

Third Eye: A Hybrid Portrayal of Visuospatial Attention through Eye Tracking Research and Modular Arithmetic

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Abstract : A pictorial representation of hybrid forms in science-art collaboration has become a crucial issue in the course of exploring a new painting technique development. This is straight related to the reception of an invisible-recognition phenomenology. In hybrid pictorial representation of invisible-recognition phenomenology, the challenging issue is how to depict the pictorial features of indescribable objects from its mental source, modality and transparency. This paper proposes the hybrid technique of painting Demonstrate, Resemble, and Synthesize (DRS) through a combination of the hybrid aspect-recognition representation of understanding picture, demonstrative mod, the number theory, pattern in the modular arithmetic system, and the coherence theory of visual attention in the dynamic scenes representation. Multi-methods digital gaze data analyses, pattern-modular table operation design, and rotation parameter were used for the visualization. In the scientific processes, Eye-trackingvideo-sections based was conducted using Tobii T60 remote eye tracking hardware and TobiiStudioTM analysis software to collect and analyze the eye movements of ten participants when watching the video clip, Alexander Paulikevitch's performance's 'Tajwal'. Results: we found that correlation of fixation count in section one was positively and moderately correlated with section two Person's ($r=.10$, $p < .05$, 2-tailed) as well as in fixation duration Person's ($r=.10$, $p < .05$, 2-tailed). However, a paired-samples t-test indicates that scores were significantly higher for the section one ($M = 2.2$, $SD = .6$) than for the section two ($M = 1.93$, $SD = .6$) $t(9) = 2.44$, $p < .05$, $d = 0.87$. In the visual process, the exported data of gaze number N was resembled the hybrid forms of visuospatial attention using the table-mod-analyses operation. The explored hybrid guideline was simply applicable, and it could be as alternative approach to the sustainability of contemporary visual arts.

Keywords : science-art collaboration, hybrid forms, pictorial representation, visuospatial attention, modular arithmetic

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