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Architecture as (Lived) Experience

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Abstract. In his *Art as Experience* (1934), John Dewey coined the slogan "learning by doing," emphasizing the need for art to return to its aesthetic root in the proper sense, which is the experiential one, where experience is not mere sensation; it is on the contrary interaction of living with the environment, an integral event for both the author of the work and the user. This paper intends to bring attention back to the experiential dimension of architecture, highlighting the need for a necessary shift from the formal structure of the work to the lived experience that can take place within it to configure, as Harry F. Mallgrave (2013) writes, "palpable environments" within which our mind-body systems are intertwined and highly stimulated. Within a fruitful relationship between affective and cognitive neuroscience, Neurophenomenology, New Phenomenology, and Atmospherology, this paper aims to emphasize the pivotal role that empathy can play in the design and reception of space, bringing attention back to the experiential dimension based on the extensive involvement of the body in its psycho-sensory globality. The focus is not so much on the 'given' reality, as on that "state of things" (material or not) whose actual reality is currently and subjectively established. Therefore, the return is to the phenomenon as a state of things that, by affectively involving us, "we cannot *not-admit*". A difficult topic to address, the empathic relationship between the producer of work and the user/users can assist design choices by focusing attention on the perceptual and emotional aspects that always accompany our cognitive processes. The emphasis on "embodied cognition", as a necessary premise for developing an empathic space, can help us understand more clearly the fundamental role of our living body in interacting with the built environment to implement physical and psychological well-being, both individual and collective.

Keywords: Architecture, experience, empathy, embodied cognition

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REDISCOVERING THE BODY IN ARCHITECTURE

It might seem paradoxical in an era characterized by the internet, social networks, and developments in artificial intelligence to speak of the rediscovery of the body. However, many facts contradict the scenario of disembodiment of reality, since, within the basic condition of our technological civilization, greater attention to one's own body appears to be increasingly central, involving, for example, one's appearance, fashion, diet, and the pursuit of physical, spiritual and energetic practices such as yoga, tai chi, and meditation techniques in general.

It should also be added that – perhaps due in part to the recent global COVID-19 pandemic and the consequences of its imagery – tourism and the desire to move around and share different experiences with others has increased considerably, despite the spread of telecommunications and social networks: people are moving around, wish to know

each other and meet 'face to face'. In this framework, the renewed actuality of human “bodiliness” in architecture is unsurprising, as Gernot Böhme underlines. Architecture operates on both sides: it is shaped by the progress of technology and the development of human needs. So, if in modern architecture the search for mass architecture had privileged the rationalization of space, through standardization and homogenization of the main functions for a 'typical' modern man, today the creation of spaces for bodily presence - a space developed on the needs of each individual, in his differences and peculiarities – has become more and more topical, leading to a change of perspective: from building to the body, from object to subject, that is from object to space or “from object to experience”, as Harry Francis Mallgrave titles his last book [1].

Architecture as the design of emptiness regards the movements (real or simulated) that a body can occur in space: buildings as well as urban spaces “accentuate and focus the sense of space, they entail movement suggestions, they convey experiences of narrowness or expansiveness, and they articulate space itself as an expanse” [2]. Evidently, in this change of perspective, the body we are referring to is not the object body, but the *living body* or the *felt body* (i.e. Edmund Husserl’s distinction between *Leib e Körper*, Maurice Merleau-Ponty’s distinction between the *corps propre* or *corps vécu* and the *corps objectif*) which means “to be in a space” but also “feel in such and such a way, to be disposed in a certain way” [2].

It is, therefore, a matter of involvement in the design process the perceptual, emotional, and even spiritual dimensions - by their nature multisensory, interactive, synaesthetic, and multimodal - capable of stimulating the refiguration of a more sensitive and sustainable space-world, where sustainability is not the exclusive property of technical thinking, rather it embraces all aspects of our existence.

Within a fruitful relationship between affective and cognitive neuroscience – starting in particular with the discovery of mirror neurons under the leadership of Giacomo Rizzolatti [3, 4, 5] – “Neurophenomenology” by Francisco J. Varela [6], “New Phenomenology” by Hermann Schmitz [7], “New Aesthetics” by Gernot Böhme [8], and “Atmospherology” by Tonino Griffero [9, 10], a vast field of reflection has opened up in various disciplines, with *embodied cognition* as the original turning point.

From James Gibson’s *affordances* to the developments of *The Embodied Mind* [11], in which the concept of “enaction” becomes central, suggesting the emergence of the world employing concrete manipulation, sensory-motor processes, perception, and action become inseparable in the experience of cognition, whereby cognition and the world interactively originate through the living body. This means that “in the enactive approach, cognitive scientific and phenomenological investigations of human experience are pursued in a complementary and mutually informing way” [11], i.e. following Varela’s powerful assumption expressed in the concept of “Neurophenomenology”, it is “a quest to marry modern cognitive science and a *disciplined approach* to human experience” [6].

Lived, embodied, empathic, interactive experience, then verbalized, is the mixed ground from which both the delimitation of pure phenomena and the laws of the science of nature will have to be situated, considering a human, embodied, and social form of life. Therefore phenomenology – today “New Phenomenology” – and the physical sciences will have to converge to “give the body back to the mind”, through a revisitation of our experiential modalities, starting from the very sense of perception, which becomes an innate and structural opening of the subject's body to the body of the world. As a consequence, the emotions, previously distinct and isolated from cognitive processes, have regained centrality in “contemporary cognitive science, particularly as regards the continuity between perceptual, cognitive and executive aspects and the emergence of emotions from the dynamic interaction between individuals” [12] or between individuals, spaces, and “quasi-subjects”, recognizing in the work of art or/and architecture the “manifestation of an interiority in an exteriority, of a spirituality in a sensibility” [13] whose the empathic relationship, as “lived experience of the extraneous” [14] in which we “encounter” otherness, becomes an immediate and priority act.

MIRROR NEURONS AND EMBODIED SIMULATION

In particular, the wide resonance of the discovery of mirror neurons made the profound relationship and interaction between perception and action, body and mind, and emotional and cognitive responses evident. The bimodality of mirror cells, which come into operation both during the execution of purposive actions and in the observation of actions performed by others 'as if' they were being performed in the first person - allowing for the recognition of the underlying intentionality - has demonstrated how human reactions to the environment do not depend (only) on sensory stimulation, but are a form of imagination, in which the subject inwardly simulates the intention associated with the action during observation [3, 4, 5].

It is then understandable why the visual qualities of architecture – but also haptic, auditory, olfactory, proprioceptive, kinaesthetic, etc. – induce resonance (or even dissonance) phenomena in our living body, setting up simulations that are used for an implicit understanding of its characteristics (gravity, tensions/pressures, rhythms, plastic articulations, materials, textures, etc.) to which particular emotional states are associated. This is the basis of the so-called “embodied simulation”, an important component of empathy, which enables an automatic, pre-reflective reproduction of the space we inhabit: although not exempt from interpretation, “the feeling of physical involvement with a painting, a sculpture, or an architectural form provokes – as Vittorio Gallese and Alessandro Gattara write – a sense of imitating the motion or action seen or implied in the work, while enhancing our emotional responses to it” [15]. Our body is therefore put into motion, opening up to an emotional and properly empathic relationship with the space we inhabit, where the “embodied simulation” is always flanked by the phenomenological plane of the subject, the only one that allows us to understand where we are and how we feel in a certain space.

The focus is not so much on the ‘given’ reality, as on that “state of things” (material or not) whose actual reality is currently and subjectively established. Therefore, the return is to the phenomenon as a state of things that, by affectively involving us, “we cannot *non-admit*” [7].

AESTHETICS OF ATMOSPHERES

It is precisely Schmitz's “New Phenomenology” and the concept of atmosphere in the works of Böhme and Griffero, starting from Schmitz's work, that has catalyzed the attention of designers, publicists, architects, urban planners, etc. in recent years, recognizing the need - both on the side of the user and on that of the designer - to return to valorizing that “involuntary vital experience” that involves us affectively. Central, therefore, is the reevaluation of subjectivity not linked to the psychological-introjectivist dogma, but rather linked to the intensity of situations, to that “situational atmosphericity” in which, in addition to the pragmatic invitation (*affordance*), there is an affective, or pathic invitation, which Griffero defines as “atmospheric affordance [...] responsible for our spontaneous-intuitive evaluations [which] constellate the multidimensional sensory continuum in which the world of experience properly consists” [9].

Among the most interesting ontological gains of Schmitz's research is undoubtedly the innovative concept of the “quasi-thing”, a hybrid between the thing, which lacks substantiality, i.e. persistence in time, and the qualities of the thing about which the “quasi-thing” – among which Schmitz counts, for example, darkness, night and cold – are superior due to their autonomy. Within this category, Schmitz places feelings and atmospheres that are feelings liberated from introjection and spatialized. It is precisely starting from the concept of atmosphere as a “primary object of perception [...] in front of which, by an analytical way of seeing, something like objects, forms, and colors, are then distinguished” [2], that Böhme developed his “New Aesthetics”, as well as Griffero his “Pathic Aesthetics” [10], considering in addition to the aesthetics of reception (typical of Schmitz's work), also an aesthetics of the production in which the atmospheres can be created: for Böhme, it is the 'stage design', as the production of space for its appearance, and the 'ecstasies' of things, which radiate in the space and mediate the presence of things for someone, that become central.

So, the atmospheres as “bodily felt spaces of presence” can be described not only “through spatial categories, that are also characteristic of a disposition, for example, *depressing, uplifting, expansive or restrictive*” [2], but also through mood qualities, such as “*serious, serene, or melancholic*”, whose spatial character is not immediately apparent. As Böhme concludes, if traditional architecture has mainly conceived space through geometry and considered the people in it as bodies, today what has become more important is the position-disposition of the “experiencing subject”, bringing “to the foreground what it means to be bodily present in spaces”. According to this perspective, which avoids an absolute position, it is rather a matter of working on “the interplay [...] between felt and objective body, between disposition and activity, and between actuality and reality” [2].

ARCHITECTURE AS EMPATHIC SPACE: A BRIEF CONCLUSION

Embodied simulation, phenomenological experience, and atmospherology express, from different points of view and at different levels of awareness, our sensitive encounter with the things of the world, in which the empathic relationship may unfold, capable of involving and externalizing our imagination, memory, and conceptual capacity.

In design terms, this indicates a fundamental shift from the formal structure of the building to the experience that can take place within it, to configure - as Harry Francis Mallgrave writes - rather than “extravagant objects [...] palpable environments within which our neurological systems and organs are connected and intertwined” [16].

The transition from object to experience in rethinking the work in terms of relationship and no longer in terms of form, therefore appears crucial, “because it means considering as a priority function of architecture something that does not belong to the work itself, but to its consequences, to the emotions and behaviors that can be generated in the experiencing subjects” [17]. The artist, like the architect, must therefore no longer (or not only) confront himself with his conception, but must strive to become a "spectator of his spectators" or, more correctly, himself a subject active-user of the designed environments, a generator of participatory and, to some extent, unpredictable "events". In this capacity to modify its point of view to welcome otherness, “the project will therefore have to present itself as an ‘open score’, capable of stimulating emotions and expanding the possibilities of action: a spatial device for the user, single or plural, rather than a spatial ‘control’ device” [17].

Not by chance, one of the most widely accepted theories for understanding how humans can comprehend unfamiliar environments is Jay Appleton's theory on “Prospect, Refuge, and Hazard”. According to the British geographer, certain characteristics influence our ability to safely explore environments and ensure well-being. This would offer the possibility of observing (prospect) the environment without being seen (refuge), thus reducing the risk (hazard) of being killed or running out of food. This theory suggests that the aesthetic experience and pleasure that an individual derives from observing and exploring an environment are linked to a particular combination of openness and enclosure [18]. Hence all theories about “biophilia” were developed. This concept, which was born in the mid-1960s to indicate a sense of attraction towards all living phenomena, was taken up by the American entomologist Edward O. Wilson [19] to describe the natural predisposition to recognize and appreciate what is alive, taking on the traits of an “evolutionary adaptation” and a “phylogenetic perspective”. From a psycho-evolutionary perspective, the affection we feel for different life forms seems to reside largely in our ability to feel empathy for other creatures and to respond to their concerns 'as if' they were our own, albeit acknowledging their otherness.

As already pointed out in this research, empathy is understood as a “multi-componential process” that integrates affective and cognitive components: it is characterized both by a “basic empathy” of a perceptual-emotional nature that provokes an impulse of imitation (low level: *mirroring*), proper to embodied simulation and by a “reenacting empathy” that requires attention, memory, and imagination (high level: *mentalizing*) in which we re-actualize the reasons for a state of mind or a specific situation, reconstructing the context that provoked it. This complex articulation of empathy allows the designer to “put himself in the other's shoes” while remaining himself, to escape the selfish point of view and adopt a heterocentric point of view, to “feel how the other feels”, starting from the importance accorded to lived experience in intersubjective exchange.

As John Dewey wrote in his *Art as Experience* [20], every aesthetic experience, both on the side of the producer and of the user, becomes an interaction between passivity and activity, between acting and being affected, between receiving and doing: a "learning by doing" in which the very possibility of art and architecture can be summed up, that is "making possibilities be felt that are unrealized and that could be realized".

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