

## **Sigma, a GIS application for Portuguese History**

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During the Liberal Revolution, Portuguese territorial division went through a deep change, leading to the replacement of the old administrative system by the one that still exists today. In its general outline, this process is similar to the one that took place in France after 1789 or in Spain after 1833, but Portuguese evolution has its own features. In any event, the above mentioned change created a major barrier to the progress of historical research, given the difficulty of comparing data referred to such different territorial units.

The need to solve this problem lead us to the creation of Sigma, an acronym that stands for the Portuguese expression Sistema de Informação Geográfica e Modelação de Dados Aplicado à História de Portugal (Geographic Information System and Data Modelling Applied to Portuguese History). The system, which has been developed since 1993, incorporates Portuguese administrative divisions of 1801, 1826, 1834, 1842, 1849 and 1855, from the parish to the provincial level.

Using a relational database and a GIS, Sigma is not only able to store, manage and map data for any of the given years, but also to transfer parish information from one year to another and to map it according to an administrative geography different from the original one. The system was at the basis of all the maps included in the CD-ROM Território e Poder and was used to publish Portuguese population censuses of 1801 and 1849. The administrative maps, the censuses and some electoral data are available on the website Atlas, Cartografia Histórica.

<http://atlas.fcsh.unl.pt/cartoweb35/atlas/apresentacao-en.html>