Virtual « Genius loci », or the Urban Genius of the Lieu

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Under the influence of information and communication technologies urban and architectural space perception is fundamentally changing. The paper is trying to investigate the reasons and effects of these changes, and propose some directions for future studies.

The « lieu » and its genius

« Genius loci » is a Latin expression used in antique Rome to indicate the dwelling god, this notion by extension concerned the space where the god was situated. This space was mythic, symbolic and magic, similar to many other places found in different culture and civilisation. At the private level such space is found around statues, icons, amulets, and encent burner. At public level, it went outside the dwelling space toward the parvis bordering temples, churches and pagodas, etc.

In France, the genius of the place, « genie du lieu » expression, took a secular and urban character, and is used to qualify the place, « lieu’s » quality.

According to M. Heidegger’s (1) concept a construction creates a « lieu » gathering in the « quadriparti » : « the earth, the sky, the divinities and the mortals ». (Illustration 1)

Illustration 1 : Construction creates a lieu, spaces and places

The lieu determines different spaces, which in turn define various places. All these spaces have limits which specify their beginning rather than their end. Places are induced by intervals and areas. Interval defines proximity and remoteness in relation with spatial patterns. Distances measure the pattern intervals and indicate space the length, high and depth. Areas can also be reduced to algebraic formulations, all these mathematics measurements can describe the space in terms of trajectory, direction and distances, but not the spaces or lieu. But these measurements and relations do not concern the essence of the lieu as « spaces obtain their existence from the lieu and not from the space ». Spaces perception is never the result of a sole mental representation, « I am not here as a body, I am here in the whole space and it is only that way that I can walk through it ». 
Space cannot be described by geometry alone, neither by different measurements and formulation it always includes some sort of « quadriparti », this means that in the case of urban space one has to pass beyond the quantitative descriptions. To have a global spatial urban representation one has to synthesize the morphological, phenomenological and symbolical spaces aspects. The genius of a lieu has to be evaluated and designed according to this triple representation, where qualitative and quantitative sides, logical and analogical descriptions are mixed in a process of interrelations and complementarity.

**New « lieu condensators »**

Space and time dialogical relations have not sensibly evolved, but nowadays is fundamentally perturbed by the incursion of new technologies of information treatment and communication. Time has been replaced by speed of light, and space/time relation has drastically changed, creating an unknown spatial ubiquity feeling. This spatial and time break introduces new spatial readings, where Euclidean representation and its perspective construction is superposed to the topological one. This compression of time achieved by direct communication emission, or by computer’s real time has changed the ratio of « being here » and « going there » into « being here while being there ». Euclidean space is smashed by the electronic « dormer window », where, by a geometric and topologic superposition a drastic change in representations is taking place. The « fish bones » perspective is back again, reintroduced by zooming and centring image technics. The computer screen visualisation has isolated foveal vision from global vision causing the reduction of visual field. This effect is similar to wearing eye flap, and is raising not only ergonomic problems as blinking, contrast, nuance, tiredness, etc. linked to screen interface, but also the problem of our place in space. By extrapolation from the soviet constructivist of the early thirty’s notion of « social condensators », « spatial condensators » are created as electronic communication devices incorporated to architectural space and open the way to new spatial representations.

The representation paradigm in vigour since the quattrocento based on the « perspectiva artificialis » already shaken in the beginning of the century by the newly born cubism, is now imploding under the influence of electronic media, and is progressively replaced by a paradigm based on the space ubiquity and light speed. Real time visualisation linked to immediate perception creates a new dialectic situation between abstraction and reality, where computer representation as a procedural model simulation imbricated to reality produces a new space perception.

Urban space is recomposed by an information transfer system in which the immaterial organisation recompose a new electronic cadastral survey which overlaps the old geometric one. By ordering the space, architecture defines an unit of time and space for diverse human activities. This unity is in conflict with the structural capacities of the communication media where two different procedures enter into conflict:

- one, material composed of architectonic elements : walls, levels, envelops, etc., with stable inter-relation;
- another, immaterial which representations : images, messages do not have any stable localisation, as they are vectors of instant expression and are manipulating meaning.

As P. Virillo pointed out « it is perfectly relevant to note that when actually somebody speaks of space technologies it is no more question of architecture but only of engineering.... ». (4)

Space perception is changed by material and immaterial organisation, and it is rejoining Heidegger’s proposition, that it is made not only by mental representation but also by the fact that we are space immersed beings ; « if we have to go the exit of a space, it is because we are in it already ». One has to participate to the basic revision of our figurative representations. « The eye of the viewer slips along the electronic infinite perspective, where light architecture is only a raster memory, a sequential, modular or matrix system. The first metal structure the nineteen’th century announced the coming has been optical theatre and other panoramas ». Classic space deconstruction by metal and glass architecture at the end of the nineteenth century has already provoked as crisis in the physical perception. It was illustrated by an anonymous writer speaking about the Crystal Palace when he wrote: « We see a lattice of lines of great fineness, but there is not any evidence which permits to appreciate the real dimensions and the distance... ».
New communication media transform ancient sedentariness born from technologies based on the geometrical axiality of the urban topography into a sort of « presence-absence » situation where « speed became a space qualitatively measurable, it is dimension follows the light constant ». (4)

The abolition of « time distance » create a confusion of the : historic, symbolic, centrality, axiality, architectonic reference, etc. in the city image. New communication technologies produce in direct the « sensible reality » through the instantaneous space representation. Direct observation, as tele-observation, provoke by distanciation an unbalance situation between the sensible and the intelligible. The depth of the time substitute itself to the depth of the perception field causing the disparition of the fanishing point, and the possibility to observe the infinite small to the infinite big, and by this induce a new dynamic framing that erase the old geometric dimensional pattern. The depth of the field is replaced by the depth of time, the geometrical continuous space is giving place to discontinuous and heterogeneous space where the point, is an essential element. Pixel is taking advantage over the line, surface and volume, and produce an over running of the analogical dimensions due to vision scales confusion. In place of the « aesthetic of apparition » produced by a stable image, the « aesthetic of disparition » arrive made by an unstable and volatile numerical image. (4)

The architectural space and its window opened to the world letting in materiality and light, is now concurrenced by a « window-screen » bringing in a false day. The daily time process is interrupted by the blinking of the screen and the schedule of programs. The nodal succeeds to the central, and system architecture is replacing the architectural system, which is not only a semantic digression but a established fact. « Deprived of the objective limits the architectonic element is deriving, floating in the electronic ether devoide of spatial dimensions but registered in the temporality of simultaneous diffusion. » Building space has to participate in the construction of an « electronic topology where time is surfing on the screen support. » The urban form loses its customary demarcations and becomes the programmation of a time schedule of the programs and access to communications. The screen perspective is a « trompe-l’oeil » where « arrival supersedes the departure and everything arrive without the need to go ». (4)

New spatial arrangements are proposed : domiciliation without residence, flying office, home bank, video-conference, etc. where accents are put on means rather than on ends, where transparency succeeds appearance. How will architectural design answer this challege, and how will it integrate these new forms ? (5)

A different approach to architectural design

All design process formalisation schemes refer to the analyse--synthesis--evaluation relation tirade. Many variants and declinaison have been proposed, but all of them turn around this tirade by adding complemenary notions according to the different sensibility involved in its definition. Physical sciences, according to M. Gell-Mann, still use the scheme proposed by a late nineteenth century psychologist and physician H. V. Helmholtz who « defined the design of one idea as a sequence of three stages called ‘saturation, incubation and intuition’ », (6) to these steps, H. Poincare added in 1908 a verification stage. All authors are underling the importance of the intuition creative phase during which the synthesis of the idea occurs unconsciencely, as per magic. Sciences of cognition, neuroscience or psychology do not give us yet a final explanatory scheme of how synthesis works in the creative though.

Nevertheless, whatever formal scheme is retained, it is necessary to emphasize the importance of deductive and inductive approaches in the analysis of complex systems, either by the means of Cartesian tree approach, or by lattice system approach. But it is also important to note that the means for synthesis at the design level is an entire problem. The analytic approaches alone, although always present, are not sufficient to operate the synthesis in design. This is normal, as our mode of thinking uses as well the « logic-mathematics » approach as well as the « symbolic, mythic and magic » one. (7) It will be false to think that theses two modes of reasoning in design exclude each other, because they lean on two different modes of thinking. These two modes are present in a constant manner in the design process.
Scientific approaches have developed many analytical descriptions that can be used in architectural design, but science did not give the metaphoric base for the synthesis of these descriptions. It is why analytic approach in design has to be completed by an analogic approach capable to produce the synthesis. « One of the forces capable to do the synthesis of complexity of scientific analysis is the myth, one should not think that myth is always a false and fantasy representation of the world, a fraud, … » (2)

The door seems to be open for a new design paradigm definition, and innovative architectonic answers aimed at coping with the space perception changes.

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