VERTICALITY AND HORIZONTALITY.
FROM THE PANTHEON TO THE PLAYSTATION, SPATIAL EXPERIENCE AND THE HUMAN BODY IN ARCHITECTURE

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1. Representation and Re-Presentation

“We are entering an era of electronically extended bodies living at the intersection points of the physical and virtual worlds.”

“The cultural geography of belonging and identification depends on learned spatial cues that are not necessarily hard-built in an explicit form.”

This research seeks to question the assumed relationship between perspectival projection and architecture as means of investigation, representation and ultimately re-presentation of architectural idea and spatial experience. Spatial experience is primarily a product of corporeal sensation. The human body, as the site of experience reveals a conceptual contradiction between our innate senses and learned perceptions (Gibson, 1966). Verticality and horizontality are abstract conceptual and perceptual constructs used simultaneously in human sensory systems to locate one in space and time. The spatial experience as generated from, and translated by, the human body through visual sensory perception is the focus of the work that looks at first, second and third person spatial experience in architecture and architectural representation. As society continues on the path of further cybernetic extension of the body’s sense-image, the context and spatial/visual literacy of the ‘learned’ sense of space-time will continue to evolve, transform and alter as cultures stretch to engage both edges of the physical and virtual worlds. Vitruvius articulated the human experience (and the subsequent expression of architecture) as inherently a vertical one. From the Vitruvian perspective man
was unique among all creatures, for man was predisposed to a vertical orientation of thought and experience (Harries, 2004). The Pantheon, as a spatial experience, represents the reconciliation of the vertical axis of the human experience with the horizontal experience of the human axis through the spherical space of the void (Harries, 2004). Visual perception of depth and height can be constructed as the reconciliation of space and form through digital modeling of perspective projected spaces (virtual environments such as Piranesi’s *Carceri* etchings and Sony’s *SOCOM* series) that objectify the conceptual disconnect between first, second, and third person spatial perception and definition.

Contemporary human experience is increasingly articulated as a horizontal one mediated through the articulation of the horizontal frame as the primary means of engagement. Since the *maison-domino* and the rise of the international style spatial containment has been increasingly achieved through the subtle offset of horizontal surfaces of floor and ceiling thereby privileging the horizontal reading of space relative to the human body. The spatial/experiential space of the gamer (PS2, Xbox, etc.) is a predominantly horizontal experience that provides numerous spatial cues that act to shape and re-position the spatial and visual experience in opposition to the vertical orientation of the physical world.

The results of this work thus far suggest the development of a broader understanding of space and form through the study of the relationship between perspective projection and architectural space through abstract representational constructs. In this study digital modeling of the virtual space represented in Piranesi’s *Carceri* etchings was used as both analytic and generative medium for investigation to explore the vertical nature of physical spatial experiences and the horizontal nature of virtual spatial experiences. The research produced a series of digital models and animations of spatial investigations that tried to analyse the inherent perceptual structures of the human body through interpretations of first and third person game play in varied gaming environments.

Architects have long used alternate media (painting, sculpture, etc.) as spatial, compositional, and organizational explorations that project architectural issues and trajectories that must be translated to engage architecture. This study strives to produce constructs that are in effect a similar type of alternate media, devised to explore and expose architectural concepts and issues of spatial perception. These alternate media (digital, video, etc) are simultaneously vertical and horizontal suggesting the intersection of sense and perception through displacements of the point of view as degrees of intensity located along the continuity of space-time. Further iterations of this work will seek to reveal ideas of scale and proportion embedded in the work through a series of investigations that describe the architectural (spatial) significance or potential of the constructs generated in the early studies.
References


