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## **Inhabiting atmospheres: taking shape in the space of ecologies**

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### **Abstract**

The intention of this essay is to do a capture of dwelling, establishing the need of placing ourselves in intermediate territories, that go beyond the immunity/community, interior/exterior and public/private dichotomies, to reorient the space issues towards the relation they have with the capacity of generating places and experiences, recovering a complex vision of dwelling that favors social interactions and sharing of its significant devices, in the space of ecologies.

Dwellings, co-dwellings and undwellings would define the different approaches to being-in-the-world, and are used in plural for the sake of opening a perspective that tries to enable the recognition of that which can not be perceived without such a plurality, favoring formulations that address references of the space of ecologies, trying to (being able to) learn, not in its physical configuration, nor in its environmental condition, but as a means of relating, as a possibility of interaction among realities, going beyond its physical connotations and crossing its political, social and cultural connotations.

All this might contribute to a critical discussion of discipline among keys of deployment and interpretation, in an understanding of architecture that goes beyond its most immediate senses (its products), and looks in other, more extended ones (its generativities).

**Keywords:** dwelling, shape, space, ecologies

# 1. Transitions

Michel Serres says that:

Now everything changes: science, its methods and its inventions, the way of transforming things; techniques, that is to say, work, its organization and the social link that presupposes or destroys; family and schools, offices and factories; the body and the city, nations and politics, dwelling and travel, borders, wealth and misery, the way to make children and to educate them, the way to wage war and to exterminate one another, violence, the law, death, spectacles (Serres, 1995, p.11).

And he adds that "among these transformations, there is another one [...] related to knowledge and the way of acquiring it" (Serres, 1995, p.13).

The current transformations (not so much in structural and productive terms, but of different specialties and temporalities) in the ways of life require an attention to references of space of ecologies, trying to (be able to) learn it, not in its physical configuration, nor in its environmental situation, but as a means of relating, as a possibility of interaction among realities, whose center is man – "individual, species and society" (Morin, 1999 [1977], p.22), that is to say, in its humanity – in a space capable of accompanying him in all aspects of his being-in-the-world.

In the succession of changes observed, the elements merge and the terms individual, social, technical, environmental fuse in an integrating vision of dwelling, highlighting its interactions and interdependencies, in the space of ecologies, where all the events are related, recognizing the current existential situation of man, that, as Henry Focillon (1983 [1943], p.60) says: "is not enclosed in an eternal definition, but rather is open to exchanges and influences. The groups it builds are due less to biological accidents than to the freedom of mature adaptation [...] to the constant work of culture [...]". A culture that, as he adds later, "doesn't stop thinking about itself and building itself" (Focillon, 1983 [1943], p.60).

"Contemporariness", as defined by Giorgio Agamben (2006-2007) "is, then, a singular relationship with time itself, that adheres to it and, at the same time, distances itself", and contemporary is "he who doesn't agree perfectly with it nor adjusts to its claims and is therefore, in this sense, not current; but, precisely for this reason, through this remoteness and this anachronism, is more capable than others of perceiving and apprehending its time", to quote just one of the definitions that this author gives about being contemporaneous.

Thinking of oneself as being in contemporaneity means, then, to assume the risk of its unpredictability, where it is only possible to have an approximate definition of dwelling, and not to determine its predefinition: the proposal is to consider variations instead of unique models and multiple approaches rather than unidirectional ones, considering that dwelling needs a continuous update, thus, architecture activates transformations, providing answers to unpredictable changes and to its possible development or developments.

## 2. Approaches

One definition of nature is one that considers it as the aggregate of everything that has not been altered by human beings or that persists despite its intervention, and this would in principle imply a distinction between that which is natural and that which is artificial, where artificial would be understood as a modification provided by human intervention.

But in this distinction two factors are not considered: the first consists in not considering man himself as part of the natural whole – that which is *real* – and in the interaction with it changes will be wrought that are reflected not only in its own structure and morphology but also in its interrelations; the second one consists in not considering knowledge as an act with which we build up the world in which we live – the *reality* – that is to say, not considering it as a process in which the observer and that which is observed are the same thing, where any modification in this relationship will have consequences in its components and will, therefore, modify the entire system. “Our reality is but our idea of reality”, says Morin (2001, p.83).

However, it is true that man develops in an environment that we might call natural, and that we might, in principle, consider that the physical medium provides the stimuli to which every organism reacts according to its genetic characteristics, and that, at the same time, the physical structures of organisms adapt to the environment, in a complex system of feedback between biological development and environmental changes.

And the fact is that biology can't be explained just by genetics, nor can culture be explained just by the environmental context: the idea of the organism-environment interaction in the adaptation process also refers to the interaction between thought and culture.

“It would be ridiculous”, as Bruno Latour (2003, p.33) qualifies, “to try to keep a genetic interpretation of human behavior as far as possible from a moral, symbolic or phenomenological one.”

And this is what Maturana and Pörksen explain:

The notion of the biological matrix of human existence, therefore, does not refer to something that is supposedly really transcendental, but to the understanding of the operational web in which human existence occurs in the form of living and living together, that results in an understanding of living and in the emergence of an understanding of the operational coherences of human living that generate the cosmos as an operational explicational environment of human living (Maturana and Pörksen, 2004, p.14).

Being-in-the-world as a search of definitions that let us understand the variations of reality – characterized by sudden and unpredictable changes – where space is not a delimitation but a relationship, where man has the possibility of transforming himself, establishing in the process new ways of interacting with other individual and with the space of ecologies, because “making our environment and making ourselves, constitutes [...] a unique process,” as Tomás Maldonado (1972, p.14) notes.

When man recognizes himself as the subject of knowledge, that “arises in and through the reflexive movement of thought about thought”, as Edgar Morin (1999 [1977], p. 32) says, he doesn’t represent the reality he perceives, but rather takes part in a process of construction of subjectivities – a process that is open and in continuous modification – that merges in the interaction with the environment and articulates itself in the recognition of the “other” as the subject that allows recognition of the “I” (Morin, 1980, p.32).

At the same time that the mind adapts to the environment, generating thoughts that exist in space and time, becoming networks that maintain a balance between that which is learned – from the outside – and that which is understood – in the inside – the environment, in turn, learns and adapts providing variations to which thought must adjust itself (the ecological crisis is, in the final analysis, a reaction of the environment to human action).

That is to say that the environment does not stay constant, rather, it has the capacity of assuming changes, where the same interaction between the object and the context determines and modifies both forms, since not only does the environment affect organisms, but it also receives input from them, in a process that makes it possible to recontextualize the object when changing the actions of external forces, and of the environment once the organisms have reacted to this change, modifying it in turn.

Its meaning can be delimited by the environment in which it is generated, but the environment in itself is unlimited, “in a physical universe that we know through our perceptions and our representations”, to quote Morin (1980 [1977], p.117).

### **3. Incorporations**

Peter Sloterdijk (2006, p.383) says that:

If I would have to explain very briefly what changes the twentieth century has caused in the human being-in-the-world, the information would say: architecture, aesthetics, juridically existence as residence; or, more simply: it has made dwelling explicit (Sloterdijk, 2006, p.383).

After carrying out this capture of dwelling, recognized as a way of being-in-the-world, the need is clear to place ourselves in the intermediate areas, that go beyond the dichotomies immunity/community, interior/exterior, to reorient the spacial issues towards the relationship they have with the capacity of generating places and experiences, recovering a complex vision of dwelling that favors social interactions and sharing of its devices of significance, in the space of ecologies.

This is a subject that not only needs a formulation from one point of view and with theoretical purposes, rather, it lets us achieve the conditions required to get a definition of space and ecologies, and finally have the adequate means and tools to be part of it and inhabit it.

On the basis of these considerations and from the perspective that the study of dwelling contributes to the (re)definitions of current architecture, it becomes necessary to understand it

within the space of ecologies, understanding it as a network of relationships, as a display of a series of different systems that are interconnected through the diverse factors that make it up, where reality is generated on the basis of multiple and diverse interactions among integrated phenomena in a spacial dimension, and assuming, also, a temporal dimension, as a representation of a process of transformation, that is to say, its composition and organization in time.

Therefore, the set of systems that make it up should be specified, considering that space and the ecologies can not be adequately studied isolated from the "physical" medium and the "historical" time in which it is generated and to which our considerations apply. This criterion is based on an ecological approach to dwelling, establishing a dynamic relationship between man and the environment, in which, on the one hand, man adapts constantly and actively, evolving himself and modifying his environment; and on the other hand, the environment determines variables that not only cause changes in the environment, but that, through the adaptation of man to such an indefinite number of situations, makes it possible to describe and reorder it.

### **Dwellings. Firstness, immediateness, sensibility with respect to the body**

The body does not appear as a reaction to external phenomena, but rather to thoughts that the brain generates on its basis. In fact, the brain isn't born with the knowledge of itself, but it is provided with the faculties to perceive reality and to enter in a dynamic relationship with it, as we have already said, and every experience we go through generates a message, processed by the brain, that, in case it refers to a self-perception, is called "selfceptive". This system generates, in each body, a cognitive process that is externalized as the first inhabited environment and the habitational process of the environment is internalized in every body.

Thus, the body is generated in the manifestation of the capabilities that man has of being in this reality – as a result of a multiplicity of stimuli – and of inhabiting it, establishing his position against everything with which he relates. It lets man give a meaning to phenomena that make up his life, interwoven with wefts of connections, whose relational dynamics is the result of making his corporality. What is more, the body is man's way of experiencing these relationships.

To Gregory Bateson (1990, p.7) and his studies on the mind as a systemic phenomenon – "the pattern that connects" – we owe one of the first attempts of overcoming the Cartesian body-mind dualism, generating relationship between phenomena and the processes it analyzes, establishing new connections among them.

Humberto Maturana also says that man is not made up of this duality, but on the contrary, experiences its relationship:

We are, in body and in relationship, what we think we are, what we want to be, what we do not want to be, what we regret not having been

and what our culture is, as well as what we get to be when we become the reflection of our being and living (Maturana, 2008 [1991], p.202).

The body, then, is the shape the human being acquires by living, the means for him to know and to understand, center of intelligence, energy and information, through which he can know himself, and his existence remains thanks to the conservation of life through the own body, losing, with death, the form of his bodiness.

Everything man does, in fact, he does it on the basis of his bodiness, as a result of his interactions with "the reality of the human environment" of which Maldonado (1972, p.13) talks, "the concrete reality in which, for centuries, we have displayed our painstaking efforts to live, live together, survive", on the basis of his interiority and his relationship with the world.

"And it is the body itself," says Josep Muntañola (2001, p.38) "both social and physical, the only one who is capable of achieving this relationship." For man is a social entity, and his body is the shape of a relation that he lives with others, in his dwelling in the world, a way of interacting with others, of living in them.

Maldonado (1972, p.23) says that "our environmental situation [...] is the result of what Vico would have defined as the capacity to do": doing is a human fact that originates in the body and that finds, in architecture, one of its modes of realization.

"One's body depends on how one lives in relation to others and to oneself", says Maturana (2008 [1991], p.281). The body is the shape that results from a simple new experience, within social groups.

### **Co-dwellings. Donating sense to the space of ecologies**

The body and architecture develop together, generating a space that "doesn't exist without bodies that define it", to quote Muntañola (1996, p.24). Who adds that "if the body and the place are equivalent, the body is neither within nor outside of the place, rather, speaking representatively, it is the place itself" (Muntañola, 1996, p.81): the body and architecture formalize dwelling in the social relationship.

The body gets into a different environment, through architecture and by interacting with it it transforms it, and it transforms, at the same time, its own nature, affecting its own corporality.

"Today, the tool – the instrument that unites the human being and nature – is more and more made by the human being itself, absorbed in/by its action, says Toni Negri (2000, p.47). The transformations of the body acquire the tool as a new faculty, that contributes to perfecting the essence of man, increasing his capacities of interacting with the world, establishing a new type of nature, a second environment adapted to the new needs of man.

"And in this distinction, in this looking, our reflexive flow in the continuous present of our human coexistence, we see that the circumstances of our living transform as well, and it does so congruently to our own individual transformation," say Maturana and Pörksen (2004, p.13).

Architecture participates in the definition of man's identity: it is the result of the processes of individual and social generation, result of the experiences lived and shared and, like the body, it is a means to externalize the cognitive process, expression of its dwelling, of its interaction with the other human beings, not only in terms of space, but also of time, architecture being the means with which the body stays within reality, beyond its death.

"[...] we have moved, knowingly or not, from being to staying. For, staying, unlike being, is subject to categories and parameters that are known to us: such as space and time," says Juan Arnau (2000, p.71).

Architecture establishes limits to configure a world that is unlimited and undetermined, making it habitable, and starting to exist when it delimits its space. Serres (1995, p.39) says "What is life? I don't know. Where does it dwell? By inventing the place, living beings answer that question."

Ricoeur (2003, p.13) describes the constructed space as "a type of mixture of living places, that envelops the living body, and a geometrical three-dimensional space in which all points can belong to any place."

Thus we assume, in agreement with Deleuze and Guattari (1994 [1988], 239 and ff.), that it is not possible to establish a boundary between that which is natural and that which is artificial, for between them there are no longer any differences, rather a hybridization, and, as Maldonado (1972, p.14) would qualify, "the particular mode in which conscience appropriates the environmental reality, has a decisive influence on the ultimate conformation of this reality."

Thus, an external reality is not established in a fixed way, but rather in constant transformation, due to a complete artificialization of the environment, intertwined with the life of man until he disappears, making the artificial become natural, recovering the original meaning of the Greek etymology "physis", as "action of giving birth," in which – once again – the process that generated it is considered, on the one hand as an access to its knowledge and on the other as a world project.

In it there is no clear delimitation between what man receives from the outside – where the environment's action subjects organisms – and that which is generated within – where the internal structure itself lets him react to the environment, through a regulatory mechanism, and adapt to it – but on the basis of the interaction between both factors it can modify the characteristics of both.

## **Undwellings. Transition from the artificial to the virtual**

Architecture is experimenting this same metamorphosis: it is looking for a definition that lets it actively relate to the variations of reality – characterized by sudden and unpredictable changes – through the generation of a third environment, virtuality, a continuation of corporeal and social environments, in which the tool has been intertwined into the life of man, until it disappears.

Here, space is no longer a delimiter, rather, it is a rapport of body, architecture and information, whose limits and confines mutate and get blurred, and it is man himself who organized the information received, where these configurations are potential and changing, and generate an indefinite series of possible operations, in a space to construct, where each one sets the sense of the route he wants to fulfill: man has the possibility of transforming himself, establishing in the process new ways of interacting with other individuals and with his environments.

The Dictionary of the Spanish Royal Academy (2001) defines *virtual reality* as “representation of scenes or images of objects, produced by a computer system, that gives the feeling of a real existence”, relegating *virtual* to a position that contrasts with that which is real, “apparent and not real.”

However, in the virtual environment, our senses receive information generated digitally, and transmit it to the brain that processes them as real: this is what happens, as we have said on the previous pages, when man activates his own reality, projecting to the outside what happens in the inside.

Perhaps it is for this reason that Manuel Castells (1995, p.405 and ff.) – and we with him – talks about “real virtuality”, re-establishing the intimate relationship with thought – hybridization between matter and information – in its double condition of real and virtual.

Recognition of information doesn’t depend on the qualities or quantities of them, but on the interpretative capacities of man, subject to the categories of mental models, consequences of his history and culture.

However, we can neither dispense with the potentialities implied by a space capable of multiplying information, in social relationships, for “we are not only confronted with new media that let us achieve diverse objectives, but also with a new environment defined by our society,” according to Echeverría (2001).

Knowledge and information (“communication of knowledge”) are decisive elements in the development of societies and, as Castells states:

The generation of knowledge and the processing of information are sources of value and power in the information era [...] they depend on innovation and the capacity of broadcasting it through networks that induce synergies through the exchange of information and knowledge (Castells, 1995, p.237).



The changes we are talking about, however, not only refer to the informational and communicational environments, rather, they also have repercussions in the other two environments – the body and architecture – and they become their extension and continuation. In them, that which is virtual and that which is real exist at the same time, and they modify each other: that which is real tends towards the virtual, as an externalization of human thought, and that which is virtual tends towards the real, reproducing its mental categories, as an extension of that which is real: man is a virtual being, his actions weave a network of meanings and potentialities, create an n-dimensional hyperworld, made up of the world of each one.

That which is virtual offers another point of view / other points of view from which we can observe reality, with them, man can finally become someone else – *the other one* – all the other ones or none of them, “as if man in general would place himself in the intersection of all cultures, among all humans,”, says Serres (1995, p.31).

He can reconstruct the experience of his existence modifying the shape in which he perceives and relates with objects and spaces: “Social activities are developed more and more through these new technologies,”, says Echeverría (2001).

Serres (1995, p.64) says that “the displacement modifies the perceived space,” and that which is virtual is also a new kind of mobility, that favors communications and relations towards the inside and outside, leading to cultural exchanges and social pluralities, changing the space-time perception of reality.

That which is virtual is a system that is, at the same time, cognitive, interpretative and communicative, where people, activities, places, are connected through movement, that is characterized by its non-linearity and its discontinuity and that enables the simultaneous membership of various types of spaces, that let man orient himself toward the amount of information produced, at the service of man and capable of interacting with him, to make up, with him, a system that can open new perspectives in a system within which human beings interact with information that arises from its activation and that, in turn, modifies his knowledge and his experiences of dwelling.

#### **4. Appropriations**

In this recomposition of arguments we want to open up the possibility of a contamination among different knowledges, overcoming the concept of architecture as a constructive tradition, connected with its techniques and technologies – in transition from the natural to the artificial – transformation of our culture, of our ways of relating and of our history, to concentrate on an architecture that goes towards a new transit – from the artificial to the virtual – that can be confronted with the continuous and unpredictable changes of reality, that reflects its processual condition, and where architecture can lose its physicality and its materiality, contributing to the development and the transformations of dwelling.

These would be the premises of current transformation, that require rejection of disjunctions among the different disciplines, in the complex weft of meanings produced, where architecture can't be exempt from assuming its position to respond to the satisfaction of desires and needs of man, in the being-in-the-world.

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