

Architecture without Architects: How architecture can improve the development of decision-making skills in childhood

Introduction

Rational and irrational thought have had mixed fortunes in the formulations of the greatest thinkers, philosophers or science men, the one overriding the other scene perfectly consistent with the historical reality that was there as a background. So the exaltation of sentiment left space to positivist ideology, perfect frame of technological and scientific progress, in order to gain momentum when Freudian treatments emphasized that innovative and modern irrational which resulted irreverent even tangible world of the senses.

In recent centuries it seems therefore that the Platonic allegory of the cave has created a constant tension between what can be thought and decided according to the lights of reason, and what instead expresses intention and action favoring instinct and feelings.

Thus placing itself advocates rational pole it is estimated that you could make choices and act our freedom only by following the principle of a linear determinism that shapes to his will and imposes its objectives to that part of human nature more pervasive and complex, that staging emotions, instincts and needs acquires fame of a runaway horse that attempts to escape the domination of his squire, overturning the chariot. And in this fight between rationality will and irrationality without hesitation emerges a third, the body, separated from the structure of the psyche so outlined.

In western thought the importance of rationality grows inordinately up to obscure the other man's four-dimensional components of Plato. This tendency to rationalism characterizes throughout the modern age. Starting from Smith's economic to boolean algebra everything seems to demonstrate the power of reason and its central role in the human psyche, in society, in history and also in architecture. The dimensions of space and time, essential cornerstones of the development of the person, are subjected to the cold logic of rationality: the space is confined within the strict Euclidean laws and the time is contracted, it is conceived as a point dimensionless flowing linearly along a straight line. And while you lose the connotations of that comforting pre-industrial and pretechnological cyclical time, leaving more room for improvisation, the arrival on the scene of the "artificial mind" takes to a very fast input in the new era of technoculture.

Today we know, thanks to the contributions of neuroscience, that emotions are closely involved in the circuit of reason and affect every choices we make, every decision we make. They are not exactly the intruders in reasoning processes nor a hindrance, as the depth psychologists let us understand according to a dialectic of thesis and antithesis. Indeed, it seems that rationality is entailed precisely its opposite. Rationality emerges from non-rationality (R.L.Stevenson – Dr. Jekyll and Mr. Hyde). Its effective deployment largely depends on the uninterrupted ability to feel emotions and feelings.

In this position adhere well as cognitive economists that assign pivotal role to non-rational components, essential to the mind functions in a highly adaptive.

"The mild dove, while in its easy flight cleaves the air, which it feels the resistance, it may be able to represent what much better still in space devoid in air. Similarly, Plato left the world of the senses, since

this poses barriers much restricted to the intellect (...). He did not observe that, through his efforts, he did not gain all the land, because he didn't find resistance that he needed, in such away, groundless, on which he could lean on and who could apply his forces, to set in motion the intellect ". Kant I., "Critique of Pure Reason"

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The architecture, between human expressions, has been one that has best interpreted and gone along this cultural evolution.

The phenomenological-existentialist perspective had already accustomed us to derive behavioral space by geographical space. In the first, culturally determined, it expressed the real behavior. So we can not do without agree with Mallgrave (2015) who states that "our body and its emotional bases shape the way we think or we are actively committed in the world, and in our urban cultures this modeling generally takes place in an environment built by an architect. "

How urban architecture influences our thought processes and cognitive development of the subject in fieri, the child? Can it be identified as a significant variable in the maturation of executive functions, in particular the decision-making processes? The architectural thinking over the past centuries has taken on an increasingly rational content, at the expense of his poetic values. We certainly can not deny that architecture derives almost always, not only in recent centuries, as a rational necessity. Both in the private houses and in public buildings. However, it becomes unique experience, unrepeatable, no serial only in the absence of an academic reflection, of a project designed at the table, that the releases from rationality.

Some rationalist architecture formal results seem consistent with evidence of cognitive psychology. Undoubtedly, the preference for free plants (one of the five points of architecture outlined by Le Corbusier, and testified in Villa Savoye in Poissy) that offer greater accessibility of space promotes greater environmental exploration and with it necessary perceptual affordances increase (Frick et Mohring, 2016; Gibson, 1988; Hauf, 2007); the large windows and bare and bright surfaces (L. Mies Van Der Rohe – Farnsworth House) are in line with those of environmental psychology studies that show how the degree of brightness influences the behavior and welfare of the person tout-court (Cassandra et al., 2016; Borniger et al., 2014; Bedrosian, Nelson, 2013; Wyse et al., 2014; Gaston et al., 2015). The compositional simplification, the essentiality of the structures, the rigid symmetry (inherited from centuries of binding geometries, starting from the architecture Egyptian, Mycenaean, Greek, Roman and that even the Baroque, with its plasticity and curvilinear spaces not abandoned) [1] and the logic and linear analysis of the functions, binding character of the rationalist view, pander partly perceptual and hedonic preference for those stimuli that are closely tuned to the properties of the human visual system (Lacto et al., 2000; Plumhoff et Schirillo, 2009) .

But if the theoretical assumptions of the teachers were interesting and portend a probable development of urban places designed to meet the growing needs of the person, the prosecutors have created distortions such that the lecorbusian urban utopias (which in some rare cases have found effective implementation such as L'unité d'habitation in Marseille) were translated concretely in life contexts often alienating. Corviale in Rome, the "washing" of Genoa and Le Vele of Secondigliano are an example.

The frantic search for rational solutions of the problems that industrial society was gradually putting faltered to projects large cities, expressions of a time-space completely subservient to the logic of a heroic functionalism totally foreign to the emotional and aesthetic component of the places .That

proclaimed “human scale”, which we can call the rationalist ideological manifest, in the concretization negates itself. The denial of a compositional and formal freedom excludes any human element, picturesque and even sentimental from the everyday experiential.

An environment so preordained, already structured and ready-mixed that will appeal to the viewer’s right, reduces the resources to attempts imaginative and creative fulfillment strongly necessary to the individual to build itself up. The modern rationalist city makes it difficult the implementation of that “unimaginable”, uttered by Marco Polo in Calvino’s *Invisible Cities*, which “can be dreamed of (...). (...) Classified among happy cities or among the unhappy. It is not in these two species that it makes sense to divide cities, but in other two: those that through the years and the changes give their form to desires, and those in which desires either erase the city or are erased .”

A city-habitat that denies the possibility of exercising the fundamental skills for subjectivity of intentional action (planning, problem-solving, inhibitory control, emotion regulation, attentional capacity, openness to experience) becomes an impulsive city, inattentive, unable to procrastinating the reward and expression of altered space-time dimensions. So it is not a city “on a human scale.”

If, as claimed by Sterelmy (2003), our current cognitive abilities and their functional evolution can be explained by a combination of genetic factors, developmental plasticity and the way in which changes of our habitats have redesigned the way we see the world, organic architecture, developed in continuity with the rationalist experience and trying overcoming it, has researched with his theoretical assumptions to accommodate the innate human capacity of evolutionary adaptation and its biological structure.

Released from academic dictates it entrusted to man ” three articulated” by Rudolf Steiner in their own premises: to the extent that the person experiences the “twelve senses” can develop their own unique capabilities of thinking, feeling and willing.

The design approach becomes attentive to the harmonious relationship between man and nature, taken as a basic reference external / internal. The search for balance between the parties and all want to escape any external imposition that contrasts with the nature of man. As the result of a creative impulse, and consequently the need of housing (the prehistoric caves are already example), it declines to the render development of space. Thus it becomes an architecture without architects, never finished, always in progress that still leaves a chance to continue the work. And it is a living architecture, evolving.

The coveted balance between the natural and built environment is actualized in those towns and historical centers especially Italian territory that, both for defensive reasons of their rising for the orography of the area, they were released from the rationalist logic and in them it is certainly possible to find an architecture without architects. Still today perfectly integrated into the landscape, they nourish the landscape natural lines with their anthropogenic factors, from buildings to roads. The transformations, constant and continuous, are not perceived as choices and changes, but as a natural and imperceptible evolution.

Within a spontaneous use and interrupted in time there are all continuous and possible openings to the individual needs of the work, of those who live and those who benefit from it. It is this time dilation of human-environment interaction that transforms the everyday into the extraordinary and it offers the highest matters of ethics and aesthetics, that is, the sense of goodness and beauty.

A living environment thus identified plays a positive role in the adaptation process, in the sense of urging

the actualization of potentialities of individual internal structures, biological and psychological, so that the construction of the personality, like that of the world, is to be the result of a real interaction between the two poles.

The sensory and perceptive data it is a prerequisite. The urban location and architecture have always been first and foremost something to be experienced with the body and senses, and the true neurological and chemical means by which fully understand and perceive the world is emotion.

The emotion takes signal function for the individual. The emotus subject is “moved by” and is preparing a response. The process begins with the conscious and deliberate considerations regarding a situation. The signals resulting from the processing of these considerations initiate an automatic response that results from previous experiences, by the way certain situations have been relate to certain emotional responses. These automatic responses trigger a communication in biological networks [2] such that each state of mind is reflected by a physiological immune status (Ippoliti et al., 2011, 2013), whose chemical actions cause an “emotional state of the body.” Emotion is thus the combination of a mental evaluative process with automated responses to it. It is the sense that the subject attributes to stimuli to determine the quality of the emotional response that, with Damasio (1995), we define feeling.

What emotion urge our villages and town centers? Certainly, as it was for Goethe in his Italian Journey, one elicited by the natural context in which they are inserted and the architecture with which they announce them to our senses.

Dacher Keltner (2016) and his research group at UC Berkeley have provided strong evidence that natural stimuli (mountains, landscapes, large trees, waterfalls, etc.) have power to elicit awe(Keltner et Haidt, 2003) . The experience of awe that we experience during a nature walk or contemplating the art, is associated with low levels of immunological markers of inflammation that can be considered part of an integrated response that facilitates the approach and the social exploration (Stellar et al., 2015). Individual tendency to experience this emotion is related to higher extraversion, openness to experience, intellectual curiosity and aesthetic sensibility (McCrae, 1996), as well as the love of learning, creativity and appreciation of beauty (Peterson et Seligman, 2004; Gusewell et Ruch, 2012). Overall people more inclined to awe exhibit increased cognitive flexibility, a sense of time more dilated, reduced impulsivity and capacity to take decisions that directly affect their well-being (Zhang et al., 2014).

Exposure to a natural environment seems to favor the higher cognitive functions, creative thinking problem-solving and decision-making (Atchley et al., 2012; Berry et al., 2014, 2015).

“Sometimes we like to recall the beautiful moments of a trip. Beautiful cities, squares, monuments, beautiful landscapes pass again, in such away, in front of our eyes and make us try again the pleasure of the fascinating places where one day we lived happily. [...] Anyone who has been able to fully enjoy the beauty of an ancient city can not so easily deny the strong influence of the environment on human sensitivity “(Camillo Sitte).

What is the link between these emotions and our decisions?

The hypothesis of “somatic marker” Damasio (1995) postulates that through the emotional and somatic responses we give to events of the past, we begin to classify the success or failure of our emotional strategies. The essential aspect of this hypothesis is that we are not logical or rational creatures, whose thoughts are often at odds with our emotions. It can “say that the purpose of reasoning is to decide, and

that the essence of the decision is to choose a possible answer (...) among the many available at the time and in relation to a given situation” (Damasio, 1995). And it is here that rational decisions call into question the assessment process in which emotions play a fundamental role (Stephen, 2016; Voltz et Hertwig, 2016; Verweij et al., 2015; Brosch et al., 2013).

Small children are started in this classification ‘emotional’ of events and objects through sensory and perceptual acts with a rhythmic quality, mimemis of the surrounding environment and from which their knowledge of the world originates . These simulative-mimicking and mirroring abilities accompany the emotional colorful of experience and thus drive the decisions. The space then acquires its dimension of time effectively punctuated by bodily rhythms. The subjectivity evolves into inter-subjectivity. The space becomes space decision.

It therefore imposes the need to consider the potential of the so-called ” thinking slow ” indicated by Kahneman (2012), more thoughtful and meditative, which integrating in its unfolding the emotional component of the experience evolves into a rationality of higher order.

The urban form should facilitate the mimesis of this sluggishness. A silent form as a musical interval that carries a habitat where no domains rapidity of reports and decisions, but where the thinking precedes doing. A thinking that goes along with the natural rhythms of the individual, which allows to enjoy the experience to its fullest and give space to creativity and imagination.

“The machine that helps you to decide who will be your friend should also help you draw a house in which the basement is not floor” (Damasio, 1995)

Our country historical centers, whose architecture resembles a consistent chorus of different forms between them, possess the character of slowness and they allow those who live there to dwell time.

It is in them that architecture can fully perform its social function.

In the history of man the technological innovation in response to emerging needs dictated the pace of the cultural evolution and with it to organic farming. In the technoculture era the protection of our landscape historical and architectural heritage must configure itself not merely as a conservative measure but as the most desirable and necessary part of the “innovations”, because through it you can actualize the potentiality of our biological structures, designing them.

Protection and innovation that, following in the footsteps of Goethe, encourage a slow tourism through the thousand characters of Italian architecture and landscape, mirror of the other spontaneous and traditional cultures of our country, from the costumes, cuisine and music. A journey to discover the genius loci that turns the unique in inner, in near.

“When I am, as such away, completely myself, entirely alone, and in a good mood, we say traveling in a carriage, walking after a good meal, (...) it is on such occasions that my ideas flow best and most richly. Where and how they are I do not know and I can not force them (...) All this inventing, this producing, takes place as in a vivid, pleasant dream. ” W. A. Mozart

Quotes

[1] The asymmetry is sometimes only a clear intention to subvert the rules, repeating them (eg. “The

dancing house” in Prague F. Gehry). Often, as claimed by Birindelli (1991), it is more harmonious an apparent symmetry that a dramatic symmetry.

[2] These automatic responses are reported in brain structure, the amygdala and the anterior cingulate, which: they activate the autonomic nervous system, for which the viscera are placed in the state associated with the type of situation that triggers; they send signals to the motor system, so that the muscles round in facial expressions and body posture under exterior of an emotion; they activate the immune system through the production of molecules, cytokines, initiates a communication neural and humoral. Within the central nervous system cytokines provide a sensory representation of the periphery conditions and induce neurochemical changes that cause a change of state of the body and into the brain itself, from which spring other mental changes.

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