

## **Historical reconstruction of storms in the West of France in the early Little Ice Age.**

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This research offers to : 1) identify, as accurately as possible, the storms and the coastal flooding in the early Little Ice Age, 2) expose their impacts on the environment and populations, 3) query the « resilience » and adaptation of medieval and modern coastal societies in the West of France by presenting their perceptions and reactions. The space-time frame of the study is located in France, from Brittany to Gascony, between the xivth and the xvth century. Sensitive and brittle, this area is regularly battered by violent winds. It also undergoes episodic sea flooding that can cause ruptures of balance. Hence, the historical reconstruction and analysis of storms and coastal flooding in a long period appear fundamental. A thorough knowledge of past meteo-marine hazards allows to recreate a link with the territory, particularly through the (re)construction of an effective memory of these phenomena. This process is essential however difficult because of many documentary gaps. They are due to historical contingencies such as wars, French Revolution, or archival disasters like the fire of the Chamber of Accounts in Paris in 1737. Many limits must also be taken into account and discussed as inaccurate dates, exaggerated or undervalued descriptions, strict spatial demarcation almost impossible to achieve for the xivth-xvth centuries. Furthermore, during this period, no death toll, material and economic balance was done after a climate disaster. Yet, many historical records – especially narrative sources, books of accounts or cities repairs – expose the impacts of storms and marine submersion on agriculture, environment, infrastructures, etc. For instance, a violent storm hit the coast on June 24th 1452. It washed away part of the roof of a castle on Noirmoutier island and knocked down the bell towers of two churches in Angers. Storms and sea flooding have affected activities, constructions and populations' lives. They have therefore forced societies to adapt. These ones integrated risks into their lifestyle and developed their territories accordingly. The past coastal societies had a significant risk awareness related to mental perceptions and several cultural practices. In 1451, a memorandum, sent to the board of King Charles VII, set forth the feeling of coastal communities facing the sea and its dangers. Moreover, these extreme climatic hazards have led the various authorities of the realm to make decisions accordingly. On June 23th 1511, after a violent storm occurred a year and a half before in the Bay of Bourgneuf, the Duchess Anne of Brittany tax exempted populations for five years. This kind of event brings to light the seniority of the concerns and the active research of answers to deal with climate hazards. Thus, this research offers a reflection on the reactions and adaptation of populations, political and judicial fields. Their goal was to provide a “post-disaster” support and prevent future risks.

Key words : Little Ice Age, coastline, storm, societies' reactions, adaptation.

This work was supported by grants from the Fondation de France through the research program « Quels littoraux pour demain? ».