

THE PSYCHOLOGICAL QUANTUM OF ARCHITECTURE

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Since Kant the alliance of the *object-world* and a *subject-world* is the starting point of all questions on perception and the awareness-of-a-thing (1). Objects and their characteristics are not independent from the observing, memorizing, feeling and acting Self. In short: an object-world-in-itself does not exist just as an architecture-in-itself does not exist. When architecture is produced, it is indeed the material object that takes shape, but its quality of expression is always related to the perceiving and imagining subject (2). Thus, if an architect exclusively focuses on shaping a material world that is supposed to create certain experiences in the sense of *Erlebnisse*, he bases his creation only on half of the truth and will fail in creating real human experiences in the sense of *Erfahrungen*. That does not mean that every architectural consideration has to revolve around the user and it is far away from pleading for a participatory design process. We rather want to emphasize that if the intention is to create a tangible *object-world* we are obliged to learn about and understand the *subject-world* as the one that filters all architectural expressions through human perception and transforms it into a subjective sensation.

60 years ago, in his *Phenomenology of Perception*, Merleau-Ponty developed already the concept of the *body-subject* (*Leibes-Ich*) to articulate the importance of a perceiving subject for the sensation of space (3). Little of that notion is woven in today's architecture; "nothing in the education of today's architecture students", complained the Indesem '09 crew in an interview with kopvol (4). In our opinion, this missing understanding of the *subject-world* explains why we are rarely touched by architecture. Architecture might fascinate or impress us, appeal to our sense for beauty. But do we ever feel ourselves moved to tears or break out laughing walking through a building? An important question, that also rises in Alain de Botton's book *The Architecture of Happiness* (5). At that point we have to take into account that perception is not only a simple process of neuronal information transport from our sensory organs to the brain. It is much more a complex communication process between the *object-world* and *the subject-world* filtered by a large variety of factors such as age, culture, psychological and physical state of the perceiver. Especially the psychological status, which is among

others defined by personality, emotionality, motivation and mood state, has a large impact on the shape of the *subject-world* and influences the linked *object-world*. It is “the psychological eye of the perceiver” that determines the user’s view on architecture. Therefore, we have to get rid of the one-directional interpretation of the effect of architecture on our thinking, feeling and behavior. The built environment can indeed influence our actions and emotions. But what we feel and want to do, does however initially steer what we see in buildings, need as cities and how we use our space in the first place (6). The *subject-world* evaluates the *object-world* long before the latter of the two could develop its influence. In such an understanding the analysis of a built environment cannot be simply connected to the material characteristics of a building or its surroundings, nor exclusively based on its functional aspects, but has to include the question, how the Self as a perceiving, sensing and thinking *Leibes-Ich* is connected to these built objects. But how can we as architects include this question in our design process or even answer it?

In the beginning, the participating architecture students were clearly overstrained with this question that was hidden behind the design task of Indesem ‘09. The results of the analysis of the two sites, which had to be spatially connected below ground, uncovered already this excessive demand of the students. While all groups analyzed the characteristics of the built environment and natural surroundings and categorized it in a Cartesian dualism as bright-dark, busy-empty, loud-silent etc. only a few of them were concerned with an analysis of the *subject-world*. And those who were concerned just observed user groups to study social patterns from an unharmed distance of an in vitro research. But none of them interviewed individuals on the site, asked them what they see, hear or miss at these places, what they remember, when they close their eyes, what they associate with the location or motivates them to use it. No one dared to interrogate how a person feels using the place or would feel imagining not being able to use it anymore. The students overlooked the core of the Indesem ‘09 task: not to transfer the object-qualities from aboveground to underground but to transfer the people. Initially, the students fell into the trap of the one-directional view taught at their universities: to understand the built environment as the exclusive determinant for the perception of the *object-world* of the user. A university building meant “learning” to them, a place with trees, water and restaurants meant “leisure” and a busy cross road meant “moving or traveling”. Wedded to these definitions they create a closed view, a simplification of reality, which on one hand helps to organize the world but on the other excludes spontaneous, unexpected, problematic and stimulating creations, which we call “the richness of anomalies” (6). The old Vitruvian principle of “firmitas, utilitas, venustas”, with which he defined the three cardinal purposes of architecture 2000 years ago, still seems to dominate the architectural analysis: a non-development that degrades architecture - as all other *Operative Arts* - to a discipline in which “the end must direct the operation”. In this thinking the end is always “to built well, to have a spectacular concept and dramatic presentation”, confesses the Indesem ‘09 crew

reviewing their own education (4). 50% of the students remained in their trained thinking till the end of the workshop. Their final designs resulted in spectacular waterfall-canyons, multi-sensory tunnels, sunken city- and leisure parks or flexible streets that deformed under the pressure of the walking masses in dependence of time. All of them dealt with the similar starting question: “What is an underground space capable to achieve?” Trying to answer this question the underground space became an actor, who is supposed to “act on” a passive user. But the potential of the underground to be a space with which the user interacts escaped the students’ notice. Unavoidably, they reproduced what they were familiar with: Underground passages, filled with a large variety of distractions that promotes aboveground *Erlebnisse* without creating real underground *Erfahrungen*. The participants – like many other today’s architects - created effects without generating affects.

Tutoring the Indesem ‘09 workshop we were willfully obstructive attempting to turn the students away from the question of “what an underground space can achieve” towards a more psychological point of view in architecture, which centers the question of “how an individual would perceive and understand an underground space and especially how an individual would feel and behave in it”. We are convinced of the exclusiveness of such a design approach which Heinrich Wölfflin would call *Ausdruck des Seelischen* (expression of the emotional) (7) and Herman Hertzberger “empathic”. We agree with Herman Hertzberger, that “architects are not good in empathizing.” (8). But we totally disagree, that they could not learn to. “[...] you have to learn it yourself. It depends on your personal input”, argues Hertzberger in an interview with the Indesem 2009 crew (8). In our opinion it is the result of a poor education, that architects “just play around” and are left alone while experiencing themselves as *subject-worlds*, embodied in a spatial environment. Frequently conflated with sympathy or compassion, empathy usually signifies a process of emotional and psychological projection. More specifically, it can refer to the concept of *Einfühlung*, which literally means the activity of “feeling into”, that was developed in late-nineteenth-century Germany in the overlapping fields of philosophical aesthetics, perceptual psychology, optics, and art and architectural history to describe an embodied response to an image, object, or spatial environment and was specified as *Einfühlsames Verstehen* (empathic understanding) by psychotherapist Carl Rogers (9). After a century of benign neglect and denigration, *empathy* has been rearing its comforting head in Anglophone cultural discourse. Seemingly a kinder, gentler model of the aesthetic response - compared with stringent abstraction, dizzying distraction, or harsh estrangement - it has been linked in the last decade to an unlikely range of subjects, including the art of Edward Hopper and Adolf Menzel and the architecture of Frank Gehry (10). But the concept of Empathy did not succeed in finding its way into the teaching methodology of architectural faculties, although some studies at the beginning of the 20th century provided support for the hypothesis that empathy is positively related to creativity (11). In a lecture in 1893 marking his inheritance of the art history chair at Leipzig August Schmarsow famously defined

architecture as spatial - rather than structural, material, or formal - and unique of all the arts in its ability to provoke *Einfühlung*. "Psychologically," he decreed, the intuited form of three-dimensional space arises through the experiences of our sense of sight, whether or not assisted by other physiological factors ..." (12). In our days we notice that the spatial understanding of architecture persists but it is often drained of the emotional content that *Einfühlung* had provided; indeed, the concept itself is even rarely named. During the Indesem '09 workshop it was! We encouraged the participating students to dive deep into their own "spatiality" as *subject-worlds* and explore the design task "with their eyes closed". What one group took literally led another into a creative controversy about fear, anxiety, disorientation and death. For a third group of students, who dealt with *Einfühlung*, the underground space became just scenery for a nature that does not distinguish between above and below: a nature that secretly perpetuates and cleanses itself from the noise of human beings; almost from all humans. The groups' final design carried the characteristics of a psychological projection of a fundamental desire of human beings into space, which the evolutionary biologist E. O. Wilson describes as *Biophilia* (13), and vouched for the success of the empathic approach.

Reviewing these results, we are truly convinced that if architecture is asked for the creation of *lebensraum* and spaces for individual development and growth, it cannot spare the *subject-world*, the study of the affected Self, the self-exploration. An advanced architecture curriculum should therefore promote *Architectural Psychology*, of which the need and potential was disclosed on an international level during Indesem'09.

REFERENCES

- (1) Kant, Immanuel: Die Kritik an der Urteilskraft, 1790
- (2) Meisenheimer, Wolfgang: Das Denken des Leibes und der architektonische Raum. Köln 2004
- (3) Merleau-Ponty, Maurice: Phénoméologie de la perception. Gallimard Paris 1945
- (4) Vollmer, Tanja C & Koppen, Gemma: Architects of the Next Generation - Apathy or Aspiration? www.iapah.com
- (5) De Botton, Alain: Glück und Architektur. Von der Kunst, daheim zu Hause zu sein. 2. Auflage. S. Fischer Verlag Frankfurt am Main 2008
- (6) Vollmer, Tanja C & Koppen, Gemma: Die Erkrankung des Raumes. Raumwahrnehmung im Zustand körperlicher Versehrtheit und deren Bedeutung für die Architektur. München 2010
- (7) Wölfflin, Heinrich: Prolegomena zu einer Psychologie der Architektur. München 1886
- (8) Verhoek, Esther & Langumdzija, Sejla: Interview with Herman Hertzberger. Prepublication indesem'09 Supl. Vol. 19, Delft 2009, pp 8-9.
- (9) Rogers Carl R: A humanistic concept of man. In R.E. Farson (ed.) Science and human affairs. California 1965
- (10) Koss, Juliet: On the limits of empathy. The Art Bulletin, 2006
- (11) Carlozzi, A.F., Bull, K.S., Eells, G.T., & Hurlburt, J.D.: Empathy as related to creativity, dogmatism, and expressiveness. The Journal of Psychology, 129, (1995), pp 365-373
- (12) Schmarsow, August: "Essence of Architectural Creation" (1893) in Empathy, Form & Space: Problems in German Aesthetics, eds. Mallgrave & Ikonou (1994), pp 281-297
- (13) Wilson, Edward O.: Biophilia. Boston 1984