European Seaport Systems in the Early Modern Age
– A Comparative Approach, International Workshop, Proceedings
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CARTOGRAPHIC SOURCES

– RESEARCH PROBLEMS AND EXPLOITATION LIMITS*

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A.
Research problems and exploitation limits

• The "geographical reality" which is in on any map, is and will be what the cartographer wants it to be, or what he was asked to do.
• Technical/methodological approaches in thematic map construction

Reading / interpreting

Historical map
|
– filter–
|
• distinguished types of quantitative and qualitative geographical information according to:
– who ordered
– the purpose
– cultural context and scientific (geographic) knowledge
– who drew the map
– technological facilities and cartographic knowledge
– (...)
|
– filter –
|
What we retrieve from historical maps

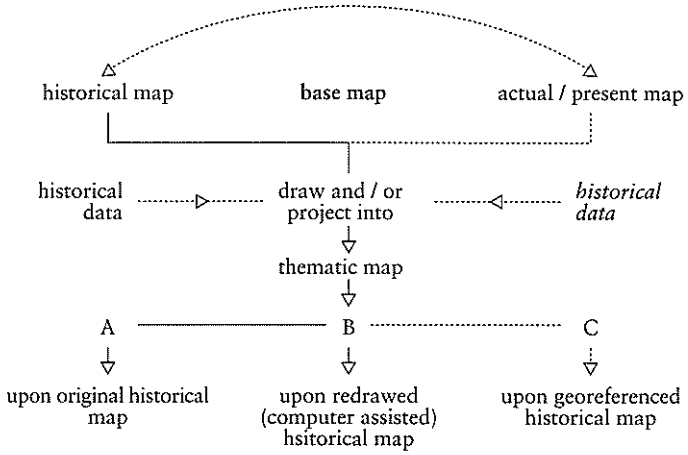
* HISPORTOS, funded by FCT, POCTI / HAR / 36417 / 2000
1. University of Porto. Faculty of Arts. Cabinet of Cartography.

B.

Technical/methodological approaches in thematic map construction

- Reading and interpretation of cartographic sources
- Different paths/methodologies based on exploitation limits

Different approaches / methodologies



B.1. Approach / methodology A

historical map
↓
draw and / or project into
↓
thematic map upon original historical map

Process:
- *Digital historical map*
- *Analysis and management of historical data*
- *Project historical data upon a historical map*

Pro:
- Important portraits of spatial morphologies, features and elements (natural and human) at the time
- Base map chronologically balanced with the theme represented
- Esthetically appealing map
- (...)

Against:
- Base map with a primary theme with information that may obscure or compete (graphically) with our theme
- Imprecisions concerning absolute and relative distances and consequent spatial distortions
- (...)

B.2. Approach / methodology B

historical map
↓
draw and / or project into
↓
thematic map upon redrawned (computer assisted) historical map

Process:

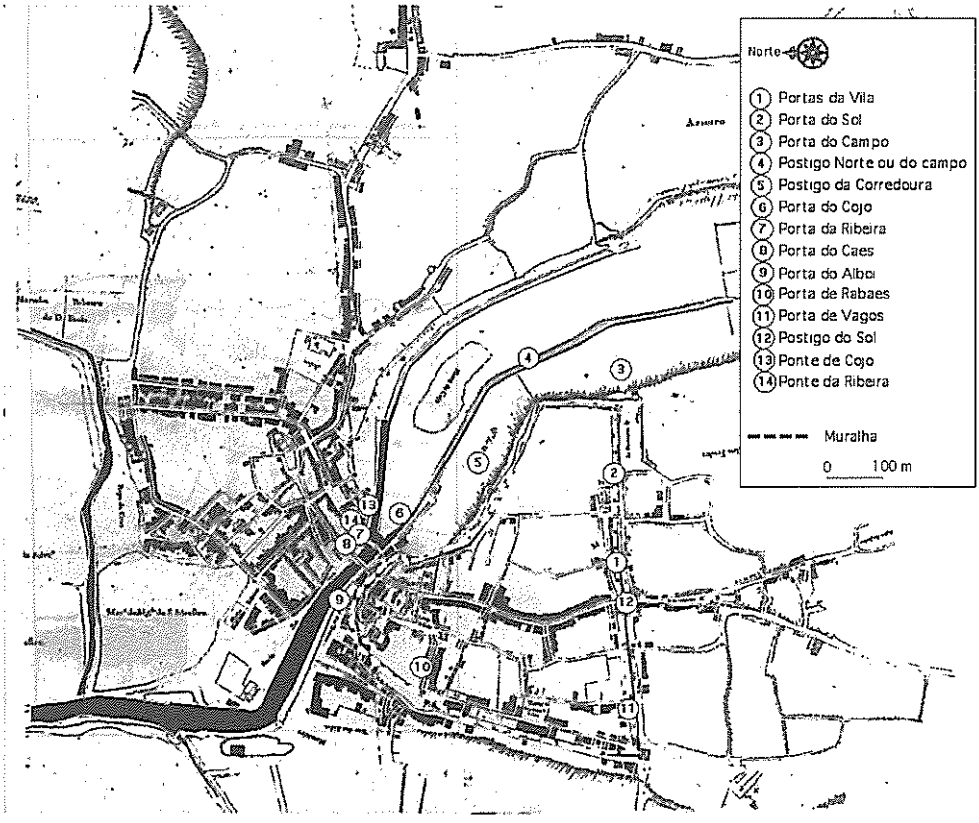
- *Digital historical map*
- *Analysis and evaluation and selection of geographical data on the hsitorical map (reading and interpreting)*
- *Computer assisted redrawing of the selected geographic data*
- *Creation of a "clean" historical base map*
- *Analysis and management of historical data*
- *Project historical data upon a historical map*

Pro:

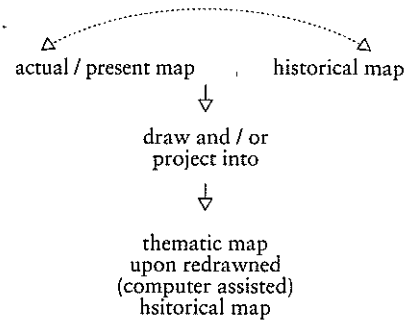
- Important portraits of spatial morphologies and elements (natural and human)
- Base map contemporaneous to the theme represented
- Clear spatial image after "washing up" all the accessory information
- (...)

Against:

- Imprecisions concerning absolute and relative distances and consequent spatial distortions
- (...)

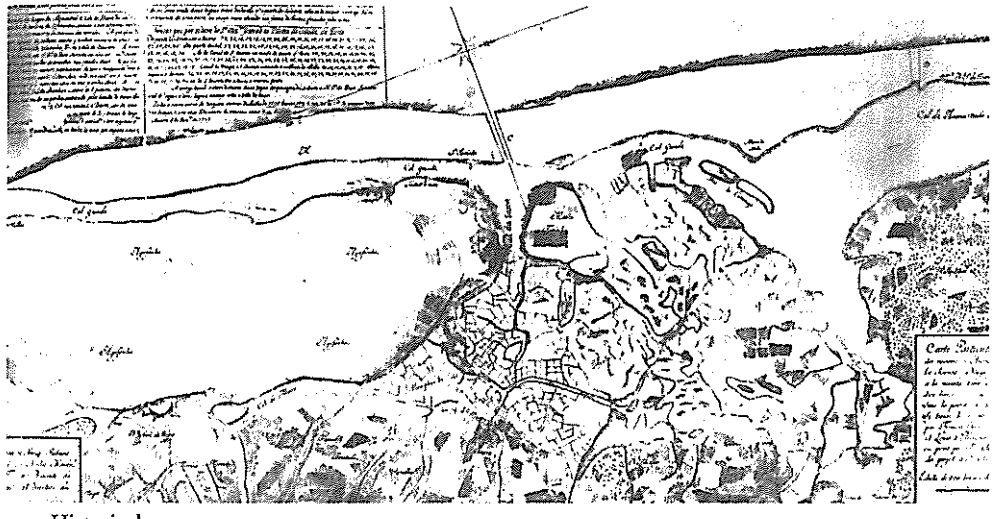


B.3. Approach / methodology C

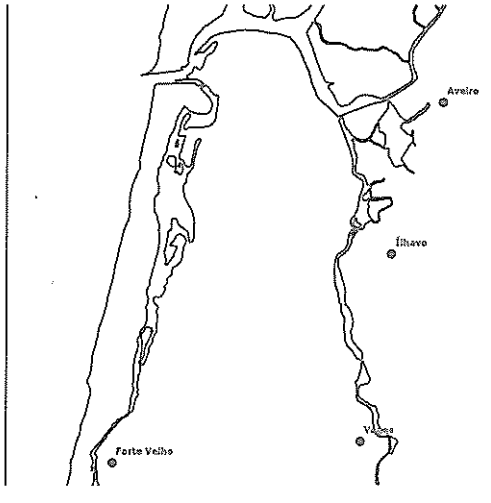


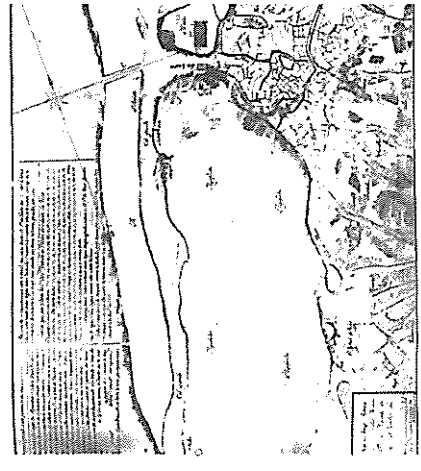
Process:

- *Digital historical map*
- *Analysis and evaluation and selection of geographical data on the hsitorical map (reading and interpreting)*
- *Identification of "anchor points"*
- *WARP and other GIS functions (like georeferencing)*
- *Reproduce the geographical aspects (both human and natural) into a georeferenced map*
- *Analysis and management of historical data*
- *Project historical data upon a hsitorical map*

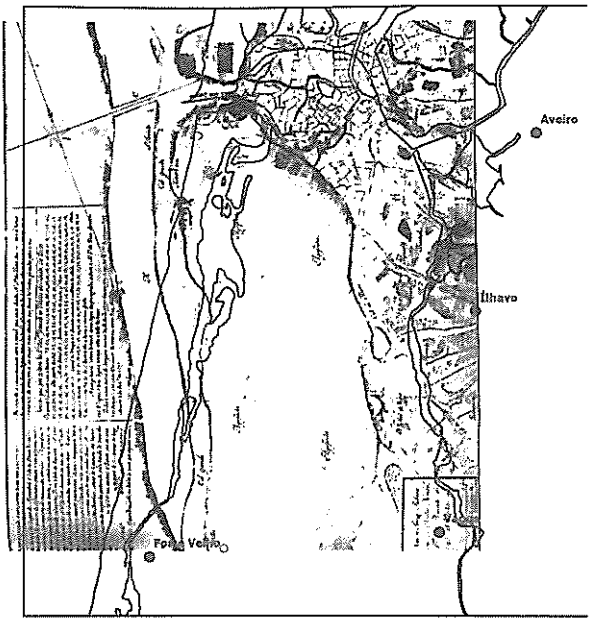


Historical map

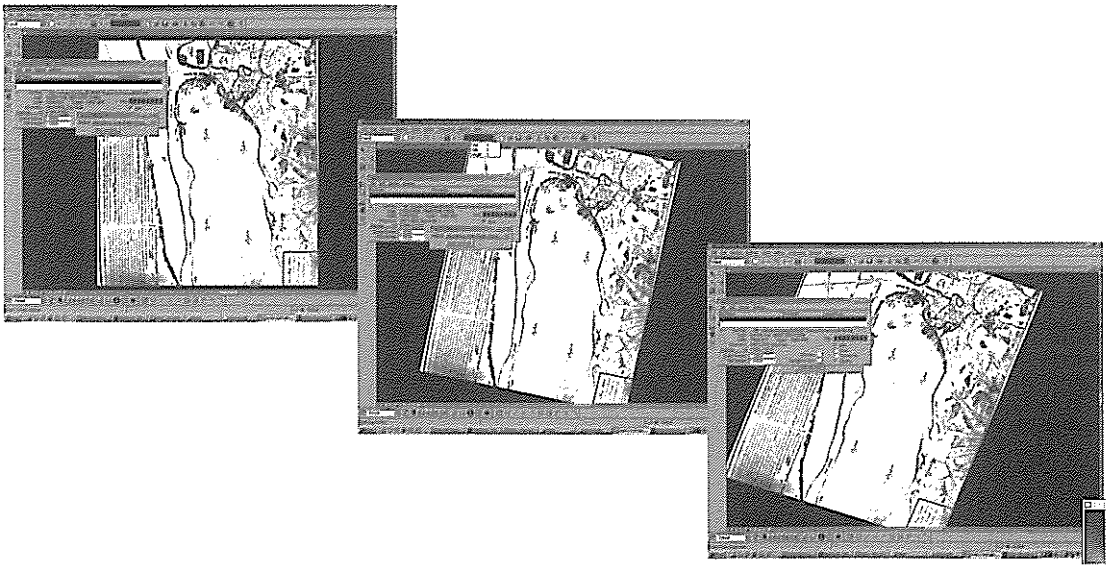




Identification of "anchor points"



Geographical "displacements"

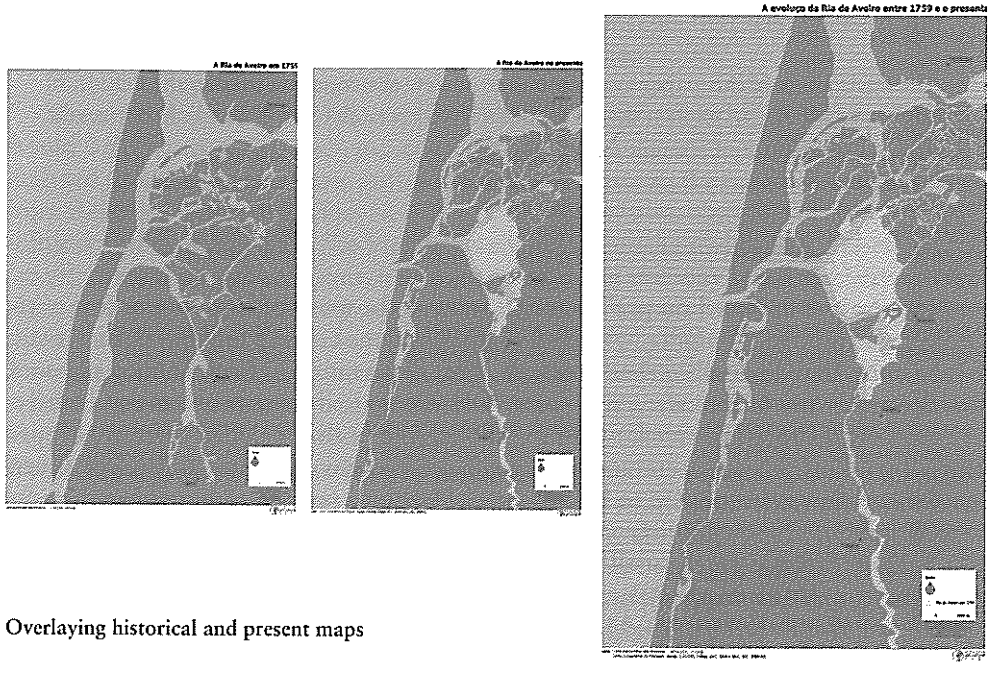


Georeferencing historical map

Approach / methodology C

Pro:
- Preservations of important morphologies and elements (natural and human)
- Clear spatial image after "washing up" all the accessory information
- Georeferenced historical features/elements
- Ability to exchange/compare/mix different maps and geographical information
- Recover lost locations of features
- (...)

Against:
- Difficulty of GIS environment
- (...)



Overlaying historical and present maps