Atmosphere, wellbeing and health in residential architecture: linkages to neuroscience?

Hanna Morichetto, Ph.D. student, Architect
SAR/MSA
Department of Architecture, Chalmers University of Technology, Gothenburg, Sweden
hanna.morichetto@chalmers.se

Helle Wijk, Ph.D., R.N.[1], Ola Nylander, Ph.D., Architect [2]
[1] Associate Professor, Institute of Health and Care Sciences, The Sahlgrenska Academy of Gothenburg University, Gothenburg, Sweden
[2] Department of Architecture, Chalmers University of Technology, Gothenburg, Sweden

I. EXTENDED ABSTRACT

The aim of this case study is to explore and illuminate connections between residential architecture, well-being and health, in a small residential area, in Sweden. We have conducted deep interviews with residents in order to analyze connections between architecture wellbeing and health. Perceived quality of architecture will be investigated using the structure developed by a semantic concept analysis of atmosphere as well as additional attributes defining residential architectural quality (Nylander 1998). Findings will be compared to neuroscientific knowledge about perception and spatial orientation (Sternberg, Wilson 2006). The results aim to contribute to a better understanding of the connections between residential architecture, atmosphere, wellbeing and health with an ambition to further explore the linkages between neuroscience and the experience of architecture (Tidwell, Arbib 2013). This knowledge would be applied in future residential architecture design processes.

Research within healthcare architecture has indicated a relation between built environmental design and healing capacities (Sternberg 2009, Ulrich 1984). However, we still need to explore how residential architecture influence our wellbeing, in light of the growing knowledge of how spaces influence our emotions and physical reactions (Sternberg 2009). This case study recognizes this need, and investigates the architecture of the home and how it affects the residents´ sense of wellbeing and health.

We use the concept of atmosphere, which has been proposed as a way to describe architectural quality (Pallasmaa, Havik et al 2014, Zumthor 2006). In a previous study, this concept was adopted to perform a semantic concept analysis and the results from that analysis form the theoretical basis of this investigation. In addition, we take a standpoint in previous research that presents attributes significant for our perception of residential architecture: Materials and detailing, Axiality, Enclosure, Movement, Spatial figure, Daylight and Organization of spaces (Nylander 1998).

Furthermore we recognize the growing body of knowledge within neuroscience concerning attributes significant for our perception, and neuroscientific knowledge about "perception and spatial orientation and [...] physiological, cognitive and emotional effects" (Sternberg, Wilson 2006).

The aim of this case study is to explore and illuminate connections between residential architecture, well-being and health, in a small residential area, in Sweden. We have conducted deep interviews with residents in order to explore and analyze connections between architecture wellbeing and health. Perceived quality of architecture will be investigated using the structure developed by a semantic concept analysis of atmosphere and the additional attributes described above. Findings will be compared to neuroscientific knowledge about perception and spatial orientation (Sternberg, Wilson 2006). Health and wellbeing as perceived by the participants will be investigated by using the WHO definition of health (1948).

The results aim to contribute to a better understanding of the connections between residential architecture, atmosphere, wellbeing and health with an ambition to further explore the linkages between neuroscience and the experience of architecture (Tidwell, Arbib 2013). This knowledge would be applied in future residential architecture design processes.

Keywords: atmosphere, neuroscience, residential architecture, wellbeing & health

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