The “sensitive relief” and urban planning: a cultural approach to the sustainable city construction

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Abstract

The change of interpersonal relationships and intergenerational gaps, the new demands connected to this change, the technological development, the globalisation process etc., have caused a transformation of the places of the city. New typologies of spaces were born and the way of utilisation of those already existing has been modified. This work is aimed at improving the understanding of this logic in order to comprehend how the elements representing the ecological and sustainable approach may be compared with a society in a continuous evolution. The city is not an artificial construction: the city is a whole of mood, habits, customs and life style. The interrelations between these elements and the spin-off for ecology and sustainability are various and cannot be easily read in a singular and unique way, but in their conversion into the identity of the places and the identification of the city. To analyse these pieces of the city it is necessary to observe a wide number of individual and collective subjects operating in different social places, whose behaviour has generated new cultural problems: degree of tolerance, compatibility and incompatibility with other people, their uses, activities, noises and odours. The identification and the decomposition of reality in its elements simplify the complexity and generate different data interpretations and reassembling. Starting from a “sensitive relief” of the urban environment, this work is aimed at identifying the set of the elements representing the contemporary identity, whose rereading and reconfiguration can contribute to the construction of a cultural and durable approach to the sustainable city and sustainable development.
The actual word is kept together by a series of networks, of flux places free from spatial and temporal constraints. The resulting desegregation process of the social community causes the fragmentation and decomposition of the life of the single composing units into a series of episodes, each closed in itself and independent [1].

The new urban facts of the territory are not easily identifiable neither can be represented through a traditional planimetric relief; however, they have an extraordinary ability of penetration into the different parts of the city [2].

As a matter of fact, most of the phenomena of the city construction were not realised thanks to the addition of new homogeneous parts, but rather as a result of a multitude of small construction events often without any sort of combinatorial logic [3].

In addition to this type of phenomena, there exist others where the identifiability is entrusted only to the sensitive perception which, however, contain in themselves all potentiality to represent analysis tools and references for planning [4].

In this way, the contemporary city becomes the place of the complexity and of the simultaneity, which determines situations of transivity and transformation.

In such a complex and diversified contemporaneity, the sensitive relief, realised through inspections at different levels and with multiple readings, helps to deconstruct, fragment and elementarize the city, allowing new interpretative logic [5].

Nowadays, the elements characterising a sustainable approach to the city development seem not to interact in an integrated manner with the complex articulations of the territory, focusing almost all the attention to the ecological aspect [6].

For the comprehension of these mechanisms and for the construction of a methodology of sensible relief, a necessary introduction is represented by the identification of the new urban elements [7].

The objective of the sensitive relief is the development of a methodology of complex analysis for the rereading of the territory and the set up of a tool for supporting the different typologies and different scales of the integrated town planning. This is realised through the identification of those elements that constitute the territory, that are fundamental for places recognition, and that are able to cause transformation, also cultural.

The method is aimed at producing a sensitive map that provides a complex knowledge of the sites, and at creating proper indicators able to transform the facts contained in the relief into active indices.

2 The new household dynamics

The characteristic components of the familiar structures cannot be studied and measured in terms of physical units. Nevertheless they have effect on the course of the human activities of the city, often causing their beginning [8].
The change of the traditional nuclear family has produced a different arrangement of the living spaces. Traditional nuclear family is disappearing from the present urban organisation, being replaced by new forms of cohabitation: young single person, old single person, couple with no child, elderly couple, extended family, enlarged family and mixed family.

Inside the extended family, for instance, where different generations live together, or inside the enlarged family, where separate parents cohabit and children born from previous marriages live with the household children, people with different characteristics live under the same roof. People with different kind of culture, education and job, different relationship with the consumer goods and use of the time [9].

In this way, the house becomes a place with multiple identity and modes of use that change more that once during the day: spaces taken out form public and from private or, more precisely, from the perfect division between public and private.

There exist different type of home for different type of household, each corresponding to a different idea of living space, and to a different concept of sites and paths of socialisation, able to influence the formal, functional, and social organisation of the city [10].

The modes of housing express themselves in a language that does not leave tracks that can be immediately codified. The description of the things, of the objects, the behaviour as well as the duration of the rhythms of the life can be understood through the division of the spaces, which become their sensitive expression [11].

The repetition of daily activity makes identifiable the stability, produces rhythms that can be individually analysed, allows the reading of the places.

Therefore it is possible to deduce that the motivations which mostly determined changes in the contemporary housing are three:
- the setting up of new households;
- the creation of different dynamics inside the relationships;
- the change of the places for daily household uses.

3 The new territories of socialisation

The change of the habits brought to live outside a lot of actions that were performed inside the house, determining an increasing need of new containers.

Common daily actions became actions mostly directed out of the traditional orbit and diluted in a wider system: they are beginning to be everywhere and in every moment [3].

We don’t feel contained any more inside our home and we look for other places that could satisfy our demands, places able to receive us. The question consists in moving from a container to another.

We spend more and more time inside the shopping malls scattered in our city: big artificial and air-conditioned environments, where we move together with other people making similar actions [11].
The characteristic of this big containers is that they are able to expand the time devoted to their use and to connect different places through the distracted perception of the world around, relegating the city to a background scene to consume quickly as all the other images offered by the communication culture.

We live in the contemporary world travelling through a few landscape sequences, absorbing parts more and more large of our time; and our identity of citizens depends on the frequency and order with which these sequences recur in daily life [12].

To the places of the traditional sociality, the contemporary city substituted places as shopping malls, mega-cinemas, airports, amusement parks [13].

These urban structures were generally built out of the city and they were enriched by functions that simulate urban values suitable to the time of fast traffic. No urban character spreads out these buildings, no fragment of city is drawn on the territory and on the background of the relationships between people. They are not physical spaces where people go to built their social identity; in each of these places people go to buy their undeniable right to anonymity [14].

A multiple ego participating at the same time to several types of person fills these spaces; each of these societies, to which we cannot renounce to belong at once, is rigorously a-topic and able to occupy the space of its localisation, without necessarily having to achieve any identification of it.

Moreover, the strong recognizability characterising these no-places gives us the possibility to identify them also without knowing them, because it is not related to a particular type of architecture.

These are the new territories of public space, where the bonds of the customs and rules are loose and the most extreme freedom triumphs: in the shopping centre or in the service station there is no public anymore but only the triumph of the individual and autonomous oneself [15].

Everyday it happens that pavements, squares, empty spaces of shops, are occupied by stands, vans, carpets. In this way selling activities able to creep through any recess fills the horizontal plane of the city. These activities produce a very fragmented public space, even if strongly self-regulated, often representing the unique alternative to the big suburban commercial containers.

4 The new technologies

It is not necessary any more to stay in precise and definite places to exercise communicative, productive and organisational actions. The principles of digital reproducibility of the objects, signs, messages, and also of voice and image represent a prelude to the dissolution of the territory. The net, in its actual evolution, is not just a technology for communication, but a real informative and economic ecosystem [16].

The nomadism of the information technology era we are living with does not depend on a anthropological transformation but mainly on the continued and quick transformation of the scientific, technical, economic, mental landscapes.
It is the world to change and to move around us: in fact, moving does not mean moving from a point to another of the world, but cross the universe of problems and landscapes of sense [17].

The increasing use of Internet, of the cellular phones, and of the new technological tools, caused a wrong idea about the distances and the time. To a standard Internet user it is more obvious to communicate with his e-mail friends living in the other part of the world, than with his desk colleague.

New technologies, by creating an artificial nearness and simultaneity between people, things and events, have destroyed the idea of proximity and have produced a constant idea of stability and right distance.

Consequently, new cultural problems were born: the tolerance, the compatibility and incompatibility between people, their habits, activities, noises, smells [9].

5 The elements of perception

The elements of perception have a strong relationship with the town and the sites and are often the expression of local, religious and politic identity. Although a general flatness of sensitive perceptions inside contemporary cities, it is still possible identify its roots [17,18].

Each town owns a typical sound, but we perceive it just when it disturbs us. Going around to record urban voices, it is possible to discover that the background sounds of a lot of metropolis are similar and could bring near Milan to New York or Paris to Tokyo. It is not matter of geometrical nearness, but typological, which does not make them similar neither homogeneous. It just let them intersect in some urban points: commercial centres, transports, infrastructural nodes... [4].

Nowadays, however, the sound flatness of the environment makes it difficult to recognise the sounds quality of a site compared to another. One of the reasons is the acoustic pollution, mostly produced by car circulation: noises of transports dominate the acoustic reality of many districts. There are also cultural motivations that, imposing new behaviour and tastes, do influence on the whole sound material of the environment, where the human voices are one of the main components [19].

Cellular phones, for instance, contributed a lot to the acoustic change of the city: the background sound of the town, already full of noises, was enriched by a new range of sounds: the ring of the mobiles, the phone conversations.

The recognizability of the places is strongly entrusted also to visual images: colours, typological characters of the architecture, natural elements.

Compared to the modern city, the new landscapes of visual perception are defined by the contemporary presence of different categories of elements, mostly with nonhomogeneous characteristics [19,20,21].

In the contemporary city, the elements that mostly are in evidence, with respect to the visual perception, seem to be those of the advertising information.

There is no street, building, road sign where in some way there are not traces of advertising. And the image of the city and of his elements has changed,
becoming the publicity itself a characterising element, which determines at the same time a change of personal behaviour in the paths, shopping habits, etc. [22, 23, 24, 25].

Also the monuments, the architecture creations, the buildings inform the pedestrians and the visitors; this information, producing particular aesthetics impressions, contributes to constitute their mental status.

The actual tendency is that of embedding more and more of these elements inside the shapes of the buildings and the urban furnishings, often transforming sites in continuous publicity spot.

The sense of smell is the sensorial channel that contains a relationship more direct and almost subconscious with the emotional part of people. A smell can make possible to remember a situation, a place, and a city more than an image.

The smell quality of an environment reflects also the quality of life; the smell of food, for instance, is the smell that more characterises a site, also metropolitan [4, 17].

The sense of smell holds a big importance for human psyche and for the human behaviour and influences the city construction and evolution; cultural diversity of smells becomes an environmental component of the difference between places.

The absence of a smell politics and of a concrete action to protect perfumed activities determined a smell flatness of the city with consequences similar to those of the acoustic flatness. The sole areas of the city where it is possible to identify typical smells are the historical sites where traditions last during the time.

Differently from the other senses that have an effective connection to the spatial dimension of the city, the sense of touch brings to a close perception so as to recognise the material qualities of the things.

The virtual reality, through machines able to create artificially environmental sensations, is one of the first elements that testify the actual attention to the experience of the touch. The big innovation of these machines relies on the capability to influence this kind of sensations.

Also the industrial production of daily objects began to be interested to the touch quality of the products; significant attention is given to the touch message proposed by many electronics objects and from the proliferation of new materials for floors, partition walls, furniture, etc. [26, 27].

About the evaluation of the superficial quality of the streets and of the squares of some cities, if, for instance, a floor with stone blocks was attractive in appearance, sound and atmosphere, it was because walking on this floor offered a variety of information and sensations about the historical period, about the physical path. Nowadays, walking on an asphalted street this diversity of information is lost.

6 The sensitive relief method

Starting from the identification of the new urban facts, the sensitive relief method, which has been elaborated to analyse the urban territory, is aimed at
creating a complex map that contains all these elements that are not identifiable in the traditional planimetry. The method is also aimed at creating proper indicators able to transform the facts contained in the map into active indices.

At present, the method, the experiments on the field and the indexation process are still work in progress. In the following, a synthesis of the actual status of the research is reported.

The method comprises six phases, four of which are devoted to the analysis, while the other two are devoted at producing the complex map and the corresponding indicators. A methodological scheme is reported in Table 1.

The first phase can be divided in four parts:

- First part: Selection of the sample cities to analyse. The choice is operated using evaluation criteria based on the dimension, the memory of the citizens, the image that the city represents, the historical interest, etc....

- Second part: Selection of the parts of the city where to focalise the study. The choice derives from an analysis of the whole city aimed at identifying all the elements that are important for the construction and transformation of the city.

- Third part: Selection of the most significant days to analyse the cities and the sites in different periods of the year, with respect to the seasonal times and holidays, in order to understand the change of their images.

- Fourth part: Division of the selected days into time bands: morning, afternoon and evening hours, in order to observe the different uses of the sites with respect to the city.

Even though the choice of the cities, sites, days and time bands represents a fixed point in the method, their number or typology could be changed during the process, if required for a better representation of particular phenomena.

The second phase comprises two parts:

- First part: Analysis of the traditional planimetry of the state of fact (of the selected sites of the city) in the territorial scale, in order to read the relationships between the site and the whole city.

- Second part: Analysis of the traditional planimetry of the state of fact in the urban scale, in order to read the elements characteristic of that particular area.

The result of this phase is the identification of the components required for the description of the site that can be found only through a traditional planimetrical reading.

The third phase can be divided in four parts:

- First part: Sketches of the perceptive elements of the site and first attempts of a symbolic representation of such elements.

- Second part: Written description of the observed elements through selected criteria of classification and filing of the data, to create a qualitative and quantitative abacus of the urban landscape and of the perceptive components.

- Third part: Photo relief of the site, from which it is possible to extract useful elements of reading.
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- **Fourth part**: Video relief of the site, from which further reading elements may emerge.

The **Fourth phase** is aimed at reassembling the different elements collected in the previous phases, which can also be observed from different points of view. This phase is very important because it has to produce the components to create the symbols of the complex map.

The **Fifth phase** consists in the construction of the city complex map using all the information of the operated analysis and, in particular, the results of the previous four phases.
The Sixth phase consists in the classification and creation of the indicators, through the decodification of the graphic symbols that can be derived from the map construction.

7 Conclusion

The aim of this work was that of devising a methodology to improve the understanding of the transformation of the city caused by the change of interpersonal relationships and intergenerational gaps, the new demands connected to this change, the technological development, the globalisation process etc...

The analysis of the city requires the observation of a wide number of individual and collective subjects operating in different social places, whose behaviour has generated new cultural problems.

The final objective is the comprehension of how the elements representing the ecological and sustainable approach may be compared with a society in a continuous evolution.

A new method is presented aimed at producing a sensitive map that provides a complex knowledge of the sites, and at creating proper indicators able to transform the facts contained in the relief into active indices. Furthermore, this methodology intends to represent a support for the preliminary feasibility studies of the urban planning at the different project scales.

Preliminary experiments on the field have been realised but a greater number of reliefs are required to construct a first example of complex map. This study should conduct to the creation of a permanent observatory of the city transformations and to the construction of the sustainable city.

References


