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**Paola Gregory**

# Towards an Empathic Architecture

Paola Gregory[1, a)]

[1]*Politecnico di Torino, Department of Architecture and Design, Viale Mattioli 39, 10125 Turin, Italy*

[a)] Corresponding author: paola.gregory@polito.it

**Abstract**. Increasingly in recent years, different disciplinary knowledge has sought to overcome the traditional dichotomy between the natural sciences and the humanities, i.e., between a method based on "explaining", that seek random connections and universal and necessary laws in accordance with a nomothetic arrangement, and a method based on "understanding" and in particular on empathic understanding – *Einfühlung* – in its various articulations, developed within the hermeneutical philosophical tradition and upon the idiographic nature of observation. In the last years, architecture has also opened up new perspectives in order to provide the designer with a better understanding of "who we are and how we actually engage the world", as Harry Francis Mallgrave writes in his recent book (2018). Long before the Sars-Cov-2 pandemic crisis forced us to stop, leading us to think more about the spaces of our daily lives and their direct influence on the well-being (or malaise) of our bodies, some factors have contributed to what has been defined as an *emotional turn* or an *affective turn*: they include the progress made by the neurosciences (particularly, the discovery of Mirror Neurons System), the resumption of phenomenological themes with the development of the "new phenomenology" and of atmospherological aesthetics, and, closely related to these, the rediscovery of empathy as a fundamental fact of human nature and perhaps the chief way in which understanding is organized in the consciousness of human action. Starting from the salient developments of embodied cognition since the 1980's, this essay will underline an idea of architecture as a "shared continuum" between the human and the natural, that is between nature and culture, body and mind, self and world, to regain in architectural design a dimension linked - in the phenomenological tradition - to the *living body*, in which the rediscovery of empathy becomes the possibility to articulate an understanding of space that hinges upon feeling and human action.

## INTRODUCTION

The theme of the affective space, hinged on embodied cognition, seems to cross different fields of reflection today - from psychology to philosophy, from anthropology to sociology, from cognitive neuroscience to aesthetics - directing also architecture towards a corporeal and vital reclamation of the built space, rooted in the human experience before than in formal research.

Although not new in the aesthetic reflection and in the same conception of architecture, the recent focus of several scholars and architects - such as H.F. Mallgrave, Alberto Pérez Gómez, Juhani Pallasmaa, Steven Holl and Peter Zumthor - on the "felt space" or "lived space" as a founding element of architectural design indicates, however, a change of perspective that has in human feelings its fulcrum. The role of the architect - Mallgrave specifies in fact - is to consider the anthropological wholeness prior to the dichotomy between body and mind, between nature and culture, configuring the space as "environmental medium in which the human organism dwells" [1], i.e. a place where the coexistence of human actions and biological processes, of cultural-community values and individual needs, as well as the coexistence of ecology and sociology, prefigures an overcoming - a real "dissolution" for the American critic - of the traditional distinction between natural sciences (*Naturwissenschaften*) and human sciences (*Geisteswissenschaften*) with their specific methodologies of knowledge: the former based on "explaining" (*Erklären*), that seek random connections and universal and necessary laws in accordance with a nomothetic arrangement; the latter based on "understanding" (*Verstehen*) and in particular on empathic

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understanding - *Einfühlung* - in its various articulations, developed within the hermeneutical philosophical tradition and upon the idiographic nature of observation.

Now, just because the human beings are simultaneously constituted both as organisms within systems of bio-ecological relations, and as persons within systems of socio-cultural relations, the critical task for an architect will be to understand the reciprocal interplay between the two kinds of systems, considered in their possible fusion, rather than simple complementarity. Body, mind and culture are not separate, albeit complementary, parts or aspects of the human being, but rather - as anthropologist Tim Ingold points out - "a singular locus of creative growth within a continually unfolding field of relationship" [2]. It is this intrinsic relationship between body and space, inner and outer, mind and body, reason and emotion - a relationship already emphasized, for example, in Gregory Bateson's concept of "ecology of mind" (1972), as well as in the "ecological approach to visual perception" (1979) of James Gibson, with his neologism of *affordances* - to emerge in some of the architectural research at the turn of the new millennium, based in particular on developments, in the eighties, of cognitive science and from the nineties of last century on the wide resonance obtained by neuroscience with the discovery of "mirror neurons", which have amply demonstrated how the corporeality of each human being is fundamental in determining, in a continuously retroactive circle, the modes of action and the environment on him/her. As pointed out, in fact, by some neuroscientists - including Antonio Damasio in his famous book "Descartes' Error" [3] - "the strategies of human reason probably did not develop without the guiding force of biological regulatory mechanisms of which emotions and feelings are notable expressions". It is these, in fact, that reveal moment by moment the qualitative state of well-being or malaise of our organism, at the basis of which are all the cognitive processes: both those of elaboration of the surrounding world, and those related to our subjectivity, which is always present in our experiences. Emotions, feelings and moods, traditionally relegated to an inner ontological order, thus acquire a new centrality, promoting - in the work of the architect - a renewed rooting in the "sensitive knowledge" (according to the original etymology of *aisthesis*) necessary to understand - in the words of Mallgrave, a pioneer in the application of neurosciences to architectural theory - "how much of our thinking and existential responses to our environments is, in fact, driven from below and, at different levels, by emotional and bodily activity" [4]. In the folds of this new episteme, based on the theory of the "embodied mind" [5] which also characterizes the social dimension of the relationship between the self and others, there is the rediscovery of empathy as a fundamental datum of human nature and a way, perhaps the most peculiar, in which understanding is declined in the knowledge of human action and, in the architectural design, in the configuration of a radically embodied space.

## THE REDISCOVERY OF EMPATHY

While we refer to recent studies investigating both the semantic richness and historical evolution of the term empathy (from *en*=in and *pathein*=to suffer) - English translation of the German *Einfühlung* - we would like just underline that this concept is so dense with meanings and development that is really difficult to frame it within a precise definition, being able to variously indicate a set of categorical relationships that include identification, imaginative projection, fusion, sympathizing, simulation. It is sufficient to remind here that the concept of empathy, coined in Germany by the philosopher of art Robert Vischer (1873) to mean a "projection" of one's feelings in artistic objects (as in natural forms) *animated* through a symbolic process, has now had a total twist of meaning, indicating rather a process of mirroring and simulation that has in mirror neurons - not coincidentally also called "neurons of empathy" - a specific neurobiological basis. As pointed out by Giacomo Rizzolatti, director of the team at the University of Parma that discovered these neurons in the premotor cortex of macaques and then in humans in the early 1990s, they would constitute on a neural level - through the mechanism of resonance-mirroring - "the modality of understanding which, prior to any form of conceptual and linguistic mediation, gives substance to our experience of others" [6], making us emotionally involved in the things that surround us. In particular, the activation of the mirror neurons system (expressing the complexity in humans of shared circuits) is found both in performing an action, and in observing it "as if" one were performing it in the first person, grasping not only the movement, but also the intentionality that is behind it. In this process of "simulation" that Vittorio Gallese - the neurophysiologist who in Rizzolatti's team has most developed the philosophical and epistemological implications of the discovery of mirror neurons - has defined as *embodied simulation* [7], since it concerns the activation of motor and viscero-motor areas of the body according to a direct, automatic, non-predictive, non-inferential mechanism of simulation, it is possible to explain the close interrelationship between perception and action, which allows us to understand how a subject feels in his own body movement (implicit and explicit) the affinity with the perceived environment. This is

an issue already addressed by Heinrich Wölfflin, who in his doctoral thesis [8] wondered why buildings produce a certain mood in the observer. Despite the difficulty of explaining the reasons, the art historian understood that the link between the forms we perceive and the impressions we receive are affects due to our own body, since our perceptions "arriving" to consciousness are directly felt, experienced, lived, conveying certain behaviors and inhibiting others.

We can therefore say, with an expression that has become famous, that "the brain that acts is also a brain that understands", recognizing, however, that the operation of simulation-remembering that "encodes the sensory experience directly in emotional terms" is only the basis of what we can define as empathy, representing rather, as Gallese points out, its "functional correlate". To speak of empathic relationship, in fact, we must move towards a broader overall theory that invests the phenomenological plane of the subject: a theory that, already indicated by Francisco J. Varela (1996) with the concept of "neuro-phenomenology" to "designate a quest to marry modern cognitive science and a disciplined approach to human experience" [9], becomes for Gallese himself fundamental, since in the transactive and retroactive encounter between organism and environment, imagination and memory are also included. That is, the feelings that are an embryonic stabilization of complexes symbolically significant and that in the dialectic with the emotions (by their nature preriflexive, prelinguistic, presymbolic) are a good part of the dynamics of mental and psychic life, i.e. of our complex subjectivity.

## NEOFENOMENOLOGY AND ATMOSPHEROLOGY: TOWARDS A NEW CONCEPTION OF ARCHITECTURE

In the evolution of the concept of empathy, particular importance is given to the phenomenological thought that, initiated by Edmund Husserl at the beginning of the twentieth century, has always claimed the centrality of the life-world (*Lebenswelt*) in which it is our own body or lived body (*Leib*) to guide us in the knowledge of reality and in the encounter with the other. Having seen in lived experience (*Erlebnis*), and therefore in the richness of perception the place where the things are manifested clearly to consciousness, phenomenology has always indicated that the world is not a mere set of objects detached from us, but a world whose "objectivity" is always part of a subjective reality (the life-world) and springs from intersubjective agreement. In this perspective, elaborated after Husserl by philosophers such as Maurice Merleau-Ponty and Jean-Paul Sartre, the lived experience always recalls an embodied subject, that is the first and original vehicle of comunication with the world and the center of spatial orientation. In Merleau-Ponty's work, “Phenomenology of perception” (1945), the interwining between the own body and the world perceived through feeling is always stressed, since in his words "the thing is inseparable from a person perceiving it, and can never be actually in itself because its articulations are those of our very existence, and because it stands at the other end of our gaze or at the terminus of a sensory exploration, which invests it with humanity. [10].

It is this "chiasma" between subject and object, inside and outside, visible and invisible, that is the pre-dicotomic condition preceding the establishment of the distinction between consciousness and world, to return central in recent philosophical and aesthetic research that, through the innovative concept of "atmosphere" defined by Hermann Schmitz as "boundless occupation of a space without surfaces in the context of what we experience the presence" [11], intend to capture that *prius* pre-categorical and pre-linguistic oriented to the phenomenal characteristics of reality and the impressions that arise. Interested in refounding phenomenology in order to allow humans to understand their real life, atmospheres - like “the joy [which] is an atmosphere of elevation”, or the solemn gravity [which] is a powerful feeling [often present] in the form of a vast and quiet silence” [11] - are inserted by Schmitz in the revolutionary concept of semi-things: a hybrid between the thing, which lacks the substantiality and persistence in time, and the qualities of the thing compared to which the semi-things are superior for their autonomy. Although difficult to systematize - because they are incorporeal, boundless, synesthetic and multisensory, changeable, subjective and complex – atmospheres are almost always the first with which we involuntarily confront ourselves: they are, as Tonino Griffero writes, the "qualitative-sentimental *prius*, spatially effused, of our sensitive encounter with the world" [12]. This means, as pointed out by Gernot Böhme, who has dedicated his work to the new aesthetics understood as perceptology, that atmospheres - as "objects" of an ongoing perception - are neither states of the subject, nor qualities of the object, being rather "something *between* subject and object. They are not something relational, but rather the relation itself." [13]

In this way, atmosphere is for Bohme the space of “bodily presence”, “into which one enters or in which one finds oneself”, and, “by contrast with objective, physical space, it is in this sensing that the space we call bodily felt space is unfurled” [14]. So, we can feel expansivness or tightness, uplift or depression, closeness and distance, movement suggestions, but also some characteristics that need not necessarily be understood in a spatial sense, such as the impression of seriousness, solemnity, melancholy.

For Bohme, architecture - as well as other aesthetic works, including theater and publicity, cosmetics and fashion, design - has the ability to create specific atmospheres, entrusted mainly to two operating modes: the "stage design," as the production of a space for its appearance, consisting of "geometric structures and corporeal constellations," synaesthesia" and "social characters" (that is characters associated with meanings); the "ecstasies," that is the "way in which things come out of themselves and present themselves in space" [13], such as colours, which change on the basis of brightness, smells or sounds, all examples of reality in action or actual reality.

There is, therefore, a difference between physical reality and actual reality: the former is rooted in the properties of objects or spaces, while the latter is linked to our perception, that is, to something immaterial that nevertheless becomes (sometimes overwhelmingly) present. This duplicity of reality brings us back to the initial observation regarding the two ways in which we know things in the world: the sphere of natural sciences and that of human sciences, which the recent discoveries of cognitive sciences and neuroscience have made increasingly intertwined.

## A BRIEF CONCLUSION

How can architecture deal with this complexity, which in addition to the properties of things and spaces should be able to capture and stage emotions, feelings, moods, perceived primarily as “areas of widespread significance"? How to express within the architectural project this "vague condition" capable, however, of triggering in the percipient subject immediate emotional, sensorimotor and cognitive reactions, prior to any analytical, sequential and logical process, which by breaking down reality into stable subsets risks reducing it to the datity of simple objects and their quantifiable and measurable relationships? If the atmosphere is a medium between the individual and the architectural surroundings, it is perhaps empathy that allows us to resonate and reflect with the space that surrounds us, producing and provoking an experience hinged upon feeling and human action.

In the way we respond affectively to the spaces we encounter, we express the "actual reality" of architecture, which, similarly to what Josef Albers wrote about painting, is what is felt and perceived, what can only be described in the first person. This is the incipit of that empathic understanding that does not exclude, but completes, scientific knowledge: the "physical reality" as a property of things and the reflective capacity as a complex universe of meanings and elaboration of sense, in which the distancing subject-object, perceiver-perceived takes over. In this interrelationship between the first and third person, the primacy of the world of experience modifies the keys to reading architecture and orients creative activity itself, whose essence will be rooted first and foremost in life as it is lived. In the words of an artist-architect like Peter Zumthor, who explicitly recognized the fundamental value of emotional perception and atmosphere as a category of beauty, the substance of architecture is in our emotional participation and in the poetic quality of things that “manages to touch me emotionally. [...] Immediate understanding: immediate emotion or immediate rejection" [15].

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