On the problem of cognitive consequences of architecture

Martyssiuk N., Kalina K. Belarusian National Technical University

Needless to say that for centuries people have talked about architecture in terms of aesthetics focusing on expressiveness of pieces of architecture, on expressiveness meaning something "more" that makes a mere building a piece of architecture. What constitutes this "more"? These are evaluative properties like attractiveness, cosiness, gorgeousness, ecological friendliness, etc. peculiar to the perceived object identified as a piece of architecture. In other words the interpretation following the percept arises a number of evaluations of it such as historical, emotional, technical, and the like. Semiotically speaking, we attach meaning to the properties and the latter act as signs, or semiotic objects.

On the other hand, any semiotic object as the one having a meaning conveys information to the subject interpreting it. It means here that a piece of architecture can shape the psychology of the perception of a building. So the so-called "aesthetics of a building" influences greatly our mood, thoughts and health.

Architecture psychologists working within the framework of environmental or ecological psychology have discovered that everything – from the quality of a view to the height of a ceiling, from the wall color to the furniture – defines a number of cognitive processes such as spatial perception and spatial thinking, orientation behaviour and local identity, spatial experience and territorial behaviour, living requirements and satisfaction.

Nevertheless, there is surprisingly little research on application of psychological theory and data in actual architectural practice. We are, for example, interested to know: How do different spaces influence cognition? Is there an ideal architectural structure for different types of thinking?

Our review of findings shows that we are only beginning to grasp the fact that exteriors and interiors of buildings influence the inside of the mind. For now, it would be safe to say that tasks involving accuracy and focus – doing some descriptive geometry or computer drafting – are best suited for small spaces with red walls.

In contrast, tasks that require a little bit of creativity, bright ideas and abstract thinking – working on a book, painting a picture – benefit from high ceilings, lots of windows and bright blue walls that match the sky. Or masterpieces of classical architecture are a source of inspiration and high spirits. The point is that architecture has real cognitive consequences even if we are just beginning to learn what they are. We mean here that architects can design processes and experiences, and control behavior within and outside the building.