European Seaport Systems in the early modern age
- a comparative approach

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THE HISPORTOS CASE – SCIENTIFIC OPTIONS AND RESEARCH PROGRAMME. THE POSSIBLE APPROACH TO NW PORTUGUESE SEAPORT STUDIES* 

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Abstract

The basic goals of this paper are twofold: to review the concepts used in the definition of the project and to explain the methodological approach to an object linked to a vast number of features of a temporal and social context.

Hisportos was based on preliminary results of the work of two co-workers of the project, Amorim and Polónia, who dealt with questions arisen from the characteristics of the cities they focused in their research, PhD dissertations. Both studied phenomena centred in towns that were also ports. Both recognised some problems and tried to arrive at satisfactory answers for their questions. And both concluded that simple questions like: how, when, where and why were pre-existent harbours and ports dimensioned into new ones, needed to be answered. Harbours seemed to have been there for ever. But these simple questions implied some more complex ones:

1. **How fit these ports, small and medium ones, in a port system designed by links to a vast foreland mostly Atlantic: South America, especially Brazil; Africa (West-Coast); the Islands (in first line Madeira, Açores, Cabo Verde, but also Castilian Indies); North- Europe. And links to a hinterland marked near the coastline by the production of salt and fish in small quantities, and in a range that is not easy to define, by poor or medium farming production, where the most interesting issue was to be: wine and, in a smaller degree, textile materials. A foreland and a hinterland marked by consumption varying from luxury to elementary levels, from exotic and surplus to common goods.**

2. **Which role did these ports play in a port system? Which degree of efficiency did they have as central platforms of a mercantile network? And as simple forward cargo**

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suppliers of goods needed elsewhere and transported easier and cheaper by ship?

3. Was there any place for these ports, which we know to have played changing roles and with different weights all along the early modern age, in a country dominated by Lisbon? Was their major role at an international or an intercontinental level? Or was the coastal trade the essential feature of them? And how did they survive to the pressure of the international system around them, supported by Lisbon?

4. Coastline shifts along the period are at the level of harbours and port cities significant. One had to deal with replacements, with shores that were washed away, with sea withdraws that left port infrastructures lying in wet margins but not in water as it was expected, with infilling caused by silting and sanding menacing the continuity of port operations. These and other effects of geomorphologic and climatic conditions forced communities to action. Were they the causes of difficulties thought by contemporaries to endanger their wealth or well being?

That kind of questions led to the discussion of concepts that seemed to enable the construction of a research frame to carry on Hisportos.

First of all: system, port system.

The suggestion read in Guimera\textsuperscript{3} and others seemed attractive: it is a concept that should help us to define the essence of ports. As an object a port is difficult to be analysed. It seems not to show auto sufficiency. It exists as the result of complex relations. Relations between distinct elements of various natures: economic, cultural, social, political and geographical. The intensity and level of enclined causes and effects, of sub relations and main relations, never determined in a one way sense, the very essence of ports that are dominated by one commodity or by many commodities, independent of their value, by long trade ships or by coastal traffic, by fishers or by passengers, all these characteristics lead to unsatisfactory results when studies treat only one of the variables, ignoring the complex relationship between the above indicated types. It is a singular element hiding plural realities. The port is the most visible part of a complex.

Traffic (volume of cargo, number of ships), naval industries (from shipbuilding to fisheries), maritime services (from transport to insurance) are they the determinant indexes to the definition of a port role? And, if yes, how may they be used in a comparative look? The use of the system concept can help to overcome such problems. The main aim is to recognise the rules of an object made of complementary parts. The nature of the object is readable in the most important elements that make up the system, but also in the features of these elements and in the relationships between them. Determinant for the whole results of the study is the definition of the system. If at the departure the port functions are elected as the reference, then all ports of a region, independent of their most important functions can be approach as elements of a system.

NW Portugal geography of the rivers and of the morphological aspects of the coastline shaped a potential aptitude for ports and impelled communicating along the coast and in the mouth of rivers as a sustained activity and imposed this reality as an inter-

pretative tool in Portuguese historiography. The dimension, type, etc. of NW Portuguese ports vary between very small harbours and small and medium ports.

**Comparison** is the second concept that seemed to be important at the level of the scientific options. And the use of a system allows comparing elements independent of the intrinsic significance of any of them, as long as they present relationships between them. A comparative approach may reveal the role of a small port, handling minor tonnage of goods, and for that reason depreciated by contemporaries and by researchers looking for tonnage capacity as the most important indicator of trade, in the sense that it may be the only mean to allocate external commodities to the hinterland of that port. The very existence of that opportunity to distribute goods would never be recognisable by the evaluation of tonnage indicators alone. But the comparative approach inside the system defined before will bring other results forward.

Another array of questions dealing with the problem lead to a third concept: frontier:

Were ports the result of geographical, technical, political, economic pressures and conditions or were they, their reality and survival/improvement a result of their own dynamics and were they the authors of the development around them? In terms of port infrastructures to deal with these questions is to try understand what factor was responsible for the plans, works and projects that stirred up in the early modern age in NW Portugal: the main identity of these transformations lied in the development of the traffic (volume and frequency and value); or in the new way of consumption (commodities, number of consumers, prices); or in the new definition of a power culture; or in the outbreak of the global idea of a new authority which implies rational territorial planning executed by engineers all over Europe and their knowledge reaching out to local affairs; or in the impact of diseases and the slow recognising of the importance of hygienic and healthy contexts; or in the powerful pressures of the geomorphologic transformations.

To answer these questions is to recognise that ports are active but also passive objects. And this leads to the concept of frontier. Frontier between land and the oceans, between a hinterland and a foreland, between forces that act on them and forces they engender, and in the early modern age, specially, between inland and external trade balance, between customs and duties pending on trade and liberty of duties. Most of them are the result of casuistic definitions. That is they exist as long as they are useful for

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those who determined them or as long as their own lifespan make them useful or at least not a nuisance.

For this and others reasons there are a lot of reasons to study ports, even when, at a first look, they seem unimportant ports. "What were (relatively) unimportant ports?" asked Gordon Jackson. "Those with a poor or backward hinterland and few external connections; with a small or no share of national imports and exports and, contrary to expectations, a small share of coastal trade, which was also dominated by major ports; with exceptions they owned and built few ships; they had inadequate facilities for larger ships; few warehouses; no comprehensive mercantile community or direct foreign linkages; few industries and small populations; in sum, they had no opportunity for self-generated trade. What, then, is to be said in favour of "unimportant ports"? "We should perhaps forget about their comparative status and study them for what they did on their own terms and within the overall port system", and thus the research would "redress the balance a little by reasserting the contribution of smaller ports to the grand scheme of things". Indeed, "depending on the specialist nature of their products, some ports played a part far greater than their share of tonnage or value". Besides, as defended Gordon Jackson "the most interesting side of this was not what the small ports received so much as what they offered".

These proposals justify to work on a methodology that allows to integrate a port, any port, in a referential space, and the study of its strategic contribution to the progressive construction of an economic space (local, national or international). It is clear that such a perspective implies a huge amount of information data, but there are significant reasons for testing this path. At the level of micro-analysis the heterogeneous elements tend to impose themselves. And as seen before one of the vitalies of the system concept is to override these many clues that a heterogeneous reality as that of a port offers. It is important to work at a micro level because in variety and diversity some questions may reveal themselves not only as a process but it may also happen that factors that make up the processes turn out to be apprehensible. And by focusing on micro contexts some elements tied to individual paths may come forward at the analysis and allow the researcher to use the theoretical frames of the model without imposing the model on the reality. This has implications at the level of data collecting. Qualitative data turns out to be of great significance, if treated in a serial manner. That implies that data needs to be reconstructed.

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The next step in the research was to create a list of tasks designed in the frame of

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the above concepts and according to the main guidelines of the history of NW Portugal. At first the research object included aspects like ship equipment, seamen, dock workers, merchant offices, etc. But it had to be reassessed because of the limited financial funds the IHM-UP disposed of.

The actual plan is centred on 3 main issues: geomorphologic phenomena, explored as heavy circumstances; plans and politics in view of the phenomena or independent of them (produced and conducted by single or multiple authorities as their affair); and interventions, that is, initiatives regarding the construction, reconstruction of harbours, the equipment and accesses.

These 3 main issues controlled the questions, the searching for historical data fit to answer these questions and the relationships that this data should support.

The first issue implied clearly a multidisciplinary research group or at least interdisciplinary. Not only was it important to begin to think about problems learning from the point of view of those who deal with these questions and to benefit from their knowledge and expertise to be able to design the queries needed to select information from the documents, but also to analyse the information. The evaluation of technical and scientific problems regarding the engineering implied another way of looking and understanding than that of the historians. The project memberships illustrate this option (4 geographers, 1 cartographer, 1 engineer, 1 architect, 5 historians, 2 archaeologists).

To put up an inquiry relating these main aims of the project implied a selection of the questions to be made and the way to formulate them. The result is summarised in the following points:

1. Geomorphologic aspects of the coastline and of every seaport in NW Portugal and the set of phenomena responsible for the transformations that happened along the period\textsuperscript{10}.

2. The construction and reconstruction of seaport infrastructures; projects and their fulfilling and implementation; knowledge, available technology and techniques used; materials used and their origin; initiatives and investment; technicians\textsuperscript{11}.

3. Main functions of the seaports and their changing along the period; the position of the port (in or nearby the city) and the implications of an administration by local or central authorities.

These questions implied the knowledge about the kind of information that is available, and so the list of questions had to be enough plastic so that at each moment questions could be improved. Dealing with historical data for the early modern age may be sometimes a surprise. And not always a nice surprise! Polónia and Amorim had recognised in their earlier works that to disclose information in archives related to seaport questions not only enquiry tools are important but also it is of utmost necessity to be

\textsuperscript{10} GRANJA Helena; ARAÚJO, M. Assunção; DEVY-VARETA, Nicole - “Os aspectos geo-morfológicos e as dinâmicas históricas dos portos do NW português” in XXIII Encontro da APHES (Coimbra, 6 e 7 de Novembro de 2003) (CD-ROM)

\textsuperscript{11} AMORIM, Inês; SILVA, Hugo Ribeiro da – “Obras portuárias em Aveiro nos inícios do século XIX. A implantação de um sistema de construção” in XXIII Encontro da APHES (Coimbra, 6 e 7 de Novembro de 2003) (CD-ROM); BARROS, Amândio, “Organização portuária da cidade do Porto nos séculos XV e XVI. O espaço e o cais” in XXIII Encontro da APHES (Coimbra, 6 e 7 de Novembro de 2003) (CD-ROM)
aware of the history of those in charge of ports along early modern age. The forefathers of the actual port authorities were created in the 19th century. Their shape had been tried out in the centuries before. As this history was not available it was necessary to disclosed paths to lead to institutions responsible for the production of information about ports. This means in Portugal to deal with a number of fragments, as if the common wreckages of the early modern period, not only occurred at sea but also in the production of information.

As the very nature of seaports implied institutional and private investments often linked to privileges, the fate of documentation, produced by those interested, depended a lot on the acuity of these interests. Thus searching for data in archives is a process where one has to be prepared for all kind of surprises. Central government, that is, crown, treasury, custom houses are expected to have produced information on duties paid by commodities, on monopoly rights toward shipping or commodities, on companies recognised to pursue interests identified with those of the crown or the other way round. But central government may also have produced information on port regulations, construction licences, investment and financial support of work in port equipment. Issues like regulation of buoys, pilots, markets, and cargo handling equipment, breakwaters and quays among many others were problems of city councils and local authorities in first line. But for a lot of reasons central authorities tried or were driven by local petitions to interfere in these affairs. And a lot of times both local and central authorities had not enough money or capacity to deal with problems arisen at this very level. So they had to count on private investments or private initiative. Public, private and institutional records have had differentiated fates. Some had by law determination to be stored in files and cared for. Others were of such an importance for individuals or groups that they spent money assembling them. But others seemed to be unnecessary.

One case should be representative of the multiple fragments of information that a specific situation may have produced: All along the early modern period the mouth of Douro River was a challenge to seamen. Low and ebb-tides, ocean and river streams, rocks and winds were responsible for collisions, groundings and difficult moorings. From the 16th to the 18th century the problem persists in the documentation and sometimes local and central authorities only take notice of it because some private institution or person makes experiments to solve the problem. In these circumstances initiative and investment are in the hands of the private sphere. Records on rocks demolition have to be looked upon in central archives, in local archives and in private institutions if available. And in various types of information: in letters exchange between


13 As pointed out in the paper presented at this workshop by BRITO, Sandra; SILVA, Hugo Ribeiro; JESUS, Elisabete - Research options and archives potentialities.


central and local authorities, in requests addressed to the authorities, in accountacies, in bills, in reports of every one involved. Sometimes there are only clues to the whole process.

As central government tended to organise powers in a clear self oriented way it regulated processes but inputed local authorities the tasks. The construction and repairs, but also the service in light-houses and other devices of the same kind were performed by local authorities, which obliged men living nearby to that service. To chart the number and locals of these elements is of high interest when dealing with these matters. The availability of records is compromised if there was only an obligation by common people without the need to spend money on it and therefore to control the performance. And if this duty of common people was sensed as a traditional tool of a community to survive, when in danger by attacks from the sea, or by difficulties to recognise the way back when on sea fishing or trading, than there is a minor chance that regular records have been kept about this service and its circumstances. In the second half of the 18th century, when the conscription reused regulations of the 16th century in a new atmosphere and with new aims, the military districts draw a listing of those sites that used to be of common sense for the populations as guides and signals of survival. This list was then made because the new spirit imposed that they had to be recognised, not for the sake of information, but to build a strategic planning upon them. They were understand as important military elements which should be identified. When designing tasks in the project at the level where to search for information this would be no priority! But in the end it turned out to be a fine source.

These two examples should be enough to show the low accuracy of a record and sources guide sketched at the very beginning of the project. The possibilities offered by statistical tools produced by governments are those of a later period. For the early modern age one has to deal with the difficult task of trying to find files and records.

But, in spite of this, it turned out to be a qualitative important positive feature: to have 15 references after searching in central and local archives about one and the same event is perhaps a time consuming experience, but it may be useful for the interpretation: it may build and join, for a sole event, different perspectives and so enable the researcher to draw conclusions otherwise not possible.

The critical approach to the information sources has to have the above specified features in mind. Every process of information production has to be analysed to fulfil the tests of validity of the information. The fact that as information sources the project has established such a wide range implies a thoroughly process of critic. The potentialities of such a variety of sources and records, permitting cross regards on the research object are also a potential problem. Understanding the aims and objectives of those who produced the information doesn’t always help to evaluate which is the most accurate one.

16 OSSWALD, Helena; BRITO, Sandra - “A barca do Porto, as experiências, os engenheiros e os poderes” in XXIII Encontro da APHE (Coimbra, 6 e 7 de Novembro de 2003) (CD-ROM)

17 AMORIM, Inês; NOGUEIRA, Miguel - “Da cartografia histórica à reconstrução cartográfica. O caso de Aveiro”, XXIII Encontro da APHE (Coimbra, 6 e 7 de Novembro de 2003). (CD-ROM)
The next step was the construction of a database to gather all the partial information distributed on so many sources. The fields of each table in the database match the questions put above. The main idea is that the result of queries made upon this data may answer the segment studies on ports in NW Portugal. As long as the purpose of these partial researches is related to the concepts and approaches discussed before. But obviously this database is also the result of data gathering that may be used in itself. The data about geomorphology of the Portuguese NW coastline is of interest for historians but also a possibility for geographers and others to evaluate long term phenomena and understand from other points of view problems of the very present day. The guessing about the effects of some phenomena or of the solutions planned to minor these same phenomena may have in the long term experience a model to improve results...