

## **The Tangible and Intangible in my Architectural Designs. Where the Praxeological and the Phenomenological Approach Meet.**

Intangible aspects in architectural designs are hard to show with only two-dimensional drawings such as plans and sections, and therefore, three-dimensional drawings and models have to be made to make the intangible visible. Drawings made on eye-level show how the user, the modern homo ludens, perceive and see the space and how the building connects to the environment.

This paper I will discuss the tangible and intangible in my architectural studies. It is about the phenomenological aspects that, together with the praxeological aspects, form my final designs. Drawing and model making is an essential part in the my design process as it is for many other architects.

*Keywords: (in)tangible, phenomenology, perception, drawing, users, connection with the environment.*

Especially in the bachelor's phase of our faculty the emphasis of the design process lays on a praxeological way of designing. Modern architects, as Le Corbusier, are praised for their excellent way of designing. For students and teachers, the functionalistic approach to designing is easy to understand, and therefore much used. Essential for these designs are the plans, sections, and elevations. The visualisations, and other three-dimensional drawings and models, are becoming in this on the second place. I can grasp the idea why this is done: the praxeological way of designing is very tangible and therefore easy to understand and explain. However my opinion is that the two aspects have to be seen on the same level of importance.

Looking back at the designs I have made during my time at the Delft University of Technology, I see, apart from all the tangible aspects, also intangible aspects. Partly unconscious, I applied these kind of elements to my designs. As Louise Kahn said: “A great building must begin with the unmeasurable, must go through measurable means when it is being designed, and yet in the end must be unmeasurable”.<sup>1</sup> In this paper I will reflect on my own designs and look into the phenomenological approach to get a better understanding of this approach. I try to explain why the intangible aspects are important for my designs and why the eye-level drawing is for me an important one to make. The eye-level drawing can also be used how the user perceives the space and to explore the connection between building and environment.<sup>2</sup>

### Position

“Drawing is not an exercise of particular dexterity, but above all a means of expressing intimate feelings and moods”<sup>3</sup> - Henri Matisse.

In my designs, the main purpose is how users perceive and experience the space, the building, and the public realm. When I begin with a design most of the times I see an image or have a feeling that I want to capture in the design. This image or feeling forms together with a logical arrangement of the program requirements<sup>4</sup> the basic idea of a design. My designs are about size, proportion, shape, light, feeling and perception. Some of these aspects are tangible, some of them are intangible. The intangible aspect in my designs are hard to show only in plans and sections, and therefore visualisations, collages, isometric drawings, sketches, and models are just as important as the two-dimensional drawings. With the intangible elements the user can perceive the building in his own way. To show the intangible it is necessary to make drawings and sketches

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<sup>1</sup> (Sagoo 2011, 13)

<sup>2</sup> In my graduation project I transform a ministry office in the centre of The Hague. The location of the present building is in a bustling street, between the railway station and the shopping and entertainment centre of the city. To go from the railway station to the centre the public uses a passage that runs through the building. However, the present building is very introverted and has no relationship with the public on the street. The public space around the building is poorly designed, but has great potential. The design task for me is, apart from designing a qualitative office building for civil servants, also to create a good public space around the building for the public. By demolishing a part of the building, I create a square were the public can gather together or sit down and read a book or look at passers-by.

<sup>3</sup> (Sagoo 2011, 13)

<sup>4</sup> An essential part of the design. Without a logical and clear arrangement people do not understand the building which will result in irritated and confused users. Only when the building asks for it, (for example, a museum or a dwelling) this confusion can be a good thing. But for most buildings (offices, stations) this should be avoided.

on eye level. Only then you can grasp the idea how the building is perceived. Some architects keep making endless bird's-eye view renderings. Of course this way of projecting is a good way to get an overview of the whole project and for a client the view is easy to understand and to see what he or she is paying for. Therefore, I do not want to exclude this projection, but as the name already reveals, it is a view that, most of the time, is seen by birds, and not by human beings. The bird's-eye render shows something about the shape of the whole building, but this view is never seen by users and is never going to be experienced. Models are a great tool because they can show both views and are also understandable for the client.

The last aspect of my position is the relationship between the environment and the building. There is always a relationship between them, even if the architect claims that there is not. For me, the connections between building and city, lobby and environment, and garden and living room are essential to take into consideration. Only then the building forms a part of the city and the building can mean something for a city. To design not only for the direct user but also for the accidental passer-by and the public around the building is something I always want to achieve in my designs. A city can contain many great buildings, but when these are introverted and have no relationship with the public space, the streets of the city are empty and horrid. When an architect does think about this relationship, the building can create a bustling street life.<sup>5</sup>

### Personal

In a digital period we have to be careful not to lose ourselves in endless computer modelling. A three-dimensional model in the computer is totally different than a visual one.<sup>6</sup> Keep sketching and drawing. As Wilfred Wang writes about Álvaro Siza: "There may be a power cut, the

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<sup>5</sup> An example of how architects can think about the public when designing a building is the design of the Seagram Building in New York. The architects, Mies van de Rohe and Philip Johnson, had designed a building which had a setback from the street. Between the street and the building, Mies and Johnson designed a raised plaza with two long marble sitting blocks. At the time the project was finished it was the only open space in the street and therefore much used by the public of New York city. People sat on the stairs of the plaza and on the long sitting elements. It is a perfect example in which the architects not only wanted to make a good building, but also give something back for the people of the city. (Lambert 2013) & (Whyte 1980)

<sup>6</sup> Many architects agree on the fact the computers have brought many good things but computers also have limits in freedom. Parametric design, a modern way of designing with the computer via different kinds of software, is always pre-programmed and is therefore less suitable for visualizing your ideas than hand drawings or models. The Spanish architect Rafael Viñoly says: "I draw all the time, wherever I am, because to me it is a way of exercising my mind and searching for the next thought that will become a design. You cannot do this with a computer – there is no freedom for it". (Sagoo 2011, 13)

computers may be riddled with viruses [...] but the imaginative powers of the architect are always present in his sketches".<sup>7</sup> But also for me this is sometimes difficult and sometimes I keep designing in schemes, masses seen from above, and as an object itself, without drawing the direct environment or taking proportions and sizes into account.<sup>8</sup> Most of the time this results in a design that is not thought through. This concern is shared by many other architects. "I worry about students who might feel that the power of sophisticated computer equipment has somehow rendered the humble pencil if not obsolete, then certainly second rate"<sup>9</sup> says Norman Foster.

I was very happy to see that during the lectures of this course, many speakers spoke about the intangible way of designing for example with language and image. During these lectures you could already feel some resistance from several students and during the discussion immediately the questions arose about how scientific the intangible approaches are. For some students there is an urge go get a clear understanding of this approach so that it is easy to explain. They try to make the intangible tangible. However, I think this is not the right way to do, although it is possible to make the intangible clear by making images and a story. This has to be done very carefully with the right arguments so that others will understand the idea and are becoming convinced of it.

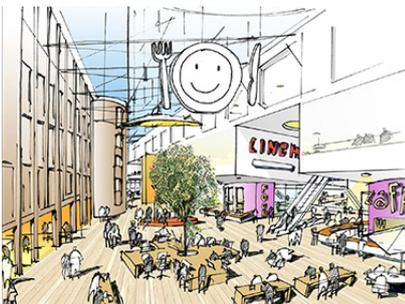


Figure 1 and Figure 2 In this project I to analysed a big building and made an intervention in this building. I found a space between the old and the new building that on plan and section looked as a qualitative space (in figure 1 the impression sketch made by the architects from OMA). But after modelling the space, it turned out that the space actually was left over space (in figure 2 the space seen by me). Redesigning this space and giving this space a function was the starting point of my intervention.

<sup>7</sup> (Siza and Wang 1994, 10)

<sup>8</sup> Afterwards, I ask myself the question: why? Why did I not make a rough sketch about how the users perceive the building? The answer for me is that it was the easy way to do for me. It is easy not to zoom in, to be less precise and to see the building as an rough object.

<sup>9</sup> (Sagoo 2011, 13)

### The Tangible and the Intangible

Before I continue this paper, I feel the urge to explain the term tangible. During the lecture series I saw that this term can be interpreted in different ways. Tangible is on the first hand something that you can grab, that can be touched. The tangible is something *real and actual, rather than imaginary or visionary*.<sup>10</sup> But for me the tangible is also something easy to understand, something that is concrete. The shape of an object is tangible, a shape created by the shadow from a roof window is intangible. The term *feel*, which has a significant relationship with the term tangible, is a nice term because it includes the tangible as well as the intangible: feel in the way of touch and feel in the way of sense.

A book about the intangible in architecture and the environment is *The Concise Townscape* by Gordon Cullen. In his book Cullen explains with text and pictures the reactions of the human mind on architecture and the environment. The human mind reacts to contrast, to the difference between things, and with this contrast the town become visible in a deeper sense. It is about the dialogue between elements, in which the courtyard and the street are important aspects in this dialogue.<sup>11</sup> Environment makers can manipulate the elements so that they can achieve greater emotional impact. This has to be done not democratically but in an emotional way. The main goal of the book is to get a better understanding of the environment in which the design has to be made. It creates the preconditions that can allow place to happen. The book shows that the intangible can be shown in eye-level sketches and in a *serial vision*.<sup>12</sup> To get the composition of the building in its environment right, the building gets a place in the city, village or landscape.

This accomplishment is something that has to grow. It is not the case that the first attempt, the first drawing of the building in its environment, is the final one. To sketch is to try something, try out an idea, find out the dimensions, realize an image. Sketching is also a device to communicate. Foster sees the architectural drawing as a part of a dialogue. Sketches are “stepping stones in the design process”.<sup>13</sup> A single sketch can say more than a whole story and can be used during the whole stage of the design process.<sup>14</sup>

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<sup>10</sup> dictionary.com

<sup>11</sup> (Cullen 1971)

<sup>12</sup> A sequence of pictures of the scenery of towns. (Cullen 1971, 9)

<sup>13</sup> (Sagoo 2011, 145)

<sup>14</sup> Tony Fretton about sketching and drawings: “Sketches maintain the potency of the ideas and form as they develop. My sketches provide imagery and conceptual direction for a project in its early stages, and ideas for how the pragmatics and social elements of a project can be given form.” (Sagoo 2011, 151)

I think the lessons and methods from *the Concise Townscape* can also be implemented on interior spaces. Just as a slightly bending street with in the distance a courtyard is more interesting than a straight endless street<sup>15</sup>, an interior space with different zones and areas is more interesting than an empty space. It is about the juxtaposition of elements creating contrast and depth in the space. To accomplish this, also for the interior space the eye-level drawing or a model has to be made. Is the space really as qualitative as the plan shows, are the columns supporting the space or are they standing in the way, and are the elements in the space in proportion? Doing this, the unforeseen elements in the space can become visible. Light is always an interesting element. Often when I make a model, the play between light and shadow is becoming visible. To understand this I can play with it, make alterations, compose more or less shadow or creating diffuse light to take my design to a higher level.

### The user

By providing the intangible aspects, the users can perceive the building in their own way. The freedom of users is in my designs very important. In this, I see the user as a modern homo ludens<sup>16</sup>, a playful human being who want to be surprised by the logic and at the same time by the appearance of the building. The homo ludens is more and more present in modern society, from

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<sup>15</sup> (Cullen 1971, 9)

<sup>16</sup> The playing man from the book *Homo Ludens* by Johan Huizinga. (Huizinga 1952). This book is about the presence of play in culture. Huizinga argues that all great archetypal activities of human society are permeated with play from the start (Raglan 1949). According to Huizinga, play is the expression of human freedom. The goal in the play lays herein in itself and is going above the sphere of *the sober life of necessity and seriousness* (Mul 2011). The German writer-philosopher Friedrich Schiller explains that the core of the existence of the human being is the drive to game. Huizinga points out that this play is not only leisure: "We cannot contrast play with seriousness, or associate it with the comic, for games are often taken seriously, and the comic is connected with folly. Play, however, lies outside wisdom and folly, as well as outside truth and falsehood, good and evil" (Raglan 1949, 58).

Looking into the future, Huizinga says that because of the modern technology everybody can transform their life into a creative game (Mul 2011). In this, Huizinga was right, nowadays we play more and more. However, there is also a down side to this. The computer is not only played by the human but also the other way around and the human gets addicted to the computer. furthermore the messages from social media, such as Facebook and Twitter often result in dreary uniformity and blandness. Back in 1938 Huizinga already predicted the rise of puerilism, a mixture between childishness and barbarism, with the need of sensation and mass display. Examples of this puerilism are sensation news programs and political populism, things that are very present in our present society.

The solution is, according to Huizinga, to get a clear distinction between play and real life. To play, the user has to step out of real life into a temporary sphere of creativity (Raglan 1949). Huizinga: "culture can only be flourish when this is happening on the other side of the seriousness of life" (Mul 2011).

Constant's New Babylon, a living space for the homo ludens, towards virtual worlds in computer gaming and social media.<sup>17</sup> The ludification of society is not only visible in leisure but also serious matters have to be *fun*.<sup>18</sup> Even an office should have a playful element resulting in creative offices such as the headquarter of Facebook or Google. In human culture, play is an essential part and has a major relationship with freedom. The relationship between play and freedom is important and we should be aware of this when we are designing.<sup>19</sup>

Not designing spaces where the user *should* do this and that, but were the user *could* do this and that, is for me the way to deal with the modern homo ludens. Within the limits, the user is free to walk wherever he wants to walk. Models and drawings are a good way to explore such spaces and prevent non-ludic architecture.



Figure 3 In this design the user can decide where to go. Immediately the user is curious about what will happen in the back and around the corner of the space. The visual connection with the higher floor and the elements in the space are strengthening this curiosity of the user. In the design, there are some clear restrictions and limits (walls etc.), but there are no obligations and the limits leave enough space so that the user can decide what he or she want.

### Connection

A good connection between the environment and the building is needed. Especially the plinth of the building needs special attention. By making eye-level sketches you can design the transition space and the connection between the inside and outside. Introverted buildings and buildings that have no relationship with the direct environment can create terrible places in the city. An example of how it should not be done is the project Hoog Catharijne in Utrecht from 1960. In this project, a

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<sup>17</sup> In games as Second Life and World of Warcraft the player can create his own virtual world to play in. In Facebook, Twitter and Instagram the user can create his own profile and even pretend a different life than real one.

<sup>18</sup> (Mul 2011)

<sup>19</sup> According to Soenke Zehle, from the Saarland University of Fine Arts, the relationship between play and freedom is that important, we should be beware of the "subsumption to the sovereign designs of non-ludic architecture and aesthetics".(Zehle 2010, 114)

part of the old city centre is demolished for a utopian project of dwellings, offices, shops, and parking garages. The pedestrians walk unhindered on the first level, passing by all the shops. The ground level is for traffic and parking entrances. The result is a big introverted building with blind facades, and on street level dangerous spaces because of the lack of social control.<sup>20</sup> The decision to separate all the traffic flows is in big contrast to the rest of the historic centre and goes against the principles from the townscape book.

### Conclusion

My architectural projects are not only about the tangible but also about the intangible aspects. To show the intangible aspects, drawings and models have to be made. By making eye-level drawings the architects can investigate the intangible elements in a space and how the users perceive the space. This kind of drawing can also be used to explore the connection between the building and the environment, and the transition space between interior and exterior. This connection is very important to give the building its place in the city. Also during the design process, the drawing and model can be used to find and communicate idea. Therefore the three-dimensional drawings (collages, photos, sketches) and two dimensional drawings (plans and sections) have to be seen on the same level of importance.



Figure 4 In this project a complex building in a complex area was to be designed. During the whole design project, I used a rough study model to show how changes influenced the indoor space as well the connection between the building and the environment. A advantage of a model like this one is that it can be used to get an overview of the project and also, when looking closely and kneeling in front of the model, one can get an of idea how the users perceive the building.

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<sup>20</sup> (Verlaan 2012)

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