Phenomenology for Introductory Architectural Analysis Courses: The pentagon methodological approach

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Abstract
As a consequence of fruitful discussions about joining theory and practice both in design research and educational design programmes, this article aims to explore phenomenological parameters in the framework of an exercise for Engineer-architecture students from the University of Leuven in Belgium. Relying upon the arguments of recognised architects regarding the importance of the phenomenological approach in the field of architecture, it is intended to propose a five-step method (pentagon) to add to architectural analytical exercises. The paper argues that an explicit phenomenological awareness within architectural design education should be addressed in addition to the potential references to architectural phenomenology in theoretical courses or in the discourse of architectural design teachers during the studio courses. This article begins this process through the discussion of one example: 'Integrated Seminar on Housing' which is taught in the first semester of the bachelor programme. A qualitative review of the outcomes of the exercise stresses a positive effect in the development of students' skills that are not an explicit focus of methodologies related to programmatic or technical skills. The conclusions encourage the development of the experimental study to improve the complementarity of the phenomenological approach with the more technical methodologies. In the final reflections about the results of the pentagon methodological approach some evidence is provided in respect to the article's claims.

Key words
phenomenological approach, architecture students' exercise, dwellings interpretation, atmospheric quality

RESEARCH

Introduction

This article stems from the interest of architects in the use of phenomenology for design practice regarding perceptive features and atmospheric qualities of buildings. Philosophically, this text is framed within Merleau-Ponty's writings on the primordial experience, the perceptive evidence as fundament that bonds body and world, presenting the arguments for an integral human experience. This philosopher seeks an order of reality that does not presuppose duality: logic/perception, consciousness/body, body/world. Such order of reality, in *Phénoménologie de la Perception* (1945) is named *l'entre-deux* (the in-between). The individual is enmeshed in the physical world, developing in relation to it: existence is neither a thing, nor pure consciousness. However, other philosophers inspire this article, namely Gaston Bachelard, Martin Heidegger, and Gernot Böhme. There are also contributions from architects and architecture theoreticians who consider phenomenology an inspiration for their own practice and in general to clarify thoughts on architecture quality. Concerning anthological publications about theory of architecture, the attention dedicated to phenomenology and architecture is scarce and has a very narrow focused thematically. For example in the volume T*heorizing a New Agenda for Architecture. An Anthology of Architectural Theory* 1965-1995 edited by Kate Nesbitt (1996), of 14 chapters, only one, chapter 9, is dedicated to the specific topic of meaning and place, with two essays by Norberg-Schulz and one by Pallasmaa. In *The SAGE Handbook of Architectural Theory* (Crysler et al., 2012), its 8 sections and more than 700 pages include only one article concerning architecture and phenomenology. It is the article 'Architectural Phenomenology and the Rise of Postmodern', by Jorge Otero-Pailos, in the section 'Aesthetics/Pleasure/Excess'. The author largely discusses the history of the term 'architectural phenomenology' and its influence in architectural theory, design process and scholarly research. In the anthology *Architecture and Phenomenology* (O'Byrne and Healy, 2008) the main argument is that the discussion around this issue 'will allow a re-appraisal of the relation of architecture and philosophy [in the particular case of phenomenology], and a turning point towards a more fundamental questioning of building, dwelling, thinking and architecture' (O'Byrne and Healy, 2008:5). In effect, Juhani Pallasmaa accounts that the relation of architecture and atmosphere is increasingly growing as an area of academic interest, and particularly in the Nordic countries. Pallasmaa witnesses that in the symposium 'Researching Atmospheres' at the University in Arhus in Denmark in April 2013 'there were 24 doctoral works in the Nordic countries presented, all touching upon this theme of atmosphere.' (Havik and Tielens, 2013:35). As well the #91 issue of OASE published in December 2013 was dedicated to *Building Atmosphere*. The increasing interest about the relation between architecture and atmosphere reinforces the importance of a discussion about the claims of an architectural phenomenology, i.e. an architecture concerned with the quality and character of the built space. In the conclusive part of this article some

reflections stress the contribution of a phenomenological framework to the design of a better architecture to mediate between people and dwelling.

The premise and focus of this article is, however, the importance of bringing an explicit phenomenological awareness articulated with the programmatic and technical methodologies into architectural education. This plea for additional attention to architectural phenomenology is not evident given that the education system in many European countries is confronted with budget cuts, increasing numbers of students, declining numbers of educators and consequential cuts in time and resources for personal guidance of students. It is to observe that nowadays the profession of architect requires a more extensive attention than before to the legal, financial and management aspects of the construction industry that therefore these are also integrated in the architectural programs. Because of these trends, additional attention to less tangible aspects of architecture such as generating a 'phenomenological awareness' is not obvious in an already overloaded curriculum. Moreover, architectural phenomenology is often considered by the architectural staff members to be already present in architectural education, usually in an implicit manner and spread over some courses. For example, in architectural theory classes phenomenology is mentioned within the broad spectrum of theoretical approaches to analyze architecture. Architectural phenomenology might also be implicitly present in the architectural design exercises if architectural design teachers – predominantly practicing architects – pay attention in their guidance to architectural atmospheres and the human experience of buildings. However, it is the aim of this text to point out that a clearer and more active phenomenological approach can contribute to a more evident awareness by students about recognising and designing architectural quality. Therefore it has an important place within architectural education in design studio classes.

To make a start on how to bring architectural phenomenology more explicitly into architectural design education, this article will discuss one experimental example from the field: the 'Integrated Seminar on Housing' organised in the first bachelor for students of Engineer-architecture at the University of Leuven in Belgium. As 'integrated' suggests, the seminar combines technical, programmatic and phenomenological approaches for the analysis of residential architecture. This article will however focus on the phenomenological part of the exercise which is supported by two entangled components: a descriptive and a reflexive component. Both components work together and feed the students' approach to the house they have to interpret and discuss. The descriptive component builds on the phenomenological concept of combining perceptive elements (air flow, colour, texture, rhythm, light) with design elements (plans, sections, site, slopes, thresholds) and programmatic elements (typology, structure, form). The current exercise proposes the application of phenomenological parameters through a five-step method to understand their driving force in the design process. The reflexive component, based upon architectural examples both from theory and from projects, intends to explore the viewpoint of buildings as a potential for experiences and meaning to be ascribed by an embodied mind while creating a certain relation with space. The reflexive component makes use of the perceptive, design and programmatic elements cast in the descriptive moment to explore the meaning of experiencing a building. It is to argue that such experience underlies pragmatic and functional qualities, even if clearly integrating them while creating architectonic quality and displaying a certain atmosphere. The first section of the article will outline the overall design and practical organisation of the integrated seminar on housing. Subsequently the five-step method to increase the phenomenological awareness will be discussed. The article concludes with a critical reflection about the pentagon methodological approach stressing a positive effect on the development of students' awareness towards a key designed space, specifically a house.

Integrated Seminar on Housing

Overview

Probably since mankind first erected buildings, it has been common for builders to analyse existing buildings as examples or starting points for new designs. And equally likely, since the establishment of architectural education, architecture students have analysed exemplary buildings as part of their training. At the University of Leuven the annual "Integrated Seminar on Housing" focuses on the analysis of residential architecture in Belgium. The seminar is organized in the very first semester of the Bachelor programme in Architecture, and is complementary to other introductory courses such as 'Architectural Theory, Part 1', in which houses are regarded as a key issue in architecture; and 'Construction of Buildings, Part 1', focusing on traditional engineering. Both courses support the seminar conveying to the students the necessary knowledge about engineering and architecture theory.

The seminar starts from a selection – yearly updated by screening architecture publications and websites, and by recommendations from practicing architects – of 40 built examples of contemporary residential architecture in Belgium. In small groups of 3 or 4, students have to

analyse one of the 40 dwellings. A visit and experience in real life of the building are fundamental elements of the assignment. The selected dwellings vary from the first built projects of promising new architecture offices to recent works by established architects. Dwelling typologies vary from apartments and lofts to terraced, semi-detached and detached houses in urban, suburban and rural settings; and from renovation to new construction projects. Architecture styles and concepts are also widely diverse, but all selected dwellings excel the architectural quality of 'a dime a dozen' commercial housing projects deliberately excluded from this list. At the end of the semester, the seminar results are presented through 15 minute slideshows, followed by debate about the architectural quality of the analysed dwellings among students, their peers in the auditorium and the jury members.

Objectives

The overall objective of the seminar is to teach first year students, generally with no prior knowledge about architecture, to look in an 'architectural way' at dwellings and the built environment. In addition, they are encouraged to question their own dwelling preferences, prejudices and experiences. Through sober but visually attractive presentations, students have to develop an in-depth understanding of their case study dwelling, and offer a personal opinion on architectural quality. The presentation is expected to allow a discourse integrating the architectural drawing conventions and architectural constraints such as location and program, with the concept, spatial organization of the dwelling, and the subjective experience gathered during the house visit. By acknowledging design decisions regarding the visited dwellings, students are expected to build a well-based criticism about the dwelling's architecture they encountered.

Methodology

The starting point of the seminar is the collection of building plans and all other existing material on the dwelling available from the architect, the internet or the library. This material also helps students to prepare the home visit. The actual visit to the dwelling takes around one hour, a rather short time to take good quality pictures, canvas subjective experiences, and critically analyse the dwelling. Therefore, students are asked to carefully study the collected material prior to their visit, in order to identify the elements that demand special attention and to prepare questions to the homeowner.

The primary methodological tool consists of producing accurate graphic material, to be presented in a structured, easy to follow presentation. Firstly, students have to (re)produce precise building plans of the dwelling – implantation, floor levels and sections – with CAD software. All architectural drawing conventions have to be followed, but the level of detail is limited to that of 'publication plans'. In case of a house renovation or expansion, through the contrasting colouring of the demolished and the added elements, the original and actual situation are analysed and visualised. Secondly, to analyse and visualize the internal circulation and spatial organization of the dwelling, students have to colour the plans according to the different rooms use and purpose. Thirdly, combining their photographic material with small inset plans, students create an easy to follow visual tour through the house and include it in their final presentation. The combination of these three subsections helps students to understand the plan organization and the housing system functioning. Their presentation in a descriptive manner allows the audience an overall and neutral introduction to the house.

For the final analysis, students have to develop an architectural critique of their case study dwelling. Therefore, students are introduced to the pentagon methodological approach to the exercise as it is explained further in detail in the next section. To assist in the production of the requested graphic material and its merging into a coherent presentation, students are offered specific courses on architectural drawing conventions, 2D and 3D CAD drawing, architectural photography and presentation skills as part of the seminar. Additionally, two interim consultation meetings are organized, with the teaching team offering suggestions to adjust and supplement the draft version of the final presentations.

The pentagon methodological approach

The educational programme of Engineering-architecture in the department of Architecture at the University of Leuven is closer to a tradition of the schools that educate future practioners stressing more technical studies than artistic ones. The book *Bronnengids Architectuur Onderwijs Vlaanderen (2012) [Sources for Architectural Education in Flanders]* is an important source that documents that statement. However, as a consequence of fruitful discussions about joining theory and practice both in design research and educational design programmes inspired by congresses, by published works and by the challenges of the profession in the 21st century conditions were created for the experimental case study reviewed in this article. The book *Architecture School. Three Centuries of Educating Architects in North America* (Ockman, 2012) contributes to the understanding of 'the turn of the education' – which is the title given to the introduction – facing up to the transformations of our time and the pressures put on the architect's training namely regarding

the 'studio culture' (Ockman, 2012:10-33). Joan Ockman states that:

> '…what most distinguishes architecture education from other types of professional and graduate training is its syncretic nature. Geared to producing skilled practioners and founded on concepts and discursive formations that have evolved since the time of Vitruvius, it combines technics and aesthetics, sciences and humanities. Schools are called on to impart highly disparate types of knowledge. Negotiating the architect's multiple identities as craftsman, technician, and creative artist; professional and intellectual; public servant and businessman' (Ockman, 2012:10).

In the chapter '1990-2012 The future that is now' Stan Allen reviews the concept of the syncretic nature of the profession and the role of the architect in society in very contemporary contexts as the new technologies, globalisation and the tensions between the global and the local, networking, activism and others. In respect to the design culture the author stresses:

> 'Students today look at the same books and journals, work with the same software, and listen to the same architects who travel the international lecture circuit. What is required to comprehend globalism today is not tired generalization, but close study of specific places, cities, and cultures'. (Allen cited in Ockman, 2012:229).

The book *Educating Architects. How tomorrow's practioners will learn today* edited by Neil Spiller and Nic Clear (November 2014) focusses on pedagogical philosophies and practical examples for the architectural education in the twenty-first century. The fascinating reading of the essays confronts the reader with a wide range of methods which have the goal of contributing to the preparation of future architects for some of the challenges they will face in their profession.

Within the above mentioned framework of studies, discussions, debates and goals, the current review of the application of a pentagon methodological approach in an architectural studio is a very modest contribution. The method is based on five steps which arose from the authors' attempt to organise insights about phenomenology and architecture in such a way as to inspire and offer new qualitative perspectives to the students while dealing with their exercise. The five phases represent five moments beyond the technical tasks the students were asked to perform. The students had to recall experiences and information from sources not immediately connected with architecture, but with impact on the interaction with the designed space, namely a house. The integration of a phenomenological approach in the first year of the studies programme had a purpose. The fresh university students were enmeshed with insights about architecture that point to architectural details, to the aesthetical appropriation and the sensorial features of a particular space. The students were speaking and experiencing architecture with a language that cannot be measured or achieved through objective or quantitative calculations. In the second semester the same students have to design a family house in a design studio assignment. The five step methodology aims to contribute through the experience of the course 'Integrated Seminar on Housing' to the quality of this exercise. The following five phases intend to clarify the 'plot' of each phase and how it is presented to the students.

Phase 1: awakening phase

In this early moment it is important to present the students specific terminology concerning phenomenology and architecture. They are introduced to the linguistic mind they are expected to master during their exercise, expressing clear points of view about architecture, namely that each building provides atmospheric qualities and interacts with the individual in a total way as body, mind, and spirit. It is also stated that the building's sensory properties contribute to creating the atmospheric quality of an architectonic space. To illustrate the meaning of that statement some writings and practical examples from well-known architects and theorists are discussed in class. Most of the students will hear the term 'phenomenology' for the first time during this assignment, and the purpose of the exercise is not to teach phenomenology as a philosophical movement or discuss controversies of architectural phenomenology in the history of architecture. The exercise is intended to introduce the students to concepts like atmospheric quality and the impact of this quality on the individuals that experience the architectonic space. 'A building with a soul probably has a lot of dimensions', asserts Zumthor. (Spier 2001:17). Accordingly, the architect names the atmospheric qualities of a building as soulful qualities, which are 'deeper or long lasting, and somehow also more open to life' (Spier 2001:22). Phenomenology empowers us to bring closer architectural matters and the experience of day-to-day existence.

An architect that drew attention to the experience of space as an embodied phenomenon and introduced the concept of atmosphere was Peter Zumthor. In his book *Atmospheres: Architectural Environments, Surrounding Objects* (2006) he writes that it is the particular atmosphere of a building that moves the individual and that is closely related with its architectural quality. But he

also asks: 'what do we mean when we speak of architectural quality?' (2006:11) and confesses that: 'It is a question I have little difficulty in answering. (…) Quality architecture to me is when a building manages to move me.' (2006:11)

In the work *The Eyes of the Skin* (2005) Pallasmaa denounces the supremacy of the sense of sight in architecture, making vision the paradigm for architecture. Pallasmaa invokes all senses in order to understand architecture and defends an architecture that unfolds the authenticity of human emancipation.

> "The ultimate meaning of any building is beyond architecture; it directs our consciousness back to the world and towards our own sense of self and being. Significant architecture makes us experience ourselves as complete embodied and spiritual beings. In fact, this is the great function of all meaningful art" (Pallasmaa, 2005:11).

The metaphor of the senses replaces the metaphor of vision that has been predominant in the history of architecture. The Finnish architect proceeds in the assumption of a global interaction between individual and architectural space:

> "An architectural work is not experienced as a series of isolated retinal pictures, but in its fully integrated material, embodied and spiritual essence. It offers pleasurable shapes and surfaces moulded for the touch of the eye and other senses, but it also incorporates and integrates physical and mental structures, giving our existential experience a strengthened coherence and significance"'. (Pallasmaa, 2005:12)

Defending the architecture of "the multitude of sensory experiences" (2005:70) relying upon a complexity of impressions, an intertwining of senses and an encounter of emotions, therefore against 'the hegemony of the perspectival eye' (2005:35) Pallasmaa recalls "the kinaesthetic and textural architecture of Frank Lloyd Wright, the muscular and tactile buildings of Alvar Aalto, and Louis Kahn's architecture of geometry and gravitas" (2005:35).

In this awakening phase, some practical examples are also offered. It is not an issue if the architect of the traced examples claims to be 'architect-phenomenologist' or not. The goal is to introduce the students to an architecture that faces the built space as a balanced design between pragmatism, local culture and the individual's identification. The above mentioned exercise is a golden opportunity to discuss such balance, since it focuses on the dwelling i.e. a place where the appropriation of an existing space means far more than practical, functional issues. At this phase, phenomenology contributes the concept of reflection upon the meaning of places, their atmospheres and sensorial appropriation.

Phase 2: Self questioning on dwelling

At this stage students are asked to face the subject of dwelling on their own. Erudition or knowledge about theory of architecture must be put aside and students have to analyse dwelling critically as phenomenon, by (1) evoking their experience about dwelling (2) referring their understanding about the fundaments of 'dwelling in harmony' whether alone or shared and (3) imagining and describing the house where they would like to live.

Therefore, students are encouraged to look back, namely into their childhood, and to evoke memories, feelings, perceptions, imagery about homes they inhabited, such as their family home, friends' homes or grandparents' homes, bringing to light the features and the character of such dwellings. Students are also expected to classify the relations between them and the rooms' atmospheres, such as affability, hospitality, monumentality, cosiness, privacy, intimacy, silence, noise, warmth, coldness or comfort, connecting these to elements intrinsic to construction: materials, size, texture, temperature, proportion, light or shadow. Students may also link perceptions such as scent or touch, beyond the evidence of visual or acoustic reality. The search for the resonance of those experiences is expected to allow the students to elaborate on the house they would wish to live in.

In a final moment, a collective discussion is stimulated based on four examples stemming from the experience of the individual in their inhabited space: the room that allows protection, privacy and freedom (Virginia Woolf); the house as domestic interior that welcomes the flow of life (Mario Praz); the house as primordial guardian of childhood memories and imagery (Gaston Bachelard), and the house as intimate place to think and to experience the essence of dwelling (Martin Heidegger).

Virginia Woolf in *A Room of One's Own* (1929) states that for a woman to write she needs her own space, her own room and her own money: 'a woman must have money and a room of her own if she is to write fiction'. (Woolf, 1991:2). A room. The first notion associated to a room is one's privacy. Privacy is also related with protection. In a room occupied by an individual, there's the sensation of being inside, of being defended from potential dangers, and of being free. Besides the feminist perspective of Woolf's essay, the students are asked to focus on her

statement of such needs. Students are encouraged to elaborate on the importance of having a space (a room) of their own.

Mario Praz in *The House of Life (La Casa della Vita*, 1958) leads the reader along a guided tour in his apartment in Rome, room by room, which is a tour through his autobiography, memories, feelings, love for collecting art and sensibility to domestic details. This text portrays to students a domestic interior set as scenery in which each piece of furniture, decorative object, carpet, mirror or work of art has a meaning to the author. Students are asked if they would like to have a place where they could shelter 'their life' and to justify their opinion.

Gaston Bachelard in his book T*he Poetics of Space (La Poétique de l'Espace,* 1958) expresses his lived experience of architecture, specifically the experience of the home of childhood, and its different spaces, the attic, the basement, the rooms, and the different types of furniture. Cherishing the primordial imagary of the protective home brings back sensibility, intimacy, identity. For the French philosopher, the house is the most intimate of all spaces, where each space shelters a particular memory or experience. Understanding the house is therefore to understand the human being and its ability to imagine and dream. The house of childhood is the primordial setting, the first subjective universe, the scenery of the innocent consciousness and therefore remains in the archives of memory. But it is not always possible to preserve the childhood home, for personal, economic or political reasons. Students are asked to recall if they have a place like the one described by Bachelard and to elaborate on its importance/meaning.

A final example is the 'house' as a place to think. This is the case of the house Heidegger inhabited as often as he could for five decades, since it was built in 1922. Adam Scharr describes that house in his book 'Heidegger's hut' (Scharr, 2006) giving account of Heidegger's bond with the hut and the surrounding environment. Themes such as dwelling, sense of place, landscape, thinking, body and feelings were philosophically discussed in texts wrote by Heidegger in that house. The hut was built to be an occasional refuge from the busy daily life in the city and in the academy. However, it became the intimate space for Heidegger, where he stayed for long periods to think and to write, many times alone. In *Building Dwelling Thinking (Bauen Wohnen Denken*, 1951) Heidegger addresses dwelling and building not 'as an art or as a technique of construction; rather [tracing] building back into that domain to which everything that is belongs. We ask: 1. What is it to dwell? 2. How does building belong to dwelling?' (Heidegger, 1971:143). For the philosopher, the quality of dwelling questions the quality of building. Building should allow and sustain the need of human beings (Da-sein) to dwell with quality, since dwelling is essential for the human being. Dwelling is bringing together earth, sky, people and spirituality (the divine). The mention of *Building Dwelling Thinking* as well as *Poetically man dwells (Dichterisch wohnt der Mensch*, 1951) is intended to introduce the students to the relevance of Heidegger's thinking and philosophy as inspiration for architects. Students are asked what might be their reasons to live in a hut.

Students' reflexions triggered by these four examples contribute to discussion of dwelling as a phenomenon that occurs in time that is rooted in a locality, an environment, a landscape, stressing the multiple meanings of feeling or not feeling at home. Hence designing, building and dwelling become accomplices at this point. Students have indeed different memories about their dwellings and can describe them through feelings and sensations linked with smells, colours, sizes, textures, materials.

Phase 3: Defining parameters

Phenomenological awareness is sensitive to the global character of a space and afterwards to its details. Juhani Pallasmaa accounts the insights of the seminar Architecture and Neuroscience organised in Helsinki in June 2013[1] as revealing:

> 'that our perception and understanding does not process from details towards entity but the other way around: from entity to details. This is an essential aspect of atmosphere: it is an immediate experience of the whole, the entity, and only later can one distinguish the details that are part of it.' (Havik and Tielens, 2013:37).

The intertwining of detail and whole entity unfolds in the process of architectural design. Each architectonic element (parameter) works together to create a space in which materiality and form invites the individual to perceive it, react to it, to relate to it through an embodied way (seeing, feeling, smelling, hearing, touching) and charging it with meaning. A list of parameters is presented to students as light, shadow, color, material, texture, rhythm, structure, proportion, size, volume, shape, inside, outside, in-between, landscape. Besides functional and technical requirements, students are faced with the architectural

[1] Architecture and Neuroscience, seminar organised by the Aalto University, the Alvar Aalto Academy, Tapio Wirkkala.Rut Bryk Foundation and the Finnish center for Architcture, 3 June 2013, Helsinki.

quality of the project they are intended to interpret. Therefore, in this phase the parameters each student is interested in emphasizing in his/her exercise are clarified in order to describe the perceptive quality of the building, character of the place, or in other words, its atmosphere.

At that point it is clearer that the design process depends on the interplay of rational and objective criteria with intentions and feelings about the space the architect wants to design. Steven Holl, researching the experiences of perception concerning architectonic decisions in the scope of 'phenomenology of architecture' (Holl, Pallasmaa, Pérez-Gómez, 2008) recollects from Maurice Merleau-Ponty the concept of 'in-between' reality (*l'entre-deux*), the "ground on which it is universally possible to bring things together" (Holl, Pallasmaa, Pérez-Gómez, 2008:45). Holl envisions an experience in which the architectonic elements (space, light, detail, material, volume, shape, proportion…) merge with the architectonic whole in a comprehensive perception.

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At this moment it is important to discuss with the students the concept of atmosphere and its relation with spatial design. Atmosphere refers to the sensorial qualities a space sends out. Then, by creating a certain atmosphere, the architectural space invites people to experience and use that space. For debating the concept of atmosphere in architecture we use three sources, namely (1) philosophical phenomenology, (2) the reflexion of Gernot Böhme about the concept of architectural atmosphere and (3) writings from architects about parameters that contribute to create the atmospheric quality of space.

The philosophical phenomenology is mainly based on Merleau-Ponty, Heidegger and Bachelard, philosophers already introduced to the students in phase 1 and 2. The philosopher Gernot Böhme in the chapter 'Synästhesien' (Synesthesia) unfolds a phenomenological-aesthetical discourse about nature (landscape) and art in which the concept of atmosphere is described as the global ambiance of a space that first impresses the individual senses. In the chapter entitled 'Atmosphere as the subject matter of Architecture', Böhme makes a distinction between the 'physicality of the things and their existence in the space' (2005:402) because the spatiality of the things can only be experienced by individuals being in the space, 'through physical presence' (2005:402). There is no representation of space (photographs, films, literature) that can replace the individual experience of it. But how to project atmospheres, a specific atmosphere? According to Böhme, the architect has conscience of the importance of the atmospheric quality of spaces to people. In the chapter 'Die produktion von Atmosphären in der Architektur' (The production of atmospheres in Architecture) the philosopher advocates that the architect through 'the sensitive parameters that he chooses, colours, surfaces, line framing and the arrangements and constellations that he creates are at the same time the physiognomy from where arises an atmosphere' (Böhme, 1997:97). Böhme's thinking about atmosphere and space is a relevant legacy for architecture, both for the design process and for the perceptive features a building displays. For architecture, the objective properties of a space are not a purpose per se, but towards the ambiance and character that emanates from them.

The third source is based on texts from architects mentioning parameters supporting or dismissing a legacy from phenomenology. This is intended to make students aware of the enhancement of atmospheres in spaces through design. One of the parameters is the expressive value of light for the architect Louis Kahn. In the book *Beginnings. Louis I. Kahn's Philosophy of Architecture*, Alexandra Tyng, his daughter, states that:

> 'His reaction against the International Style's dry, analytical approach to architecture prompted him to say that feeling was a more important process than thinking in the design of buildings. (…) By *feeling*, Kahn meant the instinctual, intangible side of his mental processes. (…) Although Kahn considered feeling the source of all ideas, he had also learned the value of thinking rationally, of putting his ideas into cohesive order. Thinking was to Kahn an academic process useful for the disciplining of his creative drive. What Kahn called thinking is the ability to stand back from an idea and evaluate it objectively.' (Tyng, 1984:27).

For Kahn, both feeling and thinking were important for the design creative process and have equal importance in the exploration of the possibilities of transforming ideas into forms. In his own words:

> 'But some people always separate feeling from thinking and build their solution around thinking only. That is why the creative mind cannot accept the separation categorically of the nature of space-order-design, and rightfully so because feeling embodies all at once intuitively' (Kahn in Tyng, 1984:64).

The inseparable bond that Kahn saw between feeling and thinking in the creating's process shelters his thoughts about light as the fundamental element to materialize a space. For Kahn natural light is the light that matters in architecture. For Kahn natural light's nuances design the atmosphere of a space while interplaying with the architectonic structural elements. Kahn integrates in his theory about light and architecture a poetic discourse describing a metaphorical approach of light with music (the atmosphere of a room is like a musical composition formed by 'notes of light' (Tyng, 1984:130) and silence, a concept that the architect articulates with spirituality, inspiration and ontological need. Kahn while mastering the power of light both as an architect and as a philosopher is praising also the power of shadow as a natural part of light that belongs to darkness and silence.

Students are also introduced to *In praise of shadows* from the Japanese author Junichiro Tanizaki; a further form of moulding the space through shadows. In the traditional Japanese aesthetics, the subtlety of shadows is an ally of beauty, and a key element to unveil the meaning of the opacity of materials, the walls' natural colours, the object's reflexion, the silence and the shade in interior spaces.

Having discussed the ideas of both Kahn and Tanizaki about the relevance of light and shadow in the shaping of space, specific projects are mentioned, like the *Church of Light* by Tadao Ando, the *Myyrmäki Church* by Juha Leiviskä, the *Crematorium* by Axel Schultes and Charlotte Fink, or the *Therme Vals* by Peter Zumthor among others.

Phase 4: Interpreting themes

After combining parameters such as light/shadow/material, texture/structure/rhythm, colour/texture/light the students organize the themes they want to explore depending on (or motivated by) the previously combined parameters and the particular characteristics of their case study dwelling. Possible themes are for example: the relationship between the spatial organisation and the privacy in the dwelling, the impact of an open plan on the indoor atmosphere, eventual conflicts between the materiality and spatiality of the dwelling, introverted or extroverted characteristics of the dwelling or particular rooms, openness (in a corner, the middle of a wall, in the ceiling) and perception of sunlight, etc. Subsequently, they will describe the atmosphere they felt inside the dwelling. Finally, the inter-subjectivity of the experiences will be discussed to contribute to the enrichment of the concept of atmosphere, namely as individual or interpersonal resonance.

At this interpretative phase, students identify the effects of the chosen parameters on the quality and character of the space they analysed in both a subjective and intersubjective context. It is foreseen that students may debate about the meaning of significant architecture. Is it that 'the ultimate meaning of any building is beyond architecture, [that] it directs our consciousness back to the world and towards our own sense of self and being' as Pallasmaa points out? (Pallasmaa 2005:11). Is it that "The challenge for architecture is to stimulate both inner and outer perception; to heighten phenomenal experience while simultaneously expressing meaning; and to develop this duality in response to the particularities of site and circumstance' as Steven Holl states? (Holl, Pallasmaa, Pérez-Gomez, 2008:42). Is it that 'quality in architecture to me is when a building moves me?' (Zumthor 2006a:11).

The focus of this phase is concentrated on the experience of the dwelling's atmosphere as a multisensory experience. Students become aware of the relevance of carefully choosing parameters in the design process and final architectural project quality.

Phase 5: Discussing results

In the final phase, students have to present the results of their analysis to their fellow students and jury members. To visualize their analysis, students use graphic material produced with different representation techniques: CAD plans and sections, 3D modelling and photography. For the phenomenological part of the seminar, the photographs made by the students during the home visits are the main visual expression tool. Because of the rather limited visual representation skills of the first year students, photographs are the easiest and most direct way to represent the atmosphere of the visited dwelling. Figures 1-5 are a few examples of pictures that show how students combined different parameters, organised themes and grasped the atmospheric qualities of the houses they visited. During their final presentations, students have to explain and discuss their responses to (1) the relevance of phenomenological parameters they chose and combined, (2) the interpretation of themes and (3) in which way the house they visited ventilated (or not) atmospheric qualities of the architectonic space.

Each presentation is followed by a short debate about the architectural and atmospheric qualities of the analysed dwellings among the students, their peers in the

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Figure 1. House on Pig Street by Arch. Marie-José Van Hee

auditorium and the jury members. The opinions that come forward in these debates make clear to the students that the perception of architecture and its communication asks for their self-capacity of grasping a specific space besides a technical language.

The presentation of the examples below is a very tiny sample of the type of visual material that was achieved by the students. The discursive side of the presentation is not possible to reproduce in this text.

Figure 1. depicts the combination of parameters 'light/colour/ material/structure' to support the theme 'the rhythm of the roof and the shadows on the floor in the living room'.

Figure 2. House Fiatlux in Schaerbeek by Label Architecture

Figure 2. depicts the combination of parameters 'light/volume/size' to support the theme 'structural organization and ambiguity of the space'.

Figure 3. depicts the combination of parameters 'light/shadow/texture/inside' to support the theme 'perception of the space and experience of privacy'.

Figure 3. House G-S in Ghent by Graux & Baeyens Architecten

Figure 4. depicts the combination of parameters 'new/old/landscape/natural light' to support the theme 'relation between inside and outside while occupying a place in the sofa'.

Figure 4. Vicarage in Houthave-Zuienkerke by Vierin Architecten

Figure 5. depicts the combination of parameters 'material/structure/texture' to support the theme 'introverted or extroverted character of the room'.

Figure 5. House den Anker by 360 Architecten

Naturally not all the presentations had the same quality or degree of complexity though the selected examples are a small sample that illustrates the sensitivity of the students to identifying an architectonic quality and a sensorial experience with the space that surpasses the purely technical or formal responses.

At the end of students' presentations and discussions, the question that arises, parallel to the questions 'What do I have to design?', 'Which quality do I want to design?' is: 'How do I design it?'. How to design in order to create the atmospheric quality the architect is looking for in his/her project? There is no magic recipe to assure the design of a building with a specific atmosphere. Besides all that can be taught and learned exists a zone that is not prescriptive, a very singular and personal zone created by the experiences of the individual's life that stimulate his/her talent and imagination during the design process of 'kicking out things, eliminating other things, developing the building as a form, as a mass, as a body.' (Spier, 2001;21). This personal zone can be bonded with the so-called inspirational sources that are a personal phenomenon and that can be more or less accurately identified by each architect.

Speaking about the designing of a dwelling, states Pallasmaa:

> 'you have to become the dweller. My professor Aulius Blomstedt used to say that an important area of talent for an architect is the capacity to imagine human situations. (…) Even formal issues should be a consequent of being able to imagine human life, human emotion, and human situations. I believe that atmospheric qualities arise from the designer's empathetic sensitivity and skill.' (Havik and Tielens, 2013:43).

In the essay 'Identity, Intimacy and Domicile. Notes on the Phenomenology of Home' (Pallasmaa in Mackeith, 2005), Pallasmaa chews over what makes a house a home, concluding that architecture should attend to the subtle, emotional and diffuse aspects of home. But he states: 'In our schools of architecture, we are taught to design houses, not homes' (Pallasmaa in Mackeith, 2005:113). His thoughts about the experience of home and the childhood home in particular show his inspiration in Bachelard's writings about memories, nostalgia, unconscious desires, fears and joy. Recalling the philosophy of architecture of Louis Kahn, we find this same thought of bonding architecture with the core of human being: his/her aspirations, truths and sorrows. Kahn looked for forms and materials and structures that could express this core in architecture.

The results of the exercise support the authors' claim that there is a need for future architects to explore and develop the skills that a phenomenological approach may improve. And the first need is to keep human beings in the core of the architecture.

Reflections about the pentagon methodological approach

The phenomenological part of the 'Integrated Seminar on Housing' aims to generate more explicit phenomenological awareness among the students. The initial reaction of the students to this five-step methodological approach is one of strangeness. Being first year students they are not familiar with the very specific phenomenological discourse. In effect, students engage themselves through the five-steps methodology with different backgrounds, motivation and comprehension. The differentiated results achieved by the groups regarding the phenomenological approach, allowed us to identify that the five phases demand extensive tutoring of students in smaller groups. Although this article argues that it is very important for students in Engineering-architecture to get acquaintance of the phenomenological approach at the very beginning of their studies, the five-step methodological approach conflicts with the time pressure in the actual educational system. Especially in the first semester, due to the large number of students and focus on basic courses in the curriculum, time to nourish self-reflection and group discussion is rather limited. Nevertheless, in the framework of the ' Integrated Seminar on Housing', through the 'compact' 5-step approach students become quickly aware of knowledge that is anchored in a perceptive level and hence that architectonic decisions in that arena influence the projects' character. The phenomenological viewpoint of buildings (exterior and interior spaces) contributes to widening the exploration of the meaning of 'architectonic quality'. It is difficult to estimate, let alone to measure, the effect of the integrated seminar on the personal development of the students and on their later professional design practice. Based on the experiences of the past years, we however dare to claim that the seminar has a positive effect on the personal development of the students. This positive effect can for example clearly be noticed during the design exercise for a single family house in the second semester. Besides the general knowledge gained on residential architecture and presentation skills, the increased sensitivity to the atmospheric qualities of buildings also contributes to the students' design capabilities and improved outcomes. The seminar not only offers the students an overview of 40 different houses with different dwelling atmospheres for inspiration and self-questioning on dwelling (phase 1 and phase 2), the analytical work also gives them insight into how

architectural elements contribute to promote the quality of a space to dwell (phase 3 and phase 4). The presentation and debate about the exercise accomplished (phase 5) adds some arguments to think further about the syncretic nature of the architectural education.

A final thought about the proposed exercise is that it allows a specific attitude towards architectural design, in tune with Pallasmaa's thinking: 'I try to teach *how to be an architect*: how to look at the world, perhaps, or how to think, and how to work with curiosity and humility' (Pallasmaa in Mackeith, 2005:7). Architectural phenomenology conveys personal gestures towards the built environment, stressing an interaction that relies upon an experience of the environment that is supposed and designed to be subjective. This exercise aims to involve the students in an essential subject for architecture: the notion of place as a supporting ground for experiences arising from the correlative existential condition of dwelling and inhabiting the world, and the role of the built environment in the quality of human life.

References

Bachelard, G. (1994). *The Poetics of Space (La Poétique de l'Espace*, 1958), London: Beacon Press.

Böhme, G. (2005) Atmosphere as the subject matter of Architecture. In Philip Ursprung (Ed.), *Herzog and De Meuron. Natural History*, Zürich: Lars Müller Publishers.

Böhme, G. (1997) Atmosphäre. Essays *zur neuen Ästhetik*. 2. Auflage, Suhrkamp, Frankfurt am Main.

Crysler, C. G., Cairns, S., and H. Heynen (Eds.) (2012). *The SAGE Handbook of Architectural Theory*, London: SAGE Publications.

De Caigny, S. et al. (Eds.) (2012). *Bronnengids Architectuuronderwijs Vlaanderen.Antwerpen*:, Antwerpen: Centrum Vlaamse Architectuurarchieven and Vlaams Architectuurinstituut.

Havik, K., Teerds, H. and Tielens, G. (Eds.) (2013). *Building Atmosphere*. OASE 91, 128.

Heidegger, M (1971) Poetry, Language, *Thought (Unterwegs zur Sprache*, 1959), New York: Harper Colophon Books.

Holl, S., Pallasmaa, J., & Pérez-Gómez, A. (2008). *Questions of Perception. Phenomenology of Architecture*, S. Francisco: William Stout Publishers.

Merleau-Ponty, M. (1945, 1987). *Phénoménologie de la Perception*, Paris: Gallimard.

Nesbitt, K. (Ed.) (1996). Theorizing a new agenda for Architecture. *An Anthology of Architectural Theory 1965-1995*, NY: Princeton Architectural Press.

O'Byrne, B. and Healy P. (Eds) (2008). *Architecture and Phenomenology*, Footprint-Delft School of Design Journal, special issue, Autumn.

Ockman, J. (Ed) (2012). Architecture School. *Three Centuries of Educating Architects in North America*, Massachusetts: MIT.

Pallasmaa, J. (2005). *The Eyes of the Skin. Architecture and the Senses*, New York: John Wiley.

Pallasmaa, J. (2005) *Encounters 1. Architectural Essays*. In Peter Mackeith (Ed.). Helsinki: Rakennustieto

Pallasmaa, J. (2014) Space, Place, and Atmosphere: Peripheral Perception in Existential Experience. In Christian Borch (Ed.). A*rchitectural Atmospheres on the experience and politics of Architecture*, Basel: Birkhäuser.

Praz, M. (2010). *The House of Life (La Casa della Vita*, 1958), Boston: David R. Godine.

Sharr, A. (2006) *Heidegger's Hut*, Cambridge (Mass): MIT Press

Spier, S. (2001). *Place, authorship and the concrete: three conversations with Peter Zumthor*, Arquitectural Research Quarterly, 5(1), 15–36.

Spiller N. and N. Clear (Eds) (2014). *Educating Architects. How tomorrow's parctioners will learn today*, London: Thames & Hudson.

Tanizaki, J. (2006) *Lob des Schattens (In'ei-raisan*, 1933), Zürich: Manesse Verlag

Tyng, A. (1984) Beginnings. Louis I. *Kahn's Philosophy of Architecture*, NY: John Wiley & Sons.

Zumthor, P. (2006a). *Atmospheres: architectural environments, surrounding objects*, Basel: Birckhauser.

Zumthor, P. (2006b). *Thinking Architecture*, Basel: Birkhäuser.

Phenomenology for Introductory Architectural Analysis Courses: The pentagon methodological approach

Woolf. V. (1929, 1991) *A Room of One's own*, New York: Harcourt Inc.

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