

*Navigating Little Ice Age Droughts in the Spanish Empire (16th–18th Centuries):
Political Responses and Environmental Consequences in Wetlands*

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Currently, my research focuses on the Mediterranean as an arid region, exemplified by the consequences of human activity in several wetlands in central and southern Spain. Distinguishing a phase of anthropization as a consequence of the shift from climate-driven to human-driven agriculture, my work examines the technical advances that facilitated intensive agriculture and subsequently altered the ecological landscape of the region.

The early modern period serves as a potential starting point, marking the gradual triumph of anthropic activity over climatic conditions affecting agricultural production. In particular, the Little Ice Age acted as a catalyst for a paradigm shift that led to the formulation of agricultural and hydraulic policies aimed at mitigating adverse climatic conditions. It was during this period that the concept of ‘Arid Spain’ emerged, rationalizing efforts to drain Spanish wetlands—a construct that has subsequently been associated with the Mediterranean region from the nineteenth century to the present day.

The genesis of Arid Spain raises the question of whether it resulted directly from extreme droughts during the Little Ice Age, or whether it was a strategic political maneuver to maintain Spanish dominance in Europe. Through an exhaustive analysis incorporating sedimentary and historical data, this study aims to elucidate that both factors—extreme droughts and geopolitical considerations—played pivotal roles in the genesis of Arid Spain and the subsequent transformation of numerous wetlands, potentially laying the groundwork for the future Mediterranean region.

Interdisciplinarity is an imperative of the Anthropocene epoch. The Earth System Sciences turn to history and the social sciences and historians endeavor to understand the feedback loops between humans and geographical spaces. I have extensive and high-impact experience in working with natural scientists to produce and interpret data. On the other hand, my own work is an example of how interdisciplinarity does not compromise the historical perspective. I use scientific records of evolution of ecosystems because it provides an excellent opportunity to study human-nature interactions. The convergence of data from sedimentary, archaeological, and historical sources provides a corpus of high-quality information that can be used to examine the historical impact of human societies on the environment. It is imperative to identify suitable study areas where methodologies can be skilfully applied to merge sedimentary and historical records over broad temporal scales. Among these remarkable areas, wetlands emerge as a paramount enclave for integrating the results of palaeoclimatological and palaeoecological skills with archaeological and historical data. Indeed, the Mediterranean wetlands could be a good opportunity to show the relationship between human activity and climatic determinants.

Once the information has been compiled from both sedimentary and historical sources, the data from both registers are cross-referenced to ensure reliable dating and the veracity of the conclusions drawn from the comparison of sources.

Finally, before publishing and disseminating the results, a historical-comparative analysis of two or more cases will be carried out in order to find similarities and differences between Spanish environmental policy and other European policies.