Introduction

Setting and Context

The Isthmus of Panamá occupies a unique place in the human geography of the world. It is, as geographer Eugene J. Palka has asserted, both the integral part of a narrow land bridge that spans two continents, and it is a one-time barrier, now a modern link, between the world’s two largest oceans: “Panamá is the crossroads of the western hemisphere” (Palka 2005:3; Cooke 2005). It is a complex and diverse region forged by volcanic fire and shaped by geotectonic processes over a 150-million-year period. Yet it was in a “young landscape” that islands first appeared some 11 million years ago, followed a million years later by an archipelago that gradually emerged along with the Darién bridge of eastern Panamá (which emerged from the sea 10 million years ago). Then the mountains that form the western edge of Panamá were raised by shifting plates and volcanic eruptions (Coates 1999; Harmon 2005; Weil et al. 1972). This process created the reclined, S-shaped, generally east–west form of the isthmus known to the modern world (Harmon 2005:45).

This thin (60 km at its narrowest point) slice of earth includes, in the República de Panamá alone, some 3,000 km of coastline with approximately 1,450 km on the Pacific side and 815 km on the Caribbean shore. The Pacific coast is dotted with some one thousand islands of various sizes, including the Archipiélago de las Perlas, Isla Taboga, and Isla Coiba. For some 170 km the Caribbean is dotted by the approximately 380 islands of Guna Yala. The Caribbean is also defined by extensive coral reefs and a number of natural harbors that border a wide and gradual continental shelf, which forms the edge of a “semi-isolated sea” (Jackson and D’Croz 1999:39) known as the Laguna de Chiriquí. Fewer reefs and an even wider continental shelf with a rich, open-sea pelagic fishery are marine features that define the Pacific.
Other marked differences in the two coasts include distinct tidal regimes, with less than a 2 m rise and fall on the Caribbean coast as compared to a macro tidal range of 4 to 6 m on the Pacific coast (Palka 2005:6–7).

The climate is tropical, with a monthly mean temperature of 18 °C and rainfall that varies from 2,970 mm annually on the Caribbean side to 1,650 mm on the Pacific coast. This humid, wet climate is one in which weathering and erosion formed an extensive network of river valleys, drainage basins, and the complex coastline (Palka 2005:7). Together with an intricate geomorphology, they have given rise to high environmental heterogeneity within this rather small territory, a marked differential seasonality between both ecologically dissimilar coastlines, and a considerable ecological diversity (see Cooke and Sánchez 2004:5; also Castro 2004). This is a “dynamic physical landscape that is continually reshaped by the forces of nature and one that is reflective of both the dominant geomorphic forces at work and the pervasive influence of climate and weather” (Palka 2005:6). Some five hundred rivers traverse the isthmian landscape, 350 of them discharging into the Pacific, and the others into the Caribbean, creating a multitude of
valleys that facilitate perpendicular communication between the coastline and the mountains but impede them longitudinally. These include the most important of Panamá’s rivers: the Río Chagres (Palka 2005:10).

The climate also created a series of natural vegetation zones ranging from forested mountains, hills, lowlands, savannas, coastal mangrove swamps, and tidal flats (Griggs 2005:18–38; Palka 2005:14). The geological and climatological forces, Palka notes, have left “an enduring imprint” not only on the landscape but also on its people (Palka 2005:5).

It is via this intersection of people and the environment that we can examine the maritime cultural landscape of the Isthmus of Panamá. As Jackson and D’Croz (1999) note, “Central America is a maritime land, every nation but Belize and El Salvador being bordered by both oceans, and the ratio of coastline to land is the highest in the continental Americas” (38). From the earliest known human presence on the isthmus some 11,000 years ago (Ranere and Cooke 2003) to modern times, the predominately maritime environment of the region has exerted a profound influence on human activity. And in time, human activity exerted an influence on the

Figure 2. The maritime cultural landscape of Panamá includes some 500 rivers and streams that originate in the highlands and flow to the coast. Many form coastal deltas. The most famous river, as well as one of the most navigable, is the Río Chagres on the Caribbean coast. It has been the setting for maritime activities from prehistoric times through the historic period. Today, contained by the Gatún Dam, the waters of the Chagres form much of the Panamá Canal. Photograph by James P. Delgado.
environment (Cooke and Sánchez 2001). Panamá is one of those places that exactly fits Westerdahl’s (1995) original archaeological concept of combining sea and land to assess both as a larger maritime cultural landscape.

The 11,000-year human history of Panamá is one in which humans not only adapted to the isthmus’ maritime environment but also increasingly adapted the isthmus for various maritime reasons, from harvesting resources to physically transforming the land to link two oceans. These millennia of maritime cultural activities, especially in the last five hundred years, have left a rich and diverse, tangible and intangible record, much of it archaeological but some of it ethnological and environmental—especially in the last century. To paraphrase Ford (2011:2), the Isthmus of Panamá existed before humans inhabited the area. It was a space that became a “place” because of human interaction: it was a place defined by an economic perspective that utilized its nature as a “maritime land.” At first it was a place utilized by hunter-gatherers, then by settled agricultural societies, and later by colonial powers, which used it to direct and focus the flow of trade. In time, the expanding global economy (the so-called world-system) (Wallerstein 1974, 1980, and 1989) took control of this place to direct and focus world maritime trade to its advantage. Like the Suez’s 100-mile stretch from the Mediterranean to the Red Sea, the Isthmus of Panamá “like no other corner of the globe offered humans the opportunity to connect two oceans with a short overland route” (Brady 1999:122).

The Isthmus of Panamá is particularly relevant with regard to Westerdahl’s understanding of transport geography and transport zones, of which he asserts that “in a long perspective, it appears that heavy transport, on land as well as on water [original emphasis] primarily is concentrated to certain zones or corridors extended in a tangible direction” (Westerdahl 1998). In this regard, Panamá is not only a transport zone but also a transition zone in the maritime landscape—a place with obstacles that required the reloading of cargo (or people) and a switch to another means of transportation. This was certainly the case for the Isthmus of Panamá from the sixteenth through the twentieth centuries (Castillero Calvo 2010).

Indeed, Westerdahl’s categorization of transport zones starts with “trans-isthmian (cross-ridge/cross watershed) land transport zones . . . with a combination of watersheds and waterways” (Westerdahl 1998). Westerdahl also notes how “the construction of ships and other vessels/vehicles and their techniques of propulsion are intimately adapted to the natural geography of the zone in question, the details of roads, coasts, routes, harbors (for example, the steepness and shallow banks) and the directions of prevailing
currents and winds within the zone” (Westerdahl 1998). In this as well, Panamá’s larger maritime cultural landscape reflects Westerdahl’s maxim.

Another example that almost perfectly embodies Westerdahl’s maxims is the modern practice of constructing ships to fit through the Panamá Canal as “Panamax” vessels. Anything larger has been known since 1914 as a “Post-Panamax” vessel. This basic split in vessel sizes began in 1914 with the opening of the canal and reflects the maximum size of a vessel that can fit into the canal’s lock system (110 ft [33.53 m] wide, 1,000 ft [304.8 m] long, and 41.2 ft [12.56 m] deep for each chamber of the locks). With the construction of a new series of (larger) locks in the twenty-first century, there will soon be a “new Panamax” size, with the chambers being 180 ft (54.8 m) wide, 1,400 ft long (426.7 m) and 60 ft deep (18.3 m).

As Westerdahl notes, Panamax, post-Panamax, and new Panamax solidly demonstrate an

*alternative view of the definition of a ship type.* The ship type is accordingly not just another archaeological type or implement. The functions of this floating combination of technological compounds could not be reduced to a simple archaeological type. It should rather be defined *in the process of explaining its use, of delimiting the vessel’s function* from river to sea, from more or less closed transport zones to the open sea and then on to new zones that are gradually established along the way of change. The ship type concept thus would appear to be fruitfully bound up with the concept of the transport zones. (Westerdahl 1998 [original emphasis])

Westerdahl and others realize that assessing vessels and ship types with transport links and solely assessing ship types as a response to geography is not enough to inform a study, or the archaeology, of the maritime cultural landscape.

Westerdahl (1992) notes that a maritime cultural landscape “signifies human utilization (economy) of maritime space by boat, settlement, fishing, hunting, shipping, and its attendant subcultures, such as pilotage, lighthouse and seamark maintenance” (Westerdahl 1992:5–6). Westerdahl also includes cognitive, social, and cultural activities that are maritime in nature (1994:266). Other scholars, like O’Sullivan and Breen (2007), see this as “how people perceived and understood the sea and used this knowledge and understanding to order and constitute the landscape and societies that they live in” (15). In this way, maritime archaeology—first conceived in the 1960s as a ship-focused, “nautical archaeology”—was refined in the 1970s as