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Humanizing the *Seas*

A Case for Integrating the Arts and Humanities into *Ocean Literacy and Stewardship*

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Plastic Catch · Susan Schultz
porcelain and wood sculpture

Ocean literacy and public humanities

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Abstract

This paper frames a series of contributions that both argue for the need to integrate the humanities into ocean literacy and stewardship and provide examples of public humanities projects that contribute to this goal. This introductory piece examines the history of the development and subsequent international adoption of ocean literacy principles, then analyzes the content of the ocean literacy framework to reveal that the humanities and arts are largely absent. Ocean history, or couched more broadly, the "blue humanities," can enrich the goals and achievements of ocean literacy. The existence of the ocean literacy framework, and particularly its grassroots origin and culture, invites humanists to contribute to the much-needed project of historicizing our human relationship with the ocean. If we hope to address present environmental challenges, the humanities must complement the science, technology, engineering, and math (STEM) and policy foci of existing articulations of ocean literacy. The public humanities and arts stand to contribute importantly to addressing this lacuna, in part because ocean literacy is aimed at public audiences rather than specialists or academic groups. The urgency of ocean-related environmental challenges heightens the need for humanists to become involved, because ocean literacy must be taught not only through traditional educational institutions but to all members of the global community.

Ocean Literacy, a unified framework of essential principles and concepts, equips citizens to understand relevant fundamental concepts to make informed and responsible decisions about the ocean and its resources. It was developed through a grassroots effort by the National Oceanic and Atmospheric Administration (NOAA), *National Geographic*, and members of the ocean science and education communities and is now promoted by the United Nations Educational, Scientific and Cultural Organization (UNESCO).[1] Scientists and educators led these efforts and, despite one of the seven principles stating that, "[t]he ocean and humans are inextricably interconnected," history specifically, and the humanities generally, are largely absent from the existing documents and the standards they articulate. The public humanities stand to contribute importantly to addressing this lacuna, in part because ocean literacy is aimed at public audiences rather than specialists or academic groups. The urgency of ocean-related environmental challenges heightens the need for humanists and artists to become involved, because ocean literacy must be taught not only through traditional educational institutions but to all members of the global community (Figure 1).

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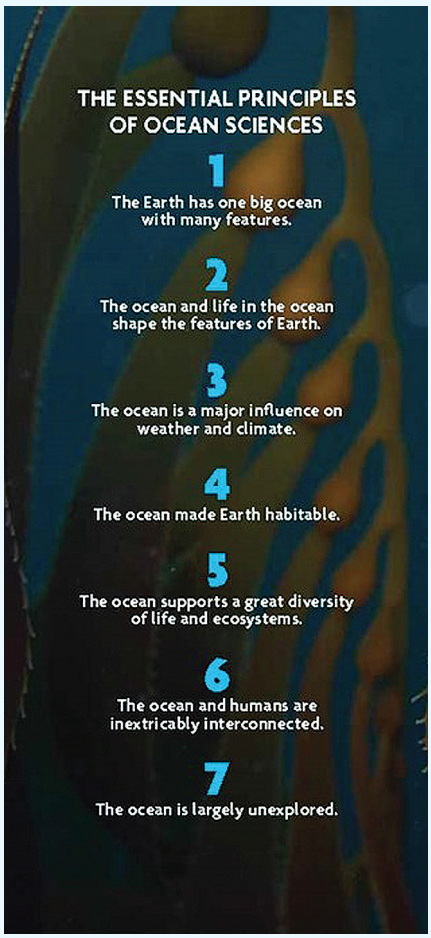
ments of ocean literacy. If we hope to address present environmental challenges, the humanities must complement the science, technology, engineering, and math (STEM) and policy foci of existing articulations of ocean literacy. Ocean history is essential to counter the widely embraced cultural understanding of the marine environment as a timeless, static place that exists separately from people and their daily activities. Rather, humans and oceans have been inextricably interconnected over evolutionary time, as oceans have been used for food and other resources, transportation, and communication, and also a mirror for imaginative engagement with and interpretation of the natural world. Narrative and metaphor powerfully define the ocean, both in the past and present. Descriptors

FIGURE 1. Principles of Ocean Literacy, from National Oceanic and Atmospheric Administration (NOAA), *Ocean Literacy: The Essential Principles and Fundamental Concepts of Ocean Sciences for Learners of All Ages* (Washington, DC: NOAA, 2013).



such as "ocean wilderness" or "ocean frontier," for example, carry weighty, and lasting, historical meanings and often act to countermand scientific understanding of the sea. The humanities can both identify such influences and also contribute to the creation of new narratives to support better understanding of the marine environment and our ever-changing relationship with it.

In 1995 the Smithsonian Institution created an exhibit that crystalized for me the dangers of leaving the humanities out of efforts to articulate and address the ocean's environmental challenges. In the 25th anniversary year of Earth Day, the "Ocean Planet" exhibit aimed to inspire visitors to take actions to protect the ocean by exploring its scientific, economic, social, literary, political, and cultural importance. A section of giant mock ocean buoys displayed disturbing images of marine pollution, habitat destruction, overfishing, biological invasion, and effects of both local development along coasts and of global change. The exhibit creators, however, wanted to expand the exhibit beyond science and environmentalism, so they created a major section on human interactions with the sea. That section emphasized common elements in the relationships of coastal people, both seafarers and shore-dwellers, with the ocean. To demonstrate that fishers from communities around the world face both risk and reward, for example, the exhibit displayed memorials to those lost at sea from three different cultures, including both traditional and industrial fisheries (Figure 2). This strategy succeeded at demonstrating commonalities among disparate cultures and across time, but at the cost of effacing cultural difference and erasing historical change. Indeed, this section worked in tension with the exhibit's goal by presenting the ocean as a timeless and an acultural space, a message directly contradicting the urgency and timeliness the exhibit was intended to convey.[2]

The perception of the ocean as timeless is just as much a product of historical change as other economic, political, or cultural effects produced through the dynamic interrelationship between people and oceans. Western cultures tend to view the ocean as a space that escapes the ravages of time, as Henry David Thoreau expressed in 1864:

Western cultures tend to view the ocean as timeless

FIGURE 2. Image from Ocean Planet exhibit of the Pearl Diver Memorial, Thursday Island in the Torres Strait, honoring the hundreds of Japanese who died in the Torres Strait diving for pearl shell between 1878 and 1941. © David O. Brown.

Ocean Literacy devoted significant attention to education

"We do not associate the idea of antiquity with the ocean, nor wonder how it looked a thousand years ago, as we do of the land, for it was equally wild and unfathomable always."[3] Beyond its supposed freedom from the march of time, to which land was subject, the sea appeared unlike the terrestrial realm in being impervious to human actions. Lord Byron declared, "Man marks the earth with ruin—his control stops with the shore."[4] These 19th-century articulations of the ocean's immunity from history and from human influence emerged out of a transformation of the ocean from a place of work into a space for recreation or respite.[5] These perceptions retain their power in the present, competing with new messages recently issuing forth from scientists and environmentalists about drastic, worrisome changes to the oceans and human culpability for them. The grip of the cultural view of the ocean as timeless makes it easy to understand why the ocean slipped from the priorities of the environmental movement of the 1960s and 1970s, which focused on land, fresh water, and air to the near complete exclusion of the ocean (notwithstanding concerns about coastal oil pollution and the save the whales movement). Unless we come to terms with the historicity of the ocean, the cognitive dissonance of simultaneously held views of the ocean as timeless and as imperiled will impede environmental action.

Recognition that the ocean is not viewed as timeless by all cultures, and that it was understood as caught up in time and connected to human history at moments in the past, will help situate the cultural view of the ocean's timelessness as one among many past understandings of the sea and may enable us, finally, to jettison it. Such recognition is absent from the Ocean Literacy standards, which suffer from the same weakness as the "Ocean Planet" exhibit: viewing the human relationship with the ocean as timeless and acultural. Attention to the development of those standards illuminates their contents and their omissions. Simply put, Ocean Literacy "means understanding the ocean's influence on you and your influence on the ocean."[6] Initial steps towards articulating Ocean Literacy standards emerged when scientists and ocean science educators in the United States objected to new national science standards released in 1996 that ignored ocean topics, which many believed would both interest students in science and provide knowledge essential for citizens facing ocean-related global environmental issues. Drafting and finalizing the standards involved an impressively grassroots process that included hundreds of scientists, educators, and policymakers, resulting in the 2005 release of the first published statement of Ocean Literacy, which identified what an educated citizen should know about the ocean by the end of public education.[7] The Ocean Literacy campaign spread internationally thereafter through national, regional, and international marine educators' organizations. An updated Ocean Literacy guide appeared in 2013 that devoted significant attention not only to formal education in public schools but also to informal education, such as in museums, aquariums, science centers, and parks.[8] The United Nations (UN) policy of sustainable development of oceans and marine resources, through Sustainable Development Goal (SDG) 14, led to the UN's adoption of an Ocean Literacy framework in 2017.[9]

The now-internationally recognized Ocean Literacy principles reflect the assumptions, expertise, and aims of the collective of individuals and organizations that forged them. The emphasis is on the natural sciences, on the present moment in terms of scientific knowledge of the oceans and perception of the pressing need for international action, and on the immediate future in terms of desired regulatory action and behavioral modification of individuals and groups. Of the seven Ocean Literacy principles, only one invokes humans at the overview level, a curious feature given the definition of ocean literacy noted above. Principle 6 states that "the oceans and humans are inextricably interconnected" but etches a stark distinction between economic and supposedly non-economic cultural uses of the ocean that does not reflect reality (for example, recreation and heritage are considered non-economic despite both contributing significantly to tourism, which is enormously important to many coastal economies). This distinction reveals a profoundly Western cultural view of the ocean as something universal, global, and valued for its benefits to people (such as ecosystem services and benefits for human health). Indeed, Principle 1 asserts firmly that there is only one world

the ocean became a space for recreation and respite

scientists today insist on acknowledging one world ocean

ocean, not plural "oceans" or "seas." Present-day scientists, science educators, and environmentalists insist on the singular ocean, for example in the recent "Drop the S" campaign, to underline the fact of interconnections between all seas. They hope that promoting the singular "ocean" will guarantee that ocean-literate people will recognize global connections and the ocean's finiteness despite its vast size.[10]

The assertion of a singular global ocean does not match the lived experiences of most people over human history. Different groups of people had, and have in the present, distinctive relationships with varied parts and extents of the ocean. The Makah Tribe of the US Pacific Northwest viewed the ocean as a part of their territory (Figure 3), whereas ancient Greeks understood the forbidding "Ocean River" as outside the human realm completely.[11] Until European explorers found sea routes between known and newly discovered lands in the 15th and 16th centuries, people around the globe knew their own coastal area, perhaps the sea it belonged to, or at most two linked ocean basins.[12] Indeed, even scientists have only recently viewed the ocean as a unified whole, as the title of the 2003 Pew Commission report, *America's Living Oceans*, suggests.[13] While scientists today insist on the importance of acknowledging one world ocean, this view contradicts historical reality for many, if not most, people around the world and through time. Politically expedient from an environmentalist perspective, the assertion of a singular ocean has enforced a presentist perspective, that is, a view of the past that is dominated by present-day

FIGURE 3. Makah tribal members preparing to put out into Puget Sound, ca. 1889. The original caption to the photo reads: "Makah tribe of Indians from Nee-oh Bay resting on the beach at Port Townsend while en route for the hop fields up Pudget-Sound, ca. 1890. The photograph was taken by J. M. McMurry of Port Townsend, Washington Territory." US Department of Commerce and Labor, Bureau of Fisheries photo. National Archives, Still Picture Records Section, Special Media Archives Services Division (NWCS-S), NAID 513105.

human interactions illuminate complex ocean issues

attitudes and experiences, which yields overly simplistic, often inaccurate, and certainly ahistorical understandings of the human–ocean relationship that ultimately obstruct environmentalists' goals.

While more and better science education, including science-based ocean literacy, comprises an essential part of addressing ocean environmental issues, history and culture are equally important. Appreciating the extraordinary and diverse character of human interactions with the ocean illuminates the complexity of ocean issues, which may, in fact, worry many scientifically trained environmentalists. The "Drop the S" campaign is evidence of this, as is the recent call for a new, singular narrative for the ocean, "one that reflects current scientific knowledge and inspires new science and effective action" but that neither recognizes the lack of a single ocean narrative in the past, nor acknowledges that such a singular narrative, if achieved in the present or future, would likely fail to provide an effective foundation for changing human behavior.[14] As the historian of marine sciences Antony Adler points out, scientists from the start of modern oceanography in the 19th century forward "framed their efforts as bringing forth desired outcomes for the human future or staving off impending cataclysms," and still do.[15] While more and better science is insufficient, the understanding that different cultures at different times experienced distinct relationships with the ocean proffers the hope that we might learn from the past and from the experiences of a variety of cultural groups in their unique relationships with the ocean. Material environments or natural resources cannot entirely explain the extent and nature of cultural engagement with the ocean by many societies. The ocean's vast size and inaccessibility prompts the use of representations, including narratives, images, and metaphors, to define the ocean, both its materiality and the variety of meanings it holds for different groups of people at different times.

History can recover past uses of the ocean but, perhaps even more importantly, the humanities can offer a means for understanding the power of cultural representations to shape perception of the natural world. For instance, to Europeans crossing to the New World before and during colonization, the ocean shared negative characteristics assigned to terrestrial wilderness at that time. William Bradford called the land he reached after the *Mayflower* voyage "a hideous and desolate wilderness," but he and others revealed their enormous preference for land over sea by thanking God for letting them "[set] their feet on the firm and stable earth, their proper element."[16] European attitudes toward terrestrial wilderness involved "subduing" it by tapping its resources for human purposes, a stance certainly embraced for using oceanic resources.[17] In the mid-19th century, US naval officer Matthew Fontaine Maury expressed a long-held view of the ocean as a highway connecting groups of people: "The ocean … presents … a common highway, upon which each society, like every nation, may make its ventures, and return in vessels laden with treasures to enrich the mind and benefit the human race."[18] Maury's work, and his perception of the ocean, formed part of a broader effort to systematize knowledge of the ocean and make it available for mariners engaged in trading, whaling, and projecting imperial power around the globe.[19] A more positive association of wilderness with the ocean emerged early in the 20th century, when the conservation movement and the popularity of big-game hunting helped to transform the open sea into what historian Gary Kroll describes as "a wilderness frontier that could replace the American west."[20] A post-World War II conflation of the ocean, especially the undersea realm, with the US western plains reinforced existing views of the utility of the ocean for humans but represented its resources as limitless. The "ocean frontier" promised access to food resources, wealth from extractive and productive industries, and even new living space. The extent and power of the ocean frontier metaphor contributed to the very long delay in recognizing the ocean as an environment susceptible to human actions and in need of protection.[21]

Understanding the power of cultural representations to reflect or create historical change offers hope for the future. An oceanic turn characterizes recent scholarship in a wide range of humanistic fields, including historical geography, cultural history, literary studies, anthropology, and history.[22] As Steven Mentz points out in his proposal

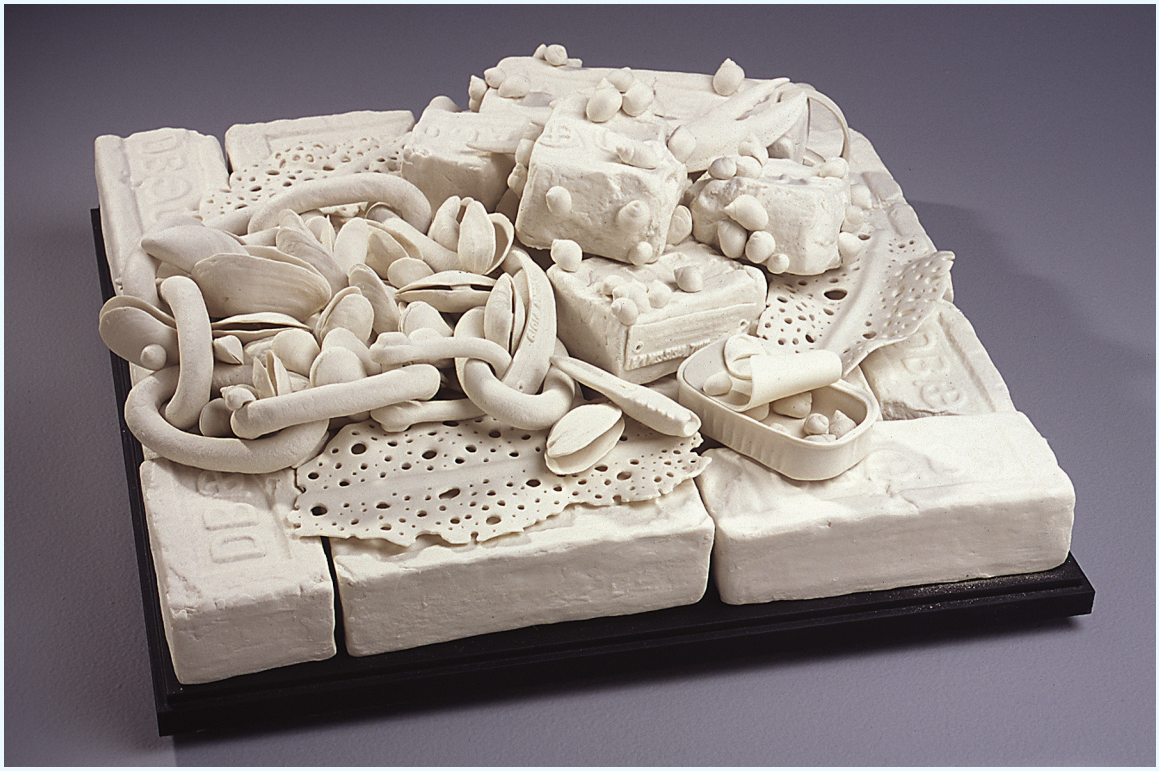
the "ocean frontier" promised access to wealth

for "blue cultural studies," blue humanities speak effectively to some of the most important movements in the present: globalization, postcolonialism, and environmentalism.[23] Cultural historian John Gillis identifies the emerging historicization of the ocean as "one of the most striking trends in the blue humanities."[24] In my book *Vast Expanses: A History of the Oceans*, I demonstrate that appreciation of the length and character of human interactions with the ocean illuminates the complexity of its issues, a complexity that must be addressed in order for ocean environmentalism to succeed.

In short, ocean history, or couched more broadly, the blue humanities, can enrich the goals and achievements of ocean literacy and, indeed, must complement the STEM and policy foci of current articulations of ocean literacy if we hope to address present environmental challenges. However, the existence of the Ocean Literacy framework, and especially its grassroots origin and culture, I believe, invites humanists to contribute to the much-needed project of historicizing our human relationship with the ocean. The humanities can contribute to ocean literacy by enabling recognition, and exploration, of the intersection of representations of ocean space and resources with their use in the past, present, and into the future. But that's not all. Humanities can also contribute to the creation of new representations—new narratives or metaphors or images—to support better understanding of the marine environment and our dynamic relationships with it (Figure 4).

The ocean is essential for human survival, providing critical services that enable human life to flourish, yet suffering from the results of human actions. As Rachel Carson wrote in 1960 in her preface to *The Sea Around Us*, "It is a curious situation that the sea, from which life first arose, should now be threatened by the activities of one form of that life. But the sea, though changed in a sinister way, will continue to exist; the threat is rather to life itself."[25] More recently that sentiment, but applied to the whole of the natural world, is exactly the conclusion of Alan Weisman's *World Without Us*.[26] We need nature, including the oceans; they do not need us. We can only become truly ocean literate by understanding the various relationships that

FIGURE 4. Humanities can also contribute to the creation of new representations—new narratives or metaphors or images—to support better understanding of the marine environment and our dynamic relationships with it. "Portland, Maine," sculpture by Susan Schultz. Photo courtesy of the artist.



have existed between the ocean environment and humans, ones that encompasses different times, geographies, cultures, peoples, and ways of thinking and imagining. Knowing this, we might become ocean stewards and locate a path forward to create a future in which both the oceans and humans thrive.

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Endnotes

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