

**S. 2. 3. TECHNOLOGY AND MARINE FISHING IN THE PRE-MODERN ERA**

**Chair:** Richard Unger  
(University of British Columbia)

**Panel Abstract**

Those interested in technological developments in medieval and early modern maritime history have largely focused on innovations in ship design, efforts that have produced a rich scholarly literature centered primarily on improvements in the size, speed, and military capabilities of sailing vessels. But far less attention has been paid to other technologies in the more prosaic sectors of the maritime economy, such as fishing. The three papers in this session address this lacuna by offering new perspectives on the development and impact of technological innovations within marine fishing. Changes in how fish were preserved during the medieval period, for example, increased the commercial potential of herring, cod, and a host of other sea fish, significantly expanding the geographical range and profitability of what became an international trade in fish. Another paper focuses on the interaction of technology and ecosystem in tracking how fishing gear and boats adapted to specific socio-ecological conditions in one region. Environmental concerns are also evident in how increasing unease about bycatches led to the imposition of regulations about fishing techniques. We hope that these different approaches will stimulate fruitful conversation about the practical application of experience-based technologies in the expanding pre-modern maritime industry of marine fishing.

## *Preserving and Curing Marine Fish in Medieval Britain: Methods and Costs*

MARYANNE KOWALESKI (Fordham University)

### **Abstract**

Maritime historians interested in technological innovations and change in marine fishing during the medieval and early modern periods have largely focused their efforts on fishing gear, techniques, and ships. Far less attention has been paid to the preservation of fish, even though it played a crucial role in the commercialization of fishing because only preserved fish could be traded on anything more than a local and seasonal basis given the rapid spoilage rate of fresh fish. Although archaeologists have made great strides in understanding curing techniques in medieval Britain, documentary historians have had little new to say. Most studies, in fact, rely on a 1955 book by a food chemist (C. L. Cutting, *Fish Saving*), who describes the chemical processes that curing involves, but who relied uncritically on a few printed sources and treated the Iron Age to the Industrial Era as one period. This paper aims to redress this lacuna by bringing together data on fishing curing methods from charters, estate accounts (particularly for Durham Priory and Battle Abbey), and court disputes in Yarmouth to categorize the costs, organization, processes, and regional distribution of methods employed to cure marine fish (especially herring and cod) in Britain from the twelfth through early sixteenth centuries. Access to salt was a key factor in this industry, but other factors were also at stake in, for example, the development of the pilchard industry in southwestern England during the sixteenth century.

### **Keywords**

Fishing; Curing; Technology; Britain; Middle Ages

### **Biography**

Joseph Fitzpatrick SJ Distinguished Professor of History & Medieval Studies, Fordham University. Recent publications include:

“The Maritime Trade Networks of Medieval London.” In *The Routledge Handbook of Maritime Trade around Europe 1300-1600*. Ed. W. Blockmans et al (2017) “Port Labour in Medieval England.” In *The Sea in History: v. 2: The Middle Ages*. Ed. M. Balard. (2017)

“The Early Documentary Evidence for the Commercialization of the Sea Fisheries in Medieval Britain,” in *Cod and Herring: The Archaeology and History of Medieval Sea Fishing*. Ed. J. H. Barrett & D. C. Orton (2016)

“Peasants and the Sea,” in *Peasants and Lords in the Medieval English Economy: Essays in Honour of Bruce M. S. Campbell*. Ed. M. Kowaleski et al (2015)

“Bibliography of the Medieval Maritime History of British Isles and Ireland,” *International*

*Journal of Maritime History* (2014)

“The Seasonality of Fishing in Medieval Britain,” in *Ecologies and Economies in Medieval and Early Modern Europe*. Ed. S. Bruce (2010)

# *The Intersection of Technology and Marine Fishing along the Portuguese and Iberian Coast in the 16<sup>th</sup> Century*

INÊS AMORIM (CITCEM/FLUP)

## **Abstract**

The practice and effectiveness of marine fishing was affected by the nature of the ecosystem (sea, inshore, or estuarine locations; marine or fluvial species; tides and climate), access to resources, adaptive technology, and the (ir) regularity of work for natural and socio cultural reasons. This paper focuses on the relationship between technology—as evident in fishing techniques and the types of fishing gear and boats employed and the unique social ecological conditions of the Atlantic and Mediterranean position of Portugal (from 48° N to 36° N and from 11° W to the coastlines of France, which comprises the Bay of Biscay and the Iberian Coast). This region clearly differs ecologically, economically, and culturally from the rest of the Atlantic. The adaptation of fishers to these conditions in the sixteenth century can be tracked by using “foral” charters which were produced between 1500 and 1520 and detail the duties and rights for all Portuguese counties (“concelhos”).

## **Keywords**

Fishery; Technology; Portugal; Iberia; 16<sup>th</sup> century

## **Biography**

Inês Amorim is Associate Professor with aggregation in of History at the University of Porto and Director of the Dept. of History and of Political and International Studies. Her research and publications focus on environmental history, climate, rural history, maritime resources and conflicts, trade and work in coastal settlements, prices and credit, consumption, poverty and healthcare. She serves as Regional Representative for Portugal for the European Society of Environmental History and in 2015 created the Portuguese Network of Environmental History <http://www.reportha.org/en/about-us>. Her recent publications include: “Inter-, Multi-, and Trans-disciplinarity: New Horizons for Portuguese Environmental History,” in *Portuguese Literature and the Environment*, ed. V. K. Mendes and P. Vieira, Lanham, Lexington Books, 2019; with B. Pinto, “Portugal in the European Network of Marine Science Heritage and Outreach (19th–20th Centuries)”. *Humanities* 8:1 (2019).

## *Repairing tools and damage in an Early Modern fishing community (Dieppe, 18th century)*

ROMAIN GRANCHER (CNRS, Framespa)

### Abstract

Marine environmental historians have shown that bottom trawling became widespread in many European fishing communities from the late Middle Ages onwards, raising heated controversy over its devastating effects on marine resources. However, some communities have long opposed its use and have managed to limit its spread. This paper aims to understand the reasons for this long resistance by drawing on the case of Dieppe (France), where bottom trawling was only adopted at the beginning of the 19th century, after violent conflicts between partisans and opponents of this fishing gear. Using a micro historical analysis centred on the 18th century, it seeks to go beyond the environmental interpretation currently dominant in historiography. By relying on inquiries and petitions, but also on account books and court records, it is indeed possible to write another “lost” history of trawling (as Peter Jones remarkably did recently). This one considers its ecological impact, but it also focuses on the complementarity between gears, the seasonality of fish markets, the collective ownership of tools, the gendered division of labour, the territorialisation of fishing grounds and the forms of risk management. In the 18th century, all these aspects of the technical organisation of fishing were still governed by local customs negotiated between the actors of the community, and it was largely in defence of these customs that they opposed the introduction of bottom trawling.

### Keywords

Preindustrial Fisheries; Technology ; Regulation ; France

### Biography

Romain Grancher is an associate researcher in environmental history at the French National Center for Scientific Research (CNRS). Recent publications include:

“Gouverner les ressources de la mer. Une histoire environnementale de l’inspection des pêches françaises au XVIII<sup>e</sup>siècle”, *Cahiers d’histoire*, vol. 36, n<sup>o</sup>1, 2018, p. 45-68. “Le tribunal de l’amirauté et les usages du métier. Une histoire par en bas du monde de la pêche (Dieppe, XVIII<sup>e</sup>siècle)”, *Revue d’histoire moderne et contemporaine*, vol. 65, n<sup>o</sup>3, 2018, p. 33-58 [English version accessible on <https://www.cairn-int.info/>].

“Fishermen’s taverns. Public houses and maritime labour in an early modern French fishing community”, *International Journal of Maritime History*, vol. 28, n<sup>o</sup>4, 2016, p. 671-685. “Écrire au pouvoir pour participer au gouvernement des ressources”, *L’Atelier du Centre de recherches historiques* [en ligne], n<sup>o</sup>13, 2015, p. 175-212. URL : <https://journals.openedition.org/acrh/6560>