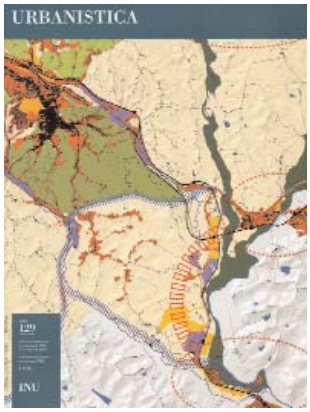

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Contemporary territories: methods of analysis and tools of representations

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The new urban features are not easily identifiable and cannot be easily represented through traditional cartography and tools of representation. To study the transitoriety and the complexity of these urban facts, new typologies of analysis and supporting tools are, at present, under elaboration and experimentation. The questions connected to the study of aspects that are not univocally translatable into objective facts regard in particular three appearances: the scientificity, and so the objectivity, of the results and the repeatability of the method in different kind of contexts; the updating capability, and so the possibility to add new data, to modify the existing ones, to obtain other results; the times, and so the sustainable possibility of using the results respecting the evolution of a sustainable programming and town planning process. Two main distinctions can be operated about the contemporary methods of analysis of the city places, concerning the theoretical approach and the type of instrument used to make explicit the results. Some of the principal types of approach to the analysis of the places are represented by the *virtual*, *multiscale*, *lateral*, *configurational* and *nomadic* approaches, that can be split into two categories. The first category, which includes the virtual, the lateral and the nomad, make use of atlases, maps, schemes, video to represent the products of their analyses; the second y, which includes the multiscale and the configurational approaches, is based on data processing tools and, in particular, software tools for the collection and the management of the data. The study of these approaches has motivated the development of a new approach, that can be defined *complex-sensitive*, based on PlaceMaker method.
The complex-sensitive approach can be included into the first group with respect to the adopted methodological tools, but also in the second group as regards the supporting tool used for the analysis. The two principal categories of approaches, are described in the following. Then, the complex-sensitive approach is illustrated with attention to a new software tool, which is under development.

Categories of approaches

The *virtual approach* to analysing the urban places is an approach that finds its expression in the myriads of sites created through the use of the network. These are spaces, squares, architecture, platforms and gateways which, despite borrowing terms from the constructed world, are not physical places, but are able to influence movement, behaviour and habits. The analysis proposed by William Mitchell represents a sociological and cultural example of a reality dominated by the Net that we have experienced in the last few decades and which is now ready to change profoundly and as yet uncontrollably people's lives and the space in which they circulate. The result is a picture of the change in architectural and urban space and its users/inhabitants due to the technological innovations introduced by the Net. The resulting map is a sort of virtual architecture whose concrete meaning lies in the virtual paths that we habitually take.
The *lateral approach* is an approach to interpret the urban landscape that presupposes a cross-sectional analytical approach to study an area from different points of view and at different scales of interpretation. Such an approach is also based on the perceptual, sociological or anthropological aspects or on all three together. Stefano Boeri with the research programme *USE-Uncertain States of Europe*, proposes to interpret the changes in society starting from indications which do not appear significant, observing places, people and cultures from the standpoint of the sociologist, artist and architect, and with the attitude of an investigator. The aim is to convert into comprehensible language the complexity of contemporary changes, offering new interpretational keys for surveying the urban landscape. The *USE* has produced eclectic atlases, which propose new ways to study the correspondence between space and society. Eclectic atlases is an heterogeneous texts with photos, geographic descriptions, classifications, reports, which all share the same visual approach.
The *nomadic approach* has its roots in the deambulations of Nieuwenhuys Costant and the paths of the Situazionist and is founded on the study of an area based on knowledge gained through direct experience. The survey method created by the Stalker group is to identify new operating categories for architecture through the action of walking; to wander in the city without control and unpredictably, creating a sort of archipelago of mobile geometries found in urban structures, whose map is also 'mobile' like the area crossed and the tool used to cover it.
The *multiscale approach* presupposes knowledge and attainment of a very large body of data from different sources able to interact and supply the answers required to interpret an area. It is a type of approach that from some points of view may be described as the completion and extension of a GIS into a more dynamic and flexible form. The MVRDV have produced a set of software called *The regionmaker*, to study the region of the Ruhr, that combines the functions of a search engine, a graphic interface and a browser. These tools are able to collect demographic data and values supplied by the GIS and it is possible to consult maps, diagrams, access data banks, export satellite images, log on to the Internet, and use CAD planning.
The *configurational approach* regards the study of the relations which considers the other relations in a complex. As it is shown by the Ben Hillier and its group work, Space syntax research controls the physical complexity variables treating built environments as systems of space, analysing them configurationally. The most important aspect of *Space syntax* is represented by the set of methods for analysing patterns of space in the built environment to find spatial structures in cities and relate them to the way people move, stop, and interact. The result is represented by an axial map of an urban area and its context. Some paradoxes may arise under certain geometric configurations of Space syntax maps, that have been highlighted by Carlo Ratti. Furthermore, a set of software tools are now available to perform Space syntax analysis. One of the most used tool is Axman, an application to perform axial analysis on single buildings or entire cities.

PlaceMaker

The *complex-sensitive approach* studies the urban places in all its complexity; it is sensitive because it is open to all the stimuli provided by the places and

seeks to identify and represent elements linked to features which are both perceptive and objective, permanent and transitory.
The main method of analysis that represents the complex-sensitive approach is represented by PlaceMaker, a method for analysing the urban landscape designed to identify elements that do not feature in traditional mapping and which constitute the contemporary identity of the places, representing them in a complex map that renders the place intelligible.
PlaceMaker, differently from other approaches of analysis which study only one aspect of the site or from other multidisciplinary approachs which collect many datas with many difficulties to manage them, considers the places from all points of views and with different but comparable tools of relief. This method assembles, elaborates and reconstructs the data deriving from surveys based on physical reconnaissance, sensory perceptions, graphical elaboration, photographic and video records, and sets these data against that provided by an overview of expectations, an analysis based on traditional cartography and a questionnaire given to local inhabitants.
The resulting map provides a complex but immediately understandable reading of the sites, constituting an important instrument for sustainable construction. In order to support the method of analysis in all its phases and the creation of the map, a specific software is under development to connect and communicate the information contained in the complex map and give value and significance to those data.
The representation of the places is realized by means of the insertion in maps of symbols and elements connected to multimedia schedules that can be continuously updated.
The main characteristics of the software are: flexibility, facility and rapidity of use, strong graphical impact, indexing of the results. The flexibility makes it possible to conserve, manage, modify and update in a particular format the multimedia data that are necessary for the creation of the schedule, connected to the symbols placed on the maps.
With simple and fast operations the creation of the maps takes place on the basis of an official traditional cartography or other kinds of maps. In map construction the cartography can be made easier by tracing the contours through the use of lines, tracing filled parts through the use of areas, or leaving these complete. The map is therefore constituted by a cartographic base on which are inserted a series of symbols to which the multimedia database is associated. The multimedia database connected to the symbols contains the data collected in the different phases of PlaceMaker method and in particular written texts, schedules, images, planimetries, maps, audiovisuals. Once the symbols are inserted on the map, these can be modified, moved or eliminated. In fact, the software possesses a database that allows the creation and modification of the categories of symbols of PlaceMaker, used for the entire map. Every database series of categories contains one to which the symbols belong: the areas and the lines are defined according to category, name, colour and thickness; the symbols are defined according to category, name and dimension. The software contains a basic number of categories of symbols related to PlaceMaker, but it is possible to create others.
Once the database of categories has been constructed, the symbols can be positioned on the base map, making it possible to connect the information referred to the places with the related multimedia schedule. It is also possible to connect the symbols with other symbols, maps or internet addresses.
The partial maps and the created symbols for the final complex map can be overlapped and connected, the final product being characterized by a strong graphical impact. In order to facilitate the construction of the final complex map and consultation of the information when many data are present on one map, it is possible to decide the categories of areas, lines and symbols that must appear on the map and overlap the different maps in transparency. In order to render the results of the analysis objective and useful to sustainable urban construction, the software connects the symbols of the complex map to numerical indices that allow the calculation of quality, potentiality and weakness of the places represented in the map.
Thanks to those characteristics, the prime users of these tools are: urban planners, administrators, citizens all involved in the contemporary city construction.