The emergence of cities, in between the urban morphological studies, the design poetic achievements and the ethnometodological social surveys

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The morphological studies about the transformations of cities have been made in the last fifty years following different "morphological schools" according to countries, cultures and theories.

We will present our own theoretical and practical view points, based upon a socio-physical dimension of architectural design following architectural and planning ideas by Spiro Kostoff, Alberto Magnaghi, Mikhail Bakhtin, Paul Ricoeur, Bill Hillier, Rainer E. Zimmermann, and others, in the sense that, in between the design poetic prefigurative act, the morphological configurative studies of cities and the anthropological refigurative surveys of the users, specific emergent powers develop in the making of the cities, in a socio-physical and space-time structural chronotopic manner.

Instate of a confrontation in between the prefigurative poetic views of architects and planners with the configurative outputs of the morphological studies or with the refigurative analyses of the social behavioral and cognitive social sciences, their dialogical interplays will help the three different spatial view points to observe the city as a common study case. We will analyze some Iranian cities (Kermanshah) and some Spanish cities (Barcelona) that have been studied in recent PhD dissertations in architecture or that they are now investigated in this way.

This chronotopic and dialogical holistic perspective opens new ways to a more refined human engagement, where the local to global confrontations can achieve in a positive emergence not always predicted, neither by the morphological studies nor by the ethnometodological social survey.

Chapter one, some theoretical considerations

The first consideration, is shown in diagrams I, that summarizes the hermeneutic theoretical framework developed by Paul Ricoeur,

The second consideration describes the embryogenetic cognitive developmental framework by G. Gottlieb, diagrams II to IV where the interplay between dawn-top relationships and Top-dawn relationships expresses the psycho-socialphysical kernel of the design act of the designers.

"Natural" orders indifferent to cultural and social historical environments, but open to experimentation

The third consideration is the replication of all these theoretical frameworks in the neurological analysis by Professor K, Friston where the interplay inside the brain between top dawn and dawn-top are clearly stated.

Finally diagrams VI and VII show the construction the city models by children, where the cognitive distributive knowledge is identified, and where the topological bidirectional influences of the embriogenetic model by Gottlieb work

Chapter two, the emergense of cities and the new holostic environtmental and developmental paradim

Alan Penn in a recent lecture in Barcelona stated:

"Architecture: the exosomatic in cognition, culture and design education: This paper reviews what has been learned through 'space syntax' research about the relationship between the morphology of the environment, human behavior and social use. From this background it reflects on the role of computation in research and design, and the implication of this for the education of architects. It argues, rather than thinking that the mind must be extended beyond the body, that the built environment takes on structure through design that in turn is learnable and learned by human minds. It proposes that architecture may offer an important mechanism through which social forms and cultures 'get inside people's heads', and so transmit from generation to generation".

According with this statement, the diagram VIII bellow summarizes the definition by M. Bakhtin of the chronotopic and dialogical nature of the human architectural culture, defined by Alan Penn, inside the theoretical networks defined in chapter one above. Now we can analyze the three cognitive spatial human processes shown in this diagram.

Many misunderstandings exist in relation to this hermeneutic approach to architectural and urban spatial design in our cities and landscapes by Paul Ricoeur. If these misunderstandings are not eliminated, the whole theory of architecture enters in a very dangerous and wrong situation. First misunderstanding arouse when we uses de arbitrary semiological nature of verbal language, when the sound has a meaning but has nothing to do with it physically. The meaning of a physical design is never arbitrary because the physical form is related to the meaning by motivated cultural or experiential conditions that are never arbitrary in linguistic terms. The codes are then totally different in space or in narrative verbal texts, and architecture as a language is a failure today.

The three axis in diagram VIII are linked by linguistic verbal dimensions in a virtual way, where poetics, intelligibility and intertextuality generates human meanings in what Mikhail Bakhtin calls "the big time and space " of the human language. However the architectonic and urban spatial "Big time and space" is rooted in the human history of cultures and experiences, motivated by the memory and interpretation of the subjective physical experience in a direct way. In this case, we live inside a language, it is not a language that lives inside us and this difference changes everything.

Another misinterpretation comes from the mistake of subjective" a priori" values of space and time concepts following a wrong lecture of E. Kant epistemological ideas. Now we know that even Kant itself changed a lot these ideas the last years of his life, and accepted the concept of social interaction as a necessary link between the body and the mind. So the experiential synthesis between the mind and the body, in design, it is never realized in a subjective abstraction, but in an interactive social world where dialogical communication is taking form.

The three axis then in diagram VIII are interrelated not only at a physical level, but also at a mental level and at a social cultural level. In this way, the articulation between different parts of a city are generated by a social interactive understanding of the feedback between the parts and the whole, what Hillier calls "configurative meaning of cities". However, as he himself indicates this is not enough, and we need to take into account the ethnographic social behavior of each culture, where interpenetrative forces are very important. This is why M. Bakhtin pointed the significance of the Goethe criticism of the medieval Italian villages, when he was able to "see" the contradictions and failures among the different urban transformations, when the new implied the devaluation of the whole and the ignorance of the authors of these transformations, in way similar to the ideas a Hiller in simulation with the space syntax, but with an integration between morphological analyses and ethnological historical interpretation.

It is just at this intersection that the poetic knowledge of the designer can survive as a bridge between both axis in diagram VIII, always as an innovative proposal.

Now we will represent with some examples the human and creative interplay in between the three axis of diagram VIII where the local and the global qualities of architecture and planning can be interlocated.

The Intelligibility axis can be analyzed by the configurative morphological methods such as Space Syntax, morphological methods from Italy, England, France, etc., Just look to a very simplified example in diagrams IX, X according to the distinction by W. Braunfels between in episcopal/imperial city and a republican city. Of course a lot of historical morphogenesis are needed in order to understand the meanings of these situations.

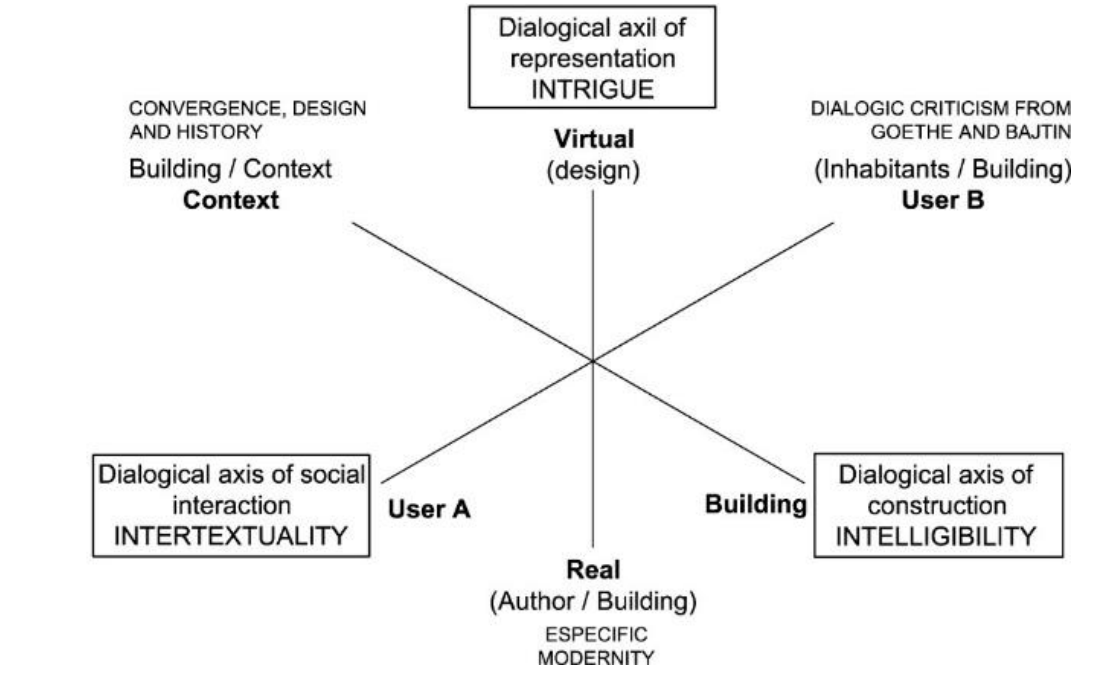
The intertextuality axis is shown in the work in Barcelona in relation to the Urban renewal in the old town where ethnographic surveys conform the morphological changes with the behavior of the users, where a final equilibrium between the old and the new result in a equilibrated situation, as Bill Hillier announced.

The Intrigue axis made of the poetic abilities of the designer is represented by the diagrams XII and XIII by Peter Zumthor and Juha Leiviskä, where the equilibrium between the two previous axis is shown.

Conclusion

We think that there is a possibility of a synchronic correlation between the three axis of the diagram X. When one axis disappears the other too are disconnected and architecture enters in a monological regime with cultural degeneration, where designers cannot make prefigurative links between configurative systems and refigurative social needs

Figure 1a. Diagram I, Design as a creative chronotope; **1b.** Trends A: Natural" orders indifferent to cultural and social historical environments, but open to experimentation (left), Diagram II, Biogenetic Natural Theoretical Trends. Unidirectional influences (Mainly Physical Impact) (right); **1c.** Trends B: Diagram III, Sociogenetic Theoretical Trends. Unidirectional influences (Mainly Social Interactions); **1d.** Trends C: Crossing geography and social history of the place where buildings belong (left), Diagram IV, Topogenetic Trends. Bidirectional influences (Mainly Cultural Environment) (right).



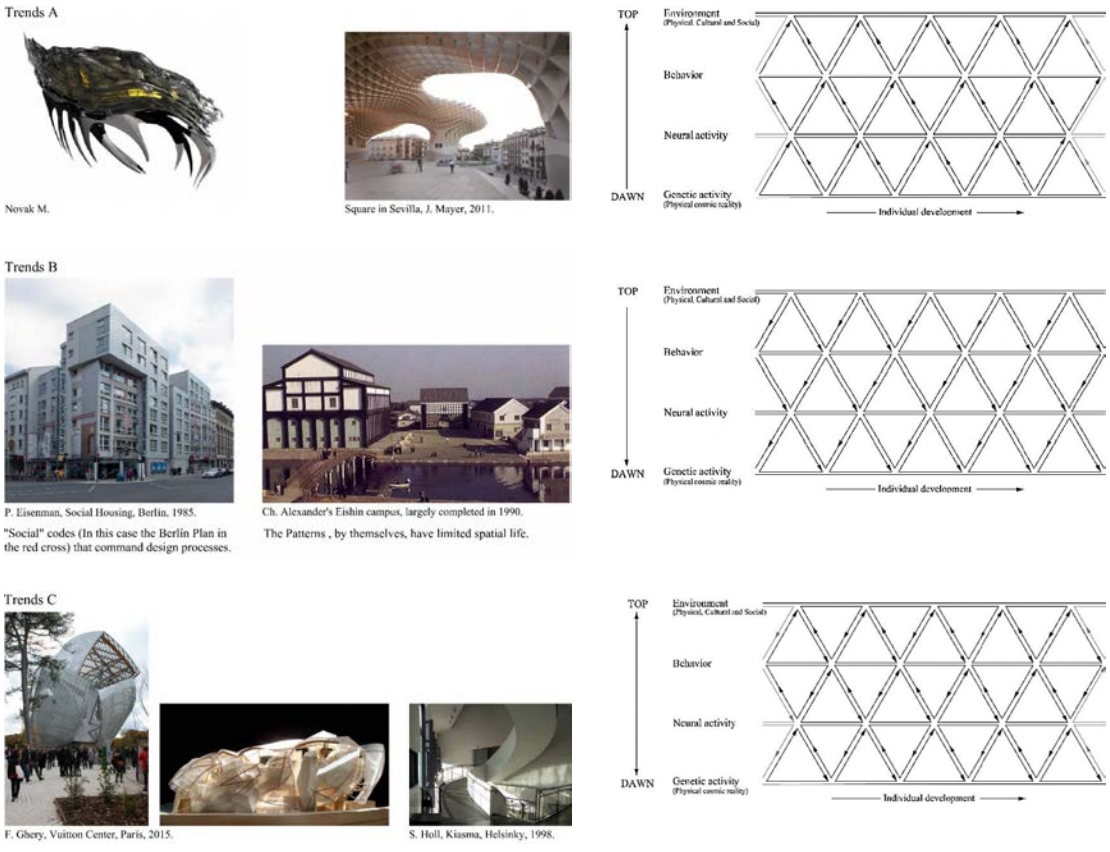
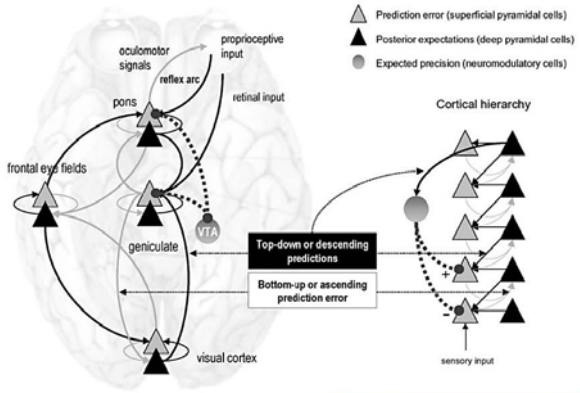


Figure 2a. Diagram V, Neurological fundamental feedback between senses and simulation; **2b**. Diagram VI, Children model of cities: dialogic and monologic structures; **2c.** Diagram; **2d.** Diagram VII, Children model of cities: dialogic and monologic structural analysis.



Dialogic cities

Subjects	Objects	
S1 S2 S3	01 02 03	Physical and social space and time are interrelated chronotopically. Norms for objects are interdependent of the subjects' norms. Objects and subjects configure a context.
Points of view and "voices" interrelated.		
There is a configuration between subjects and objects.		

Monologic cities

Subjects	Objects	
S1 S2 S3	01 02 03	Physical space & time, and "social" space & time, only relate at the individual level. The objects' relations and the subjects' relations do not correlate. Norms for objects are independent from norms for subjects. Objects and Subjects are context free.
Points of view and "voices" are independent of each other.		
There is no configuration between subjects and objects.		

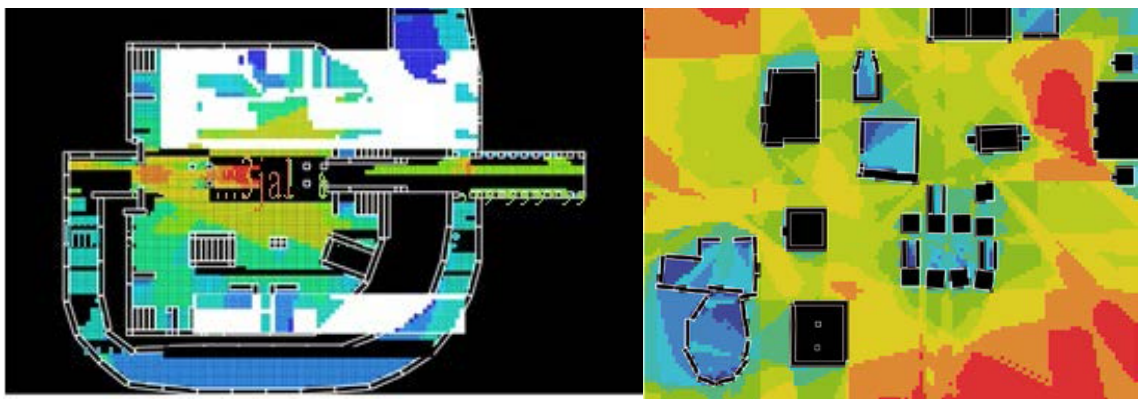


Figure 3a. Diagram VIII, The Chronotopic nature of human architectural culture; **3b.** Diagram IX, Republican city of Florence according to W. Braunfels; **3c.** Diagram X, Episcopal/Imperial city of Halberstadt according to W. Braunfels.

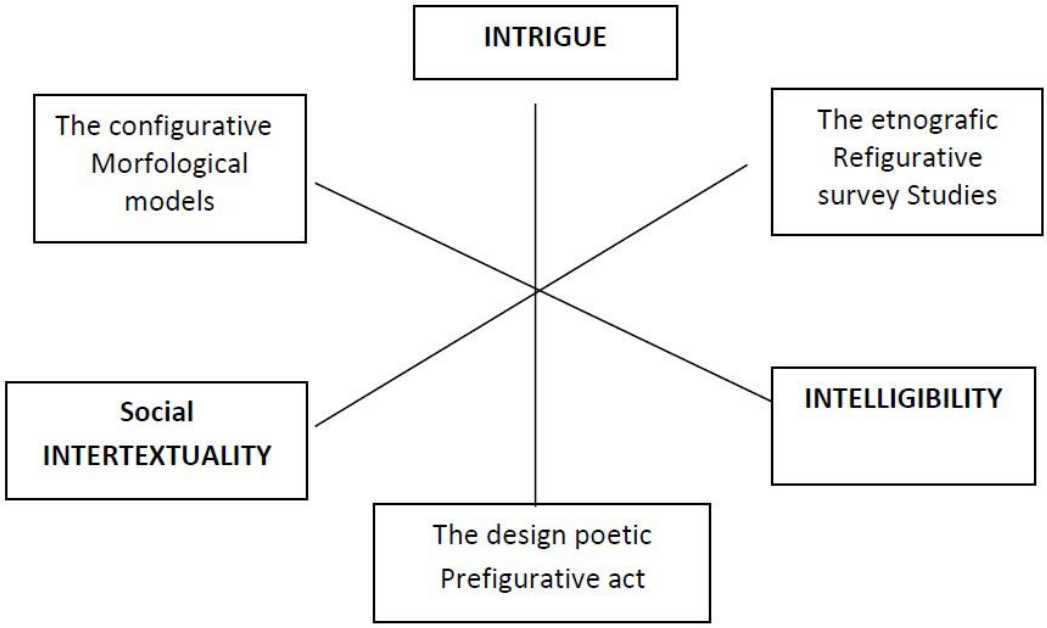
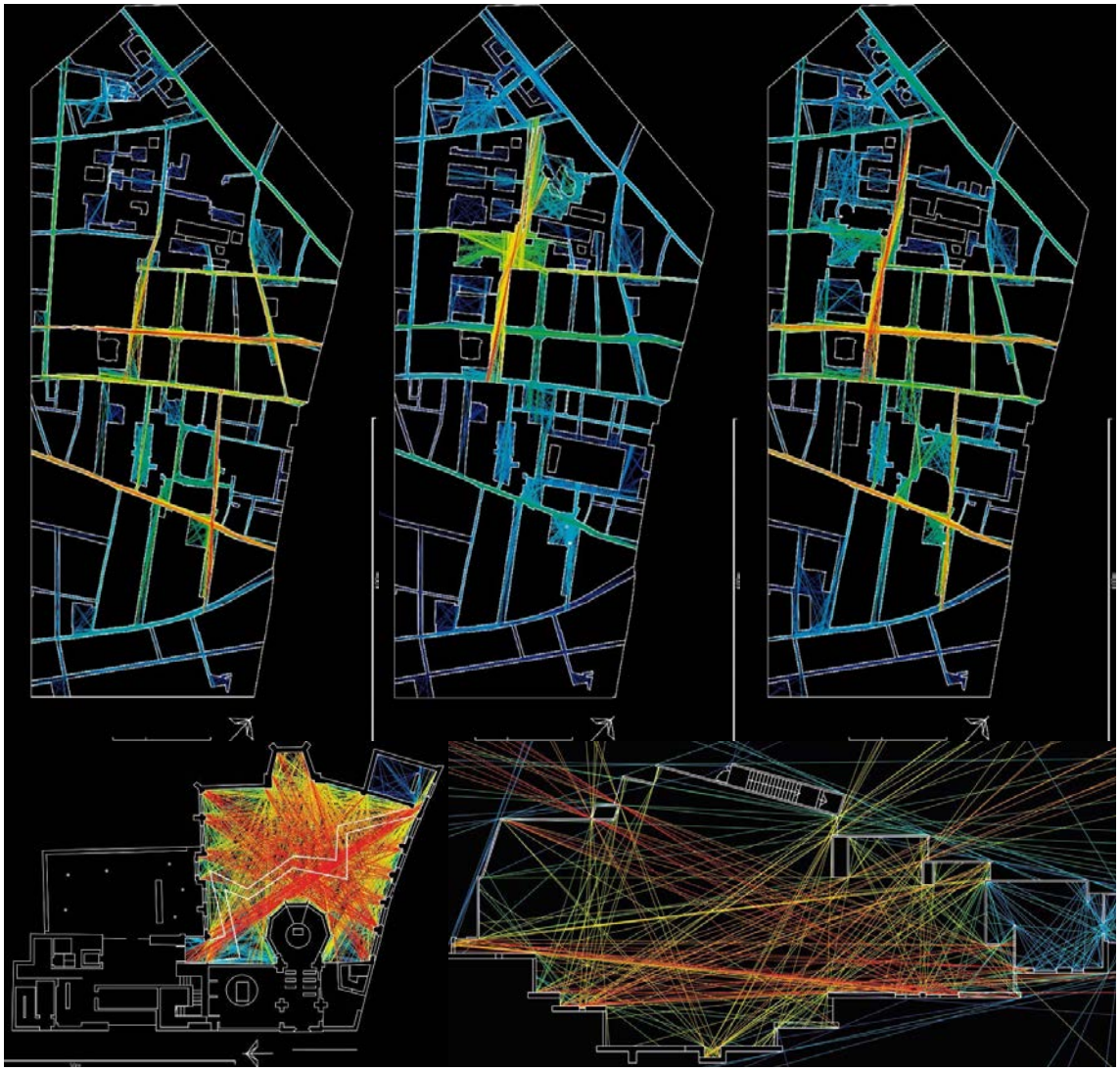


Figure 4a. Diagram XI, Ethnographical surveys confirm the need for the horizontal red lines by the users that the proposal by Lluís Clotet destroyed. This is a good combination between morphological (Space Syntax), and ethnographical city simulations;
4b. Diagram XII, Space Syntax analyses of the Kolumba's Museum where people are walking in the spaces with the maximum visibility, designed by Peter Zumthor in a poetic manner; **4c.** Diagram XIII Space Syntax analyses of the church of Männistö by Juha Leiviskä, in Kuopio, Finland (1986-1992). The red diagonal line coincides with the unique step in between the altar and people looking at the ceremony designed by Leiviskä. A nice feedback between experiential and virtual poetic interrelations.



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