Mapping the Enlightenment: Intellectual Networks and the Making of Knowledge in the European Periphery

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The project *Mapping the Enlightenment:* Intellectual Networks and the Making of Knowledge in the European Periphery is funded by the Research Centre for Humanities (RCH) for the academic year 2016-2017. The project uses interactive mapping tools for visualising, exploring, and analysing the intellectual and geographical networks developed by Greek-speaking scholars of the Ottoman Empire during the 17th and 18th centuries. Based on the convergence of the latest achievements in digital mapping and historiographical discussions about the representation of the Enlightenment, the project develops user-friendly interactive and dynamic web maps of the itineraries of traveling scholars, and visually represent the building of networks between scientific centers and peripheries. Additionally, this dynamic system provides multi-layered maps that enables users to query and visualize data and flows through a modern and robust environment. This interactive interface offers a simple and effective way of showing how the intellectual networks developed within the European periphery in the 17th and the 18th centuries contributed to the shaping of knowledge during the Enlightenment. The project is a collaboration between the Department of History and Philosophy of Science of the National and Kapodistrian University of Athens and the Centre for Digital Humanities of University College, London.

The theoretical background of the project resides in the history of science. Following the general idea that the knowledge systems that gradually dominated European modernity have come into being through a dynamic and multi-layered process, the project is based on the notion of 'moving localities' introduced by historians involved with the Science and Technology in European Periphery (STEP) network. The concept of 'moving localities' enables historians to perceive circulation as a knowledge production process. Locality, in this sense, indicates a complex set of connections, allegiances and commitments which travel with people and thus extend beyond conventional boundaries, creating interconnected intellectual spaces over wide geographical areas. The sense of locality enables actors to perform distinct cultural identities in the course of their travels that are informed, but not confined by those assigned by their places of origin. Thus, locality can be said to be a local culture made active and open to transformation thanks to encounters fostered by travel conditions.

The project takes advantage of the theories of the STEP network on the one hand and the latest achievements in digital mapping on the other, in order to create a visual representation of the abovementioned concept of 'moving localities'. The creation of a research tool will contribute to enhancing users' understanding of the emergence of modern science and technology as the expression of a dynamical geography. Addressing the spatiality of knowledge, the project focuses on associating particular cultural traits with specific points on a map, and work on tracking down the various paths and encounters through which such cultural traits and the respective knowledge practices evolved. In this context, centres and peripheries are not regarded as tokens of a steady, hierarchical geography, but rather as mutually dependent and co-constructed entities whose status can change with time.

The development of the user-friendly interactive interface initially focuses on the intellectual and geographical travels of the 18th-century Greek-speaking scholars, who developed an extended network connecting the most important European educational centers with the most important power centers of the Ottoman world. Adopting such an approach allows more historical actors to enter the scene, such as the Portuguese *estrangeirados* and Spanish *pensionados*. The visualisation of the paths followed by the Greek-speaking scholars, the *estrangeirados* and the *pensionados* enriches this historical and digital representation of the Enlightenment in the periphery.

The technical plan aims to use and supports open source software. The project ambitiously strives to make every possible bit of information queryable and visualised. On the server side, Apache, PostgreSQL, PHP and GeoServer with PostGIS library are

the principal technologies that are used for the processing and serving of the data. On the client side, the latest versions of the web standards model HTML5, CSS3 and JavaScript provides a modern and userfriendly user interface. Initially, the scholars flow data are processed, normalized and ingested into the geo-enabled PostgreSQL database. The visualisations of the data are materialised using the Leaflet library and other JavaScript libraries such as D3.js, Chart.js etc. The combination of the above technologies gives life to our historical data by combining powerful visualisation components and a data-driven approach to DOM manipulation.

This project does not aim to create visuals and maps per se; instead, it perceives these techniques as the medium to assess and display the findings of historical research that critically challenges the received narrative concerning early modern intellectual European networks. The creation of a visual image of the dynamic, multi-layer process of knowledge-shaping in the European periphery challenges current digital projects which mainly reflect the mainstream positivist histories of the Enlightenment. The intellectual networks developed within and across the periphery are mainly absent from the mainstream histories of the Enlightenment and if they are recognized, they are typically treated as the paths of intellectually parochial scholars who were unable to fully embrace the ideal of modernisation through reason and science. Bringing such figures to the forefront, and confirming their role in the production of scientific and technical knowledge, may help historians tell more nuanced stories about the complex cultural encounters, which molded the European intellectual space and the multifarious knowledge exchanges that shaped the notion of European science and technology. By using modern digital techniques, we aim to enhance the picture of the European periphery as a historiographical standpoint in order to transcend the established spatial hierarchies and bring to the fore the continuous re-inventions, conceptual shifts and cultural adjustments, which are responsible for the shaping of modern scientific and technical knowledge. The proposed project presents an innovative narrative of the making of knowledge during the Enlightenment. At the same time, it constitutes a unique combination of the latest web and mapping technologies, and provides innovative means of storing, transferring, visualising, and querying historical data.

We believe that this project is a perfect example of how Digital Humanities, through its interdisciplinary nature of binding together research in humanities with digital technologies, can generate new critical knowledge through the re-interpretation of data that might otherwise be obscured. In addition, with the use of the latest open-source technology in spatial visualisation, the project adds value to the field by providing a showcase of the evolution of relevant technologies and, more importantly, the ways that Digital Humanities can innovatively use them for research. Finally, the project has the potential to offer a basis for a more ambitious project on a larger scale following the successful completion of its first stage. The ultimate aim is to allow other researchers to submit their data to the open-architected and forward-compatible queryable mapping tool and provide a historically more accurate overview of the intellectual movements during the Enlightenment.

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