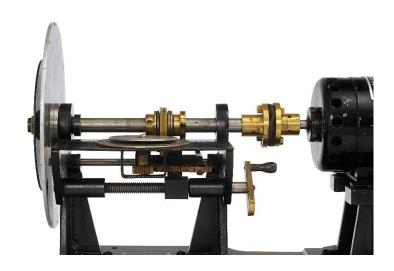
# XXVI SCIENTIFIC CONFERENCE

# EMPIRICAL STUDIES IN PSYCHOLOGY

 $15-18^{TH}$  OCTOBER, 2020. FACULTY OF PHILOSOPHY, UNIVERSITY OF BELGRADE



INSTITUTE OF PSYCHOLOGY LABORATORY FOR EXPERIMENTAL PSYCHOLOGY FACULTY OF PHILOSOPHY, UNIVERSITY OF BELGRADE

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INSTITUTE OF PSYCHOLOGY



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# **PERCEPTION**

not on the identification. Results can be explained by models that explain information processing by the structure of the cognitive system, but also by models that emphasize limited attention capacities.

**Keywords:** perceptual load, divided attention, dual task

VIRTUAL ARCHITECTURE – SUBJECTIVE EXPERIENCE OF VIRTUAL AND REAL OBJECTS

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The subjective experience of various objects is usually investigated on photographs of objects, or in case of art, on artistic pictures, shown as digital photographs on a computer screen. Even when research is done on architectural objects, such as various types of buildings, as stimuli researchers usually use photographs of those objects. According to that, we might ask, would our subjective experience of certain objects change if we observe it as a real three-dimensional object or its two-dimensional projection on a photograph? In our experiment 46 psychology students estimated their subjective experience of 10 objects shown in four different presentations. As a subjective experience measure, we used 12 bipolar adjective scales, grouped into four factors (attractiveness, regularity, arousal, and calmness) and 3 unipolar scales constituting aesthetic experience factor. Objects used as stimuli were designed and created by architecture students, as a part of their regular educational activities. Students created 3D objects (size around 20cm\*20cm\*20cm) and their drawings containing two-dimensional projections from four different viewing directions. After that, we photographed those objects from the same four viewing directions and created their virtual reality copies in Unity software for the Oculus Rift VR headset. So, we had four types of stimuli, real 3D objects, drawings, photographs, and 3D virtual reality objects. Results show significant differences between four types of object presentations on all scales of subjective experience: attractiveness (F=6.952; df=3, 135; p<0.01), arousal (F=8.764; df=3, 135; p<0.01), calmness (F=5.209; df=3, 135; p<0.01), regularity (F=12.678; df=3, 135; p<0.01). On the other hand, different presentations of objects did not affect the aesthetic experience of participants (F=1.78; df=3, 135; p>0.05). Real 3D objects were experienced as more attractive and calmer than their presentations (drawings, photographs, and VR), which were experienced as similar among themselves. VR presentation reduced arousal in comparison to all other presentations. Only on regularity VR and real 3D objects were experienced as same and more regular than drawings and photographs. These findings suggest that presentation type (real or virtual object, photograph, and drawing) does not affect the aesthetic experience, while it does change all other dimensions of subjective experience.

**Keywords:** subjective experience, aesthetic experience, virtual reality objects, real 3D objects

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