



Book Reviews

FISHING: HOW THE SEA FED CIVILIZATION BY BRIAN FAGAN

Yale University Press. 2017, 368pp, 39 B&W illus., hb, ISBN 9780300215342, £25.00

'The modern fishing industry should not get all of the blame for the current state of the world's fisheries. The present condition of the world's fishing grounds is the culmination of thousands of years of exploitation of the oceans, exacerbated by the assumption that fish were a limitless resource. Today, population growth, technological innovation, and relentless searches for profit have stripped the oceans of potential seafood almost beyond recovery. All of this is a result of that most human of qualities – the ability to exploit opportunities as they arise' (p.241).

In the last 20 years there has been a constantly growing body of literature concerning the history of fishing and ichthyoarchaeology or fish in the archaeological record. From books aimed at a wider audience, such as *Cod: a biography of the fish that changed the world* by Mark Kurlansky (1999), *Herring: a history of the silver darlings* by Mike Smylie (2004) and *The Unnatural History of the Sea: the past and future of humanity and fishing* by Callum Roberts (2007), to publications for the scientific community, for instance *The Archaeology of North Pacific Fisheries* by Madonna Moss and Aubrey Cannon (2012) and *Cod and Herring: the archaeology and history of medieval sea fishing* by James Barrett and David Orton (2016), the interest in ichthyoarchaeology is set for an upward trajectory. Based in part on the continued depletion of our fish stocks concurrent with climate warming, overexploitation, pollution and development on land, we are constantly examining the past to understand the future. Unless industrial-scale fishing is reduced or refined, and aquaculture as well as the number of conservation areas are increased, it has been estimated that fishery yields could decrease by at least 20% globally and around 60% in the North Atlantic (Moore *et al.* 2018).

Fishing: how the sea fed civilization by Brian Fagan (2017) falls into the first of the aforementioned categories of publications. Whilst aimed at a general audience it provides a very comprehensive account of fishing from the Palaeolithic to the present day. The book is split into three parts, titled '*Opportunistic Fishers*', '*Fishers in the Shadows*' and '*The End of Plenty*'.

Chapters 2 and 3, titled *Beginnings* and *Neanderthals and Moderns*, detail the development of fishing and mollusc exploitation diachronically – from being fairly opportunistic around 1.75 mya in Olduvai Gorge to the large-scale fisheries concurrent with climate amelioration at the end of

the last Ice Age in Southern Scandinavia. The chapters synthesise several case study regions and hominins, including Africa, Europe, and Southeast Asia concluding with the arrival of Cro-Magnons and subsequent procurement of salmonids by the Magdalenians.

Chapters 4, 5 and 6, titled *Shellfish Eaters*, *Baltic and Danube After The Ice* and *Rope-Patterned Fisherfolk*, deal with Postglacial fishing from the Preboreal to Subboreal chronozones, c. 11600–7000 cal BP. *Shellfish Eaters* focuses on Southern Scandinavia summarising the earliest evidence of fermentation, which was recently identified at the Early Mesolithic site of Norje Sunnansund in Sweden (Boethius 2016), as well as the numerous Late Mesolithic shell middens of Denmark. Moreover, case studies from South Africa, Spain and Australia are provided. *Baltic and Danube After The Ice* provides the reader with more details on the Late Mesolithic Ertebølle culture of Southern Scandinavia before moving south to the Mesolithic and Neolithic sturgeon fishers of the Danube Gorges. In *Rope-Patterned Fisherfolk* the Ertebølle culture is compared with the Japanese Jōmon.

Chapters 7, 8, 9, and 10, are titled *The Great Journey Revisited*, *Fishers on the Pacific Northwest Coast*, *The Myth of a Garden of Eden*, and *The Calusa: Shallows and Sea Grass*. These chapters focus on the peopling of the Americas via the Bering Sea, followed by the First Nations fisheries of the Alaskan Peninsula, Vancouver Island off Canada, the Santa Barbara Channel off Western North America, and Eastern North America, including present day Florida and the area encompassing New Brunswick and Nova Scotia to the north. Chapter 11, *The Great Fish Have Come In*, concludes Part I. Here, Micronesia, Melanesia and Polynesia are summarised with a focus on the Lapita people before a jump to French Polynesia and north to Hawaii.

Part II, '*Fishers in the Shadows*' moves well into the Holocene. In Chapter 12, *Rations for Pharaohs*, a summary of Nile fishing in the regions of Upper and Lower Egypt is provided. Notably, the exploitation of the Nile catfish (*Clarias*) and Nile perch (*Lates niloticus*). Drawing on fishing related implements, paintings in nobles' tombs and a model from a tomb at Thebes the methods of exploitation are described. The focus of Chapter 13, *Fishing in the Middle Sea* is the Mediterranean. Commencing with the Atlantic bluefin tuna (*Thunnus thynnus*) fishing and their mass capture, Fagan then summarises the appreciation of the European eel (*Anguilla anguilla*) by the Classical Greeks before the beginnings of salting. In Chapter 14, *Scaly Flocks*, the inception of aquaculture, cuisine, namely Roman garum sauce, and the first large-scale transportation of fish throughout the Mediterranean region are described. Chapters 15 and 16, *The Fish Eaters* and *The Erythraean Sea*, move south via the Red Sea followed by Azania, the region encompassing southeastern tropical Africa, including Kenya and Tanzania, and then eastwards to Mesopotamia and the Sumer. From here, civilisations of the Indus Valley region

are summarised. Carp and the association between bred cormorants and Chinese fishermen are the primary focus of Chapter 17, *Carp and Khmer*. Remarkably, carp domestication started c. 3500 BC and has continued to the present day, 'Today, almost all fish one can buy in China are farmed' (p.215). The second part of Chapter 18 focuses specifically on Cambodia and Angkor Wat. The Peruvian coast of western South America is described in Chapter 19, *Anchovies and Civilization*. Part II's message is clear – had it not been for the fisherfolk 'many ancient civilizations would never have come into being' (p.141).

Part III, 'The End of Plenty' brings the book to an unsettling end. The farming of the European carp (*Cyprinus carpio*) and the industrial large-scale herring fisheries throughout western Europe are discussed in Chapter 19, *Ants of the Ocean*. Chapter 20, *The Beef of the Sea*, summarises the North Atlantic cod fisheries. Drawing on the *Fish Event Horizon* as classified by Barrett *et al.* (2004), which demonstrated a massive increase in the exploitation of marine taxa c. 1000 AD, and the stable isotope analysis of medieval human bone collagen (see Müldner & Richards 2007), Fagan demonstrates his breadth of knowledge. Chapters 21 and 22 synthesise the previously unexplored fishing grounds of Newfoundland and New England ("*Inexhaustible Manna*") and the inevitable reduction of global fish stocks concurrent with steam- and diesel-powered ships (*Depletion*). Based in part on environmental fluctuations/stress and reduction of fishing stocks, the final chapter, *More in the Sea?* presents the current situation of fish stocks globally.

On the whole Fagan deserves great credit for *Fishing: how the sea fed civilization*. The numerous periods and case studies covered is highly commendable. Moreover, the overviews provided at the onset of each part force you to delve further. Despite some conjecture, the book is worth reading by academics and non-academics alike. Unfortunately, there are some inaccuracies and generalisations. For instance, the claim that the 19th-century Scandinavian archaeologists did not compile lists of species (see Madsen *et al.* 1900 for contradictory evidence), and that molluscs were generally exploited 'when other foods were in short supply'; regrettably, this does not wash well with me especially when one considers the numerous and impressive shell middens distributed throughout the world, (for example, the Wathayn region of Albatross Bay in Australia, the Brazilian Atlantic coast and the Farasan Islands in the Red Sea off the west coast of The Kingdom of Saudi Arabia), as well as the seasonality studies undertaken. Similarly, in Chapter 5 it is stated that fishing during the cooler months of the year was not undertaken (though see Ritchie *et al.* 2013), and that terrestrial game was not consumed *en masse*. Although the Ertebølle peoples focused on the exploitation of marine organisms, they also moved around the landscape procuring terrestrial fauna (see Enghoff 2011). Moreover, I was rather surprised that Fagan implies that the Jōmon was not distributed

throughout the entire Japanese archipelago, and that agriculture was present during this period; rice and millet agriculture arrived c. 2500 cal BP in Japan, the start of the Yayoi period.

References

- Barrett, J. H., Locker, A. M. & Roberts, C. M. 2004. 'Dark Age economics' revisited: the English fish bone evidence AD 600–1600. *Antiquity* 78, 618–36
- Barrett, J. & Orton, D. 2016. *Cod and Herring: the archaeology and history of medieval sea fishing*. Oxford: Oxbow Books
- Boethius, A. 2016. Something rotten in Scandinavia: the world's earliest evidence of fermentation. *Journal of Archaeological Science* 66, 169–180
- Enghoff, I. B. 2011. *Regionality and Biotope Exploitation in Danish Ertebølle and Adjoining Periods*. Scientia Danica. Series B. Biologica. Vol. 1. København: Det Kongelige Danske Videnskabernes Selskab
- Kurlansky, M. 1999. *Cod: a biography of the fish that changed the world*. Canada: Vintage
- Madsen, A. P., Müller, S., Neergaard, C., Petersen, C. G. J., Rostrup, E., Steenstrup, K. J. V. & Winge, H. 1900. *Affaldsdynger fra Stenalderen i Danmark: Undersøgte for Nationalmuseet*. Copenhagen: C A Reitzel
- Moore, K., Fu, W., Primeau, F., Britten, G. L., Lindsay, K., Long, M., Doney, S. C., Mahowalk, N., Hoffman, F. & Randerson, J. T. 2018. Sustained climate warming drives declining marine biological productivity. *Science* 359, (6380), 1139–1143, DOI: 10.1126/science.aao6379
- Moss, M. & Cannon, A. 2012. *The Archaeology of North Pacific Fisheries*. Chicago: University of Chicago Press
- Müldner, G. & Richards, M. P. 2007. Stable isotope evidence for 1500 years of human diet at the city of York, UK. *American Journal of Physical Anthropology* 133(1), 682–697
- Ritchie, K., Folkvord, A. & Hufthammer, A. K. 2013. Oxygen isotope ratios in cod otoliths used to reveal seasonality of fishing at late Mesolithic sites in Denmark. *Archaeofauna* 22, 95–104
- Roberts, C. 2007. *The Unnatural History of the Sea: the past and future of humanity and fishing*. Washington: Island Press
- Smylie, M. 2004. *Herring: a history of the silver darlings*. Stroud: The History Press

Harry K. Robson

University of York

Review submitted: May 2018

The views expressed in this review are not necessarily those of the Society or the Reviews

Editor