Research conducted in southern Tunisia under the Pilot Project Italian-Tunisian Study, Preservation and valorization of city-oasis in Tunisia. Pilot project in Nefta. 
CASE OF DE-CODING TRADITIONAL ARCHITECTURE OF OASIS- CITY SOUTH OF TUNISIA. 
Methodology for a Code of Practice

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B.- TRADITIONAL TECHNIQUES AND DISTRICT REHABILITATION

Abstract

The research group was formed spontaneously between teachers and tutors. The main responsibility goes to Prof. Trombetta, Prof. Ginex and Prof. Fuschi to pursue the common objective of drafting an application which guides the implementation of operations and on the relatively new building. In this direction have been developed information and data obtained from the specific activity carried on by each member of the group, which led to the first encouraging results, which are among the other subject of international publications including the Project Rehabimed. The hypothesis is about De-Codification of the traditional architecture and re-codification and classification of the systems and the constructive techniques and of the better indications in a Code of Practice, finalized to the transmission of the knowledge’s and the formal information, techniques and technological to the guide of the operators of the sector in the choices conceptually and constructive. The unit has investigated the aspects like morphological, functional and technological matters of the traditional setting that attention on the possibility of de-codify in the art of the building in the South of Tunisia which has been implemented in the centuries. Aiming to its reinterpretation and actualization through the editing of a Code of Practice "devoted", with innovative contained. The Code wants to be a Guide to the control of the transformations for classes of operators in the relationship between architecture and climate, a guide to the control of the invariant technology and typology. They are investigated therefore the invariant morphology. In the last months the unit of the Research set a methodology for the Decoding of the Technological, Morphological and Structural Culture aiming to the realization of a contemplating operational tool to furnish information for classes of operators. The Staff of the research program has set a methodology for the De-codification of the Technological Culture of the Environmental Planning, aiming to overcome the handbook logic thinking to a direct operational tool to the employment immediate, and therefore tense to make information for class of use. The hypothesis of De-Codification for the Code of Practice it can synthesize this way individualization, relief, description, classification and definition of the invariant typological and technological.

1 The metaphor of the Inverse Canon

"Inverse canon" in his musical meaning defines a musical score to two voices in which the second backwards executes the notes of the first. In the classical music, a canon is a contrapuntal composition which joins a melody one or more imitations, which progressively superimpose the themselves. The voice which begins the melody is defined antecedent or dux while that or those which follow go under the name of resulting or comites.
An inverse (also said canon for adverse motion) canon has the consequent voice moved in adverse motion with respect to the antecedent voice. For instance, if this finishes he rises of a fifth, the consequent one gets down of fifth, and vice versa. A under varying of the inverse canon, “to mirror”, keeps the intervals exactly: a sixth greater will stay a sixth greater, and he will not be able to become less.

For extent any section is also called canon of a musical passage which follows the constructive beginning above complaint the metaphor of the inverse canon represents for our researches a methodological reference to identify a code and his key of reading, for an inverse reclause, reproposed according to new variables.

![Fig. 1: Matmata house, South Tunisia](image)

2 The canon: the translation of the experiential models based on the effects.

“In any approach prescribed by tradition, it is essential that every injunction of the tradition be strictly observed. Thus, if one element were changed in a traditional building method, that change, though small, could destroy the entire validity of the building as a satisfactory solution to the local climatic problems. In this sense, both the material and the way it is used are very important. For example, if mat screens are replaced by corrugated iron or some other solid wall material, then even though the building may appear more substantial, the lack of ventilation could make the interior intolerably hot and stuffy. Modern architects have attempted to solve this problem with modern technology, for instance, introducing the vented screen-wall, using unshaded concrete or brick claustra-work to replace the objectionable solid wall. Many different examples of this can be seen in entire elevations of modern buildings in tropical zones”, Hassan Fathy

This Fathy’s task concurs to understand as our recent searches mature in a strange equilibrium, more times described, that is inquiring between experimental mastery and experiential mastery in architecture: this topic is from much time until now most important our unit of search respect the scene that the contemporary architecture delivery us.

The thinking on maturing around to experimental experiences, which as an example that one of the strategies of integration of renovable energy, do not have to us distracted from the observation of how much, above all in particular conditions, the architecture based on the effects, can teach us.

The idea, starting from the task of Rosario Giuffrè: “the technological Culture is a born charter around the experience, to the shared innovation, the availability to receive it, to the prefiguration of a new
looking, which respect a new obligation, controlled and adaptable, accepted compatibility, by who informs it today as built up substance in every scale and make any justified future change“ is to place side by side to the theorist-experimental scientific approach, the translation of experiential models bases on the effects in obtain technological contributions and have instructions for next modalities of government of the transformations of the environment.

Some of us since few year, are stabilly studing the ties that elapse between construction and environment from the physical point of view, material, formal and energetic in effectual architecture’s episodes.

We have begun starting from the presupposed that the sustenability is a cultural availability that it demands continues exchanges between the planning parts, from the decisions begins them to the mediated configurations to conjugate technologies today with processes contextually placed, but soon, as we sayed, deepening the task, we have oriented our attention towards the modus vivendi of people that have developed the own architectonic wisdom in difficult aggressive environment having caught up, with a sure unconsciousness, interesting turns out to you. Places in which “a success” or an “error”, with the aid from the times dictates from ancestral and repetitive lifestyles, are translate in new information for the next generation architecture.

In front of the result of our search, the feeling is that the patrimony of information that reside in this within is full of extraordinary wealth, not only from the point of conceptual view, but above all technological.

Fig. 2: Netfa House, South Tunisia

3 De-Coding hypothesis of the traditional architecture.

“The techniques and equipment available to the architect today free him from nearly home material constraints.

He has the run of centuries of styles and can cose his plans from every continent of Herat. But he must remember that he is not building in a vacuum and placing his houses in empty space, as mere plan son a black sheet of paper. He is introducing a new element into environment that has existed in equilibrium for a very long time. He has responsabilities to what surrounds the site, and, if he shirs this
responsibility and does violence to the environment by building without reference to it, he is committing a crime against architecture and civilization.” Hassan Fathy.

Fig. 3: Netfa, South Tunisia. “Uncontrolled transformation”

The concepts of place, environment, climate and therefore of sustainability means that the necessity factor has forged like virtue: more evidence is the necessity to exceed problems connected to the climate, to the poverty of raw materials, the absence of members, more are rich the architectures: the information where we live to reach are tendentially infinite.

Fig. 4: Netfa, South Tunisia. “NEFTA’s CODE”
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Virtue been born from necessity, therefore, we have studied in the constructions of the north of the Sahara, close of the Chott el Jerid, in the oasis- town, the Ksour and the troglodite constructions of Matmata in the Kalaa of the region of Tataouine, in Tunisia.

We have studied solutions in the systems carries out them in the Middle East, of plateaus of the Iran, in Andalusia, Morocco and the Mediterranean.

As University professors and Investigators we operate at the Faculty of Architecture of the Mediterranean University of Reggio Calabria and the Italians expert in the field that regards the "Experiences of rehabilitation" in the Rehabimed Plan. We are structured, like unit of search, in the Italian-tunisian Plan Study, safeguard and valorization of the oases-town in Tunisia to the inside of which we carry out didactic activity and of search. In particular, we are working in team to an participation pilot in Oasi-Town of Nefta on the Chott-el- Jerid, that she has had beginning the 1 june of 2005, with the participation pilot of triennial duration in the city-oasis of Nefta, and is the result of a protocol of technical cooperation between the Government of the Italian Republic and the Government of the Tunisia Republic, signed to 5 Tunis October 2001.

The plan, in a generalized manner, proposes the formation of local the human resources for the safeguard and the valorization of the architectonic patrimony and acclimatizes them through the putting to point and the consolidation of the processes of endogenous development, of economic increase, cultural and social. To such care, it has been instituted to Nefta the Center for the formation and the search to multi-disciplinary, with the objective to attribute to graduated technicians of Tunisia the competence in order to understand and protect the local truths and to choose the compatible distances for their progress.

The Search Unit that has been delivered up, is composed gives:

Group of the Prof. Gaetano Ginex, with the archh. Stefania Raschi, Domenico Tosto, Gabriella Falcomatà, Clear Ports of call; with tasks legacies to the communication and representation of the traditional architecture and the spaces and the local culture;

Group of the Prof. Paul Fuschi, with the Ing. Giuseppe Faila, with tasks of analysis of the actions for the planning of the consolidation of the traditional buildings,

Group of the Prof. Corrado Trombetta, with the archh. Sara Cacciola, Alessandra Focà, Andrra Ieropoli Fouad Ben Ali and Chiara Scali of call with tasks of coordination and writing of the row of decode and re-interpretation, and of verification of the bioclimatic performances of the traditional buildings.

The Code of pratics

The unity of research investigating the morpho-typological appearances has as aim and them work them-technological of the built traditional, placing the attention on the possibility of de-codify in all his appearances the southern art to build of the Tunisia, which has been implemented in the centuries, aiming re-use(re-translation) and bringing up-to-date to his through the editing of a specific Code of Practice, with innovative contents.

The case of study of the pilot program of Nefta oasis-town, on Chott-el-Jerid, South Tunisia

The research unit, in these months, has put a methodology for the De- Codification of the technological culture of the environmental design to point, aiming to exceed the classic logic thinking of an operating tool directed to the ready job, and therefore stretched to give back informations for users class.
Papers

Is to organize information, starting from innovative type relief hypothesis, dedicated the recognition of the local ambient structure, the minimum them for the building of repertoires of typological and technological identity.

The uncontrolled transformations are an outgoing element discriminating between for the editing of the operating information. Nefta represents a case of concrete study also for the study of the performances in use of the habitations, through the application of the technology to remote sensors of the type "Ibuttom", for the-ambient physique verification of the environments. Further experimentation is foreseen in the de-codification of the structure of the deserted towns-oasis, which the group sees coordinated by the prof. Ginex, engaged in the area of the near one Tamerza.

The first results are already available, but the unity has in program the publication of the whole period I pearls work of suit CSSAR 2008 b.

References


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