Theatre of Operations, or: Construction Site as Architectural Design

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Declaration

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; any editorial work, paid or unpaid, carried out by a third party is acknowledged; and, ethics procedures and guidelines have been followed.

Johan R. Van Den Berghe

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INTRODUCTORY NOTE:

This section, Construction Practice as Architectural Design, further demonstrates the forthcomings from the previous practice I have come to understand through this research. The attentive reader will notice that two of the four projects described here (House T-A (2001-2002), and House B-M (2003-2006)) have remained unbuilt, although this is a section about construction practice as architectural design, which may seem paradoxical. I am aware of that, but the reason to describe them here is because:

I have seriously considered this choice, even seriously considered to leave these projects out of the discussion and to take other (built) projects in the discussion. But the latter, then, would have come from previous projects, earlier in the practice, which I preferred not to do, because these projects do not correspond anymore with the actual matured practice I want to demonstrate as (my) future architectural practice I am aiming at with this research. Furthermore, the descriptions of these two projects, as supplementary research cases, bring additional detail and information to the discussions on the built ones, of which they are ‘contemporaries’.

Hence, these two projects, and their design process embedded in the sphere of substantial creation, belong to the practice of an architect who adheres ‘construction site as architectural design’.

Finally, these two creations are designerly affiliated, and (together) they represent a concept I still want to build. It belongs to my attitude of resistance, so as to make survive these creations that have not been built due to decisions that have not been taken by me, but that I definitely had wanted to build because of their meaning in the subsequent steps of the practice and at the service of architectural practice as a whole, by consciously giving them their due place in the whole line of places, even preparing them better for immediate application, just in the case …
As a consequence of the *Supernova* exhibition in Brussels in 2000\(^1\), I have been invited to design and build a small Summerhouse (2001-2004) in The Netherlands. This has been the first recognition of my work internationally.\(^2\)

As an act of *resistance*, I granted the silhouette of the never built version of House VDV-C\(^3\) a second life. Here also, I elaborated on the chronology of the subsequent steps of the construction site, making logical construction site drawings down to the level and scale of bolts and screws. This time, I decided it

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\(^1\) See Section 2.3.2 / 2-12: House DG-DR.

\(^2\) In the slipstream of this project, we could design and build—with our architecture studio y.e.AH!—a housing project (2004-2007) in Amersfoort (The Netherlands) in collaboration with the landscape architects West 8, and later we would build the Boathouse project (2008-2012)(see Section 2.4.3: The Boathouse 1 and The Boathouse 2).

\(^3\) See Section 2.3.4 / 2: House VDV-C (1990-1992 / unbuilt).
should be in lightweight wood, because of the poor bearing capacities of the soil, and in order to transport lightweight prefabricated components by boat to the site, situated on the shore of the Ijsselmeer.

I remembered my journey through Canada in 1979, as a student, where I had seen the wooden grain elevators in Alberta and Saskatchewan, and the wooden tobacco kilns in Ontario. By making this specific shape, I would see Amsterdam from the roof of the Summerhouse, 20 kilometers west of the site—another romantic liaison.

I first met the client on 12 January 2001, when I also visited the site in the Dutch polder, in a preserved nature area with a small harbor for pleasure boats, where a small river debouches into the Ijsselmeer. This landscape-as-section was completely new to me.

As described, I come forth from a sloping landscape, in which I always have to ponder about the right level at which to insert the house into the landscape-as-section. “The Scandinavian landscape has determined much of my production. The land is the architect of my buildings; the way in which the building is set in the landscape gives the building precision”, as Sverre Fehn contends in an interview with Olaf Fjeld, back in 1985 (Fjeld 2009). This resonates with Heidegger’s

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4 Which we eventually would not do, after having done the financial calculations.
5 Like the romantic liaison between the tower-like house VDV-C and the tower of the Romanesque church one village away (see Section 2.3.4 / 2-1: a House, House VDV-C (1990-92 / unbuilt)).
6 Grain silo, Alberta, Canada.
8 Before the Afsluitdijk, a connection between North Holland and Friesland, was built (1927-1933) the Ijsselmeer was called the Zuiderzee and it was a part of the North Sea.
9 See Section 2.3.3 / 3-2: The Emergence of Thickness and the Concept of Section.
contention in his lecture Bauen, Wohnen, Denken, when he describes the precision with which the bridge is positioned in the landscape: “… the bridge sets a scene, it defines a specific place in real space” (Heidegger 1951).

For the pondering process of inserting the house into the landscape-as-section I refer to House VDV-C (See Section 2.3.4 / 2), House DG-DR (see Section 2.3.4 / 5, where the landscape has been completely internalised), The Meaning of Life (see Section 2.3.5 / 3), the Haystack Gallery (see Section 2.4.5). In these cases, landscape and architecture have to be brought to a consonance through the sensitive application of the concept of section, brought into practice through the chronological drawing-as-section which is the (flight simulator of the) section-as-excavation that then becomes the excavation-as-construction site.

In other cases, a number of works in the flat lowland of Flanders left me with an impression of easyness, because there I did not have to ponder about different site levels, unlike many of my other works to be inserted in inclinations.

The case in The Netherlands was a different one. I first thought that it was a ‘lowland-Flanders one’. But unlike in the flat part of Flanders, where the flat plots are situated between 5 and 20 meters above the sea level, I soon experienced the presence of the sea above my eye level. This sudden awareness has brought my design process in a state of alert. I was no longer the master of my horizon, the North Sea was in command, and fear became a design parameter. Here again, I had to focus narrowly on the landscape-as-section—the most frightening landscape-as-section section I would ever have to confront—in order to re-impose my grip on the horizon. I decided that the section of the house should demonstrate this.

Sverre Fehn, in an interview with Olaf Fjeld, has put it as follows: “How shall we respond to man and his objects affixed to the surface of the earth? Everything we build must be adjusted in relation to the ground, thus the horizon becomes an important aspect of architecture. My interest has always been where to put man in relation to the horizon in a built environment. What qualities shall we draw out of the open landscape? (…) The moment you lose the horizon, your desire is always to reinstate it” (Fjeld 2009).

In the Dutch project, the concern with “to put a man in relation to the horizon in a built environment” (Fehn) is fundamental, and its solution will always have to be connected with the eye level of the tall standing man, which is the level of the horizon, which refers to my infant eye level in the excavation from my childhood which has grown up with me. It is the line of reference in the way we perceive our world as we stand up and do our first first steps to understand it, without which there is no secure answer to the question: where am I?

Being below the level of the sea created an inversion of horizons. I think this inversion of horizons, and how to deal with it, was the basic question my Dutch client, now friend, had asked me. The North Sea instates a horizon above the human eye level, an unbearable awareness.

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10 The level of the landscape in that part of The Netherlands is beneath the level of the North Sea which can become furious and wash the land away.

11 This fear is deeply embedded in the Dutch culture, and is exorcised rationally planned dikes and divisions of polders in controllable Mondrian configurations. It is not a game, it is a matter of to be or not to be.

12 See Section 2.3.3 / 3-2: The Emergence of Thickness, and the Concept of Section, and Section 2.3.4 / 2-2: The Eye Level in the Perspective, and the Coming of Time.

13 See Section 2.3.3 / 3: The Excavation.
Reinstating a bearable horizon—in this case it can only be a man-made horizon—was the foremost design parameter.

This has been the reason why I designed the little house on a palisade, and further refined it as an observation machine, looking out from its four sides simultaneously, and having an observatory on top of it in order to see Amsterdam some twenty kilometers to the west, thus creating a metropolitan link from this local remoteness. The house can also immure itself completely by pulling up the four terraces as an act of protection—one at each side of the house—in order to obtain a blind, deaf and mute, even enigmatic appearance.

I refer to Conclusions on My Grandmother’s House and The Excavation: this Summerhouse, when completely closed, is the impermeable Thickness of Substance that generates the secure Depth in which to hide in a volume of protecting Darkness—the moratorium space—the unknown and forbidden room, the perfect example of “closed volumes with layered, often coarse skins”, only accessible for those who want to make an effort to decipher the enigma, the labyrinthine access to the liberating overview in the light of the roof terrace, which is in fact a replica of the dormer window in the attic of My Grandmother’s House, like the roof terrace of House VDV-C was.

I have been in there, with the four terraces completely closed like Medieval city gates, and lifted on its platform the house feels like a safe in the flat and open polder amidst a furious Northwestern storm coming in from the North Atlantic. This closing movement, like a flower, makes the house enigmatic, inexpugnable, physically and visually. It insinuates Darkness and Depth, and so doing, it exorcises the aforementioned design parameter of fear.

The decision to lift the house up from the existing level of the polder in order to avoid the rising water could be done in two ways: the first option was to make a ‘natural’ mound with ground, and to put the house on top of it; the second option was to lift the house in a ‘constructed’ way, the palisade, and to put the house on top of it.

I considered the first option, but I soon left it behind, because it was too obvious, too much bereft from an expression of a man-made horizon. I did the second option. I wanted to demonstrate the concept of section in a more articulate, deliberately constructed way: a scaffolding structure in wood. In the landscape-as-section, this was an act of addition (+), unlike the ones I had applied in the inclinations of hills, where I first started to dig as an act of subtraction (—). Paradoxically, both acts, each in their context, had to be done as an act of protection—variables of the enclosure and the mound (Semper 1851). In that respect, the Dutch case has been quite unique to my practice. It is the inverted version of the others.

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14 There is a saying: “God created the world, but the Dutch created Holland”, pointing at the Dutch tradition to gain land upon the sea. I would say that the Dutch created the man-made horizon.
15 See Section 2.3.3 / 4: Conclusions on My Grandmother’s House and The Excavation: the Cave and the Tower.
17 Later, in the Boathouse 2, that is situated nearby the Summerhouse, I would apply the concept of a mound to lift the boathouse up from the existing level of the polder in order to protect it from the rising water, and in order not to repeat myself on the same site. Thus, I have made both options in each other’s proximity.
The wooden structure on which the little Summerhouse sits has been inspired by 3 elements:

Firstly, the wooden columns, skids and beam structures that indicate the waterlane towards the watergates of sluices. I have always been inspired by the functional civil engineering of shipyards and wharfs, slipways, piers and naval palisades, uncontaminated as they are by aesthetic considerations. Which is not too strange, though, knowing that originally I wanted to become an engineer in shipbuilding, even seriously preparing my education in it, and only ultimately deciding to start an education in architecture.

Secondly, I had wanted to do this wooden structure for a long time, waiting for the right design context that made sense. This takes me back to July 1967, another moment in my mental space, when my mother took me on a trip to the sea. In the afternoon sun, we walked on the wooden pier of Ostend, and between the planks that floored the runway of the pier I could first smell and hear, then see the water of the sea. And as the sound of the water grew louder, I looked over my right shoulder, and I could see an enormous ship slowly passing by and heading for the open sea. Ever since, wooden palisades and piers have been in my imagination.

18 In one of the cases in the flat lowland of Flanders, I would do something comparable. For House T-A (see Section 2.3.4 / 6-3) I would amass the ground coming forth from the excavations of the foundations, both as a calculated economic act as to not having to transport it, and—mostly—in order to permit a tall standing man (me! you?) to touch the zinc roof rim with his hand, and doing so, making this house look real low.

19 Around the same period as the Summerhouse, I designed and built an extension for House VDA-DP (1998-2000), which as situated in the valley of the river Scheldt, in Belgium. There, I raised the extension subtly, making use of a carefully moulded concrete sockle that on its edges subtly cantilevers in order to withstand eventual floodings of the river. See Section 2.3.2 / 2-8: House VDA-DP (1997-2002).

20 Also, drydocks carry away my imagination, as I will demonstrate in the main space of Etude (see Section 2.3.5 / 4: Etude (2010-2012).

21 The economic crisis and downfall of European shipbuilding industry at the end of the 1970’s made me decide this, so only by accident I ended up as an architect. In ancient Greece, the tekon was a carpenter (hence my preference for wood—I built the Summerhouse completely in wood!), but tekon was also the word for builder, specifically for shipbuilder (see Section 2.3.4 / 2-3: Tektonikos).

Greek Dictionary (Bartelink 1958):
τεκτονικός: pertaining to the art of building, competent in construction practice, (belonging to the set of skills of) the master builder, skillful carpenter.
τεκτόν: craftsman, (ship)builder.

tektonikos: pertaining to construction.
tekton: carpenter, shipbuilder.
Thridly, it did not take long before I could convince my client. “As a descendant of a family of builders, I was born on scaffoldings, so let’s make one” (Schoonderbeek 2001). The whole design process has constantly been hold on the track of construction practice by the client due to his roots in construction practice insofar that this has strongly contributed to my belief and my abilities in construction practice as the generator of the poetic image. And so have done the numerous and very intensive construction site meetings, and the craftsmanship of the foreman (Anton) on the construction site.

I developed this concept further together with the engineer. We tried several configurations yet remained quite close to the one I originally had in mind. I have made a set of drawings in pencil on paper, another ‘draftsman’s trance’;

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22 Summerhouse (2001-2004): graphic communication (by fax) and oral communication (by telephone) on the wooden palisade structure (the man-made horizon).
23 Summerhouse (2001-2004): graphic communication (by fax) with the foreman on the construction of the wooden palisade in the meadowland between mainland Holland and the Ijsselmeer.
At first, and additional to the necessity of rising the house above the water level in case of floodings\textsuperscript{25}, I secretly dreamt about putting the little house on the water of the Ijsselmeer, not on the waterfront of it, nor on the mainland. This has been another reason to choose the second option (the one with the palisade). It would make the house only accessible by a shallop, with the waterman being the inhabitant himself. This would add meaning to the aspired remoteness described in the design brief. But the building permit was refused for this option. Then, we could place the house in the meadowland between land and sea, where it now sits on its wooden palisade with its feet in the water. Also, we have not obtained a building permit for the specific original shape of the house (the one with the roof terrace). I had hoped I would have been able to convince the local authorities, but I also knew that I did not follow the local building regulations. Then, the local authorities summoned me to adjust the shape of the roof into “a normal roof”. Nevertheless, I smuggled in a glass chimney in

\textsuperscript{24} \textit{Summerhouse (2001-2004): the man-made horizon beneath the water level of the sea.}

\textsuperscript{25} Mies van der Rohe’s Farnsworth House (Mies van der Rohe 1946-1951) comes into my mind, making clear why it stands on stilts, in order to overcome the tricks of the nearby Fox River, as some pictures of the house in the flooded meadows demonstrate.
which a person can sit. Although the house has already been made, we still did not install this glass chimney, in order not to tantalise the local authorities. But it will be installed later, and then it will be possible to sit astride on the ridge-pole of the roof, and see Amsterdam in the distance.

Now, the little house looks like it has been gently dropped on top of that bearing structure. It refers to Terunobu Fujimori’s Takasugi-an, a tea house (Fujimori 2003-2004), especially in the way it seeks for isolation and meditation on the client’s request.26 Takasugi-an means: a tea house (built) too high. Yuki Sumner writes about this tea house that “The academician and architect, Terunobu Fujimori, has observed that a teahouse is “the ultimate personal architecture.” Its extreme compactness, which would at most accommodate four and a half tatami mats (2.7 square metres) or even just two tatami mats (1.8 square metres) of floor space, makes it feel as though it were an extension of one’s body, ‘like a piece of clothing’ . The tea masters traditionally maintained total control over the construction of these ‘enclosures’, whose simplicity was their main concern. They therefore preferred not to involve an architect or even a skilled carpenter—an act considered as being too ostentatious. Following this tradition, Fujimori decided to build a humble teahouse for himself and by himself over a patch of land that belonged to his family” (Sumner 2009). This comes very close to the design context of this Summerhouse, in that the inhabitant wanted to overlook the surroundings, maintaining control over them, and in that the house should not at all be ostentatious yet remained within the idiom of the archetype of a house—like a child would draw a house. It has also been built on a patch of land that belongs to the family. Finally, it is also very small—bigger than two tatami mats though—but not exceeding the footprint of six by six meters. This was imposed on the design brief by local building regulations, and it resulted in an intense study on how the inner space of the house should be organised yet should leave us with a sense of emptiness that leaves space for imagination. It also required an intense study on how its four-sided relationship with the landscape should be made part of the spatial experience in that limited volume. In order to deal with this, I designed removable stairs based on counterbalancing weights like I had seen in the alleys between New York apartments blocks, thus leaving the space free from obstacles when these stairs were not in use.

I designed a compact kitchen-with-dining-table that left the spatial quality of the room as intact as possible

There has been a stage in the design process when transport of the prefabricated frames over water has been seriously considered, leaving us with the possibility to make larger prefabricated components and avoiding difficult transport over land and under bridges that might be too low. This would make the house waterborne, as it looks like. We even planned to make a film of this transport and all the logistics around it, producing a remake of Aldo Rossi’s transport of the Teatro del Mondo, Venice, Italy (Rossi 1979). We even considered to make the complete assemblage next to the production hall on the mainland, and then transport it to the site by a heavy helicopter, what theoretically would have been possible due to the light weight of the house. But after some considerations we decided to abandon this track for financial reasons. We then designed the components just small enough to be transported on trailers over land, only passing the bridges—of which we knew the heights by closely investigating our trajectory in advance—by centimeters.

26 Here again, I refer to the closed Darkness of the forbidden rooms of My Grandmother’s House.
Steel girder with variable T-section (in connection with the required moment of inertia).
Summerhouse (2001-2004): study on the structural elements. The concept that subsequently would be built.

Summerhouse (2001-2004): study on the structural elements of the ‘tennis racket floor’ (woven steel cables), which would soon be abandoned.

How to see Amsterdam from the dormer window in the attic, sitting astride on the ridge (see Section 2.3.3 / 2: My Grandmother’s House).
Plan with wall structure and position of the steel girders with variable T-sections.
Summerhouse (2001-2004): drawing in pencil on thin white paper, scale 1/10. Drawing and making a house with the precision of a piece of furniture. We had an excellent foreman on the site (Anton), who has taken care of all the precise sections of the wooden elements, the exact cutting of the saw, and the smell of Substance coming forth from it.

Summerhouse (2001-2004): full scale drawings in pencil on thin white paper. Drawing and making a house with the precision of a piece of furniture: the precise sections of the wooden elements, the exact incision of the saw, the sound of sand paper, and the smell of Substance coming forth from it.
This project is an extension of a family house (the mother, the father, two children) in a blurry suburban context. During the construction process, my man-client, who is a biologist, has become a landscape architect. My woman-client works with little children. Creating for a landscape architect and a woman who works with children, I thought I should re-instate the landscape, that seemed too far away on this site, and liberate their daily lives from the depressing closedness of the spaces in their old house. I have inserted the extension of the house subtly into the landscape-as-section by excavating the small suburban garden by 40 cm so as to make the comfortable height to sit on the ridge where the embedded excavation meets the existing topography. These interventions result in an open ‘playground’, a micro landscape in its own right, protected by two parallel walls and glass, and the surrounding gardens. I have also transported the centre of domestic life from the original house to the extension, which has become the epicenter between the old house and the garden.
Chronologically, House D-R\textsuperscript{38} is situated between House DG-DR\textsuperscript{39} and House B.\textsuperscript{40} This is also the case for the logic and the application of its construction practice. This house has been the further development of the construction practice of House DG-DR (1999-2004), and its construction site has run simultaneously with, but a little a head of the construction site of House B (2005-2007). As such, House B has been the further development of the construction practice of House D-R.

I was in the fortunate circumstance to cooperate with the same contractors as for House DG-DR, and for House B, which means that we gradually could inform one another, referring to one of the other projects to better explain our argument. By doing so, the construction practice I was brooding on was in a process of constant improvement and critical peer review. We constantly improved the technical aspects of the work, and made our internal communication about it more precise and explicit, which added to the effectiveness of it, hence to the quality of the work. These craftsmen tagged my process of creation through this constant flow of no nonsense communication. Together, we kept the whole thing on the track of construction practice.\textsuperscript{41}

In this project, as in its two ‘sister-projects’ (see above), I wanted the visible result to be the clear demonstration of its construction process. We have built the walls (there are only two of them) with large blocks in cellular concrete\textsuperscript{42}, of which the joints have been visibly stuffed with putty. I wanted the expression of ‘a wall’, reminiscent of the cyclopic walls I had in mind for House T-A\textsuperscript{43}, and for House B-M.\textsuperscript{44} Just like for these works, and for House B, I wanted House D-R to remain as low as possible in order to lay down in the local topography.

I have wanted the height of the ceiling to approach the height of a tall standing man (me! you?) with his arms stretched above his head:

003 cm = the massive concrete block that marks the plinth of the wall;  
225 cm = 9 layers of cellular concrete blocks (each of them, including the joint, are 25 cm);  
006 cm = a horizontal wooden rafter so as to make the transition with the rafters of the flat roof structure.  
234 cm = the distance between the floor level and the bottom of the roof rafters.

Standing on my toes I can reach this level with my hand if I stretch my arm. The rafters are 24 cm high, which adds another psychological height to the room. No one has the feeling of too low a room. On the contrary, it feels humane: the house comes towards you, in order to comfort and give shelter, and sheltered like this makes us feel bigger. Seemingly paradoxical, but not a paradox at all: feeling bigger by positioning the level of the roof low enough.\textsuperscript{45}

The standard height of each of these elements, and the summation of the constructed heights of these elements, chronologically put together, has determined the height of the building. Subsequently, the height of the other elements had to follow. They could easily be adjusted to it: concrete and steel columns, the

\textsuperscript{38} I advise to first read Section 2.3.2 / 2-14: House D-R (2004-2007), where I explain on the general design principles of the house. So I will not further elaborate on these aspects here, but focus on the aspects that are connected with the main argument of this research.

\textsuperscript{39} See Section 2.3.4 / 5: House DG-DR (1999-2004).

\textsuperscript{40} See Section 2.4.4: The Third Chronological Drawing: House B (2005-2007).

\textsuperscript{41} Instead of abracadabra.

\textsuperscript{42} Playing with Lego.

\textsuperscript{43} See Section 2.3.4 / 6-3: House T-A (2001-2002 / unbuilt).

\textsuperscript{44} See Section 2.3.4 / 6-4: House B-M (2003-2006 / unbuilt).

\textsuperscript{45} Which can be proven by recalling the opposite experience: we feel smaller in a very high space, like for instance in a French cathedral.
height of the window frames and the window panes. Starting from construction practice can sometimes be so simple, and making this simplicity visible in the final result can be so rewarding for the maker, and permanently satisfying for the end user.

There are three columns in this space: two concrete columns, one steel column. I had a colleague who remarked that I was inconsequent: “Once you’ve started with concrete, you have to continue with it!” I replied that he was right, that I was indeed inconsequent: if the place of the column tells you that the expected column there has to be a steel column, whereas the other places have summoned me to make the other columns in concrete, then you have to be inconsequent and do so, in order to have a better place by attentively ‘listening’ to it. I explained him that I, in that respect, was consequently inconsequent. Hybrid structures have a reason which cannot always be explained to simple minds.

I also refer to House T-A, and what I explain there about columns and window frames. 46

The afzelia window frames have been left as unfinished as the rest of the house, and I have given them dimensions in order to experience Depth. On their outer surface, the window frames have been clad with thick aluminum plates, fixed with regularly positioned screws.47 Then, the timber rafters of the roof, and the fields in between them, have been left visible, painted in white, like the whiteness of the cellular concrete blocks that have remained unfinished. We have put a white-grey PU-floor in it.

I have made the kitchen furniture in green, which connects the aspect of ‘playground’ with the aspect of ‘micro landscape’, and both these aspects constitute the house.

46 See Section 2.3.4 / 6-3: House T-A (2001-2002 / unbuilt). There, I have referred to Mies van der Rohe’s Tugenthat House (Mies van der Rohe 1928-1930), the Barcelona Pavilion (Mies van der Rohe 1929), Farnsworth House (Mies van der Rohe 1946-1951), and to Juliaan Lampens’s House Vandenhaute-Kiebooms (Lampens 1967).

47 The ones that I had seen on the brass clad cabinet in My Grandmother’s House (see Section 2.3.3 / 2-2).
House D-R (2004-2007): There are three columns in this space: two concrete columns, one steel column. I had a colleague who remarked that I was inconsequent. In the landscape-as-section, a subtle section-as-excavation has embedded the extension of the house in the landscape.
In the upcoming description I will demonstrate how I have immediately made this design ‘in substance’, coming forth from my experience with substance on the drawing table, through the application of the Second Chronological Drawing, which in this design process has been a set of handmade drawings applied from the early beginning of the process, which means, as an instrument to design the house-as-construction process. Subsequently, these handmade chronological drawings have been translated into the sections on scale 1/20.

The design for House T-A (2001-2002 / unbuilt) is related to House B-M. It came two years earlier, and technically it was more groundbreaking for my practice because of its aspired connection between construction practice and the poetic image.

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53 See section 2.3.4 / 4-2: Substance on the Drawing Table.
54 See Section 2.3.4 / 6-4: House B-M (2003-2006 / unbuilt).
These two houses are affiliated by the use of cyclopic stones, and by the relationship between the eye level of a tall standing man (me!, you?) with the house in the landscape—as-given. Building these houses would have been a fundamental—substantial—step in my practice. In both houses I used all my technical skills (and the use of these cyclopic stones is one of them) to make a man feel big, starting from the eye level of a tall standing man (me! you?), and connecting it with the height of the houses which I wanted to reduce as much as possible. In both House T-A and House B-M, I have done so, in order to make the tall standing man aware of the position of his eye level in the landscape-as-section, hence of his own position in the world, in order to—in some way—bring the standing man face to face with his (own) house in an equal range of size. In both houses, it has been my objective to situate the eye level of the tall standing man as high as possible in relation to the height of the house he inhabits, and it appeared to take all my mastery of construction practice to substantiate this ambition. Experience has learned me, paradoxically, that this at first frightening ‘inverted’ proportion subsequently brings rest in the mind of the inhabitant, who feels closer (more down) to the earth by seeing his house physically remaining closer to the earth.

However, both these houses differ insomuch that House B-M has been dug in in the local inclination of the landscape-as-section, whereas House T-A is standing on top of the local flatness of the landscape-as-section. In that respect, both houses inevitably adopt a completely different relationship with the landscape-as-section, because the latter is unquestionably a given, and subsequently both houses find their own specific way—through their design, which is (the design of) their construction method, their section-as-excavation—towards the standard of all measures in making architecture: the eye level of the tall standing man.

House T-A is a flirt with the human scale and the frightening small size (height) of the house. This flirt with ‘scale’ has been amplified by the closed appearance from the street by a wall of giant stones, like in the design for House B-M. The closed expression of a wall, to its extreme, has been demonstrated by David Adjaye, in his Elektra House (1998-2000), and in the way the entrance door assimilates with the wall and the volume in his Dirty House (2001-2002). In a comparable way, and approximately at the same moment of Dirty House and Elektra House, which I had not seen by then, I wanted to incorporate the garage doors and the entrance door for House T-A, in order not to destroy the overall expression of a wall and the closedness and protection towards the street. Incorporating the doors meant leaving out anecdotes that disturbed the focus on the aspect of a low wall.

I had seen how Alvaro Siza had made exquisite sketches for his Texeira House (Siza 1980). With a sharp pen, almost like etching with a needle, he had engraved a human figure that reaches with its hand towards the roof rim of a wall-like house, by doing so demonstrating wordlessly and bodily the frightening human scale of it, yet emphasising the cyclopic scale of the stones with which the wall had to be built: four layers of stones where we may assume a wall that encloses a courtyard, and six layers where the wall and the courtyard had to become the house.

For House T-A, the landscape was completely flat, situated in the lowland just a couple of kilometers away from the hills. The flatness of the landscape prompted me to make a house as low and as flatly stretched as possible. I have considered this the most suitable way to pay my respect to the topography. Steven Holl contends that “architecture does not so much intrude on a landscape as it serves to explain it. Illumination of a site is not a simplistic replication of its ‘context’; to reveal an aspect of a place may not confirm its ‘appearance’. Hence the habitual ways of seeing may well be interrupted” (Holl 1989), Holl’s

55 See Section 2.3.4 / 6-2: House D-R: “Seemingly paradoxical, but not a paradox at all: feeling bigger by positioning the level of the roof low enough.”
56 See Section 2.3.3 / 3-2: The Emergence of Thickness, and the Concept of Section.
contention had been fully applicable for House VDV-C, yet the design of House T-A did not start from the avoidance of “a simplistic replication of its context”, nor did it avoid “[to] confirm its appearance”. On the contrary, the specific topography of House T-A called for assimilation with the specific situation of the site as part of the flatness of the landscape-as-section. In that respect, House T-A does connect with Holl’s concept of a *limited principle*, in that “the essence of a work of architecture is an organic link between concept and form. Pieces cannot be subtracted or added without upsetting fundamental properties. A concept, whether a rationally explicit statement or a subjective demonstration, establishes an order, a field of inquiry, a limited principle” (Holl 1989).

The flatness of that landscape left me, originating from the hills, bereft of the Emergence of Thickness. Here, digging into the section-as-excavation would mean to make a (partly) underground house, which even would have been impossible because of the high level of the water table.

But still wanting to make a protection for the domestic life inside the house, I decided to turn my back onto the world outside by creating ‘a wall to live in’—like later in House B-M—and to accomplish this I completely refuged into the Second Chronological Drawing. But unlike for House VDV-C and House B-M, the enclosure and the mound would have to be completely constructed above the natural level of the site.

I ‘constructed’ the assemblage of the wall as follows:

(an internal wall in cellular concrete blocks (size: D250 mm x L600 x W150) that is structurally bearing) + (alternating vertical and horizontal timber frame (twice section 60 x 60 mm generating an overall thickness of 120 mm) fixed onto the structural wall in cellular concrete blocks by plugs and screws) + (mineral wool insulation twice 60 mm thick generating an overall thickness of 120 mm, fixed between the vertical and horizontal timber frame) + (a rain-proof damp-open membrane fixed with stainless steel staples into the timber frame) + (horizontal wooden laths (section 25 x 38 mm) + (cladding boards 2000 x 600 mm in fibre cement to be fixed invisibly by means of stainless steel fixing clips and screws).

The fibre cement cladding boards very much resembled limestone, which I could not apply because of the budget, although my initial feeling was that I had to construct these walls with massive blocks of natural limestone, like the ancient master builders would have done.

Then, and after having checked the budget and researched this alternative cladding material thoroughly, I was pleased with the expression of it. I was particularly concerned about the ways this substance would weather, and if it would become of age graciously—a characteristic I estimate more and more.

After having investigated these concerns I decided to apply it in this project, and so I still could encompass both the cyclopic scale of the ‘stones’ of the wall, and the budget. This cyclopic scale of the ‘stones’ paradoxically reduced the scale of the wall to merely four layers of ‘stone’.

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58 I desperately wanted to build the House B-M (see Section 2.3.4 / 6-4), because House T-A had remained unbuilt, and I stubbornly persisted, as an act of resistance in favor of this concept. Time would show that I still would have to wait for a while, because House B-M has not been built either.
59 Not that I never designed and built a house in a completely flat landscape before, but this was the first conscious insertion on the scale of the human body face to face with its house. Here I wanted to learn, and then demonstrate this learning experience through (the construction of) the house.
60 I was tinkering on sketches of wall sections like Eduardo Souto de Moura has made sketches for House 1 (Souto de Moura 1982-1985). His sketches have been published (Esposito, A. and Leoni, G. 2003), and they show how the sketched technical sections, as annotated drawings that demonstrate the way the internal iron anchors should be applied by the stone mason while masoning on the construction site, explain to the designing architect amidst the design actions, what the estimated walls would look like as the logic output of this skillful technical investigation on constructive necessity. Eduardo Souto de Moura annotates these sketches as “drawings and instructions for building the granite walls” (Esposito, A. and Leoni, G. 2003).
At the corners of the house, I would have to ‘admit’ my budget trick with cladding by a honest demonstration of the thickness of the claddings: at the corners where the street façade and the lateral façade met, I would alternatingly imbricate the panel of the street façade, then the panel of the lateral façade in the next row, then the street façade again, and finally the lateral façade in the top row, since there were four rows of ‘stones’. So, in both the façades, the thickness of the cladding panels, which is 8 mm, would be made visible, thus demonstrating a paradox of a heavy weight limestone wall that appears to be light weight cladding, which gives the house a sense of levitation. Levitation is only convincing within the framework of the paradox.

At last, I could get rid of my heavyness. I already had understood the section of the grotto, in the subsequent excavations, and now I could learn about ‘weightlessness’.

This concept of wall cladding also enabled me to invisibly incorporate the garage doors and the entrance door in order not to disturb the overall concept of a wall as enclosure. This would not only serve the discretion of the house from the outside as a sort of enigma that raises curiosity, but it would also contribute to the feeling of protection of the inhabitants in the wall, as they had to open the wall to step inside, or to drive their cars through, as in the magical phrase in “Open Sesame” from Ali Baba’s story in One Thousand and One Nights.

To achieve this experience, the garage doors and the entrance door would be composed by a hardwood frame (afzelia) with wood sections of 140 x 58 mm, filled in with insulation, and then the laths and fiber cement panels at the outside (just like the rest of the wall). The inside would be finished with plywood that then would be woodstained.

I inserted one window at the street side—although I was reluctant at first, afraid to compromise the explicit expression of a wall—to provide the kitchen with an outlook to the street and some sunlight in the morning. In order to keep the ‘stone’ wall pattern intact, the dimensions of the glass pane are 2000 x 600 mm, like the other ‘stones’ of the wall, so as to introduce a massive glass stone. To achieve the aspect of one transparent glass ‘stone’ in the ‘Holy’ wall of limestones I investigated the concept of structural glazing. Here, I combined this with a wooden (afzelia) frame on the inside that scaffolded the hole in the cellular concrete blocks of the wall. Then, the outer surface of the glass pane could be brought precisely in line with the outer surface of the fibre-cement ‘stones’, affirming the cyclopic pattern.

It would have been quite an technical effort to make this glass stone, but I considered the cause worth the investigation. It contributes to the specific narrative of the house.

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61 See also the cyclopic stoneworks of public buildings in Helsinki, for instance Eliel Saarinen’s Central Station (Saarinen 1909-1919), or Johan Sifrid Sirén’s Finnish Parliament House (Sirén 1926-1931).

62 Whereas Álvaro Siza applied large horizontal epithelial dintels in his façade of the Galician Centre for Contemporary Art (Siza 1988-1993), his budget still could afford to make cornerpieces of local granite, yet he wanted the building to leave a lightweight impression as it floats above its context, banking on two strongly articulated steel pegs that are buttressed by the massive granite thickness of the urban landscape-as-section it is sitting on.

63 See Section 2.3.3 / 2-2: A Journey into Memory and Imagination.

64 See Section 2.3.3 / 3: The Excavation, and Section 2.3.4 / 2-2: House VDV-C, and Section 2.3.5 / 3: The Meaning of Life, and Section 2.3.5 / 4: Etude, and Section 2.4.5: The Haystack Gallery.
As Souto de Maura contends: “At bottom I’m making an effort to lose my fear of designing the thing that seems the most humdrum of the world: to place doors and windows in a wall. This motive has always persecuted me, not because of a taboo, a preconception, but for lack of available material, “thickness” (de Moura, in: Esposito, A. and Leoni, G. 2003).

Again, the Concept of Section and the Emergence of Thickness come together. Is not an insertion of a door, or a window, literally making a section, having to cut through a wall? And then, by making this section, the architect-as-draftsman and the carpenter-as-craftsman anatomize, as dissectors, the compositional layers of the wall.

Moreover, the thickness of a wall can only be demonstrated by making a hole in it, for instance through the insertion of a window or a door. Then and there, the master builder lifts a wall from a two dimensional surface into a three dimensional body of Thickness of Substance. Through the visible demonstration of this Thickness of Substance, the wall—at the window bay—obtains a Depth, paradoxically creating shadows—Darkness—through making the openings that allow the entrance of light.

As experience had taught me, this composition of materials allowed me to apply the specific construction techniques it needed, and to invite my favourite craftsmen, on whom I could rely, and who could produce this house with the precision of a piece of furniture, as I wanted it to be. I consider architecture with the precision of furniture making as indispensable in the production of architecture, with a grandfather who had been a furniture maker.

As said, in the case of House T-A, I wanted to keep the house as low as possible at the street side, because I wanted to play the scale game with the size of the tall standing man and the house. To succeed, I could not afford to lose inches or centimeters, and I was very precise and specific about it from the early beginning in the design process, hence in my quest for the precision of furniture making.

I first made the sketches—together they are the Second Chronological Drawing—on which I reasoned my way up from the excavation and the foundations, and on which I decided on the materials I wanted to use. While making these sketches—in real time and in real substance—I was obsessed with capturing that special moment when the scale of a man meets the scale of his house equivalently.

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65 While designing these sections of the house in chronological drawings—chronological sketches actually—had in mind that the Beerens brothers (Luc and Marc Beerens), were the carpenters that had to build the house. They had already done the CL2-appartments, they were doing House DG-DR at that time.

66 See Section 2.3.4 / 6-1: Summerhouse, of which the construction process was starting at the moment I was designing (the construction process of) House T-A.

67 See the furniture maker’s workshop in My Grandmother’s House (see Section 2.3.3 / 2-2: A Journey into Memory and Imagination).

68 See Section 2.3.3 / 3-2: The Emergence of Thickness, and the Concept of Section.

69 The materials which I described above.

70 I had also experienced this special scale when I visited Carlo Scarpa’s Brion Cemetery (1970-1972), in San Vito d’Altivole, near Castelfranco, Italy in 1990 (Scarpa 1970-1972). Perhaps, this is the most striking aspect of Scarpa’s masterpiece: a discovery walk that reveals so many moments of scale … Scale, in this work, becomes at some moments very compelling, with a sense of urgency, when Scarpa comes closer and closer to design (for) the human body itself, coming to the point of a dead man in full scale, laying down, in a coffin, in a grave, and at one particular place the dead men come together, when their coffins and their tombs meet under a generous concrete shelter, where the living gratefully accept the dance macabre by the grace of a scale and size so frighteningly human and nearby. One of the men burried in this cemetry (guess who) is not laying down though, as he has been burried, on his own request, standing up right and wrapped in a blanket, like medieval knights were burried, in a hidden corner between the old and the new.
The wall of House T-A has been ‘constructed’ through the Second Chronological Drawing, which is, as said, a set of sectional sketches, that subsequently have been translated in the two sections on scale 1/20, as to test and demonstrate this special scale in a controllable drawing.

The upward vertical chronology goes as follows:
(the excavation for the foundations) + (simple foundation strips in poured concrete\textsuperscript{71}) + (a concrete floor slab of 150mm thick) + (walls of 150mm thick cellular concrete blocks) + (the insulation and cladding of the façade) + (double zinc roof rims).

Starting from this general summation of construction elements, I will first go inside to experience the interior height, and then I will come out again to go into further constructional detail.

The estimated lowness of the house reduces the interior height of the streetside bay of the house, where the entrance, kitchen and storage are compactly situated, to 205 cm (a tall standing man), which is the distance from the floor level to the bottom of the abraded wooden rafters that carry the flat roof. In between the rafters, the space is left open which generates a visible construction practice.

Then, on the outside, this is the sequence from bottom to top (with the precision of a piece of furniture):\textsuperscript{72}
(an interstice of 50mm at the foot of the façade, where the wall pulls back inwards in order to give the house a sense of levitation, inspired as I was by the flat surface of the site and the landscape, and by the straightforward way I demonstrate the imbrications of ‘fibre-cement-as-limestone-panels at the corners) + (four rows of ‘fibre-cement-as-limestone-panels’, each 600 mm high and 2000 mm long, separated by precise interstices of 10mm) + (a double roof rim in zinc).

The levitation of a floating house convinces at the moment when it just lifts from the ground, only 50 mm detached from the surface of the site. No one believes in a floating house when it hangs 5 meters up in the sky.\textsuperscript{73}

The summation of all these elements in the street façade of the house results in a total external height of the streetbay that does not exceed 255 cm, ‘the singing bird on the roof rim included’.

Then, in a second line, two additional layers of fibre-cement-as-limestone-panels, lower than the first one though, crown the house, locally (above the entrance) containing two full storeys within the mere range of 491 cm.\textsuperscript{74}

\begin{itemize}
    \item \textsuperscript{71} Because CPT’s had shown that the bearing capacities of the soil were good, and because of the light weight of the house.
    \item \textsuperscript{72} I had also encountered this precision of furniture-making-as-housemaking in the work of Shigeru Ban. His \textit{Library of a Poet} (Shigeru Ban 1991), and his \textit{Furniture House 1} (Shigeru Ban 1995) fascinated me by its straightforwardness, its light weight appearance, and its precision. Shigeru Ban applies a precision that is the precision of traditional Japanese architecture, which is the precision of furniture making, paper screenings, tea ceremonies.
    \item \textsuperscript{73} Although I can imagine that some famous architects who would do that.
    \item \textsuperscript{74} Juan Navarro Baldeweg’s \textit{Museum in Altamira} (Baldeweg 1995-2001) is a strong point of reference here as well. Parallel horizontal lines gradually build the floor levels, the spaces and the roofs of the museum, of which the parallel volumes and toplights have the subtlety of puff pastry and demonstrate the altitude lines that indicate the slope in the landscape-as-section, in which the cave is hidden underneath. This museum has been a strong point of reference for my work, not only for House T-A, but also for House B-M (see Section 2.3.4 / 6-4) in the way it partially digs itself into the hill, and for Etude (see Section 2.3.5 / 4).
\end{itemize}
At the street side of House T-A, I amplified the lowness of the house with economically piling up some ground that comes from the excavations of the foundation slabs. Almost invisibly increasing the site level by approximately 50 cm ends up with the possibility for a tall standing man to touch the zinc rim of the roof with his hand as to suddenly encounter a house with his size. There, I have drawn a double rim profile in zinc, in order to obtain enough depth for the waterproofing membrane of the flat roof to contain some rain water during heavy rainfall without visually raising the view of the height of the wall (centimeters and millimeters counted here!), and in order to top the wall with a decent crown. Finishing the edges of walls or roofs in a particular way is a sign of culture. Finishing the edge of roofs in a correct standardised way is culture reduced to mere civilisation. It does make a difference to me, and it reminds me of the insistence with which triglyphs and metopes, guttae and mutules, and cornices and pediments of Greek temples have been carefully moulded. It belongs to the meticulous narrative each building should tell. The architect should persistently stick to his mantra of crowning.

When we move more inwards into the house, into the long drawing-as-section, a steel grating carries the study on the top floor, which grants the inhabitant—a teacher—with a three hundred and sixty degree view around the house. The steel grating, galvanised with meshes of 30 x 30 mm, 30 mm thick vertically, is carried by a series of slim steel IPE-beams, which are caught by steel shoes that are fixed chemically into the concrete beam on the left—the one that bridges the kitchen niche—and positioned into the heart of an IPE beam on the right that goes from column to column to column. I wanted to reduce the height of the beams, so as to keep the height of the house ‘under control’, so I slightly had to raise the number of columns.

Then, with the protection of the ‘stone’ wall in the back, I opened the house maximally, towards the courtyard. This is the moment of see-ing, rewarding the ‘Open Sesame-experience’ of piercing a wall by suddenly opening a part of it—the door—fulfilling the expectations raised by the enigmatic outer appearance of the wall-house. Here, the aprioristic protection of the mound meets the gratification of the overview. What House VDV-C (see above) had fulfilled by first digging into the inclination of the landscape-as-section, subsequently climbing vertically it as a tower that gives an outlook, is fulfilled in House T-A in a comparable concept, but horizontally, on the flat level of the site. Both cases, and their affiliated versions in my other designs, refer to the labyrinthine climbing experience in My Grandmother’s house, that culminated in the enlightening moment in the dormer window of the attic.

75 Belgian legislation that says that having to transport more than 250 m3 of ground from a construction site not only needs a special permit, but also is the subject of a special tax that has to be payed by the owner. To avoid this tax, I would economically use the ground this way in House T-A yet I could amplify the experience of lowness of the house.

76 In this flat landscape, and contrary to what I was used to on sites with an inclination, I was beginning to instate a man-made horizon, like I would do for the Summerhouse (see Section 2.3.4 / 6-1). In the landscape-as-section, this was an act of addition (+), unlike the ones I had applied in the hillsides, where I first started to dig as an act of subtraction (—).

77 I have always been inspired by Alvar Aalto’s zinc or copper rims and downspouts, for instance in the astonishing Vuoksenniska Church (Aalto 1956-1958). Also, in Hans Scharoun’s edges of roofs and balcony’s in the Philharmonie (Scharoun 1960-1963), or his long awaited Staatsbibliothek (Scharoun 1963-1978), only finished after his death in 1972.

78 ‘Depth’, actually, because it has been the extreme lowness I have wanted to guard.

79 See Section 2.3.4 / 2-1, where elaborate on Maiden Castle (600 BC), Dorset, UK.

80 See Section 2.3.4 / 2-1: a House.
Then, I decided to reduce the section of the columns to an absolute minimum, in order not to obstruct seeing into the courtyard and the flat openness of the landscape-as-section.

It took me some time to define whether the columns and the window frames should coincide or not. I had investigated a number of versions of the combination of column and window frame in one steel section during my apprenticeship in the studio of Juliaan Lampens.\footnote{In House Vandenhaute-Kiebooms in Huise, Belgium (Lampens 1967), Lampens makes a column with four L-shaped steel lines (here, Lampens expresses his fascination for Mies Van der Rohe’s Barcelona Pavilion (Mies van der Rohe 1929) with its cruciform columns) that form a quartet that both bears the load of the corner of the vast concrete roof, and contains the double glazed window panes that come together in that strategic corner of the house. It is the most dense and compact way to bring all these elements together, and its powerful expression results in an almost religious serenity. I have been an apprentice of Lampens between July 1984 and early 1987, and I considered it as my duty, as an architect and a friend, not to copy the work of the master opportunistically, but to fight and find my personal way through all the obstacles that separate me from architectural mastery.}

For House T-A, I separated the columns from the window frames early in the process, taking into account a possibility of a different metrum for the columns and the window frames. I decided to separate the columns from the window frames spatially, in order to articulate them with more emphasis, as to demonstrate what each part of the architectural sentence is doing, in an attempt for a clear reading of the syntax of the house. In that respect, my approach corresponded more to Mies’s way of separating columns and window frames in the Tugendhat House (Mies van der Rohe 1928-1930) than he did at Farnsworth House (Mies van der Rohe 1946-1951), which is logical: Tugendhat House has more space available to do this—approximately two meters—than Farnsworth House, but less than Tugendhat House. The space between the columns and the window frames in House T-A is there, but only as wide as necessary to graciously move the curtains in between them, and enough to liberate the columns and the window frames from each others constraint.

In the subsequent drawings and sketches of the plan, I had first started with H-shaped steel columns, banking on my experience with them as an apprentice in the studio of Lampens, knowing their bearing capacities and the limits of their slenderness. But having decided not to copy Lampens’s synthesis of a column and a window frame, which he often did with steel HEB.100 columns, my approach of having both H-shaped columns (HEA.100) and wooden window frames turned out to look too heavy, obstructing too much the estimated openness of the house towards the courtyard and the landscape.\footnote{Mies van der Rohe’s Farnsworth House, Plano, Illinois (Mies van der Rohe 1946-1951) shows a separation, thus not a coincidence, of the steel columns, placed at the exterior, and the window frames. More specifically, the metrum of the vertical window frames—as slim as possible and made of steel lines—is half of the metrum of the columns, with an additional window frame in the middle of the field between two columns, and at both ends of the interior area of the house two additional window bays, of which one is cantilevering with the house volume itself, and the other one projecting into the roofed terrace space. Those two projections seem to have their own metrum, astranged from the main metrum dictated by the columns. In this house, Mies clearly has chosen to make the structure as the first order of the house, making it as slim and absent as possible—less is more—only secretly taking into account the maximum size of a window pane available at that time. His investigation of construction practice must have been both about the bearing capacities of a minimised steel structure, and a maximised format of the window panes, then carefully looking for their common denominator that subsequently had to be checked with the overall estimated expression of the house. This must have been a hell of a job, for the right common denominators of that kind are so difficult to find. I assume that he could only confront this difficult question through the investigation of the material limitations of glass. Only then he could finalise a secondary structure—the window frames—so as to deal with with the maximised glass surfaces, the limitations of their transport, the question how to insert and replace them, all determined by the laws of matter and the habits of construction practice.}
Subsequently, I investigated tubular steel columns, in the way SANAA had done them in several of their projects, for instance in the Glass Pavilion at the Toledo Museum of Art (SANAA 2001). But their tubular columns, performing so well in their ephemeral architecture, miss the cutting sharpness I want to see in my work, through an edgy and clear separation of light and shadow.

Finally, and after pondering a lot about these columns, about ‘the concept of column’ in fact, I wanted these columns to be pure L-shaped steel lines, because these show their sharp edges as straight lines between light and darkness that make the columns even slimmer.83

I had to talk to the engineer early on in the design stages. This reminds me of one day, during a construction site meeting for the Summerhouse84, when my Dutch client told me the story of his daughter Marieke, who, still being a little girl, attended a construction site meeting with Piet Vonk, the engineer, and she had asked her father: “Daddy, what is that, an engineer?” And my client replied: “Well Marieke, Piet is the guy whose job it is to find out whether one more column can be omitted in the design, instead of adding one, and engineer Piet costs us a lot of money, but thanks to Piet we earn it back twice: once by omitting a column, and a second time by not adding one”.

In the context of House T-A, it takes a flexible and competent engineer to calculate the thickness and strength of the thin steel floor of the first floor study (see above), starting from the aspiration to make it as lightweight as possible.85 The same reasoning goes for the steel columns. One only has to look carefully at scaffoldings on construction sites to see how thin a structure can be, even with a load of bricks or stones on it, and a mason or two standing on it. These are the kinds of examples that are convincing and inspiring!

Good engineers have understood this, and work accordingly to this understanding. Like in the automobile industry, or the aircraft industry, ounces and kilograms count, and that was what I wanted to see in House T-A.

After the steel columns had been erected on the chronological drawing, I started to define the window frames. In fact, the process of dimensioning the steel columns to the extreme was linked to my assumption that the wooden window frames would be visually present, materialised in afzelia wood. They should not hide, but instead they should demonstrate some depth, in the horizontal direction, in order to incorporate integrated (not added!) curtain rails. Altogether, they would formulate a 30 cm area in the plan, as a compacted piece of fine furniture edging the house. I would later apply this principle to its full extent in House D-R.86 This transient area then would be completed by an external sunscreen, shading the sunny side of the house and its windows, like the one I would apply for the street side of House DG-DR.87

By then, unfortunately and suddenly, the project stopped. It was never built.

83 This is the main reason why I seldom use tubular steel elements. They don’t cut into the visual experience. I want the light to do to my columns what it has done to their Doric sisters of ancient Greece: light shows the sharpness of the chisel, the way they have been cut out of their stone, the tough fight with the Thickness of Substance, the Dark side of their Substance, with their cannelures that end on pointed edges that separate decisively light from Darkness, and by doing so, clearly demonstrate the co-presence of both. This may seem to be a mere detail, but it is not, because details are decisive and make the difference: even heavy Doric shafts look elegant by the grace of this careful handling of Substance, the fundamental Substance of light and Darkness.
84 See Section 2.3.4 / 6-1: Summerhouse (2001-2004).
85 For the Summerhouse (see Section 2.3.4 / 6-1), I would go one step further in the conception of a light weight floor structure, resulting in an extremely thin concept, with woven steel cables so as to make ‘a tennis racket floor’.
86 See Section 2.3.4 / 6-2. There, I include photographs of this concept of window frames.
87 See Section 2.3.4 / 5: House DG-DR (1999-2004).

House T-A (2001-2002): series of chronological drawings. These are the first preliminary design sketches of this project, that subsequently have lead to the drawing on the right, on which I could check the overview, that subsequently has been checked by a small refined scale model (top). Construction practice as architectural design.
left: study of the zinc roof rims in combination with the wooden window sections.
center: study of the zinc roof rims in combination with the measures of the limestone claddings. Bottom right of the central drawing: study of the steel L-section as column.
right: study of window sections of the ‘glass stone’ in the street façade, and study of alternative ways to capture sunlight in the street façade without giving in on the ‘wallness’ of the façade.


Again: these are the first preliminary drawings of this project, out of which the shape of the house has been generated, and subsequently the upcoming scale drawings have been made. Construction practice as architectural design.
House T-A (2001-2002): plan, scale 1/50. Pencil and chinese ink on tracing paper. Plan version with L-section steel columns. In this stage the project suddenly has stopped. And so did the draftsman with this drawing … I have included all the drawings I have made for this project in the Ph.D.
The design for House B-M (2003-2006 / unbuilt) is related to House T-A (2001-02 / unbuilt), that came two years earlier, and that technically was more groundbreaking for my practice in its aspired connection between construction practice and the poetic image.

These two houses are affiliated by the use of cyclopic stones, and by the relationship between the eye level of a tall standing man with the house in the landscape—as-given. Building these houses would have been a fundamental—substantial—step in my practice. In both houses I used all my technical skills (and the use of these cyclopic stones is one of them) to make a man feel big, starting from the eye level of a tall standing man, and connecting it with the height of the houses which I wanted to reduce as much as possible. In both House B-M and House T-A, I have done so, in order to make the tall standing man aware of the position of his eye level in the landscape-as-section, hence of his own position in the world, in order to—in some way—bring the standing man face to face with his (own) house in an equal range of size. In both houses, it has been my objective to situate the height of the house as near as possible to the size of the tall standing man who inhabits it, and it appeared to take all my mastery of construction practice to substantiate this ambition. Experience has

100 See Section 2.3.4 / 6-2: House D-R: “Seemingly paradoxical, but not a paradox at all: feeling bigger by positioning the level of the roof low enough.”
learned me, paradoxically, that this at first frightening ‘inverted’ proportion subsequently brings rest in the mind of the inhabitant, who feels closer (more down to) to the earth by seeing his house physically remaining closer to the earth.

However, both these houses differ insomuch that House B-M has been dug in in the local inclination of the landscape-as-section, whereas House T-A is standing on top of the local flatness of the landscape-as-section. In that respect, both houses inevitably adopt a completely different relationship with the landscape-as-section, because the latter is unquestionably a given, and subsequently both houses find their own specific way—through their design which is their construction method, their section-as-excavation—towards the standard of all measures in making architecture: the eye level of the tall standing man (me).

For House B-M (2003-06 / unbuilt), the site was situated below street level, approximately 1.70 meters, which is just not the size of one full storey. Here again, I could make use of the thickness of the landscape-as-section, like I had learned in House VDV-C and rehearsed in other projects. But House B-M was an inverted situation: instead of making an excavation in the Emergence of Thickness, the site was now below street level in a one-man-Depth, but with a size comparable to the Emergence of Thickness of House VDV-C. This felt like taking another step in my work, in my relationship with the landscape-as-section, and my application of the Concept of Section. I had the impression that something magic would prove to come out of a sensitive inversion of scales by smartly making use of the section-as-excavation: dwarfing the scale of the house, and making bigger the scale of a man (another inversion).

On a street elevation I added a subtle section of a limited excavation—not much—but just enough in order to position the foundation slab on the right level according to the CPT’s. Then, I calculated the amount of excavated ground, in order to use it to re-level the site after the house was done. Then, I ‘built’ a wall in this landscape, a wall that a tall standing man can look over. So the wall was low, and I ‘built’ it with large stones, in order to make it look lower, heavier, Cyclopic, from the bottom upwards: a foundation slab, a doubled wall in large cellular concrete blocs with the size of D600mm x W200 mm x L2000mm normally used for industrial buildings, and that look like the ones used by Jørn Utzon in his Bagsværd Kirke (Utzon 1974-1976). This construction method could guarantee a quick and economic construction process, and good thermal and acoustic characteristics, and this coincided with my aspiration just to build a wall in this landscape—a wall to live in’ and ‘to look over’. Construction practice—just building a wall—coincided with my architectural stance—just building a wall! This co-presence of to make with to dream was just one mason away!

By the construction of the drawing, I discovered that a tall standing man can look just above and over the flat roof of the house, in order to see the valley that is behind it. At first, arriving from the street, the height of the wall of the central part of the house seems to be normal. Then, coming closer, a strange inversion of scales occurs, making a man taller than his house that is dwarfed by this man who is approaching it … . Two tower-like volumes confirm the strange play with

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102 CPT: Cone Penetration Test.

103 Later, during the Ph.D, I pushed this concept further into its essential principles, when I was designing the section of the speculative project Etude (see below).
scales: from the street, they seem to be one storey high, but they exceed this scale by approaching them, dwarfing the middle part of the house even more, and bringing the scale of the approaching man back to its real size.\textsuperscript{104}

The two vertical volumes of the house mark the entrance and the study on the left, and a children's bedroom on the right. By economically working in the section-as-excavation, the floor level of the living area is situated at the landscape level, where it was naturally adopted by the slow inclination of the valley, coming to scale with it. At the back side of the house—the valley side—I wanted to reduce the house to one window that faced the landscape, positioned in an immuring wall, that covered the back of the house.\textsuperscript{105}

This excavation (as mound)(Semper 1851), combined with the Thickness-of-Substance of the wall in the back (as enclosure)(Semper 1851) generates the aprioristic protection. Then, the wide angle window generates the gratification of the overview. Together, they form the human condition.

\textsuperscript{104} I had experienced something similar, when I visited the prairy houses of Frank Lloyd Wright in and around Chicago, in 1995. I had noticed that Wright, not being a tall man and wanting to draw houses at his personal size, was also playing with the scale, and that the extremely cantilevered planes of roofs were, in the moment when I approched, frightening, as they seemed to pierce my eye level, only just avoiding my forehead when I walked under them. I had found out that he not only manipulated the height of the roof planes, but also the level of the walkway and the garden layout by positioning the ground level slightly heigher at first, in order to subsequently go down one or two steps just before my eye would reach the edge of the overhanging roof. This has been one of the most striking moments in my architectural life, comparable to the Sublime (see Section 2.3.3 / 2-5), and my confrontation with the terribilità in the work of Michelangelo.

\textsuperscript{105} Which paradoxically is the street side of it.
House B-M (2003-2006): on a street elevation I added a subtle section of a limited excavation, scale 1/50, pencil, charcoal, white chalk on thin white paper. In order to make the tall standing man aware of the position of his eye level in the landscape-as-section, hence of his own position in the world, and in order to—in some way—bring the standing man face to face with his (own) house in an equal range of size, it has been my objective to situate the height of the house as near as possible to the size of the tall standing man who inhabits it.
House B-M (2003-2006): plan, scale 1/50, pencil on thin white paper. In the landscape-as-section, the section-as-excavation the excavation-as-construction site, so as to ‘dig in’ at the street side, and to be at the level of the landscape at the landscape side. An immured enclosure (the mound) generates ‘a wall to live in’, with one window that faces the landscape.

House B-M (2003-2006): the measure and the scale of the tall standing man, face to face with the measure and the scale of his house. The precision with which the house has been inserted in the landscape. Through the economic section-as-excavation as the exact interpretation of the Emergence of Thickness and the Concept of Section.