PhD DOCTORAL THESIS

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COMMON EXPERIENCE – COMMON ARCHITECTURE

A Qualitative Research of the Architects' Viewpoints of School Buildings Based on Their Own Common Experience

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1. BACKGROUNDS AND AIMS

The transactional approach of environmental psychology *"is the study of the changing relations among psychological and environmental aspects of holistic unites"* (Altman& Rogoff, 1987, 24.). The model directs the attention to the fact that all human activities take place in an active physical context. The perception and evaluation of buildings vary in different age groups, and depend on gender, cultural background and personal attitudes. Architectural training is a special knowledge with regard to the constructed environment.

Not surprisingly, the diversity of views has been a research topic of great interest in environmental psychology, (cf. Dúll, 2009), as the perception of the socio-physical setting is related to issues of well-being, health, identity, sustainability, cognitive and emotive processes. The perceived aesthetic quality of the surroundings has an immediate effect on the individual: while an appealing environment is attractive and may contribute to the development of the individual, unpleasant ones are stressors, are avoided, and can induce deviant actions (Nasar, 1988). The main objective of this paper is to understand the nature of group differences and to have an in-depth understanding of the way architects relate to buildings, with a special focus on their own schools experienced during pre-professional training.

2. REVIEW OF LITERATURE

Psychology of art and environmental aesthetics provide the traditional theoretical framework for the understanding of the constructed environment. The results of the research prove that the aesthetic assessments of the environment significantly differ in the two groups. (Nasar, 1983; Groat, 1994; Brózik, 2006) Contrasting views of architecture and psychology are discussed to emphasize the importance of the subject matter, the review of literature focuses on the layperson-architect differences with regard to the aesthetic opinion. A diversity of comparative studies is reported with the aim of creating a plethora of ideas about the methodology, themes and results. Architects are key actors in the constructed environment, comparative studies show that their assessments of the urban context are based on entirely different sets of objective building features, their patterns of perception of the constructed environment are significantly different compared to laypersons'. (Gifford et al, 2000) While nonarchitects produce heterogeneous responses as a group, architects share standards of evaluation. To provide an example, Pennartz and Elsinga's (1990) comparative study of Arnhem examined the perceptual

schemes of architects, adults and children and resulted in demonstrating significant differences between the three groups. Immediate sensation of stimuli and spaces allowing social interaction are preferred by adolescents; the perceptual schemes of adults suggest the importance of interpretation and meaning of the urban environment. Spatial qualities, a diversity of evaluative categories about composition logic, structure, relation to the physical context, time, or function are the factors of the perception of architects. Educators of architecture suggest that the communication gap between architects and laypersons can be bridged by incorporating the language of architecture into general knowledge (Cságoly, 2014), or by participating in building projects and constructed environment education. (Balázs, 2019)

3. THE THEORETICAL FRAMEWORK OF THE RESEARCH

To find a common experience of the constructed environment, the Kantian aesthetic perspective of the traditional layperson-architect studies is challenged by the phenomenological approach. Berleant (1988) speaks about the necessity to shift the view, he places the individual inside the environment. The "participatory landscape" develops a spatial continuity with the person, this experience is multisensorial, and the role of both the individual and the physical context is active. The review of literature covers the system-based models of understanding the environment with an emphasis of the bioecological model of Bronfrenbrenner (1977) and the transactional approach of Altman & Rogoff (1987) being the omnipresent perspective. The notions of human-environmental fit, place attachment, place identity are discussed through the development of the individual within Erikson's psychosocial frame (Erikson 1968, Cole & Cole, 2006.). School buildings are presented as socio-physical places having a great impact on the development of the individual. Important locations of childhood, place identity (Proshansky et al., 1970) and place attachment and especially the autobiographical memories of places are discussed in detail, they are common experiences of architects and laypersons. The study of Cooper Marcus (2014) discovered that personal environmental experiences between the age of 5 to 11 are typical of her students of landscape architecture and architecture. The memories of these small-scale private and personal spaces both outdoor and indoor are biases that survive professional training. Downing coined the term the "image bank" of the architect, referring to the accumulation of mental imagery of memorable past place-experiences (Downing, 1992). Beside the importance of the good examples of buildings during professional training, he emphasizes the presence of common locations experience during childhood.

4. THE OBJECTIVE OF THE RESEARCH

Comparative studies of architects and nonarchitects with an emphasis on environmental aesthetics underline the differences in regards of the urban context. However, a shift from the building to the socio-physical environment with a new phenomenological and interpretative perspective may reveal new features of the relationship between man and its context. Two fieldworks were designed to better understand architects' perceptions of the constructed environment with a focus on secondary school buildings. The common experience of the architects and laypersons is explored within the ontological and epistemological framework of hermeneutics, with interpretative and phenomenological methods.

5. RESEARCH NO. 1[1] **The Retrospective Study of the Common Experience of the Secondary Schools of Architects**

5.1. Research Topic: The experience of the buildings is studied in the retrospective narratives of young practicing architects' about their own school buildings. Young practicing architects, doctoral students of architecture were asked to revisit their school physically or virtually, and to make a 5-minute short presentation with the help of photos of the school. Presentations took place in the main building of Budapest University of Technology and Economics, Faculty of Architecture.

5.2. Research question: How do the architects present their school buildings? What kind of experience is the school based during the recount? How does the common and immediate experience change the professional architectural presentation of a building?

53. The process of data collection: Started as a university exercise in visual communication with pedagogical aims, the richness of the first encounter called attention to the phenomena of different coexisting views of the presentation. Thereafter,

[1] Number of ethical permission of ELTE: 2015/348

data was collected according to the method of theoretical sampling of Grounded Theory over a period of 4 years. 22 young practicing architects (age group 26-36, mean age 30, female: 12 / male: 10) presented their own schools between 2015-2017. Out of the 22, 14 revisited the school, 8 used archive and internet images for the presentation. 7 school buildings chosen from architectural training were also presented by 7 architects of the first group in the spring of 2016. Two laypersons (same age group) and 3 well-established major architects (age group 50+) presented their own school buildings in 2018-2019. The presentations were recorded and taped, visuals were added to the verbal narratives.

5.5 The method of Grounded Theory

Grounded Theory (GT) is a well established qualitative method used for constructing a theory based on the features of the data. (The methodology works inductively, so a bottom-up process is built up by the researcher to have a fresh understanding of phenomena worth studying. Grounded Theory viewed from a constructivist perspective (Charmaz, 2005, Sallay & Martos, 2018)) is an interpretative analysis focusing on emerging themes from data of the text. The ontology and epistemology of GT fits into the philosophical stance of hermeneutics and phenomenology. The researcher is considered to have an active and critical attitude towards the subject matter hence self-reflection is a major issue in the discussion of results.

The process of analysis follows a strict but circularly organized process from the creation of simple codes towards the creation of abstract categories. Codes, concepts and categories form a hierarchy to focus the interest on the main issues emerging from the corpus of data. Axial codes present the intermediate level of the hierarchy. Groupings are created through the understanding of the processes of the material with regard to place, actors, time and causalities. Selective codes are few in number and represent the highest level of abstraction. Visualisation throughout the process helps understanding the relationship between the selective codes, enabling the researcher to “ground” a theory.

5.1. Results

Six selective codes were identified in the narratives of architects. 5 of them have a strong relationship to each other, they can be interpreted as a process of development. Rejected view is positioned apart from the other selective codes to visualize the different nature and isolation of memories grouped under this category.

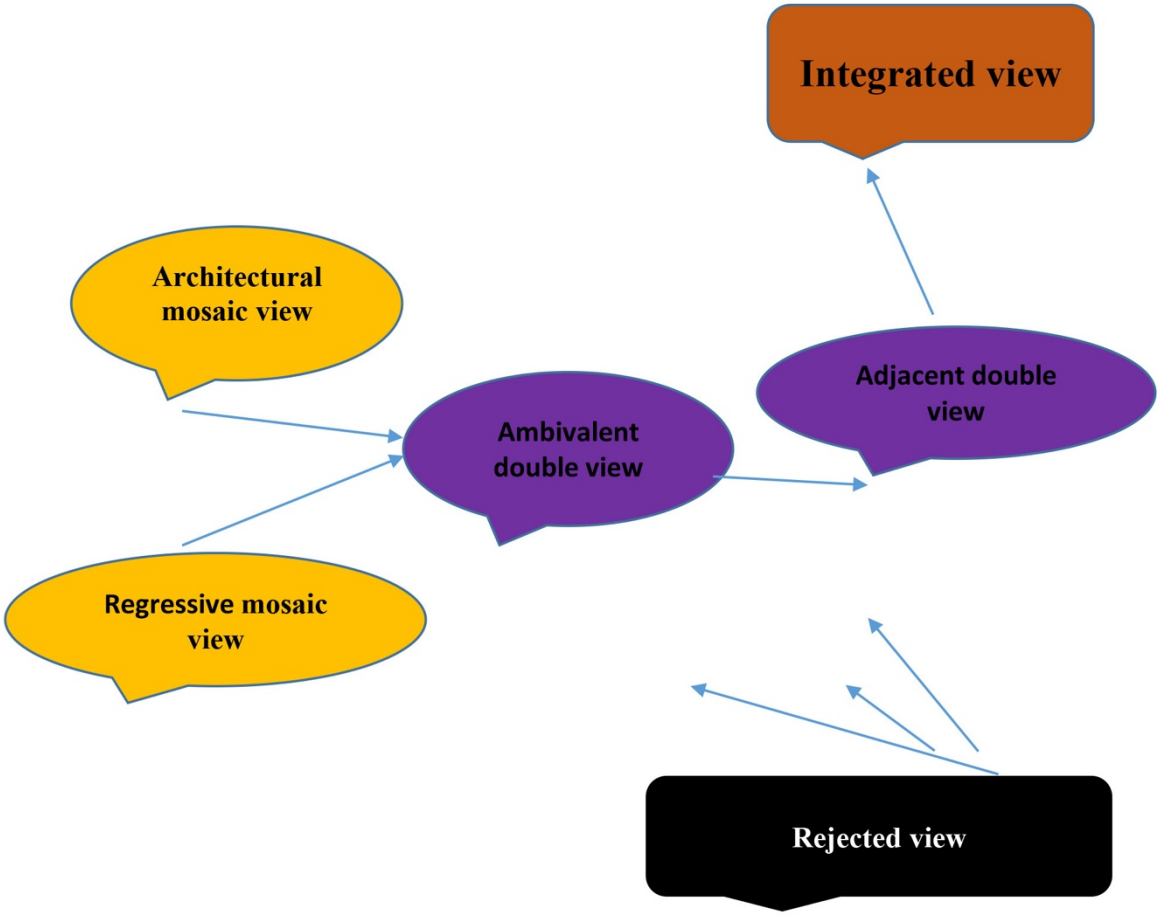

Figure 1: The selective codes /designed by the author

Architectural mosaic view is a descriptive and evaluative narrative typical to architectural presentations. It articulates the dispassionate professional perspective, depicts the building from afar, with a focus on the physical features of the urban context, the elements of the building and the structural and spatial system.

Regressive mosaic view offers an inner perspective of the socio-physical situation based on the experience of the narrator as a student of the school. The retrospective narrative is relocated in time and space: changes of the narrative time, deictic expressions to close locations, a change in the vocabulary, style and the coherence of story telling reveal the regression. Axial code of *Movement in space* groups activities in public places and traffic areas allowing the flow of movement from outdoor to indoor. *Micro spaces* and private locations form the other important axial code of this category.

Rejected view is a selective code with a different nature. It refers to strong negative experiences during education, or more generally, a negative relation to the period of time of life. In conclusion, the narrator does not enter the school building either physically or mentally. Doors are displaced or shut, rooms are locked, the narrator wanders in the streets and in time, but does not enter the building, nor does he/she locate experiences in the school. The rejected experience is an inclusion or an island in the memory.

Ambivalent double view is the juxtaposition of two conflicting views within one speech act. The twofold nature of this category creates tension that may arise from the perceived differences of the present-day and the school-years perception of the building. It is also the consequence of the changed view (change of identity, attitude and architectural knowledge) of the speaker.

Adjacent double view is a reflection on the double nature of the experience. Understanding the different perceptions and attitudes of the socio-physical environment is an important step in the maturing process of architectural thinking. Axial codes are formed around metaphorical and general interpretations of the socio-physical environment. Movement through spaces is a metaphor of the evolution of the individual. Self-reflections about the ways of seeing and judging a building are reflected in relation to the decision to become an architect.

Integrated view presents the experience as an accepted, reflected and incorporated memory. Locations become part of both the autobiographical narrative and the architectural thinking of the narrator. The axial codes represent space as an abstract symbol and the processes of thinking about values of education, the place of man in society, the importance of historic continuity, the task of the architect or the formation of identity.

5.2. Discussion

Five theories emerged from the narratives, grounded on the six selective codes and their relationships in connection to architects' common and direct experience of their own school buildings

1. theory: The encounters of architects about their own secondary school buildings follow the pattern of autobiographical narratives instead of being descriptive and critical presentations. The pathway through the building is altered by the experience, they are explored in a parallel way: important locations of the experience are detailed and architecturally important spaces and features may be forgotten, being non-important from the point of view of personal story. The focus of the interest is the common experience teenagers have in schools, there is a similarity on this level with the experience of nonarchitects. That shared experience of the school building is a possible platform for communication.

2. theory: The places mentioned in the narratives have a rich and layered meaning structure, they are structured according to the importance of their memory. School buildings have physical objects, socio-physical entities, locations of special events, examples of architectural ideas, generalised types and metaphoric or symbolic spaces. The space in the framework of environmental psychology is a unity of emotions, ideas, memories, activities that have an active impact in the life of the individual. Architects have the special interest and knowledge to interpret the transactional relationship between man and environment.

3. theory: Identity is the central theme of the presentation. Place identity is a complex psychological construct, a subcategory of the identity of the self. Place attachment can be observed to important places of the individual: school buildings can become special locations that have a lifelong psychological effect.

4. theory: Unpleasant memories are also located, they are grounded into the physical world and are relived when returning. Metaphorically speaking, schools are not only second homes, but also prisons, and even hell for some. When remembering to school buildings that locate negative experiences, the narrator does not enter the place physically or mentally. The memory of such a place is not integrated into the autobiographical narrative. Bypassing strategies characterize the presentation.

5. theory: A dynamic process of viewing buildings of their own childhood can be observed in architects' narratives. Downing (1992) suggests that there is an integration of different building categories (professional images of architectural training, commonly experienced places before university and locations commonly experienced during practice years) in the memory of the architects. The research points to this maturing process and reveals that new memories located in the building launch new processes.

Conclusion: The secondary school buildings of architects are presented from a double perspective in the retrospective narratives: beside the architectural points of view, the original and common experience of school life survives, similarly to childhood locations mentioned by Cooper-Marcus (2014). Lifted from memory, it enriches the perception of the building, shifting the focus from the physical environment to the complex socio-physical situation of schools. This experience of the architect is similar to laypersons' experiences, therefore, the possibility of communication about a building can be envisioned.

6. RESEARCH NO. 2[2] The evaluation of the Piarist Secondary School of Budapest by Students, Teachers and Architects with th use of Photos Taken by the Students

6.1. Research Topic: The different interpretations of architects, students and teachers are compared through the recorded interpretative process of photos taken by students of the Budapest Piarist Secondary School representing their own school. To start with, a participatory photo project was initiated upon the occasion of the 100-year anniversary of the building and 300-year anniversary of the Piarist religious order in Hungary in 2017. The evaluation of the school building was organized in 2019 in a room of the school, facilitated by a new visual tool, a set of cards created from the students' photos.

6.2. Research question: How do students, teachers and architects represent the school building with the use of images taken by students? What kind of meanings and experiences are mentioned during the process of interpretation?

6.3. Data collection: The participatory photography process resulted 377 photos. Most students of the school participated in the photo phase (age 12-19, only boys). Verbal data were collected during the interpretative process: interpretation of focus group meetings were recorded and typed. 15 boys (aged 16-17) and a group of teachers participated in the focus group discussions. Field notes and audio recordings were made during the group evaluations of image selection and categorisation. The group interpretation was compiled by 3 groups of 7th grade, 9th grade and 11th grade students, 2 groups of teachers and 2 groups of architects. Architects were selected from the design team of the building.
The evaluation resulted in photo selections of 10 images by groups. Verbal data were written down by each participant and descriptive notions (5 nouns, 5 verbs and 5 adjectives) were also offered by participants.

6.4. Method: Participatory photography *(*Wang & Burris, 1997) was used to collect images, interpretations were gathered during several focus group discussions. Group evaluation was a method to concentrate on important images only, the selection of images and their interpretations were collected with a methodological tool that was designed to

[2] Number of ethical permission of ELTE: 2016/149.

ensure interest in the process. The designed visual tool consists of a set of cards (377 items) and a step-by-step process that blends individual and group work to focus on the important categories of selection. Discussions of emerging themes are related to the emerging topics and theories of the GT-coding process of the first research.

6.5 Discusssion

1. The 377 photos taken by the students of the school building represent not only the physical features of the building, but refer to the socio-physical context of the school rich in multi-layered connotative meanings about the community, the Piarist Christian identity and special personal experiences. This complex interpretation of the building is represented in the evaluations of all groups: architects also represent the school building as a complex socio-physical environment.
2. Photos created during the photo voicing process are effective tools for both laypersons and architects to speak about the building. The interpretation of a photo that refers to a place directly experienced by the viewer is different from an architectural photo representing a non-experienced building, as the mental process of visualisation is different: in the first case, it is remembrance, in the second case, it is imagination. This distinction is important as laypersons have a difficulty in switching between 2D and 3D modalities.
3. Identity is a main issue discussed during the interpretative process. Place identity contributes to the conceptualisation of the self of both students and teachers.
4. The selection of images and the discussions about the values of the school have common features in all groups. There is a common understanding about the most important qualities of the socio-physical environment of the school. The shared experience of the school is a platform for understanding.

Overall conclusion:

The 6th or extended theory: The common experience of the socio-physical complexity of a school building enables the architect to have a more complex view of the building, a better understanding of the users' points of views. Constructed environment education can enhance the visibility and understanding of the architectural features of a building and can help the articulation of the experiences about the use of space. Communication between architects and laypersons can be mediated, visual tools are effective in the facilitation of the communication process.

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