

INTRODUCTION

Indian Ocean Pearling Worlds

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PEARLS HAVE long held a fascination in the imaginations and lives of people across much of the world. Since their earliest uses, pearls—and pearl shell from the bivalve molluscs that produce them—both reflected and shaped sociocultural and adornment practices defining aesthetic contours of taste and bodily practice, and in so doing reinforced, challenged, or expanded the possibilities for self-fashioning for a range of people and groups. From spiritual appreciation and worship of pearls in the Americas, to Aboriginal collection of shell along Australia's vast northwest coast and Moken pearlery of the Mergui archipelago in the far south of coastal Burma, Mughal emperors of north India, Ming Chinese merchants, and American and European women and men on the streets of London, Paris, Amsterdam, New York, and Florence, pearls and mother-of-pearl (the commodity derived from pearl shell) have fulfilled desires and satisfied spiritual, bodily, and other needs.¹

Pearls often served as repositories of value and were important in generating, mediating, and managing wealth not only for Asian and European royal households but equally for the merchants, traders, and jewelers

who handled them as they were transacted along local and global circuits of commercial exchange in early global modernity and beyond.² Early modern European painting contains numerous examples of the depiction of pearls as symbols of material wealth, while engravings on shell became a popular form of expressive art in the seventeenth-century Netherlands, where artisans were also increasingly incorporating mother-of-pearl into objects such as fans from the growing shipments of shell that Verenigde Oostindische Compagnie (Dutch East India Company) ships were bringing to Amsterdam at this time.³ Similarly, *riji*, or shell decorated with engraving, was also a feature among Aboriginal societies of the Kimberley region of Australia, but their importance lay in their ritual use in ceremonies and dances that were performed as part of the maintenance of complex social relationships.⁴ Sartorial elegance was articulated and displayed in the Persian Safavid period (1502–1736), partly through turbans worn by rulers and noblemen that were laced with strings of pearls, and these were a fashionable item too in Mughal India from the sixteenth century, as they were throughout central Islamic lands. In the Sung (960–1279), Yuan (1280–1368), and Ming (1368–1644) eras, elaborately decorated headdresses festooned with pearls were worn by Chinese empresses in displays of courtly opulence and wealth. *Materia medica* from a range of periods attest, moreover, to the widespread medicinal usage of pearls—ingested in either powdered form or dissolved in liquid—to treat a variety of ailments such as eye afflictions and hemorrhages.⁵

Pearls have thus encompassed a wide variety of meanings and have been associated with a range of uses for numerous people throughout different parts of the world. Early accounts of pearl use both reflected these variations, and influenced perceptions and understandings about pearls. For Europeans, the lengthy discussions about the origins and genesis of pearls and their formation in Pliny the Elder's first-century *Natural History* (*Historia Naturalis*)—including an elaboration of the idea that pearls were formed by rain or dew—was important in helping shape how people came to think about and understand the jewel.⁶ Chroniclers elsewhere wrote extensively about pearls. In the tenth century, the experienced Arab traveler al-Mas'ūdī of Baghdad also discussed the origins of pearls, noting the existence of two schools of thought on the matter—those who believed that pearls were produced by rain and those who did not. But al-Mas'ūdī, like his contemporary, al-Bīrūnī, in likening the pearl oyster and pearl to a mother and child, or

alternatively to a mother and the fetus in her womb, also made explicit an ancient linkage with female sexuality and a certain idea of feminine virtue that would endure long after these accounts.⁷ In Arabic and Persian poetry and literature, too, pearls assumed a symbolic importance that was matched by few other objects, epitomizing for instance all that was excellent and noble in word, thought, and deed. By contrast, Chinese mythology reflected the association of pearls with a variety of animals, and in Chinese-Buddhist legend the luminous and vitalizing pearl had an intimate association with the moon.⁸

In all of these cases, pearls and shell were key objects expressing particular social, cultural, religious, and moral values according to which societies and peoples organized their lives and made sense of the world in which they lived.

A major source of these pearls and shell were the waters of the Indian Ocean. Home to many of the great pearl fisheries and pearl-shell collecting zones of the world—several dating back at least to classical times—harvesting of these marine resources had taken place for centuries in the shallow subtropical and tropical seas of this vast ocean stretching from the Red Sea and Persian/Arabian Gulf to the Palk Strait and Gulf of Mannar located between India and Sri Lanka, the Andaman, Sulu, and Celebes Seas in insular Southeast Asia, and Australia's northern seaboard.⁹ Pearl-bearing oysters were found in significant quantities across all of these regions in the warm waters that gave rise to the monsoon system which for centuries had been critical to social, religious, and commercial intercourse across the Indian Ocean. Communities in these regions relied on the harvesting of pearl oysters and the collection of other shell species for a variety of medicinal, subsistence, and other purposes, and ultimately were linked through medium- and long-distance trade, migration, kinship, and networks of political and economic power to centers of wealth and authority often far removed geographically from the pearling waters themselves. Pearls and pearl shell represent among the earliest objects exchanged across the ocean and formed an integral part of larger commercial worlds of goods from the fifteenth and sixteenth centuries, as their extraction and the local and interregional circuits along which they were traded became constitutive elements of a growing global economy.

Pearls, People, and Power examines the multifaceted and multi-nodal exchange, trade, distribution, and commodification of pearls

and mother-of-pearl in the Indian Ocean over more than five centuries.¹⁰ It seeks to highlight the importance of the dynamics of this particular marine-product extraction to both the broader historical rhythms of the ocean and to the creation of a maritime space defined as much by its circuits of human movement as by its distinctive ecologies. If, as recently argued, the Indian Ocean was a “peopled” space, it was also a space of marine environmental life and activity.¹¹

Part of larger sea-product exchange structures and economies (involving, among others, tortoise shell, shark’s fin, and trepang, or sea cucumber), pearl-oyster harvesting was critical in shaping the social, political, economic, labor, and environmental histories of the Indian Ocean in fundamentally important ways. The process of acquiring pearls and shell was embedded historically within complex circuits of social and financial arrangements that involved South Asian, Arab, European, American, Chinese, and other mercantile interests that in turn were connected to far-flung markets, a variety of distribution channels, and manufacturing and consumer nodes located often many thousands of miles from the waters where these marine products had first been taken from the ocean.

This work of harvesting pearl shell was often done by slave and unfree labor drawn from a range of local communities whose ties to the ocean may or may not have been of longstanding duration. African slaves brought from the East African interior many miles from the coast, for instance, made up a significant proportion of the diving labor used during the expansion of pearling in the Gulf in the nineteenth century, while in the pearling waters of the Sulu Zone, located between the southern and western boundaries of the Philippines and the northeast coast of Borneo, slave raiding by the Iranun and Balangingi along these coasts and in the Celebes and Malay Peninsula resulted in the capture of local sea peoples with deep histories tied to the ocean.¹² In all of these cases, the labor and productive aspects of pearl and shell extraction were critically implicated in the broader movement of these products around the shores of the Indian Ocean and to global markets, fostering commercial connections and structuring the complex linkages across maritime spaces that the exchange of pearls and shell enabled.

As several chapters in the volume demonstrate, pearling connected the “small,” seemingly inconsequential histories of localized shell collecting—too often occluded or marginalized by scholars and

therefore left in the shadows—with the broader currents of regional and global exchange with which they were inextricably linked and whose structures they helped mold. The long histories of shell extraction in the ocean and the myriad uses to which pearls and pearl shell were put by a diversity of groups, from royal households in northern India and Muslim sultanates in Southeast Asia to Aboriginal groups in Australia and Arab merchants, reflect the richness of experience with this marine product and offer a compelling window into how the lives of individuals involved in the extractive process were intimately tied to the purchasers, financiers, and consumers of pearls and shell.

While the importance of pearling to the social, cultural, and economic practices of coastal and other areas of the ocean—and their communities—has been noted by scholars, the overwhelming majority of these works have confined themselves to highly localized or at best regional studies of pearling.¹³ This has resulted in a segmented and therefore incomplete view of the ocean's pearl fisheries. *Pearls, People, and Power* recognizes that the dynamics of the surrounding maritime zones of these fisheries were indeed important in shaping how communities and groups approached their extraction and “managed” this resource, but stresses the imperative of moving beyond their treatment as discrete entities; rather, the volume stresses how the extraction, collection, and exchange of pearls and shell were interrelated processes binding the ports, islands, and coasts of the ocean to one another, and to more distant markets. An integral part of the increasingly global transactional worlds of goods that flowed across the Indian Ocean with greater intensity from the sixteenth century and shaped its variegated economic, social, political, and urban landscapes in the periods covered by this book, pearls and shell left deeply complex imprints on the histories of the ocean. This volume seeks to identify and examine the precise nature of their contours and to locate the ocean's fisheries in relation to broader histories of empire, labor, marine extraction, maritime ecology, and global exchange.

Possessing particular qualities as objects and things onto which different meanings could be inscribed, pearls and mother-of-pearl were in persistent demand and established widely dispersed markets as commodities and cargoes of note that were shipped over short, medium, and long distances throughout the many waterways of the Indian Ocean and beyond as they were transported to markets in such places as China,

Europe, and America.¹⁴ The movement of pearls and shell remind us therefore that the ocean was not a bounded geographical entity but part of trajectories animating global commerce. Consumers used these marine products in highly original ways as markers of identity and prestige, for medicinal remedies, in elements of ritualized cultural and bodily practice, and for the adornment of elite and domestic spaces. Manufacturing processes associated with growing industrialization in the nineteenth century increased European demand for the high-quality pearl shell *Pinctada maxima*, which became a mainstay, especially of the Australian pearling industry, for the manufacture of everyday objects such as buttons, cutlery, personal grooming items, and musical instruments, reflecting increasingly changing notions of taste among burgeoning urban middle classes who were establishing identities as purveyors of “modern” sensibilities and aesthetics.

In being attentive to the materiality of pearls and shell—and to their diverse biographies across the Indian Ocean and more broadly—*Pearls, People, and Power* draws insights from the work of Arjun Appadurai, who showed how the life cycles of objects are revealed in the transitions between their social forms, including the commodity, ritual object, gift, and so forth.¹⁵ Several of the essays in the present volume focus on one social form, the commodity, with pearls and mother-of-pearl regarded as “objects of economic value,” where value is determined by a “judgement made about them by subjects.”¹⁶ Pearls, especially, were perceived to have special qualities and thus were associated with distinctive characteristics that were implicated in their transformation from things into commodities. In the nineteenth century, for instance, the sheen and light associated with pearls—what Natasha Eaton terms “pearlesence”—became important to modes of representing and understanding the British colonial economy in South Asia. Pearls thus offered the possibility of “transforming the magic of their thingness into a commodity.”¹⁷

But, just as importantly, like all things and objects, pearls and shell also accumulated layers of meaning as they moved through various stages of extraction, exchange, ownership, and transformation.¹⁸ Pearls and shell did not have fixed or stable meanings or value but assumed meanings and could fluctuate in value in relation to particular commercial, cultural, and social contexts. They thus offer a compelling material window into the historical trajectories of things and objects and

their enduring influences on the contours of the commodification of the ocean's natural resources.¹⁹

Equally, though, because they were mobilized increasingly through imperial networks and structures in the nineteenth century, pearls and shell can be identified as circulating within "empires" of goods. This idea, elaborated recently by Kate Smith, draws on insights from political economy that stress the power and violence inherent in the governance, processing, trade, and consumption that produces goods.²⁰ Pearl harvesting became a focus of imperial investment and control as officials sought to rationalize various aspects of the extractive process or redirect the distribution of pearls and shell away from vernacular networks and into the hands of colonial shippers and merchants.

However, as local merchants and rulers sought to supply ever-expanding imperial and metropolitan markets, in addition to robust Asian markets in India, China, and elsewhere, they were themselves implicated often in violent and exploitative practices that were focused on control over labor. As several of the book's essays demonstrate, the work of locating pearl beds and extracting their bounty in the Indian Ocean was in many cases the work of unfree and slave divers whose recruitment involved a range of labor arrangements of varying complexity and substance. Because pearling was marked by rapid labor turnover, the result mostly of high rates of morbidity and mortality among pearl divers drawn from the ocean's local and translocal maritime labor, expanding marine extraction and production caused the heightened and often violent coerced movement of people to and across pearling zones. These included slaves and indentured laborers who formed an integral feature of the ocean's deeper histories of migration and contributed significantly to the multilingual and multiethnic communities traversing its waters and populating its coastal and littoral zones.²¹ Yet, while this process created as a consequence more ethnically complex communities whose movements were part of the ocean's crisscrossing migratory flows of free and unfree peoples, it also subjected many to increased levels of violence and displacement from kidnapping, raiding, and the drudgery of dismal labor conditions.

For those communities in the Indian Ocean involved in pearl harvesting that were not subjected to the violence and privation of aggressive labor recruitment, they competed with local rulers and imperial powers over rights to trade in pearls and shell as they shaped debates

regarding jurisdiction over marine resources. With growing European and especially British territorial conquest in the Indian Ocean by the late nineteenth century, and related sovereign claims over territorially defined colonial space, pearling beds became subject to similar pressures as their potential as a source of imperial revenue heightened their importance and stimulated further contestations over who could manage the ocean's marine-product extraction and in which particular ways. Their location along or near (mainland and island) coasts—they were the “narrow bands, or corridors” where empires attempted to establish sovereignty and exercise control that Lauren Benton has described in her work—challenged notions of space that had been primarily territorially defined and raised questions about how to conceptualize and delimit boundaries that were fluid, and how to understand “terraqueous” histories involving the frequent movement of people, boats, and pearl shell across the waters of the Indian Ocean.²²

Pearl-oyster beds thus constituted coastal frontiers that, in inviting questions about maritime jurisdiction, exposed the anxieties of European colonial states struggling to solidify porous maritime boundaries as they sought the formalization of the reach of imperial rule over ocean and sea spaces that were in many ways, however, defined by their permeability.²³ These fluid frontiers came to encompass both a lateral and vertical dimension, as the colonization of oyster beds reached greater depths and new ecological strata with the development of new technologies in the eighteenth and especially nineteenth centuries. Pearl harvesting required not only colonization and the establishment of sovereignty across space but also reached downwards, beneath the waves, to reef floors and pearl beds, requiring changing conceptualizations of territory. It was precisely at these coastal margins, constituted by a “fluid ontology,” that “forms of law [and] government . . . [were] crystallized.”²⁴ The search for pearls and shell—and the contestations over how, where, and by whom they could be extracted from ocean beds—highlights vital questions about the spatial dimensions of empire, labor mobility, resource use, and their entangled political, cultural, and social histories. Even with the application of technologies to diving in the nineteenth century that pushed the bathymetric frontier of pearling into deeper coastal waters (most visibly in the form of the so-called diving dress), new challenges emerged over control of the industry and the establishment of territorial waters whose scale reached unprecedented depths.

While the pearling waters of the Indian Ocean were sites of competing jurisdictions and sovereignties, they were also sites of an extraordinary assault on their marine ecosystems during the period covered in this book. The relentless harvesting of pearls and shell that the aforementioned forms of industrialized extraction represented by the end of the nineteenth century highlight the importance of incorporating environmental and ecological histories into studies of the ocean. Despite the growth of scholarship that a renewed interest in the Indian Ocean has generated in the past decade, there has been a dearth of work addressing the marine environmental aspects of the ocean itself.²⁵ The coastal and island ecosystems from which pearl oysters were extracted formed part of the larger ecological seascape of the ocean, where the interplay between marine and maritime actors shaped lives above and below the waterline. Pearling waters, the present volume emphasizes, were critical sites to capture the dynamics of these processes, and their study contributes to efforts—as articulated by Jeffrey Bolster—to bring the ocean into studies of oceanic history, and thereby grant it recognition not only as a blank space across which goods, people, and ships moved but as a living organism.²⁶ A focus on pearls and shell, moreover, expands the burgeoning field of marine environmental history from its established and still dominant focus on whaling and capture fisheries.²⁷

In focusing on pearls and shell in the Indian Ocean, the essays in *Pearls, People, and Power* do not necessarily treat the ocean as a coherent whole or as an “integrated” singular world, but rather recognize its plural worlds with their own dynamics and particularities, including microclimatic and environmental conditions.²⁸ Thus, the pearling waters of the Persian Gulf, South India and Sri Lanka, the Red Sea, the Bay of Bengal, and the northern Australian and insular Southeast Asian coasts were shaped by local factors and historical currents that were the product of the interplay between specific actors, contexts, and conditions. Yet, this disaggregation of the ocean into its constituent parts—what Sujit Sivasundaram has recently termed “revisionist pluralism”—should not result in the reinforcement of an idea of regional or national compartmentalization that obscures patterns of interaction or processes of connection across the Indian Ocean.²⁹ Instead, while being attentive to the distinctiveness of each of the regions discussed in the book, the contributors endorse an approach—as previously mentioned—that teases out

the spatial and historiographical linkages across the ocean as they seek to establish the ways in which peoples, regions, and areas were brought into relation with one another along the many seascapes of pearl and shell harvesting throughout the Indian Ocean.

Moreover, while several of the contributors to the volume discuss consumption of pearls and mother-of-pearl, they do so in ways that do not privilege the changing habits of Europe or the United States, significant as these were as markets, especially in the nineteenth and twentieth centuries. This remains the case in the literature on pearls, where the focus is on the use, display, and sartorial incorporation of pearls into new styles and fashions in Euro-American contexts. The essays in this book challenge this narrative and consider new geographies and markets that remained robust and in certain instances grew for the marine products of the Indian Ocean.

ORGANIZATION OF THE VOLUME

Pearls, People, and Power brings together leading scholars and younger researchers to offer the first dedicated and multidisciplinary study of pearling across the entire Indian Ocean. For such a vast and multidimensional topic, approaching it from the vantage point of different disciplinary practices is imperative to enhancing and deepening our understanding of its complexities. The volume thus echoes recent calls to cultivate approaches for the study of the Indian Ocean that draw on a range of disciplines and foster collaborative research between scholars.³⁰ Such joint endeavors are increasingly necessary if we are to enrich our studies of the past with the multiplicity of perspectives that it warrants.

The chapters collected here range widely in spatial and temporal scales, providing detailed studies of the circulation of people and ideas and of the complex processes through which pearls and shell became commodities of value across the ocean and beyond. Historical research on the Indian Ocean has moved increasingly toward “connective comparison,” and this book draws on extensive work by an international group of scholars in an effort to encompass the geographical, cultural, and thematic diversity of Indian Ocean pearling.³¹ The authors make significant contributions to our understanding of the impact of European imperialism and industrialization on regional and local communities, and illustrate the permeability of political boundaries and the fluid

nature of sociocultural maritime borderlands. They show, also, how local actors frequently asserted themselves in controlling the trajectories of pearl-shell exchange in ocean spaces never entirely dominated by imperial capital and authority. Further, by locating pearl harvesting within a wider historiographical framework, the volume aims to contribute to understandings of the interdependent links between global and local histories, furthering our appreciation of the many strands that brought seemingly disparate worlds of the Indian Ocean into dialogue with one another, and in turn with the global arenas with which they were inextricably enmeshed.

The volume is organized around five themes that reflect the contributors' interests but are also thematic foci that have increasingly attracted the attention of scholars of the ocean: state regulation and resource management; technology; extraction and consumption; globalization; memory and experiences. Within these broad categories, the authors discuss fine-grained questions related to labor and slavery, migration, gender, European and Asian financial investment in pearling, cultural and musical expression, taste as an aesthetic expression, marine environments, and indigenous forms of diving practice. Together and in their scope, the chapters thus capture a range of experiences and histories that defined pearling in the Indian Ocean as a transregional and global endeavor.

A central logic of the extractive processes involved in the harvesting of pearl oysters was consumer use and demand for its marine products. The first part of the volume, "Commodification," opens with a wide-ranging essay by William G. Clarence-Smith, who examines the global history of modern pearling from a commodity-chain perspective, focusing his analysis on the final links in the chain. There has been much research on local production, he maintains, but less on commerce, transport, processing, and consumption, processes that are critical for a fuller understanding of the pearling cycle. Looking closely at these, Clarence-Smith suggests that two significantly different commodity chains evolved over the nineteenth and first half of the twentieth centuries. Diasporas, or "communities of reputation," were supremely important in marketing pearls, but were strikingly less prominent for mother-of-pearl. Steamers transformed the economics of mother-of-pearl, but not of pearls. Factory workers increasingly processed mother-of-pearl, especially into buttons, whereas artisans continued to prepare pearls for

the market. Finally, highlighting often poorly understood and therefore overlooked markets, Clarence-Smith makes a compelling case that while European and American consumers did more to stimulate the mother-of-pearl sector, it was in South and East Asia that demand for pearls continued to be fundamental to global trade. In short, pearls seem to have remained a largely ancien régime commodity, contrasting with the modernity of mother-of-pearl.

The processes of commodification are developed further by James Francis Warren, but in specific contexts in insular Southeast Asia. Explicitly utilizing a commodity-history approach, the chapter investigates global trade, a system of bondage and dependency, and patterns of consumption and desire at a specific moment in regional time—a span of 130 years—and a specific place: the Sulu Zone. Warren links the worlds of the latter to China and the West, and raises questions regarding the nature of the transitions and transformations of the Sulu Zone as a particular Indian Ocean micro-zone and its emerging “global character” as it became more firmly embedded within the global economy. Locating pearling and the exchange of shell within particular social, economic, and political structures, the chapter maps out the connections of various peoples in relation to the production, circulation, and consumption of other commodities within the confines of the Sulu Zone and beyond. Underscoring the need to consider the interconnections of pearls and pearl shell, on the one hand, and tea, ceramics, textiles, opium, and firearms on the other, Warren makes the critically vital intervention that their interrelation both illustrates and signifies how the structure and function of money, markets, and cross-cultural trade, and a repertoire of practices in contemporary life, were shaped by the material turn and its negotiation during a period of significant European imperial encroachments and growing colonial control in Southeast Asia.

In the second part of the book, “Regulation, Resource Management and Science,” authors address a host of distinct but interlinked themes that were crucial to pearl and shell harvesting: labor, technologies of extraction, and resource management. Focusing on the production side of the Indian Ocean pearl trade, Samuel M. Ostroff examines the elaborate security apparatuses that were designed to discipline labor and curb theft at the pearl fishery of the Gulf of Mannar between southeastern India and northwestern Sri Lanka in the late eighteenth and early nineteenth centuries. In 1796, the English East India Company secured

managerial rights over the human and natural resources of the pearl fishery through its annexation of Dutch Ceylon, a territory that included settlements on mainland India, and in 1802 the island became a formal colony of the British state. Thus, as Ostroff shows, Ceylon—with one of the world’s most abundant sources of natural pearls—became located along a geographical and political borderland, managed by the Company on the India side of the Gulf and the Crown on the Ceylon side. During this period of regime change, the governments of Madras and Ceylon increasingly turned their attention to attenuating the financial, physical, and environmental hazards of the pearling industry through intensively regulative and monopolistic practices. A particular focus, Ostroff argues, was on divers and other laboring groups, which armed vessels at sea and police forces on shore, together with native mercantile elites, subjected to extraordinary levels of oversight during pearling operations, as boats fished beyond demarcated boundaries, divers palmed pearls, and washers skimmed product. We are reminded that the physical qualities of pearls—small, valuable, and fathoms underwater—heightened anxieties about theft, but Ostroff is able to demonstrate that measures to control labor and prevent theft mapped onto wider concerns about the circulation of bodies, contraband, and disease through seasonal marketplaces such as the pearl fishery. The Company and Crown governments brought an assemblage of political and economic ideas to bear on the management and governance of people and oysters that sought not only to increase productivity but also fundamentally reshape the social, economic, and political foundations of the industry. However, as Ostroff underscores, attempts by British officials to disembody the pearling industry from local networks and institutions were fraught with contradictions and seldom delivered on the promise of radical change.

Questions regarding the control over and management of pearl fisheries in the Indian Ocean were a frequent concern for imperial authorities imbued with notions of depletion and sustainability of a natural resource. While the topic of sustainability is taken up elsewhere in the volume, Joseph Christensen examines it most fully in his chapter on the “pearler’s problem” in the Shark Bay pearling industry, a small but historically important center for the production of pearls and mother-of-pearl on the Western Australian coastline between the 1860s and 1930s. Although separate from the larger pearling grounds

of the northwest Australian coast, Shark Bay shared similarities with other pearl and mother-of-pearl fisheries, including those in the waters separating India and Sri Lanka, in terms of the nature of its marine environment, and, crucially, the management regime adopted by Western Australia's colonial government during the latter decades of the nineteenth century, which was based on principles developed in waters under the control of British authorities elsewhere in this period. Against this backdrop, Christensen draws on biology, economics, and history to explore the pearler's problem as a variant of the familiar concepts of the fisherman's problem and the tragedy of the commons, referring to the perennial challenges of maintaining viable annual harvests within a context of rigid social and political goals underpinning resource management strategies, fluctuating global markets for pearls and mother-of-pearl, and the changing and unpredictable dynamics of the marine environment. Offering a textured discussion and analysis, Christensen bases the chapter around a dispute over resource management arrangements at Shark Bay between English marine biologist (and one of the English-speaking world's foremost experts on pearl fisheries in the late nineteenth century) William Saville-Kent and the Austrian pearling master Ludwig Stross, a pearler with practical experience in several Indian Ocean pearling grounds. Remarkably, in the early twentieth century, both men moved into manufacturing pursuits—Stross in the international plastics industry and Saville-Kent in the artificial culture of pearls—that helped undermine the industry in Shark Bay that they had done much to develop.

The final essay of the second part of the book explores shifts in collecting shell that profoundly transformed the industry in Australia's northwest coast. Michael McCarthy shows how Aboriginal clans in the area had gathered pearl shell for food, ornamentation, ritual, and trade for millennia, and that, before British colonization, "dry shelling," walking in shallows to collect pearl shell at low tide, had been sufficient to create patterns of distribution that extended as far as central Australia. When in the late 1860s colonists grasped the commercial potential of the northwest pearl-shell beds, according to McCarthy, Aboriginal men and women were recruited to wade and then "skin dive" (diving without the use of any kind of breathing apparatus) for pearl shell that was aimed at the international market. Thus, over a short period of time, northwest coast Aborigines became renowned for their underwater

proWess and the ability to see shell on the bottom without visual aids. But the industry became marked by physical coercion and the extreme exploitation of labor, resulting in pearlers seeking to supplement their workforce in the mid-1870s by recruiting indentured “Malays” from the nearby islands of Indonesia, a pattern that would recur in other parts of Australia’s pearling waters. Together, Aboriginal and “Malay” skin divers proved an effective workforce, and, consequently, as McCarthy argues, industrial “hard hat” diving and its attendant technology was not introduced to the northwest until the mid-1880s, more than a decade later than it was in Torres Strait (located at the far northeastern point of Australia), where Australian pearling had a prominent presence. Examining especially detailed records that documented the progression from dry shelling to skin diving, the chapter uses this valuable material to provide insights into the development of the early phases of pearl fisheries elsewhere in the Indian Ocean, most of which had reached the free-diving stage of pearling well before being described by outside observers.

Indian Ocean pearling was defined by its transregional and global linkages, topics that are the focus of the third part of the book, “Regionalization and Globalization.” The movement of pearls and shell across waters and coasts that today are seen to fall into one or another “Area” challenges us to rethink the geographies of Area Studies. Pedro Machado opens this section of the book by examining the Mergui archipelago off the southern Burmese coast and the shell collecting areas to its north as located geographically within an interstitial space that in traditional Area Studies frameworks would place Burma in Southeast Asia. Yet, the archipelago’s pearling histories saw it maintain connections with India, Sri Lanka, Penang, and other parts of what became the Straits Settlements, and with China and eventually Australia in the nineteenth century.³² Mergui pearling, Machado notes, thus reflected the broader circuits in which it was embedded as a node in wider marine-products trade. The chapter discusses early pearling practices and ways of collecting shell by local divers, and stresses the participation early on in its development of Chinese merchants with interests in such commercial pursuits as the esculent bird’s-nest trade. While Mergui pearling has been associated often with the late nineteenth-century expansion of Australian colonial interest in the shell that was available among its hundreds of islands—resulting in the development of management strategies and attempts at boundary-making that shared similarities with

other pearling zones that had come under British suzerainty—Machado makes the important point that this interest was ephemeral and reflective of a singular moment in the archipelago's history. Rather, it was the sustained involvement of Chinese, Indian, and other local merchants that, together with local markets, animated pearling in Mergui over the long decades of its existence. Some of these, notably Ebrahim Ahmed, became prominent pearlers and utilized their position to diversify their commercial undertakings into areas such as mining.

The following two essays in this section of the book focus on the Persian Gulf, where for centuries pearls and shell had been extracted for local, regional, and global markets. Recognizing the deep histories of pearling in the Indian Ocean that his own work has helped uncover, Robert Carter uses the archaeological record to understand the Gulf's pearling pasts. Long before the coming of oil, the urban and political configuration of the Persian Gulf coalesced around its pearl-fishing settlements, many of which survive as the capitals of the Gulf states that exist today. The foundation and existence of these towns depended heavily, and in many cases exclusively, on the region's highly productive pearl fishery. Although the history of pearling in the Gulf is of immense antiquity, going back to the sixth millennium BCE, it was not until the eighteenth and nineteenth centuries CE that the fishery began to exert a strongly formative role. As Carter makes clear, local and regional political conditions intersected with increasing integration into the world's markets and globally increasing pearl prices to trigger an unprecedented boom in migration and economic specialization in pearl fishing. Families arrived from inland Arabia, Oman, Persia, Iraq, and India to supplement the existing coastal populations, a process that increased dramatically in the last decades of the nineteenth century and first decades of the twentieth, as the effects of globalization accelerated. Most of these people constitute the bulk of the national population of today's emirates on the Arabian shore. The process is clearly revealed in the region's archaeological record, in terms of changing settlement patterns, the expansion of the towns through time, and the excavated material culture, for example in the excavated sequence in Doha. The latter, the chapter shows, displayed sharp increases in the quantity and proportion of global commodities, chiefly ceramic trade wares and glass, coinciding precisely with documented increases in pearling revenues. Thus, demographics, settlement distribution, economic behavior,

and consumption patterns became increasingly stimulated by and dependent on the global economy.

That this phenomenon is part of global patterns is demonstrated by contemporary trends toward specialization and intensification of production in other regions of the world, for instance in the pearling industry of Australia. Where economic and demographic data is available, distant regions dependent on the production of completely different products also show similar and simultaneous transformations under the impact of processes of globalizing exchange patterns. Importantly, the pearling boom in the Gulf demonstrates the local effects of global integration, a theme also taken up Matthew Hopper but steered in new directions. Like Carter, he underlines the massive expansion in the late nineteenth century of the Arabian Gulf's leading industry, pearling. Although pearls from the region had circulated regionally to markets in India and the Middle East for centuries, in the late nineteenth century a global pearl craze ignited a surge in pearl production that transformed the Gulf economy. As demand for pearls in Europe and North America soared, the value of pearl exports, especially from Bahrain—the Gulf's primary export center—increased more than eightfold in the twenty years between 1885 and 1905, and then nearly doubled again in the following ten years. Crucial to this expansion, an element that is discussed throughout this volume, was labor. Many of the divers who made this transformation in production possible, however, were enslaved Africans or free Africans of slave descent. Africans accounted for between a quarter and half of the annual diving crews, and the pearl boom accompanied a growth in the African diaspora in the Gulf. By the close of the nineteenth century, slave ships from East Africa carried an overwhelming majority of young males, many ultimately destined for Gulf pearl banks. In a period of attempts by Great Britain to control the Gulf littoral, officials and officers struggled to reconcile abolitionism with the region's dependence on slave labor for a commodity with high consumer demand in London and elsewhere. Yet, as suddenly as the Gulf pearl boom emerged, it collapsed when confronted with Japanese cultured pearls and the Great Depression in the 1930s. Consequently, as Hopper demonstrates, many of the enslaved divers who had been instrumental in the Gulf's pearl boom between the 1880s and 1920s were then cast out to fend for themselves, the casualties of global forces that they had helped shape but that were beyond their control.

The regionalization of pearling as an aspect of a global economy of extraction of marine products brought many parts of Australia's northern coasts into close relation with nearby Indonesian islands. After the commencement of industrial pearling in northern Australia in the 1870s, a pearling zone developed that encompassed the islands of the Indonesian archipelago, with some of these becoming significant sources of labor for the Australian industry. The connections between these two areas were not only defined by labor exchanges, however, for as Steve Mullins shows in the final essay of the third part of the book, some of the traditional pearling regions adopted the technologies and techniques of Australian-style pearling. This transformation commenced and was most pronounced in the Aru Islands, in the Residency of Ambon, one of the ancient pearling grounds of the Indian Ocean world. It was facilitated by a new mode of production initiated by pearlers in the mid-1880s in Torres Strait: the floating-station system, in which a schooner of about one hundred tons served as tender to a fleet of pearling luggers, a uniquely Australian type of vessel from which full-dress helmet divers worked in deep water. Floating stations ranged widely and could remain at sea for months at a time, and in the early 1890s they began to encroach on the Aru Islands. Mullins's chapter traces the influence of Australian-style industrial pearling in the Residency of Ambon through to 1942, when the Pacific War brought it to an end, exploring how it affected the administration of the industry, assessing its impact on indigenous pearling, reflecting on its internal power relations, and examining how it responded to the perennial challenges of resource depletion and a radically fluctuating market. Moreover, it also identifies regional commonalities and contrasts that bring these issues into sharper focus in Torres Strait, the Kimberley Coast of Western Australia, and other pearling regions of the Indian Ocean.

The fourth and final part of the book sheds light on the often-neglected lives of the many individuals who were involved in the harvesting, processing, and exchange of pearls and shell. While we may know a fair amount about some of the European and American merchants and investors involved in the trade from the Persian Gulf, India, and Southeast Asia in the eighteenth and nineteenth centuries, we know very little about the local men and women who traded in pearls or worked in harvesting shell. Adopting an approach that marries biography with commodity histories, Jonathan Miran reconstructs multiple dimensions of the life and business activities of the most prominent Red Sea pearl

merchant of the early twentieth century, Sayyid ‘Alī ‘Abd al-Raḥmān al-Nahārī (1851–1931). The grandson of a Yemeni who moved from Hodaydah to Massawa, ‘Alī al-Nahārī came to dominate the pearling industry in the Dahlak archipelago off the Eritrean coasts during the heyday of the global pearling boom in both the Red Sea and Persian Gulf. In the process—and like some of his counterparts in the Arabian Gulf—‘Alī interacted directly with some of the most prominent global pearl dealers in Paris who sourced pearls from the Red Sea to satisfy French fashion demands, such as Léonard Rosenthal and Jacques Bienenfeld, and in 1907 and 1924 traveled to France to sell pearls and invest his profits in real estate holdings. He also, it appears highly likely, maintained relationships with merchants in Bombay, to which Red Sea and Gulf pearls and shell were also shipped. With so few biographical accounts of Arab mercantile involvement available to us, the reconstruction of ‘Alī al-Nahārī’s story—made possible through the creative use of a set of disparate sources that include Islamic court records, Italian colonial materials and official publications, entries in the published diary of the governor of Eritrea (Ferdinando Martini), oral data, family papers, and diary entries—is particularly valuable. It demonstrates in compelling detail that the efflorescence in pearling experienced by the Persian Gulf in the late nineteenth and early twentieth centuries was not an isolated moment in the region nor defined by the logics of British, American, French, or other European capital. Additionally, Miran addresses a further dimension of this story, one that traces the intersection of commodity histories, changing consumption habits in Europe, and cultural production in France in the 1930s. This is done through a discussion of a classic in the genre of French travel and adventure literature, *Les secrets de la mer Rouge*, written by the eccentric adventurer and prolific author, Henry de Monfreid, and published in France in 1931. As discussed by Miran, one of the main protagonists in this fictionalized version of Monfreid’s experiences in the Red Sea as a one-time smuggler, pearler, and gunrunner, “Said Ali,” is based on ‘Alī al-Nahārī, whom Monfreid had met briefly in late January 1914 in the Dahlak archipelago, underscoring how ‘Alī al-Nahārī’s life offers a compelling picture for exploring new spaces between microhistory, transregional Indian Ocean history, and global history.

Among studies of pearling, women as a social category and gender as an analytical framework are seldom examined to understand the complexities of social relations in the industry. Julia Martínez seeks

to remedy this by focusing on northern Australia and examining how, during the 1860s, when the frontier pearl-shell industry was in its infancy, Aboriginal women were the first choice for European pearling masters seeking labor. Their employment was controversial, and accusations of slavery led to the Western Australian government banning women's employment in 1871. Instead, as has been well established, pearling masters came to rely on male indentured labor from Japan, the Philippines, and the Malay archipelago. Martínez shows that very few women came from Asia, apart from several hundred Japanese *karayuki-san*, whose immigration into the sex industry was tolerated but not sanctioned. The pearling ports of north Australia were male-dominated, and Aboriginal women remained closely associated with pearl-shell workers, both as sexual and working partners. For immigrant pearling workers, all temporary formal and informal relationships with local women were subject to government censure; their "mixed relations," as Regina Ganter has termed them, being imagined as a threat to White Australia.³³ Despite generalized discourses of moral and racial panic, we know very little about the actual lives of women who were connected to the pearl-shell industry, nor is it clear how many male workers had wives at home. Martínez thus makes a singular contribution to these questions by casting light on the lives of pearl-shell women, considering their roles as workers, as sexual partners, and as wives.

Although also often overlooked, pearling and its social experiences produced rich cultural traditions that were expressed in music and song. Pearl divers' songs (*fjeri*) in the Gulf, for instance, were performed as a form of entertainment beyond the domain of work and expressed emotions attached to departure, sorrow, and divine love.³⁴ Karl Neuenfeldt, an ethnomusicologist and performer, builds on this work to explore the music and pearling songs of communities of Torres Strait. For generations, from the mid-nineteenth century until approximately the 1970s, the multicultural communities of this area were heavily involved in the pearling industry, and while it declined from the 1930s with the advent of Japanese cultured pearls and the widespread use of plastics, memories of the pearling era remain alive and are captured in unique songs and dance forms. Neuenfeldt analyses some of these and the community memories that inform them as instructive examples of how music can embed social history within a popular art form that continues to be practiced and performed

today. Although almost all the pearling boats are gone, and many of the men who worked on them have died, the songs commemorate what was an economic, social, and cultural mainstay of the region for decades. To provide audio and visual evidence of the key role of music in helping recall and preserve community memories of the pearling era, the chapter explores examples of professional recordings done in collaboration with Torres Strait Islander communities and artists who enjoy significant popularity in the area.

NOTES

1. The classic work by George Frederick Kunz and Charles Hugh Stevenson, published over a century ago, captured some of this history: *The Book of the Pearl: The History, Art, Science, and Industry of the Queen of Gems* (New York: Century, 1908). See also Nicholas J. Saunders, “Biographies of Brilliance: Pearls, Transformations of Matter and Being, c. AD 1492,” *World Archaeology* 31, no. 2 (October 1999): 243–57.

2. Nuno Senos, “The Empire in the Duke’s Palace: Global Material Culture in Sixteenth-Century Portugal,” in *The Global Lives of Things: The Material Culture of Connections in the Early Modern World*, ed. Anne Gerritsen and Giorgio Riello (New York: Routledge, 2016), 128–44, discusses the extraordinarily large sixteenth-century Portuguese inventory of the fifth Duke of Bragança—one of the largest of this period in Europe—whose most valuable item, exceeding all others by a large degree, was a pearl necklace highly prized as a royal possession. See also Molly A. Warsh, *American Baroque: Pearls and the Nature of Empire, 1492–1700* (Chapel Hill: University of North Carolina Press, 2018).

3. W. H. van Seters, “Oud-Nederlandse parelmoerkunst: Het werk van leden der familie Belquin, parelmoergraveurs en schilders in de 17de eeuw,” *Nederlands Kunsthistorisch Jaarboek* 9 (1958):185–237; Daniëlle Kisluk-Grosheide, “Dirck van Rijswijck (1596–1679), a Master of Mother-of-Pearl,” *Oud Holland* 111, no. 2 (1997): 77–94.

4. Kim Akerman and John E. Stanton, *Riji and Jakuli: Kimberley Pearl Shell in Aboriginal Australia* (Darwin: Northern Territory Museum of Arts and Sciences, 1994).

5. This is based on R. A. Donkin, *Beyond Price: Pearls and Pearl-Fishing: Origins to the Age of Discoveries* (Philadelphia: American Philosophical Society, 1998), which discusses the uses of pearls in great detail across a range of periods.

6. As discussed by Pliny in *Historia Naturalis*, cited in Donkin, *Beyond Price*, 3–4.

7. Donkin, *Beyond Price*, 5. Elisabeth Strack discusses the actual process of pearl formation in *Pearls* (Stuttgart: Rühle-Diebener-Verlag, 2006).

Pearls would continue to have gendered associations of female virtue and vice into later centuries, as noted recently by Warsh, *American Baroque*.

8. Donkin, *Beyond Price*, 12.

9. The terms “Persian Gulf” and “Arabian Gulf” are used interchangeably by authors throughout the book. Mexican and Caribbean pearl fisheries also enjoyed a global importance, especially in the sixteenth and seventeenth centuries, for which see Warsh, *American Baroque*.

10. “Mother-of-pearl” is defined in the volume as the commodity derived from pearl shell.

11. Kerry Ward, *Networks of Empire: Forced Migration in the Dutch East India Company* (New York: Cambridge University Press, 2009), 31–32.

12. For the African diaspora in Arabia, see Matthew S. Hopper, *Slaves of One Master: Globalization and Slavery in Arabia in the Age of Empire* (New Haven, CT: Yale University Press, 2015). For the Sulu Zone, the classic work of James Francis Warren is indispensable: *The Sulu Zone 1768–1898: The Dynamics of External Trade, Slavery, and Ethnicity in the Transformation of a Southeast Asian Maritime State*, 2nd ed. (Singapore: National University of Singapore Press, 2007).

13. In many instances, these have been focused on production and especially labor allocation in the harvesting of pearls and shell.

14. The connections of the Indian Ocean to other oceans is also noted recently by Krish Seetah and Richard B. Allen in their introductory chapter, “Interdisciplinary Ripples across the Indian Ocean,” in *Connecting Continents: Archaeology and History in the Indian Ocean World*, ed. Krish Seetah (Athens: Ohio University Press, 2018), 1–29.

15. Arjun Appadurai, “Introduction: Commodities and the Politics of Value,” in *The Social Life of Things: Commodities in Cultural Perspective*, ed. Arjun Appadurai (Cambridge: Cambridge University Press, 1986). See also Amiria J. M. Henare, Martin Holbraad, and Sari Wastell, *Thinking through Things: Theorising Artefacts Ethnographically* (Abingdon, UK: Routledge, 2006).

16. Appadurai, “Introduction,” 3.

17. Natasha Eaton, “In Search of Pearlescence: Pearls, Empire and Obsolescence in South Asia,” *Journal of Material Culture* 21, no. 1 (March 2016): 30, drawing on the work of Michael Taussig, “Redeeming Indigo,” *Theory, Culture and Society* 25, no. 3 (May 2008): 1–15.

18. Anne Gerritsen, “Domesticating Goods from Overseas: Global Material Culture in the Early Modern Netherlands,” *Journal of Design History* 29, no. 3 (August 2016): 228–44; Gerritsen, “From Long-Distance Trade to the Global Lives of Things: Writing the History of Early Modern Trade and Material Culture,” *Journal of Early Modern History* 20, no. 6 (November 2016): 526–44.

19. Interest in the study of things and objects, as reflective of particular social and cultural meanings, and the material worlds that were constituted through and by them has grown dramatically. See, for example, Craig Clunas, *Superfluous Things: Material Culture and Social Status in Early Modern China* (Honolulu: University of Hawai'i Press, 1991); John Brewer and Roy Porter, eds., *Consumption and the World of Goods* (Abingdon, UK: Routledge, 1993); Susan B. Hanley, *Everyday Things in Premodern Japan: The Hidden Legacy of Material Culture* (Berkeley: University of California Press, 1997); Suraiya Faruqi, "Moving Goods Around, and Ottomanists Too: Surveying Research on the Transfer of Material Goods in the Ottoman Empire," *Turcica* 32 (February 2000): 435–66.

20. Kate Smith, "Amidst Things: New Histories of Commodities, Capital, and Consumption," *Historical Journal* 61, no. 3 (September 2018): 841–61.

21. For recent work highlighting the translocal dynamics of the histories of pearl trading, see Julia Martinez and Adrian Vickers, *The Pearl Frontier: Indonesian Labor and Indigenous Encounters in Australia's Northern Trading Network* (Honolulu: University of Hawai'i Press, 2015).

22. Alison Bashford, "Terraqueous Histories," *Historical Journal* 60, no. 2 (June 2017): 253–72; Lauren Benton, *A Search for Sovereignty: Law and Geography in European Empires, 1400–1900* (New York: Cambridge University Press, 2010), 2.

23. John R. Gillis and Franziska Torma, eds., *Fluid Frontiers: New Currents in Marine Environmental History* (Cambridge, UK: White Horse, 2015); and J. C. Heesterman, "Littoral et intérieur de l'Inde," in *History and Underdevelopment: Essays on Underdevelopment and European Expansion in Asia and Africa*, ed. Leonard Blussé, H. L. Wesseling, and George D. Winius (Leiden: Leiden University Press, 1980), 87–92.

24. Sujit Sivasundaram, Alison Bashford, and David Armitage, "Introduction: Writing World Oceanic Histories," in *Oceanic Histories*, ed. David Armitage, Alison Bashford, and Sujit Sivasundaram (Cambridge: Cambridge University Press, 2018), 19.

25. Indian Ocean scholarship has featured work on various aspects of the environmental histories of coasts and islands—such as the development of ideas tied to colonial botany or deforestation—for which see, for example, the classic work by Richard H. Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism* (Cambridge: Cambridge University Press, 1995); and also HariPriya Rangan, Judith Carney, and Tim Denham, "Environmental History of Botanical Exchanges in the Indian Ocean World," *Environment and History* 18, no. 3 (August 2012): 311–42.

26. W. Jeffrey Bolster, "Putting the Ocean in Atlantic History: Maritime Communities and Marine Ecology in the Northwest Atlantic, 1500–1800,"

American Historical Review 113, no. 1 (February 2008): 19–47. For an elaboration, see Bolster, *The Mortal Sea: Fishing the Atlantic in the Age of Sail* (Cambridge, MA: Harvard University Press, 2012).

27. “Fisheries” is defined here as involving fishing that yields food for human consumption, with whaling having enjoyed an especially prominent focus in marine environmental history. I thank Joe Christensen for highlighting this point for me.

28. This volume is thus writing somewhat against the notion, most fully expressed by K. N. Chaudhuri, of the Indian Ocean as a unified space or “system” expressed in structuralist terms. See Chaudhuri, *Trade and Civilisation in the Indian Ocean: An Economic History from the Rise of Islam to 1750* (Cambridge: Cambridge University Press, 1985).

29. Sujit Sivasundaram, “The Indian Ocean,” in Armitage et al., *Oceanic Histories*, 31–61. Richard Allen has regularly cautioned against the “tyranny of the particular” when approaching the histories of the Indian Ocean, specifically in studying the global traffic in chattel labor across the ocean. See Richard Allen, “Ending the History of Silence: Reconstructing European Slave Trading in the Indian Ocean,” *Revista Tempo* 23, no. 2 (May–August 2017): 295–313.

30. See, for instance, Seetah and Allen, “Interdisciplinary Ripples”; and Pedro Machado and Sarah Fee, “Introduction: The Ocean’s Many Cloth Pathways,” in *Textile Trade, Consumer Cultures, and the Material Worlds of the Indian Ocean: An Ocean of Cloth*, ed. Pedro Machado, Sarah Fee, and Gwyn Campbell (New York: Palgrave Macmillan, 2018), 1–25.

31. This mode of analysis was proposed and applied fruitfully by the Modern Girl Around the World Collective, for which see Alys Eve Weinbaum, Lynn M. Thomas, Priti Ramamurthy, Uta G. Poiger, Madeleine Yue Dong, and Tani E. Barlow, eds., *The Modern Girl around the World: Consumption, Modernity, and Globalization* (Durham, NC: Duke University Press, 2008).

32. Some of my thoughts about Area geographies have been prompted by Jonathan Saha, “Is It in India? Colonial Burma as a ‘Problem’ in South Asian History,” *South Asian History and Culture* 7, no. 1 (2016): 23–29.

33. See Regina Ganter, with contributions by Julia Martínez and Gary Lee, *Mixed Relations: Asian-Aboriginal Contact in North Australia* (Crawley: University of Western Australia Press, 2006).

34. Nassar Al-Taei, “‘Enough, Enough, Oh Ocean’: Music of the Pearl Divers in the Arabian Gulf,” *Middle East Studies Association Bulletin* 39, no. 1 (June 2005): 19–30. See also Laith Ulaby, “On the Decks of Dhows: Musical Traditions of Oman and the Indian Ocean World,” *World of Music*, n.s., 1, no. 2 (2012): 43–62; as well as Ulaby, “Performing the Past: Sea Music in the Arab Gulf States” (PhD diss., University of California, Los Angeles, 2008).