EXPERIENCE ARCHITECTURAL EMBODIMENT: INTERSECTIONS OF COGNITION, PERCEPTION, AND ACTION

ABSTRACT

Experiencing architecture is emotive and kinesthetic, a hypothesis unfolding from the discovery of mirror mechanisms in the brain, understood as embodied simulation. This hypothesis is similar to architecture’s sense of empathy, but much deeper. Where empathy implies a tangential understanding of the other’s emotion—shying a fear for another’s lost, seeing anger or evil in a face—what embodied simulation suggests is that we actually perceive through enactments with our own body. This is a broad and complex topic, but our profound and precise ability to immerse is a good demonstration. If for example you want to show your son how to file a fish, you say watch me (not I will explain and see how you do). More significant for architect’s is that this embodiment of actions and intentions is not only true for animate creatures, but also inanimate objects like sculpture. Architects will appreciate this as context. This capturing of emotional gist is imprecise, yet dually present. What I am proposing is a biological root from mood in atmospheric architecture.

1. INTRODUCTION

Architecture is an applied science, so for architects design begins where science ends. This is true of neuroscience as it is for strengths of materials, heating and air conditioning systems, sustainable practices, lighting, acoustics, geometry, etc. What can the biology of the brain teach us about designing architectural space? Much. Sorting from the many consequences that neuroscience has for the practice of simulation, I suggest three substantial claims from science for an architect’s primer: Immediate engagement with architecture is pre-reflective and meaningful, 2) The experience of architecture is kinesthetic and emotive, hence perceived through enactments with one’s own body, 3) The duality of vision, from the structure of the eye, supports a polar yet interlaced experience of architectural object meaning and atmosphere.

Architecture is pre-reflective, meaning the whole body brain receives sensory stimuli to which it responds emotively, before intellectual processes reflect. In simple analogy, confronted by a speeding taxi as you step off the curb, your senses and adrenaline take over and you react defensively stepping backwards. Afterwards, cognition kicks in and you examine your feelings (Oh my, I was nearly killed—fear, anxiety, accelerated heart rate, etc.). Emotion (meaning motion and internal chemistry) is first. It’s involuntary. At least since the Greek architect architects have recognized similar involuntary sensory responses to built spaces as fundamental to the profession: an expertise Peter Zumthor compares to a first impression.1) Such corporeal knowing or snap judgments are evolved from the survival on the African savanna. Like a first impression, a room is its own kind knowledge and judgment, informed by experiences, personal and cultural bias that operates below consciousness as emotion before emerging, cognitively like a feeling. One reads a place with the full power of Palladio’s synesthésie2 memories and life’s experiences. A corner stone of intuition for architects, for scientist this is now being revealed by brain imagining experimentation.

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