

Regional Maritime Contexts and the *Maritorium*: A Latin American Perspective on Archaeological Land and Sea Integration

Jorge M. Herrera¹ · Miguel Chapanoff²

Published online: 27 November 2017

© Springer Science+Business Media, LLC, part of Springer Nature 2017

Abstract In the field of maritime archaeology, the use of maritime, coastal, riverine, and lacustrine spaces by past societies has been perceived in different and changing viewpoints. These perspectives have flourished in dynamic and varying ways in many countries, and under different theoretical constructs. If in the 1970s the subject was perhaps not recognized as a central research subject by much of our community, it is now not only accepted but it has become a robust area of interest in maritime research. Two concepts in Latin America have been accepted that have had widespread application and influence, namely the *regional maritime context* and the *maritorio*. The points of contact between both are so intense that it is possible to speak about a single alternative with two possible names. In this article, their origins, applications, and theoretical influences are presented in a way that unifies these two concepts into a single approach (the *maritorium*), and examines how these ideas have been applied to research carried out in Mexico, Chile, and Uruguay. These applications are wide ranging, as they include the interconnected complexity between land and sea as used and inhabited by past societies. They have been applied in the study of ship traps, whole fleets, sites of maritime conflict and warfare, exploration activities, and ethnographic research. These will also be presented in light of other concepts of similar interest in the international sphere, such as the widespread concept of the Maritime Cultural Landscape, and also in view of other theoretical frameworks coming from the wider sphere of the profession, such as Landscape Archaeology and Phenomenological Archaeology.

Keywords Maritime archaeological theory · *Maritorium* · Regional maritime context · Landscape archaeology · Phenomenological archaeology

✉ Jorge M. Herrera
sanjorgeydragon@hotmail.com

¹ Institute of Anthropological Research, National Autonomous University of Mexico, Mexico City, Mexico

² Araucanía National Museum, Araucanía, Chile

Resumen El uso de los espacios marítimos, costeros, ribereños y lacustres por las sociedades del pasado ha sido percibido en la arqueología marítima desde diferentes y cambiantes puntos de vista. Estas perspectivas han florecido de formas dinámicas y variables en muchos países y bajo diferentes construcciones teóricas. Si en la década de 1970 el tema tal vez no era reconocido como un aspecto central de investigación por gran parte de nuestra comunidad, ahora no sólo es aceptado, sino que se ha convertido en un área sólida de interés en la investigación marítima. Hay dos conceptos en América Latina que han tenido cierta amplitud de aplicación e influencia, a saber, el contexto marítimo regional y el maritorio. Los puntos de contacto entre ambos son tan intensos que es posible hablar de una misma alternativa con dos nombres posibles. Se presentan en este artículo sus orígenes, aplicaciones e influencias teóricas de una manera que unifica a estos dos conceptos en un mismo enfoque (el maritorium) y se examina cómo estas ideas se han empleado en investigación llevada a cabo en México, Chile y Uruguay. Las posibilidades de uso son muy variadas, ya que incluyen la complejidad interconectada entre la tierra y el mar, utilizados y habitados por las sociedades del pasado. Se han aplicado en el estudio de trampas de embarcaciones, flotas enteras, actividades de exploración, sitios de conflicto y guerra marítima, así como en investigación etnográfica. Estas nociones también se presentarán a la luz de otros conceptos de interés similar en el ámbito internacional, tal como el concepto generalizado del Paisaje Cultural Marítimo, y también bajo la perspectiva de otros marcos teóricos provenientes de la esfera más amplia de la profesión, como la Arqueología del Paisaje y Arqueología Fenomenológica.

Introduction

The ideas presented here in the form of an international journal article are long overdue. These concepts have been individually developed by each of the present authors since the mid-1990s, and in a cooperative effort, which included an intense interchange of ideas, experiences, and field applications since 2002, when we first met and detected the similarities and complementary aspects of our approaches and theoretical concepts.

In October 2015, colleagues organized a symposium in Chile entitled “Maritime Cultural Landscapes in South America”. As important as the topic is, and as interesting as the symposium was, it became evident to us that we have been remiss for not publishing a series of concepts that were born in Latin American contexts, with the aim of answering questions derived from Latin American maritime archaeology projects and within these same frameworks of research. Also, we are fully aware that both the *maritorio* and *regional maritime context* ideas have been in use for a time in our region and, through conference presentations, teaching experience, seminars, lectures, and other academic interchanges, both concepts have been spreading throughout our continent (with particular emphasis in Mexico, Chile, and Uruguay), and in varied contexts. The following are examples of these investigations: applications to characterize socio-cultural appropriations of the sea by fishing communities in Colombia (Díaz and Caro 2016); the social construction of time and memory among fishermen in Chiloé, Chile (Ther 2011); and a historical study of piracy in Colonial Colombia (Fuentes 2013). Therefore, with this article we are finally offering an overview of how both ideas merged into one comprehensive concept. We also put these ideas alongside other theoretical approaches to maritime landscapes, identifying their similarities, their different geographical scopes, and their different epistemological backgrounds.

It is important to note that we do not seek to distance ourselves from Christer Westerdahl's concept of "Maritime Cultural Landscape" (Westerdahl 1992), as it has influenced our work in recent years. It is not our intention to bring a competing set of concepts that are aimed at challenging Westerdahl's working platform. To the contrary, we think that our work offers a complementary viewpoint to the subject, as it incorporates elements not necessarily underscored by Westerdahl's proposal and certainly not central to it.

Maritime Spaces

The field of maritime archaeology engages today in a constructive and constant effort to understand how people might have made use of the maritime, coastal, riverine, and lacustrine spaces, not only from environmental and subsistence-practice perspectives, but regarding the perceptions attached to these landscapes. Until recently, most of maritime archaeology was chiefly preoccupied with studying shipwrecks, perhaps in a state of isolation, appearing not to be deeply interested in the dynamics of how the sites happened to be where they are, beyond general interest in wrecking processes. It would be unfair to state that the discipline was not interested in the environment and landscape, but it certainly had a quite distinctive approach to the surroundings of the archaeological sites under study, if compared to present-day practice. For example, Dumas (1965) rightly insisted on the fact that any excavation report should include, among other elements, a geological analysis of the site and its marine environment. The dynamics and the archaeological thinking are nonetheless different now, and the maritime space is perceived as much more than a residual product of engaging with geological analyses. It is a key element for regional research, and certainly a field for theoretical and conceptual dialogue. Of course, this is not intended as a depreciatory statement. Dumas, and many other precursors of our profession, opened new research avenues bringing the ship and archaeology to innovative and meaningful methodological dialogues; they were just concentrated on the pressing needs of their time. Nonetheless, we could argue that interest in the landscape, and how it impacted seafaring in antiquity and medieval times, was present in a number of seminal works of that generation, such as Serçe Limani (Bass et al. 2004) or Yassı Ada (Bass and van Doorninck 1982), although certainly in an implicit way. While the publications produced might not discuss the maritime landscape in a way similar to the theoretical approaches of today, the interest and interpretative effort was certainly already present.

Through becoming clearly explicit, such approaches have certainly changed in recent times. This topic, the archaeological research of the maritime space in archaeological contexts, is rooted in the effort to study both shipwrecks and coastal societies, within the maritime component of the spaces with which they are interlocked. It is concerned with the unravelling of shipwrecks and waterfront societies involved in various degrees of densely concentrated regional and contextual environments. The interest in studying maritime landscapes and developing theoretical approaches is now an active research direction. Different proposals have appeared since the mid-1990s regarding how to approach the landscape and the seascape by considering their interconnected complexity. One example of the spate of growing interest in this subject looks at Neolithic cairns in the isles of Orkney and mainland Scotland, studying their visual relationship to the landscape and the sea (Phillips 2003). Another looks at the interest in creating a synergy between maritime and landscape archaeology, in relation to seafaring in the early Bronze Age, by analysing the landscape contexts of the Ferriby and Kilnsea boats (Van de Noort 2003). There have

also been regional efforts such as the detailed and comprehensive archaeological survey of the maritime landscape of Strangford Lough, in Northern Ireland, including submerged landscapes, fishing evidence, shell middens, tide mills, ports, landing places, shipwrecks, etc., in which evidence extended from prehistory through the twentieth century (McElrean et al. 2002). Although it could hardly be stated this way of integrating sea and land is a firmly settled perspective within the field, progress has been influential enough to draw optimistic views to affirm that “the contexts of coastal and inland sites are maritime as well as terrestrial, that to look landward and not seaward is a fundamental mistake, and the criteria which allow such sites to be understood can be either wet, or dry, or both in various proportions” (Hunter 1994: 261).

Different concepts produced by these kinds of endeavours have been characterized in Scandinavia as “Maritime Cultural Landscapes” (Westerdahl 1992, 2011b), in Mexico as *regional maritime contexts* (Herrera 2001b), and in Chile as *maritorio* (Chapanoff 2003, 2005). Although the three approaches arose independently of one another, all are closely related and share an interest in perceiving the human activities related to marine and waterfront (sea and land) environments within the broadest perspective, including not only the environment, but also the social responses to human interaction within those environments. In short, they attend to the fact that navigation and waterfront communities do not operate in a vacuum nor are they disconnected; they are part of many larger interrelated phenomena, both in their social and geographical implications.

It would be naive to believe that at present Latin American archaeology is openly receptive to these ideas. They are underscored by some specialists, but largely ignored, neglected, or directly opposed by members of the general archaeology communities. Still, today it is not unusual to receive critiques in the sense that all maritime archaeology affairs are not of prime interest, or that we do not need to engage in any sort of specialization, as maritime archaeology “is just archaeology”, hence diminishing the efforts directed towards the express study of past cultures from a specifically maritime perspective, applying specialized methodologies or theoretical approaches.

In a general way, archaeologists interested in the landscape are focused primarily on land-based cultures. Of course, exceptions exist that actively include both coastal and maritime settings (Tilley 1994, 2010). Approaches regarding the maritime landscape as a conceptual category in relation to its connections between culture and terrestrial and maritime landscapes (Bender 2002), giving importance to its cognitive aspects, are in use. In another example, inquiries have been directed to the archaeological relationship between land and sea, and where the limits of the maritime landscape are (Thomas 2004). Nonetheless, for the most part, the theoretical and methodological discussions among landscape archaeologists have concentrated their efforts on approaching the archaeological realities from “land-landscapes” and not “maritime-landscapes”. In the case of professionals considering themselves maritime archaeologists (by training or by area of interest), it is clear and natural that a higher level of interest has been present, mainly through the influence of Westerdahl’s work.

How people in the past have used the varied maritime, riverine and lacustrine landscapes, and how archaeologists organize their research strategies towards these topics, are both cognitive matters. In other words, this aspect of archaeology is interested in how the world is perceived, how mental maps are used to move around that space, and how archaeology tries to study those phenomena.

Maritime Cultural Landscapes

The concept of Maritime Cultural Landscape at present is widely known and applied in the academic discourse in several countries, and it has been extensively published. Therefore, we will not explain it here in detail, as the reader can easily find the original works of its main proponent, Westerdahl (1992, 2010, 2011a, b), as well as numerous applications, and even a thorough description of his ideas as applied in the study of Chilean maritime prehispanic communities in northern Patagonia (see N. Lira, this volume). For the aims of this article, we will just delineate some of its main points, which are particularly relevant for the present discussion.

This concept was developed by Westerdahl to provide a scientific term under which the surviving elements of maritime- and land-based culture could be considered as a unified whole. The term seeks to define “human utilization (economy) of maritime space by boat, including settlement, fishing, hunting, shipping, and its attendant sub-cultures, such as pilotage, lighthouse, and sea-mark maintenance” (Westerdahl 1992: 5). This notion also searches for the use and integration of ethnological mapping of spaces, particularly maritime space. It is deeply associated with what has been coined as “cognitive landscapes”, defined as “the mapping and imprinting of the functional aspects of the surroundings in the human mind, i.e., ‘Man in landscape, landscape in mind’” (Lofgren 1981, quoted in Westerdahl 1992: 5). Severe limitations are imposed by dissecting the archaeological remains of maritime cultures by studying them as separate entities, some resting under water and some on the waterfront or inland, as if they were not part of the same culture. According to Westerdahl (2000: 11),

“Sea and Land are elements inextricably bound up with each other. The one delimits the other. At the same time, they *are* opposites and they thus contradict each other. Both on land, on the waterfront, and underwater the remains of a maritime cultural landscape can be discerned. Neither can be understood without reference to the other. However, the combination of the two is most uncommon in archaeology.”

The landscape is considered both from its cognitive and archaeological viewpoints, and the two perspectives are deemed of immense importance for an understanding of maritime cultures of the past (Westerdahl 1994). Other important elements that this approach takes into account are inland elements, such as rivers and lakes, whose existence can be of importance for transportation, namely as transport zones. On deeper reflection, the inland waterways are not only considered as passages for transport of goods, but as sites where contact can be exercised between coastal and inland communities.

Regional Maritime Contexts

The need to have a conceptual framework to understand an array of sites indicating nautical activities and accidents, within a considerable oceanic region, was the starting point for developing the concept of *regional maritime contexts* (RMC). This notion was first introduced in Mexico by Jorge Herrera in the late 1990s (Herrera 2001b), under the influence of having participated with the U.S. National Park Service (NPS) Submerged Cultural Resources Unit (now the Submerged Resources Center). While working on a series of remote-sensing surveys in the Florida Keys, a theoretical dialogue undertaken with NPS’ Larry Murphy, allowed Herrera to refine his theoretical approaches, while

cooperating in that regional study (Murphy 1998; Murphy and Johnson 1993; Murphy and Smith 1995). The aim of RMC was to present an alternative to perceiving sites in Mexican site management records as isolated units, as discrete entities denoted only by their historical value within particularistic approaches, as was often the case. The concept developed more fully within the milieu of investigations into 500 years of high-seas navigation in the Bay of Campeche (Gulf of Mexico), focusing on the archaeological record formed by numerous naval accidents in a series of keys. Attempting to interpret the sites in the region solely as discrete historical entities was considered inappropriate and limited. The latter was deemed as an incomplete approach because the aim was to study colonial navigation as a complex adaptive system in which the observation of the surrounding phenomena was regarded as a crucial element in an anthropologically oriented study. The research aimed to study maritime culture as a reflection of activity, behaviour, and the human condition (Herrera 2001c); the concept was applied in the 1630–1631 New Spain Fleet Research Project, which was undertaken by Mexico's National Institute of Anthropology and History (Luna 2001).

This perspective was developed for, and driven by, field research. It encompassed comprehensive seabed surveys, followed by analysis of the archaeological record on a site-by-site scale, as well as looking for an understanding at a regional level (Herrera 2000). The setting was the Bay of Campeche, in the Gulf of Mexico, a large area where numerous reefs and shoals have acted as a ship-trap throughout many centuries. A regional approach to nautical accidents, be they shipwrecks or not, is linked to questions regarding the wide range of motivations guiding the ships to those waters in the first place. What were the stimuli impelling the maritime societies that crossed a zone of high risk? Is it possible to structure a general explanation for the ships being wrecked in that area? Are there any detectable schemas in the complex adaptive system of the region? Can it be applied as a model to other maritime regions with the same conditions? (Herrera 2001b).

In other words, the notion of RMC is a means to inspect the reasons for the ongoing formation of archaeological remains produced by nautical accidents in extended seabed areas. Without assuming that the land-based concept of settlement patterning is appropriate for maritime events (for they respond to a whole different reality from the ones impelling a group to settle, whereas largely no one decides where to wreck), the notion of RMC draws attention to the necessity of understanding the existence of large areas, with interrelated ship-trap areas where evidence of nautical casualties abound.

There are, of course, different circumstances under which it is possible that a captain intentionally decides to lose a ship. One might be vessels that are sunk on purpose so that their remains can serve in the creation of a dike or to protect a passage or channel. This would be the case of the five Viking ships found in Roskilde Fjord, Denmark, sunk intentionally by filling their hulls with stones to block a narrow sailing channel (Crumlin-Pedersen and Olsen 2002). Another option would be 'intentional groundings'; this refers to a captain or pilot who decides to run the ship aground on a nearby coast or shallows when the vessel is about to be lost, attempting with this action to save cargo, crew, and passengers. This conduct is even discussed in navigational manuals from the sixteenth century, such as the *Itinerario de Navegación*, by Juan de Escalante de Mendoza (1985 [1575]), and the *Regimiento de Navegación* by Pedro de Medina (1964 [1563]). Another example can be found in Alvar Núñez Cabeza de Vaca's *Naufragios*, an account of a Spanish exploration voyage to Florida under the leadership of Pánfilo de Narváez. In it, Núñez recalls how, in 1527, he gave order to the pilots to run aground their ships if the wind was so strong that it could endanger the crews' lives (Núñez Cabeza de Vaca 2009 [1555]). A different kind of intentional wreck is the well-known case of the German *Graf*

Spee, scuttled off Montevideo in 1939 by the captain, Hans Langsdorff. Knowing the imminent defeat of his ship against British opposition, he sent his crew ashore and sank the vessel to avoid her capture.

We know in archaeology that materials and sites are not randomly distributed, and it is part of the archaeological task to explain the reasons behind these distributions. Therefore, the importance of studying RMC—on the high seas or near the coastline—resides in understanding common attributes and characteristics, both in the type of accidents suffered, and in their locations within the whole region. It also focuses interest on the dynamics and relations to the collective whole of all sites. Characterising the nature of RMC in this way assists in understanding behaviour occurring in risk situations at sea, along with the associated cultural contexts the sites are linked with, as units and as a whole (Herrera 2001b: 265–71).

The idea of RMC does not stop at the sites resting on the seabed. It extends to the structures and activities on land, facilitating the existence of the shipping system, such as harbours, guiding lights, ports, etc. The regional perspective also considers elements of the landscape-seascape that are used as a means for orientation and safety, such as mountains, hills, bays and inlets. It is also concerned with any changes in how the space was represented cartographically in the past, and how these changes might have influenced shipping patterns, and vice versa, in a mutually engaging dynamic of exploration and use of the maritime environment. It conveys the interest in observing the material associations of the sites' locations regarding the configuration of the seascape, looking for explanations of the patterning created by nautical accidents in the studied region, the differences among the sites according to location and material evidence in terms of understanding the kind of casualty involved, and the possible associated cultural behaviours (Herrera 2001a).

The *Maritorio*

The concept of *maritorio* was developed from a visual motif and ethnographical experience by Chilean anthropologist, Miguel Chapanoff. It originates from the critique of a number of dichotomies regarding how the seaspace is frequently conceived. The first one is that in maps we find the *territorio* (territory), the land areas of the map, covered with signifiers as visual elements: colours, lines distinguishing areas, zones, cities, different kinds of tracks and routes. In contrast, further away from the black line of the coast, nothing is present, it is a blank space of paper. This critique connotes our inability to visualize the maritime as an identity space when it has been stripped of its notion of place and therefore of cultural roots; that is, its founding condition of lifestyles (Chapanoff 2003).

The concept arose by contrast of the said frequent representation of the sea against ethnographical experience, rather than with archaeology. Having worked with maritime communities and on board societies, Chapanoff (2003) suggested it was possible to see that there is another way to perceive the sea, namely that what is portrayed on maps is different to what is seen within those communities. For the maritime communities, the sea contains as many significant factors and details as the land, therefore their sea is as 'drawn' as their land is. It has routes, areas, sectors, and colours, landscapes that are read by the people who are used to that environment. Therefore, if it has symbolism, it has meaning.

The concept of *maritorio* deals fundamentally with giving value and significance to everything that still appears blank when observed from a terrestrial viewpoint. It aims to signify that the sea is a meaningful space and, therefore, the subject of cognitive construction and reading throughout the centuries.

It is also related to research perceptions. Both authors of the present article have been associated for many years with studies of human maritime adaptations, and the characteristics of maritime societies. We have seen that, in many cases, similar studies tend to present understanding from a pedestrian and terrestrial perspective, as if in constructing the notion of a maritime spatiality, the most important factor would come from having a scholar situated at the waterfront; as if the fact of being a physical entity at the seaside implies solely interpreting the sea from the perspective of the beach. Regarding maritime adaptations, a usual procedure is to tackle this problem from a terrestrial perspective. Hence, a frequent alternative has been to attempt a study of the maritime space from the physical fact of interpreting the sea from the land or the beach, and not on an inverse basis.

Since people possess their own spatial codes that they use on land, a first reaction to this concept might be to believe that, as we have tended to interpret the sea from the land, we should now better attempt the inverse, to reverse the code and read the sea from a seafaring perspective. But the concept of *maritorio* does not attempt to read the sea. The proposal is to read the sea and the land. For the navigator, sea and land are a single unity. There is no room for the terrestrial inhabitant's sea and land dichotomy.

This idea also prompts a critique, for a dominant approach within the wider discipline so far has been functionalist: the sea as supplier of food resources, the sea as a communication way or passage, and so on. There is another possible condition of the sea; not of the sea in relation to itself, but of the lifestyles associated with the maritime: conceiving the sea as a vital space, or as the space where a lifestyle can be sustained, an inhabited *maritorio*. There are, of course, examples of research exploring how landscapes are inhabited, known, and experienced (Harrison 2004), and even how a landscape can be inhabited in ways that allow researchers to conceptualize the material world and its components (Fowler 2016). Nonetheless, a land-and-sea perspective still needs to be explored in more detail.

For traditional archaeology, the maritime cultures' point of visibility is the waterfront; it is the maritime experience point and we recognize maritime identities and cultural communities (present and past) by the imprint they leave on the waterfront, the beach, the coast. The waterfront is a meeting place, built from the act of inhabitation. From the pedestrian notion of the territory, it is seen as the limit of solid land. From the *maritorio*, however, it represents a space of continuity (land and sea); it is a foundational crossing of routes and cultural avenues.

To conclude this section, we should admit that the three concepts discussed may well provide the grounds for an epistemological argument that should be seriously considered: from what place and stance do we understand reality when speaking about maritime societies?

A Unified *Maritorium*

The points of contact between the RMC and the *maritorio* are so strong that it became clear to the present authors that it was better to continue working with them in a unified way. Not only would this continue to develop the advantages of each, but it is clear to us that it would be easier to use only one term, rather than keeping both. Therefore, because of its elegance, brevity, and conciseness, we decided to continue to work on these concepts under the unified term of *maritorium*. We also choose to change the Spanish word of *maritorio* to the Latinized form of *maritorium* for two reasons. First, *maritorio* could be difficult to translate to other languages, and using a Latinized version would keep us close to a *lingua franca*. Second, we are aware of the interesting and valuable work of Stuart Needham (2009) who, also thinking about maritime landscapes, uses the expression “maritories”, in

English. Although Needham’s approach runs along a closely parallel path to ours, and we deem it as a progressive and valuable perception, it could lead to confusion between both if we just translate our concept to English. Nonetheless, both “maritory” and *maritorium* seem to be complementary, not only with common grounds of communication, but common oceans.

Regarding the other closely related term, the main difference between the *maritorium* and the maritime cultural landscape is that the latter, according to Westerdahl, is restricted to coastal navigation. The logic for this is that Westerdahl is not comfortable with the use of the concept of seascape, for archaeology. As the notion of seascape is strongly related to the artistic painting of *seascapes*, and most of these *seascapes* were painted in the empty space, they don’t have “any relationship to land and to me, the maritime cultural landscape is within sight of the coast; land must be included” (Westerdahl, pers. comm. 2014). For the *maritorium*, on the other hand, the effort to understand high-seas dynamics is a matter of capital importance, in the form of oceanic navigation, routes, cartography and symbolic understanding, including contexts far away from the land and the waterfront.

It has been noted that archaeological approaches to landscapes have tended to see them from objectified and distanced perspectives, seeing the landscape from the outside by the use of aerial photographs, Geographical Information Systems (GIS), satellite images, etc., (Thomas 2010) and, more recently, also by the use of LiDAR technology. Without denying the value of such resources, and being enthusiasts of these tools, the present authors have decided to remain close to a phenomenological approach to the maritime environment, trying to make the best out of both possibilities: the technological ones, and the traditional activities of those who live by the sea and by those who spend an important proportion of their life on or near the sea itself.

Both coastal communities and traditional fishing activities have been contexts to which the present authors have been close. In those settings, we have seen a vivid amalgamation of traditional perspectives regarding the land and the sea, and how those still have a resounding effect among different Latin American waterfront cultures. Therefore, our viewpoints started from within an approach to the maritime landscape rooted in our anthropological experiences with such communities, and from the experience of mounting the waves rather than restricting us to seeing them while walking the shore. The following paragraphs set the tone for a discussion regarding a set of research applications of the *maritorium* in different contexts.

With the understanding that objects, smells, experiences, and identities associated with the maritime environment may extend far beyond its geographical limits, Thomas (2004) asks, from an archaeological perspective, how far the maritime landscape and its inhabitants might be considered to reach. This question asks us to define what are the real limits, in terms of human experience, of maritime landscapes and, therefore, the terrestrial ones, as well. Therefore, we need to remember the classic dichotomous structures around which the positivist archaeological discourse has been cemented, and where the sea has occupied an ambiguous place in the anthropological categories of culture/nature (Helmreich 1980), promoting epistemological positions that tend to be understood under a binary scheme of opposites. Indeed, by drawing a line between what is maritime and what is not, a kind of reductionist, divisive, and Cartesian objectification of space is perpetuated, a contemporary way of atomizing and categorizing the world experience of past populations. The idea of the *maritorium* calls on researchers to overcome the dichotomous viewpoint between sea and land, between maritime and terrestrial environments. Without ignoring the heuristic potential of analysing marine environments as distinct spaces from land, the reality is that

within the *maritorium* subjects have a much more fluid and integrated relationship with the environments they occupy.

Being out at sea implies a rather different sensorial experience to being on land. If we are at a single location on land, we can experience the landscape from a standing single-subject position. This would be almost unachievable at sea. The very essence of being at sea is to navigate, and this implies to encounter a large set of surrounding circumstances that will affect our physical situation in ways which we will not face on land. Waves, winds, currents, the need to avoid shallows and reefs, all are part of a constantly moving environment, which requires a unique approach to the act of contemplating subsequent actions. Even if one is anchored, and in the middle of still and fair weather, one's perception will be quite different to a standing position on land. If we are fishing mussels, anchored above a reef, we will still be moving around on the anchor cable, our bow will be constantly changing directions according to the wind, our keel will be going up and down breaking waves, and we will be constantly pitching and rolling.

Moving around a maritime setting implies a particular sensorial relationship with the environment, involving the dynamics at play while moving around a landscape. The notion of exploring the relationship between the perception of a certain space and moving along it has been highlighted by Ingold (2010). He takes into account the act of walking and moving in the landscape, also considering the weather, as he proposes the study of such dynamics from a solely terrestrial point of view, labelling it as an 'ambulatory knowledge' (Ingold 2010). The notion of *maritorium* implies negotiating the experience of exploring the temporality of moving around, and above, both the water and the land, and the dynamics of the weather as a critical part of that ambulatory knowledge. Naturally, the importance of the weather, as a means of perception of space, is even more crucial in a maritime context than perhaps in any other.

A key element of this approach implies working out the dynamics of moving across the *maritorium*. This involves literally analysing the abilities of boats in terms of their performance in the range of possible prevailing conditions, which might be subject to considerable change over time. As it might be obvious, there is also the need to see navigation in terms of landscape, using features on land as points for visual reference, or using particular natural phenomena, such as stars, clouds, or headlands, to navigate your way around the landscape. It is also important to consider other aids that are supplied to the navigator, intentionally or not, that affect the landscape, but are of cultural origin, such as funerary monuments, beacons, bonfires, and church spires, obviously depending upon the period we are discussing.

However, there are other less evident and more elusive options to be detected in terms of the knowledge that the seafarer can acquire and utilize. When working in the Gulf of Mexico, one of us (Herrera) is always interested in the unique perception fishermen employ when finding their way from the coast to particular locations, such as a specific reef or shoal, particularly while navigating away from any visible coastline. They use elements of the environment that are extremely difficult to be represented or drawn upon a map for a Westernized landsman. These include elements that employ different human senses, often barely registering in the visual dimension, such as the direction and character of the wind hitting their face, or the angle of a current in relation to the bow. These elements may not be easily expressed by these mariners and, therefore, when being researched may not be passed on.

Examples of phenomenological experiences relevant to the *maritorium* are not difficult to find in current research. One alternative comes from the Aegean, in which Christos Agouridis and other members of the Hellenic Institute of Marine Archaeology have been

conducting extensive work. This includes the detection and recording of early Byzantine wrecks (Agouridis 2002) based on information provided to them by local fishermen, and the execution of systematic surveys in the Gulf of Pagasai, locating medieval, Byzantine and Roman shipwrecks (Spondylis 2002). According to Agouridis (pers. comm. 2016), if one is to sail between the islands of Skyros and Skopelos, in the Aegean, a first sensorial experience will immediately strike the sailor. This is the knowledge inherited from previous generations of seafarers, and it is a knowledge transmitted through all the senses. This will include the feeling and smell of the air, as smells are critically important for that voyage. When approaching Skyros from the north, it smells of the herb, thyme. This is because of the concentrations of thyme bushes in the northern part of the island. And, if sailing in the opposite way, when approaching Skopelos from the south, there will be a smell of pine in the air (Agouridis, pers. comm. 2016). The Greek would use the word βιωματικός (*biomathikós*, biomathics), which can be translated as the knowledge acquired by experience, a notion that can be applied in a similar way to our research as phenomenological archaeology, although *biomathikós* is a much more elegant word.

It is not possible to have a complete perspective of the relationships between humankind and the sea if one leaves aside coastal realities and their material expressions. A prehistoric example is in Tierra del Fuego, an archipelago at the tip of South America. It was believed historically that southern *canoeros* cultures, the Yámana and pre-Yámana, were very recent, from AD 1000, and that they represented the earliest settlements in Patagonia. It was through regional coastal archaeology that they were reinterpreted, as being 6000 and 6500 years old, with continuous habitation as late as just a century ago (Piana, pers. comm. 2003). The study of coastal societies, and their adaptation to a marine environment, has triggered an array of possibilities for better understanding of the early settlements in the south of the continent. Archaeological studies regarding strategies of maritime adaptation are of great significance in understanding the mechanisms and responses of subsistence economies to littoral environments (Piana et al. 1992), or the relation between inland and coast, exploitation of the marine environment, diet, temporality, and the interaction and differences between continental and insular settlements (Gómez Ortero et al. 1998). In the same line are recent efforts aimed to enrich the debates surrounding the initial peopling of South America, dealing with new models and questions regarding whether this process was the product of various migrations by different peoples coming from different places, or if they arrived by land, following coastlines, or both (Dillehay et al. 2015).

Another fundamental aspect of the study of coastal settlements is, of course, directly related to societies deeply involved with navigation. Studying coastal supporting facilities, such as harbours, quays, ports, shipyards, and what they incorporate in terms of mooring, beaching, lodging, providing food, water, shelter, clearly broadens the possibilities of understanding local and regional dynamics. However, studying the act of moving around a *maritorium* by means of the archaeological study of coastal features in terms of visual aids is not limited solely to human-made physical remains. To successfully execute transoceanic voyages, and to move around great distances between one port and another, geographical exploration and descriptions have been used as cognitive aids in the history of seafaring. A clear example is Spanish texts that referred to the “arte de marear” (the art of seafaring), in the form of navigational instructions, such as the *Suma de Geographia* (Fernández de Enciso 1987 [1519]) or the *Luz de Navegantes* (Vellerino de Villalobos 1984 [1592]), among others. Some of these texts were written in such great detail that it might be possible to sail between Spain and different points of its Colonial possessions, with some sort of accuracy even today, following thorough descriptions of natural features sensorially accessible to navigators. These included the imaginative descriptions of shapes

of relevant hills and mountains to be taken as visual markers, the sea depth at different points within the routes, the kinds of seabed to be collected by a sounding lead filled at the tip with wax, etc. These descriptions reflected the exhaustive and elaborate knowledge the sixteenth- and seventeenth-century sailors had in regard to the *maritorium* with which they were involved. These materials are of primary interest when studying regional contexts, large numbers of maritime sites, and casualties within a nautically interconnected space.

As well, key elements of the *maritorium* are ports and harbours, and how societies move around and interact with, and within, these installations. Studying and excavating ports and harbours is like digging at the touching edge of communicating cultures; it is an interface between worlds. People might come to the harbour from all directions, and from many different cultural groups. This implies that the mechanisms of exchange, and the dynamics of the harbour town, are closely linked but have their own uniqueness, as well. The cultural exchange occurring in a harbour site is like a mixing and reforging process among the different societies represented, and among the particular guilds from within each intertwined society. Understanding this highly complex theatre of people is as complicated as it is challenging.

Along this line of thought, these interests in landscape dynamics can be exemplified by the concern in comprehending not only cultural changes, but also physical changes of the space used by coastal societies. An example is the work of Lucy Blue and her team, as she is specifically interested in how we identify coastal sites, which may or may not have been subject to the changes in landscape. Because of her background, initially studying geography in conjunction with archaeology, she applies a geographical perspective to archaeology in investigating landscapes. She also applies a knowledge of sedimentology when recognising and analysing these landscape interfaces and changes. The application of this approach can be found in the research of the first-century AD port of Quseir al-Qadim on the Egyptian Red Sea coast, a port site now landlocked by landscape change (Blue 2007).

When we speak of *maritorium*, it is in the sense of that maritime space that has been inhabited over time, conferring on it the cultural condition where something takes place or can take place. The *maritorium*, thus understood, is a qualified scenario of conduct and action, known, used, and imagined. By the association with uses and users (inhabitants), it becomes a reference to identity (Chapanoff 2003). In researching harbours, a wide and comprehensive view of society is required, perhaps even wider than what is needed to excavate a wreck, a palace, or a temple, because it is a key cultural part of the landscape, and that makes it unique. Harbours change cities, societies, and landscapes. Working with waterfront sites, such as harbours, villages, whaling stations, dockyards, and so on, presents so many challenges in terms of the dynamics to be observed and, therefore, it should also offer highly interesting results. It is then important to remain focused upon looking at a broader landscape. If that landscape is the coastline, it has to be reflected into the land and out to the sea (Blue, pers. comm. 2007).

Therefore, the *maritorium* is not only the seaspace inhabited by one culture, and it is not limited to a single seafront view. One has to look at where people are coming from over the sea, and then analyse the connections across the sea, and across and into the mainland. The scale of that landscape changes in the implications for both the people living in that space and, if we are careful observers, it also changes our perception as researchers. It is desirable to avoid looking at processes and sites in isolation, and to avoid that, we need to be aware of the dynamics between all aspects.

Certainly, another key element of the *maritorium* concept is the inherent interest in seeing this dual environment as a continuous scenario, an unceasing cognitive and practical reality for those inhabiting it or crossing it alike. A hands-on example lies within the

framework of two research projects aiming at a regional understanding of historical nautical dynamics. The first one investigated a portion of the Uruguayan Atlantic coast in 2005 (Herrera et al. 2010), on which the concept of *maritorium* was applied while surveying the sea bottom, as well as the river beds where nautical exploration activities took place between the sixteenth and nineteenth centuries. The second case is currently under execution. This is the research into the *Aspectos Marítimos de la Guerra de Intervención, 1846–1848* project (Maritime Aspects of the Mexican–American War 1846–1848), a study being undertaken at the National Autonomous University of Mexico. This project integrates maritime archaeology and ship science, alongside conflict and historical archaeology and the *maritorium* concept from a phenomenological perspective. One aspect of this research is analysing fleet and vessel movements to better understand the course of the war. It is also studying shipwrecks and the establishment of a series of waterfront defensive structures on the coast and inside different rivers, on which various engagements and skirmishes took place. An overarching goal is to study the nautical strategies taken by both sides and how those decisions influenced the war. A *maritorium* can yield a landscape of memory, and even sacred memory, in many forms and in this case, a spatial memory of violence. In both projects, the integration of riverine, coastal, and high seas navigation is part of an effort to understand an integrated *maritorium* as part of different sets of complex social dynamics.

Concluding Remarks

In 2002 and 2003, when both Herrera and Chapanoff worked with Diego Carabias in Valparaíso and Chiloé, Chile, we perceived some deep and meaningful coincidences between our perspectives. Since then, it has been evident to us that many other colleagues are similarly interested in understanding the sea environment as something more than simply the place wherein a shipwreck or an ancient harbour rests; in other words, we have been thinking of the shipwreck and the coastal societies within the wider *maritorium*. Since then, we have developed a keen interest in perspectives coming from other directions but which are, nonetheless, strongly related to our *maritorium* approach.

The seascape, the *maritorium*, and the region are physical challenges for the explorers of any coast. They are also powerful entities of cultural dynamic, integrating physical and cognitive elements for the seafarers and for inhabitants of coastal settlements, which can easily be the same. Therefore, there is no reason to artificially disconnect them.

A *maritorium* is a multi-period scenario where multiple, and perhaps quite different, groups have either established themselves for decades or centuries, while others might have passed just through for a much smaller and limited time. In some cases, and regions, a *maritorium* can also be the scenario of conflict, of struggles between conquest and colonization, and endeavours against resistance and defensive attempts. Whether we study long periods of settlement and stasis, or we study the succession of convulsive events inside processes of conquest or social upheaval, the *maritorium* setting needs to be addressed according to the possible questions we may wish to ask in terms of the social use of the coastal, maritime, riverine, or lacustrine environments. Perhaps the main value of the *maritorium* concept is the inherent interest in seeing this dual environment as a continuous scenario, a continuous cognitive and practical reality for those inhabiting and crossing it alike.

From a disciplinary perspective, the sea has been understood in functionalist terms of the condition of the terrestrial inhabitant, and not as a habitable space in its own right. We need to understand the sea, not as a body of water, but the sea in relation to the land, as a space on its own, a liveable space. The concept of *maritorium* proposes a transversal understanding of the sea. The sea is not just the sea, and the land is not just the land; they are a continuum of both environments and reliant upon each other. In other words, though physically different, they are continuous in the ways in which navigators conceive and use them, in the past and the present. For the inhabitants of the waters, the sea is converted into a place and a location: an inhabited *maritorium*.

Acknowledgements Jorge Herrera wishes to thank the Honor Frost Foundation and the British School at Athens (John Morrison Memorial Fund for Hellenic Maritime Studies). Elements of the research here presented were achieved due to the generous support of both institutions. Both authors wish to thank Dr. Sarah E. Holland for her valuable academic and linguistic comments on an earlier version of this work.

References

- Agouridis C (2002) Underwater survey in the argolic gulf, 2000. *ENALIA* VI:32–39
- Bass GF, van Doorninck FH (1982) *Yassi ada vol. I: a seventh-century byzantine shipwreck*. Texas A&M University Press, College Station
- Bass GF, Matthews SD, Steffy JR, van Doorninck FH (eds) (2004) *Serçe Limani. An eleventh-century shipwreck. Volume 1. The ship and its anchorage, crew and passengers*. Texas A&M University Press, College Station
- Bender B (2002) Landscape and politics, contested landscapes: medieval to present day. In: Buchli V (ed) *The material culture reader*. Berg, Oxford, pp 135–174
- Blue L (2007) Locating the harbour: myos hormos/quseir al-qadim: a roman and islamic port on the red sea coast of Egypt. *IJNA* 36(2):265–281
- Cabeza de Vaca A (2009 [1555]) *Nafragios y Comentarios*. Porrúa, Mexico City
- Chapanoff M (2003) El mundo invisible: identidad y maritorio. In: Montecinos S (ed) *Revisitando Chile: identidades, mitos e historias*. Cuadernos Bicentenario, Santiago, pp 240–247
- Chapanoff M (2005) Imaginario y maritorio: relatos, fábulas y mitos del mar. In: Badal Mella G, Balcells Daniels F, Montari M et al (eds) *Chile, país oceánico*. Ocho Libros Editores, Santiago, pp 37–53
- Crumlin-Pedersen O, Olsen O (eds) (2002) *The skuldelev ships 1: topography, history, conservation and display*. The Viking Ship Museum in Roskilde and Centre for Maritime Archaeology of the National Museum of Denmark, Roskilde
- Díaz JM, Caro N (2016) El Mar Como Territorio y la Pesca Como Actividad Tradicional en el Pacífico Chocóano. In: Díaz JM, Guillot L, Velandia MC (eds) *La Pesca Artesanal en la Costa Norte del Pacífico Colombiano: Un Horizonte Ambivalente*. Fundación MarViva, Bogotá, pp 29–43
- Dillehay TD, Ocampo C, Saavedra J, Sawakuchi AO, Vega RM et al (2015) New archaeological evidence for an early human presence at monte verde Chile. *PLoS One* 10(11):e0141923. <https://doi.org/10.1371/journal.pone.0141923>
- Dumas F (1965) Underwater work and archaeological problems. In: du Plat Taylor J (ed) *Marine archaeology*. Hutchinson, London, pp 15–23
- Escalante de Mendoza J (1985 [1575]) *Itinerario de Navegación de los Mares y Tierras Occidentales*. Museo Naval, Madrid
- Fernández de Enciso M (1987 [1519]) *Suma de Geographia*. Museo Naval, Madrid
- Fowler C (2016) Landscape and personhood. In: David B, Thomas J (eds) *Handbook of landscape archaeology*. Routledge, New York
- Fuentes N (2013) *Periplos ilustrados, piratas y ladrones por el caribe colonial*. Universidad Nacional de Colombia, Bogotá
- Gómez Ortero J, Lanata JL, Prieto A (1998) Arqueología de la costa atlántica patagónica. *Rev Arqueol Am* 15:107–185
- Harrison S (2004) Forgetful and memorable landscapes. *Soc Anthropol* 12:135–151
- Helmreich S (1980) Nature/culture/seawater. *Am Anthropol* 113:132–144

- Herrera JM (2000) Remote sensing surveys in underwater archaeology. Its application in the New Spain's 1630–1631 fleet research project and submerged cultural resources inventory. *Rev Antropol Téc* 6:31–40
- Herrera JM (2001a) Desnaufragando Historias. *Antropología y Arqueología Marítimas en Tres Accidentes Navales en la Sonda de Campeche*. *Amerística* 7:67–129
- Herrera JM (2001b) El Navegante Complejo. *Antropología, Complejidad, Sensoramiento Remoto y Sistemas de Información Geográfica en la Arqueología Marítima*. Professional Dissertation. Escuela Nacional de Antropología e Historia, Mexico City
- Herrera JM (2001c) El Uso de Sistemas de Información Geográfica e Instrumentos de Detección Remota en la Arqueología Subacuática Mexicana. Su Empleo Desde una Perspectiva Antropológica. In: Luna P, Roffiel R (Coords) *Memorias del Congreso de Arqueología Subacuática ICOMOS*. ICOMOS-INAH, Mexico City, pp 171–179
- Herrera JM, Buffa V, Cordero A, Francia G, Adams J (2010) Maritime archaeology in Uruguay: towards a *manifesto*. *J Marit Archaeol* 5(1):57–69
- Hunter JR (1994) Maritime culture: notes from the land. *IJNA* 23(4):261–264
- Ingold T (2010) Footprints through the weather-world: walking, breathing, knowing. *J R Anthropol Inst* 16(1):121–139
- Lofgren O (1981) Manniskan i Landskapet-Landskapet i Manniskan. In: Honko L, Lofgren O (eds) *Tradition och Miljö. Ett Kulturrekologiskt Perspektiv*, Lund, pp 235–261
- Luna (2001) Pasado presente y futuro de la arqueología subacuática en México. In: Luna P Roffiel R (Coords) *Memorias del Congreso de Arqueología Subacuática ICOMOS*. ICOMOS-INAH, Mexico City, pp 39–49
- McElrean T, McConkey R, Forsythe W (2002) Strangford lough. An archaeological survey of the maritime cultural landscape. Blackstaff, Belfast
- Medina P (1964 [1563]) *Regimiento de Navegación*. Instituto de España, Madrid
- Murphy LE (1998) Maritime archaeology at dry tortugas national park. In: Tancredi J, Loret J (eds) *Ocean pulse*. Kluwer Academic Publishers, New York, pp 169–176
- Murphy LE, Johnson RW (1993) Fort Jefferson national monument documented maritime casualties. In: Murphy LE (ed) *Dry tortugas national park; submerged cultural resources assessment*. Submerged Cultural Resources Unit/National Park Service, Santa Fe, pp 143–165
- Murphy LE, Smith TG (1995) Submerged in the past. Mapping the beguiling of Florida's Biscayne and dry tortugas national park. *Geo Inf Syst* 5(10):15–19
- Needham S (2009) Encompassing the sea: 'maritories' and bronze age maritime interactions. In: Clark P (ed) *Bronze age connections: cultural contact in prehistoric Europe*. Oxbow, Oxford, pp 12–37
- Phillips T (2003) Seascapes and landscapes in Orkney and Northern Scotland. *World Archaeol* 35(3):371–384
- Piana E, Vila A, Roquera L, Estévez J (1992) Chronicles of 'Ona-Ashaga': archaeology in the beagle channel (Tierra del Fuego—Argentina). *Antiquity* 66:771–783
- Spondylis E (2002) Underwater survey of the western coast in the south part of the Gulf of Pagasai (2000). *ENALIA* VI:24–31
- Ther F (2011) Configuraciones del tiempo en el mar Interior de Chiloé y su relación con la apropiación de los territorios marítimos. *Desenvolvimento e Meio Ambiente* 23:67–80
- Thomas J (2004) *Archaeology and modernity*. Routledge, London
- Thomas J (2010) Understanding past landscapes: experience, memory and materiality. In: Ortiz Diaz E (ed) *Lugar, Espacio y Paisaje en Arqueología: Mesoamérica y Otras Áreas Culturales: VI Coloquio Pedro Bosh Gimpera*. UNAM, Instituto de Investigaciones Antropológicas, México, pp 27–46
- Tilley C (1994) A phenomenology of landscape. Places, paths and monuments. Berg, Providence
- Tilley C (2010) Interpreting landscapes. Geologies, topographies, identities. Left Coast Press, Walnut Creek
- Van de Noort R (2003) An ancient seascape: the social context of seafaring in the early bronze age. *World Archaeol* 35(3):404–415
- Vellerino de Villalobos B (1984 [1592]) *Luz de Navegantes*. Museo Naval, Madrid
- Westerdahl C (1992) The maritime cultural landscape. *IJNA* 21(1):5–14
- Westerdahl C (1994) Maritime cultures and ship types: brief comments on the significance of maritime archaeology. *IJNA* 23(4):265–270
- Westerdahl C (2000) From land to sea, from sea to land. On transport zones, borders and human space. In: Litwin J (ed) *Down the river to the sea*. Proceedings of the eight international symposium on boat and ship archaeology, Gdansk 1997. Polish Maritime Museum, Gdansk, pp 11–20
- Westerdahl C (2010) 'Horses are strong at sea': the liminal aspect of the maritime cultural landscape. In: Anderson A, Barret JH, Boyle KV (eds) *The global origins and development of seafaring*. McDonald Institute for Archaeological Research, Cambridge, pp 275–287

- Westerdahl C (2011a) Conclusion: the maritime cultural landscape revisited. In: Ford B (ed) *The archaeology of maritime landscapes*. Springer-Verlag, New York, pp 331–344
- Westerdahl C (2011b) Maritime cultural landscape. In: Catsambis A, Ford B, Hamilton D (eds) *Oxford handbook of maritime archaeology*. Oxford University Press, New York, pp 733–762