Now's the Time.
Tendency should be reversed: nature vs architecture

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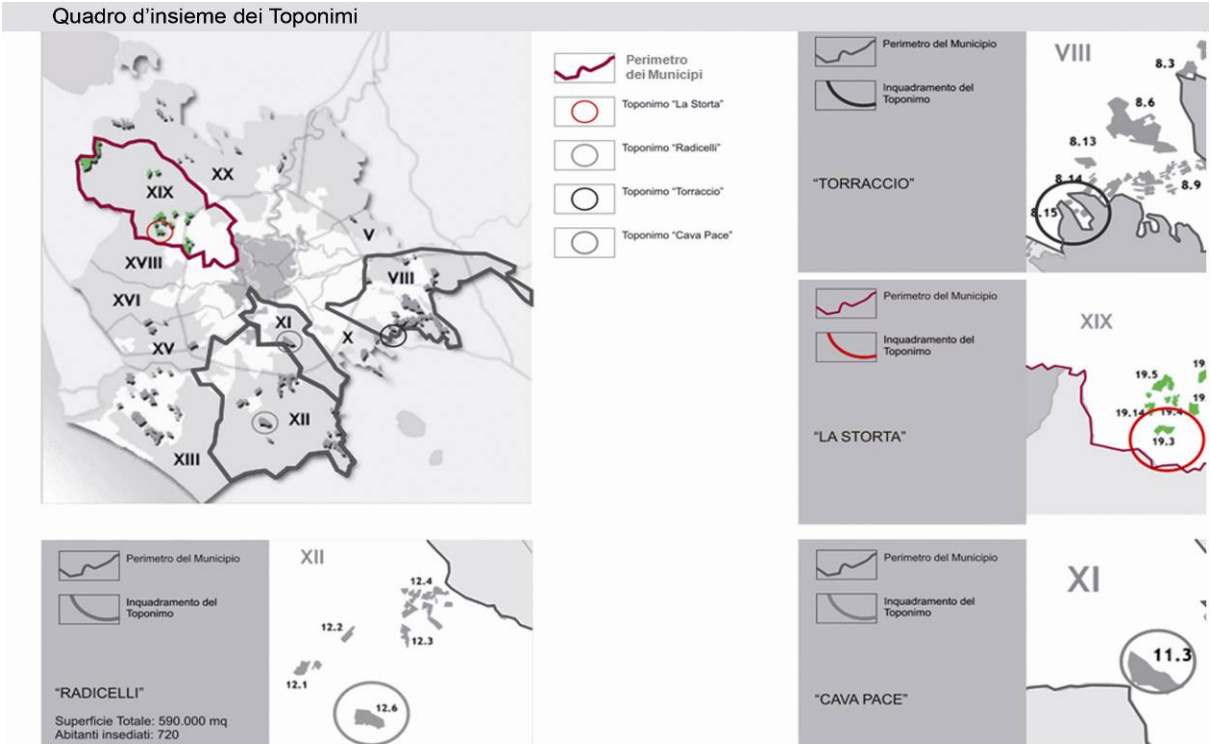
The aim of the research work presented in this paper is to establish guide lines in order to reconstruct building complex which are illegal or which somehow are endangered. This could be done by considering the principles of environmental sustainability and those of environmental friendly consistency. These took active part in this delicate matter, which resembles a surgery operation and underline the need to establish rules and requalification processes as well as the retrofitting of spaces between.

Even in recent times, characterised by a general slow down of the population growth, the tension concerning the continuos increase of the property of houses hasn't decreased. It has involved the cohesion of the city structure beyond the most unimaginable forecasts inducing to phenomena of dissolution which extend more and more both by a functional and social point of view and are generally known as sprawl. The aim of this delicate and ambitious contribution is to reach goals which include solutions to the above mentioned problems in cities which boundaries change continuously and which houses are far from the center in Italian architecture named as "informal city" (infrastructures which never came to existence or below the standard dimensions, complex, lack of services, geopardised city structures.



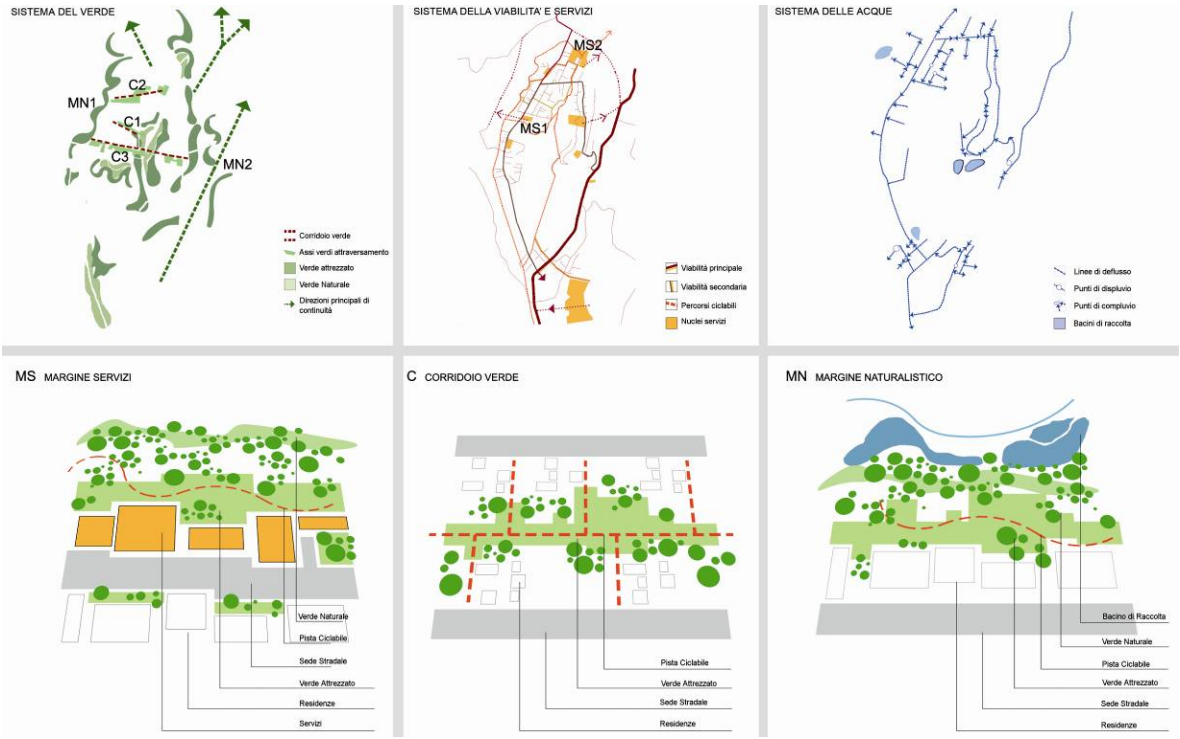
Tab.I - Four "toponimi" informal and spontaneous settlements in the urban structure of Rome

Proceeding during the course of the years, is the main goal to be achieved through a chain of

coordinated voluntary actions of different levels and nature in order to have an extended urban and extra urban territory property characterized by a majority of natural elements. This should reverse the trend of environmental destruction and establish again in the cities the natural scenario characterized by strong quantitative consistency, quality features, a variety of typologies and therefore able to integrate wide wild natural areas and others in which the environmental architectural design is prevalent. The fact of integrating again buildings-nature is a prevalent element in the acknowledgement of the urban fact and in the planning of its uses.

A new concept of urban landscape and its voluntary construction are being outlined. This includes immaterial components such as wind, light, solar energy and natural materials, mainly natural masses. These mould the architecture making process, counterpoint the material architecture, integrate the surrounding landscapes in the cities, mediate the relation between spaces with buildings and empty ones project cities which priorities are the surroundings direct and influence the orientation of the future transformations consistent with urban structure.

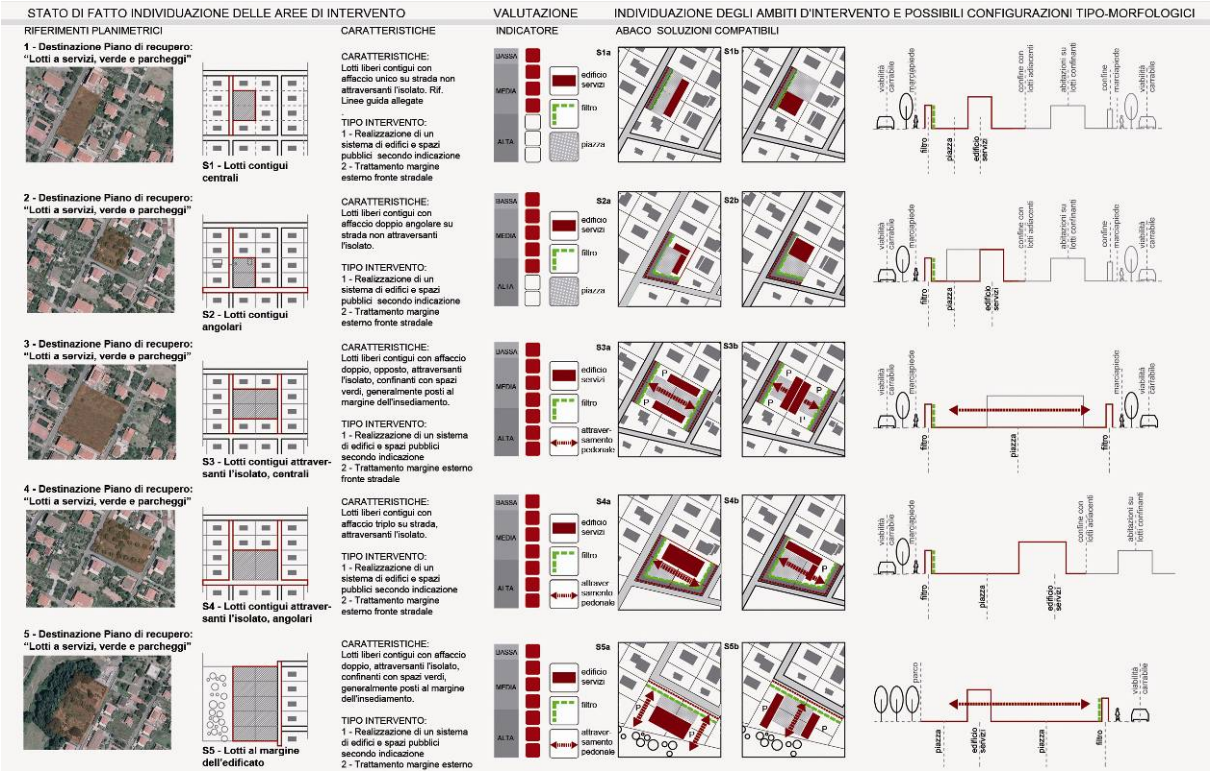
The research on four "toponimi" informal and spontaneous settlements in the urban structure of Rome: Via del Torraccio", "Radicelli Consorzio Due Pini", "Cava Pace", "La Storta", conducted by ITACA Department[1], environmental section is in this logical framework. (Tab. I)



Tab. II - Models of intervention

The choice of the case study corresponding to the above mentioned toponimi is based on the need to find differential samples of area in which experiment could be used as a reference point for application and/or replication as a model of intervention, to be generalised as much as possible and to be applied

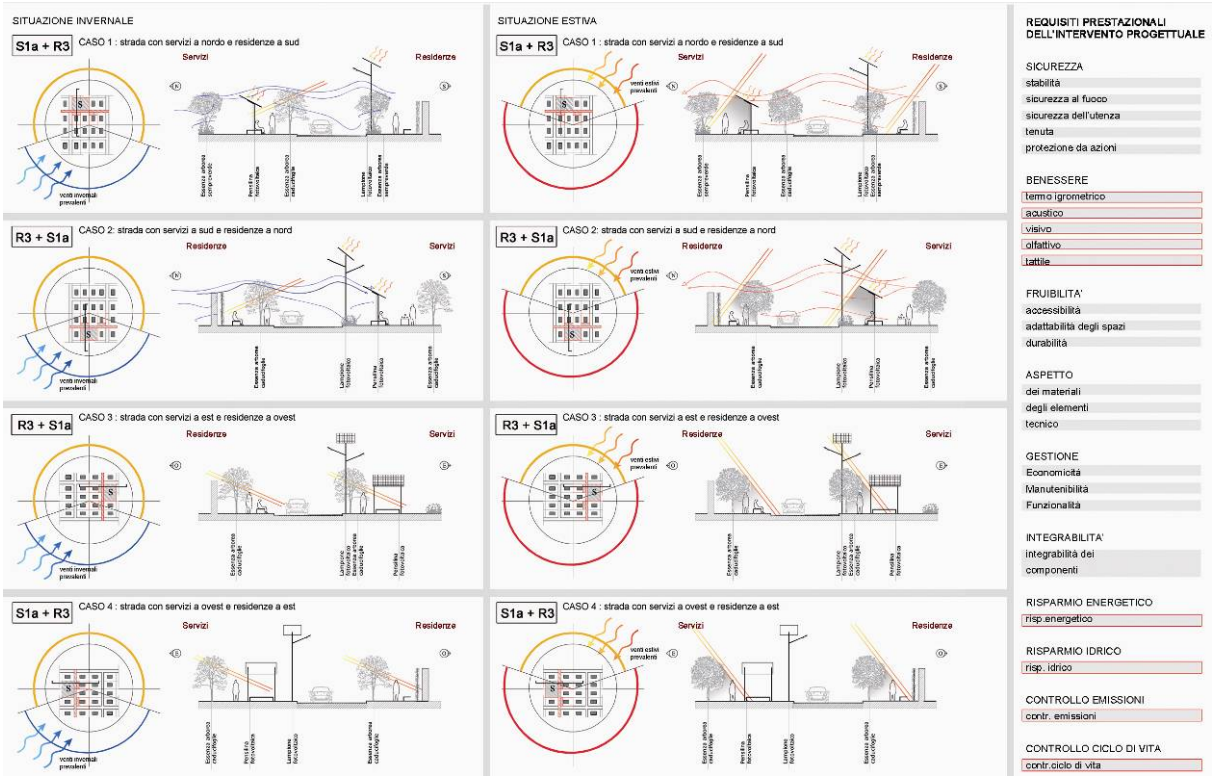
to situations of settlement or homologous cases of the “informal city”. (infrastructures which never came to existence or below the standard dimensions, complex, lack of services, geopardised city structures). (Tab. II)



Tab. III - Physic-morphological criteria and parameters

Therefore it is necessary to outline criteria and parameters which correspond to a variety of differentials in terms of physic-morphological, settlement, building and environmental assets. (Tab. III). The selected cases have revealed to be representative models of those conditions, therefore they are useful to diffuse and transfer operative results reported by studies. and by project surveys conducted, due to their specific meaning, organization and general configuration. When the urban model is shaped, among the characteristics of the "Informal City" (infrastructures which never came to existence or below the standard dimensions, complex, lack of services, geopardised city structures), the dominant logic is the one of the single and of the isolation of private property. From this one, a structure which has nothing to do with the social aggregation and which highlights instead the isolating process, the progressive social dispersion is formed. Rules of optimization are totally missing.

These include hygiene, functionality, distribution, technology, construction, implantation system management as well as aesthetic research criteria which are related to the conceptual experience of the building, not only by a bioclimatic point of view but basically related to a correct way of building. There is also a lack of :access to air, light, the use of the right solar energy, the renewable energy exploitation, quality and moreover the access to green areas. (Tab. IV).



Tab. IV - Methodological passages

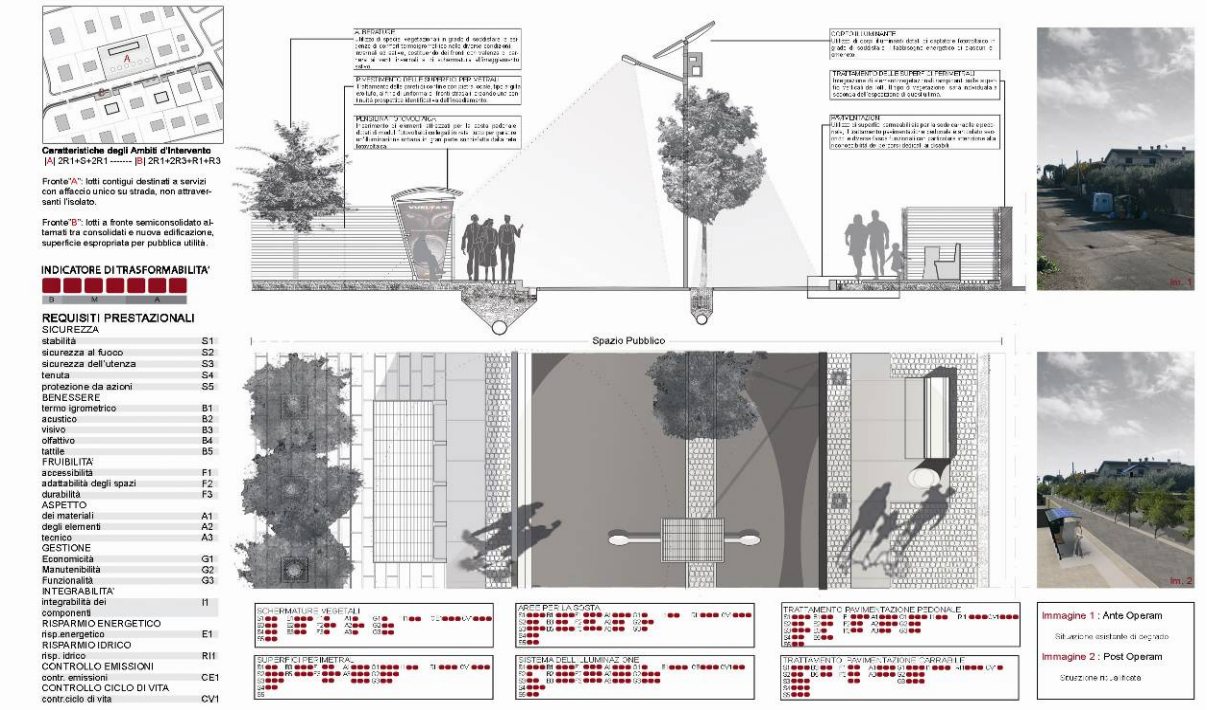
In order to intervene in an efficient and effective way in all of the above mentioned cases, an adaptive system has been adopted. It considers the ecological parameters, the intrinsic qualities of the places which already exist in order to adopt correct logic strategies of approach to solve a complex situation such as the evaluation and organization of the interactions ongoing in the “toponimi”.

The relation between places and social space transformations is never only in one way but it is possible through a process of mutual adaptation which does not exclude dysfunctional problems and conflicts. This is why it was necessary to adopt an instrument capable of adapting to a variety of situations, therefore open and non linear which could evaluate implicit feed back process and could contemplate corrections or moreover correct itself by itself. These are logics based on a complex idea of the dynamics and local varieties, social, economical, geographic, climatic and environmental but at the same time conscious of the need to answer to paradigmatic problems of urban development.

These logics differ in articulation, specific definition of actions, respect of different configuration areas, functions and performance but comparable to common criteria of judgement already known and adopted. The methodological passages and the adopted criteria have been used on urban poles, which are object of analysis. A complex evolutional process has been adopted. It considers an epistemological approach based on how the transformative and methodological instrument intervention is to be understood, considered and what type of structure it has.

This should be done always considering the importance of the objective of the research: to make sure

that the morphologic and physiognomy of the contents of the projects of new construction and of retrofitting are eco efficient so that even the formal repercussions of this process represent and ensure the inversion of the tendency to of the urban structure in Rome towards architecture quality and energy efficiency. A great part of the intervention is principally based on the capability of facing and coping with problems such as: differential areas, their characterization and animation, inserting in pre existent structures, the relation with the landscape and the ability and capacity to use specific local conditions which can become useful material and active part of the projects themselves. (Tab. V).



Tab. V – Sample of intervention

1-Responsabili Scientifici: Prof. Arch. Salvatore Dierna, Prof. Arch. Fabrizio Orlandi.Coordinamento Operativo: Prof. Arch. Alessandra Battisti, Arch. Carlo Brizioli.Consulente aspetti vegetazionali: Prof. Dr. Romeo Di Pietro.Consulente aspetti retrofitting: Arch. Marco Strickner.Consulente aspetti impiantistici: Prof. Arch. Valerio Calderaro.