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**THE DIALOGICAL GENESIS OF CITY FORMS**

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**Abstract**

*City forms are at the origin of historical cultural human living processes and without them our memory could not be developed neither at a personal nor at a social level. With the computer, as happened with the writing text invention or the printing methods, history and memory enter in a new era with deep changes in the human urban life.*

*This paper will start with the recent work by Luis Umbelino (2017) about the ontology of placeness and it will also analyze the elusive reflexive interactive social cognition defined by David Kirsh (2019). Then it will analyze how the emergence of city forms relay upon dialogical transparencies between the physical, the social and the symbolic dimensions of the cities. When cities lose these transparencies, not only visual, but they also start to be pathological. The paper will follow the extraordinary work by Bill Hillier and his frustrations in relation to the way this transparency can be forecasted or improved with digital tools.*

*The paper will analyze some examples of city forms emergences to uncover when this transparency is lost and, simultaneously, how the reflexive interactive social cognition of designers, architects and urban planners disappears with it.*

*The new concepts to analyze this transparency, are the urban indicators of quality, as is the case of the urban indicators by the network of Child Friendly Cities in UNICEF (February 2010). These chronotopic indicators can point out the way the genesis of city forms can be inhabited by children in a healthy way. Paradoxically this strategy has been used for the business standard of a city and for the standard quality of life of each city form, but the indicators should be used in research now from quite different points of view.*

**Introduction**

The dialogical social model is a strong theoretical paradigm in the social morphological analyses of cities today. From different disciplinary and interdisciplinary points of view this has been broadly accepted. (Muntañola J. et al. 2020 and 2021) (Sennett R.2019)

However, some theoretical misunderstanding about the dimensions of this dialogical approach to the morphological analyses of city forms prevent a practical use of it. This paper wants to uncover these misunderstanding and to present some new findings.

**Chapter 1 The Dialogical Power of a City Form from a Genetic and From a Historical Viewpoint.**

The first misunderstanding that needs to be uncovered is that the link between the urban design, the morphology of the cities and the ethnomethodological social study of cities is no more a problem but the possibility of new ideas and new knowledge of how cities work. This was clearly stated by Bill Hillier some

years ago and it is necessary to point out how the pioneer research by Kevin Lynch was ahead of its time in this aspect of the analyses of city human significance (Muntañola et al 2020) (Hillier B.2005) (Lynch.K.1965) (Kirsh D 2019)

The theoretical origins of this misunderstanding starts with the insistent use of Heidegger's ideas in architecture and planning disregarding the work by Bakhtin and Ricoeur (Ricoeur P.1967,1985) (Bakhtin M, 1985) oriented to a dialogical perspective much more related with the real use of the city.(1) Then ,the fundamental differences between the existential time towards death, and the "ordinary" time, according to Heidegger, are transformed in a dialogical intercrossing between these two kinds of time ,the existential and the cosmic universal time The very significant theoretical consequences of this transformation have been clearly analysed by Luis Umbelino in recent works(Umbelino L2017. ) about the differences in the concept of placeness following Ricoeur and not Heidegger. Moreover the last book by Richard Sennett (Sennett R.2019) has finally defined where were the theoretical mistakes and the epistemological limitations of Heidegger's ideas and, at the same time, recovering then Lewis Mumford's ideas.his

The key point at this respect was already clearly defined by Paul Ricoeur in books of hermeneutics, where the historical significance of the users' day by day life is confronted with the dismissive evaluation by Heidegger as an "ordinary" social life, far from the existential and fundamental historical human care towards death. From a different philosophical perspective Ricoeur proposes a dialogical relation between the ideal user and the real user, both in the literary texts and in the city spatial forms and functions, going towards life and not going towards death. From this point of view the propositions by Freud, about the illness of our civilization, and the historical analyses by Hegel about a teleological analysis of human history, can be dialogically confronted (Ricoeur P. 1967,1985)

This confrontation is made in a very close mode to the definitions by Sigfried Giedion in his last books of architecture and planning, that have been misunderstood and forgotten too. Sigfried Giedion stated in 1963 the following synthesis of the future of modern architecture. (2):

"In "Mechanization Takes Command" I intended to teach how the separation between feeling and thinking happened in architectural history, and how each generation must find the solution to this problem, always the same, by finding the best way to build the opening between the inside and the outside dimensions of the human reality, re-establishing the dynamic building able to guide its affinity". (Giedion S. 1963)

It is easy to see that this definition is, in fact, a translation to planning and architecture of the basic dialogical concept of Bakhtin of the "Chronotope", that is, a socio-physical space and time genetic structure, able to be a narrative "knot" in literary texts by linking the representative power of the text with the real events that are represented on it. Kevin Lynch was aware of this quality of the city maps, since the monuments, the limits and the landmarks in the city, have this chronotopic quality explained by Bakhtin.

One example can clarify these theoretical ideas. The proposal by Enric Miralles about the reconstruction in Barcelona of an old medieval urban area near the Santa Catalina market, already demolished by the city, is a good practical study case to understand the power of the chronotopic relationships in cities, that was neither understood nor accepted or built by the municipal power at the time. Diagrams I II and III shows the genetic and historical power of the proposal. Miralles proposed a new kind of urban planning far from the typological urban modern plan with strict rules linked to the size of the street in a homogeneous way. The near theatrical solution mixing cubism and sculptural aesthetic spatial dimensions is not merely "visual" in space but it contains spatial-temporal links, since the whole design is connected with an historical and practical cultural framework according to Paul Ricoeur's philosophical considerations. The real user has then the support that Giedion indicated when architecture can offer an affinity between art and science, and between thinking and feeling, by intercrossing the inside and the outside worlds of the humanity.

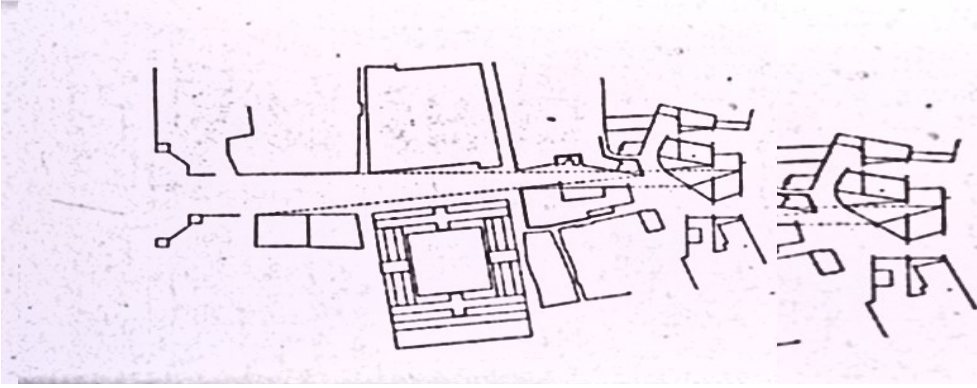


Figure 1: These points of view articulate the new buildings with the old landmarks and public spaces at a three-dimensional spatial sociohistorical network



Figure 2: The different solutions were evaluated by the real users



Figure 3: The old and the new building are articulated by codes similar to the abstract art rules of composition.

This chronotopic spatial connection is described extensively in the book by Bakhtin (Bakhtin M, 1985) about the extraordinary knowledge of Goethe in the uncovering of good and bad urban design, just by visiting the medieval Italian cities. Goethe criticized the good and bad design in the history of each city following the

values of the overlapping of buildings and public spaces and it is not by chance that the PhD Dissertation by Miralles was devoted to the same power in the seventeenth century in Germany. Because this proposal by Miralles is not an “ideal” form for an “ideal” user, he talked with real users in the neighborhood asking for real views and functions by giving a new life to the old buildings and landmarks already existing, and now ignored by a bad planning. Real buildings get real connections to old historical monuments, new functions get dialogical links with historical cultural facts and so on. The intercrossing between the existential and the cosmic time is, in this way, configured by the Miralles’s urban plan. Moreover, and as Freud insisted upon and Ricoeur underlined, the plan uncovered that the real feelings for old traces exist “before” the city is transformed, they can be ignored by planners, but they cannot be destroyed because they are inside our minds and our culture

In this way, the differences between the theoretical frameworks by Ricoeur and Heidegger are revealed, and the real user and the ideal user are dialogically interconnected from an historical and cultural point of view, where past and future can be reinforced, each, in an innovative framework. Then, new designs are neither a copy of history nor an indifferent evaluation it, on the contrary, they are innovative openings for a cultural and practical support for the real users of today as Sigfried Giedion suggested, but he was misunderstood in the same way Miralles was too.

## **Chapter 2 The Digital Dialogical, Genetic and Historical Analysis of Architectural and Urban Design**

According to these previous considerations the analyses of the cities, can enlarge the relationships between the morphological configurative analyses and the sociological refigurations of them if, and only if, the prefigurative power of design and planning can be fully understood.

Bill Hillier (2005) summarized what this implies in the following way:

- “The city plan should be analysed before transformations with the space syntax digital tool. (or others)
- The new plan should be analysed including the changes proposed. in the whole configurative structure of the city, in terms of accessibility, visibility, distributive power of the city etc. With the same tools.
- The new plan after corrections can be rerunning with space syntax digital tool or other tools.”

However, this practical procedure it is not enough. Hillier himself describes other ways to understand why sometimes space syntax and real use are not connected by analysing the social incompatibilities in the sense that:

“ The main role of the city forms is to reach the use of the best specific activities in each form with the best social co-presence. So there exists a “generic” meaning and “generic” role of these forms” (2014).

Then, the kernel of the matter is the possibility of interconnection between the interpretation of the configuration of the cities coming from two dialogically simultaneous different ways, one coming from the prefigurative dimensions of design, and another from the refigurative power of users.

A nice metaphorical representation of this is in Diagram IV, about the reconstruction of the Columba Museum by Peter Zumthor in Cologne People behave in an “affinity” between historical and present use of the same space, before and after reconstruction. The affinity is both aesthetic and scientific, and the digital representation of it is not a problem, on the contrary, it can help to a better understanding of architecture.

These two ways, the prefigurative and the refigurative, are totally different from genetic, historical, and epistemological viewpoints, but they have a configurative common ground that can connect both if it is correctly understood.



Figure 4: Museum of Columbia by Zumthor today and after the building was destroyed by the war. (PhD Dissertation by Nathan Martinez 2020)

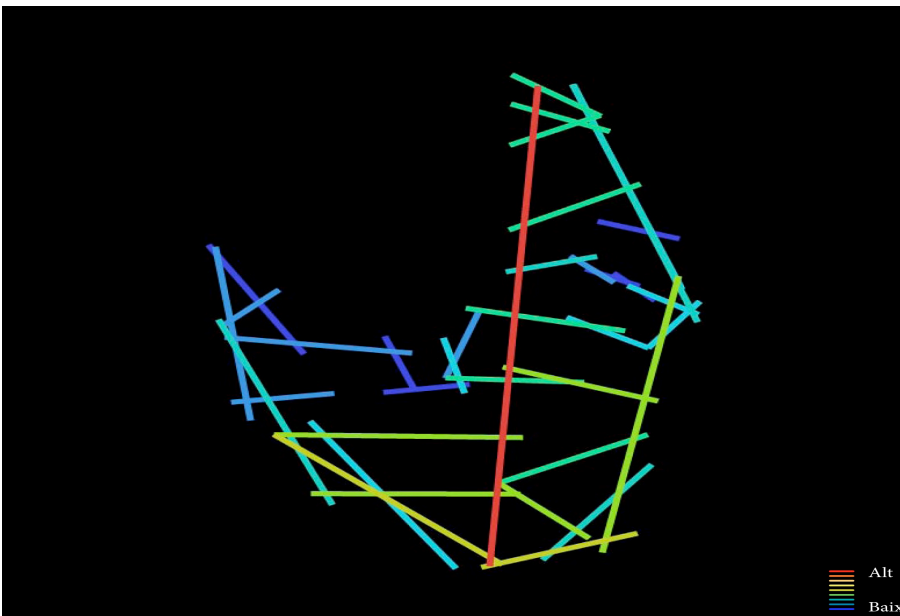


Figure 5A: City Center in 1802(Space Syntax Accessibility)

The study case in Figures 5A, 5B and 5C of space syntax in the medieval city of Montblanc (3) can be used for our purposes too. In figures 5A, 5B and 5C, the old city had a different accessibility in the horizontal and vertical urban axes in 1802, 1910 and 2020. Both axes are historically fundamental and today are the most used too. But the horizontal is more socially active today than the vertical axis. Reasons are undercover thanks to this digital tool, since previous historical design transformations disregard and demolish the important historical “Portal of Sant Francesc” (now in reconstruction) and decrease the historical use and significance of this axis in the History of the Catalan Kingdom in the XIV and XV centuries A.C. These impacts in the urban life are hardly analysed in detail, but they never are neither neutral nor just for chance, causes. Space syntax just shows the facts, it is a pure mathematic analysis, but design is not pure mathematics and can develop simultaneous interpretations in a lot of different directions, from Freud to Hegel, and from Heidegger to Ricoeur. (Saura, M. 2021)



Figure 5B: Montblanc city centre in 1910 Space Syntax Accessibility

Figure 5C: Accessibility in the old city centre of Montblanc today (2020).

Indicator	Theoretical branches (Dig. III)	Definition	Limits & actions
I-1 Noise levels	2,5,6	Noise as harmful for children.	Noise Measure Limitation: if it impedes human conversation (40 Db)
I-2 Pollution	2,5,6	Pollution of air, water, earth and materials within a populated area.	Normal environmental controls, e.g. prohibition of asbestos, arsenic, polluted water, etc.
I-3 Electromagnetic Radiation	2,5,6	Harmful installation of aerials, high-voltage lines, etc.	Min. Distances. High voltage. Aerials: 200 m.
I-4 Safe playgrounds	4,1,6	Playgrounds near residential areas.	Max. Distances between dwellings Max. Size
I-5 Safe routes between main community areas	4,3,6	The importance of daily routes for the community.	Max. 15 mins.. on foot or 2 km, or well-planned school transportation.
I-6 The school as a dynamic center	1,3,6	Schools are open to the community as social agents.	List of major activities at, or around schools.
I-7 Public facilities for all age groups adapted and supervised for children's use	4,3,6	Promoting the use of facilities by different age groups.	Public facilities within walking distance.
I-8 Child-friendly public services	4,3,6	Adaptation of services for all age groups.	Facilities for the youngest age groups, adequate supervision, information/communication.
I-9 Adequate privacy at home and in community	4,1,6	To ensure privacy as child grows, in accordance with each age needs.	From 7 y. of a: privacy at home; from 12 y. of a: privacy in quiet spaces and in public areas.
I-10 Juxtaposition of built areas and the countryside	2,3,6	To ensure optimum spacing between built-up areas and countryside	Min. distances to garden areas or non-asphalted areas. Easy access to countryside.

Figure 6: Urban quality Indicators in the Child friendly Cities UNICEF Programs.

Consequently, the configurative dimensions of the cities work as a bridge between the physical forms and the social behavior on them, on the one hand, and between the subject life in the city and the social historical context surrounding it, on the other hand.

The urban indicators of the Child Friendly Cities network accepted by the UNICEF and developed in Spain(4), have a chronotopical form since each subjective aspect of children development is linked to a socio-physical dimension of the city, (See figure 8 ) They are an example of how the configurative power of cities behaves, defined by Sigfried Giedion as “ Power of support for the affinity between feeling and thinking, or between the inner and the outer dimensions of our human existence”

## Conclusions

The link between the physical forms and the social behaviour on them is not easy to uncover because we do not use the right theoretical frameworks. The refusal of the dialogical study of the of cities, analysing the critical confrontation between what Bill Hillier called the physic-logics of the cities (space syntax, isovists, f.e.) with the socio-logical use and meaning of them, (phenomenological social historical analyses), has produced the ignorance about how to look for their common affinities, in the sense Sigfried Giedion gave to these words. (Muntañola et al 2021).

To enlarge the Heidegger views on space and time with the refigurative basic role of real users in “ordinary” space and time, developed by Ricoeur, can help architects and designers to open the architectural and urban design practices and theories to new innovative ways in order to build better buildings and cities after the COVID pandemic.

## Notes

(1) It is significant to see the Anthological Book of Theories of Architecture by K. Nessbitt in 1996, a very valuable book with a lot of important reprinting articles. There are with more than 55 references to Heidegger, more than any architect and only with one misleading reference of Ricoeur in relation to the low value of the Group R from Catalonia between 1955 and 1965, evaluated as a bad Catalan national group including Coderch de Sentmenat’s works clearly considered as a low key aesthetic works only for political reasons. A rare attitude by the excellent regional critic K.Frampton who uses Heidegger in this case too. Ricoeur had totally rejected this use of their ideas when he was named Doctor Honoris Causae in Barcelona in 2001.

(2) This text from the new 13th edition in 1963 of the known book Architecture Space and Time by Giedion was sent by him to the student J.Muntañola for publication the same year 1963. Later, the text was analysed in Spanish, in the foreword of the Spanish edition, in 1975 of the last posthumous book by Giedion “Architecture and the Phenomena of Transition”, published in German in 1969 and in 1971 in English. Giedion died in 1968 so he did not know the lack of interest after his death for this important book about the socio-physical historical and genetic development of architecture-It was a very innovative hypothesis for the time and never accepted by architects, until now, as an important novelty in relation to the previous books by him.

(3) This study is by now in an exhibit on The Catalan Urban Forms Archive and The City of Montblanc, in the Church of Sant Francesc in the same city, organized by the research group GIRAS of the Universitat Politècnica de Catalunya, by professor Magda Saura Carulla.

(4) See Sheridan Bartlett: Urban Children Discussion of Unicef Programming Directions (2010)

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