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## Foreword

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JERRY D. MOORE

... and the darkness He called Night.

—GENESIS 1:5

The most astonishing fact about a volume on the *Archaeology of the Night* is that it does not already exist. Perhaps we should not be surprised. As the eighteenth-century scientist Georg Christoph Lichtenberg observed, “our entire history is only the history of waking men” (quoted in Ekirch 2005, 262), and the cultures of night have been largely overlooked by archaeologists as well as by anthropologists and social historians (Dewdney 2004; Ekirch 2005; Galinier et al. 2010; Palmer 2000). The essays in this volume are initial sorties into what the anthropologist and essayist Loren Eiseley (1971) referred to as “The Night Country.” It is not a singular destination, nor are the following explorations reducible to a simple, unifying theme. Rather, the reader will discover a range of distinct inquiries, intersecting and complementary probings into what an archaeology of the night might entail.

In this foreword, I want to highlight some common themes found throughout this volume. These reflect diverse and engaging intellectual forays, ranging from the technologies of illumination, the significance of lunar and stellar observations in creating cultural landscapes, the existence of complex nocturnal ontologies, to the specific valences, transgressions, and meanings associated with darkness. Before discussing the themes explored in this volume, I want to convey to the reader what an archaeology of the night could involve by summarizing a pair of previous studies of nocturnal culture among two very different societies, the Ju/'hoansi of the Kalahari (Wiessner 2014) and monks in Late Antiquity and Medieval Europe (Helms 2004). These case studies embody many of the specific themes explored by the contributors to this volume, themes that I discuss subsequently.

Polly Wiessner (2014) presents a fascinating study of daytime versus nighttime conversations among the Ju/'hoansi living in northeast Namibia and northwest Botswana. In 1974 Wiessner recorded information on 174 conversations, discussions that lasted more than twenty to thirty minutes and involved five or more adults; the 1974 data were supplemented in 2011–2013 by additional interviews and recordings (Wiessner 2014, 14028). In the 1970s, the Ju/'hoansi were still mobile foragers, although in the process of settling in permanent villages and engaging in a mixed economy including wage labor, craft sales, agriculture, and government pensions. Ju/'hoansi daytime talk was dominated by the three C's: "criticism, complaint, and conflict" (Wiessner 2014, 14029). "Verbal criticism, complaint, and conflict (CCC) were the spice of Ju/'hoan life that made group living viable; if not worked out by talk, people voted with their feet and departed" (Wiessner 2014, 14029). Interestingly, the vast majority of CCC exchanges were directly between the parties involved, rather than complaining in an offender's absence, except when directed against "big shots" whose verbal deflation was "everybody's sport" (Wiessner 2014, 14029). On two occasions, daytime complaints escalated to threats of death with poisoned arrows, although the protagonists were restrained.

Night talk was different in tone and topic: over 80% of Ju/'hoansi conversations were devoted to stories. "After dinner and dark," Wiessner observes, "the harsher mood of the day mellowed, and people who were in the mood gathered around single fires to talk, make music, or dance . . . The focus of conversation changed radically as economic matters and social gripes were put aside" (Wiessner 2014, 14029). Female and male storytellers recounted tales that "captured the workings of entire institutions in a small-scale society with little formal teaching": stories about marriages; the reciprocal exchanges of nonfood items (known as *hxaro* exchange) between Ju/'hoansi and neighboring groups, sometimes between partners living hundreds of kilometers apart; and the journeys to supernatural worlds made by trance healers. Adept storytellers transformed

their “listeners stunned with suspense, nearly in tears, or rolling with laughter; they arrived at a similar emotional wavelength as their moods were altered” (Wiessner 2014, 14029).

In an equally fascinating essay regarding a very different cultural setting, Mary Helms (2004) explored nightly practices among Christian monks in Western Europe during Late Antiquity and the Early Middle Ages. Helms focused on cenobitic monasteries, “in which a master and disciples lived in a close village-like or communal setting” (Helms 2004, 177). Found across Europe, these walled communities housed thousands of men and women in religious orders that rejected the chaos and intentionally withdrew from the temptations of Satan and of the Flesh (Moore 2012, 132–134). “For monks,” Helms (2004, 180) writes, “who, by definition, renounced the superficial things of the secular world of the day, the spiritual side of night held a particular attraction. Night provided deep silence and quietude when one’s thoughts could be more readily drawn to supernatural mysteries.” Darkness cloaked the shared communion of prayers, including the nightly liturgical prayers, or nocturns. For example, Benedictine monks slept fully dressed in a common room lit by a single candle, rising to sing psalms within throughout the night in a darkened church (183).

The significance of the nocturns is indicated by the number of psalms sung during each night’s ceremony. Documents describing monastic offices in the fifth-century report that nocturns required as many as 18 psalms to be sung on a winter night; by the sixth century this had grown to a staggering 99 psalms on Saturday and Sunday night vigils during the winter, an exhausting program in which monks slept only 5–7 hours (depending on the seasonal length of night) before rising around 2 a.m. to sing through the night as they spiritually prepared for the dawn. Helms observes that “the office of nocturns (sometimes called vigils), [were] by far the longest and most important of the ‘daily’ liturgical services<sup>1</sup> and the office that was chanted in the depths of every night in a virtually unlit, pitch black church, manifested darkness. It can be essentially understood as connecting the monks with the primordial and pre-creational dark that both preceded and accompanied the original creation of the world as described in Genesis and with the power of the numinous that was felt to be present in its infinite depths” (Helms 2004, 177–178). This complex nocturnal ritual involved the rejection of sin, the search for Adamic innocence, and the defeat of death. “These intertwined monastic goals present early medieval monks both as creatures of the night who ritually explored the extraordinary supernatural realm manifested by darkness and as watchers for the coming day for whom the dark was the setting, the backdrop, for liturgy that anticipated its annihilation and conquest by the light” (187).

I have summarized these two very different cases to give the reader some sense of the complex range of behaviors that an archaeology of night might encounter.

On one hand, these two examples of nocturnal behaviors are separated by time, place, cultural traditions, and ontology, and yet there are fascinating intersections between them: the special behaviors associated with nightly practices, the change between day and night in the sounds and subjects of human voices, and the rich cultural associations with darkness and night. These two cases suggest what an archaeology of the night could illuminate, foreshadowing exciting lines of inquiry developed by the contributors to this volume.

Despite spending roughly half of our lives in the night, our archaeological inquiries have been relentlessly diurnal. One fruitful approach would be to examine the technologies of illumination, which has been done by historians and sociologists interested in the consequences of artificial illumination in nineteenth-century European and North American cities (Bowers 1998; Melbin 1987; Nye 1992; Schivelbusch 1988). In his study of artificial lighting in the nineteenth century, Schivelbusch (1988, 221) notes, “the power of artificial light to create its own reality only reveals itself in darkness. In the dark, light is life.” Ironically, in the twenty-first century, technologies of illumination have rendered darkness into an environmental quality requiring preservation efforts by groups such as the International Dark-Sky Association (see <http://darksky.org/> accessed electronically, September 11, 2016; see also Bogard 2013).

In the ancient world, the technologies of artificial light were basic, of limited luminance, and often multifunctional, such as hearths that provided both heat and light. Although there are some challenges in understanding these artifacts and features, the difficulties are not insurmountable. Rather, we archaeologists have been blinded to entire classes of nocturnal problems and objects, as in what Meghan Strong (chapter 12) calls the “entrenched apathy” when thinking about the role of artificial illumination in funeral ceremonies in New Kingdom Egypt that has led to “a false idea that there is little information to gain from an examination of light.”

Yet, technologies of illumination have a deep prehistory. As April Nowell reports (chapter 2), stone lamps from Upper Paleolithic sites—caves, rockshelters, and open-air sites—were made from carved sandstone or limestone and burned animal fats from bovinds and suids, resulting in a low glimmer. Torches and hearths were used deep inside caves and in open sites, in all cases extending light into darkness. The experimental study by Erin McGuire (chapter 13) reproducing Viking fish-oil-burning lamps challenges archaeological assumptions about materials and illumination toward the end of the so-called Dark Ages. McGuire’s study shows how lamps created small pools of light in the smoky interiors of Vikings dwellings and outbuildings—flickering consolations during long northern nights in a cosmos inhabited by dark figures such as werewolves, shape-changers, and berserkers (Byock 1986). Cynthia Van Gilder’s (chapter 8) wide-ranging discussion of the night in ancient Polynesia examines traditional

forms of artificial illumination, including the *kukui* nut (*Aleurites moluccana*), known in English as the “candle nut.” Ethnographic accounts describe how *kukui* nuts were baked, cracked, threaded on reeds or palm leaves, and lighted, forming artificial illumination that left durable traces of charred fragments of endocarps. In her excavations on Maui, Van Gilder documented the relative densities of *kukui* in different archaeological structures—dwellings, men’s houses, and temples—an examination of “night activities across a landscape.”

Different forms of artificial illumination may have distinct associations. For example, we might set a special dinner table with glowing candlelight but not an unshaded and strident bare light bulb. Similarly, Minette Church (chapter 5) explores how campfires, candles, oil lamps, and even starlight gave way to incandescent and fluorescent bulbs in the nineteenth- and twentieth-century American Southwest. Older residents expressed in wistful recollections about the pre-electric lighting that was part of “el refresco de la noche,” while younger residents report “la luz de aciete es triste.” Church articulates a recurrent theme in this volume “about resituating commonplace archaeological finds in a nocturnal context.”

While some objects—such as the technology of illumination—may be uniquely connected to the night, other objects and features deployed in nightly practices also may have diurnal uses. This situation results in what Shadreck Chirikure and Abigail Moffett (chapter 17) characterize as “the ambivalence of the archaeological record” in which “the material manifestation of daily performance is difficult to differentiate from that of nocturnal practices.” They write, “a winnowing basket used for grain processing during the day, provided ‘transport’ for witches during ritual activities, while mortars were used as decoys in the same rituals. Pots and wooden plates used for rituals during ancestor supplication were similar to those used for daily activities.” For such reasons, nightly practices present distinct—but not insurmountable—challenges.

Scholars in related fields who have explored nightly behaviors, such as ethnographers and historians, suggest some of the diverse lines archaeologists could pursue. For example, a review of ethnographic studies and cases focusing on the night identified such topics as sleep patterns, myths about the night, special nocturnal vocabularies, and eroticism among such different groups as the Maya, the Otomi, the Inuit, and Parisian cabaret performers (Galinié et al. 2010). Such an eclectic list reflects exploratory possibilities rather than a focused inquiry, as Ekirch (2010) has observed.

This volume follows similarly eclectic, exploratory, initial steps into an archaeology of the night. For example, several of the chapters in this volume explore matters of illumination, obscurity, and ceremony. April Nowell (chapter 2) considers “the nocturnal soundscapes in the European Upper Paleolithic,” drawing attention to the artifactual evidence for music—flutes, whistles, pipes, and bull-roarers—but also to the acoustic properties of caves themselves as particular

surfaces apparently chosen not only as lithic “canvases” for art, but also because of their sound resonance, combining visual and aural properties in the creation of sacred spaces.

Deployed in ritual, artificial illumination was not simply a passive radiance: it punctuated darkened and nocturnal ceremonies. As noted above, Strong explores the role of artificial illumination in New Kingdom Egypt, not just as technology, but also as luminous aspects of funeral rites in which light marked the liminal stage of “the transition from day/life to night/death and rebirth.” Similarly, Tom Dillehay (chapter 9) discusses the nocturnal rituals of Mapuche female shamans (*machi*) who “complement [the multiday public ceremonies of] their male counterparts through religious and ritual practices primarily at night and through support provided by the spiritual and ancestral world.” As Jeremy Coltman (chapter 10) discusses for the ancient Maya, “night was the chaotic antithesis to the bright diurnal day” a nocturnal field that extended to the darkness of caves, zones imbued with “wild and untamed darkness” that referenced “a return to primordial time and chaos that made the night so potent.”

“There are good reasons to expect that what transpires socially will differ between day and night,” Wiessner (2014, 14027) notes. As a preeminently visual primate, humans react in similar ways to the absence of light. Kathleen Kamp and John Whittaker (chapter 4) provide a brief overview of the physiology of vision, but then argue that archaeologists should employ the more inclusive phenomenological notion of “sensescapes” in which hearing, smell, taste, and touch are added to sight. In their discussion of the sensescapes at three Sinagua sites they have studied, Kamp and Whittaker borrow the concept of “affordances” from the psychologist James L. Gibson. “The affordances of the environment are what it offers the animal, what it provides or furnishes, either for good or ill,” Gibson wrote (1979, 127). There is room to further develop the concept of affordance, as has been done by Montello and Moyes (2013) in their work on Mesoamerican cave sites. Specifically, it would be useful to expand on the subjective properties of Sinagua sensescapes in light of Gibson’s caution that, a specific affordance cannot be reduced to either “an objective property [or] a subjective property . . . An affordance cuts across the dichotomy of subjective-objective and helps us to understand its inadequacy. It is equally a fact of the environment and a fact of behavior. It is both physical and psychical, yet neither. An affordance points both ways, to the environment and to the observer” (Gibson 1979, 129). Thus, even if common physiological responses are universal, it is also true that observers vary in their responses to dark worlds, as the other articles in this volume demonstrate, posing additional and unexamined challenges in implementing the concept of “sensescape.”

An interesting theme visible in this volume references darkness and the night as domains of creation. The epigram from Genesis at the beginning of

this foreword is a fragment of a great cosmogony in which the acts of creation result from gestures of distinction imposed upon a formless void, as Heaven was distinguished from Earth, Light from Darkness, Day from Night, and Land from Seas. The connection between darkness and creation is implicated in the Classic Maya phrase *ch'ab'-ak' ab*, which in addition to referencing kingship and ritual duties, as Coltman (chapter 10) notes, “may also relate to the invocation of primordial time rooted in the chaos of creation.” An analogous connection between darkness and creation is found in the ancient Polynesian concept of *pō* which, as Van Gilder (chapter 8) writes, “referred to the source of creation, the depths of the sea, the spirit world, and the time of darkness that followed each day of tropical sun.” Van Gilder points out that *pō* referred to the nighttime and to a 24-hour cycle that began at sunset: “Our evening, a transition to an end, would have been felt as a transition to a beginning.” The Polynesian night was also a period of potential transformations, “a time when even an ordinary soul might slip from the *pō* of the world and into the *pō* of this one.” As the Hawaiian scholar Mary Kawena Pukui recorded, “*Mai ka pō mai ka 'oiā'I'o*”: “truth comes from the night” (Van Gilder, chapter 8).

Other kinds of creative activities—including those that subvert the day-time order—may occur after sunset. In his essays on Western experiences of night between the Middle Ages and the modern era, Bryan Palmer (2000, 17–18) argues, “the dark cultures of the night are thus not unified in any categorical history of sameness. Rather they are . . . moments excluded from histories of the day, a counterpoint with the time, space and place governed and regulated by the logic and commerce of economic rationality and the structures of political rule . . . [N]ight has also been a locale where estrangement and marginality found themselves a home.” Among the different studies in this volume, an outstanding example of estrangement and marginality is found in chapter 15 by Glenn Storey on nightlife in ancient Rome, in which the emperor Nero disguised himself as a common thug and roused through the dark streets of Rome, stabbing men and throwing them into sewers, and—most shockingly—becoming a nocturnal model for other brigands who attacked passersby in the name of the emperor!

“The cover of darkness opened the door to different types of ritual performances,” Shadreck Chirikure and Abigail Joy Moffett note (chapter 17), some that complemented and others that subverted diurnal practices, such as rituals that called on ancestors to intercede with deities, divinations, traditional healing practices, witchcraft, and sexual instruction. Jane Eva Baxter provides a fascinating example of night’s subversive potential in discussing Junkanoo, a Bahamian festival with deep roots and meanings created by eighteenth- and nineteenth-century African slaves and still celebrated by their descendants. As Baxter writes, “enslaved peoples, who had been brought to the Bahamas carrying only intangible culture, had limited outlets in their day-to-day lives to express memory,

culture, and identity” (chapter 18). A secretly organized ceremony involving choreographed dances performed to the call-and-response music of brass instruments, cowbells, and goatskin drums, the Junkanoo ceremony “is not just one of resistance and transgression, but also one of cultural creativity, ethno-genesis, and memory practice where identities and meanings were shaped and formed through intentional and deliberate actions.” Moving beyond this specific ceremony, Baxter explores the Bahamian plantation landscapes. While plantation owners’ houses were placed on commanding ridges to take advantage of cooling breezes and fewer insects, the panoptical advantage of owners’ houses disappeared in the darkness of night. Rather, Baxter contends, the nocturnal landscapes and soundscapes of Bahamian plantations presented their own affordances that “offered the opportunity for enslaved peoples to interact without being overseen or overheard in the darkness,” quiet nocturnal interactions that contrasted with the explosive brass and drummings of Junkanoo.

Another theme threading through this volume is the intertwining of darkness and placemaking. Alexei Vranich and Scott Smith (chapter 6) explore the role of nighttime astronomical observations as complex societies developed in the Titicaca Basin of the southern Andes. After approximately 1800 BCE, an architectural form—the sunken court—became common across the region, and it is one of the principal features at the urban center of Tiwanaku, the dominant settlement in the region between 500 and 1000 CE. The largest sunken court in the Titicaca Basin was constructed at Tiwanaku, a two-meter deep rectangular (28 m × 26 m) space flanked by fifty-seven large stone pillars set into the walls surrounding the court. Vranich and Smith contend that the sunken court was designed, at least in part, to view the night sky. Pillars aligned to the rising and setting of Alpha and Beta Centauri, which are interpreted in traditional Andean ethnoastronomy as the eyes of the Yacana, a dark cloud constellation in the form of a llama (Urton 1981). Colonial and ethnographic sources describe Yacana as one member in a procession of dark cloud constellations—zones of the night sky where no stars appear—that move across the Mayu, or “Celestial River,” the astral feature Westerners refer to as “the Milky Way.” Drawing on this, Vranich and Smith argue that Tiwanaku’s sunken court was intentionally located in reference to the stars and constellations of darkness that journeyed through the Andean night. In a similar manner, places and astronomical observations in the night sky were essential for ancient Polynesians, as Van Gilder discusses, not only for navigating across the Pacific Ocean, but also for terrestrial concerns. The appearance of the Pleiades marked the Hawaiian New Year and the time for harvest festivals, and astrologists observed the heavens to predict propitious days for battles. Temples (*heiau*) and other constructions were oriented to cardinal directions and other celestial phenomena.

In an intriguing and wide-ranging essay considering celestial phenomena, Anthony Aveni (chapter 7) discusses human reactions to a different kind of night: the night of day created by a total solar eclipse. One might object that a discussion of eclipses—especially of total eclipses that are visible from a given location only once in four hundred years!—really does not fit into a volume on the archaeology of night, especially a volume that emphasizes the overlooked quotidian aspects of nocturnal life. Aveni argues for the need of “an anthropology of eclipse.” For example, Aveni reports on the extraordinary ways that humans respond to darkness in the middle of the day. Noisemaking is prominent—drums are pounded, metal pots banged—although this behavior may be explained quite differently either as urging the sun to awaken or as applauding the sun as the eclipse fades and solar order is restored. Alternatively, a total solar eclipse may be explained as the moon biting the sun as among contemporary Maya or as the sun being swallowed by a demon in Hindu myth. Whatever their ontological frameworks, solar eclipses are seen as potential imbalances in the normal cosmos, and explaining those imbalances involves “lending familiarity to the unfamiliar” and in so doing “hope to find meaning” (chapter 7). In a recent insightful essay, Jocelyn Holland, a specialist on European scientific writings and literature during the Enlightenment and Romantic periods, has discussed the unique explanatory problems posed by total solar eclipses. Holland writes, “predictions of eclipses have operated at the intersection of scientific theory and cultural practices. As natural occurrences, eclipses are objects of scientific study that have been explained through increasingly sophisticated mathematical and astronomical models, allowing future eclipses to be predicted with precision and historical events to be dated even more exactly with reference to eclipses past. Yet, it is also true that throughout history eclipses have been perceived as the most supernatural of events, permitting superstition and fear to intrude, along with the strange darkness that disturbs the otherwise familiar oscillation of day and night” (Holland 2015, 216). It is exactly this “strange darkness” that makes total solar eclipse particularly unnerving for so many human societies, as Aveni documents in his essay.

Attempts to explain the differences between the realms of day and night lead to considerations of diurnal and nocturnal ontologies, an issue prominent in Dillehay’s discussion of Mapuche female shamans (chapter 9). For the Classic Maya, Gonlin and Dixon (chapter 3) observe that the night was viewed as an ominous time and Coltman (chapter 10) discusses how the Maya associated night and the primordial darkness before creation, associations that imbued nighttime with distinctive dangers and potencies. The ontological associations between daylight, darkness, and gender are central to Susan Alt’s discussion (chapter 11) of the Mississippian city of Cahokia. In the uplands east and south-east of Cahokia’s core, a ridge was modified to align with the moon’s standstill

position, a zone of Cahokia known as the Emerald site. Significantly Emerald was directly connected to central Cahokia by a twenty-four-km-long formal avenue (Pauketat and Alt 2015). The Emerald site's ceremonial zone seems to have been created in the very earliest stages of Cahokia's existence, and it attracted pilgrims from throughout the American Midwest. In the core of the Emerald site, earthen mounds were constructed to align with the 53-degree azimuth, the point at which (as seen from Cahokia's latitude) the moon rises at its maximum northern standstill for several months every 18.6 years, before beginning its journey back to its southern extreme. Various structures were built at the Emerald site—sweat lodges, shelters for pilgrims, and shrine houses—but none were permanent dwellings. Alt documents how shrine houses were “decommissioned” with a “depositional liturgy” in which “every shrine was closed with water-washed silts, and most had burned materials on their [yellow clay plastered] floors, woven fabrics, and hides” (chapter 11). Alt writes, “Siouan oral histories tie the moon and the earth to women, the sun and the sky to men,” but these and other polarities were essential, complementary, and ontologically diverse, involving humans, animals, nonhuman powers, and objects in a manner distinct from Cartesian distinctions. If specific zones of Cahokia's sacred landscape were associated with solar cycles and males—such as the “woodhenge” at Mound 72, whose posts marked solar solstices associated with burials of male and female elites—other powerful places were nocturnal and feminine. Alt writes, “the Mississippian night brought the moon and dreams. The night brought stories, histories, of intercourse between mother earth and father sky that created the people, spirits, and the world.”

The Night Country is not only the domain of the esoteric, subversive, or otherworldly elements, but it is also the place of nocturnal quotidian activities, as many authors in this volume document. For example, Rita Wright and Zenobie Garrett (chapter 14) describe the “lavish system of water amenities” at Mohenjodaro and other Indus valley cities, arguing that maintenance of the sanitation system occurred at night. Similarly, Chirikure and Moffett discuss how in southern Africa iron smelting occurred at night, a technological process imbued with sexuality as the clay smelting furnaces were female (including having molded breasts), the blow tubes were penises, and the resulting bloom of iron a baby. Storey discusses some of the “every night” activities in ancient Rome as heavy transport wagons lumbered through the streets, bread was baked, sex was purchased, and intellectuals—like the politician and general Pliny the Elder—thought, read, and wrote. Gonlin and Dixon list some of the nighttime tasks among the Maya, ranging from hunting and guarding gardens and fields to boiling beans, to soaking maize for *masa* or clay for pottery. In an intriguing study of irrigation practice in Oman, Smiti Nathan (chapter 16) discusses how irrigation water was allocated to different farmers' fields using traditional subsurface

irrigation systems (*falaj*), and how the duration of allocations was measured by telling time from the stars in the night sky—the night being a cooler time for hard work in a hot desert.

In conclusion, the night is and was a prominent domain in human existence, and the chapters in this volume lead the reader to an exploration of its complex meanings, behaviors, and associations. What the reader will discover in the following chapters is a surprisingly complex array of nocturnal worlds. Simply put, there is no reason to assume that night was universally characterized by transgression or symbolic inversion, feared or embraced. Although Ekirch (2005, xxvii) has argued that “nocturnal culture was by no means monolithic, but people were more alike in their attitudes and conventions than they were different,” he principally focuses on European traditions rather than on the cross-cultural variations in the Night Country. As the studies in this collection demonstrate, archaeologists and other scholars could do more to explore cross-cultural and diachronic variations in the notions and behaviors between dusk and dawn.

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#### NOTE

1. Matins, prime, terce, sext, none, vespers, compline and nocturns.

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#### REFERENCES

- Bogard, Paul. 2013. *The End of Night: Searching for Natural Darkness in an Age of Artificial Light*. New York: Little, Brown.
- Bowers, Brian. 1998. *Lengthening the Day: A History of Lighting Technology*. New York: Oxford University Press.
- Byock, Jesse. 1986. “The Dark Figure as Survivor in an Icelandic Saga.” In *The Dark Figure in Medieval German and Germanic Literature*, ed. E. R. Haymes and S. C. Van D’Elden, 151–163. Göppinger Arbeiten zur Germanistik 448. Göppingen: Kümmerle Verlag.
- Dewdney, Christopher. 2004. *Acquainted with the Night: Excursions through the World After Dark*. London: Bloomsbury.
- Eiseley, Loren. 1971. *The Night Country: Reflections of a Bone-Hunting Man*. New York: Charles Scribners.
- Ekirch, A. Roger. 2005. *At Day’s Close: Night in Times Past*. New York: W.W. Norton.
- Ekirch, A. Roger. 2010. “Comment on Jacques Galinier et al., ‘Anthropology of the Night: Cross-Disciplinary Investigations.’” *Current Anthropology* 51(6):838–839.
- Galinier, Jacques, Aurore Monod Becquelin, Guy Bordin, Laurent Fontaine, Francine Fourmaux, Juliette Rouillet Ponce, Piero Salzarulo, Philippe Simonnot, Michèle Therrien, and Iole Zilli. 2010. “Anthropology of the Night: Cross-Disciplinary Investigations.” *Current Anthropology* 51(6):819–847. <https://doi.org/10.1086/653691>.
- Gibson, James. 1979. *The Ecological Approach to Visual Perception*. Boston: Houghton Mifflin.

- Helms, Mary. 2004. "Before the Dawn: Monks and the Night in Late Antiquity and Early Medieval Europe." *Anthropos* 99(1):177–191.
- Holland, Jocelyn. 2015. "A Natural History of Disturbance: Time and the Solar Eclipse." *Configurations* 23(2):215–233. <https://doi.org/10.1353/con.2015.0016>.
- Melbin, Murray. 1987. *Night as Frontier: Colonizing the World after Dark*. New York: Free Press.
- Montello, Daniel, and Holley Moyes. 2013. "Why Dark Zones Are Sacred: Turning to Behavioral and Cognitive Sciences for Answers." In *Sacred Darkness: A Global Perspective on the Ritual Use of Caves*, ed. Holley Moyes, 385–396. Boulder: University Press of Colorado.
- Moore, Jerry. 2012. *The Prehistory of Home*. Berkeley: University of California Press.
- Nye, David E. 1992. *Electrifying America: Social Meanings of a New Technology, 1880–1940*. Cambridge, MA: The MIT Press.
- Palmer, Bryan D. 2000. *Cultures of Darkness: Night Travels in the Histories of Transgression*. [From Medieval to Modern.] New York: Monthly Review Press.
- Pauketat, Timothy R., and Susan M. Alt. 2015. "Religious Innovation at the Emerald Acropolis: Something New under the Moon." In *Something New under the Sun: Perspectives on the Interplay of Religion and Innovation*, ed. D. Yerxa. London: Bloomsbury Press. Accessed June 24, 2017. <https://www.cahokia.illinois.edu/documents/Pauketat%20Alt%202016%20chapter%20draft.pdf>.
- Schivelbusch, Wolfgang. 1988. *Disenchanted Night: The Industrialization of Light in the Nineteenth Century*. Trans. Angela Davis. Berkeley: University of California Press.
- Urton, Gary. 1981. "Animals and Astronomy in the Quechua Universe." *Proceedings of the American Philosophical Society* 125(pt. 2):110–127.
- Wiessner, Polly. 2014. "Embers of Society: Firelight Talk among the Ju/'hoansi Bushmen." *Proceedings of the National Academies of Science* 11(39):14027–14035. <https://doi.org/10.1073/pnas.1404212111>.