“ARCHITECTURAL PSYCHOLOGY” – A CHALLENGE FOR A NEW GENERATION OF ARCHITECTS

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Abstract: The topic of the research work is the research of architects in terms of their temperament and individuality to define the psychology of architecture as a new subject for university education for students of architecture.

Key words: Psychology of Architecture, typology, temperament, methodology, individuality, hypothesis.

1. Architectural Psychology

With architecture and psychology we suggest a framework that defines the topic from the very beginning. What is architecture? Architecture is the process of creation and the end product itself. That's why we can define architecture as a process and a product. But what is the architectural product? What emerges in the creativity process? It's an object (a building), which was created for a particular purpose. Let's stay at the level of a non-concrete description of the purpose at the moment and let's attempt to find the common word. Environment could be defined as the world, could it not? The environment around us is an architectural product.

Let's try to define psychology for now. What is psychology? Psychology is, simply, the human soul science. To put it another way, it is a psychological phenomena scient. Humans treat status and processes. Psychology is the science of exploring the human psychological phenomena.

Back to the architecture. Architecture is creating the environment. For whom? For humans. Architecture is an artificial environment, nearly completely surrounding us. The environment created, creating and going to be created for one purpose: to satisfy all of our human demands. Architecture surrounds us everywhere. There are houses, towns, roads, bridges and it's a landscape, which has been changed by men over the centuries.

There is architecture that creates the human environment to satisfy their demands, and there is the science, dedicated to understand human needs and demands. The question is: is it possible that the quality of architecture could arise without enough knowledge of the clients demands?

It brings us to the point, who is the creator of architecture? The creator is man. And not only that, it has always been man, and it will always be man. That man is known as an architect and he manifests himself within the psychological phenomena too. Each architect is somebody (Treats), he feel himself somehow (statusis) and somehow he is doing something (procesis). The architect creates the human environment.

“Architect creates what we architecture call”

What do architects creating architecture know about psychology? Moreover, what architect knows about the psychological phenomena that psychology studies? How important is it for architects to be aware of the importance of the psychological phenomena of a particular group of people, for whom a particular architecture product was created. Are they aware of whom they are impacting and how? And do the clients know how an architect’s personality and mood can impact their architecture?

We hope that it will make no conflict to announce that the majority of architects don’t know too much about psychology. And psychology was unable to offer the tools corresponding
to the architecture work to become a permanent part of creative process, not only for architectural education, but to become an effective part of it.

Right now, as we believe, it is applying psychology to architecture that we are missing. It's not only psychology benefitting architecture, but rather, architecture improving psychology by including psychology in the education and creative process and making an entirely new subject: the psychology of architecture.

“Architecture creates environment for people, therefore it is appropriate to know psychology”

Moreover, this process of creation must emerge from the architectural environment, not the other way around. The psychology of sport did not arise when psychologists asked athletes to pay attention to their methods, but, on the contrary, they were athletes, or their coaches, who noticed that the winner would be the one who made the right move at the right moment, which in many cases means that even his mind is optimally tuned to the expected performance at the right time. Similarly, doctors only treat when they are approached by patients and address the diseases and problems that arise from patients. Therefore, architecture of psychology must come from architects.

The psychology of architecture, such as the psychology of sport, psychology of advertising, military psychology, medical psychology, belongs to so-called applied psychology. Similarly to classical psychology, architecture psychology deals with psychological phenomena – traits, states, and processes – and it has to be divided into two groups according to their focus. Creator-centered psychology: Psychology of Architects and the users-centered psychology: Psychology of users.

**Architecture psychology** (Fig. 1)
- Psychology of users
- Psychology of architects

With various studies that affect architecture and its impact on users, psychologists have been busy for decades. Many studies are certainly interesting in architecture. However, from our point of view of trying to create architecture psychology as a whole, the focus on users is insufficient. Architecture is not just about users, but mainly about creators. Therefore, it is necessary to draw attention to the origin of architecture as an inspiration that transcends a particular architect, but which is manifested through architectural objects in the objects of many, both conscious and subconscious, but also unconscious influences. First and foremost, the psychology of architecture must be directed towards the creators and invite them to the path of self-knowledge. Architects should be interested in how their own natures enters their work. When an architect knows himself, he opens the way to knowing who he is for. This is because the psychology of architecture accepts the presence of the user. Similar to how it is for doctors and patients. Architecture lives for man. Without his needs, demands and expectations, the architect has no assignment to inspire him in the direction of materialization of the architectural work. The psychology of architecture is about the origin and process of creating an architectural work as an update of the architect's ability, inspiration and art. The result is an object artificially and artistically created as part of the environment in which man lives.
2. Current state of our research at CTU and its partial results

First of all, we will start with the psychologists again, because in the case of architects, psychology cannot be talked about practically in the context of their profession. In some of their research, psychologists have based their predictions on the idea that an architect can be defined as a person with a more pronounced mathematical-artistic creativity. For example, in the case of individuality personality tests, there are individuals with a higher degree of intelligence, higher imagination, and negative sensitivity (B+, M+, I-) [1]. Based on these three factors, a psychologist would normally be able to identify a person suitable for studying architecture. But we are at the level of personality in our research where there is a bit more distance between individuality and more typology, where, for example, you can find in some interpretations of the MBTI (Myers-Briggs) test, that the type of INTJ is referred to as “Architect” [2].

- I – Introversion
- N – Intuition
- T – Thinking
- J – Judging

On the other hand, a survey of 100 architects was published in the USA, and the result was that the predominant type of architect is ENTJ (E – Extraversion), with INTJ being second [3]. Let us not forget that while all of this research attempted to define the architect's typology and possibly find and name its predominant parameters, they have largely neglected the essentials of how the architects are in what they do. This is the subject of our investigation, and above all, should be the Psychology of Architecture.

“We are looking for differences among architects within the boundaries of what connects them: within the bounds of architecture”

In our scientific team, we have already completed a total of 4 research studies, one of which was dedicated to building users (The 2008 Scientific Work involving almost 300 users) [4], resulting in the creation of a method that can be used to identify and interpret views groups of users on the selected architectural object and subsequently found connections between psychological indicators in the form of attitudes and opinions of people and architectural elements.

Further research was carried out in 2015 (The online game: “Find your architect”, where almost 70 architects and 150 public representatives participated) [5]. The basis was the discovery of architects' attitudes towards the presented architectural objects and these objects were subsequently offered to the public. As a result, there was a consensus between the views of architects on the one hand and potential clients on the other. In addition, a link was found between typological indicators of architects and their preferences. On the basis of this, we identified the initial penetration of the characteristics of individuals into the realization of their professionalism, and here we first recorded the representation of all types of temperament in the tested group of architects.

The third research has already been carried out in the framework of activities at CTU, when the aim was to ask architects to define their profession’s characteristics themselves. 200 architects from 55 countries took part in the research, and the research findings were first presented at the American Architects Institute conference in October 2017. The result was finding 16 key characteristics defining a successful architect, and the attitude of psychologists not actively setting benchmarks for testing architectural profession. Surprisingly, architects failed to mention responsibility among the 1200 characteristics of a successful architect! We have not avoided the mistake of a classical psychological approach, where a psychologist has his tools, which he applies regardless of the target group. Our approach is completely different. We are based on a professional group that helps us to define tools for testing it. As a result, we try to avoid erroneous and unsubstantiated judgments that could distort the results of our research. It is in the context of the aforementioned notion that an architect is a person who exhibits certain identical temperament parameters with a majority group of similarly professional individuals.
From our research to date, something completely different has emerged, which was only apparent from the pure personal observation of hundreds of architects of different nationalities. And that the temperament of architects shows the same sociological representation as the ordinary population.

“The temperament of architects shows the same sociological representation as the ordinary population”

The fourth research took place in the summer of 2018 at a workshop of the ECCE Summer School of Architecture in Prague, where 17 students of 13 nationalities gathered to work for 6 weeks to develop their professionalism. In this group, we first applied and subsequently evaluated the tool that was presented at the AIA conference in 2017, to verify their consistency of opinion on the architectural profession, then we measured the temperament of all listeners and for the first time we tried our brand new test, which was designed by architects for Architects: IPSA – Individual Professional Architect Status [1].

From the amount of data we have provided during the workshop, we have mainly confirmed our hypothesis of a balanced representation of all types of temperaments in the group. But we have also been able to define for the first time with architects (and future architects) their professional identification: Action, Creative, Aesthetic, Vocational and Ethical, as well as their Professional Orientation: Demands, Interests, Offerings and all of this in the context of their temperament and their professional level integrity.

2.1. From architects’ typology to exploring their individuality

Since 2015, we have included in our research about 400 architects from dozens of countries around the world. The goal was to:

2.1.1. Define a tool for testing the architect’s opinion, which architects themselves would define

The tool was launched in October 2018 at http://www.k129.cz/psychology, and since then it has been collecting data on architects from around the world, both in terms of opinion and temperament (typology), individual data being gradually analyzed (Fig. 2).

2.1.2. Demonstrate that the results so far in terms of typology of architects do not correspond to reality

The inclusion of architects in terms of their typology (specifically temperament) was performed on four groups. Each group included all four types of temperament and their mutual distribution was always close to a uniform distribution of temperaments in the general population.
Thus, we have shown that it is most likely that it cannot be claimed that typologies can be typologically included.

- **2015 – 49 architects (one nationality)**
  21 Sanguine / 12 Phlegmatic / 8 Choleric / 8 Melancholic
- **2018 – 17 students and architects (13 nationalities)**
  5 Phlegmatic / 5 Melancholic / 4 Sanguine / 3 Choleric
- **2018-2019 – 101 students and architects (27 nationalities)**
  38 Phlegmatic / 30 Melancholic / 25 Choleric / 20 Sanguine
- **2018 – 31 students and architects (4 nationalities)**
  13 Melancholic / 10 Phlegmatic / 9 Sanguine / 6 Choleric

Among other things, we also compared the consistency of the view of architects (students) and demonstrated that no consensus can be demonstrated on the level of temperament. It can therefore be assumed that it is most likely not to define some architectural works as representative of certain temperaments (Fig. 3).

2.1.3. To launch a targeted research on the Psychology of Architecture at the level of individuality and to define the subject “Psychology of Architecture” for teaching at CTU at the Department of Architecture in Prague

Since October 2018, we have launched a number of tests that are based not on the typological view of architects, but on individuality. It is perhaps the first such focused on research of architects in terms of psychology at all. Individual researches can be summarized in three hypotheses that our research team is trying to verify.

**HYPOTHESIS I**

“Without being aware of it, we feel personality behind his architectural work”

The prerequisite is the possibility that each of us can feel the author’s personality behind his architectural work. In order to prove the hypothesis, we had to set up a methodical procedure based on the possibility to trace the correlation between the characteristics (personality parameters) of the author and the characteristics of the tested persons who have chosen his building from a larger number of submitted buildings.

The choice of buildings that will carry the characteristics of their authors for scientific research will be entirely up to the authors. We assume that if we confirm our hypothesis, we will focus our research on the direction of architectural competitions and the correlation relationship between jurors and winners.

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**Fig. 3. Temperament**
HYPOTHESIS II
“The personality of an architect determines the typology of buildings, his professional interest”

Based on the typology of the buildings, we would like to demonstrate whether the architect’s professional orientation can to some extent show some correlation with his personality. We will methodically focus on two areas of research. One will be a wide-ranging survey of the entire architectural community and the second will be the focus on creators of certain types of buildings: church buildings, concert and opera buildings, etc.

If the relationship between personality and the dominating professional focus on a particular type of building is demonstrated, we will be able to offer architectural studios assistance in selecting co-workers.

HYPOTHESIS III
“Designs of architects with similar feature”

We have created a simple graphical test (Fig. 4) that allows you to compare the personality of an architect in a particular architectural assignment with other colleagues based on individuality. Already the first ten tests have shown that the personality of the architect is strongly reflected in his creative work and it can be assumed that it will be possible to trace identical graphic elements with the same combinations of authors’ personalities. As a result, it may be interesting to note that authors with similar qualities will likewise creatively display their architectural inspiration.

3. Conclusion
Since we have already confirmed from our initial research not only that probably the creators of the architectural environment represent all kinds of temperaments and types of personalities on the level of individuality and we have already managed to prove the same features in similar types on the procedural level, we have verified that it is appropriate to devote in depth research to architects and to define the subject PSYCHOLOGY OF ARCHITECTURE.

From more than 30 lectures at universities and conferences in Europe and Asia, we have verified the extent to which architects and the entire architectural world are unaffected by psychology, and that has only reinforced us in an effort to enrich not only us architects and our field, but also Psychology itself.
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«АРХИТЕКТУРНАЯ ПСИХОЛОГИЯ» – ВЫЗОВ ДЛЯ НОВОГО ПОКОЛЕНИЯ АРХИТЕКТОРОВ

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Аннотация: Темой исследовательской работы является исследование архитекторов с точки зрения их темперамента и индивидуальности с целью определения психологии архитектуры как нового предмета университетского образования для студентов-архитекторов.

Ключевые слова: Психология Архитектуры, типология, темперамент, методология, индивидуальность, гипотеза.