Urban and architectural analysis

The northern Syrian villages retain a strong formal expression of the nomadic Bedouin culture, which is manifested in the way the different units that shape the settlements are grouped, in the organization of the community space, in the use of housing for basic needs (sleeping, eating) and the predilection of the outer space for the remaining activities. The shape of the house that evokes a tent, and also the shape of the urban settlements, were born spontaneously and evolved over time as a response to human needs in relation to the environment; therefore, the morphology does not respond to an aesthetic factor, but to a thorough knowledge of the territory and to social and cultural needs.

The urban and architectural analysis is the first approach to the research: ranging from a general to a particular scale, the urban and architectural analysis provides a primary overview of the various villages, in order to compare them and make an initial identification of the different architectural forms. At the same time, the architectural analysis is the basis for understanding a language developed by a culture as a way of modifying its natural environment, and as a result formed a cultural landscape of such exceptionality as northern Syria.

Research method

The urban and architectural analysis is focused on the recognition and understanding of the architectural elements, their technical, functional and morphological characteristics and of spatial and functional relations that gave origin to the individual cells and to the settlements of corbelled dome architecture, in order to:
- identify, characterize and document the different types of settlements (the components and their relations);
- identify the use of the different spaces in each village;
- identify, characterize and document the different architectural typologies of domes;
- identify the use and relation between the inner spaces of housing units;
- identify and characterize the architectural elements, their forms and dimensions (access, openings, stores, etc.).

The research method is based on different kinds of analysis, like direct observations, documentation, elaboration of analysis sheets, implementation of direct measurements and information collected from interviews with inhabitants.

After the first visit to the villages and its respective fieldwork analysis, the urban and architectural study was divided into two parts, each one with its own methodology: the urban morphology of villages and the architectural morphology of houses.
The urban morphology of villages

The goal of the analysis is to obtain a simplified, ordered and standardised reading of the urban landscapes, to establish a comparative analysis of their morphology and components.

The study starts with the production of graphic material (pictures, plans) that is the base for the urban morphology analysis.

The analysis process

As a part of the process, two levels of studies were chosen, one of a larger scale, the country level, useful for the comparison of different villages, and one specific, the village level, that is based on the analysis of the components and their relations to each other inside each village.

Country analysis goals
- identify and classify villages;
- identify types of villages: with dome buildings/without dome buildings;
- highlight their geographical location and context.

Village analysis goals
- identify the components of the village: buildings, squares, paths, canals, vegetation;
- classify the types of buildings and their state of conservation: domed/flat roof building, in use, abandoned, private, public, etc.

Documents

Elaboration of graphic material
- aerial picture from Google Earth use as the base for elaboration of first preliminary plan (scale between 1:2,000 and 1:4,000);
- aerial more detailed picture as the base for analysis plan;
- identification of the state of conservation of the villages through the incorporation of symbology in each plan: types of buildings, use, materials, etc.;
- complementation of the information with photographs taken in the fieldwork.

Descriptive sheets

Elaboration of descriptive sheets with information about: accessibility to the villages; village development; housing unit development; trails in the village; water paths; vegetation.
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understand the ways to inhabit; 
analyze the system, distribution and drainage of the water; 
document examples of significant housing units. 

Additionally, it is possible to identify different dome typologies to allow us to: 
- define the most recurrent and significant constructive types from the variety of domes observed; 
- identify the main characters that distinguish one dome from another; 
- describe the main characteristics for each type and possible variants; 
- understand the relationship between the aesthetic and formal aspects from the structural aspects of the buildings.

**The analysis process**

*Fieldwork research*

- photographic documentation; 
- direct observation of a large sampling of domed buildings; 
- fill-in of analysis sheets and survey of typological, distribution and constructive characters; 
- geometrical survey of a housing unit.

*First elaboration phase*

archive; classification; comparison.

*Second elaboration phase*

description of aggregation types; description of architectural elements: dwellings, access, openings, courts, terraces, stables, stores, bathroom and kitchen; description of domes typologies: *simple dome, Sultan dome, stone basement dome, flat roof dome, cob dome.*

**Documents**

*Elaboration of graphic material*

Graphical representations of the types of housing units and domes typologies were elaborated from the examples observed and surveyed, in which shape, size, and materials used are highlighted.

*Descriptive sheets*

The descriptive sheets define:  
- the structure of the housing, with the identification of the main types of combination of basic cells; 
- the organization and the use of the spaces in complex housing; 
- the identified dome typologies, with the description of the diffusion area, the geometrical, dimensional, and constructive aspects; 
- the bioclimatic aspects of the domed houses.

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**The architectural morphology of houses**

Through the housing units survey made with the topographic and laser scanner methods it is possible to analyze the distribution, functional and constructive character of the buildings in order to:  
- analyze the possible forms of combination between the basic cells (single or double dome); 
- identify and compare the basic functional areas of the housing unit and the architectural solutions adopted (materials and types); 
- compare the different types of spatial and functional organization to identify variants and constants; 

Figs. 23-24: The different scales of the architectural morphology: the analysis of the outdoor and indoor spaces, their function, distribution and the relations among them.