

Contributions from Human-whale Historiography to Ocean Sciences

In the next decade, the world will see how the sustainability of oceanic waters and its strong connection with human lives is under threat. The United Nations Decade of Ocean Science for Sustainable Development (2021–2030) is being designed as a participative and transformative process of reinforcing dialogues from integrative multidisciplinary approaches in the science–policy interface. Society as a whole must be involved in creating this transnational invitation, expressing its global commitment through the formulation of initiatives and policies, based on scientific evidence toward the protection of oceans. In this sense, narratives built from forecasted exchanges and connections may encourage dialogues between different parts of the world, in order to promote effective actions and capacities to save the oceans.

The preparatory arrangements for the Decade of Ocean Science were abruptly affected by the social and economic damages spread by the global COVID-19 pandemic. The increasing perception of national vulnerabilities associated with geographical and social inequalities and exclusion may severely affect expectancies concerning the capability of some governments and multilateral organisations to solve old and basic issues. For many countries, the exercise of prospection for future trends has been suddenly blurred by cumulative impacts of pandemy on their development policies.

Now, more than ever, new angles to face contemporary challenges will be required in order to enhance integrative actions which aim to qualify forms of interaction between human societies and oceans, as envisioned by the UN Decade. Integrative perspectives embracing marine sciences and intercultural approaches open up large spaces that rethink the critical effects of imbalance in the relationship between societal and natural systems. To clarify this argument, I propose a review of worthy developments in human-whale historiography, the subject of intense dialogues between ocean history, history of science and marine sciences.

The UNESCO's Global Ocean Science Report, published in 2017, defines ocean science as the integrative, interdisciplinary and strategic research areas covering the marine ecosystems functions and process, oceans and climate, ocean health, human health and wellbeing, blue growth, ocean crust and marine geohazards, and ocean technology. The category 'human health and wellbeing' covers physical and social studies on the access to marine ecosystem services such as food security, recreation, harmful algae blooms, and social, educational and aesthetic values.

This broad panorama is permeated by the multiple interconnections between environmental sciences and the humanities which are indicative of novel interpretative categories to amplify our understanding of the entangled trajectories crossing terrestrial and maritime spaces. This is further accentuated by the intersections of past and present marine ecosystems and societal practices, in both material and symbolic schemes. As Virginia Richter emphasised (referring to the complexity of diverse existing littoral spaces), there are various movements, acts and discursive exchanges on, through and beyond its topographies.¹

Bearing in mind that a common language may support discussions of a common legacy – the sea waters – shared by diverse national states, some strategic pathways seeking common responses to scientific and societal concerns would inspire essential answers in the frontier between science and politics. Launched in 2016, the UNESCO Chair's 'The Ocean's Cultural Heritage' held by NOVA University of Lisbon, express the commitment with the dissemination of ocean heritages in the Atlantic, which are been investigated from collaborative initiatives of research and education.

Alongside this initiative, multiple societal challenges involving critical conditions of marine ecosystems in the open ocean, underwater realm and coastlines have been the subject of intercultural studies developed by a international network of researchers. Tangible and intangible memories of cultural and natural heritages encompassing the early modern history of the ocean are integrated in an agenda of studies on underwater archaeology, maritime cultural landscapes, marine environmental history, environments and resources management.²

Concerning to transnational policies structured to guarantee the protection of large cetacean species, the proposal of the creation of the South Atlantic Whale Sanctuary must be highlighted as a substantial strategy to promote biodiversity conservation and the non-extractive and non-lethal utilisation of whale resources in the South Atlantic. The proposal, elaborated by a group of countries – Argentina, Brazil, Gabon, South Africa and Uruguay – with the support of International Whaling Commission (IWC), was firstly presented in its 50th Meeting, in 1998, and has been evaluated since 2001. Until now, the South Atlantic Sanctuary did not achieve the necessary three-quarters of IWC's Member States' votes, but its objectives of promoting the long-term conservation of large cetaceans is conceived as a coordinated cooperation involving developed and developing countries, in a same pathway inspired by conservation strategies aiming the protection of marine life.³

Outlining Human-whale Interactions by Different Voices and Disciplines

In the ocean realm, the history of human-whale interplay compounds a dense component of human cultures all over the world. Many remarkable narratives are built by singular voices and collective experiences from specific space-temporal frameworks. Over centuries of whaling activity and until the second half of the 20th century, available databases concerning large cetacean species were mainly obtained from registers of land-based and offshore whalers. Regular fishing statistics, bulletins of archives of fisheries, number of trips, capture numbers and cetaceans' biological parameters such as length and gender, were the unique source of knowledge regarding their presence in different oceanic regions, strandings events and sightings.⁴ Since the 15th and 16th centuries, popular iconographical representations and literacy about such marine monsters were disseminated in the European societies as potent symbols of adventures, mysteries and myths surrounding the long journeys and trades across remote high seas.⁵

From 1946, the transnational debate promoted by the International Whaling Commission, to find international response to the collapse of the large cetaceans population

inaugured (and publicized) a novel science-based scheme of decision. Nonetheless, applied research focusing on the conservation of large cetaceans became to increase in the 70s, and from the first Biennial Conference on Biology of Marine Mammals held in 1975.

The contemporary science of large cetaceans has been built in a context marked by conflicted interests. In 1981, the Society for Marine Mammalogy⁸ was instituted and, in 1999, first issue of the IWC's Journal of Cetacean Research and Management was published. The global whaling moratorium implemented by the IWC from 1986, evidences, until now, how deep are the entanglements between marine sciences and an institutional environment of uncertainties, polarization and tensions which have pushed the decisions carried by the IWC.

This panorama suggests that, in fact, science and politics were always interlinked and that multicultural approaches on the past and present are equally essential in the production of knowledge on human-whale relationships and its subsequent effect on marine environments and societies. The manifold studies are characterised by integrative framework of specific space-temporal scales, amplification of connectiveness between a diverse database generated in different sources, and by the focus on local and regional circumstances of the interaction between marine ecosystems and societal practices.

An illustrative overview has indicated its relevant links to marine historiography. An assessment of the presence of whales and dolphins in the sea of Portugal in the 12th and 20th centuries were obtained from sources related to whaling, strandings, and sightings at sea, which permitted the number of accounts in each period for each species in specific regions. Until the 1970s, its sources would be the only effective data available about cetaceans in Portugal.⁷

Another study is based on registers of whaling activity in the Pacific islands of O'ahu, Maui, Kaho'olawe, and Hawaii, which was published in local sources as newspaper and public archives over the period of the late 1840s to the early 1870s. These invaluable records of shore-based small whaling enterprises strategically located on these four islands described migration routes and breeding areas of cetaceans from sightings which occurred primarily from January to April, and sometimes between October and December.⁸

Reports of colonial and province authorities, the Royal Treasury documents, newspapers, travellers' stories and other literary sources were compiled in a comparative investigation of whaling on the Atlantic coast of the United States and Brazil, in the period 1750–1850. The investigation examined the aspects of processing and marketing of oil, and circumstances of labour relations involving native groups of North American and African slaves in Brazil.⁹

The reconstruction of whaling activity and walrus hunting took place between the 17th and 19th centuries, in the Spitsbergen island in the North Atlantic. This was until the Bowhead whale (*Baleana mysticetus*) and the Atlantic walrus (*Odoboenus rosmarus*) went completely extinct, which was conducted by multidisciplinary investigation. Archaeological excavations, historical sources, biological and zoological inventories and podological sources structured a repertoire of information to reconstitute the ecology of these species in that period, as well as the current ecological traces derived from past activities.¹⁰

Other studies could also illustrate the potential linkages of intercultural studies and ocean sciences as a contribution to hybrid trajectories around different societies and ocean waters. Many sources of relevant academic and scientific expertise have enhanced dialogues and focused their attention on regional initiatives, taking into consideration

legitimate needs and cultural legacies. The intrinsic benefits from shared contributions of human-whale historiography and ocean sciences can play many different parts in the evolution of the UN Decade of Ocean Science. Such possibilities and compatibilities are huge, as well as the extent to which marine heritage can be potentially understood and shared by all.

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