To recreate the world behind the ruin in the land, to reanimate the people behind the sherd of antique pottery, a fragment of the past: this is the work of the archaeological imagination. The archaeological imagination is rooted in a sensibility, a pervasive set of attitudes towards traces and remains, towards memory, time and temporality, the fabric of history.


**Seeing Medieval Saharan Africa**

The Sahara, the world’s largest desert, occupies a vast expanse of western Africa. Between the eighth and the sixteenth century, an epoch that corresponds with the medieval period, the Saharan region was the site of world-shaping events, though these have become veiled in popular memory. The book *Caravans of Gold, Fragments in Time: Art, Culture, and Exchange across Medieval Saharan Africa* and the exhibition that it accompanies have been organized to reanimate this history, which stretched across boundaries of culture, region, religious practice, and systems of value, and to draw attention to its relevance and importance in the present day. “History is both a discourse of knowledge, and a discourse of power,” the philosopher V.Y. Mudimbe incisively declared in his pivotal book, *The Invention of Africa*.1 While over time the central role of the African continent in the medieval world has been diminished in historical memory, today’s interdisciplinary “global turn” is bringing attention back again to this critical chapter.2 *Caravans of Gold, Fragments in Time* makes a unique contribution to that effort by examining the history and legacy of medieval trans-Saharan exchange through its dispersed and fragmented material remains.

As a close companion to the *Caravans of Gold* exhibition, this volume reflects its content and concerns, which are by necessity circumscribed. As such the volume is not intended to be comprehensive; rather, like the exhibition it consists of fragments, in this case in the form of case studies from diverse disciplinary, geographic, and temporal perspectives with a focus on West Africa and its branching network of connections. Together these provide a fuller but still incomplete view of a provocative past. Because the exhibition relied on partnerships with institutions and individuals working in Mali, Morocco, and Nigeria, examples are drawn from the rich history of these countries. Our focus could equally have been on sites in Burkina Faso, Ghana, Mauritania, Niger, Senegal, or other countries in and on the fringes of Africa’s Western Sudan region, but these were beyond the reach of the project.

Our contemporary moment is defined by a rise of global connectivity, as well as by entrenched ideas about difference.3 The common
representation of the Sahara Desert as a vast emptiness that separates North and sub-Saharan Africa bolsters the perception of a clear difference between the two. Situated at the center of western Africa, the Saharan region also lies between Europe and the Middle East, and it is often described either as a divide or a crossroads. Medieval travel across the Sahara was time-consuming and at times difficult, but it was not an unknown journey nor one void of human contact. As in the past, the contemporary Sahara is a place of movement. People continue to make it their home, while others traverse it for economic gain, education, or to escape conflict. They set off along much the same routes that in the medieval period were traveled by camel caravans engaged in the transportation of goods and people. Caravans of Gold, Fragments in Time shifts the popular narrative of Africa’s history—seen predominantly through the lens of the Atlantic slave trade and colonialism—by bringing forward an earlier history that reveals thriving, far-reaching systems of circulation and exchange in the Sahara, and the central and foundational role they played in global networks of the era. This history, we argue, must be accounted for in understanding the world today.

The Sahara Desert was initially seen from the north as the route for accessing West African gold, which was highly valued for its purity. A tenth-century description of the Bilād al-Sūdān, the “land of the Blacks,” which lay south of the great desert, by the Persian author and traveler al-Iṣṭakhrī (d. 957) provides an example: “It is said that no other mine...
is known to have more abundant or purer gold, but the road there is difficult and the necessary preparations are laborious. Below the Sahara, surplus gold could be acquired by trading high-quality rock salt, sourced in the Sahara, a mineral that was critical to the well-being of humans and animals. Salt is emphasized in the Arabic accounts as highly valued in exchange for gold. Based on this foundation, trans-Saharan routes soon fueled a global economy that stretched well beyond the Sahara and was motivated by desires from all sides for resources and goods from distant lands. Perhaps no single object more clearly illustrates the prominence of West Africa within the medieval world than the elaborate fourteenth-century world map known as the Catalan Atlas (fig. 1.1). The map was commissioned by Pedro IV of Aragon as a diplomatic gift for his cousin Charles V, the king of France. Fourteenth-century Aragon was a powerful trading empire that encompassed multiple strategically situated islands across the eastern Mediterranean, including Majorca, where the map was drawn by the Jewish cartographer Abraham Cresques (1325–1387). Cresques came from a long line of highly skilled Majorcan cartographers who were renowned for their knowledge of the globe as it was then known, based on accounts gathered from sailors, diplomats, and merchants. The Catalan Atlas presents the world from the perspective of Aragon, emphasizing nautical navigation and harbors, as well as land routes, key political dynasties, and the location of resources. Mansā Mūsā, the early fourteenth-century ruler of the Māli Empire (reigned
1307/12–1332/37), is prominently depicted along the edge of the map’s second panel. He controlled a vast territory across the Western Sudan, stretching from the Atlantic Ocean to Lake Chad that included the Sahara Desert’s southern fringe and the Niger River, each primary conduits for trade, as well as the Bambuk and Bure goldfields. He is portrayed wearing a golden crown and grasping a large gold orb and gold-topped scepter. The caption explains, “This Moorish ruler is named Musse Melly [Mansā Mūsā], lord of the negroes of Guinea. This king is the richest and most distinguished ruler of this whole region on account of the great quantity of gold that is found in his lands.”

When seen from the perspective of Europe, the medieval period is most commonly framed by the decline of the western Roman Empire between the fifth and the seventh century and the Age of Discovery in the mid-fifteenth century. Caravans of Gold, Fragments in Time shifts the focal point of the medieval period to the Sahara Desert and the communities in the Sahel, a transitional region between the desert and the West African Savanna below, which grew wealthy and powerful as centers of exchange and production due to trans-Saharan commerce. From this perspective, the medieval period is seen to emerge in the eighth century with the spread of Islam across North Africa. Conveyed by merchants more readily than armies, Islam brought with it a unifying language—Arabic—as well as shared beliefs, laws, and values that eased cross-cultural commerce. The peoples of the Sahara became part of the dār al-Islām, the abode of Islam, and its communities benefited from inclusion in a shared culture that made up an expanding umma, a community of Muslims. Those below the Sahara who followed the tenets of Islam also benefited from the trust that came with shared beliefs, including shared ideas about conducting trade. However, the medieval Sahara and its hinterlands were profoundly multicultural, with all the
diversity of languages, belief systems, lifeways, and perspectives that the word implies today. This was especially true south of the Sahara, in the West African Sahel, where Muslims often established separate neighborhoods in major cities. The medieval period recedes with the arrival of Europeans along Africa’s Atlantic coast in the early sixteenth century; as European maritime trade expanded, it increasingly competed with trade across the Sahara.

**Fragments in Time**

Today the medieval Sahara and West Africa are understood primarily through second- and third-hand accounts from diplomats, geographers, historians, and travelers writing in Arabic who were based in North Africa or Spain. Oral narratives from West Africa are another important though more generalized source, most notably the celebrated epic of Sunjata, which recounts the founding of the Mali Empire in the thirteenth century. Whether written or oral, accounts of the period are complex and incomplete. They were filtered through local perspectives and prejudices, and they come to us equally filtered through time. Nonetheless, when viewed in conjunction with the material record, they can provide valuable corroboration for informed suppositions about the past. They also provide precious evidence for facets of Saharan exchange that are no longer tangible in the material record. This is particularly true for medieval trans-Saharan slavery, which is made visible almost uniquely in these written and oral accounts.

Muslim scholars of the period differentiated the dār al-Islām, the abode of Islam, and the dār al-Ḥarb...
that lay beyond it. Pagan nonbelievers from these lands, including Europe to the north, the Black Sea to the west, and West Africa to the south, could be captured or purchased as slaves. Ibn Hawqal (d. 988), who used his experiences traveling in the Maghrib and Spain to inform his writing on geography and trade in the tenth century, took note of “slaves imported from the land of the Sūdān and those imported from the land of the Slavs by way of Al-Andalus.” The enslaved from the Bilād al-Sūdān faced a harrowing trek on foot across the Sahara, and many perished during the journey. While medieval trans-Saharan exchange and the post-sixteenth-century Atlantic slave trade both forced West Africans into chattel slavery, in which human beings are bought and sold as property, differences between trans-Saharan slavery and Atlantic slavery should be noted. While men were predominantly enslaved in the Atlantic trade and subsequently forced to labor on plantations, women and children were transported in greater numbers across the Sahara. These enslaved individuals were primarily pressed into domestic labor, small-scale farming, craft production, mineral extraction, and for men, military service. It is also notable that as a Muslim, the offspring of a slave was released from slavery; however, this had the parallel effect of sustaining an ongoing demand for slaves.

Central to Caravans of Gold, Fragments in Time, the past is also made tangible by the rare fragmented remains excavated from key archaeological sites that were once thriving cities and towns involved in Saharan commerce. These scattered bits and pieces are difficult to understand or to assign intrinsic value to (figs. 1.2, 1.3, 1.4). And yet, because they are simultaneously of the past and in the present, such archaeological fragments bring us as close to the past as we can ever hope to be. Poring over reports by archaeologists who excavated these sites, I am struck by the variety of commercial goods taken out of the ground, and by their ties to far-reaching networks of exchange that stretched in multiple directions. Southward, the trans-Saharan routes connected with the Niger River, which arcs along the southern edge of the Sahara Desert in present-day Mali before descending into West Africa’s central forest region. It is no coincidence that the Niger’s headwaters, which lie in the highlands of the Fouta Djallon, in modern Guinea, provided access to abundant gold deposits, including those at Bure and Bambuk. The river also supported the rise of urbanism, from the fourth century, particularly along the length of its fertile inner delta. Northward, Saharan routes connected to the vast trade networks of the Mediterranean Sea and from there inland across Europe, while eastward they met the Levantine routes and ultimately the Silk Roads of Central and East Asia.
Vast amounts of unglazed ceramic fragments—the remains of bowls, jugs, bottles, lamps, storage containers, and other items essential to daily life—have been excavated at sites south of the Sahara (fig. 1.2). These are decorated with imprinted roulette patterns or slip-painted motifs, some of which are distinctive to the Inland Niger Delta and others to Tuareg populations of the Sahel. As a corpus they attest to the Western Sudan’s thriving interregional trade, which was well established long before exchange across trans-Saharan routes accelerated in the ninth century. Amidst these ceramic remains, sites have also revealed large quantities of colored glass beads, made throughout the Mediterranean region, North Africa, and the Levant, as well as in the West African forest. Broken glass was transported across the Sahara as cullet, intended to be melted and shaped into beads; however, colored glass bottles, bowls, jars, and plates were also part of the material culture of medieval Islam, which extended to cities and towns below the Sahara. Fragments of glazed ceramics from North Africa, Egypt, and Spain are part of this archaeological record as well, including blue-green raqqa ware, golden lusterware, multicolored splashware, and other varieties (fig. 1.4). There is likewise evidence of metalworking in iron, sourced locally, and copper, which was both sourced locally and imported from the Sahara and beyond. While iron was used to forge tools and weapons, copper was cast into bells, bracelets, chains, decorative fittings, pendants, utensils, and ritual objects. Gold was also worked by smiths, with precious discoveries revealing a variety of casting, filigree, and hammering techniques (figs. 1.5, 1.6).

Reflecting upon the great distance traveled by a small sherd of light-green porcelain uncovered at Tadmekka (Mali) is awe-inspiring as well as informative (fig. 1.7a, b). This bit of celadon-glazed porcelain, which was originally part of a shallow bowl, was produced during the Song dynasty in China’s southeastern Jiangxi province. It is one of numerous fragments of pottery known as Quingbai ware that have been found at medieval sites from Central Asia to Egypt, and across the Sahara. What do these fragments reveal? The paths traced by sherds of Quingbai pottery have prompted the archaeologist Timothy Insoll, who excavated at Gao Ancien (Mali), among other West African sites, to reflect on the accumulative impact of exchange: “Commerce meant interaction; no matter how strictly one might attempt to control this, trade meant the flow of ideas, and once again complexity is evident and must be allowed for. Thus we can begin to infer and suggest less tangible contacts and influences which a sherd of pottery might indicate.”

The motivation behind Caravans of Gold, Fragments in Time lies in the power of such fragments to move us from the concrete to the imaginable, a process that archaeologists call the archaeological imagination. It is touching and revelatory to comprehend that a stone monument was inscribed in Alméría (Spain) and transported to Gao (Mali) to mark the grave of a deceased Muslim (fig. 1.8).
Five inscribed monuments from Spain were recovered from the cemetery on the outskirts of the archaeological site of Gao Saney, all dating to the early twelfth century, when the Imażighen-led Almoravid Empire controlled territory extending from southern Spain to the Niger Bend. Al-Bakrī (d. 1094) tells us that Islam was well established in Kawkaw, the Arabic name for the kingdom of Gao, in the eleventh century, recounting, “the town consists of two towns, one being the residence of the king and the other inhabited by Muslims.” This stone monument collapses the distance, nearly 3,000 kilometers, between Alméria and Gao, an expanse that would appear insurmountable if the Sahara were indeed a wasteland. It makes tangible...
the close ties of individuals involved in a shared culture that stretched across the Strait of Gibraltar, the Atlas Mountains, and the Sahara Desert. It is also a witness to the dissemination of the technology of written Arabic along Saharan routes. In Gao’s cemetery, these imported monuments stood alongside stone monuments that were inscribed in Arabic by local stoneworkers (fig. 1.9).

In order to bring the archaeological imagination to life, the exhibition uses an innovative approach to display that invites visitors to make connections between fragments and comparative materials in the form of contemporaneous objects and texts, and more recent practices that help visualize what the fragments once were. A sizable openwork copper-alloy disk excavated at the site of Gao’s royal capital, Gao Ancien, and a handful of small copper-alloy fittings excavated at the southern Saharan entrepôt of Tadmekka are a case in point (fig. 1.11a, b). Processing and casting copper and copper alloys was practiced at multiple locations in the Western Sudan during the medieval period, and remains from copper working have been uncovered at many sites. Copper was worked in its pure state or alloyed with arsenic, lead, tin, or zinc to make brass. It is possible that the yellow tones of brass were particularly appreciated in the Western Sudan because of their visual affinity with gold, which was so highly valued in trans-Saharan commerce.25 One of the fittings from Tadmekka has a small piece of animal hide adhered to it, providing some evidence of its former use as an embellishment on an object made of leatherwork. Decorative leatherworking is an art form that has continued to be widely appreciated across the Sahara and the Western Sudan into the present day, with related forms, motifs, and techniques that reach across cultures. A large Tuareg shield from the early twentieth century, crafted of oryx hide and embellished with copper disks and colored hide and cloth, alludes to...
Tuareg oryx-hide shields made in the nineteenth and twentieth centuries offer a suggestion of what the medieval shields looked like. Notably they are decorated with metal fittings, examples of which have also been excavated from Western Sudanic and Saharan sites, including Gao and Tadmekka. Similar shields are depicted in the Cantigas de Santa María, a collection of songs that were recorded in a series of illustrated manuscripts in Spain during the thirteenth century. The shields are prominently portrayed as part of the weaponry used by the Nasrid emirate of Granada in battle against the Christian kingdom of Castile-León.
Additionally, male figures bear sheathed knives strapped to their upper left arms. Such knives also have a recent analogue in the form of arm knives that continue to be made by many peoples across the Western Sudan and southern Sahara fringe today (fig. 1.13b). It is one of the great tragedies of West African history that the vast majority of terracotta figures from this region in museum collections outside of their countries of origin were removed clandestinely by looters, and without the systematic recording of contextual and material data that would allow for a confident understanding of their origins and use. As such, the corpus has been isolated and fragmented from a wider history. Caravans of Gold, Fragments in Time proposes a way to reintegrate these important works of art into the history of the period by seeing the terracotta figures from this region in museum collections outside of their countries of origin were removed clandestinely by looters, and without the systematic recording of contextual and material data that would allow for a confident understanding of their origins and use. As such, the corpus has been isolated and fragmented from a wider history.

One possible use for such copper-alloy decorations (fig. 1.10). Oryx hide shields were traded across the Sahara in exchange for gold, copper, and other commodities. Evidence for this is provided by written accounts, such as that of the twelfth-century Andalusian geographer al-Zuhri, who noted, “these shields are most amazing... given as presents to the kings of the Maghrib and al-Andalus.” It is also found in medieval manuscript illustrations, like those from the late thirteenth-century Cantigas de Santa Maria (fig. 1.12). In the absence of surviving examples, more recent shields provide an imperfect but compelling vehicle for imagining the past.

Another illuminating case study focuses on an iron knife blade, examples of which have been excavated at Gao, Tadmekka, and other medieval sites in the Sahel (fig. 1.13a). Knives of similar size and shape are depicted among a corpus of stylistically diverse terracotta figures from a number of sites located in proximity to the upper and middle Niger River. They depict individuals adorned with accoutrements of status such as arm and leg bangles, amulets, pendants, and hair ornaments. Additionally, male figures bear sheathed knives strapped to their upper left arms. Such knives also have a recent analogue in the form of arm knives that continue to be made by many peoples across the Western Sudan and southern Sahara fringe today (fig. 1.13b).

Medieval Arabic accounts of Saharan trade describe shields made of oryx hide as remarkably strong, expensive, and highly sought-after. It is likely that the shields were made by ancestors of the Tuareg: Amizigh-speaking people who played a leading role in facilitating Saharan travel.
This Book

As a companion volume to the exhibition Caravans of Gold, Fragments in Time, this publication takes a wider and a more in-depth view of topics that are introduced by the exhibition. Medieval exchange across the Sahara extended through eight centuries and three continents, and its study today engages multiple disciplines, including archaeology, art history, anthropology, history, literature, religion, and political science. The chapters that follow range across these fields of inquiry, and bring the work of leading scholars into the expansive public sphere. They are unified by a shared focus on western Africa, with the Sahara Desert at its center, and on movement as expressed through concepts such as exchange, circulation, dissemination, and portability. It does not focus on the built environment. Multiple scholars have recognized and analyzed the unique Western Sudanic style of mosque design and construction that developed in the medieval period, and its strong connections to Islam (fig. 5.3). Such architecture is undoubtedly important to conceptualizing the history of medieval West Africa, and that literature is a natural companion to the work included here.

Section one, Groundwork, begins with an introduction sketching the urgent questions of history and the compelling themes that underlie this volume and the exhibition that was its impetus. This is followed by a provocative essay on fragments by the novelist, poet, and essayist Chris Abani. Fragments are the foundation for this project, and Abani moves fluidly from their use in the rituals of Ife divination, to material fragments in the exhibition, to textual fragments, evoking in each case their potential and their mutability. His chapter is an invitation to imagine but also a caution. It reminds us, as we embark on the journey that this book represents, of the open-endedness and affective power of fragments.

Shifting tone, anthropologist Robert Launay provides an overview of the major themes invoked by the medieval Arabic-language accounts of trans-Saharan exchange and considers their inherent shortcomings and impediments. Historian Ralph A. Austen then examines what is known about the sources and the technologies for obtaining gold in the medieval period and considers changes in the nature of the gold trade as it shifted from the Sahara to the Atlantic coast in the late
Likely made as a group, these figures are portrayed wearing accoutrements that reflect the wealth of the region, which was heavily involved in trans-Saharan exchange. The mounted horseman points to the importance of cavalry for expanding control and maintaining security.

These figures, like all such figures in collections outside of Mali, were not excavated under controlled archaeological conditions. This makes it impossible to reconstruct their context. In an effort to learn more about the age and condition of the figures, they were recently the focus of material analysis including computed tomography (CT) scanning and thermoluminescence (TL) testing. The CT scan confirmed that the same clay was used to make all the figures. The TL test provided a date range of between 500 and 800 years old, or between the twelfth and the fifteenth century.

fifteenth century. This is followed by a joint contribution from Mamadi Dembélé, Ahmed Ettahiri and Youssef Khıara, and Yousuf Abdallah Usman, cultural heritage specialists in Mali, Morocco, and Nigeria respectively, who offer background and perspectives on the pressing matter of protecting Africa’s medieval cultural heritage.

Section two, Sites, focuses on key sites in Mali, Morocco, and Nigeria that are central to the story of medieval exchange across the Sahara. Art historian Cynthia Becker looks at the Sahara itself, summarizing its environmental characteristics as they have shifted over the medieval period and over subsequent centuries, and considering it as an artistic and cultural zone. This introduction to the Sahara is followed by contributions from archaeologists working on its fringes and hinterlands: Mamadou Cissé introduces the interrelated sites of Gao Ancien and Gao Saney in Mali; Sam Nixon provides an overview of work at Tadmekka, Mali; Ronald A. Messier and Abdallah Fili summarize their decade-long work at Sijilmasa, Morocco; Mamadi Dembélé reviews primary sites across Mali’s Inland Niger Delta; and Detlef Gronenborn sets the late medieval site of Durbi Takusheyi, in Nigeria, within the broader context of the Central Sahel region, which lies east of the Niger River and includes the Lake Chad Basin.

Section three, Matter in Motion, shifts focus to a series of case studies that highlight the movement of specific materials, objects, and forms of knowledge across the Sahara during the medieval period. Art historian Sarah M. Guérin provides a wide-ranging synthesis of the circulation of gold, copper, and ivory that reveals the interconnectivity of western Africa’s Sahara, Savanna, and forest regions with the Mediterranean, the Middle East, and western Europe. Archaeologist Ronald A. Messier outlines how medieval Islamic dinars are an invaluable
source for documenting the transregional demand for West African gold. Archaeologist Sam Nixon and material scientists Marc Walton and Gianluca Pastorelli present pioneering work to analyze the only known fragments of gold molds and crucibles from West Africa, which were excavated at Tadmekka, Mali, proving that gold was indeed processed below the Sahara. Archaeologist Abidemi Babatunde Babalola summarizes equally important findings for agency south of the Sahara, in this case focusing on glass from the site of Igbo Olokun, Nigeria, which provides new evidence for the local production of a distinctive form of glass beads in Africa’s forest region and their circulation northward to urban centers, such as Gao, Mali, involved in trans-Saharan trade. Finally, historian Mauro Nobili considers the dissemination of Arabic literacy across the Western Sudan in the medieval period and the creation of a distinctive literary tradition there. This is documented in numerous medieval stone inscriptions at sites on the southern edge of the Sahara Desert, as well as in the more mobile form of manuscripts, treatises, and amulets on paper. These are the intellectual work of West African Islamic scholars based in cities such as Timbuktu and Jenne, with wider Islamic scholarship, a tradition that has a legacy into the present day.

Section four, *Reverberations*, presents three final case studies that continue to consider the legacy of medieval trans-Saharan exchange after the late fifteenth century, when the establishment of maritime trade along Africa’s west coast effectively undercut the thriving and lucrative trade across the Sahara Desert. The section begins with art historian Raymond Silverman’s account of several intriguing copper-alloy vessels, including bowls from Mamluk Egypt and ewers from England, that made their way to West Africa in the fourteenth and fifteenth centuries. By tracing their histories, Silverman raises important questions about shifts in trade at this critical time, as well as about how the meanings of things change as they shift in place and time. Art historian Cynthia Becker looks at the legacy of trans-Saharan slavery in Morocco through the development of a distinctive identity known as Gnawa, which is associated with the descendants of enslaved West Africans. The book’s last chapter, by political scientist Galia Ben-Arieh, considers movement across the Sahara today, focusing on migration and raising important questions about its continuity with the past and the disjuncture of present-day geopolitical realities. This chapter, which points to what is to be gained in the present by reflecting on western Africa’s medieval past, is a fitting and necessary ending to *Caravans of Gold, Fragments in Time*.

The Archaeological Imagination

*Caravans of Gold, Fragments in Time: Art, Culture, and Exchange across Medieval Saharan Africa* brings humble yet remarkable remains from sites in Mali,
Morocco, and Nigeria into the spotlight along with the histories that they reveal. The challenge of the project and its significance has been in finding ways to reveal the value of these tangible remains of Africa’s medieval past as critical points of reference in an effort to comprehend a time that sits enticingly beyond our comprehension. To do this, the project foregrounds the concept of the archaeological imagination, which offers a way of looking at remains of the past that leads us beyond the sticking point created by the absence of a robust archive of firsthand accounts, the favored form of historical evidence. Moving from the excavated fragment to informed supposition about a bigger picture is fundamental to the work of archaeologists. Seeing the validity in this practice, which is the soft center lying at the heart of archaeological science, is critical for seeing history even when the corroborated account or the extant object is absent (figs. 1.15, 1.16). Expanding our grasp of the past is important, and revealing West Africa’s medieval history holds particular relevance for the present day. Foregrounding the central role of medieval Saharan exchange in connecting West Africa, Europe, North Africa, and the Middle East provides insight into a surprising early globalism across regions that remain deeply intertwined though increasingly conflicted today.

NOTES

1 Mudimbe 1988, 188.
2 Historian Geraldine Heng (2014) has written convincingly on the idea of medieval globalism. See Christina Normore (2018) for a look at the “Global Turn” in medieval art history and Jill Casid and Aruna d’Souza (2014) on the “Global Turn” in art history more generally. Historian Michael Gomez (2018) makes an important contribution to this literature from the perspective of medieval West Africa.
3 Peregrine Horden (2012) elucidates the notion of connectivity in regards to the Sahara past and present.
5 The exchange of gold and salt in the medieval period is discussed by Paolo de Moraes Farias (1974) and with a focus on the eighteenth and nineteenth centuries by Elizabeth McDougall (1990).
6 The growing field of Saharan studies analyzes and critiques the problematic construction of a Saharan divide; see, for instance, McDougall 2007; Hoffman and Miller 2010; McDougall and Scheele 2012; and Lydon 2015.
7 Mohammad Ballan (2014, 17) considers how the Catalan Atlas breaks from the convention of depicting Jerusalem at the center of the world, which he argues reflects a shift in the European worldview to include a broader humanity of non-Christians and non-Europeans.
8 Grosjean 1978, 63.
9 Grosjean 1978, 63.
10 See Brett 1983 for two case studies of how these laws were applied.
11 Timothy Insoll (1999, 10–11) considers the unifying concept of umma and its coexistence with local traditions.
12 Michael Gomez (2018) provides expanded consideration of written and oral sources for medieval West Africa.
13 The difficulties presented in finding archaeological evidence for Islamic forms of slavery in Africa are addressed in Alexander 2001.
17 The number of slaves forced across the Sahara from the beginning of the medieval trade through the nineteenth century is believed today to be comparable with the toll taken by Atlantic slavery. David Richardson (1995, 196–97) provides a summary of the debate over these calculations.
20 See chapters 7–10 in this volume.
21 Insoll 1999, 155–56.
22 Wallace 2004; Shanks 2012.
25 Garenne-Marot and Mille 2007, 166.
28 Karin Ådahl 1995; for a recent example of this kind of work, see Apotsos 2016.