate.

Both diagrams retain what we have called the dreaming phase (in chapter one) in the design process, for its dream-like quality, its idiosyncratic sideways connections merging similarities across boundaries. But, I am convinced that the conservative picture is the better option for obtaining the most productive dreaming phase. Most probably, an architectural design theory that adopts a rhetoric of constraint, for instance by imposing design conventions, might hinder the dream-like quality more than it hopes to optimize it.

Rorty’s reading of Freud also suggests a shift in the balance towards the conservative image. Here, all idiosyncratic desires and beliefs are considered as equally valid drivers. No proof is required of a central faculty called ‘critical’ that mediates between these drivers and a just society. The mediating faculty might be nothing more than the one formed by processes of socialization. According to Rorty, Freud democratized all possible beliefs and desires by claiming that they are not constituted in reason. All is contingent. Reason does not signify them. By implication, some drivers can be profoundly uncritical. We will wait and see whether the kernel of creativity equals natural criticality. And thus, instead of hoping that this mediating faculty has some kind of critical component, we should subject it to ethical debates.
Charles Sanders Peirce’s semiotic triadic model compared with Victoria N. Alexander’s adaptation and Lacan’s triadic model that constitutes the Self.

Lacan: the individual as a process the linear variant of the triadic model.

Lacan: the individual is continuously reaching for a new self-realisation. The Self is understood as a process of metonymic displacements from one metaphoric state to another.

Author: a designer coping with contingent design decisions - based on Lacan’s model.

Author: a design idea that matures during a design process can also be understood as a process of metonymic displacements from one metaphoric state to another.
Sarah Whiting's sketch of the public and private sphere interacting (fig. 36 repeated) on which the author based two pictures to problematize the notions of creativity and solidarity.

The progressive picture illustration by the author

The conservative picture illustration by the author
CHAPTER 4 ENDNOTES


2 Ibid., 47.

3 Andrew Leach, "Inventory: Architecture Culture and the Question of Knowledge: Doctoral Research Today," ibid. (Spring 2012).

4 Leach thinks this debate confuses ‘an institutional agenda for an intellectual agenda and questions of media for questions of method and epistemology’. It does not matter whether you use writing or designing as your research media. The knowledge quality you are aiming for should be the same for any institute. The only condition Leach rehearses is that the research should be conducted on the scale of the PhD and the topic should be within the domain of expertise of the supervising institution.

5 Ibid., 9.


8 Ibid., 47.

9 I singled out these two articles because they also problematise the issue of theory in relation to the projective or the critical. To inquire into the role of theory in general I refer to anthologies of for example Charles Jencks, Harry Francis Mallgrave, Michael Hays, or Hanno-Walter Kruft.

10 Ibid., 53.


12 I owe this line of reasoning to Žižek. In Living In the End Times, he develops an understanding of ‘ideology’ as pursued here. In particular on the matter of the excess as a marker of a deeper drive, the argument leans on Žižek’s reasoning on false oppositions such as, for example, his reflection on market-freedom-democracy versus fundamentalist-terrorist-totalitarianism. Žižek, Living in the End Times, 152.

13 "Architectural Parallax: Spandrels and Other Phenomena of Class Struggle". unpaginated. Class struggles aside, a strong parallel can be seen in this argument with Bart Verschaffel’s ‘Myth of the Street’ and his hesitation towards the popular interpretation of NRA’s cavity in the Musseum At the Stream in Antwerp.

Žižek, "Architectural Parallax: Spandrels and Other Phenomena of Class Struggle", unpaginated.

In the introduction of his talk he explains to have a limited knowledge of architecture that is constrained to a ‘couple of idiosyncratic data’. Also Lahiji Nadir, in his reflection on Žižek’s talk, reports on a personal encounter in which Žižek said not to know anything about architecture. Lahiji, "Lecture Transcript: In Interstitial Space: Žizek on "Architectural Parallax"," 19. Obviously, one does not have to be an experienced architect to formulate a legitimate critique such as Žižek’s.

Besides their personal ideological debates, The Krier versus Eisenman dialectic can also be associated with the larger antagonistic forces of new traditionalism versus pro-modernist movements. At the American East-coast universities, for example, this dialectic took the guise of ‘White versus Grey’, with the ‘Whites’ being the pro-modernists and the ‘Grays’ being the neo-traditional post-modernists. The ‘Whites’, also referred to as the ‘New York Five’, were Peter Eisenman, Michael Graves, Charles Gwathmey, John Hejduk and Richard Meier. The ‘Grays’ were Robert A.M. Stern, Charles Moore, Allan Greenberg, Romaldo Giugola and Jaquelin T. Robertson (with whom Eisenman later in 1980 would start his first full-time architectural practice). In 1973 the ‘Whites’ met with direct opposition from the ‘Grays’ in an organized rebuttal of the book Five Architects, by Robert A.M. Stern for Architectural Forum, entitled Five on Five. The opposition was for a large part directed against Colin Rowe picturing the ‘Whites’ as the true heirs of Le Corbusier’s legacy. As Mallgrave recalls it: ‘Five Architects, and particularly its introductory essay by Colin Rowe, the intellectual guru of the group whose work is presented therein, contains an implicit reply to Venturi’s work and especially to Vincent Scully’s introduction to “Complexity and Contradiction”. In that introduction, Scully made claims not only for the book in relationship to Le Corbusier’s “Towards a New Architecture” but also, by implication, for Venturi’s position as logical complement to that of Le Corbusier as form-giver’. Harry Francis Mallgrave, Architectural Theory, Volume Ii: An Anthology from 1871-2005, 2 vols., vol. 2 (Malden, MA: Blackwell Pub., 2008), 402.

The respectful position’ in itself may well have never existed. Nevertheless, the desire to restore it did exist and might still exist today.

Žižek uses Kant’s notion more often to condemn a decline of academic autonomy, as for example in the afterword of his book: ‘In the European Union, the ongoing Bologna reform of higher education amounts to a concerted attack on what Kant called the “public use of reason”. The underlying idea of this reform, the urge to subordinate higher education to the needs of society, to make it useful in relation to the concrete problems we are facing, aims at producing expert opinions meant to resolve the problems posed by social agents. What disappears here is the true task of thought: not only offering solutions to the problems posed by ‘society’ (the state and capital), but to reflect on the very form these ‘problems’ take, to re-formulate them, to discern a problem in the very way we perceive such problems. The reduction of higher education to the task of producing socially useful expert knowledge is the paradigmatic form of the “private use of reasons” in contemporary global capitalism’. Žižek, Living in the End Times, 411.
As examples of social utopianism of modernists Rowe and Koetter recall: ‘Frank Lloyd Wright’s “In this way I saw the architect as the saviour of the culture of modern American society, saviour now as for all civilisations heretofore” and Le Corbusier’s “On the day when contemporary society, at present so sick, has become properly aware that only architecture and city planning can provide the exact prescription for its ills, then the day will have come for the great machine to be put in motion”’. Rowe and Koetter, Collage City, 13.

During his career as a doctor he had a special interest in neurological diseases such as stroke and epilepsy. Later in his career he was a member of various advisory boards serving UK state policies. He combined a respectful academic career with an outstanding publication record. He retired in 2006 as Emeritus Professor of Geriatric Medicine at the University of Manchester. The following quote underlines his skepticism towards the rejection of metaphysics: ‘The capitulation to scientism — the view that the last word on what we are is to be spoken by natural science — is not new: […] For many in the analytic tradition, science was the only source of knowledge and understanding. The role of the philosopher, apart from that of providing a conceptual cleaning-up operation, was to be the grateful recipient of the light cast by science. The rejection of metaphysics was the most striking manifestation of this humility, which, at times bordered on self-contempt’. Tallis, Aping Mankind: Neuromania, Darwinitis and the Misrepresentation of Humanity, 343.

The state of affairs as sketch here by Tallis dates from before 2012, when his book was published, and is accepted by the author without further inquiry.
Many millions of neurons have to be activated for a change in blood flow to be detected. Small groups of neurons whose activity elicits little change in blood flow, or a modest network of neurons linking large regions, or neurons acting more efficiently than others, may be of great importance but would be under-represented in the scan or not represented at all. In short, pretty well everything relevant to a given response at a given time might be invisible on an fMRI scan'.

Ibid., 76.

Ibid., 101.

Christoph Koch is one of the main references for Mallgrave on consciousness.

Ibid., 120.

Measuring neurological correlations with a limited fMRI scan does not warrant calling the discovered correlation ‘the cause’ of something. Take, for example, the scans that compare the pain you feel after stubbing your toe and the pain you feel in the case of social exclusion. The same areas in the brain light up. One can either conclude that the feelings are basically the same or that the fMRI scan fails to demonstrate fundamental differences. Thus, if Zeki suggests that the neurological correlation is causing us to pursue beauty he is, according to Tallis, making a bold and dangerous claim; dangerous because the next step is to start discussing moral behaviour on the basis of neurological ‘proof’. See: Ibid., 80.

Ibid., 62.

The preposition (the theorist-architect, the educator-architect, the historian-architect, the builder-architect, the critic-architect, the designer-architect) is crucial to discuss the unique selling proposition. One could imagine that someone who applies for a teaching position in, for example, management (or theory) requires outstanding knowledge and skills in that particular area, which would make it specifically his or her unique selling proposition. Again this dissertation is written towards the designing-architect.

Žižek has a compelling argument on the matter. The fact that we call it the expert’s opinion has to do with the underlying ideology: the denial of meta-narratives and universal knowledge. As a result, the idea that the expert ‘knows’ and the dilettante has ‘opinions’ no longer holds.

In fact, one could argue that denying creativity to be critical beforehand is as biased as assuming creativity to be a priori critical. But ‘not assuming’ is not the same as ‘denying’, which makes ‘not assuming’ criticality beforehand the lesser of two evils.

I want to make a distinction with a tradition of theoretical models that reflect on learning cycles, such as the work of the American educational theorist David Kolb. His Experiential Learning Model consist of four elements: experience, observation and reflection, formation of abstract concepts, and testing the new concepts. This model is based on the work of the American pragmatist and educational reformer, John Dewey, and the Swiss cognitive psychologist, Jean Piaget. The four phase in the learning cycle take the guise of: the actor, the dreamer, the thinker, and the decision-maker. There is a parallel with the thinking-strategy of Walt Disney, as mentioned in chapter one, that consist of the dreamer, the engineer and the critic. The triadic model that is pursued here aims to primarily inquire into the ‘dreamer’ or the dreaming phase.
Victoria Alexander's 2012 paper is not made in relation to architectural design theory. Nevertheless, for me it makes a perfect distinction which allows us to sharpen our understanding of what we should consider invention, as opposed to mere convention. Alexander, "Creativity: Self-Referential Mistaking, Not Negating."

Semiotics and the more recent biosemiotics aims to conceive of a general perspective that is applicable to various phenomena. Biosemiotics explicitly aims to appropriate various disciplines with complexity and system theory. The underlying belief is that finding similar patterns in non-related phenomena leads to a greater understanding of the real. As a rule, one looks for the greatest common denominator. Formulas, conceptual frameworks, tropes, etc., are abstracted and generalised to be applicable to a maximum variety of cases. For example, a sign can be a thought, a signal, an experience, a taste, a habit, etc. The more the general terms need to be consistent, the more their definition becomes subject to debate. V.N. Alexander refers to recent work by T.L. Short, Salthe, Sharov, Barbieri and others to address a couple of important alternative conceptual frameworks. For example, Short proposed the expansion of the triadic model of Sign, Response and Object with the addition of a fourth element, Purpose. Some have argued that the 'interpretant' should be called a 'reaction' or 'response'. Similarly, the term 'semiotic object', in short 'object', is sometimes replaced by the word 'referent' or 'objective'. In addition, the words 'sign', 'symbol', 'signifier' are used in place of the difficult term 'interpretamen'. We use Alexander's model as a reference in this dissertation. First, Alexander emphasises purposefulness by preferring the word 'objective' over 'object' and, second, she replaces the word 'interpretant' with 'response' to make the model more generally applicable.

Ibid., 260.

One can recognise a connection with Peter Eisenman's discourse on surface structures and deep structures, which he took from Noam Chomsky.

One could say that, for the rabbit-chasing-wolf, being creative happens accidentally. The wolf might follow a trace or odour which it instinctively thinks belongs to a rabbit. When this turns out to be something else that the wolf can eat, it has completed a poietic act without being aware of it. It does not realise that it was wasting time following a mistaken sign based on habit. Before the wolf knows it, the sign has proven itself worthy, or not, as a sign.

With Tallis in mind, the 'sense of survival' might look as a form of Darwinitis. However, Alexander treats the objective not as a 'will' of the system but merely as a phenomenon. Alexander expands on the inferred finality. Although the circular-progressive model suggests a direction moving from a surface structure or immediate object to a deeper structure or semiotic objective, and thus suggests a movement to an overall purpose, Alexander argues that neither truth nor falsity, presence nor absence, are part of the semiotic triad, but remain just outside of it. According to Alexander, this does not imply that a Kantian transcendental signifying reality exists. Arguably, the poststructuralist Derridian notion of iterability resounds in Alexander's circular-progressive mechanism, which wants to avoid a focus on finality.

Ibid., 253.
Based on this understanding she states that ‘Francisco Varela and Humberto Matura (1974) misnamed their project, which they should have called autosemiosis rather than autopoiesis’. The social system theory of Niklas Luhmann bases its notion of autopoiesis on the work of Varela and Maturana. In turn, Schumacher uses Luhmann’s concepts to argue that architecture is a self-referentially closed autopoietic system. Alexander’s critique makes room for discriminating between a true invention and a convenient innovation. For further reading on autopoiesis, see: J. Goldstein, “The Construction of Emergent Order, or, How to Resist the Temptation of Hylozoism,” Nonlinear Dynamics Psychol Life Sci 7, no. 4 (2003).

The notions of poiesis and semiosis, as developed thus far, suggest at least two fundamental levels of invention. Imagine, for example, that all design decisions followed conventional or habitual associations. Due to the complex constellation of all the sub-solutions, the overall design may look fresh and new. We could refer to this as the emergent objective that is perceived as an invention. Another option is to talk about a semiotic invention or semi-invention. It is important to register that the overall invention arises out of a collection of conventions. If, on the other hand, at least one decision happens non-habitual, the outcome could be referred to as a poietic invention or a radical novelty.

If you have, for example, an addiction, a sign of a drugstore will reconfirm your habit to pursue drugs. Cfr supra: truth and falsity are not part of the semiotic triad.

Alexander’s intentionally circumvents the strong legacy in philosophy on ‘the Self and the Other’: ‘What I might call partial negation (partial compared to Luhmann’s or von Foerster’s (1981) tidier two-sided “self and other,” “knowledge and ignorance”) has been preferred by biosemioticians since its prehistory. As Jakob Uexküll notes, “To identify the unknown means to recognize something familiar: nonself is a potential variant of self” (qtd in Hoffmeyer). For biosemioticians, who reject as inadequate the two-sided sign, the binary of self and negative self would be, of course, too simplistic. As Meno had long ago pointed out, we do not possess models, negative or otherwise, of that which we do not know. Instead, mistaking non-self for self, “something familiar,” must be the means by which adaptation and/or learning occurs. A self-referential closed system learns not so much by a mechanism of self-negating as by self-mistaking. Alexander, ”Creativity: Self-Referential Mistaking, Not Negating,” 269.

It is widely accepted that a pattern-recognition ability is a marker for creativity while, in fact, in the light of Victoria Alexander’s argument, it is more likely to be a marker for semiotic behaviour.

A similar thought was present in Latour’s argument when he gave his keynote talk to the Design History Society. See also chapter one [1.1.1. The ABC of Design]. Latour, A Cautious Prometheus?: A Few Steps toward a Philosophy of Design (with Special Attention to Peter Sloterdijk).

This formulation is inspired by Louis Kahn’s famous mantra what a thing wants to be, as part of his closing talk of the Otterlo Congress in 1959. The alternative question would be ‘what a thing has or needs to be’. This would imply a finite or rational necessity. Kahn’s ‘wants to be’ accentuates the (for me preferable) idea of negotiation. Group for the Research of Social and Visual Interrelationships. and Newman, Ciam ’59 in Otterlo, 205-17.
The Australian psychologist, Dennis Garlick, who's PhD research is entitled *Intelligence and the Brain*, provides a possible concept that stands for external influences. In a quest to measure human intelligence Garlick argued that intelligent behaviour is connected with neural plasticity. In short, he is looking for a constant factor to measure intelligence. There are external influences that make this factor deviate. Garlick's aim is to isolate these influences in order to distil the pure constant. Coincidentally, one could recognise this deviation as the gathering of all influences, and thus, the locus of all 'external' constituents of a critical faculty. Garlick, however, does not provide knowledge on how precisely the processes of socializations and conditioning correlate to a particular electrochemical mixture at the synaptic level, nor does he account for a distinction between good and bad influences. Dennis Garlick received his PhD in psychology from the University of Sydney in 2003. In his dissertation, he uses recent advances in the brain sciences to arrive at a new approach to explaining human intelligence. Today, he is connected to the UCLA Department of Psychology. For the argument made in this dissertation, I refer to his article: Dennis Garlick, "Integrating Brain Science Research with Intelligence Research," *Current Directions in Psychological Science* 12, no. 5 (2003). His PhD was published as: Intelligence and the Brain : Solving the Mystery of Why People Differ in Iq and How a Child Can Be a Genius, 1st ed. (Burbank, Calif.: AESOP Press, 2010).

The notion of emergence is discussed in various sciences that deal with complex systems, such as mathematics, (neuro)biology, philosophy, sociology and biosemiotics. For a wider introduction to emergence, see the work of Jeffrey Goldstein — Economist and Full Professor in the Department of Management, Marketing, and Decision Sciences at Adelphi University in New York. Goldstein, "The Construction of Emergent Order, or, How to Resist the Temptation of Hylozoism."

As we will see later, the notions of processing and storing are dubious because both are difficult to translate into brain matter behaviour. The idea of something being, processed as a job that can be completed is problematic considering the fact that electrochemical waves never stop pulsating in the brain. And the idea of a location where something is stored becomes confusing once we realise that A and B can occur at the same location in the brain.

The French poststructuralist, Jacques Lacan, had a big influence on poststructuralism and critical theory which, in turn, had a strong impact on architecture. The basis for this model lies in Lacan's concept of 'the mirror stage', in which an infant starts to recognize itself as a separate unit. Later, the notion of the mirror stage developed to a broader concept of 'imaginary order'. He uses his understanding of the process of individuation — that is the personal development driven by the desire to become a more complete self — also to discuss societal phenomena.


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5: Field Experiments

‘Bits & Pieces. Put Together to Present a Semblance of a Whole’. Lawrence Wiener, Walker Art Center, Minneapolis, 2005

Peter Eisenman once said that architects should be helping to define and develop their own discipline. In the previous chapters I have been calibrating my theoretical framework. The tripartite view combined with the meta critiques of chapter four provides a concise inventory of a post-critical landscape. The inventory showed that, in addition to the propositional qualities, the landscape does not go without aporia. Using the strong points in the landscape I have triangulated my own position.

In the preceding chapters my primary interest was the arguments made about design choices rather than the choice-making itself. This chapter has a different perspective. My interest as a practitioner eventually brought me to the question whether these arguments, which remain at arm’s length of designing itself, can yet account for a more astute practice. Inspired by architectural laboratories such as the IAUS, the Buell Center, the Why Factory, and the Berlage Institute, I was convinced that proposing an agenda for architecture would be more consistent if I were to combine a private practice with academic research. Experiments and ideas that are too premature or anecdotic, however, vital for academic research, could be tested in private commissions, competitions, public talks, and exhibitions. Crucial knowledge that would have no direct commercial value would be pursued in the academic environment. This hybrid position would allow to draw a fuller picture of my arguments — less contaminated by the contingencies of practice.

Therefore, at the same time as taking inventory, I began experiments based on intermediate hypotheses. The experimental design cases or design studio assignments were spin-offs from an inventory and a practice in progress. In turn, the experiments contributed to the theoretical quest. The change of perspective helped me to maintain an interest in practice while inquiring into theory. And in turn, theoretical questions fuelled the design (theory) experiments.

I confined my report on these experiments to a single chapter for several reasons. First, the setting to conduct these experiments in has been meandering — affecting severely the scope and depth of the experiments. An academic environment in transition often struggles to facilitate solid research. Second, my
private practice exists of a variety of collaborations, working with different partners, while trying to maintain a healthy practice. And third, due to this instability, expanding on my personal agenda would be too premature because the hunches and hypotheses I was working on were not as elaborate as the research discussed in other chapters. Whether pursuing a detached position to set an agenda more clearly is wise cannot be inferred from these experiments. Neither the position, nor the agenda has proven itself to be more astute.

5.0. Designing The Experiments

The Setting

When I stopped working for NRA in 2009, I started teaching at the University of Ghent and at the University of Antwerp. At the same time I also started (for a second time) my own practice VAK architecten with Paul Michielsen and Nik Naudts and applied for a research grant. As described earlier, when I started the research for my PhD in 2010, the University College of Antwerp was preparing to incorporate its Architecture department into the new faculty of Design Sciences at the University of Antwerp. Curricula were shifting and extra governmental funding had been granted to invest in its PhD program. The policy of the department was to only allow applications for a part-time position encouraging the applicants to remain involved with practice. This policy was also a strategy to spread the financial support over as many PhD candidates as possible.

My first position as a tutor in a design studio at the University College of Antwerp involved alternative prison typologies — a research led by Lieven Achtergael to inform the Federal Department of Justice. After tutoring the students, I made the report and organized a public presentation inviting the active minister of justice Stefaan De Clerck, the city architect Christiaan Borret, consortia that were competing to build new prisons, journalists, and other concerned parties. The department appreciated my efforts and expressed its hopes to organize more studios and events such as this one. When Lieven Achtergael reduced his academic involvement in favour of his own practice the position to lead the first masters design studio became vacant. The head of the department Koen van de Vreken asked me to take over and organize a studio on alternative typologies. His single request was that the assignments for the studio had to relate to my research. Debates about research by design were ongoing and the department hoped that my research would become an example of this.
For a while I planned to make a design research lab at the University College of Antwerp. I acquired a design research assignment to study alternative healthcare facilities, commissioned by the state architect Peter Swinnen. With the funds I invited Wouter Willems — a former colleague at NRA — to collaborate on the project and invested in some primary infrastructure. I asked the student union to provide support in organising lectures and maintain a platform on social media. One of the students acted as student assistant and helped preparing the research material for the next design studio. I had hoped to publish regular reports on work done by the lab under the header *Thoughts for Architecture.* This form of laboratory had to complement the inventory of my study on design taxonomies (which has been developed in parallel).

Getting in charge of the design studio was all on short notice and I had only a few days to prepare the assignment. A long term policy for design research by means of the combination of a series of studios and theoretical reflections was infeasible. Because, before I even started the studio some colleagues were already opposing the idea that all future design assignments would be dictated by researchers rather than practitioners — claiming amends to secure that the future studio representatives would remain interested primarily in practice. After two versions of a twelve week studio a change in management occurred. Van de Vreken’s term as head of department had come to an end and new curricula were being prepared to anticipate the transition to the university system. Tasks were redistributed and any elaboration of themes tested in the studio I would further have to pursue through working with thesis students both at the University of Antwerp and the University of Ghent, which I did whenever the opportunity presented itself. Because I did not consider this ideal to conduct consistent architectural research, I developed themes in my private practice, in design competitions, and contributions to exhibitions and conferences, too.

Being part of the teaching corps shaping the educational environment and the field of expertise of the faculty while at the same time having to rely on this environment to perform consistent research complicated matters. Therefore, I decided to apply a more conventional format to my PhD research — one that was closer to the research approach of my leading supervisor Maarten Delbeke at the University of Ghent. Eventually, my research question was approachable from two sides: either I focused on arguments made for possible design taxonomies as such or I studied how new propositions emerge from practice. Again, after being involved intensively with design over a decade, I felt more for the rhetorical aspect of my research question: the cause and effect of intellectual
constructs that aught to install an order in the design process. Nevertheless, I continued the experiments as a personal quest and as a basis for future research.

**The Office**

I consider my private practice often as an alternative environment to maintain and develop a particular research topic or to investigate new ideas. It can also compensate for any discontinuity of an ongoing inquiry, whenever an exhibition or grant comes to an end. With many tenders for applied research in reality flexibility and swiftness is of the essence. These qualities are not always present in the academic world — mobilising multiple administrations for approving and funding research can be very intricate. If the pursued research would involve design teaching studios then flexibility is reduced even more. Because, studios are organized in semesters and assignments need to be decided on before a new academic year starts. An office is often a more flexible and responsive organization comparing to an academic institute that at times is too administered. This is one reason why the experiments I will be discussing are developed partly in my private practice.

My first collaboration, with Martin Sobota in 2006, had taught me to pursue a diverse portfolio with various types of clients: private, public, professional investors, and funding agencies — which was another reason to acquire research funds for my own practice. While different types of clients might provide a more secure practice, it complicates the organization due to the requirement of a variety of skills, experiences, and collaborators. Over the years I had developed a design method that proved effective for all assignments I pursued. When I started VAK architecten, however, much of my earlier experience involved a network of advisors and contractors that did not suit most assignments. This complicated matters to acquire sufficient work. From the three of us, only Paul Michielsen was connected (through his father) to some important figures in the building industry. When Paul left in 2010, Nik and I focussed on competitions and research. A year later, when we were short on projects, Nik decided to join the Architecture Workroom Brussels led by Joachim Declerck, and I decided to fully focus on education and research for a while.

In 2013, after collaborating with the director of the Flemish Architectural Institute (VAi) Christoph Grafe for a conference titled Theory by Design, Grafe invited me to contribute to an exhibition in Knokke. It was the first exhibition Grafe and the VAi were to curate at the cultural centre the Scharpoord in Knokke. Grafe proposed to advance a theme which had served for a quick pop-up exhibition at the VAi one year before: What if the coastline infrastructure
would no longer be sufficient to protect the Belgian coastal delta from flooding? For the exhibition I collaborated with MikeViktorViktor architects, the office of Bart Melort — my former housemate when he was studying at the Berlage institute in 2004 and 2005. His firm had been through troubling waters in the months before the exhibition. His former partners Frederik Vandoninck and Wouter Willems (both ex-colleagues at the NRA office) had left to start a new firm. Bart and I decided to join forces for this exhibition. I called two thesis students of mine who had just graduated over the summer. Together with Bart and his two remaining employees we produced the work for the exhibition. We continued to collaborate after the exhibition. The next three years I acted as creative partner of MikeViktorViktor architects (MVV). When our ideas on the future of the office diverged to a point all common interest ceased to exist, I decided to revive my own firm VAK architecten in the beginning of 2017 after I had finished the manuscript of my dissertation. Both VAK and MVV served the hybrid setting I pursued to create an explicit agenda. Yet, the confinements of practice also provided a lot of ruses and disturbance. To this day I still question whether this hybrid position truly accounts for a more consistent agenda.

The Agenda

Any partial framework, as discussed in previous chapters, is explained with both rules and examples — bits and pieces put together to form a coherent argument. Yet, the arguments remain highly dependant on projects at hand. To be less dictated by commercial opportunities I hoped that combining a position at the university with practice would allow my work to convey a more clear, more consistent narrative — avoiding the restrictions of both practice and academia. I was convinced that the hybrid position guarantees the most uncompromised focus — a focus that would be much more difficult to maintain while patching together little narratives embedded in the complexity of projects in practice.

The agenda itself was influenced by topical themes when starting the research and reacted to NRA’s discourse that was developed by means of a very specific portfolio: all projects (often freestanding) have an outspoken public and monumental character. The themes within these projects, according to the projective protagonists, reflect on current lifestyles and social conventions. While I share that belief, I thought it would be necessary to scout for more important themes. I also reacted to current arguments made at conferences or in editorial environments. As mentioned in the introduction, the crisis in 2008 was a wake up call appealing to the responsibility of architects. As a response
many architects and critics argued for tuning down what seemed an excessive experimenting in architecture. Conversations focussed on sustainability, agency, and the important value of even the smallest intervention. Terminology such as public support, participation, and co-creation reemerged as central aspects of a design process. Because of this particular shift in discourse I was concerned about utopian projects, ideological drivers in large scale intervention, and the proactive faculty of the architect. Others, too, share this concern. I merely wanted to use the free zone of the hybrid position to bring balance to the debate. I was convinced that combining techniques and intentions of multiple frameworks would eventually produce more topical projects, more astute architectural propositions, avoiding a form of tunnel vision that exists when working within one framework.

Every legitimising framework or evaluation system is an abstraction and falls short in anticipating all aspects that are involved in any design process. While that blind spot is no reason to denounce a working model — partial framework — the validity of that blind spot can come into question depending on how crucial these blind spots are deemed to be. If these aspects are nothing more than matters of taste and, therefore, irrelevant for the astuteness of the whole design proposal then the blind spot needs no further considerations. But if these aspects become vital to account for the criticality of the work — as they did for example in case of the critical or the projective project — then the blind spot needs further investigation.

At first, I approached the experiments as typological inquiries. Inspired by the original counterprojects of Léon Krier and Maurice Culot, I began using the generic version — drawn manifestos — as a device to merge Rorty’s irony (the questioning of final vocabularies) with architectural practice. As the research developed, the experiments went from design challenges (new typology studies) to pure thought experiments (writing position papers or making a manifest) to a mixture of both (producing a generative stance supported by a generic design proposal). Purposeful hybridity became the binding code of conduct throughout this quest. The code is not a truism. It too is subject to recalibration in the course of teaching or architectural practice.

In compliance with the projective project my agenda would be a compound totality — a bigger narrative formed by a combination of smaller arguments — yet precisely due to my hybrid position the compound totality would be more topical than generally assumed from the smaller narratives the projective referred to. Whereas the projective argued to cease the opportunity in the
contingency of any given project — looking for what could be ‘projected into the world’ within the confines of that project — I intended to reverse the order: first decide what needs to be projected, then confine it to the reality of a project. I am convinced that many colleagues do not embrace the full potential of the hybrid position. Too often this position is used to explore which waves to surf rather than projecting alternative agendas into the world. I invented realistic assignments for which the projective agenda was known beforehand, controlling much more the compound argument. Rather than making practice lead theory, or visa versa, I expected to generate a balance: a theoretical practice or a practical theory. These notes from the lab reveal a form of irony in architectural design practice — questioning and confronting ideological barriers in the design process. In what sense does architecture matter today? And how to maintain a critical focus in teaching, writing and work produced in a private practice?

Before turning to the actual experiments I will report on my understanding of how architecture matters today, how we can use design as an inquiry device to study how architecture can be astute, and what code of conduct I proclaimed when starting with the experiments.

5.1. Irony Towards Architectural Design

5.1.1. In What Sense Does Architecture Matter?

Intentions in architecture — a new focus, idea, approach, style, or movement — are often legitimised by describing an emergent need. For example, housing became a priority in the reconstruction of cities after the world wars. The will to reduce class differences made housing for the lower income group a central theme for most CIAM congresses. Another example are the opportunities coming from new building technologies that can widen the range of types to a series of tailor-made architectural solutions. The need for alternative use of energy also requires a different way of designing and planning, while a phenomenon of congestion — either literally a problem of infrastructural gridlocks or the figure of speech reference to an overload of cultural production — can trigger a quest for essence, simplicity, and clarity; and so on. These are but a few examples of emerging needs we are familiar with in architecture. It matters little whether these needs emerge beyond the control of architecture or because they are discovered and amplified by architecture. The fact is that promoters of a particular newness are convinced that architecture holds a key to answer that need. To quote the projective opinion:
So when architects engage topics that are seemingly outside of architecture's historically defined scope — questions of economics or civic politics, for example — they don't engage those topics as experts on economics or civic politics, but, rather, as experts on design and how design may affect economics or politics. They engage these other fields as experts on design's relationship to those other disciplines, rather than as critics.\(^5\)

In other words, architects look for the spatial component of the problem (defined by other disciplines). If that spatial component proves crucial to solve the problem, the conclusion seems to be that architecture matters. But can architecture be an instrument for responding to any kind of need? An affirmative answer to the question is not self-evident in the various recent position statements of prominent figures. The British architect and educator Jeremy Till says that architecture depends on forces beyond its control,\(^6\) A position that echoes the approach of Koolhaas in, for example, *Bigness*.\(^7\) Koolhaas argues that large-scale projects are dealt with in an uncontrollable condition of complexities and specificities, a labyrinthine process of which the architect has no overview. According to Koolhaas, it would be naive to think that the architect is in a position to steer. At best he can surf the waves of the metropolitan forces. In the summary of his Manhattan research (1985), Koolhaas states that architecture surrenders to the need of the metropolis.\(^8\) That surrender is something entirely different than being in control and (pro)actively recognising, defining and answering a need. To surrender means not to be able to act — not even to react, in which there could still be a spark of resistance. This position of surrender is provocatively closer to accepting total subordination — the antipode of the critical project that developed the theme of deconstructivism in the late 1980s.

For Koolhaas, following his retroactive manifesto for Manhattan, any authentic engaged architecture that appears to have a direct impact on society is an illusion. A strong parallel can be found with Manfredo Tafuri’s creed in his essay ‘L’Architecture Dans Le Boudoir’ where Tafuri argues that architecture lost all means to justify itself.\(^9\) However, Koolhaas did associate himself with deconstructivism implying a critical faculty after all. This elusive positioning of Koolhaas exemplifies one way in which the impact of deconstructivism could come into question.

According to Hilde Heynen’s historical reading, ‘deconstructive architecture is inspired mainly by two sources: constructivism in the ’20s and Jacques Derrida’s deconstructive reasoning’.\(^10\) Yet in the early beginning of the
movement Mark Wigley said, ‘It is the ability to disturb our thinking about form that makes these projects [shown at the exhibition] deconstructive. It is not that they derive from the mode of contemporary philosophy known as “deconstruction”’. In a more general review David Watkin describes deconstructivism as ‘a typical end-of-century phenomenon characterised by a will to shock’. I would argue that it was an attempt to create an intellectual and ideological framework to legitimize the work it refers to. Deconstructivism presented itself as meaningful because it reflected back onto the real — by representing an anxiety for deterioration of an intellectual culture (which was also an impetus behind the Atlantis project). Paradoxically, however, it was not intended to explain or to legitimize anything, but rather to deconstruct the external meaning of form. Deconstructivism seems to be caught under the Tafuri spell — that is, to become an architectural discourse that fails to justify itself.

Regardless of whether deconstructivism was essentially about form, philosophy, culture, or societal critique, its impact on the built environment cannot be denied, considering the theoretical elaboration and criticism it produced worldwide. And the abundant realized work worldwide causes more than just a few small ripple-effects. For example, the Bilbao museum by Frank Ghery has shown that architecture can influence the forces it also depends on — architecture proves to be a perfect tool for city branding that in turn boosts local economies. While it is easy to recognise various ways in which architecture makes a difference, that does not prove that the result matters.

Another way to counter the possible questioning of architecture’s relevancy is to refer to the bigger societal challenges that have a spatial component, as Slavoj Žižek does. Žižek points to population displacements due to changing climates, economies, and the balance of power. He also refers to the changing modes of transportation and communication and the dispersion of basic needs that will demand the adaptation of our built environment. Žižek thus argues that new ways of crisis management, war, and terror will lead to the revision of our spatial layouts. All this will affect our habitation and work environment. There is no doubt that architecture will play a prominent part.

No matter how powerful this argument is, there is a danger that it would lead to a rhetoric where only urbanism or the big architectural gesture is discussed. The resulting intellectuality would preclude the evaluation of design decisions for an architecture that plays no — or hardly any — role in addressing these big societal challenges. For the bread and butter of architecture, so to
speak, do we then incline towards the idea that architecture depends on forces beyond our control, such as undeniable preoccupations that belong to the private sphere? If this would be the case, then any theoretical argument — including the ones that question architecture’s instrumentality — would be pointless, because no one within architecture could be held ethically responsible. An architect would only be responsible for handling the process of production. In that case theory could be reduced to a simple pocket guide.

But Žižek also commands a radical thinking that reflects on the actions of everyday life because these actions rely on unspoken ideological beliefs. This form of ideology — referred to by Žižek as ‘the implicit obscene underside of customs’ — is much more difficult to change. It is in this way we should understand the necessity to return to ideological discussions or to complement realism with utopian thoughts. To turn to theory is an explicit act. We are only eager to theorise about the venturous design decisions. Choosing a form, a colour, or a pattern to put on a facade is often not explained. A designer at work might not feel the need to back up these choices with a clear theoretical position. However, the idea of a non-critical basis for creativity needs to be balanced with ethical considerations. Architecture matters because it depends on forces for which we are ethically responsible.

5.1.2. Architectural Design Intellectuality

During a design process we cannot think simultaneously about many variables. Therefore, any designer is bound to subdivide a design problem into workable subproblems and deal with them separately in different time slots. How one subproblem affects the other is to be studied in an iterative process of piecing back together the answers to different subproblems. An architectural intellectuality that helps to wisely navigate through all such necessary decisions remains a necessity. Inspired by Rorty’s irony, I begin the inquiry into terminology that defines creativity in architecture. Throughout the inquiry, the value-attributing thoughts needed more consideration than a system of good design conventions.

The guidance of good practice to be systematic and formative seems to have little use. Such guidance would have to anticipate an infinite variety of gridlocks. It also cannot be the sole description of design dexterity (which was scarcely part of any theory, other than a marginal presence in Mallgrave’s), of which the transfer or acquisition of is left up to whatever experience is gained through practice. To develop a design-guiding intellectuality means to reflect on
the appropriateness of drivers and constraints in the making of contingent design decisions.

Random associations are the product of strong neural connections made in the brain. From knowledge fields such as psychology, neuroscience, complexity theory, and biosemiotics we gain insight into variables that rule the process of making contingent design decisions. We learn that making contingent design decisions is determined by a mix of internal — to the individual designer — and external constraints. But more profoundly, we learn that whereas we can describe the mechanism of association, we cannot prescribe it. A designer can learn about what is restraining his world of ideas from growing larger. For example, it may be a physical, psychological, or cultural constraint that prevents a designer from making a certain association. The discourse can make the designer aware of this and even prescribe a way to overcome the constraint. But the discourse cannot rationalise about how an association ought to be formed. Thus, in other words, the feedback we get as a designer when turning to theory can only be formulated in an indirect way. That means that at the drawing table little direct guidance can be expected from prescriptive frameworks.

Architectural design theories or treatises are often formulated in a direct way, and therefore, by implication, cannot be used to help make contingent design decisions. Nevertheless, clear proposals have been made for formulating the requested indirect feedback. Mature debates on all levels — from the popular to the academic realm — could be reestablished about ideologies, the consciously unthought utopian ideas, the projected otherworldliness, or the appropriateness of possible lifestyles. How could design teaching have a part in it? I looked for a tool to introduce these considerations into the academic design teaching studios.

5.2. An Inquiry Device

5.2.1. Counterprojects

A counterproject is a specific inquiry device. To apply it in the contemporary design teaching studio, I combined elements from Reinhold Martin's essay 'Critical of What?' with elements from Isabelle Doucet's historical reading of postmodernism, 'Understanding Postmodernism in Practice'. When Reinhold Martin called for utopian realism this was primarily a breakaway move in the criticality debate. Martin suggested reinstating the concept of utopia as a mediator or filter of the otherwise unrestrained realism he associates with the
post-critical. While building his case, Martin referred to Colin Rowe and Jacques Derrida to re-enact utopia within architectural critique. However, Martin provides no suggestion for how to translate *utopian realism* into a teaching tool or inquiry device. At the EAHN conference in Brussels, Isabelle Doucet presented a historical reading of the counterprojects, a methodological tool used in the 1970s and 1980s by Maurice Culot and Léon Krier. She defines the original version of counterproject as

*a methodological device, [that] has a complex and ambiguous relationship with the real. It is neither utopian nor realistic but attempts to address and transform concrete, real situations, however without proposing innovative, progressive alternatives. As a drawing-manifesto, it holds the middle between a critical statement and a concrete vision for the future.*

Although, according to Doucet, a counterproject is neither utopian nor realistic, I believe that once the tool is abstracted to a generic level it can be used to translate Martin's *utopian realism* into design.

According to the ‘original’ intent of utopia, as defined by Rowe and Koetter, a strong parallel exists with the intent of counterprojects, as produced by Culot and Krier, that stem from the same timeframe as *Collage City*. This parallelism is crucial for translating Martin's *utopian realism* into practice and teaching. To be able to define a contemporary version of counterprojects, the original needs to be looked at first. Doucet did in fact investigate the original in order to fully grasp how postmodernism has been practised, especially in the socio-political realm of Brussels in the 1970s. Brussels proved to be a key agent in the development of a powerful international Reconstruction of the European City movement. For Doucet, the critical project for architectural theory is not to study the meaning of architecture, but to methodologically study how ideologies travel through practice and how these ideologies transform in the course of such travels. Doucet was primarily interested in what the tool initiated and affected. I wanted to understand how it works and how it is made. Therefore, it is important to isolate the tool from the particular mindset of the 1970s.

The original Counterprojects of Culot and Krier are strongly coloured by the spirit of the early 1970s. Earlier I isolated *Collage City* to underpin a crucial interpretation of utopia. *Collage City*, however, was primarily a critical voice that looked for a better alternative to modernistic planning — as, in fact, many leading architects, historians, critics, and theorists did. In the early 1960s, the
Italian architect and historian Bruno Zevi, known for his operative criticism such as presented in *Towards an Organic Architecture*, created the stimulating environment for architectural history at the University of Venice (IUAV) that became leading for Italian theory on architecture and urbanism. It was the intellectual cradle for scholars such as Manfredo Tafuri and Aldo Rossi, and holds the roots for the Rational Architecture movement. In 1967, as has already been discussed, Peter Eisenman began the Institute for Architecture and Urban Studies (IAUS) in New York, along with its leading architectural journal called *Oppositions*. A year later, in 1968, Maurice Culot founded the Archives d’Architecture Moderne (AAM), followed in 1969 by the founding of Atelier de Recherche et d’Action Urbaines (ARAU). In 1972 Alvin Boyarski became director of the Architectural Association School for Architecture (AA School).

Due to profound reorganisations of architectural education in the United Kingdom, the AA School lost its financial support, and Boyarski seized the opportunity to make the school a global concern, embarking upon a highly ambitious program of exhibitions, catalogues, and publications that addressed the international alternative planning issues.

Various theories and movement saw the light of day within these environments. From the plurality of constellations that emerged from this fertile breeding ground came the Reconstruction of the European City movement. Due to a dense and often historic urban fabric of European cities, large modernistic interventions were perceived as an attack on or a destruction of these cities. The very specific conditions for European cities caused the protagonists of the movement to emphasise the value and richness of the urban fabric at risk. In general, this spirit fuelled the emergence of New Classicism or Traditionalism and other initiatives, such as the Prince’s Foundation for Building Community, in the UK, and the Richard H. Driehaus Foundation in the US. Early traces of this movement are to be found in the *Rational Architecture* exhibition at the 15th Triennale of Milan in 1973, which Krier brought to London in 1975. The Brussels Declaration of 1978 for the International Colloquium on the Reconstruction of the European City builds upon the arguments made in the first exhibitions.

In the 1980 AAM publication *Contreprojets — Controprogetti — Counterprojects*, a Belgian contribution to the first Venice Biennale, Culot and Krier used persuasive drawings to show alternative realities. The counterproject or drawn manifesto was a methodological tool to engender architectural critique. At the same time it was a communication device by which to engage politicians and users. The images therefore needed to be highly ‘readable’ — in
contrast with, for example, the images made by the (de)constructivists. Krier, Culot, and their students produced clear theoretical representations of alternative environments. By doing so they also proselytised their ideological stands — theoretical criticism presented as drawn manifestos. They dramatized the tool by claiming that ‘a responsible architect cannot possibly build today, [because] [...] the most urgent work is the one of the reconstruction of a global theory’.  

5.2.2. Drawn Manifestos

Revisiting the counterprojects with the aforementioned background information is necessary to show the very specific conditions and oppositions at the moment this tool was put in place. To reinterpret it as a critical drawn manifesto that can translate Martin’s utopian realism into practice, the tool has to be distanced from the moment-bound conditions with which it is associated. I want to define the drawn manifesto as a highly readable device that starts or stirs a debate on values. A generic definition, cleansed from these specific conditions of the reconstruction movement, can be constructed by listing its abstract intentions.

Drawn manifestos visualise alternative realities, perhaps as a direct critique to running practices, preferably catalysing a debate that is otherwise locked in oppositions. In an effort to revisit the tool for present use, it is not the dialectic character that is primarily appealing but rather the fact that it is widely accessible. They are not made after the fact, to counter an existing project, but rather they anticipate the forthcoming situation. Drawn manifestos are utopian because they envision (anticipate and imagine) a possible future, yet they are realistic because they are accurate, precisely measurable, and feasible. However, the project is not intended to be realised exactly as envisioned within the realm of the intellectual experiment. To use the words of an earlier Rowe quote, we do not have to accept it in ‘toto’. This allows for an abstraction of the real to expose more clearly certain problems that in real situations remain hidden or are hardly recognisable due to their entanglement with other conditions. The abstraction causes drawn manifestos to look more radical or provocative, but the invigorating qualities of irony and wit — such as in Krier’s cartoonish style — contribute to smooth a debate. In addition, very clear graphics communicate directly. Undoubtedly, the generic approach of drawn manifestos shares most characteristics with the classical utopia, as defined by Rowe and Koetter, a collage of utopian fragments based on an ironic approach towards reality that activates an explicit debate on values.
We can turn Martin’s *utopian realism* into practice by using the drawn manifesto as a format by which to open the debate on ideology. In other words, reinstating the authentic critical attitude means to produce drawn manifestos that intentionally take a stand, make an advisory policy statement. It is a technique to bring architectural critique into the field of designing and, thus, into the drawing. But its fragmentary character must be realised. Instead of reading the manifesto as a coherent theoretical replica of the perfect real, one should read it as a sampling of valuable bits and pieces. As a given, the inspiration for the utopian bits and pieces come from various frameworks. To construct the collage, multiple frames are solicited in the same creative way as discussed in the first parts of this dissertation. However, the inspirations are not intended to be internalised into a new rhetorically closed construct — stacking layers of meaning all pointing towards a deeper kernel. The aim of the drawn manifesto is to activate instant change. It is primarily a moment-bound action. The multitude of solicited frames assumes that it randomly samples and connects parts of meaning. Eventually, I would argue that the drawn manifesto is a form of design intellectuality for which no central theme or trope has to be appointed. It is a purposeful hybrid of the best ideas and concepts, gathered together to challenge ongoing practices.

5.2.3. Territory

A design intellectuality that uses drawn manifestos to engender an explicit debate on values requires the correct territory. According to Martin and Žižek, it is up to architects in the academic realm to be exceptionally good in the practice of *utopian realism*. That would, indeed, be a perfect place to start a debate on design intellectuality that addresses the underlying ideological choices. A specific form of design studio that concentrates on typology and making drawn manifestos can introduce architectural students to the practice of *utopian realism*. A design theory course organised as a forum to debate and reflect on ideological choices of drawn manifestos can bring the overall debate into the realm of architectural education. The standard academic expansion would be to form a research group with regular output (papers, conference contributions, advisory policy statements, publications, and exhibitions). Most probably, it would be a subset to the much debated design-based architectural research. But would that reinstall the full power of drawn manifestos? Is the territory then public-oriented enough to discuss a priority agenda in relation to the public sphere?
If ethics matter, then architects should engage in public ethical discussion and take a clear stand on what to prioritise — not as ethical experts per se but as architects in search of the right balance among matters of concern. The academic peer-reviewing culture needs to be combined with highly accessible professional criticism and the power of instant feedback of a large number of people. The testing ground for architecture should not be restricted to a model that is to be judged by a couple of experts or a small group of users. Drawn manifestos need to be virtually explored and discussed at large — that is also outside academic walls.

5.2.4. Experiment: A New Event Space Typology

Associations made while pondering design issues easily cross borders of different theoretical frames. For example, one design studio assignment, a quest for innovative event space typologies, was based on the clash of two position statements. In a 2004 lecture titled ‘Architecture Matters’, Eisenman called the stadium typology an agency to acculturate arabic streets. When I thought of Eisenman’s design for the Phoenix university stadium [fig. 44], I associated the slits in the facade with a drawing of Krier in which he cuts open a typical Cerda block [fig. 45]. Krier stated that big city blocks had to be cut into smaller blocks to achieve an optimum proportion of public space. The clash of these two statements became the basic assumption for the studio — to cut a stadium into smaller blocks that together could become a future city district.

The Olympic stadium in Beijing was one of the first starting points. In a quick visualisation I compared the morphology of a double grandstand with a collage of famous public buildings that sit on top of grand stairs: the Art Museum of Philadelphia, the Spanish stairs in Rome, and Washington’s Supreme Court [fig. 46]. The inclination of the grandstands matched surprisingly well with the stairs and roofs of the public buildings used in the collage [fig. 47]. The overall measurements of the Olympic stadium, approximately 240 m by 320 m, was used to draw an abstract urban scheme. I based it on a Donald Judd painting that is part of the Tate Modern collection [fig. 48], probably because it had been on my table when I studied Eisenman’s interest in minimal art. While thinking over some options for an urban scheme, I found this two-dimensional image had the ambiguous quality of being readable as a three-dimensional urban setting. I translated it into an urban plan out of ten square shaped plots surrounding an urban court [fig. 49]. With this hypothetical setting, several design challenges then emerged. Can we design a specific urban district that meets the requirements of both a temporary event
and a city centre filled with regular urban life? Can the urban landscape benefit from an infrastructure primarily built for a temporary event? Can we anticipate its afterlife when the event caravan leaves?

What this example shows is that in the free-zone of brainstorming over contingent design issues, it is quite easy to jump between ideas from the realms of, for example, deconstructivism, new classicism, and minimal art. Within these specific realms the ideas are associated with a variety of intentions and interpretations of meaning. The question could be, which interpretation gains the upper hand if these ideas are combined in a new setting? Or can they be deployed to represent a new interpretation of purposeful behaviour in architecture? Obviously, the entire theoretical position of the references that are used to make the collage is not imported. Ideological influences are nevertheless present, perhaps undetectably imported, present perhaps because of the way the collage is made or the specific angle of the pursued working hypothesis.

5.3. A Code of Conduct

Going back and forth between inventory and lab-experiments, thoughts began to coalesce around two topics: hybridity and purposefulness. As these words inspired the rephrasing or capturing many concerns, I began to develop a more precise understanding of them.

5.3.1. Purposeful Hybridity

Hybridity can refer to a formal aesthetic intention; a programmatic combination of different function into one spatial structure; a layering of metaphorical meanings; a simultaneous existence of multiple performative intentions; a contemplative position that balances between theoretical reflection and the engagement in practice; or a mixture of all these interpretations. I first confined the interpretation of hybridity to either the coexistence of multiple performative intentions or an architectural intellectuality that unfolds itself when a practitioner makes his theoretical considerations explicit. Hybridity then becomes the contraction of ideal considerations and real priorities.

I align my approach of evaluation with the arguments as produced by the ‘projective’. The public sphere exists out of multiple collectives, with their specific concerns and affinities. Giving primacy to certain concerns in a design means working with the confinements of a specific collective. Why this specific collective suits best to evaluate a particular design is circumstantial. Ultimately,
there is no basis to value the concerns of one collective over the concerns of an
other without relating to the public sphere. As a result any given concern or
affinity can influence or become steering in the creative process. Architectural
interventions that are more influential, however, are valued higher than others.
In contemporary architecture there seems to be a tendency to focus on what
architecture can do. This position brings a hierarchy into the possible
interpretations. The other interpretations are not excluded (the ones that do not
a priori focus on performance). They are merely given less weight in the
legitimising process. For example, a Venturian intention to translate a complex
of metaphorical meanings into an architectural form is not excluded, but is
rather incorporated as a possible — though less vital — design option. It
depends on the weight of a collective in the public sphere and, respectively, the
weight of the specific concern or affinity within that collective. In short, the first
aspect of hybridity builds on the projective public sphere interpretation and on
the projective tendency towards valuing performance.

The tendency towards performance alone is either insufficient or too
vulnerable to guarantee an authentic and profoundly engaged behaviour. For
critical theory, engagement is based on the anxiety of restoring the culturally
respected position of the architect. For post-critical theory in architecture,
engagement results in experience (understood by the projective as a lifestyle). In
turn, critics question the authenticity of the post-critical engagement. The
appropriateness of various design interventions is questionable. The ability to
project as such is no longer sufficient. Therefore, appropriateness — or decorum
— needs to be stressed in any post-critical theory. As a result, a theory that only
reports on how to make designs projective, for example, is no longer urgent.
Rather, a discourse is needed that elaborates on which projective design decisions
are appropriate. Design intellectuality should shift from recording
conventionalised practices to inquiring into desires and necessities of
inventions. In parallel a clarifying debate on design jargon has to be maintained,
which implies a discourse that has a momentary value only. However, as soon as
the particular desires or necessities are answered the discourse will become
obsolete. For theory this is counterintuitive because theory tends to unravel
rules, patterns, and tenets. In theory the aim is to make a solid long-lasting
argument. By rule, theory looks for the opposite of what is currently needed in
design intellectuality.

We have to disentangle the structure of both. One of the key problems is
that theory is vertically segmented — it builds a rational list of conventions —
while practice seeks a lateral mix of objectives that answers the desired
intentions. Architectural theory and architectural design discourse are two different things that interlock. However, the constituent vocabulary of both is best arrived at from different perspectives. For example, a consistent and coherent theory is best developed along the rhetorical line of argumentation, while the design discourse, which links theory to practice, anticipates the volatile and irrational character of creativity. This is why ‘hybridity’ is explicitly complemented with ‘purposeful’. The mere possibility of projecting or generating a new lifestyle alone is not enough to recognise that an architectural gesture is purposeful. The attribution of value needs to be made explicit. Whether that has to be done in a continuous debate about the exact meaning of terms, as Moravánszky proposes, or by excelling in utopian realism, as suggested by Martin, the fact is that the attribution of value has to precede the act of building. There has to be a virtual testing ground on which to agree about new performative approaches and thus not to jeopardise the built environment with untested experiments — the latter being one of the key arguments of the new traditionalists.

**Purposeful hybridity** describes a code of conduct for what to pursue. It defines the constraints for the renewed intellectuality. Parallel to the projective angle on the basic equality of collective concerns (or affinities), all free associations should be equally valued during the design process. Select the ones that empower the performative intention. Choose the performative intentions in relation to the most purposeful behaviour. What is most purposeful can be judged, through a publicly convened process, by testing the intended behaviour in virtual realities. The virtual realities are nothing more than an abstraction of the real in which ideological drivers are made explicit.

Purposeful hybridity conflates theory and practice. It is to be understood as practical theory — but not in the instrumental-negative-dialectic way of the critical movement. It is a theoretical practice, though not as an excuse not to build. It is a subset of architectural theory that does not translate into a full-blown theory. It is, like many of the pro-projective suggested (see chapter three and four), a multiplicity of otherworldliness, but with appropriateness as the explicit prioritising variable.

A purposeful, hybrid practice emerges from of the pursuit of real projects complemented by an ongoing reflection on purposeful behaviour. It combines the academic and the public territory. This should lead to a form of design intellectuality that combines popular communication systems with expert ones.
to arrive at the most optimal feedback. Therefore, it requires venues such as social media, public exhibitions, or open debates to test alternative futures.

5.3.2. Design Dexterity at the Office

At the office, the contingencies of any given project blur a personal position. Hence, it is easier to maintain a second understanding of a purposeful hybrid position — both engaged and resistant — in projects that are not intended to be built. Architecture is only relevant if the aim is to combine a multiplicity of collective concerns. Saying that it is easier with virtual projects does not mean that the code of conduct has no larger impact. By making it an explicit part of practice the concept of purposeful hybridity increases design dexterity.

This PhD inquiry has had an impact on my own private practice, on multiple levels. The parts of this book provided a useful framework by which my practice has changed. The question in chapter one, ‘for whom or why do I feel the need to be explicit about the making of contingent design decisions?’ suggested that it is important to improve my design dexterity. Insights from the neurosciences, as discussed in chapters three and four, show that my neurons need reset time to fire off new impulses. When they do fire, the neural pathways are most likely to emphasise pre-existing links, a hypothesis that is also pursued by bio-semioticians. Breaking out of these loops — consciously being self-mistaking — is difficult and without any promise that a better solution will be found. And even when a useful association arises, it is mostly because it bears within itself a familiarity to a known context. Successful sudden insights are time-consuming and difficult to achieve, and never come in a continuous stream. They reveal themselves through metaphorical analogies provided by a private biographical history or a collective history — sometimes understood as tradition. And there is no guaranteed ethical component in the metaphorical analogies. We have to be thrifty with looking for inventive actions.

So by necessity we need to optimise our own conventions of the design process and be keen on when and what to invent. We need to choose our battles. In this choosing, a critical faculty, which is not assumed to be a natural or inborn capacity, values certain things over others. And this critical faculty is, to a degree part, if not entirely, formed by the final vocabulary of others. In what we consider priorities the influence of others echoes through. Hence, the fundamental discussion within the private practice deals with whether or not to reconfirm a priority. So although we hardly need to be explicit about contingent design decisions in private practice, a backdoor entrance exists by which to
return to the debate on values. Not because others from the architecture field demand it, but because the search for an increased design dexterity requires it.

Within standard projects the strong emphasis on exigent requirements clouds the intentional debate on values and priorities. These projects are not the means for developing such a debate. They can only bear proof of it. We need to make time and space to provide grounds for a proper inquiry of our critical faculty. In architecture it is a given that a design cannot be truly tested in reality before its realisation. Experience and rigour back up a novel composite, but there is no feedback from a larger population during the design process. The built environment is the first real test site. That is why we look to participate in idea competitions, design research, exhibitions, and public debates. These settings do not focus primarily on the finality of a built product; rather, they serve as testing grounds for working hypotheses. I will elaborate on two examples in the next sections.

5.3.3. The Delta Hub Case

Situating The Case

In 2010 an international and interdisciplinary conference was held on how to cope with deltas in times of climate change and increasing flood risk.24 Seven architects were invited, selected through an international idea competition, to contribute innovating thoughts to the convention. For the primary selection a single idea had to be presented. Our firm, VAK architects (Nik Naudts and myself), had sent one image [fig. 50] to convey the hypothetical question: ‘Why do we not live on the delta wall?’25

The hunch we were working on was driven by the idea that while engineers effectively provide single-line defence systems, which are conceived as barriers, architectural expertise could bring a more integrated and spatially qualitative solution that, at the same time, can also be self-maintaining. These more sophisticated solutions could be more integrated in daily life and thus allow a society to adapt.

As architects we were one of many experts preparing for an interdisciplinary convention. Our first task was to prove the plausibility of the working hypothesis. We had to exclude aspects of style or aesthetics so as not to cloud the main intent. The focus had to be on the performance of the architectural contribution, to convince the other experts at the table (Riedijk’s idea26 — to only draw what needs to be invented — turned out to be more than convenient
in this case). Prior to the workshop we made a manual that included technical specifications so that we could calculate the performance of a specific setup [figs. 51, 52].

The architecture had to be both flexible and rigid to play a long-lasting role. That is why we decided to work with a three-dimensional grid without the use of any cantilevers or major structural exceptions. The goal was to, first, make a *delta hub* — an urban island that could function as a safe haven for the population forcibly displaced during extreme flooding — and second, to make a qualitative district to house a diverse urban life [fig. 53]. Given the fact that it would be a mixed neighbourhood of private housing, offices, public buildings, and semi-industrial buildings, the whole would be self-maintaining and not just an infrastructure whose maintenance costs would be a further burden on the government.

In times of extreme danger the evacuation of large groups of refugees can lead to entire populations being displaced. One of the main intentions of the Delta Hub proposal was to rethink the ongoing yet unsustainable practice of horizontal evacuation. Therefore, we invented safe havens in the area of disaster that can cope with different aspects and intensities of threats. The idea of a multi-layered defence system is not entirely new. The medieval castle functioned as a primary model. The sequence of events that followed a military raid in medieval Europe look similar to those of flooding nowadays. Alarmed by the threatening danger, people flee to a collective safe shelter where they gather in chaos. They then begin to organise first aid. After a few days or weeks secondary needs are gathered or produced. When the danger disappears the people can spread out again. The smallest but most important component of this medieval multiple-line defence system was the donjon, a massive tower forming the strongest part of the castle, a shelter of last resort for only the landlord and his entourage.

The Delta Hub is a contemporary interpretation of the medieval fortress or donjon, but instead of being a private retreat it acts as a collective shelter. It operates as an entire urban district composed of several buildings that have the same urban envelope. This envelope exists of two U-shaped elements: a robust substructure that makes the building flood resistant and a high-end superstructure that contains one urban function. The substructure includes locks and sluices, several types of hydropower generators, and other technical equipment (such as a boat wharf, a container quay, a water treatment plant, boat storage, aqua farming or parking space). Thanks to a flexible layout, the
superstructure can contain apartments and open-floor offices or can be part of additional programs, such as a hotel, a hospital, a town hall, a theatre, and a sports centre.

Isolating Design Conventions

We proposed a three-dimensional grid with a basic 8.1 m unit. For the other experts, we did not have to legitimize the grid; we only had to prove that it was a perfect tool. Before we decided to use the 8.1 m unit we discussed it extensively. In Ludwig Mies van der Rohe’s article ‘Bürohaus’ (1923), Mies suggests that the 8 m unit is the most economical solution. He talks about a span of 8 m between two columns and twice a cantilever of 4 m on each side. According to Mies this coincided with the most effective depth for the working space, which then would be 16 m. The result was a π-frame that was vertically stacked and horizontally repeated every 5 m. The columns on a plan inscribe a rectangular grid of 5 m by 8 m. Until the 1940s the dependence on natural daylight was predominant. By the time Mies built the Seagram Building, artificial lighting had become standard equipment for office buildings. This allowed him to insert more grids, making the building thicker. As a result Mies used a rectangular grid of 8 m by 8 m for the Seagram Building. Already when Burnham and Root and Adler and Sullivan were making the first tall office buildings — the Tacoma building and the Wainwright building in Chicago — for a single-sided office, which depended on natural light, the maximum recommended depth was close to 8 m (24 feet). With offices at both sides, the width of the slab would be between 14 m and 16 m. If an airshaft had to be made in between two towering buildings a minimum of 8 m was recommended. It is an empirical number that still exists in fire regulations as the required distance between two facades of separate fire compartments without further safety requirements.

Our buildings had to incorporate car parks that met with contemporary regulations. An 8.1 m by 8.1 m grid of columns allows for the optimum layout. Sets of three parking lots, each 2.5 m by 5 m, fit between two columns (each with a diameter of 0.6 m). A 6 m-wide road, flanked on both sides with parking lots, is best organised in this grid. This way, the columns will be at the required position, not hindering the opening of doors and allowing a car an easy passage in and out of the parking spot (which is in the Dutch regulations). Obviously, an 8.1m unit also facilitates further subdivision into 4.05 m and 2.7 m rooms. Three times the 8.1 m unit makes 24.3 m, which turned out to be suitable for various functions. The opera house or theatre has an auditorium that is defined by its proscenium (maximum opening of 18 m), flanking walls that reflect the
sound deep into the room (the optimum distance between them is 21 m), and the maximum depth by which an actor is still recognisable (approximately 25 m). A basketball field with grand stands; a swimming pool; a movie theatre; a prayers hall including the Mihrab (prayers niche); the layout of the British parliament; and, of course, a lobby or convention hall; but also a boat wharf; two 12 m containers; a spiral ramp for cars: all fit perfectly within the 24.3 m. Having checked all these empirical facts, the design did not need to go any further. With the 8.1 m unit, the 16.2 m slab, and the 24.3 m void, any combination of required programs could be guaranteed to be solved effectively [figs. 52, 54]. As a result, an 8.1 m unit formed the basis of a three-dimensional grid used for a singular building: 8.1 m by 8.1 m by 8.1 m. The width of a U-shaped slab is 16.2 m (2 x 8.1 m). The width of the space wrapped by the U-shape is 24.3 m (3 x 8.1 m).

Within the generic framework several types of plans are possible. One can think of Neutelings’ sketch on plan mathematics. Another reference is the magazine Pamphlet Architecture #5, edited by Steven Holl, in which he says, ‘In the alphabetical city — the contiguous portions of cities that evolved on gridiron plans — certain letter-like buildings recurred’. In this edition of the magazine he discusses T, I, U, O, H, E, B, L, and X-type of buildings [fig. 55]. The letter-plans study formed the inspiration for Holl’s Fukuoka Housing Project [fig. 56]. Yet another, much older reference is the Setback City [fig. 57] and the Fraternity Temple [fig. 58] of Luis Sullivan. Both designs date from 1891 and show how a plan, if one follows the different plans per level, can then be O-shaped, shaped like the Greek cross, or shaped like the letters U, L, Z, H, etcetera. In reference to the Delta Hub, we saw no necessity to elaborate on possible plan types other than to state that all these letter-like options were possible, if further plans needed to be developed [fig. 54].

The architectural canon (forms, colours, materials, and elements) was left out intentionally. Any elaboration on aesthetic performance of the architecture would disturb the message, as would a debate on shape variations. The corners of our buildings could be chamfered — like the Cerda city blocks — or smoothed until ultimately a circular plan is reached. The section could be tweaked by gradually shifting floors, stretching voids, cutting slabs, or locally increasing the floor to floor height — such as for example the Seattle Library of OMA. We compare these design options to distortion switches on a sampling board. We could consider turning them on during a subsequent design phase, but we chose not to apply them in a conceptual phase because it would not contribute to the central idea.
The technical sheets of the buildings included conventional elements related to sustainable buildings, mechanical engineering, and energy supply. They are mostly added to or added on a project as ready-mades (depending on what the budget allows). In case of the Delta Hub these add-ons were essential for its utopian character, but they were also carefully calculated to make it realistic. For example, the optimum height of 100 m was achieved for a powerful windmill. The caissons, which we imagine to be part of the substructure of our buildings, matched in size, with a 16.2 m width, 56.7 m length, and 32.4 m height; We used the caissons of the Dutch delta wall as a reference. The heat exchanger at the bottom of the ocean, the turbines driven by tidal streams, a generator driven by topping waves, a greenhouse on the roof, solar power, and rainwater recovery all fit realistically and were calculated with good probability.

**Raising Architectural Intentions**

We reflected beforehand on a three-dimensional grid, on the exterior and the architectural canon, on letter plans, on chamfering, tweaking and smoothing, and on sustainable, mechanical, and energy-supplying add-ons. Dismantling the design exposes conventions for almost every component. At the same time, this is a perfect way to single out the most important invention of this design. The Delta Hub project is a critical proposal for clarifying architectural intent when dealing with the complex problem of coping with a flood risk area. The urgency of finding solutions, coupled with complex variables and incomplete data, tends to have a dispersing effect on specialists. Primary response often employs engineering solutions that are single-line defence systems. The Delta Hub project wanted to promote, within this very specific debate, an integrated approach. The proactive investigation of possible architectural solutions can work as a catalyst to overcome certain running standstills. It is architecture’s instrumentality taken to its extreme.

Thus far I described an architectural toolkit composed of bits and pieces, of which the performance was written down in technical sheets as part of a manual. The manual included exemplifying compositions and impressions of generic setups. During a twenty-four-hour workshop with other experts, we had to tackle a case study on Rotterdam. The question was how our architectural and urban intervention would cope with a virtual flooding scenario. Along the Maas River 280,000 people currently live outside the flood protected area. In case of sudden flooding all these people would have to be rescued by displacing them to safe zones behind the dike system. Rescuers and first aid responders all have to enter the area of disaster from outside — there are no protected safe zones within from which to work.
Each district required a specific mix of functions to ensure the presence of basic amenities at all times. Mixing housing with a variety of working environments, houses of culture, and leisure buildings provides a rich milieu to live in. Inhabitants are a mix of residents, employers, employees, and visitors. Most of the non-housing facilities can turn into sheltering spaces in times of crisis. Residents take on the role of stewards and the others make place for refugees in case of a flooding of the Maas River delta. Crisis managers insisted on the use of car parks to increase the sheltering capacity needed in the first days immediately following a disaster. For a more detailed report see [Annex 1].

**Convincing Beyond Architecture**

Based on the innovative ideas in the search for an integral solution that allows work from within the area of disaster, VAK architects was invited to contribute to an annual conference in New Orleans called the *Building Resilience Workshop*. The case had to be reoriented towards the specific conditions of New Orleans. At the same time we wanted to present solutions that would be appealing to a larger community. Therefore we needed to incorporate the interests of concerned parties — other than the engineers and jury members of the Rotterdam case — and we had to adapt our technique of evocation to the different circumstances. With this technique in Rotterdam, we had to make provocative images to stand out in a series of poster presentations exhibited in a vast convention hall. In New Orleans our contribution would serve as a backdrop for a panel discussion and an afterlife in online social media [figs. 59-64] shows our resulting contribution — rather than provoke, our images had to evoke. The next case builds upon the Delta Hub knowhow. It elaborates the idea of architecture as a rhetorical instrument and, thus, primarily intends to catalyse difficult debates on public policies that are locked due to seemingly opposing interests.

### 5.3.4. The Knokke Case

**Situating The Case**

In the fall of 2013 I was invited together with MikeViktorViktor Architects and four other firms to contribute to an exhibition in Knokke (Belgium) that showcased five design research projects on the future alternative development of Belgian coastal area. Our contribution was called the Deltaclusters [figs. 65-73]. Many challenges exist for the Belgian coast, as the exhibition outline goes, of which several are shared with almost any deltaic area in the world. Climate change will cause seawater levels to rise, while the increase of rainwater will put pressure on the river delta that drains the hinterland. As a result, the
coastline is threatened by floods from both sides, and it is questionable whether
the government can continue financing the maintenance of the existing
infrastructural defence systems, let alone invest in the necessary extra defence
infrastructure. A lot of industry and related urbanity is located around strategic
harbours. Together with areas of profitable tourism, these areas most likely will
endeavour to remain a qualitative built environment. Prime locations are
interlocked with the defence infrastructure.

The future governance will reach an impasse if it fails to provide extra
defence infrastructure while continuing to promote or endorse the ‘front row’
position as the single prime location. To meet the challenges within fifty years
— as set out in the exhibition outline — the precautions that have to be taken
go beyond the regular intents of architectural and urban development. 41 At
current prime locations along the Belgian coast, land and properties are
fragmented among multiple owners. This complicates the organic regeneration
of that particular built environment. Many initiatives are tailored to the limited
opportunities to renovate or build anew small parts of the city. These initiatives
are bound to existing regulations and have to accord to current trends in the
building market. To unhinge this mechanism one would need the combination
of new prime locations and the possibility for all involved parties to make an
economically profitable transfer. In short, today there seems to be a mismatch
between the scale of regular architectural and urban developments and the
large-scale operations that are required to turn and cluster certain parts of the
deltaic built environment within a highly limited timeframe of about fifty years.

Yet history has proof of large-scale interventions that have caused effective
new urban developments. Take, for example, the Olympic village in Barcelona,
a huge operation for a highly profitable event but at the same time designed and
constructed with its afterlife in mind. What was once, for a very short time, the
residency of all Olympic athletes turned into a housing district directly after the
event. This is a known mechanism that is one of the primary drivers for similar
initiatives such as world fairs or world cup events. In the wake of the
organisation of such events a caravan of private and public investors begin to
anticipate the profitable afterlife of the necessary newly built environment. But
there are other examples of infrastructure that is — although less instantly
designed for a second life — at a certain moment literally out of use. For
example, the industrial infrastructure in the nineteenth-century European city
belt generated all kinds of creative urban transformations. In Barcelona these
sites made way for a number of new urban parks. In other places this
infrastructure is transformed to new types of inhabitation. Specifically for the
Belgian coast, the transformation of the military compound into a new residential area is a good example.\textsuperscript{42}

**Isolating Design Conventions**

In preparation of the *Deltachusters* contribution we were looking for a contemporary version of the military hospital. What are major investments today that can become residential prime locations in the near future? Many current forms of large-scale investments are Design, Build, Finance, and Maintenance (DBFM) or Public-Private Partnership (PPP) constructions. This generally means that the buildings are leased for a period of, for example, twenty years, after which they are sold and may be transformed towards a different function. Some of the main priorities in Belgium today are healthcare facilities, social housing, prisons, research infrastructure, and blue collar facilities. Many of these are realised in a DBFM or PPP construct. They could be designed with the afterlife in mind. We built *Deltachusters* upon that assumption. Four hypothetical clusters are showcased in a virtual future situation. The first is a sports, trading, and business cluster. The second cluster is made out of health care facilities that are grouped on a mound in the delta. Fig. 67 shows a third cluster (in the middle of the model), a new event space district, as described earlier.\textsuperscript{43} The fourth cluster combines functions such as hotels, resorts, casinos, and museum, and resembles the Delta Hub.

We carefully chose a different character per cluster because each would depend on and appeal to specific actors. The fourth cluster anticipated the dream that is alive among multiple powers that be, that are involved in the development of the Belgian coast: to build leisure islands in front of the existing coast line.\textsuperscript{44} With these projects they are hoping to attract foreign capital to invest in exclusive settings. That would generate two opportunities: multiple prime locations, as opposed to the single line today, and extra resources to invest in defence infrastructure and the sustainable production of energy. The healthcare cluster is imagined as a PPP construct in which the government invests up to fifty percent. It is designed so that it can easily transform (parts) into privately owned residential areas. The first cluster could be a DBFM construct in which international companies lease their offices and other required spaces. The new event space cluster is imagined as finding its origin in the organisation of, for example, a world cup tournament or the Olympic games. Hypothetically these four clusters involve different actors and momenta by which they can be realised parallel to each other. We organised the clusters along one central infrastructural axis, of which the top stays at least 8.1m above future raised water levels.\textsuperscript{45} The central axis runs perpendicular to the existing
coast line. Even during extreme floods all clusters can stay interconnected — except for the leisure cluster, which is imagined to be connected by boat from day one. We are convinced that each cluster on its own has the power to initiate the growth of a new district. As a result, more prime locations will start to emerge in the hinterland of the Belgian coast.

**Raising Architectural Intentions**

Given the working hypothesis of the exhibition, namely that we give up the straight defence line and allow seawater to penetrate the deltaic areas that are currently below sea level, we will have a future of wetlands transforming the coastal area into a network of lagoons. *Deltacusters* uses this image to discover multiple prime locations in this very distinctive landscape. Peoples who have property in the current ‘front row’ location that is part of the least defensible zones can now profitably transfer to one of the clusters. One of our main messages was to maximise the intent of architecture in the face of urban change. If the right momentum can be created for the large-scale enterprise, that is, the realisation of a cluster, then ideas about energy supply, waste management, and distribution of common goods can be developed at the level of the new districts. We translated these ambitions into a manifest [Annex 2] that was the first piece presented at the exhibition.

**Convincing Beyond Architecture**

In addition to a large model and some audio-visual material, we created five images that had to evoke future life in our design. It was crucial that these images had an anachronistic character. They had to gather familiar associations with beautiful settings without being seen as nostalgic or traditional. They had to feel realistic rather than futuristic. They had to be pleasing to look at, colourful, and inviting, but at the same time they had to convey the entire ambition into one shot. The illustrations show how we analysed images produced by Léon Krier, Jaap Bakema, and Ralph Erskine to make the five manifest evocations. Krier has an interesting formal vocabulary for making unity out of urban fragments that enclose a variety of outdoor spaces. His first images were also graphically close to the work of Aldo Rossi and Georgio Grassi and therefore very colourful.

The illustration we made [fig. 72] to evoke future life in our design is inspired by Bakema’s proposal for the Amsterdam city extension in 1965. The most powerful image that captures the entire quality of his proposal is the image of the man on his balcony overlooking the natural green landscape [fig. 74]. Bakema had designed a system of clustered city extensions grouped around a
single infrastructural line. The density of the resulting districts declines the farther one lives from the main line. This central vein that would supply in all private and public transport creates a fishbone structure for the urban settlements [fig. 75]. All residences on the perimeter of the two-faced setting have one side looking to an urban centre and the other side oriented to the green surroundings. Bakema captures the essence of his design in that one man enjoying the view from his balcony while his child plays in the background and his wife enjoys the sun. It shows the symbiosis of urban life and nature and proves that the promise ‘you can have it both ways’ is not too far fetched. Our images build on these examples. A west side balcony, part of a residence within the event clusters, shows a marvellous view over the future delta that is arguably more imprinting than the existing north view over the sea today. At the same time this residence is part of a newly built district that benefits from the supplies, infrastructure, and management designed on the level of the district.

The Implicit Side of Practice

Due to the very specific settings of the examples, the priorities addressed here may be assumed to be primarily actions that deal with climate change, flood risk assessments, and the conceptualisation of new types directly connected to these priorities. But I do not consider myself an architect who specialises in deltaic or flood resistant architecture. In fact, we used the public talks to test the whole of our design vocabulary. Many of the values and priorities that are (con)tested this way do not relate to the very specific deltaic conditions. We see, for example, a great advantage in choosing clusters over single towers because we think the formal repetition makes the whole visually as strong as a single icon. In addition, the cluster creates and organises an outdoor space that is part of the whole. Clusters suggest smaller fragments that are easier to build and to maintain. They make up for a more sustainable built environment, as does the regularity in the main structure of the building. We avoid using cantilevers in parts that are crucial to the main structure. The resulting readability competes with the awe-inspiring spatial exception. Both techniques aim for an aesthetic appreciation. I favour familiar architectural elements that refer to a design craft tradition over the constant drive for innovation. I promote the relative significance of the architectural canon in relation to its instrumentality. That does not mean that the architectural canon is irrelevant; in fact, empathy for a broader culture is reflected in it. As a result our focus is on enlarging the number of stakeholders or possible objectives rather than the artistic value of our work. Settings such as the workshop at the Delta conference provide feedback on how our values are being appreciated by others.
To conclude on a purposeful hybridity in practice, I have discussed an implicit side and an explicit side. In the case of a project whose primary goal is to build it, the project can only bear proof of purposeful hybridity. At best the process requires or challenges an improved design dexterity. In the case of a project that primarily aims to inspire and catalyze in ongoing debates, proposing and confirming valuable priorities becomes much more explicit. Exhibitions, presentations, and public debates are a possible realm by which to install a virtual test site before certain ideas are further developed. However, I believe that the optimal platform for achieving an even more direct feedback is still to be developed.

5.3.5. Being More Academic

Purposeful Hybridity in The Academic Realm

The critical movement installed an hermetic, extreme intellectual and self-referential discourse in architecture. Shifting focus to practice and projects is a way to lift this burden of any reinterpretation of criticality. The natural habitat of practice is out there in the world. So, the straightforwardness of, for example, the *At Work* book is a welcome alternative. The risk of defining purposeful behaviour exclusively through a collage of best practices is a shift away from academia. Or, to paraphrase Reinhold Martin, the critical movement is wrongly interpreted as too academic. As a result one tends to shy away from academia, while in fact it is the responsibility of the academic world to set the agenda of purposeful behaviour in architecture. The academic world has to deliver drawn manifestos of what can pass as legitimate architecture. This could mean that studio assignments and thesis projects should aim to go beyond the pedagogical momentum and contribute to topical issues. This explains my interpretation of purposeful hybridity in the academic realm: design research studios that reach beyond the walls of the university.

When I was asked to set up a master design studio in 2010, the university college of Antwerp was on the verge of reorganising the architecture educational curriculum. One of the leading questions was how to be more oriented towards the needs of society. Now, if Martin and Žižek are right about the tremendous responsibility of academic architects to produce the references for good standards, then the idea of architectural education in relation to the needs of society acquires a whole new meaning. If society is, indirectly, more served by the ‘curing’ of the academic realm, then infusing the educational discourse with utopian realism and producing and studying drawn manifestos is a primordial need. It is a reasonable alternative, considering the flaws that might
occur during a one-on-one translation of the needs of society — that is, if the building market defines the educational discourse.\textsuperscript{49}

Earlier, I described \textit{purposeful hybridity} as the coexistence of multiple performative intentions combined with an explicit reflection on a personal position. The appropriateness of the intention and the personal position needs to be tested in a virtual setting. Wanting to broaden the group of peers that provide feedback is natural. Translated to an educational assignment, the general format is a position statement complemented with a drawn manifesto. As a personal challenge for students, I urge them to cover at least three purposeful contingent needs at the same time. Then I tell them to try to replace one of the three with a contingent need that outranks it in priority. If they fail to replace any they are probably addressing the top three priorities. Students are challenged to take their work outside the academic realm by engaging in exhibitions or another form of public defence. I will clarify this by going over four assignments.

\textbf{Four Examples}

A first assignment was the production of a personal manifest for architecture.\textsuperscript{50} The students were asked to develop their own position based on the reading of a couple of seminal works. The thesis students had to inquire into the possibility of explicit rules for appropriate design interventions. The manifest had to be a device to discuss the quality of a contingent design decision. The students chose to put in writing what they expected from the performance of architecture. No record was made of form, style, or architectural canon. One particular case within this thesis, on town halls in Flanders, shows how it fits my definition of purposeful hybridity [fig. 81].

The first priority the student detected is that on a regular basis town halls need to be renovated or built anew. Most often, the governmental term is shorter than the lifespan of city hall infrastructure. For that reason, a long-term policy should be produced by a party external to the council — at least that is the hypothesis. A second priority is that dedicated budgets are often too low to maintain the existing town hall in accordance with contemporary needs and regulations. Therefore, to replace the existing town hall, councils opt to build new administrative offices on less expensive locations in the city. Town hall architecture thus risks losing its meaning and organising character within the urban fabric. A third priority is the need of many Flemish cities to invest in youth and cultural centres as a community service. A background study on the town hall type revealed the older use of its infrastructure for different functions
and events.\textsuperscript{51} The student’s design hypothesis was to combine the budgets dedicated to the new cultural infrastructure and the modernisation of the town hall into one project, to upgrade the existing building. The student worked on two case studies: one on the existing Berlaar town hall and one on the town hall of Antwerp. The need to take the personal hypothesis outside the academic realm was translated here in a public defence of the student’s preliminary findings in front of the city council of Berlaar.

A second example is a master’s thesis I supervised at the university of Antwerp.\textsuperscript{52} The assignment was to rethink the prison or stadium typology by fusing priorities that sit high on local political agendas. Specifically for the case study in Ostend, at the Belgian coast, the challenge was to merge the desire to build on the sandbanks\textsuperscript{53} with the necessity to provide extra prison capacity. In addition, an exclusive boardwalk with extra facilities, perpendicular to the existing coastline, would diversify the today mono-functional strip that faces north. It counted as a typical proactive investigation for alternative spatial solutions. How to qualify this knowledge a priori is not the point here. The goal is to pursue these hypothetical alternative spatial solutions and to see if they set the conditions for a new approach or debate. The illustrations [figs. 82-85] show a possible outcome for the assignment. It can be argued that this provides the evocative material to start dreaming about a win-win situation. The first sandbank is about 1.8 km away from the existing coastline infrastructure. The participation of public and private investors in a bridging boardwalk would make the first sandbank accessible. The proposed compromise was that the substructure contain a large prison facility. This opens the door to discussing a unique park / leisure island as an extension of the existing waterfront. In this case the extra academic interaction was shared through an animated video via social media in an early stage of the design research, followed by a small public exhibition afterwards.

A third example is a design studio assignment for new event space typologies, as mentioned before.\textsuperscript{54} The assignment focussed on the afterlife of the event. Therefore, the stadium typology was cut into ten blocks surrounding a central square. The urban envelope of the separate blocks was a box of 80 m by 80 m and 40 m of height. There was one restriction for the facade facing the square: It had to be inclined to provide good sight lines; it also had to guarantee the sight lines of the neighbouring blocks. The minimal width of the streets was 8 m. The central square was raised by 8 m to allow car park entrances, delivery and logistics to be arranged underneath the elevated square. I gave the students the urban plan, the envelope, and a program of 20,000 m\textsuperscript{2} for each building. I
also shared the theoretical background of the three-dimensional grid — here with a basic unit of 8 m instead of 8.10 m. They were advised to work with the three-dimensional grid. The programs for the separate lots were a hotel, a hospital, a museum, a library, a school, a theatre, a research institute, offices, a shopping mall, and housing. With all the given restrictions the students were challenged to be explicit about how their building would engage in the performance of the larger district. Figs. 76-80 provide an impression of some work at the design teaching studio. The studios and the findings were discussed in various settings: It was one of three themes on which a conference was held in 2012 called *Theory by Design*; it was the subject of a paper I presented at the *New Urban Configurations* conference in Delft in 2012; and it was selected as a case study for a European Association for Architectural Education (EAAE) seminar on modes of research by design. I also made an animated video to reach out to a larger online crowd, with about 5,000 views up to this point. Some students have used the video as a basis for their master thesis.55

A fourth and final example is a thesis assignment for a renewed park in Antwerp.56 The central park in Antwerp is a nineteenth-century triangular park surrounded by nineteenth-century districts with stringent infrastructural challenges. The three priorities that set the design objectives were (1) a nineteenth century park needs to be adapted to contemporary user requirements; (2) due to a mismatch between maintenance/renovation costs and private financial resources, the patrimony of the surrounding district fails to regenerate itself and, thus, fails to meet the current standards for ecological performance; and (3) the compact geometric park form does not correspond with the city requirements, that is, the quality of life would increase along with a more dispersed park form; More green equals more oxygen; More perimeter equals more park-oriented facades; And, a more dispersed form means more city entanglement and more routings through a park environment. By studying building rights, enlarging the typological scope for housing, and designing the regeneration process the student provided a drawn manifest for a possible integral approach. The diagram and the model [figs. 86, 87] show the concept and result of the design research. One of the main objectives was to suggest a design policy for other European historic city centres that meet with the same challenges.

5.3.6. A World of References

For an architectural apprentice, the years of education are but a small window for getting acquainted with some of architecture’s larger history. It is
the responsibility of academic staff to provide a most effective filter for any apprentice to build a world of references. Architectural theory and critique are such filters that allow an apprentice to cope with various architectural discourses. However, when dealing with the design craft, such a filter is much more difficult to provide. It should be a methodological tool, an inquiry device that integrates an equivalent of critique into the act of designing. It should allow an apprentice to recognise which contingent design decisions, methods, techniques, and tools are legitimate — for his own designs as well as for the designs of others.

To master the design craft, an apprentice is bound to perform the critical act of knowledge gathering. The apprentice also learns by studying examples, by trial and error. He needs to reconsider whether context has changed, whether examples, types, and models are still applicable or need to be adjusted. A lot of sorting out is to be done, if one wants to create a world of references; by this I do not mean a collection of references, 'stored' externally, for the apprentice to be studied at his earliest convenience, but a mentally ‘stored’ library of parts derived from examples previously analysed and dismantled. In other words, it is not a collection to be studied, but a collection that has already been ‘processed’ through thorough investigation. This endeavour is two-fold, because it needs to be done for both theory and practice. It goes without saying that without any proper filter this is an impossible task. It cannot be just a matter of exhaustively cleansing the world of references by arbitrary rules.

This chapter has reported on empirical research that was developed parallel to the theoretical work for this dissertation. Therefore, this chapter should not be read as a final answer to problematizations of the former chapters. It is work in progress that reports on initial hypotheses. It tries to cope with a re-calibrated vocabulary by proposing a code of conduct: purposeful hybridity. This code of conduct accepts that the architect’s creative metaphors have no guaranteed critical component. The good thing is that purposeful hybridity erases ‘either-or’ choices based on style-isms. However, the proposal in this chapter of a purposeful hybridity must be balanced with ethical considerations. The working hypotheses of this chapter tested the form and territory that might apply for these ethical considerations. The drawn manifestos seems to be a possible form; whether it is the most optimal is food for thought. It does, however, suit the idea that the form of the required design intellectuality is not a closed construction — that form primarily combines a lateral mix of objectives rather than a vertical list of conventions. It allows a random sampling of the bits and pieces of the best possible ideas and concepts.
The territory for *purposeful hybridity* has a place in practice but should be initiated primarily in the academic realm. It could result in specific design teaching studios on typologies combined with design theory classes that serve as a forum for ethical debates. Much is already present in running academic curricula, and so perhaps it only needs to be organized as a well-defined subset within these educational agendas. The key is to make that subset public-oriented enough. Academic peer-reviewing needs to meet with social media. Themes developed in the teaching studios need to reach beyond the university walls, which is one way to increase the required ‘radical thinking’. Force fields are driven by pacesetters and influencers. Time will tell if playing the academic territory is currently the best way to affect ongoing forces in architecture.

Due to the confinements of this research not enough time existed to take distance from the experiments, make a critical assessment and corrections. In retrospect I find the experiments not providing enough clarity in the following intellectual challenge. Narrowing down the conversation to exigencies alone — explicit demands, needs, regulations, and intentions — obscures whether other contingent design decisions are equally relevant for the criticality of an architectural proposal. Is choosing a colour, pattern, or following some idiosyncratic focus simply a matter of taste — a personal preference? In countering the idea that all contingent design choices are merely matters of taste one of the difficulties is to make clear what is contingent and what is not. Because, often a contingent idea turns into an exigent concept as soon as it is made explicit and argued for. Remember the backdoor entrance from the private to the public sphere in case of the projective project for example. When taste is backed up with reason it is no longer considered as taste. It is precisely in this twilight zone that a redefined criticality must operate. The experiments either avoid to thematize non-critical aspects — by setting the ‘distortion switch’ as low as possible — or insufficiently questioned how the non-critical affect the critical aspects.

The course of events caused the experiments in this chapter to give weight to unintended aspects. For example, the first experiments just happened to deal with problems of flooding and water management, but a danger exists that the overall argument may be reduced to this particular field of expertise. The experiments could be read as primarily the opinion of an architect specialising in deltaic infrastructure, rather than an attempt to develop drawn manifestos as a device for inquiry.
A similar caution must be expressed about the scale of virtual projects. As it happens, they all turned out to be large-scale interventions. Combined with the limited timeframe that caused a generic image (the designs only reach the preliminary stage), this might suggest that purposeful hybridity would not affect the detail or, in other words, the human scale. As a final remark, the attempts to bring the experiments outside the academic walls did not have the penetrating effect as hoped for. Therefore, the next level for these experiments would be to use the purposeful hybridity approach on a variety of scales — from the architectural element to the overall architectural cluster. At the same time, we should look for new sorts of media involvement to influence the priority agenda of the forces on which architecture depends.
fig. 45 - above
Drawing by Léon Krier.
Source: Drawing for Architecture 2009

fig. 44 - below
The Phoenix stadium
designed by Peter Eisneman
Above: A composition of The Spanish Stairs, the Philadelphia Art Museum and the Supreme Court. Below: The Beijing Olympic stadium projected on the collage. The stairs follow the grand stands and the second level overlaps with the roofs of the buildings. Collage made by the author.
fig. 48 - above
Painting by Donald Judd (part of the Tate Modern collection)
source: www.tate.org.uk

fig. 49 - right
The generic urban scheme that resulted out of the combination of previous images. It formed the basis for a masters design studio assignment. Made by the author.
THE DELTA WALL

The Delta Wall includes features such as sea locks, container transfer, yacht marina, inner canal, pond/nursery, fountain, and square. Public routing includes apartments/offices.

Rotterdam city is located by the North Sea shore.

PRESSURE COOKER SESSION ‘DELTA CITY OF THE FUTURE: CHANGING PERSPECTIVES’ - 2010.09.27-28, ROTTERDAM

Area:
- Wing 16.2 x 56.7 m²
- Midfloor 24.3 x 56.7 m²
- Roof 56.7 x 56.7 m²
- ‘O’-shaped floor 2.600 m²
- Basic upper part of building 22,000 m²
- Basic lower part of building 16,000 m²
- Basic building 38,000 m²

Energy:
- Windmill yearly production (Enercon 33) 4,500 MWh
- Solar power (1 m² = 100 kWh/year) roof 300 MWh
- Generator topping of waves ?
- Turbine driven by tidal streams ?
- Heat exchanger: temp. at -20m 1 - 10°
- Yearly usage by 1 inhabitant 8 MWh
- Yearly usage by 1 resident 1.5 MWh
- Yearly usage by 1 family 30 MWh

Water:
- Yearly average of rainwater (NL) 0.78 m³/m²
- Yearly captivated rainwater per footprint 2.500 m³
- Yearly usage by 1 inhabitant 16 m³
- Yearly usage by 1 resident 1.5 m³

Miscellaneous:
- Average depth sea Dutch coast 20 - 30 m
- Average depth river / canal 12 - 16 m
- Ship Knock Nevis length/width 468/69 m
- Knock Nevis loaded above/below water 9/25 m
- Nitrate salt is used for heat storage
- Container TEU (twenty feet equivalent unit) 6x2,5x2,5m
- 1000 MWh = 85ton fuel, 800ton CO₂, 0.1ton CO

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Fig. 50 - Above
Contribution to the international idea competition that preceded the conference ‘Deltas in Times of Climate Change’ organised in Rotterdam, 2010

Fig. 51 - Below
Extract of the manual that was made to calculate the performance of the Delta Hub buildings.

Fig. 52 - Right
Facts and figures of the Delta Hub buildings.

Fig. 53 - Next spread left
Poster image of the Delta Hub.

Fig. 54 - Next spread right
Overview of the design variables of the Delta Hub buildings.
ON GRIDS AND LETTER-PLANS

ON THE EXTERIOR AND THE ARCHITECTURAL CANON

ON 24.3M FOR SPECIAL PROGRAMS

ON RAISING, SMOOTHING, CHAMFERING, AND TWEAKING

ON SUSTAINABLE, MECHANICAL AND ENERGY SUPPLYING ADD-ONS
fig. 55 - left
Cover of magazine guest edited by Steven Holl.

fig. 56 - above & right
Fukuoka housing project of Steven Holl.
fig. 57 - above
L. Sullivan, setback skyscraper city concept, 1891.
Source: Donald Hoffman

fig. 58 - right
L. Sullivan, fraternity temple, Chicago, 1891.
The Proposed Odd Fellows Temple.

The fraternity of Odd Fellows is considering the project of erecting the Temple shown in the above design, on a very desirable site already under option in the center of the business portion of Chicago. The Temple has a frontage of 172 feet on one street by 210 feet on another, and if built as above, will be 36 stories high, the center tower being 70 feet square and rising to the height of 450 feet above the street level.
fig. 59 - above
Delta Hub concept for New Orleans.
Made by the author, 2011.

fig. 60 - below
Delta Hub scheme for New Orleans.
Made by the author, 2011.
fig. 61 - above
Delta Hub concept for New Orleans.
Made by the author, 2011.

fig. 62 - below
Delta Hub concept sections for New Orleans.
Made by the author, 2011.
fig. 63 - above
fig. 64 - above
fig. 65 - left

fig. 66 - above
The Deltaclusters: axonometry that shows the setup for the exhibition, 2013-14.
fig. 67 - left
The Deltaclusters: pictures taken during the exhibition, 2013-14.

fig. 68 - above
The Deltaclusters: poster image used to announce the exhibition, 2013-14.
fig. 69 - above

fig. 70 - below
The Deltaclusters: sketch that served as a basis for fig. 54, 2013-14.
The central square of the Atlantis project, painted by Carl Laubin.
Source: Atlantis 1988

fig. 72 - above left
The Deltaclusters: view from the event cluster, 2013-14.

fig. 73 - below left
The Deltaclusters: sketch that served as a basis for fig. 57, 2013-14.

fig. 74 - below right
Jaap Bakema, private outdoor area opening on the 'open space.'

fig. 75 - above right
Jaap Bakema, excerpt of the 'Pampus' plan for the extension of Amsterdam.
Fig. 2. Early (1958) early prototype drawing of Erskine’s walled city design that would be commissioned for Resolute Bay in the early 1970’s.

Besides the odd social arrangement of white inhabitants encircling the Inuit in the new town, the perimeter wall structure of Erskine’s design did not offer ideal conditions for Inuit culture and the arctic climate (Marcus, 2007). Where Inuit traditionally locate their settlements adjacent to water for ready access to boats used for hunting and fishing, the new location reduced Inuit engagement with natural environment, promoting greater reliance on food offered in the new town shops. As Harold Strub, the former chief architect of the Northwest Territories writes: “at high latitudes…one requirement for siting remains uncontested: the proximity to the water edge. At least one edge of the settlement must reach the sea” (Strub, 1996). The wall itself posed additional problems. Where the whites are very eager to get wind shelter, “wind is a part of arctic life”. Wind provides an essential component of clearing snow, and the introduction of an enclosed wall would only encouraged the snow to pile up in the center of the town where the Inuit were living. This knowledge of the arctic environment was clear in the Inuit’s earlier shoreline settlement, which allowed easy penetration of winds. After relocating the Inuit homes and beginning the construction of the perimeter wall, the project was abandoned in 1978.

Efforts to urbanize the North American arctic are in striking contrast to Russia, which has developed its northern frontier at an entirely different scale and urban density. Cities such as Murmansk (pop 307,000), Norilsk (pop 175,000), and Yakutsk (pop 269,600) are almost 40 times larger than any other city in the arctic; despite being as remote and isolated as the North American arctic. Murmansk is by far the largest arctic city and shipping/military port in the world.
fig. 81 - above

fig. 82 - below

fig. 83 to 85 - next spread
Ibid.
fig. 86 - above
Diagram to enlarge the central park of Antwerp

fig. 87 - below
Model of the Park project
CHAPTER 5 ENDNOTES

1 The Institute for Architecture and Urban Studies (IAUS) was founded by Peter Eisenman in 1967; see notes of chapter two. Columbia University’s Temple Hoyne Buell Center for the Study of American Architecture was founded in 1982 and in recent years is led by director Reinhold Martin. The Buell Center convenes ‘issue-oriented conversations around matters of public concern’ (see: https://www.arch.columbia.edu/research/centers/2-buell-center). The Why Factory is a research institute run by the Delft University of Technology and MVRDV and led by Winny Maas (see: http://thewhyfactory.com/about/). Referring to the Berlage Institute, I was specifically inspired by the design research studio Led by Pier Vittorio Aureli investigating Tirana.

2 Eventually only one relevant lecture would be organised: the British architect Simon Henley talking about his study on alternative prison typologies for the twenty-first century, March 2010.

3 Student assistant was an official position that existed at the Delft University of Technology. Officially, at the Antwerp University College such position was not possible. I had to provide the student with a summer job to compensate for serving as student assistant throughout the academic year.


5 Somol and Whiting, "Notes around the Doppler Effect and Other Moods of Modernism," 197.

6 Till, Architecture Depends.

7 Koolhaas et al., Small, Medium, Large, Extra-Large : Office for Metropolitan Architecture, Rem Koolhaas, and Bruce Mau, 494-517.

8 ‘Elegy for the Vacant Lot’ in Ibid., 937.


10 Heynen and al., 'Dat Is Architectuur‘ : Sleutelteksten Uit De Twintigste Eeuw.


13 Doucet first revisited the counterprojects in a paper presented at the EAHN 2012 in Brussels. Doucet, "Understanding Postmodernism in Practice: Or What We Can Learn from Brussels, a Factory of Counter-Projects." Later she developed this research into a full chapter within her book on Brussels. The Practice Turn in Architecture: Brussels after 1968, 39-78.

14 The 2nd International Conference of the European Architectural History Network was held in Brussels, May 31st — June 3rd, 2012.

15 "Understanding Postmodernism in Practice: Or What We Can Learn from Brussels, a Factory of Counter-Projects."

16 I am convinced that Doucet’s definition of neither utopian nor realistic only applies to the original counterprojects of Krier and Culot.


18 In 1958 the Royal Institute for British Architecture (RIBA) had a conference in Oxford on architectural education. One of its recommendations was that all schools and institutions able to deliver high-level architectural education should be ‘recognised’ and situated preferably in universities. With Boyarski as director the AA School chose to stay independent. The reason to reorganise the AA School is therefore different from the other institutes, but I included it in this synoptic list for its important part it played in creating a network of leading figures and providing them with a forum.

19 Since 2003 The Driehaus-prize for Classical Architecture was organised as a counterweight to the Pritzker-prize for modern architecture. Cfr. supra.

20 Krier and Culot, Contreprojets, Controprogetti, Counterprojects.

21 Ibid.

22 For a deeper analysis of the role counterprojects played in Brussels’ local government, Brussels’ architectural school La Cambre, and its influence on a larger scale, I refer to: Doucet, The Practice Turn in Architecture: Brussels after 1968.

23 When I started the research for this book in 2010 Nik Naudts was my partner and our office was called VAK architecten. In 2013 Nik Naudts had left the office and I joined forces with Bart Melort under the office name MikeViktorViktor architects. Therefore, credits for the first design research example, The Delta Wall, also goes to Nik Naudts. The second example, Deltaclusters, is the product of converging Bart Melort’s and my theoretical design work for an invited exhibition by the Flemisch Architecture Institute. It is the product out of which our cooperation grew.

24 The Flood Resilience Group based in Rotterdam organised an international design competition to find innovative solutions. Seven architects were selected to participate in a workshop at the international conference in Rotterdam called Deltas in Times of Climate Change. The Flood Resilience Group (FRG) is a multidisciplinary research group affiliated to UNESCO-IHE and Delft University of Technology. It aims at advancing scientific knowledge and practical application into integrated approaches to increase flood resilience of the urban environment.
After the disastrous flood of 1953 the Netherlands had invested in a large-scale infrastructural enterprise to protect the entire Dutch delta with a system of water barriers, dikes, locks, and sluices. A major single-line defence system that according to recent insights will insufficiently protect the Netherlands if the water level rises over one meter in the next fifty to hundred years. A constant threat of flooding in low-elevation regions caused for single-line defence systems — for example dikes, canals, flood-walls, wetlands, and inflatable tiger dams — that effectively reduce the danger to an acceptable minimum, that is if the flood causing conditions stay the same. Risk assessments show that extreme flooding occurs only once in ten thousand years. The flooding risk calculated for the Netherlands is one of the lowest of the world, in Petersburg for example the risk is once in a thousand years, in New Orleans once in a hundred.

The idea that one only draws what need to be invented was one of the main arguments in Riedijk’s inauguration speech he gave accepting a chair as Professor of Public Building. Riedijk, De Tekening : De Bestaansreden Van De Architect = the Drawing : The Architect’s Raison D’être.

Long-lasting meant longer than the economic life-span than contemporary utilitarian, commercial, office, or housing buildings which is between 20 to 50 years. If the architecture potentially has a role to play in a future flooding situation — the risk analyses often use a 50 to 100 year time frame — the architecture should at least last that long.

The term ‘delta hub’ can be interpreted as ‘a central component organising urban life and all other aspects of a deltaic city.’

Horizontal evacuation means moving people from a flooded area to a flood free location outside the affected area, mostly depending on automobile infrastructure.

In feudal times the landlord provided social security for his vassals and villagers. In case of sudden attacks they were allowed to retreat behind his multi-layer castle walls. In return, the vassals’ principal obligation to the lord was to supply aid or offer military service.


Much of the empirical knowledge on the grid analysis I acquired when being a project leader for the Shipping and Transport College in Rotterdam and the Kolisej Opera House in Ljubljana — both projects of Neutelings Riedijk Architects. The first design works with a two-dimensional grid of 7.2m by 7.2m. The final design of the second was based on a two-dimensional grid of 8.1m by 8.1m.


Holl, The Alphabetical City.
At a 2012 conference in Delft titled New Urban Configurations I gave a first theoretical reflection on the project. The reflection focussed mainly on the notion of newness. What to invent and what to evoke — which had been crucial in the design process of the Delta Hub — could also be rephrased as what kind of ‘newness’ in new urban configurations is more or extra? Did the term ‘new’ in the conference’s title merely refer — in a strictly neutral way — to a different-from-any-other phenomenon, or did it imply a concealed qualification? Can we identify the extra quality that makes a ‘new’ urban configuration promising? The central question is whether the notion of newness alone is useful to judge which urban configurations qualify to become future models? See: Sven Verbruggen, "Architecture, Absolutely Critical: How to Identify a Promising New Urban Configuration?,” in New Urban Configurations, ed. Roberto Cavallo, et al. (Delft: IOS press, 2014).

We contributed to the second edition in 2011. For more information I refer to the url: www.resilienceworkshop.org

The other firms were Maat-oontwerpers, FVWW architects (the former partners of MikeViktorViktor architects until the beginning of 2013), Cluster, and CTA.

Deltaclusters is a contribution to an exhibition called Wisselland, curated by the Flemish Architecture Institute (VAi) and held in Knokke — Belgium, 2013-2014. It gathers design hypotheses, which were part of earlier research projects, to anticipate development in architecture and urbanism at the Belgian coast in 2070.

Regular intentions within architectural and urban development deal with for example the increase of performance of the existing patrimonies due to more stringent building regulations that put a lot of emphasis on maintenance and renovation.

In 1993 the Belgian State has been reformed to a federal system. With it the military apparatus has been reformed as well and the function of military hospitals has been abolished for the Antwerp and Ostend compounds. These compounds were turned into residential districts.

Prior to the exhibition the quest for a new stadium typology had been the assignment of a design research studio I tutored in 2011 and 2012 at the Antwerp University College. I will get back to this in the next chapter. For the exhibition we used the generic concept I had designed as a frame for the studio assignment. A video showed a couple of elaborations on that model by students.

See for all the projects on http://www.vlaamsebaaien.com

The whole model, including the infrastructure, is designed on a three-dimensional grid with a 8.1m basic unit.


For the Delta Hub the workshop was an ongoing debate with other experts — followed by a public presentation with a jury of experts. Afterwards the work was exhibited at the convention. For the Deltaclusters the exhibition was open for the public from October 2013 until January 2014. A public debate was organised towards the end of the exhibition. Concerns of a variety of stakeholders were lively discussed with other for the debate invited experts.
A disciplinary pattern exists of diagnosing a particular ‘illness’ of the profession. The cure of which legitimizes a new formal language that is supposed to close the gap of the epistemological problem on creativity. Christopher Alexander, for example, said that architecture was failing its task. Willem Jan Neutelings suggested that the profession might die out. Peter Eisenman fought to recover an artistic-intellectual — and culturally respected — position for the architect. Reinhold Martin warns that we gave up a critical resistance. Colin Rowe literally talked about an ill profession in his *Collage City*. Jeremy Till claims that architecture will become irrelevant if it not recognises its dependency, etcetera. There is, however, a catch. The one who diagnoses belongs to the community that is being diagnosed. The diagnosis can never be made independently, as a neutral observation. As a result the diagnoses too are up for debate.

Following the tendency of the market smaller architectural firms (with solo-architects) are required when the market is with low activity or in crisis, and projects are few and often small. Yet, when the market is booming bigger firms (with team-playing-architects) are needed to accomplish large assignments. The fluctuation of the market together with the delay architectural education ipso facto would have, if it would have to respond to the market, would cause a recurring situation where the wrongly educated architects would have to deal with projects they are just not trained to handle. The solo-architect would enter the booming market with challenging large scale projects that due to their scale and complexity require well oiled teams of architects and advisors to deal with them, and visa versa.

It was a thesis I promoted together with professor Maarten Delbeke at the Ghent university in 2012-2013. The thesis students were Maïté Martens, Joris Kerremans and Maxim Balcaen. The work highlighted here on city halls was a chapter developed by Joris Kerremans. Url: http://lib.ugent.be/fulltxt/RUG01/002/033/165/RUG01-002033165_2013_0001_AC.pdf last visited September 30th 2015.

For the specific source material on Anatôle De Baudot or the book ‘Reinventing the Town Hall’ by Ben Rogers I refer to the thesis.

A thesis I promoted — this time together with Koen Van de vreken — at the Antwerp university in 2013-2014. The thesis students were Tine Geldhof, Bart Van Eynde and Johanna van Loon. The general assignment was called ‘Rethinking the prison/stadium typology with regard to meaningful regionalism’. The Ostend case that serves as an example here is developed by Bart Van Eynde.

This intention is part of the earlier discussed Flemish Bays project. Cfr. supra.

Two design studios had this assignment. For the first one I invited Martino Tattara, the cofounder of the architectural office *Dogma*, to tutor the studio with me. For the second one I invited Hilbrand Wanders, a project leader of *Neutelings Riedijk architects*, as extra tutor. For an extended report on the first studio I refer to the report made for a 2012 seminar on design research studios *European Association of Architectural Education* held in Winterthur, Switzerland.

Verbruggen, “Thoughts for Architecture.”

The video post can be seen on: https://www.youtube.com/watch?v=GR_6-maoL54.

6. Closing Argument

Exploring Unique Qualities of Architectural Design

The theoretical inventory I pursued encompasses two approaches. First, the analysis of case studies looked into the depth of singular narratives and how they can back up an architectural production with a particular theoretical position. Second, using Rorty's research format — that is, considering the theoretical positions as vocabularies that are final and comparable in their use of a mediating faculty — and with the help of a range of recent theoretical positions I examined assumptions about a critical faculty that is crucial to pose the architect's creativity as a unique expertise. I noticed that a specific understanding of criticality has settled in many narratives about design decisions and its taxonomy.

I looked at a timeframe of forty years to study how aspects of ideology colour the notion of creativity and how these ideas migrate and mutate from one generation to another. Over this forty-year period (1972–2012), various proposals for the taxonomy of design steps emerged. Many of these proposals attempt to proclaim architecture’s unique selling propositions — a sort of formal, spatial creativity by which architecture protects its profession against political, economic, engineering dynamics that might reduce an architect's design to finery or veneer. Yet as legitimizing mechanisms, these theoretical propositions did not provide the hoped-for clarity because they often did not break out of the disciplinary debates.

I set out with the ambition to maintain a perspective from practice — understanding how a particular theory might help a designer at work (an operative perspective), when translated in clear directives: how propositions in theory can bring an intellectual order into a sequence of design decisions. This perspective is often influenced by two other perspectives: considering what makes a particular theory legitimate (a meta-perspective) and questioning how architecture can delineate its expertise unambiguously (a contextual perspective). The influence of these other perspectives is revealed with two related questions: what do architects and critics deem to be the role of architectural design theory, and which other disciplines compete in providing similar services or skills.

I have argued that these theories are driven by an explicit or implicit ambition to define what distinguishes architecture, as a creative discipline intended to shape the built environment, from other forms of design disciplines, other forms of decision making, and other modes of producing knowledge. What these theories
share, I have shown, is the assumption that architecture is unique in its capacity to create forms and spaces on the scale of a building or the city. Moreover, this assumption is generally paired with a second assumption, namely that creativity instigates criticality, which is a form of engagement architectural theorists understand as also active within particular currents in philosophy, sociology, and art. While examining these theories, three problems arose and were addressed in previous chapters: (1) how to explain the critical character of any final vocabulary without installing a petitio principii — assuming what has to be proved, (2) these theories are so intricate and hermetic that few people can understand them, and (3) these theories do not reach beyond an academic debate, and so they thus scarcely influence practice or convince anyone outside the discipline.

My goal with this dissertation was also to confront these problems and make way for a less hermetic discourse: debating the appropriateness of particular design choices, questioning design conventions altogether, and (re)discovering modes to open up the discourse to a broader audience. At the same time I straddled the private-academic practice to secure a detached position. While this position made it possible to projectively and proactively set a compound agenda — address relevant topics from within practice to catalyse debates and create new opportunities — it did not provide a less ambiguous understanding of any architectural vocabulary.

Creativity and Order

Over the course of this study it has become clear that architectural design or creativity was never defined adequately enough to serve as a denominator of expertise — even with additions such as form, space, or intention. In the 1970s architects theorized that something about the architectural apparatus could be seen as architecture's unique selling proposition. This surplus that should count as more than finery or veneer was conceived in relation to form-giving, conceiving space, or mediation through spatial components. Architecture had to have a critical component or else the designing architect had to have a critical faculty. While various final vocabularies were based on one of these assumptions, the faculty, in itself, was never questioned. With the assumed critical faculty, architecture had pinned its hopes on creativity (in practice) and a form of intellectual solidarity (in theory) not to question these assumptions.

Two dynamics, however, complicated matters in claiming design or creativity as architecture's unique province of expertise. First, design and creativity had been on the rise in many fields and became ubiquitous around the turn of the twenty-
first century. Second, growing doubts in the human sciences about meta-narratives caused a shift towards a renewed form of pragmatism. The liberal idea that several competing frameworks coexisted that legitimized design made a clear singular definition near to impossible. Due to these dynamics, ‘design’ and ‘creativity’ require a specific definition to serve as the unique selling proposition of architecture. Making design live up to originality, significance and rigour did not resolve the matter. Even if these qualities made design meet academic standards, they still did not make design a unique skill; originality, significance and rigour are generic qualities, requested from all scientific research and shared by many disciplines. Architecture struggled with what seemed an impossible choice: make totalizing claims or descend into relativism. Ultimately, in both cases, architecture risked plunging into pure dilettantism. To find stability within these dynamics, attempts were made to ground design expertise in critical theory, renewed pragmatism, systems theory, or even the neurosciences.

The case studies reveal how these dynamics played out in examples of architectural practices. The first case showed strong ideological and outspoken final vocabularies. The second presented an open-ended final vocabulary that intentionally exists without normative groundings. Paradoxically, when architects embrace the second, they cannot avoid ambiguity about their unique selling proposition. But when they lean towards the first, engaging with politico-ethical debates about the architectural apparatus, strong ideological choices lead to exclusion. The fact that these excessive and polarizing quarrels remain part of the contemporary discourse implies that either one believes that ambiguity and exclusion can still be resolved, or the quarrels in themselves conceal an underlying problem.

A Tripartite of Architectural Design Theories

Certainly, final vocabularies alone cannot erase ambiguity about the unique selling proposition of architecture. By definition, in their multitude final vocabularies cannot install a singular reception of architecture. In every final vocabulary, architecture obtains a slightly different role or even becomes a completely different doctrine: architecture as a mediator of traditional values or cultural standards; architecture as the provider of a phenomenal experience; architecture as a moral conscience; architecture as the facilitator of the unexpected or of change; architecture that projects alternative lifestyles; architecture as an agent to cope with political, economic, environmental, ecological, and social challenges; and so on. Still, in the translation of any doctrine into practice one calls upon an apparatus that brings some kind of order. Rather than problematizing the plurality
of final vocabularies, I inquired into those parts of final vocabularies in which the architect’s creative faculty is supposed to naturally steer the design process towards the ‘right’ design solutions.

The tripartite framing of final vocabularies from a bird’s-eye view, to a view from within practice, to a view starting from constituent elements revealed a specific format. The Vitruvian formulation of architecture as the interaction of reasoning and practice is complemented by a third element: architecture’s unique selling proposition. Whether one conceptualizes the architectural task as beginning with a societal systemic survey, the contingencies of practice, or neurophysiological conditions, a guaranteed critical faculty is presumed to be involved in the execution of the design task. However, this presumption does not resolve the confusion within architectural theory.

In the second part of the inventory I studied how a variety of final vocabularies conceived this critical faculty and concealed a teleological approach: the faculty’s assumed purpose was to bring an intellectual order into the design process and the built environment. That intellectual order, by implication, could provide a comprehensible systemic approach of criticism. Arguably, architecture’s critical turn in the 1980s revived a melioristic notion — the idea that the architect and his work contributes to improving the human condition. The melioristic notion implied a specific role for the architectural expert, who needs to be able to identify hindrances to improve a particular condition. Although some architects might claim a stronger relationship to critical theory than others, the inventory revealed the position of most architects in the 1970s to be in the general proximity of critical theory, at a time when the idea of resisting current authorities or any dominant culture became second nature to many people. Many final vocabularies adopted the ideological urge of critical theory to prove the relevance of architecture — situated somewhere between ‘it makes a difference’, ‘it matters’, and ‘it is extremely crucial’. The more a final vocabulary depends on an assumed critical faculty the more architecture is implicitly expected to be extremely crucial. I identified this a priori expectation as a fundamental constituent of the contemporary designing architect. This expectation explains the regenerative and corrective role many architects pursue; it colours the interpretation of the kind of authority many architects expect to be; and it explains the excessive quarrelling about different intellectual positions as if one in particular exists to which all architects are expected to comply. I argued that this excess stems from architecture’s history with critical theory. These specific expectations are a left-over of applying the framework of critical theory to architecture — the reason why I call it the ‘critical residue’, present in many
current final vocabularies on design. The residue relates to the unresolved metaphysical component — the idea that a natural order, a universal standard of good taste, exists.

Whether design turned formal order into spatial chaos, or an intentional formal chaos into an ordered space, pure geometries were associated with clarity and comprehensibility. The faculty was assumed to notice and appreciate aspects of Phileban geometries (the Platonic forms). It was also assumed to naturally detect crucial flaws for which design could provide proactive, catalyzing, integral solutions. Through the critical faculty these qualities were associated with architecture's unique selling proposition. The qualities suggest that architectural design works towards intellectual satisfaction even more than an aspiration to visual completion, which nonetheless remains a vital yet implicit goal.

The critical reading performed in this dissertation was thought through Richard Rorty's analysis of his own profession in the 1990s. He juxtaposed leading voices in search of a shared interest, rather than excluding or expelling any of them, nor having to descend into relativism. He managed to do so by discussing a mediating faculty present in all arguments rather than discussing the arguments themselves. This approach helped me to uncover specific insights for contemporary architectural design and theory. Turning, too, to radical ideological positions initiates processes of unnecessary exclusions. Ignoring the ideological substratum initiates anxiety about total regression. Inspired by Rorty, I proposed a third option, namely, to do away with the assumption that a critical faculty exists and instead question ethics during the design process.

The Position, Values, and Profile of a Critical Architect

While a universal standard may or may not exist over time, it might exist in a cross cultural moment. This could be at least one explanations for the recurrent attempts in history to set up think tanks that review and generate cultural, ethical, and aesthetic standards, as we have seen with the example of the Atlantis project discussed in chapter two. Helga Müller hopes that this life-time project, Atlantis (today known as Mariposa), will be honoured with a remembrance similar to the legacy of the Monte Verità — an enclave founded in Switzerland at the turn of the twentieth century and sanctuary for so many protagonists of alternative life forms and societal structures. Müller continues to hold out for the final historical act, namely, the transformation of Mariposa into a preserved heritage through financial ‘baking’.
If he [Rockeller] were alive today, [...] perhaps he would have been baking ‘MARIPOSA’ to set an example — just as Von der Heydt did when financing the ‘Monte Verità’ in Ascona, starting point of crucial social and cultural changes in the first half of the twentieth Century.5

The parallel she draws to Monte Verità illuminates the whole Atlantis socio-cultural enterprise. Like Ida Hofmann and Henri Oedenkoven, founders of the Monte Verità, the Müllers created a sheltering place at a remote location to cope with what they identified as destructive forces within society. But this move of dissociating from society distorted their relation with society. As with Monte Verità, it will remain unclear whether the Müllers are pioneers of socio-cultural reform or unconventional loners who retreated from the system. At both Mariposa and Monte Verità, the theories the founders held about their beliefs were embedded in and adjusted to the contingencies of their adventure. In no way did these theories reach perfection, neither in the remote and clean experimental environment nor in confrontation with reality. Eventually, however, these theories affect, initiate, and sharpen current world views. For many protagonists in this dissertation the academic editorial environment became their Monte Verità, the free zone in which to construct their newest avant-garde architectural design theory. Studying these endeavours enabled the extraction of ideas about the position, value, and profile of architects who aspire to be critical.

Because the architects discussed in this dissertation want to set an example, they have to make their actions correspond to their words and pursue a critical practice. Theorizing about their actions at a distance from the mainstream institution becomes a matter of credibility. Only by creating their own form of independent community can they become an authority, offering resistance and taking the lead in altering the course of the architectural discipline. A position of deliberate confinement forces a rethinking of foundations and a reconfiguration of architecture’s relation to the outer world.

To hold such a position requires a specific profile. These architects must be intellectuals with broad interests and must be swift in adopting parts of other frameworks that might suit their causes. But they must also remain authorities in practices that are related to current design processes. In working these two fronts at the same time, often big names and big ideas are incorporated, interpreted, and used in a reduced form to underpin the architect’s unstable position, something that needs to be compensated with bravura. This bravura causes a specific dynamic of its own: positions have to be taken in a much more outspoken, provocative way, without time to build an ideological ‘school’, thus
generating many public confrontations. These architects’ dexterity in practice has a practical counterpart in theory. Because they have to maintain their position by means of projects that are available (projects that are not always crucial, possibly undermining their astuteness), they complement their work in practice with theoretical contributions. Their theoretical work is non-final and embedded in a tradition of disciplinary dialectics. As a result, final vocabularies coexist and compete. In fact, even the pragmatic attempts to rearrange the competing final vocabularies into a theological history simply become other competing positions.

Specific values are held high in these final vocabularies. First and foremost, these architects aspire to be astute, which requires of them a nimbleness of theoretical practice: intellectual rigour, flexibility, and a venturous mindset. They are ironic, in Rorty’s sense, questioning the finality of the vocabularies they themselves are socialised in. They are constantly looking for flaws in the system, and are looking to improve practice and theory, even beyond the discipline. Irony and resistance imply friction. Final vocabularies can only be astute if they engage in friction. While the intellectual satisfaction of their work is deemed even higher than the visually pleasing capacity, maintaining a stylistic consistency is important, for example to remain identifiable. To maintain the nimble way of theoretical practice (or practical theory) the critical architect needs to (1) hold a specific position, (2) look for situations of exception and friction, and (3) aspire to hold a continuous conversation with the outer reality. Because one can only temporarily hold the centre of attention (topical issues are likely to have a due date), these critical architects have to be sharp-eyed to spot the next issue that might become topical.

Resolving the Critical Residue

The position, profile, and values as described above are also mine. With this dissertation I, too, had to step into the tradition of creating my own theoretical framework and claim authority over a specific approach of design practice. I share the same values, but my major goal is to dispose of the critical residue, because the implicit assumption of a critical faculty intervening at every level of the design process causes a creative attitude that is taut and strained. Not every stroke of a designer’s pen is oriented towards the critical. Not all architecture, therefore, aspires to be critical. The practice that does, however, needs to be involved in a continuous confrontation of design habits and their ideological substratum. My proposition, too, requires a position embedded in both theory and practice. It demands a permanent triangulation to find a contemporary understanding of
what aspect of the architect’s creativity accounts for a critical (keen-eyed, astute, penetrating, venturous, hyper-relevant) professional practice.

As said earlier, theory and practice have a peculiar bond. Practice without theory turns into pure mannerism and pluralism. With pluralism and mannerism alone it is impossible to discern the political from the commercial and idiosyncratic projects. Prescriptive design theory without interaction with current practice results in gridlocks. Final vocabularies are at risk to fall back into metaphysics, to work with petitio principii, and to be unable to differentiate between allegory and pastiche. Theory and practice needs to complement each other in a nimble way. A contemporary architect can only aspire to an astute practice if he engages in a tradition of dialectic theory. Conversely, design theory can only be guiding if it criticizes habitual design behaviour. I constructed an evaluation and communication structure that prioritizes discussing the appropriateness of metonymic displacements rather than prescribing habitual design steps.

Any communication about the steps of design expands on a variety of elements, subsets, or themes. When such communication is structured with a reduced list the elements have a very intricate meaning, while with an expanded list the meaning of the elements is more straightforward. In any case the evaluation system or communication structure organizes thoughts during a design process. The question is not per se which is the proper list of subdivided themes (although I prefer a longer list to avoid too many hidden or embedded meanings). The real challenge has always been which subset should take the lead. Which one brings an intellectual order into the design process? Is it, for example, form, space, or cavity? Or do they all ‘work in concert’? Choosing one involves being reductive or dogmatic, or making metaphysical claims (about ahistorical foundations and Grenzbegriffe). Choosing none, or letting the opportunity within the project confinements decide, seemed for many critics to align with the loss of a guaranteed quality, tumbling into relativism. All design theories balance between these choices and are therefore fragile intellectual constructs.

In an attempt to confront this fragility I propose not to assume a critical faculty at the kernel of creativity. This means that only discussions on appropriateness can bring order into design (when the intent of design is to be more than veneer). Creativity without any internal controlling faculty thus accounts for true random associations. Creativity alone does not guarantee that architecture matters, and by the same token, neither can any form of solidarity that presupposes the same internal controlling faculty. Creativity and solidarity alone do not make
architecture relevant. Architecture can serve many purposes, but all are dependent and debatable.

Following the triadic formulation of the architectural design equation — knowledge, skills, and unique proposition — in my opinion, the unique selling proposition for a designing architect is the ability to deploy his knowledge and skills to evoke something by means of a spatial, aesthetic intervention. Knowledge or reasoning stands for reflection, critique, historization, argumentation, theorization, and so on. Skills covers everything from design technique, method, and communication to making compositional, technical, and aesthetical judgements and finally to mastering the architectural engineering, management, and coordination. Finally, with evocation I do not mean the graphical product (the image, drawing, or rendering as such) but, rather, the imagination that proactively enables (before acting on it) a new or alternative setting that catalyzes, or alters, how we might think about the future space and its potential impact. Thus, if at times one aims to be a critical designing architect, I propose to further specify the skill of evocation as the interpretation of ‘being proactive, catalyzing, and exploring spatial alternatives’. Only then can one live up to the expectation of being astute, highly relevant, and at the frontier of crucial changes in society.

Towards a New Intellectual Attitude

This dissertation relates to a variety of themes: (1) what the role of an architect is, (2) how to calibrate an existing framework to current times, (3) how to behave as an educator, (4) what the scope of the architectural discipline should be, (5) how to commit a symbolic patricide, (6) how to organize a design process, and so on. These themes likely cannot remain separate. While these themes might have permeated previous chapters, this dissertation has been about removing a residue of confusion and involving implicit expectations of architectural creativity installed in the discourse through the appropriation of critical theory. I argue that a petitio principii can be avoided by not assuming a natural critical faculty. The intellectual order therefore is temporal (not in compliance with any universal rule), and idiosyncratic. Its relevancy depends on the appropriateness of its proposition.

What is the newly triangulated intellectual attitude that results from this dissertation and applies to architects today, compared to the four initial attitudes (artist-intellectual, traditionalist, analytic, and new pragmatic)? It is more than pragmatic (considering the irony towards final vocabularies) and it aims to combine the qualities of all. The new intellectual position has a choice though: it contributes to cultural production in a generic way while, at times, it also wants
to be critical, but it is always evocative, explorative, and proactive. To find the right
description for this attitude is less important than recognizing the repercussions.
If the proactive, catalyzing spatial form-giving is the constituent of architecture
that makes architectural design astute, and if a continuous reflection on
appropriateness is required to compensate for the missing critical faculty, then a
form of direct negative feedback is required as part of the discipline. A form of
architectural critique should be dedicated to putting forward certain design
decisions for debate. Criticism, as a subset of architectural theory, might do more
for design practice than any design theory can.

The criticality of design has been proven based on the assumption that at its core
design is critical. When we turn the assumption around, then design, in its essence,
once again becomes nothing more than veneer, an idiosyncratic fixation, a venue
for instant associations based on superficial analogies. There is no natural or
inborn ethical component to organize value judgments. The popular saying, ‘de
gustibus non est disputandum’ — about taste one should not discuss — could
summarize the condescending views towards the difficulty of legitimizing design
choices. For many, the popular quote was re-employed at the dawn of the
Enlightenment to amplify the freedom of choice. This dissertation arrives at a
different and more preferable interpretation. It is not discussion that should be
abandoned. Not discussing taste only makes sense if one acknowledges a moral
authority that defines taste. If one denounces a universal standard — the critical
residue — of taste, however it is not just taste that is left, but discussion — and
irony.
CHAPTER 6 ENDNOTES

1 Even Eisenman’s idea of exposing an anxiety, for example, is intended to make people more aware and thus intends to better their condition.

2 Pure geometries were associated with clarity and comprehensibility — also when one aimed for the opposite ‘complexity and contradiction’ or embraced a pure traditional strain of architecture.

3 Rorty is not the only example in which this format of critical readings is applied. For example, Slavoj Žižek also juxtaposes seemingly non-related narratives based on the shared ideological presumptions, which Zizek refers to as the unspoken part of the narratives.

4 The area around the Lago Maggiore already formed an ‘island’ for anarchists and other unconventional thinkers, artists, politicians, and scientists. Oedenkoven bought the piece of land on the mountain from the local politician and philosopher Alfredo Pioda, who had been planning to build a secular convent, Fraternitas, inspired by a theosophical agenda, but the project fell through. Monte Verità was less of an exception in the Ascona and Locarno atmosphere of that time. For an overview on the history of the Monte Verità, see H. Harald Szeemann, Monte Verità: Berg Der Wahrheit (Milano: Electra Editrice, 1978).

5 Quoted from a paper, ‘Reconciliation of Art and Nature’, written by Helga Müller, in 2016. The author received the paper through direct communication with Helga Müller. Where and if the paper is published is further unknown.

6 The instrumental character of architecture as agency often requires some more specification. Architecture can help to focus or to catalyze, but it can never be equal, for example, to activism.

7 The preposition (the theorist-architect, the educator-architect, the historian-architect, the builder-architect, the critic-architect, the designer-architect) is crucial in discussing the unique selling proposition. One could imagine, for example, that someone who applies for a teaching position in management (or theory) requires outstanding knowledge and skills in that particular area, which would specifically be his or her unique selling proposition. Again, this dissertation is written towards the designing-architect.
ANNEX 1: DELTA HUB

The environment of the Rotterdam delta hubs is flat and wide open. This makes wind and sunlight basic energy sources. For some locations even tidal power can be added. Depending on its location the delta hub can function as an energy supplier for surrounding urban districts, as a bridge infrastructure between riverbanks, as a cargo transfer zone, as a regulator for the river system and, in case of flooding, as an embankment against the rising water or as a temporary distribution centre for aid supply. In the delta hub the daily routine should be that of organizing transfer of goods, working in the marinas, maintaining the energy plants and controlling the sluices. In case of emergency the flexible functions (e.g. offices, hospital, school, theatre and parking) allow the delta hub to offer shelter for approximately 260,000 people.
INNER REGIONAL EVACUATION
safe have as distribution centre

standard situation:
> 2200 inhabitants
> 11500 residents
> 6500 parking

safe haven situation:
> 2200 stewards
> 11500 temp. inhabitants
> 24000 refugees

Facts and figures

<table>
<thead>
<tr>
<th>Facility</th>
<th>Area</th>
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<tr>
<td>housing</td>
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<td>use of water</td>
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</table>
ANNEX 2: DELTACLUSTERS

Deltaclusters is a proposal for any given deltaic area that needs to be inhabited. When designing utopian realistic architectural clusters in a future deltaic area it is necessary to consider the actors or agencies who can change the contemporary development process in these regions. We are convinced that we cannot be fastidious about which actors or agencies need to be involved in these momenta of urban change. If we want to explore this opportunity, all possible actors need to participate. In these momenta grand things are possible. Just think about for example how the olympic games or a world fair can boost urban and economic developments.

1. Clusters
We favour clusters over towers or singular constructions. In these clusters a public safe zone can be created in the unpredictable wetlands.

2. Dependency
A 100% self-sufficient enclave is not desirable. We see the clusters as dots in a larger network and society, complementing each other.

3. Architecture before infrastructure
Reduce the infrastructure to a minimum to keep a low maintenance cost. We choose architecture over infrastructure. That is why we prefer not to design an event space like a conventional stadium but rather as a square, defined by the buildings surrounding the square. We refuse to make light weight infrastructures that would exist for a sole purpose.

4. A maximum of 20,000m2 per unit
The average architectural unit that is part of a cluster should not exceed 20,000 m2. This surface area equals the average development capacity, limits the construction work to a maximum of 2 years, does not exceed the market growth capacity and can happen at a reasonable financial risk.

5. The flexibility of a 8m10 grid
We project a three-dimensional 8m10 grid to achieve maximum flexibility and an extremely rational structure. Within these dimensions, a range of diverse programatic elements can easily be planned and modified.

6. Synergetic ambitions
We look for synergies to legitimize design decisions. Constructions need to anticipate the second life of a cluster. In this afterlife, the architecture might serve other spatial requirements.

7. Revisiting Feudalism
‘In building and town-planning in the temperate zone, due to the conditions, one often spreads the functions of building; opens them up. [...] For extremely good motives, one should do exactly the opposite, and move together as many functions as possible under the common envelope for common protection against the common enemy. It is a kind of analogy, if you like, with the walled city of the Middle Ages.’ Ralph Erskine, 1959, Otterlo.

8. Solid Architecture
In a continuously changing landscape the straight edge between water and land will firstly shift land inward, secondly curve and consequently become longer. We
need to build solid forms of architecture to reduce upkeep costs and encourage multiple cycles of use for architectural objects - solid architecture with durable materials that can last in a salty, harsh environment.

9. square meters & cost
To make our case, we imagine four pilot-projects that can trigger a new development strategy. The imagined actors or agencies* are arbitrary - we do not claim that these are the most powerful or decisive ones. The model shows a hypothetical collage:

› Trading and business cluster: 80,000m²
› Healthcare cluster: 60,000m²
› Event cluster: 200,000m²
› Resort cluster: 120,000m²

Totaling an equivalent of 5,000 units and thus possibly 20,000 inhabitants, the project assumes to be feasible considering a 50-50% investment of private and public money. Now, each private investor could own a dwelling of 100m² for 400 euro* per month.

DICTIONARY

* u•to•pi•a | yōō’tōpēə |
Commonly known as an imagined place or state of things in which everything is perfect. The word was first used in the book Utopia (1516) by Sir Thomas More. Originally based on Greek ou ‘not’ + topos ‘place.’

Forget what you know about utopia. Utopia is not a naive vision of a non-place somewhere in the abstract future. Utopia is not a projection of a future society in all its complexities. Utopia is part of the here and now. Utopia is real - because it is a contemplative model in which the challenges of the real are made explicit and dealt with. Utopia was discredited in the first part of the 20th century. Therefore, today utopia comes with cynicism. However, if we are to take matters of the delta serious we will unavoidably have to look at utopia once again.

* a•gen•cy | ˈeɪdʒ(ə)nsi |
A department or body providing a specific service for a government or other organization. A thing or person that acts to produce a particular result.

* 400 eu•ro | fôr ‘hədrid |
Equals the monthly payment for a leased car. Equals the monthly private investment to own a dwelling in one of our clusters.

* sy•ner•gy | ‘sinərjē |
The interaction or cooperation of two or more organizations, substances, or other agents to produce a combined effect greater than the sum of their separate effects.

* mo•men•ta | mə(ʊ)ˈmɛntə(r) |
The impetus and driving force gained by the development of a process or course of events. In case of architecture that is when political will meets with necessary funds and societal support.

* clus•ter | ‘klæstər |
A group of similar things or people positioned or occurring closely together. Architecture: ‘Cluster is a sort of clearing-house term during the period of creation of new types.’ Peter Smithsons, 1959, Otterlo.
ANNEX 3: THOUGHTS FOR STADIUM ARCHITECTURE

When certain powers meet, a momentum of urban change may follow and great relics are being created; We realise huge projects in the built environment, in which all sociopolitical, cultural and economic interests converge. These projects need to be both efficient and realistic. However, they simply cannot prevail without being embedded into utopian contemplation.

Because, when certain powers meet, they change the environment so fundamentally that the boundaries for growth and development are set for decades to come. And thus, the architectural ambition in these momenta should be the highest possible.

To-day I want to dramatise the priority of architectural ambition for the contemporary stadium typology.

Before talking about the contemporary situation, let us remember one of the main historical references for the event space - only to recollect the intentions that lead to the act of building it. Let us remember the famous story of the Colosseum. Rumour had it that the emperor Nero had initiated the Great Fire of Rome to make space for his private plans. Afterwards, the emperor Vespasian acted on this rumour and decided to give some of the land Nero wickedly obtained back to the public by building the Colosseum, a place from and for the public: res publica.

Now let us inquire the contemporary event space that is a stadium, its single purpose character, the periodical emptiness, and the schism between the endorser and the community.

In five score years stadiums all over the world developed into single-purpose venues. Only few shoulders can carry the investment of such mega-projects. evidently, the main focus and the main interest that is taken care off is the one of who's shoulders carry it through. What once was res publica, became private property.

What kind of invention would trigger all concerned parties to think different about a new event space and could challenge them to look for a better symbiosis of res privata and res publica? What I propose today is to cut open the stadium typology and to change its infrastructure with architecture. This way the stadium is primarily a city district that can be temporarily privatised for an event. I started to investigate this simple design act after visiting the Italian Piazza del Campo in Sienna, which twice a year can transform into the Palio event. I realised that we should no longer try to build temporary lightweight infrastructure, but instead, we have to replace the entire infrastructure with a cluster of city blocks.

Consider for example the plan of the recently built iconic structure for the olympic games in Beijing. The stadium approximately measures 240 by 320 meters, which in size equals a cluster of ten city blocks, 80 by 80 meters,
arrayed in a rectangle around an urban court. Thus, instead of developing one mega building lot we would develop ten separate lots simultaneously. Each building would be separated from the next by an 8 meter street. These streets would virtually coincide with the accesses of a stadium. The only required architectural invention would be that these buildings need to have one facade towards the central square that is both a grandstand for spectators in case of an event and a qualitative shell that completes and contributes to the inside of the building.

Typically for these building blocks multiple escape routes are required. If we upgrade the status of a secondary escape route to an architectural promenade along an inclined facade and we manage to control the access, where it meets the ground, we create a wonderful outside routing that can become a grandstand during an event. Furthermore, it allows us to develop very characteristic spaces that benefit from it.

Imagine hotel rooms organised along the inclined facade. A motel-like situation would emerge where guests can watch an event from their hot tub and prefer to use the outside route to stroll down to the hotel restaurant. Or, imagine that we are talking about offices and private condominiums along the inclined facade. During an event the private terraces of meeting rooms or condos turn into VIP loges.

How to connect to specific sociopolitical, economic and cultural conditions?

If one compares the Soccer City Stadium in Johannesburg, with for example the design for the Antwerp Snake Arena or even the Allianz Arena in Munich, one might conclude they all look alike. Yet, this is not a problem. The problem is that the ambition for the architecture is the same everywhere, while the sociopolitical, economical and cultural conditions might differ tremendously.

For example, high on the political agenda for Antwerp are - among other things - schools, traffic management and housing. In recent political debates it is often suggested that they should rather invest in schools than in a controversial stadium; that they first need to solve traffic and parking for the inner city before thinking about a new stadium; that they should invest in housing projects rather than to save up for a stadium. But, why should we as a community choose between either a stadium or for example schools or park garages or housing? Can we as a community not raise the stakes and have it both ways? It should not be ‘either-or’ but ‘both-and’.

Once we cut open the stadium typology it is easy to distribute several pieces to different concerned parties. A cluster of schools, community service buildings, shops, and private practices can be created around a square. If each block of the cluster sits on a subterranean car park, the cluster will turn into a major transfer point to public transport rightly positioned at the edge of the historic city. If on top of the first layers local users both invest in and start to inhabit offices and condominiums the central-square-flanking-facades will form the grand stands of an alternative stadium. And finally, the blocks can be finished with light weight crowns that unify the cluster of city blocks and give to the whole the collective endeavour atmosphere and character that we associate with big event spaces. These crowns are grand
greenhouses for the residents and thus provide plants, vegetables, insulation, and renewable energy; during the event they might also serve as spacious convention halls and as shiny billboards to promote the sponsors.

This event space could be realised at once for any upcoming international event. But, a second scenario might also be thought of, in which the stadium is not built at once but grows over time. Imagine how a local sports team - the pride of the community - grows over time to gradually become a professional team and, at these rare occasions, finds its date with history and shines in tournaments worldwide.

Now imagine how the community the sports team belongs to can develop its built environment over time. As it prioritises it must first build schools, houses, offices and shops. After which it can invest in extra infrastructure and gradually enlarge its hybrid buildings, densify and diversify the cluster until ultimately the cluster becomes a landmark that is a perfect setting to organise great event gatherings.

I told my students to dream about such possible city districts that meet both the requirements of a temporary event space and the requirements of a city centre with regular urban life.

(Conclusion)
When certain powers meet, we allow ourselves to construct mind-blowing exaltations of our prosperity. We allow ourselves to build museums, convention halls, theatres, opera houses, stadiums and many other iconic structures. They remind us of the possible greatness of human abilities. They allow us to identify with certain cultural expressions. They link us with both the past and the future.

We now come to realise that in the afterlife of the event that initiated their construction, stadiums more often turn out to be a burden. The house can never be filled afterwards with the number of spectators it was designed for in the first place. Stadiums are out of scale and as oversized structures they disrupt the city fabric. Their bigness rules out any reconversion, yet their infrastructure degenerate within a decade.

Over time a dissociative schism settled in. Stadiums no longer represented a cultural identity or community but became a symbol of alienated powers. As a result, when certain powers are about to meet today, politicians accept this schism and deeply ponder about the either-or choice at stake. They have to choose between the economical interests on short term and the aftereffects for the community on long term.

The thoughts for stadium architecture, we want to share today, should be read as a necessary catalyst to solve the socio-political paradox that involves the common good versus the corporate good. It provides all concerned parties - designers, planners, users, politicians - a third way of reading the problem and in that sense helps to overcome the oppositions.
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fig. 88 - above
At Monte Verita in Switzerland
Only few steps are missing to climb the Torre dell’Utopia