FISHING VILLAGES OF ALGARVE

Analysis of Urban Evolution

EXTENDED ABSTRACT

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ABSTRACT

The specificity of fishing villages of Algarve stems from their planning process and consolidation, inherent in the ability to adapt to physical structure and natural territory. For the preservation and safeguarding of this urban identity, is required the knowledge of the morphological conditions, in particular that relating to the location, size and geographical conditions, as well as planning of urban layout, structural elements and patterns of land use.

In this sense, the present work is framed in the context of the morphological analysis - study of urban form and its capacities for processing - aiming to identify characteristics type-morphological of fishing villages of the Algarve coast, as a basis for actions of retraining and safeguarding, given its vast historical and cultural heritage.

As a method of analysis adopted, were taken the principles defended by schools of M. R. G. Conzen, Saverio Muratori and Philippe Panerai, whose approaches assume an instrumental character, based on disciplines of geography, architecture and history, respectively.

This understanding, from the decomposition of the urban fabric, was applied to each case studies: Burgau, Lakes, Alvor, Portimão, Ferragudo, Armação de Pêra, Albufeira, Quarteira, Faro, Olhão, Fuseta, Santa Luzia, Tavira, Monte Gordo and Vila Real de Santo António. After the understanding of the dynamics of urban growth and characterisation of the forms of occupation of the territory, in particular from the second half of the 20th century due to the touristic growth in the Algarve, was made a comparative reading and identified the invariant morpho-typological characteristics of a village of the Algarve coast.

INTRODUCTION

This dissertation falls within the choice of the morphological analysis having as its object of study the fishing villages of the Algarve coast.

The fishing villages of the coast of Algarve constitute urban centres individualized, holders of a vast historical and cultural heritage and with strong tourist potential. They face since 1960s a process of transformation and expansion resulting from pressures of various kinds, with reflexes to the level of loss of identity. By "fishing villages", it means the urban settlements whose genesis is associated with the sea and the activity of traditional fishing.

OBJECTIVES

It is the aim of this dissertation characterize the urban form of fishing villages of the Algarve coast and explore the dynamics of urban growth and corresponding forms of occupation of territory occurred from the second half of the 20th century.

The research work is justified by the need to fill gaps in knowledge and, in particular, on the progress of demonstration of these cores to guide recovery strategies environmental physics, as well as appreciation of architectural and natural heritage.

METHODOLOGY

The instruments of morphological analysis adopted for the study of fishing villages of the coast of Algarve, are based on approaches developed by schools Italian, English and French, from the work of Saverio Muratori, M. R. G. Conzen and Philippe Panerai, respectively. The methods of analysis adopted assume an instrumental character. The urban structure is decomposed into elements: the trace road, the block, the lot and the building.

It is considered that the preservation and safeguarding of their urban identity require the knowledge of their specific characteristics and processing capacity, in particular with regard to its location, size and geographical conditions, the planning of the urban layout and its structural elements, and the
location of the main buildings and urban functions (patterns of land use). In this sense, it is intended to study the characteristics morpho-typological of original settlements, realizing forms of articulation of urban layout with geomorphological conditions and landscape.

Therefore, for the development of this research it is necessary to consider: (i) the location of these urban settlements; (ii) the evolution of the urban layout - the different meshes and that was in its origin; (iii) the process of formal structuring of elements that characterize the urban space - outdoor spaces of movement and of residence; and (iv) the location of striking buildings, in terms of its positioning on the trace and relation with the topography.

**URBAN MORPHOLOGY**

The term 'morphology' refers to the study of forms, linking them with the phenomena that cause them. The urban morphology studies, consequently, the physical form of the city, also known as urban form, relating the variables that were in their training and the changes that have occurred over time.

Assuming that the urban form has its own momentum and is the result of cultural factors, economic, social and political, it is the aim of the morphological analysis identify and interpret its process of development and organization, calling for the effect different disciplinary areas and making use of different methodologies and tools for the analysis and processing of data (Heitor, 1997; Wing, 1989; Krüger, 2012).

The lines of research that have developed since then, had different disciplinary approaches. Several authors have indicated the presence of three schools main party of a historicist approach, i.e. who argue that the urban form can only be interpreted from its history, since the elements that constitute are always in constant transformation (Mouldon 1997): 1) the School of Saverio Muratori; 2) School of M. R. G. Conzen; 3) the school of Versailles with J. Castex, P. Penerai and J. C. Depaule. Such approaches are studying the changes in the form of the city over time, based on the analysis of changes and continuities in the urban landscape, in such a way as to facilitate the identification of the processes of cultural evolution of a city. Among themselves share a set of common: 1) the process of construction of the city resulting from the constant transformation of urban form and, therefore, can only be understood through the analysis of their historical evolution and dynamics of change; 2) your reading part of the description of the urban fabric, i.e., their physical elements: the built, the free spaces, blocks, lots and tracks while support for the physical changes over time; and 3) the urban form reflects the social actions, policies and economic implemented. (Costa et al., 2013).

The Italian approach is associated with the pioneering work of S. Muratori published in 1960, in *Studi per una Storia operante Urban di Venice*, supported in the relationship between the architecture and the history. According to Mouldon (1997), Muratori examines the urban fabric and proposes the type edificatory, while formal element, as a premise for the historical development of the city and to understand the interdependence of individual elements with the urban form. The morphological study of cities becomes a method of work required in the first phase of any project of architecture. The research focuses on the analysis of how cities should be drawn in the future from your past - historical traditions, the vernacular elements and their relationship with the urban space, the trace and tissue already existing, and, in particular, the understanding of cities as “bodies that reflect the original character of the development of its urban plan over time”. (Costa et al., 2013)

The British school develops in parallel with the Italian school, from the second half of the 20th century, and it is associated with the work of the geographer of German origin M. R. G. Conzen. As a follow-up to the research of Schlüter, Conzen opts for an approach of analytical nature focused on the interpretation of the processes of urban growth and the typification of urban development. This current, the theory Conzeniana, had as disciplinary principle the geography being that the territorial component and cartography is the support for the development of methodologies adopted, defined by the
term “morphogenetic”. Focuses therefore on “study of cartography of the city to detect its form and characterization of configuration of the trace as a function of its era of training.” (Heitor, 1997).

For Conzen, the study of the urban fabric is the foundation necessary to develop a hypothesis about the construction process of cities and for guidance in future decisions regarding the urban planning. (Aragon, 2006) As far as Whitehand (2001), this line of research examines first how the elements that make up the urban form conjugates on the ground using as parameter changes and continuities elapsed over time. The methodology of analysis proposal develops according a reading based on three levels: (i) urban plan; (ii) urban fabric; (iii) pattern of land use and the built.

The French school comes at the beginning of the 1970s with a new approach to the study of urban form informed by the social sciences, by planning and design. The published works, of which the most important Urban Analysis, point to a descriptive research and multidisciplinary space built and for the definition of theoretical models developed from the reading success stories and good practices of urban design, using for this purpose the concept of type applied to the scale of the street, the block and the building. The rediscovery of the lessons of the past, rejected by Modernism, had a greater impact on the morphology of the typology edificatory. Panerai, focused on the study of tissues existing urban and sets of buildings, grouped or sparse, that make up a ‘corpus significant’.

This current research involved four steps: 1) the definition of corpus: demarcation of the area of study (the spatial area), and the selection of the levels of reading of the urban fabric (or the different scales of approach); 2) the previous classification: the first classification of objects, according to the criteria of analysis established by the researcher; 3) the development of the following types: the formulation of theoretical subjects that meet the basic properties of a group of objects, making reference to the understanding of these; 4) the typology: the types are placed side by side, highlighting their similarities and differences and the elements that are to be recognized by any observer, and in which, in addition to its possible variations, must be demonstrated their equivalences And hierarchies. (Aragão, 2006)

Taking into account the theoretical framework and methodological described, seeks to define a matrix of analysis to be applied to the study of fishing villages Algarve.

The urban fabric - all built - is decomposed by mesh - conceptual model of organization of space - and by trace - the abstraction of urban form. (Coelho et al., 2013) On the other hand, the mesh is analysed from its blocks and lots; and the trace by your staying or movement (Valente Pereira, 1983). In parallel, is defined each urban element by its public or private nature, respectively the street| square and the block| lot. (Coelho et al., 2013) With this specification intends to build a first analysis of the patterns of usage of soil and built.

GEOGRAPHICAL ENVIRONMENT

In the Algarve, the climate and the economic conditions generated by the proximity to the sea and the navigable rivers, such as the ease of communication developed later, were prerequisites for the initial fixation of the population. It can be seen that the majority of the settlements of greater population density is located in the margin or at the mouth of an important river. (Rodrigues, 2009)

The coast of Algarve, with 160 km of coastline, can also be divided in accordance with the terminology of the ‘people of the sea’, where the Barlavento – the place where the wind blows, as regards the western side of the region, and the Sotavento – the place where the wind blows, it refers to the territory from Faro for East.

The Barlavento is geologically characterized the cliffs of limestone, small secluded beaches of the currents of the ocean, bays and the estuary of the River Arade and Ria de Alvor. Despite the pressures and tourist of urban growth, the natural potential and the traditions associated with the industry, the fishing and the cultivation of molluscs, continue to ensure the productivity of this area. This stony region also allowed that, in previous
seasons, were built military fortifications due to strategic potential.

In the Eastern Algarve, the morphology of the terrain becomes more flat, sandy, with lagoon areas, extensive sandy beaches and coastal pine forests. Highlight the estuary of the River Guadiana, and the Ria Formosa, elements of extreme importance for biological diversity and local economy. The microclimate becomes more arid and hot that the Upwind. The marsh of Ria Formosa (from Faro to Cacela) originated the peninsulas of Anção and Cacela, islands and the barrier of Barreta, Culatra, Armona, Tavira and Cabanas.

The coast of Algarve is associated with a phenomenon of mass tourism, started in the 1960s and has spread to the entire Mediterranean area, also known as Tourist Basin Extended from the Mediterranean. Had as a result strong pressures in the territory, with consequences that may have compromised the cultural identity and the very continuity of tourist dynamic. This phenomenon has generated a huge speculation on the price of land, associated with the lack of supervision and legal control, due to the absence of a planning basis for urban growth. Only in the 1980s are established and put into practice the principles of urban control. (Rodrigues, 2009)

The densification of the settlement has been apparent over the past four decades. According to Martins (2011) and with the results of the Census from 1960 to 2011, 43% of the increase in the population of Portugal is on the region of the Algarve, as well as 55% of the increase in the construction of buildings at national level.

FISHING VILLAGES OF ALGARVE

In the case of the Algarve region, the first fishing communities settled in strategic locations, normally associated with the places of refuge, fortifications, estuarine areas, margin of rivers, in Barlavento, or on beaches discoveries for mooring of boats, in the East.

Originally, the communities were composed of settlers’ phoenicians and carthaginians, and, later, by arabs influenced fishing techniques, such as the permanent frames of tuna, or traps. (Galvão, 2008) “Historically, the south coast was being inhabited by fishing communities of various peoples: Phoenicians, Greeks, Carthaginians, Romans and Arabs, attracted by the favourable conditions (sheltered bays and good ports of landing) for trade and cultural.” (Gaspar et al., 2012)

In original settlements, the homes of fishermen were localized in the vicinity of the respective fishing ports, parallel to the beaches or riverbanks. Along the Algarve coast, the development of each seating was very influenced by type of fishing: traditional or frame. Depending on the model, there were the huts of fishermen in traditional fishing, or the tents in traps or traps. (Galvão, 1945; Martins, 2014)

In Estado Novo, are to highlight the neighbourhoods of fishermen along the Algarve coast, designed for the families of fishermen, considerably improving the previous conditions of life and security of the cabanas. In addition to the dwellings, these neighbourhoods were composed of services intended only to these communities, such as nurseries, schools of domestic work and moral education for girls and training centres fishery for boys. However, the location of these neighbourhoods of Fishermen was changed to the periphery of urban areas, getting away from their fishing ports originals. This factor has given rise to new locations as Santa Luzia (housing on the outskirts of Tavira), Fuseta (concerning the Olhão), among others. (Rebelo, 2010; Martins 2014)

In turn, the development of the economic sector tertiary, more specifically the increase in tourism, was responsible for exponential increase in population from the 1960s - 104.4% in tourist stands, 32% in the territory Algarve-, and that led to the proposal of the Policy of Cores of Tourist “creation of several types of cores touristic”:

(i) the core real tourist, outside of urban perimeters or by urbanization structured on large properties, through processes of organic growth;

(ii) the core urban-tourist, that result from the transformation of traditional cores, either by organic growth, either by densification of existing;
(iii) the 'muse urban-tourist', resulting from the consolidation and expansion of urban cores-tourist and the fighting (and consequent inclusion) of Growth dispersed, distinguished by its greater dimension on the waterfront. Were examples of recent settlements | Alvor Praia da Rocha, Armação de Pêra, Albufeira and Vilamoura | Quarteira, already in the 1990s. (Brito, 2009)

Due to these two events - the construction of neighbourhoods of Fishermen and the creation of core tourism - there has been a change or migration of initial settlement fishing of urban agglomeration.

CASE STUDIES ANALYSIS

In the context of this research, were selected 15 case studies: settlements nature of fishing, located along the coast of Algarve. This selection was developed on the basis of the Letter of Planning PROTAL.

From this letter was then taken as criterion approach to urban settlements in Territorial Unit of South Coast and hinterland, and characterized as 'cores' fish and 'ports of fisheries', determining the fifteen case studies as shown in figure 01.

The analysis of the urban system is based, second Valente Pereira (1983), the decomposition of the elements that constitute the urban fabric in its formal characterization and identification of its genotype - an aspect that gives characters common to traces, intrinsic to a family of cities or urban areas - and corresponding phenotypes - characters originated from the local environment, are the specific features and distinguish an urban nucleus of any other (Krüger, 2012).
<table>
<thead>
<tr>
<th>NÚCLEO PISCATÓRIO</th>
<th>EXPANSÃO</th>
<th>ESQUEMA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Limite aglomerado</strong></td>
<td><strong>Tipo de Porto</strong></td>
<td><strong>Tipo-Morfológico</strong></td>
</tr>
<tr>
<td><strong>01. Burgau</strong></td>
<td>porto no mar</td>
<td>incluído</td>
</tr>
<tr>
<td><strong>02. Lagos</strong></td>
<td>porto no rio</td>
<td>excluído</td>
</tr>
<tr>
<td><strong>03. Alvor</strong></td>
<td>porto no rio</td>
<td>excluído</td>
</tr>
<tr>
<td><strong>04. Portimão</strong></td>
<td>porto no rio</td>
<td>excluído</td>
</tr>
<tr>
<td><strong>05. Ferragudo</strong></td>
<td>porto no rio</td>
<td>excluído</td>
</tr>
<tr>
<td>Nº</td>
<td>Fishing Village</td>
<td>Location of the Port</td>
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<tr>
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<tr>
<td>06</td>
<td>Armação de Pêra</td>
<td>porto no mar</td>
</tr>
<tr>
<td>07</td>
<td>Albufeira</td>
<td>porto no mar</td>
</tr>
<tr>
<td>08</td>
<td>Quarteira</td>
<td>porto no mar</td>
</tr>
<tr>
<td>09</td>
<td>Faro</td>
<td>porto no mar</td>
</tr>
<tr>
<td>10</td>
<td>Olhão</td>
<td>porto no mar</td>
</tr>
<tr>
<td>Nº</td>
<td>Localização</td>
<td>Tipo de Porto</td>
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<tr>
<td>11</td>
<td>Fuseta</td>
<td>rio</td>
</tr>
<tr>
<td>12</td>
<td>Santa Luzia</td>
<td>mar</td>
</tr>
<tr>
<td>13</td>
<td>Tavira</td>
<td>rio</td>
</tr>
<tr>
<td>14</td>
<td>Monte Gordo</td>
<td>mar</td>
</tr>
<tr>
<td>15</td>
<td>Vila Real de Santo António</td>
<td>rio</td>
</tr>
</tbody>
</table>
Fig. 02 | Graphical Analysis of area of urban agglomeration

- < 0.36 km²  
- 0.3 km² < 2.50 km²  
- > 2.50 km²

Fig. 03 | Graphical Analysis of reclassifying post 1960

- muito descaracterizado  
- pouco descaracterizado

Fig. 04 | Graphical Analysis of the location of the fishing harbor

- em mar  
- em rio

Fig. 05 | Graphical Analysis of trace urban primitive axial

- orgânica
The cores fish stocks that have suffered greater change in relation to their growth and territorial expansion (figure 02) are located in three distinct areas, namely: Barlavento (Lagos and Lagos), central coast (Quarteira, Faro) and leeward (Tavira). Taking into account the administrative areas, these cores are the headquarters of municipalities, with the exception of Quarteira where there was a great deal of pressure from the tourism sector from 1960 (figure 03).

In relation to the reclassifying suffered in settlements due to the sudden growth of the tourism sector, (figure 03) we can conclude that it is mainly in the area of the westside where the fishery cores were more affected with the demand for summer destinations. Even so, the towns of smaller dimensions, Burgau, Alvor and Ferragudo, have retained their original character. In the East with the exception of Monte Gordo, these cores were keeping your original character.

However, even if we did not check this expropriation of fishing activity in favor of tourist activity in all fishing villages studied, it was found that, with the exception of Burgau, that the cores primitive fish were moved from their place of origin. This event is related to the economic potential of the coastline provides on demand of bathing - where they are in the first instance the fishing ports. (Table 01)

At a level of analysis more detailed, relates to geographical morphology of the coast with the kind of urban layout present in settlements. The Barlavento is defined by its topography more irregular and sharp, highest quotas and difficult to transports, as such, there is a predominance of mesh semi-reticule, organic and adapted to the landscape (figure 05). In the same way, there is a notorious deployment of fishing ports in river, in particular Lakes, Alvor, Portimao, Ferragudo. This factor is also related to the exposure to the Barlavento provides in relation to the Atlantic Ocean, and instability of sea currents or assumptions of military attacks. In turn, the orography of the eastern Algarve is more flat, regular and with possibility to develop urban areas of drawing axial - orthogonal and radial. Stand out Tavira, by its mesh organic and port in river, characteristics induced by location exceptional.

As regards the urban sprawl, we analyzed the cases in which the characterization of the mesh of maintained in semi-ricetule, as in Burgau, Lakes, Ferragudo, Armacao de Pera, Albufeira and Tavira (Algarve); in that there was consistency in axial mesh, Faro and Lagos, and where there has been an evolution of the orthogonal to the irregular, in particular in Alvor, Portimao, Quarteira, Fuseta, Santa Luzia, Monte Gordo and Vila Real de Santo Antonio. Excluding Peterborough, it was also found that, regardless of the type of development the original route for the trace of urban expansion, the mesh primitive core is more dense and concentrated, composed of blocks of dimensions limited and irregular, countered with a mesh back, more radiated and composed of clusters of buildings scattered.

Finally, at the level of the schematics type-morphological obtained (table 01), it is concluded that the urban elements addressed, whether relating to fishing economy, either traditional nature, are located mostly near the primitive core of the village. Stands out Quarteira, whose evolution peculiar - in order directed to the sea, and not opposite the water line as well as all the other case studies - also distinguishes itself by absence of elements known in the historic center.

Traces were the guiding axes of the urban fabric in each settlement. There are cases in which are parallel, perpendicular or radial to the margin line. This factor, independent of the direction of expansion that the village took, is generator of urban form, coinciding with the general lines of the land - in the case of mesh semi-rricetule - or with tracks of higher hierarchy and accessibility of villages studied.

CONCLUSIONS

The deployment of the urban agglomeration of this nature is distinguished by location conducive to the practice of fishing, which will allow the loading and unloading of boats - the port. In accordance with the Project Edge (2002) and PROTAL, a coastline is characterized generally by three types: the edge sheltered - clippings concaves the coast, bays, inlets, estuaries, beaches protected from sea currents and prevailing winds, - the
edge semi exposed - usually beaches at the entrances of bays, inlets, longer range, but still shielded from direct action of mare -, and the edge exposed - littoral environment consists of beaches discovered and with orientation normal to the direction of prevailing winds and waves. In addition to these direct ports on the sea or river, the coast of Algarve are distinguished the stony coasts, such as the cliffs of the Barlavento, or plains, estuaries and marshes, in the East.

In exterior spaces, the square represents an element of extreme value. In traditional fishing, is in squares, or large, that fishermen and their women come together for mending nets. Consequently, these squares have become a place of meeting, socializing and residence, located in the vicinity of fishing ports. In the same sequence, derived from the Street of the Fishermen, the main route of original settlements, which accesses the port. The toponomy derived from these activities is frequent, even after changes in the city.

In relation to the elements built urban nature of fishing, the lota and the market are representative of the economic activity of these communities. As the square, are located near the fishing port. The building of Maritime Compromise was sometimes adapted from other buildings with previous resolutions, due to lack of funding, and as such, is located inside the cluster, without characterization itself.

In turn, the buildings of traditional nature of urban agglomeration are not governed by the need to be located near the water line. However, the churches or chapels, the medical centers or hospitals, and schools are elements of great value to the fishing community.

These urban areas have developed the tourist potential by their natural conditions (beaches or mountains), conditions property (commercial use of ruins and buildings of interest and aesthetic history), or the creation of centers of dynamic cultural and recreational (marinas, points of nightlife, Brazil for bathing) if used in spaces marked by dynamic tourist to sacrifice their traditional nature and fishing.

You can synthesize the terms genotype and phenotype, relating to fishing villages, as represented in table 02.

<table>
<thead>
<tr>
<th>Concept</th>
<th>Universe of Study</th>
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</table>
| GENOTYPE | Fishing Activity as a means of subsistence  
Settlement along the water line - porto  
orIGINAL Buildings in cabanas along the harbor, and evolution to structures more solid  
fishing Community that is organized in a similar manner in any seating Algarve  
Impact tourism found in any place in the Algarve |
| PHENOTYPE | Differences between windward and leeward  
Type of seating geographic  
Characterization of mesh  
Location of the port (sea or river)  
Relationship with fortifications historic  
Type of fishing and the consequent characterization of society  
Reaction to touristic development |