

## 'Categorization strategies in the perception of architectural spaces'<sup>1</sup>

Zsófia Szántay (Doctoral School of Architecture, BME)  
& Fanni Patay (Theoretical Linguistics MA, ELTE-MTA)

As members of a broader research group working on environmental and spatial cognition, our focus is on spatial perception, architectural meaning, and categorization processes. During the Budapest100 programme in April 2017 a questionnaire was created by architects, asking participants about their impressions of different spaces in a university building. Three different viewpoints were chosen, all of them sharing the attributes of a balcony-like spatial situation. Our main questions were the following: (i) How do visitors categorize architectural spatial situations? (ii) How do they divide and label elements? (iii) What helps them besides visual information? (iv) How does it compare to architects' criteria on balconies?

We based our model of categorization of architectural elements on Treisman and Kanwisher's (1998) theory of object perception, which involves seeing, recognition, preparation of actions, and emotional responses. In the experiment participants had to answer three questions at all three viewpoints ("How would you define this?", "What does this remind you of?", "What would you use this for?").

In the complex spatial setting, the categories given by the participants (n=93) were fuzzy or contradictory (a viewpoint described as a *galéria* 'gallery' and a *terasz* 'terrace' by the same person). The analysis revealed that the dominant processes are not the recognition of key elements per se (i.e. prototypes, Lakoff 1987, Kövecses and Benczes 2010), but the perception of prominent spatial and associative relations and the exemplar based "clouds" (Bybee 2010) composed of similar experiences and affective memories linked by often non-prototypical attributes derived from the perceived dimensions and hierarchies.

These results correspond to Whyte (2006), who holds that architectural meaning can only be understood through its complexity. It is not only the architect who codes specific meanings into the building during the design process, but also the receivers or users of the building have their own reading of the architectural space.

### References:

- Bybee, Joan 2010. *Language, usage, cognition*. Cambridge University Press.
- Kövecses Zoltán – Benczes Réka 2010. *Kognitív nyelvészet*. Akadémiai Kiadó, Budapest.
- Lakoff, George 1987. *Women, fire and dangerous things: What categories reveal about the mind*. University of Chicago Press.
- Treisman, Anne M. and Nancy G. Kanwisher. 1998. Perceiving visually presented objects: recognition, awareness and modularity. *Current Opinion in Neurobiology*, **8**: 218--226.
- Whyte, William. 2006. How do buildings mean? Some issues of interpretation in the history of architecture. *History and Theory*, **45**(2): 153--177.

---

<sup>1</sup> A joint research with Anna Losonczi DLA (HAS) and Andrea Dúll PhD (head of Department of Organizational and Environmental Psychology, Eötvös Loránd University).