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The monsoon that binds the Indian Ocean together is an agent of both connectivity and chaos,¹ as its currents carry not just people and their goods but also diseases.² Healing follows disease. The authors of the chapters collected in this book approach their studies from different vantage points, spanning more than a millennium. However, they all address the topics of disease, medicine, and healing within and across the geographic and conceptual space constituting the “Indian Ocean world” (IOW).

In his keynote address at the conference from which this book emerged, Howard Philips referred to the “Swahilian swap of pathogens.”³ As a physical event, the monsoon creates an environment for disease, as the mosquitoes that breed in the pools the rains leave behind spread dengue, malaria, and chikungunya. In his pioneering account of the Indian Ocean as a “disease zone,” David Arnold observed that contagious diseases, including bubonic plague, and perhaps smallpox and cholera, spread from centers of dense population such as India and China, a process that accelerated with the great population movements of the industrial age.⁴ New arrivals in the region also brought disease to their host environment. Michael Pearson notes in his afterword to this book, that historically, this is perhaps best expressed in the name “firangi” or “parangi,” which derives from “foreigner” but also denotes syphilis.⁵

Healing therapies sometimes reference the monsoon specifically. One could mention, for instance, the Kerala Panchakarma therapy with its focus on rejuvenation during the rains—that now attracts tourists from across the Indian Ocean region—which is actually matched to the seasonal monsoon. Historically, travelers also
voyaged across the Indian Ocean in search of medical treatment and religious healing as well as profitable items of materia medica. Reading the list of ingredients specified in almost any premodern pharmacopoeia from the region is very revealing. The reader is taken on a journey around the IOW as he or she learns about Egyptian opium, Socotra aloes, the ambergris of Azania, Syrian sumac, Armenian bole, Persian sweetmeats, Indian aloeswood, and the cinnamon of Lanka, to Southeast Asian spices and the rhubarb, celandine, and ginger of China. For an alchemic prescription one might travel to Yemen for talc, Istahr for iron oxide, Zarawant for borax, or Kīrman for malachite.

The concept of an Indian Ocean “world” is still relatively new. In bringing together the chapters in this book, we seek, in various ways, to test the claim that the region might be regarded as a unit of historical analysis. While there has been no previous study of medicine and healing in this region, some scholars have touched on elements of our subject from various angles. Therefore, before moving on to the presentation of the chapters of this book, we will review some of the most important works that have briefly mentioned medicine in the IOW.

The initial attention to the Indian Ocean region came from economic historians inspired by Ferdinand Braudel’s account of the Mediterranean. Medicines and objects used in medical practice were, of course, also items of trade. Periplus, produced in around 40–100 CE and usually regarded as the earliest account of the commercial landscape of the Indian Ocean, already noted the exchange of goods such as myrrh and frankincense, which, like other aromatics, also have medical uses. Furthermore, materia medica overlapped with foodstuff such as sugar, cinnamon, pepper, nutmeg, and other spices traded across the region that were also used for medical purposes. Animal parts and products, including ivory, horn, ambergris, the famous bezoar stones, and even cowrie shells that doubled as currency, were in demand for their medical uses in the IOW. The works of Auguste Toussaint, K. N. Chaudhuri, and others who followed in their footsteps convey some sense of the importance of these items in trade and tribute. Economic atlases, including the modern editions of Irfan Habib and Brice, provide a visual account of the specialization of particular regions in producing medicinal plants for trade. Although these economic
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histories of the IOW mention the trade in medical products, none of these works use the terms “medicine” or “healing” explicitly or provide information about how materia medica were used and conceptualized in the different regions around the Indian Ocean.

Studying medical practice by religion, language, or cultural grouping is one way in which historians have approached trans-regional exchanges. Buddhism has been recognized for its role in disseminating medical teachings between South, Southeast, and East Asia from the fifth century CE onward.13 Some authors have noted that medicines joined textiles and religions in being transported via the “silk road.” A recent study of Japanese medicine has even imagined a maritime “pharmaceutical silk road,” established from the eighth century and manifest in writings including those of the fourteenth-century Buddhist monk Kajiwara Shōzen. The latter had a significant number of ingredients, listed in his pharmacopoeia, which he had received from all over the IOW (called Nanban or the Southern Barbarian Region) as well as from China and the Ryukyu islands.14 The exchanges were not only limited to materia medica, but also included medical books, students, and doctors. Doctors travelled for both medical training and diplomatic reasons, thus highlighting their importance in establishing the connections across what has been referred to as the “East Asian Mediterranean.”15 While the spread of Hinduism has been more diffuse and subtle than that of Buddhism, the “Hinduization” of much of Southeast Asia, beginning gradually from the first century and being consolidated between the seventh and tenth centuries, saw the spread of medicinal plants along with scripts and deities.16 The turn toward the West from the sixteenth century onward, where Hindus increasingly acted as subcolonists,17 also saw the transplantation flow westward across the Indian Ocean. This is perhaps best evidenced by the appearance of the neem tree (Azadirachta indica) as an important source of multiple items of materia medica in Eastern Africa, Saudi Arabia, Iran, and finally West Africa and the Americas from the nineteenth century onward.18

The rise of Islam in the seventh to eighth centuries CE coincided with the period that Chaudhuri sees as the maturing of the Indian Ocean as an interconnected zone for the distribution of goods. Historians including Sanjay Subrahmanyam have stressed the heterodox nature of Islam in the region.19 Nevertheless, the
sharing of key Islamic beliefs has often been conceptualized as a uniting force within the Indian Ocean. Ho opens his account of the Hadrami society with a mariner’s poem, “stringing along ports like prayer beads,” which attaches the name of a saint to each port. If the hinterlands remained unknown, the Friday mosque provided a familiar point of reference for Muslim traders in many of the entrepôts around the Indian Ocean. This also meant that the influence of Islamic concepts of medicine quickly spread along the routes taken by traders, pilgrims, and proselytizers. Protocols of Islamic medicine are known to have influenced the theoretical developments in Chinese medicine during the Tang and Song periods and, by extension, influenced medieval Japanese concepts. Further West, unani tibb (Graeco-Islamic medicine) has traditionally received attention in histories of medicine as the bearer of the classical tradition during the European Middle Ages and for its role in disseminating humoral theory. Sufis considered the graves of saints to be places where “mobile persons and mobile texts meet.” These were also sites where disagreements about the relationship between living and dead were played out. Nile Green describes a pilgrimage to saints’ graves, which became an established practice by at least the tenth century, as “a key space-making institution introduced at an early period from a wider Islamic system of settlement and acculturation, especially in erstwhile frontier territories of Africa and Southeast Asia as well as India.” Tombs were also considered as sites of healing since the “blessed power” of the saint (barakat) could include the performance of cures as well as the resolution of worldly problems and disputes. This practice was, in some cases, accomplished by women and other people who were outside the official religious sphere. In the case of larger shrines, like that of Imam Reza in Iran, hospitals were set up to provide for the needs of the pilgrims who required medical attention. Several authors have made the general point that the spread of ideas, including medical ideas, and the expansion of Islam not only acted as a force for social cohesion but also created “zones of political tension” or “zones of moral competition.” It is, in fact, well known that Sufi shrines have been targets for adherents of certain forms of Islam and, in some cases, for political authorities who consider them a threat. As evidenced by such examples, the experience of migration can act to strengthen localized attachments of class,
caste, or tribe, rather than dissolving them. Moreover, communities that retained strong networks across the Indian Ocean, such as Bohra or Khoja, held widely differing social practices across and beyond the region.\(^{30}\)

Scholars have, however, also noted the existence of similar healing practices along the contours of the IOW. The growing recognition of the presence of people of African descent throughout the IOW has led some scholars to focus on African healing beyond the continent. They argue that, despite their ambiguous relationship with forms of healing based on textual scholarship, African spirit cults that often spread along with Islam combined spirit possession with healing. Edward Alpers, who belongs to this group of scholars, notes that the “important innovations and retentions in music, song and dance, spirit possession and healing, medical pluralism and popular religion,…are linked and can be compared with the situation in the Americas and the Caribbean islands.”\(^{31}\) Helen Basu, who explores the intertwining of Sufi Islam and African-derived cosmologies and performance styles, also indicates that the symbol of the drum (\textit{ngoma}) in East Africa is recalled by the ritual performances of Sidi communities in Gujarat. Meanwhile, she also pinpoints the problems that could come along with a straightforward definition of Sidis as a “diaspora” as well as with essentializing their ritual practices as having an African origin. She argues for the need to allow for transformation in the Indian Ocean context and dialogue with both Hindu and Muslim concepts of spirit possession and healing.\(^{32}\) Perhaps the best-known example of the migration of a recognizable spirit cult associated with healing is the women’s medicine \textit{zar} cult practiced in North Africa, the Horn of Africa, and the Middle East, and that also resembles the West African \textit{bori}.\(^{33}\) As with this example, the exchange of healing techniques was, of course, not limited to the boundaries of the IOW. In fact, other practices that may have originated from elsewhere were also drawn into the circulation within the region. While spirit possession cults have attracted the attention of scholars, only recently have historians of the environment begun to pay attention to the transplantation of medicinal plants such as the baobab tree from Africa to other regions around the Indian Ocean.\(^{34}\)

Like shared religious practices, lingua franca also facilitated the translation and distribution of medical information across the
region. The pharmacological tradition in the Arabic language not only built on the work of Dioscorides, but also incorporated information from translations of Sanskrit works. The *Kitāb al-ṣaidda fi al-ṭibb* (Book on the Pharmacopoeia of Medicine) of al-Biruni—or Alberuni, as the tenth-century Persian polymath was known in the West—is a case in point. The book uses an array of sources from across the region and serves as a reference document. For instance, it gives drug synonyms in Syriac, Sankrit, Persian, Greek, Baluchi, Afghan, Kurdi, Indian dialects, and other languages. While the “golden age” of Arabic pharmacology was traditionally considered to have ended in the eleventh century, many later examples of innovation exist. For instance, Leigh Chipman’s in-depth study of pharmacological texts from late Mamlūk Cairo produced among the Jewish community demonstrates a high degree of cosmopolitanism in the sourcing of ingredients from around the Indian Ocean region, including China. The comparable work of the twelfth-century Nestorian Christian of Baghdad, Ibn at-Tilmīd, could be mentioned as another example. Furthermore, sources indicate that Persian medical literature found audiences from Cairo to Delhi, and that this process was aided by the frequent migrations of doctors, which Cyril Elgood refers to as an “exodus” during the Safavid period. Seema Alavi and Guy Attewell’s recent studies of *unani tibb* in India both highlight the ongoing interactions between Persian and Urdu medical literature.

Institutional histories of the practice of medicine in the region also demonstrate exchanges across the IOW. An example is the recent collection of essays pertaining to hospitals in Iran and India edited by Fabrizio Speciale. While these cover the period after 1500, the institution of the hospital in the region is far older. The edicts of the Buddhist Emperor Aśoka (c. 259–222 BC) famously ordered the construction of institutions of healing, although their effects are unknown. The remains of the Mihintale hospital in Sri Lanka probably date back to the reign of either King Sena II (851–885 AD) or King Mahinda IV (956–972 AD). As demonstrated by the Persian medicine jars and Chinese ceramics excavated at Mihintale and other sites in Sri Lanka, the hospitals’ supply chain was cosmopolitan. The idea of a dedicated site to heal the sick was widespread by the beginning of the second century CE. Islamic hospitals were constructed from medieval Spain.
to the Delhi Sultanate. Some of the most eminent physicians of the age divided their time between court and hospital: Abu Bakr Muhammed ibn Zakariyā Rāzī, known as al-Razi, or Rhazes in the West (c. 859–925 CE) of Rayy—whose work is discussed by Mahmud Angrini in this book—worked at the Baghdad hospital and Abūʾl Ḥasan ʿAlī ibn al-Nafīs presided over the hospital founded in Cairo by Qalāʿūn, the Bahrī Mamlūk Sultan of Egypt.

Bathing had been an integral part of hospital practice in the region from an early stage. Sources indicate that the “sarcophagus-like” immersion tanks found among the ruins of the ancient Sri Lankan hospitals were used for the application of medicinal herbs. In the Muslim world, the *hammām* was regarded as a place of healing, although it was also sometimes considered as the abode of disease-causing djinns.44 *Hammāms* were often found within the same complex as hospitals, along with the caravansary, serving the poor or the itinerant who did not have access to the private luxuries of medicine, food, and cleanliness.45 These examples form part of a wider international culture of healing through bathing: spas historically received state support in several parts of the world, and are being reinvented as “alternative” therapies in many parts of the contemporary world.46 Spa treatments sometimes, although not invariably, are directly connected to the ocean, as they involve the use of seawater, or “thalassotherapy,” and are often associated with the application of minerals, seaweed, or algae as medicines. Massage, often performed within the setting of the spa, is accepted in the modern world as both a mainstream therapy in the form of chiropractic manipulation, and as complementary medicine.47 Both baths and massages are generally associated with the pleasurable face of healing as well as sometimes with sexual activity, one reason for their sometimes-controversial status within medical establishments.

In both the Mughal and Safavid empires, a hospital complex could also include a mosque and madrasa. Although the madrasas’ curriculums would sometimes have included works such as the *Qānūn* or “Canon of Medicine”, by Abū ʿAli al-Husayn ibn ʿAbd Allāh ibn Snā, known as Ibn Sina or in the West as Avicenna, they were not generally specialist medical schools. The hospital was not directly affected by religion, since Hindu doctors were employed by Muslim-endowed hospitals in India;48 while in the Qajar period in Iran, hospitals offering allopathic medicine were often endowed as through the *waqf*. State
support for hospitals in India began with the Mughal Emperor Jahangir’s command that they were to be funded through the ḥāliṣa, or the lands directly managed by the imperial government.\(^{49}\)

Studying dispensaries provides a smaller-scale institutional history of medicine, one that often intersects with family histories, as businesses—such as the Hamdard dispensary—were passed down through generations.\(^{50}\)

The European colonial presence in the Indian Ocean from the early modern period onward has provided one of the most obvious entries for scholars into the subject of medical exchanges in the region. Health was, in fact, both a practical and an ideological concern for the outsiders who sought to establish themselves in the region from the fifteenth century onward. As Michael Pearson notes in the afterword of this book, his own work\(^ {51}\) examines medical contacts between Portugal and India in the larger framework of Indian Ocean history. The medical aspect of the Portuguese quest for “Christians and spices” is discussed by Ines Županov\(^ {52}\) and, in previous studies, by Cristiana Bastos.\(^ {53}\) Natural and medical knowledge in the empire of the Dutch East India Company (VOC) has recently received attention from Harold Cook,\(^ {54}\) and Kapil Raj and Emma Spary have shown how the French empire’s taste for natural history grew out of the study of exotic medical plants.\(^ {55}\)

The British Empire has also been the focus of many studies of the social, cultural, and political aspects of disease and medicine. The concept of the colonial body became particularly central to the research of the subaltern studies collective.\(^ {56}\) While the aims of colonial states and missionaries were sometimes at odds, the purveyor of medicine on the ground was often the mission doctor. The latter became an emblematic figure in the later colonial period when Europeans claimed to heal the physical and moral sickness they perceived in the tropics, through a combination of “Christian conviction, imperial mission, and science.”\(^ {57}\) Despite the numerous studies of colonial and missionary medicine, the focus has tended to be on the metropolitan policies of the particular colonizing country rather than engaging with the ways in which imperial medical policies interacted with one another within a specific location.\(^ {58}\)

One consequence of the colonial period was the emergence of a conceptual division between “Western” and “non-Western” medicine. The exact time when this perceived division emerged is
debateable. Braudel argued that in the eighteenth century there was a shattering, in both China and Europe, of “a biological ancien régime, a set of restrictions, obstacles, structures, proportions, and numerical relationships that had hitherto been the norm.” The decline of humoral theory and the application of the chemical revolution to drug discovery (after its initial divorce from pharmacology) after around the mid-nineteenth century might also be regarded as turning points in the emergence of modern allopathy and biomedicine. How far any true “divergence” took place between the medical thought and practices of Europe and America and other parts of the world, has been seriously questioned by a number of recent studies, which have demonstrated that the reach of colonial medicine on the ground continued to be limited and its application shaped by local factors. “Western” medicine was not the only medical tradition to profess universal applicability, as Alavi demonstrates in her discussion of Persian medical encyclopedias. Nor was allopathic medicine the only tradition to adapt itself to new media and approaches, as Attewell notes in the context of Urdu-language medical journals and as Cochran observes in his study of the commercialization of Chinese pharmacy. Nonetheless, by the twentieth century, apologists for colonial regimes felt able to list “Western medicine,” along with railways and canals, as a boon that they claimed to have bestowed on the colonies.

Despite the increasingly disparaging approach of most colonial regimes toward practices that were considered to lie outside the scope of evidence-based medicine, the colonial period also saw the beginnings of an international market for “alternative” healing. These forms of healing notably included yoga and meditation, and they were aided by an interest in their spiritual as well as medical benefits. While these practices can be, and often are, divorced from the theoretical framework within which they were originally located, the global demand for different approaches to healing has continued to grow since. Often this demand has arisen in response to the perceived disadvantages of allopathic medicine, including the negative side effects of drugs and the lack of a “person-centered” approach. In this respect, Ayurveda, Chinese, Tibetan (Sowa rigpa), and South African (muti) traditional medicines have attracted attention for their contemporary transnational nature as they are repackaged for a global clientele. Recent studies
have explored the complexities of the encounters of these healing practices with biomedicine. These cover the incentives to present themselves as complete philosophical packages, with principles opposed to those of biomedicine and the incentives to adopt clinical trials of drugs or to develop alternative methods of testing.

A parallel, but distinct strand in the globalization of healing practices sees the migration of specific therapies, medicines, or rituals for the consumption of diasporic communities. A good example of this is the migration of lênh dông from Vietnam to the United States. Doctors continue to be among the most mobile groups of professionals, their trajectories of migration often being determined by the correspondence between languages and systems of education created by earlier colonial contacts. Relations between doctors and wider migrant communities have been the focus of some debate, especially around the controversial issue of female genital cutting, also known as female circumcision or female genital mutilation. Patients also continue to travel internationally in search of specific treatments. The modern practice of “medical tourism,” which is also discussed by Michael Pearson in his afterword to this book, takes place in all directions, motivated by a number of concerns, including a search for cheaper medical procedures, better funded or more sophisticated facilities, a more “caring” environment, and different cultural norms permissive of certain medical procedures. As healing becomes increasingly internationalized, older connections, such as those that exist across the Indian Ocean, are not lost, although they are often transformed by new contexts. An example is the ongoing connection between South Asian and South African medicine.

While both area studies and medical anthropology have provided important contributions on medicine in local and international contexts, few historical studies have engaged with the interconnection or disjuncture of healing practices across the Indian Ocean region. The foci of the studies presented here are on very specific moments in medicine, but they all situate healing within a regional context.

The contributions in this book are drawn from historians, archaeologists, anthropologists, geographers, area studies specialists, and health professionals and link economic, intellectual, cultural, and social histories. In doing so, they demonstrate the wide spectrum of
areas of life impacted by the exchange and consumption of medical substances, practices, and ideas. The time period covered stretches from the ninth-century work of al-Razī, discussed by Mahmud Angrini, to the contemporary studies of Jonathan R. Walz and Julie Laplante. The chapters cover a geographical area stretching from the Chinese end of the “porcelain road” by Amanda Respess and Lisa C. Niziolek, to the meeting of the Indian and the Atlantic Oceans in Laplante’s work on South Africa. In terms of the presence of outsiders in the region, Cristiana Bastos and Ana Roque discuss Portuguese imperial involvement in medicine that was spanning Goa and Mozambique. Karine Jansen discusses medicine in the Mascarenes in the period of French colonialism and its wake, whereas Yoshina Hurgobin’s contribution makes a claim for a distinct medical culture among the plantation islands of the Indian Ocean, with a focus on the sugar colony of Mauritius. Minakshi Menon, Shirish Kavadi, and Anoushka Bhattacharyya all adopt an India-centered perspective on institutional innovations to deal with new plants, diseases, and public health challenges encountered in the British Empire, showing how the subcontinent acted as a center within the empire and the ocean. S. Jeyaseela Stephen examines the reception of Tamil medical texts by a range of European countries connected to the region through trade and missionary work. Rashed Chowdhury provides a perspective on the IOW from a power traditionally excluded from discussions of the region with his chapter on Russian diplomacy in Ethiopia.

A major part of healing normally consists in offering the patient an explanation for disease and its cure. The chapters touch on this theme in a number of ways. Many of the societies around the Indian Ocean shared some form of “humoral” theory, based on ideas of the balance of hot, cold, wet, and dry elements in the body and the environment and healing according to the theory of opposites. Mahmud Angrini’s contribution, which opens the book, focuses on al-Razi: a figure who was influential in both transmitting and questioning the Galenic version of humoral theory. As Angrini shows, al-Razi’s important contributions included the discovery of capillaries and the description of sciatica. In his study of one of al-Razi’s lesser-known treatises, translated as “On Joint Pains” and preserved in manuscript in Tehran’s Malek Library and in the University of Cambridge library, Angrini shows that al-Razi used the question
of joint pains to evolve a humoral explanation for the affliction, as well as making pioneering anatomical observations. However, the bulk of the work was devoted to treatments, in which the ingredients and their administration were described in meticulous detail. Al-Razi’s treatise, the oldest surviving Arabic work on rheumatology, influenced physicians from Damascas to Samarqand to make their own studies. Amanda Respess and Lisa C. Niziolek interrogate the meeting of Islamic humoral theory with Chinese yin-yang concepts of medicine and its implications for diagnostics in Song and Yuan periods in China. Like the doctrine of the four humors, the yin-yang in ancient Chinese medicine provided a broad organizing principle with which to categorize bodily and cosmological relationships. As these authors show, the reception of the work of Ibn Sina’s Qānūn in China paralleled its dissemination in Western Europe between the twelfth and fourteenth centuries. Apart from providing a summary of Islamic medicine, Ibn Sina’s work provided an influential exposition of Galen’s version of the Hippocratic theory of the humors. It is notable that Isa Tarjaman, who Respess and Niziolek note was influential in formalizing the Islamic medicine in China, was a Nestorian Christian. As speakers of Syriac, Persian, and Arabic, the Nestorians provided an important channel for the dissemination of medical practices through the Near and Middle East as well as China.

As noted earlier, the objects on which healing is based (medicines or surgical instruments) and instructions for using them are often exchanged during trade. The way in which such objects are packaged often carries information about their significance, use, or meaning, information that enables such objects to successfully traverse cultures. Respess and Niziolek’s contribution takes us into the hull of a Chinese ship wrecked off the coast of Java during the thirteenth century to examine a cargo that represents a cross-section of the healing objects that travelled with other items along what has been called the “Maritime Silk Road” or the “Porcelain Road.” Many of these objects were concerned with the issue of fertility or reproductive medicine at the dawn of the emergence of fuke, or women’s medicine, in China toward the close of the Song dynasty. In addition to goods made in China, including ceramics identified by Niziolek as having been made in the famous kilns in Jingdezhen in Jiangxi province, the collection from the Java sea
wreck included Indian-style *kendis* and *kundikas* and elephant tusks that could have been derived originally from other Asian countries or from Africa. Ivory powder was a key component of women’s medicine. Apart from having cosmetic applications, it was believed to correct sexual and energetic imbalances by regulating desire and sexual fluids. Also among the cargo were medicinal resins of Persian and Arab origin, which were often used in rituals connected with childbirth.

While al-Razi was dismissive of the power of talismans in medicine, they, nonetheless, formed a central part of the practice of his contemporaries, and magico-religious formulations from the Islamic world travelled far, as did medical texts. The forms of the healing objects discussed by Respess and Niziolek also provide unifying themes across religious traditions. The water vessels that were used in ritual ablutions within Hindu and Buddhist rituals began to be adopted for similar purposes within the Islamic world and eventually in China, where a modified form of the object was used in the brewing of particular medicines. In another example, the form of bottles designated in Indian art to contain the elixir of immortality was transferred to Chinese containers for fertility medicines. Ideas about gender could also be transferred through such objects, while being contextualized within familiar theories such as the yin-yang. Similarly, the shared symbolism of the melon and pomegranates promoted their similar uses within Chinese and Islamic pharmacological traditions, even when their effectiveness was explained using various different underlying theories. The increasingly “cosmopolitan” nature of the materia medica that was incorporated into Chinese medicine paralleled the shifts in Chinese diagnostic practices under the influence of works of Islamic medicine.

Yasser Arafath’s chapter also shows how healing techniques could spill over the boundaries of religious beliefs. His chapter provides a view of the interactions between Hinduism, Islam, and Christianity as well as older Buddhist traditions through the lens of the shared elements of belief relating to fertility on the Malabar Coast. As he notes, healing traditions simultaneously reflect the plurality and the interdependence of cultural frameworks in the region. Like Respess and Niziolek, Arafath also explores the connections between fertility, bodily fluids, and the natural environment. Disease and cures were attributed to Sufi saints and holy
men, gods, and especially goddesses, attached to a range of places including not only temples, dargahs, and churches, but also groves of trees (*kavu*), the abode of ancient snake deities. The same goddesses who were attributed the power of enabling fertility were also thought to cause smallpox. Like Respess and Niziolek, Arafath notes the centrality of objects, including clay pots, holy water, and written charms in rituals aimed at ensuring fertility. Sometimes these objects were combined in rituals such as consuming holy water from a ceramic bowl imprinted with Arabic letters arranged in pictographic tables together with numerals. The distribution of materia medica used in healing, such as the turmeric *prasadam* used at the Hindu Cheemeni Mundya temple at Kasargode, borrowed from similar practices within Buddhism, where healing is a function of the *vihara* or temple/monastery. The invocation of *nerchas*, or “divine personalities,” is associated with international Islamic worship of saints but it also has Dravidian roots. The interaction between faiths was not always comfortable, as shown by the belief of Muslim women that they were possessed by *kafir* (unbeliever) *djinn* or suffering the effects of the evil eye, and the widespread belief that the shape-shifting deities of the tribal communities could cause particular fertility problems. While the cause of disease was attributed to the malign influence of magic, diagnosis could be based on simple observations, which, at times, included observing patients’ urine samples. Arafath also reflects on how healing interacted with perceptions of gender. While he notes that the worship of goddesses by women included potentially subversive rituals such as those performed at the “cock festival,” he concludes that overall, fertility rituals served to entrench the control of men over the female body. Similarly, while the lower castes sometimes specialized in fertility and children’s medicine and had access to the deities that inhabited *kavus*, prescriptions of ritual hygiene, nonetheless, served to maintain caste boundaries.

Different explanatory frameworks for disease often coexist with the overlapping use of medical substances or techniques. Several chapters in this book examine exchanges of medical knowledge. Whereas Respess and Niziolek focused on the transmission of medical knowledge along routes of trade and Arafath examines exchanges between communities of different religions, the chapters of Stephen and Menon both focus on the transfer of Southern
Indian botanical and medical knowledge to Europeans during the early period of colonial settlement in India. Stephen’s chapter focuses on the northern section of the Tamil littoral known as the Coromandel Coast between 1700 and 1857, while Menon’s focuses on the English East India Company (EIC) settlement of Madras, now Chennai, on the Coromandel Coast and the western hills of the Circars further inland.

Stephen examines the transmission of Tamil medical knowledge into works in French, English, Danish, and German as well as traces several palm leaf manuscripts that ultimately ended up in European collections. As Stephen points out, becoming acquainted with local remedies, such as those for snakebite, was essential for new arrivals on the Coromandel Coast. Therefore, both missionaries—Jesuit and Protestant—and representatives of the European trading companies were inspired to apply the study of Tamil, undertaken in the hope of spreading Christianity, to the search for medical knowledge. He demonstrates, through his archival research, not only the transfer of information from Tamil texts to European researchers, but also the acquisition of a text on rabies derived from the Tamil *Sillarai Kovai* by Louis Pasteur (1822–1865), the French biologist who is credited with inventing the rabies vaccine. Other texts that were investigated or partially translated into European languages included texts on medical theory and practice and human anatomy.

Stephen’s contribution makes clear that, while language learning is important, the transfer of medical texts across cultures must be accompanied by close collaborative work or cultural immersion such as that undertaken by the Tranquebar missionaries Bartholomaus Zeigenbalg and Johann Ernst Grundler, since the meaning of such texts is not always transparent. While some studies have argued that European investigations of Asian medicine simply extricated the materia medica that were considered useful, Stephen shows that the work of Grundler goes much further in mirroring the layout of the original Tamil text, *Agastiyar Irandaayiram*, on which he based his work “The Tamil Physician,” which was later included in the medical curriculum in Copenhagen. While some such texts successfully crossed into European medical teaching, other elements of Tamil medicine, such as the use of arsenic in the “Thanjavar pills” used against snakebite, were less readily accepted,
given contemporary European concerns about the medical uses of poisons. The EIC surgeons Benjamin Hayne and Whitelaw Ainslie, while somewhat more reserved about the value of Tamil medical knowledge than Grundler, also facilitated the translation of Tamil medical texts into English. While noting the remarkable success in translating key concepts from Tamil to European languages, Stephen also notes the problems posed by the inclusion of poetic and secret elements in the original Tamil texts.

Both this chapter and Menon’s note the official and unofficial support lent by the European trading companies and missionary groups to inquiries into local medicine made by their servants in India and beyond. However, both these chapters complicate Kuhn’s concept of a scientific revolution involving an initial phase of European extraction of knowledge, followed by the dissemination of the new science from Europe to the colonies. Instead, they suggest a more dialectic, ongoing, and multidirectional exchange of knowledge.  

The arguments of these chapters might sit rather better with the model advanced by Kapil Raj concerning the “circulation” of scientific knowledge during the period of European colonialism in South Asia. However, both authors also ask what sort of knowledge circulated and why. Stephen discusses the barriers to the circulation of certain information, including the reluctance of Tamil physicians to disclose medical secrets, the particular conventions of Tamil medical manuscripts, or the prejudices of Europeans against the medical practices of other cultures. Menon’s chapter argues for a closer look at the particular circumstances of those involved in the making and transmission of knowledge. Her contribution supports the argument made by Harold Cook, who notes that the interests of early modern European traders and naturalists converged around key concepts such as “credit.” According to this view, certain types of knowledge that were considered marketable and verifiable were more likely to travel than others. Identifying and exploiting transportable knowledge was thus a profitable pursuit. Menon follows Appadurai’s concept of “production knowledge,” which includes not only technical knowledge of an object, but also an understanding of its potential commodification and marketability, to explain how certain well-placed individuals were able to render particular natural objects marketable.
Menon uses her study of the practice of medicine to shed new light upon the question of the interaction between the English EIC as a commercial entity and its early pretensions to stateliness, which were recently highlighted by Philip Stern. Her contribution focuses on the career of Scottish surgeon and botanist William Roxburgh (1751–1815) in India and his relationship with his patron, the free merchant Andrew Ross (d. 1797). Roxburgh’s status within the EIC, gained on the basis of his useful knowledge, not only enabled him to amass his own private fortune, but also gave him the power to shape the emerging role of Company Naturalist. Menon’s stress on the familial aspects of the patron-client relationship demonstrates that despite the emphasis on corporate sovereignty in studies such as Stern’s, other forms of collaborative construction of both knowledge and power remained vital to early modern European empires. In Roxburgh’s case, she shows how a particular type of knowledge-making, developed to befit the circumstances of Edinburgh—where landlords committed to the idea of “improvement” pursued the twin goals of capital accumulation and social power—was transferred to the Indian context.

Menon’s chapter, like Pratik Chakrabarti’s recent study, also notes the military context of medical exchange. While EIC factors remained on the coast, medics travelled with armies and on diplomatic missions, allowing them to gain wider experience of the natural environment. Roxburgh’s investigations into indigo for dye, the production of cotton in the Circars, and pepper plantations garnered not only financial gain but also political profit for the EIC. This was achieved in Britain partly through the celebration by the Company propagandist Alexander Dalrymple of Roxburgh’s “discoveries” such as the potential of the species of indigo known as *Nerium* for dying cloth. Meanwhile Roxburgh’s local influence with the *pālaiyakkārar*, or “little kings” of the Circar region through his acquisition of land aided Company objectives on the ground, enabling surveying and canal-building, even when he himself opposed the EIC’s plans. Thus, as Menon shows, rather than being a peripheral to the “Company state,” the medics and later naturalists in the service of the early EIC were central to its operation.

As Menon’s chapter demonstrates, both the explanation of disease and the exchange of knowledge are undertaken within politicized contexts. The exchange of doctors and the display of their
skills in fora such as royal courts was an important part of diplomacy in the medieval and early modern periods, and the provision of medical assistance remained a display of “soft” power into modernity, as Rashed Chowdhury’s chapter also shows. Furthermore, health was not only a matter of colonial concern used as a means of reaching the areas outside of formal colonial control, but also, in some cases, a means of resisting colonial power. In Michael La Rue’s chapter on the Egyptian plague of 1834–1835 the nationalist government of Muhammad Ali’s standpoint reflects a commitment to independence legitimized by participation in medical modernity through enforcing unpopular quarantine measures on the Muslim population. La Rue and Jansen examine the ways in which the responses to epidemic disease illustrated societies’ understandings of themselves, while La Rue and Hurgobin focus on the situation of minorities accused of spreading disease.

As La Rue shows, the plague epidemic threw light on the living conditions and occupations of sub-Saharan African slaves in Egypt, a section of the population whose lives normally passed unrecorded. Debates about the plague epidemic—notably between the French doctor, A. B. Clot, and the British politician and abolitionist, John Bowring—became inextricably intertwined with debates about the issue of slavery, as the inquiry into the causes of the transmission of plague identified the poor sanitary conditions of the slaves as a major factor. In spreading the plague from Alexandria to Cairo, however, it was another minority group—the Maltese community—that was blamed for spreading the disease. Once in Cairo, where the Jewish community came under suspicion of causing contamination, the epidemic wiped out around one-sixth of the inhabitants. Despite Bowring’s convenient argument that plague was not contagious and that quarantines were unnecessary, several other European doctors in the country took the opposite view. This point of view, of course, worked to frustrate the ambitions of Muhammad Ali for a greater participation in international trade. However, it made him introduce additional public health measures in the years that followed and consolidated the place of European medical advisors, such as Clot in Egypt, with significant diplomatic consequences.

Rashed Chowdhury’s chapter demonstrates how the Russian Empire in the nineteenth and twentieth centuries used medical
philanthropy in Ethiopia to support its efforts to acquire a greater presence on the world stage. While the bonds between these two distant nations were based in perceived similarities between the strains of Christianity they embraced, frustrating the colonial ambitions of Italy provided a more urgent motivation for collaboration. Chowdhury’s contribution highlights the hybrid nature of the Russian Red Cross, which combined official autonomy from the state with patronage from the dowager Empress Maria Feodorovna (1847–1928). The treatment of Emperor Menelik (r. 1889–1913) and his wife by the Russian medical team sent a powerful message about their recognition of the Russian medical mission as an emissary of the state. The hospitals provided by the Russians catered mainly to the lower and middle classes, but also served Ethiopian elites and church officials as well as foreigners of several different faiths. The difficulties that the Russian medical team faced when confronted with the issue of the Ethiopian rainy season reminds us that even in relatively recent history, the weather patterns of the Indian Ocean continued to suggest a seasonal rhythm to the movement of people. In his epilogue, Chowdhury demonstrates the durability of the ties of medical assistance that were established between Russia and Ethiopia, noting the revival of hospitals during the period of the Soviet Union and beyond.

Anoushka Bhattacharyya, Yoshina Hurgobin, and Cristiana Bastos and Ana Roque’s chapters share a general theme of health and healing institutions as a site of interaction and struggle between various interests within the colonial state and the native population. While all the institutions they discuss were foundations of the colonial state, they were far from being homogeneous and their walls were perpetually penetrated by local beliefs and realities. In Bhattacharyya’s account of “native lunacy,” the boundaries between health and culture become blurred as the colonial medical officers considered entire societies to exhibit “pathological sentiments.” On the other hand, she shows how “native asylums” were more culturally porous than many other colonial institutions, accepting advice from the families of patients. The permeable walls of the asylum allowed the life of the community to spill in—occasionally en masse, as with the case of the Patna asylum after the flood in 1880—and the dependence on native personnel allowed ideas about mental health to move from the grassroots up within what
were normally assumed to be strongly hierarchical institutions. The hybridized institution allowed local ideas, such as the effect of spices on the mood and the assumption that the lower castes were more prone to maniacal forms of mental disorder, to seep into the colonial institution. The role of the chai wallah as a carrier of news penetrated the colonial state itself. Bhattacharyya shows how ways of working with patients developed in India spilled over into Burma through the long-distance circulation of asylum staff. At the same time, she demonstrates the contrasting lack of porosity of the asylum boundaries in the Burmese context that also arose from the transfer of personnel from India.

Kavadi’s chapter focuses on the permeability and mutability of health-care institutions on a larger scale. He shows that even when experiments in public health were based on models drawn from as far off as the southern United States, their trialing within South and Southeast Asia led to the circulation of information within the region and the adaption of health-care systems to local priorities and needs. The eventual use of the Rockefeller Foundation (RF)’s rural health clinics by anticolonial nationalists in Indonesia provides an example in which the benefits of health care, distributed with one political aim, come to serve quite another. In India, the capacity building conducted by the RF enabled the development of continued local health units, although these also often evolved in different ways to those imagined by the RF.

Sugata Bose’s exploration of the “circular migration” of some thirty million Indians between the 1830s and the 1930s highlighted the importance of this flow of people in the provision of capital and labour in the Indian Ocean and beyond. Kavadi, Jansen, Hurgobin, and Bastos and Roque all examine the issue of migrant labor though the lens of disease and healing. Kavadi’s mapping of hookworm infection in Java, Sumatra, Straits Settlement, Singapore, Siam, the Federated Malaya States, Fiji, Burma, Ceylon, and India demonstrates the correlation between the spread of disease and the movement of Indian indentured laborers. Thus, patterns of disease transmission within the Indian Ocean reflected the flow of labor that formed the connection between sites of imperial exploitation of people and natural resources. As a center for the export of indentured laborers and thus contagion, Madras eventually had to become the crux of the campaign for eradication for the RF,
whose concern sprung partly from the perceived threat of hookworm spread by Indian laborers in the United States. The campaign drew in medical personnel from Australia and Mauritius, again demonstrating the connections between the networks formed by exploitation of labor, disease, and healing. However, socioeconomnic conditions as well as the priorities of the colonial government made it impossible to promote sanitation measures, leading to a focus on treatment. The later concentration on drug development also led to a transition in colonial health policy beyond concerns of addressing specific health problems on the ground and toward using colonized populations as test subjects in a global experiment. This contribution takes us beyond the boundaries of the Indian Ocean, to the beginnings of a global health system, albeit one with its roots embedded in a series of very local discussions.

Hurgobin’s essay makes a claim for the evolution of a specific medical ideology centering on the bodies of indentured laborers. Her focus is Mauritius: the site of migration for an estimated 455,000 Indian workers between 1834 and the end of indenture in the early twentieth century. She explains the creation of epidemics with reference to the environmental factors affecting the Indian Ocean and demonstrates, through an analysis of the contemporary debates in Calcutta, how the creation of a medical ideology encompassed ideas about climate and its effects on the body. She shows how pandemics and moments of crisis could trigger oppressing laws pertaining to workers, how disease and concern over its consequences affected the transition from slavery to indentured labor, and how, on occasion, it led to the halting of the transportation of indentured workers. While philanthropic reasons were professed by the Indian industrialists who were reluctant for workers to enter into indenture in the Indian Ocean, Hurgobin convincingly argues that their economic concerns over their own supply of labor were uppermost in their minds. The interest of the Indian colonial government in the health of indentured workers was prompted partly by the concern to distinguish between this system and that of slavery. For their part, Mauritian planters were concerned to acquire workers who were bodily suited to the type of labor demanded of them. Hurgobin’s chapter explores further how the condition of indentured laborers became a pawn in the struggles between different interest groups within empires.
Both Hurogobin and Jansen explore how the physical form of the island interacted with health interventions. Hurogobin shows how hospitals were used to restrict the mobility of the working classes and how islets were used as isolation wards. Her essay also takes us out onto the ocean to investigate the living quarters of workers being transported between Calcutta and Mauritius and the range of actors aboard the ship, from captain to “native doctor,” who intervened in, and sometimes quarreled over, the question of the migrants’ health. Jansen’s investigation of the recent chikungunya epidemic in the neighboring island of Réunion uses the question of the island’s physical geography in a rather different way. As Jansen notes, migration to Réunion had followed a similar pattern of European colonial settlement and an initial phase of slavery, followed by a period of indentured labor recruited primarily from India. However, the departmentalization of Réunion took it on a different path from its neighbors: its political situation acting to symbolically lift it out of its Indian Ocean context.

As Kavadi shows, imperial governments could be negligent or even obstructive when it came to making provisions for the health of their subjects. Nonetheless, if empires are to profit from the labor of those they govern, they must preserve the health of their profit-generating bodies. Thus, while conditions such as hookworm might be ignored, seriously debilitating and deadly diseases, such as malaria and the fear of contagion from sick workers, prompted the construction of institutions, such as the “Fever Hospital” in Calcutta, discussed by Hurogobin. Massive pandemics of malaria, cholera, and plague, spread further by the penetration of the railways into previous remote areas, necessitated measures to improve the health of colonial populations.

As Bose notes, the flow of migrants from India also included skilled workers who established supra-local or even global networks. One such worker was Arthur Ignacio da Gama, a graduate of the Medical School of Goa, whose medical career in Sofala from 1876 is discussed by Bastos and Roque. These authors draw comparisons between da Gama and his contemporary Ezequiel da Silva, a third-generation Portuguese local teacher whose ancestors had trod the Iberian imperials circuits from Macao to Mozambique: trajectories of migration that mirrored those of earlier diaspora. During the nineteenth century, graduates of the Medical School of
Goa—an institution strictly focused on teaching Western medicine to its Indian pupils—fanned out across the Portuguese world, from the Cape Verde islands in the Atlantic to the eastern part of Timor, and were officially celebrated as agents of the empire. Bastos and Roque examine the writings of da Gama as a window into the views and experiences of one of those actively involved in this migration. These authors explore the complexities of the encounter of da Gama—who had received his medical training in an environment in which the incorporation of methods of healing drawn from local practices as pharmacopoeia was actively discouraged—with African forms of healing. What he produced is described as an ethnomedical narrative, but he, nonetheless, displayed the prejudices inherited from his European medical education. The ethnically European Ezequiel da Silva was apparently far more immersed in the local culture, as the partial result of the status of creoles in the Portuguese empire. Despite such prejudices on the part of metropolitan, men such as da Silva were useful to the colonial government by supplying helpful knowledge through his collections of local materia medica.

An interesting point raised by Bastos and Roque and by Laplante is that colonial authorities often had to try hard to de-hybridize the forms of healing that occurred in their settlements. They were concerned to mark off those forms of treatment that were considered “traditional” because they were based on “superstition” as inferior, and creating an impression of a distinctive, rational “Western” medicine at the same time. This was achieved both through institutions such as medical schools and by legal measures, such as the criminalization of certain forms of healing Laplante describes in colonial South Africa of the 1860s. This included activities such as the opening of “chemist’s shops” that impinged on what was considered to be European medicine.

Kavadi and Jansen’s chapters share a focus on public health. Public health campaigns, by definition, necessitate public involvement. As Arafath demonstrates, in the premodern period, incorporating messages about cleanliness into religious festivals could create public awareness about preventive measures against the spread of disease. Caste-based ideas about purity were imbued with ideas of cleanliness, and ritual hygiene and infringements were strictly punished. As he notes, the enforcement of such rules also facilitated
the dominance of the affluent. Focusing on a later period, Kavadi’s chapter brings to bear the interesting concept of “creating the disease in the minds of the people” in the case of hookworm infection, which also raises the larger issue of how certain conditions make the transition from being regarded as ever-present, if vexing, facts of daily life to serious threats to health.

Jansen’s chapter provides a useful comparison between modern discourses of public health applied during the chikungunya epidemic in Réunion during 2005–2007 and the earlier outbreaks of malaria during the 1950s. She notes that public health discourses often reflected on the wider issues raised by the postcolonial relationship between France and Réunion. Despite the awareness during the 1950s epidemic that the poor living conditions of the majority of Réunionese was a major contributing factor, French measures to eradicate the disease focused on short-term measures such as spraying with DDT. As Jansen shows, dissatisfaction with the failure to improve living standards and eradicate disease contributed to the changing political climate in Réunion, which resulted in the separation between the aims of the Parti Communiste Réunionnais and its French counterpart and their campaign for independence. Conservative opponents of the idea of independence made use of the fear of the island’s descent into “underdevelopment,” including the threat of disease, to argue for continued attachment to France. Jansen shows how, regardless of the fact that disease will spread irrespective of political borders, the inhabitants of Réunion had, to some extent, internalized colonial ideas about disease as inherently “non-white,” “tropical,” or even associated with the “contaminating” effects of communism. Local interpretations of the disease thus mirrored the “miasmic” explanations of contagion popular in colonial discourse during the nineteenth century, as well as attempting to attach the responsibility for the disease to Mayotte and Mahoran immigrants. Such ideas, as well as the specter of terrorism that has come to haunt parts of the Indian Ocean in recent years, were used to chastise the French government for its neglect of its overseas citizens.

Jansen notes the argument of Trostle that disease and its interpretation should be read as an expression of society. In his highly personal exploration of discourses of healing among Zigua communities in northeastern Tanzania, Jonathan Walz shows how
sickness can be an expression of the historical ills to have affected a society. Healing is thus a means of linking the past and the present and intervening in the course of the future. Walz’s chapter takes us on a journey between coast and mountainous hinterland, showing how the interaction between memory and place comprises “a worldview in motion.” Historical traumas, including the slave trade to the coast, colonial domination, migratory labor, and enforced “villagization” during the 1970s, are discussed using the symbolic language of serpents as spirits of ancestors and aspects of nature, including the ocean. Histories are also recreated within the process of healing, as healers travel along the historical routes of the caravan trade, putting together objects or “artifacts” gathered along the way that make reference to the slave trade, for instance, recalled by a glass bead, as well as plants with medicinal properties that are said to house ancestor spirits. The artifacts thus gathered are recombined in a medicine gourd, whose name in Swahili (bahari) also refers to the coast. Walz argues that this was a performative recreation that “domesticates” the past and “cools” its alien foreign influences, thereby enabling the possibility of an alternative future. Walz’s experiences with the history of healing and the healing of history lead him to suggest a new type of archaeology that recognizes not only the deep-seated and long-standing links between coast and hinterland in Eastern Africa, but also local ways of interpreting these connections.

Julie Laplante’s chapter also explores the interactions between localized “indigenous” beliefs about healing and their social role and the wider world, focusing on the Zulu and Xhosa healing practices collectively defined as muti. Like the Zigua healers encountered by Walz, the isangoma or Xhosa healer-divine achieves her power to cure not only through the skillful deployment of herbal medicines, but also through communication with the ancestors using activities such as drumming, dance, the interpretation of dreams, and divination. By following the preclinical trial of Artemisia afra conducted in Cape Town, Laplante delineates the complex relationship between local forms of healing—many of which have international roots—and biomedicine. As her chapter shows, there exists a desire among many practitioners of “traditional” medicine, as well as national governments, to demonstrate to the world that their remedies “work” through systems of validation such as
biomedical testing. On the other hand, the awareness exists that the hunger on the part of pharmaceutical and agrochemical companies for local knowledge of plants and their properties often involves the unacknowledged appropriation of local knowledge.\textsuperscript{85} Indigenous groups, while being the acknowledged guardians of some of the world’s most valuable natural resources, continue to have the worst indicators for health worldwide.\textsuperscript{86} Over the last few decades, awareness of such problems has led to the establishment of partnerships that seek to ensure that the benefits of ethnobotanical research reach the communities whose knowledge they draw on.\textsuperscript{87} Laplante discusses one such organization, The International Center on Indigenous Phytotherapy Studies (TICIPS).

The issue of the relationship between “traditional” medicine and allopathy is further complicated in the South African context of Laplante’s chapter by the interaction of indigenous medicine with Ayurvedic traditions brought by Indian settlers and Rastafarian bush doctors, who imported still more ways of engaging with plants and people in the healing process. She uses the example of the adaptation of a clinical model evolved to test Ayurvedic drugs to the evaluation of $A.\text{afra}$ by TICIPS. Laplante engages the concept of an IOW at a theoretical level by employing Merleau-Ponty’s “world of perception” to ask whether the idea can provide a conceptualization of the relationship between the environment and bodies that is better able to capture multiple interacting practices of healing than models such as the “One Health, One World initiative,” which are based on a theoretical divide between nature and culture and often prove incapable of accommodating the less tangible aspects of healing. Laplante explores the challenges to the randomized control trial that emerged from the resistance of South Africa, Brazil, and India to global patent laws. Alternative ideas included opening up the laboratory to “let the world in” through strategies such as reversing the order of experimental testing to privilege initial clinical observations over laboratory results. Laplante also explores the complex interaction of the politics of indigeneity with the cosmopolitan actuality of “traditional” medicine in South Africa, including the importance of Indian inyangas and Rastafarian herbalists as well as Chinese and Malayan healers. A key commonality between the approaches of the different healers she discusses is the conceptualization of plants as sentient beings
and thus as active agents in the process of healing, thus destabilizing the nature/culture divide that is central to much of Western philosophy.

All the chapters in this book explore cosmopolitan interactions with objects and practices of healing among and between communities formed through faith, language, or physical proximity, or among workers being exploited for their labor. The argument that the Indian Ocean might be regarded as a conceptual “world” rather than merely a geographical space informs our juxtaposition of these chapters that deal with very different times, places, and questions. How can we justify a claim to regard the Indian Ocean as a world in terms of its medical culture? The Oxford English Dictionary’s definition of the word “world” refers to a “state or realm of existence.” We might draw on Merleau-Ponty’s “world of perception,” mentioned by Laplante, to argue that scholars’ claims for the Indian Ocean to be regarded as a world must be based on its perception as a “state or realm of existence” for those who inhabited it.

In conceptualizing the IOW, many scholars have turned to the monsoon as a unifying factor. They have emphasized the role of the ocean itself in enabling and directing encounters between the inhabitants of its various shores. In an earlier work, Michael Pearson has also stressed the need to take account of the aerial as well as the aquatic aspects of the IOW as enablers of connectivity. For most of the period under consideration in this book, people did not travel by airplane, but remained at the mercy of monsoon winds while crossing the seas in sailing ships. As Laplante notes, apart from being key connecting factors in the IOW, air and water are essential components and needs of the human body. To remind ourselves of the even deeper connection between the elements and the balance of fluids and vapors in the human body, perceived by many of those who thought or wrote about medicine, we might turn to Hippocrates, who lived closer to the Mediterranean Sea than the Indian Ocean, but whose ideas, nonetheless, circulated in various languages and forms across the region. His, “Airs, Waters, and Places” opens by instructing the student of medicine in any given place to begin by making environmental observations. According to Hippocrates, the features of the landscape, the qualities of the waters, and the direction and strength of the winds all affect the
health of the people. As each environment produced people of different dispositions, so it transmitted its qualities to the animal, vegetable, and mineral drugs that it produced. In a world of medicine based on the theory of opposites, therefore, the ideal drug to treat an imbalance of the humors might well be found an environment with opposing characteristics to those of the disease.

A world contains many worldviews, and the aim of this book is not to argue for a homogeneous medical culture that united the IOW. Rather, as the importance accorded to “exotic” medicines and objects in many places across the region demonstrates, differences across healing cultures were not only recognized but also valued. Currents of water and wind directed the course of expeditions around the Indian Ocean and directed the course of not only the transmission of disease but also the trade in healing objects, along with the movement of people and faiths. The balance of environmental elements was also a key factor in the conception of disease and promoted a cosmopolitan medical culture, in which the cure for a disease on one shore of the Indian Ocean was often found on another.

Notes

4. Arnold, “The Indian Ocean as a Disease Zone.”


18. Despite its importance, there is no overall study of the distribution of the neem tree. An indication of some of its modern uses and distribution is provided by S. Ahmed, S. Bamofleh, and M. Munshi (1989), “Cultivation

22. Unschuld, Medicine in China; Goble, Confluences of Medicine in Medieval Japan.
25. N. Green (2012), Making Space: Sufis and Settlers in Early Modern India (New Delhi: Oxford University Press), Ch. 1.


73. See Naraindas and Bastos (2011) and several papers in the special issue of *Anthropology and Medicine*, 18, now also published as an edited book: H. Naraindas and C. Bastos (2014), *Healing Holidays: Itinerate Patients, Therapeutic Locales and the Quest for Health* (Oxford: Routledge).


81. Ibid., p. 77.

82. Ibid., p. 73.


87. Merson, “Bio-Prospecting or Bio-Piracy.”

88. Gupta, “Monsoon Fever.”


91. See Sanjay Subrahmanyam, “Persianisation and ‘Mercantilism’ in Bay of Bengal History, 1400–1700,” in *From the Tagus to the Ganges*, p. 52 for a critique of the simplistic views of Indian Ocean trade post-750 as dominated by a homogeneous form of Islam.

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