

Introduction

Orientations and Associations

Archaeologists have long understood the vital importance of spatial organization and associations in the interpretation of archaeological sites and artifact distribution. We consider various aspects of spatiality, such as orientation, alignment, clustering, proximity, and random versus non-random distribution patterning, to interpret specific sites and assemblages as well as predict where and why other settlement and activity sites and objects or features may occur. We expend countless hours drawing, by hand or with the use of mapping software, detailed site maps with features and artifacts neatly and accurately noted in their places with the provenience of each element meticulously documented. Virtually all these considerations are based on utilitarian factors and assumptions, for example, proximity and access to resources; topographically and environmentally conducive areas for subsistence or production; unquestioned iterations of traditional settlement, activity area use, and object-use patterns; and temporal occurrence of deposition.

These spatial considerations and models almost always overlook any discussion of left and right positioning beyond cursory descriptive notations devoid of any cultural meaning or intentionality. This is a troubling exclusion as early anthropological studies established, without question, the pervasive importance of the cultural, religious, and gendered constructs of left and right in societies around the world as primary structuring elements behaviorally, socially, politically, and materially (Beaton 1985; Hicks 2010; Needham 1973; Wile 1934). Yet beyond early works such as Ira Wile's 1934 *Handedness: Right and Left* and Rodney Needham's 1973 *Right and Left: Essays on Dual Symbolic Classification*, we see very few explicit and dedicated studies of the topic in recent anthropology, and, except for Maartin Raven's (2005) article "Egyptian Concepts on the Orientation of the Human Body," five pages in the encyclopedic volume *Lexikon der Agyptologie* entitled "Rechts und Links" (Fisher 1984: 187–92), Joel Palka's (2002) article "Left/Right Symbolism and the Body in Ancient Maya Iconography and Culture," and Michael MacKinnon's (2010) chapter "'Left' is 'Right': The Symbolism behind Choice among Ancient Animal Sacrifices," virtually no dedicated studies appear for archaeology. A few notable studies on broader topics have recognized the potential interpretive importance of left/right expression and have provided valuable

discussion and citation in their works (Aldhouse-Green 2004; Chapman and Gaydarska 2007; Pader 1982; Thomas and Tilley 1993). When trying to locate anthropological and archaeological studies that may address notions of left and right, the logical place to start is by perusing the back-of-book indexes in these publications; however, when left and right are mentioned in publications as cultural constructs, they seldom appear straightforwardly in the indexes, leaving interested researchers playing a guessing game as to what term or terms in the index might lead to important instances and discussions of these concepts within the books' pages. Sometimes left and right are subsumed under much broader concepts like cardinal directions or spatiality, which require a vast amount of reading to glean what few left/right discussions are hidden under these umbrella topics. The alternative index entries I have encountered include directionality, positioning, orientation, spatial arrangement, spatial association, sidedness, handedness, laterality, and lateral symbolism. Most often, however, references to left and right are entirely omitted from the indexes even if the concepts are treated at some length within the texts. Julian Thomas and Christopher Tilley's (1993) essay on symbolic structures in the Neolithic, which is the longest chapter in the book, includes twenty-six pages of detailed analysis and interpretations concerning the symbolic significance of lefthand placement and movement, yet there is no index entry under any left-related term to reference the discussion. Yi-Fu Tuan's (1977) work on space and place references "right side" and "left side" in its index with only a two-page spread citation each, but it does not reference the half dozen other pages throughout the book where he continues to expand on these ideas. As a professional indexer, I find these omissions baffling; as a research scholar, I find the omissions frustrating. The lingering question is "Why are left and right so ignored or undervalued in cultural studies?"

The goal of this book is to initiate a discussion concerning these constructs and to contemplate how they may assist archaeologists in understanding and interpreting left and right manifestations as potentially intentional and meaningful occurrences within the sites they are investigating. Using various examples of left and right expressions from different cultural contexts, I will illustrate the widespread occurrence of these complex ideological and behavioral concepts and their potential visibility in the archaeological record. The examples chosen for each chapter are not intended to imply comprehensive coverage of the topics; rather, they are representative of the broad spectrum of materials, uses, and situations in which left and right constitute meaningful variables for analysis and interpretation.

The various examples discussed throughout the text should also demonstrate that consideration of laterality as part of archaeological interpretation is not confined to any particular theoretical approach and, in fact, often requires a multitheoretical approach to account for the multifarious iterations of left

and right. In some instances, such as the intentional use of left- or right-hand bent entrances or stairways in houses and fortifications, functionalist theories adequately explain the practical reasoning behind such constructions. Other post-processional and current theories emphasizing underlying cultural structures, worldviews, and symbolism as well as agency and alternative ontologies (Harris and Cipolla 2017) provide a myriad of explanatory lenses through which to interpret how laterality has been used to express and enact ideas of social status, identity, and empowerment through a wide range of material culture from tattoos to monumental statuary.

To begin to understand any underlying meanings of left and right in the archaeological record, we must start by exploring various ideological associations these lateral concepts have accrued. A review of anthropological studies addressing left and right indicates that the majority of cultures around the world associate the right with positive connotations. Two notable exceptions are the Chinese and the Keres Pueblo of central New Mexico, which will be discussed later, as will other variations of laterality. From “right” we get a variety of positive and authoritative terms and phrases such as righteous, right-minded, right-of-way, upright, right (factually correct or morally appropriate), rights (privileges or justifications), right-hand man, right foot foremost (entering a building with the right foot), and Right Honorable (Room 2001: 997; Sharma 2003: 358–59). The Latin term for right, *dextral*, is most often encountered in the word “ambidextrous,” meaning two right hands and implying that the left hand only has virtue if recast and utilized as a second right hand (Knapp 1993: 189). Positions of honor and authority are often equated with the right-side placement of individuals or groups in political and religious settings, which can be discerned in artwork, literary and historical documents, and the configuration of political and religious architecture. Beginning in 1789 with the French National Assembly, wherein the nobles were seated to the right of the president and those not of the nobility or church (known as The Third Estate) were relegated to the president’s left, the association both spatially and symbolically of the right with political conservatism and the left with liberality (or views contrary to the dominant rule) was established (Barnhart 2005: 586). In fact, the most common reference to right and left today is this political spectrum ranging from righteous conservatism to (in the eyes of the right-wingers) suspect left-wing liberalism.

While “right” has acquired positive connotations, “left” has cross-culturally been associated with negative values, again with a few notable exceptions. The Latin word for left—*sinister*—has come to mean evil, unfavorable, unlucky, suspicious, or presaging ill-fortune. Howard Kushner (2017: 49) states, “The words *left* and *left hand* in almost all the world’s languages are synonyms for ‘defective’ or ‘sinister.’” According to the *Chambers Dictionary of Etymology*, the English word “left” (*lift*, *luft*, *leoft*, and *lyft*) originally meant weakness,

lameness, broken, or paralysis based on the supposition that the left hand was weaker than the right hand (Barnhart 2005: 586). Just as the word right has numerous related positive terms, left has also spawned negative related terms such as left-handed oath (a false vow), left-handed compliment (an insult), and left-handed marriage (where a man pledges his troth with his left hand and the wife is not entitled to inherit) (Room 2001: 686, 791). Equating the left with “wrong” behavior as these terms indicate, it is clear why left-handedness has been directly linked to maleficence and mental illness (Kushner 2017). During the Inquisition and other witch trial periods, left-handedness was considered one trait of witches and could be used as evidence against the accused (Boguet [1609] 2009). In the nineteenth century, influential physician Cesare Lombroso (1835–1909) identified left-handedness as an external indicator of pathological behavior, savagery, and criminality (Kushner 2017: 18; Lombroso 1903). Abram Blau, a twentieth-century American psychoanalyst specializing in child psychology, stated that left-handedness was caused by physical impairments, learning disabilities, perversity, and oppositional attitudes and should be stemmed in children by retraining to force them to use their right hands (1946). This theory has influenced educational policies across the world, including the United States, for decades. Well into the 1970s, Soviet bloc countries plus Spain and Italy made right-handed writing compulsory in school (Mastin 2023).

It is true that the right-hand and left-hand sides in some cases are, in fact, just directional descriptions without attached meaning, but Kushner reminds us that references to left-handedness:

have frequently been about something other than left-handedness itself. Generally, that “something else” involves much higher stakes than the role of handedness. Thus, historically, the left hand has served as a proxy to justify or authorize beliefs and interventions, such as segregating the sacred from the profane, identifying and categorizing mental illness, and justifying racial and sexual beliefs. (2017: 132)

Clearly, the powerful influence notions of left and right have within cultural systems is significant enough that it should not be ignored in archaeological interpretation. These notions are complex, entangled with a suite of other related beliefs, and sometimes even seemingly contradictory, which make them all the more challenging (and rewarding) for archaeologists to tease out of the material record. For example, the basic positive and negative associations of right and left often also correlate with male and female, light and dark, intelligence and intuition, superiority and inferiority respectively, all expressed not only laterally (right/left) but also three-dimensionally as up/forward/above versus down/backward/below, which may be used in conjunction with or in lieu of

actual right/left placement (Goring 1995: 296–97). However, where right and left occur spatially is not simple or fixed. It is only within one’s body that left and right remain unchanging, but even then, the concepts are not innate and must be taught as children’s books such as Karl Rehm and Kay Koike’s book *Left or Right?* (1991) illustrate (McManus 2002: 66–74). Yi-Fu Tuan (1977: 6) observes, “Universally, biologically humans have to learn spatial bodily orientation (lying prone vs. standing upright, notions of top/bottom, front/back, left/right). These biological orientations are then overlain with cultural meaning and value often expressed symbolically.”

Left and right are but two aspects of organizing space, but as embodied elements of human physiology, they are natural markers by which humans can orient themselves within space. As early as 1768, Immanuel Kant articulated the cultural significance of left and right in our understanding of ourselves in relation to all other geographical, cosmological, and ideological concepts. His words merit quoting in full:

Even our judgments about the cosmic regions are subordinated to the concept we have of regions in general, insofar as they are determined in relation to the sides of the body. . . . However well I know the order of the cardinal points, I can determine regions according to that order only insofar as I know towards which hand this order proceeds; and the most complete chart of the heavens, however perfectly I might carry the plan in my mind, would not teach me, from a known region, North say, on which side to look for sunrise, unless, in addition to the positions of the stars in relation to one another, this region were also determined through the position of the plan relatively to my hands. Similarly, our geographical knowledge, and even our commonest knowledge of the position of places, would be of no aid to us if we could not, by reference to the sides of our bodies, assign to regions the things so ordered and the whole system of mutually relative positions. (Kant [1768] 1929: 22–23)

Not only do we have to learn the spatial orientations, but we must also acquire an understanding of the cultural meanings associated with those positions and in what contexts those meanings are expressed. According to the *Oxford English Dictionary*, “left” refers to the side of the body that is “usually the weaker of the two [sides] and which is in the position of the west if one is facing north.” This definition both includes a cultural bias of leftness as a lesser/weaker side and connects left and right with orientation on the landscape. This landscape orientation is especially significant in the archaeological interpretation of left and right, as it dovetails with the cosmological importance of cardinal directions and celestial movements. For example, if buildings or ceremonies are ori-

ented to the east, then left would be to the north, thus conflating ideas, beliefs, and entities associated with both leftness and the north. Chapter 4 will explore these cosmological orientations in further detail.

Learning spatial orientation entails a process of navigation and growing familiarity with object placement within a setting and movement patterns to negotiate one's way in and through that setting. Thus, culturally dictated placement in and movement through a place take on elements of comfort (familiarity), safety, and correctness. Tuan describes this phenomenon as place acquiring "a concretion of value" (1977: 12). Think about driving on the right versus driving on the left. When one visits a country where the driving side is reversed, the feeling of being out-of-place or in the wrong can be palpable. In other words, the value that has accrued to right and left for designated tasks or situations in one's own culture feels like it is being challenged or compromised in the unfamiliar setting. Elsewhere, Tuan (1979: 6) reiterates how spatiality and the construction of boundaries, both physical and conceptual that include notions of laterality, are universal human attempts to "keep inimical forces at bay."

Besides landscape orientation, interpreting one's position in relation to cardinal directions and other people or objects is also a matter of perspective. Consider the optical inversion created through mirror imaging or the bodily/visual perspective. What consequences might these have for archaeological interpretation of left and right placement or imagery? Mirror imaging, or bilateral symmetry, can occur on a vertical axis (where sides are flipped) or a horizontal axis (where top and bottom are reversed). The vertical flip alters the visual representation of right and left. The question of interpretation revolves around whose right/left is meant to be expressed: that of the viewer or that of the subject being viewed? Likewise, in a ceremonial context with the participant-audience and officiating individuals facing each other, whose point of reference is to be used to determine left/right positionings and related meanings?

Why have right and left taken on such importance? It appears human beings have always been predominantly right-handed. In fact, the majority of scholarly studies and philosophical treatises published today on the subject are attempts to establish the origins, causes, or reasons for hand-use preference, usually called handedness. Biologically, the human species favors its right hand with Clare Porac (2016) reporting handedness in the modern human population worldwide as roughly 85–90 percent for right-handers and 10–15 percent for left-handers. These statistics are imprecise because the assessment devices for handedness are generally simple survey questionnaires to determine which hand is used in tasks such as writing, throwing, striking a match, and so forth (Kushner 2017: 32). The nature of the questions reflect sociocultural biases as the tasks are not applicable to all age, class, gender, educational, ethnic, or cultural groups nor do they take into account physical impairments or any ed-

educational handedness “retraining” a person may have experienced. The most frequently used surveys are the 1971 Oldfield/Edinburgh Handedness Inventory, based on a ten-question survey and the Marion Annett’s twelve-question survey. Additionally, children do not generally show hand preference until about the age of three, although this, too, is culturally variable. As these surveys are only administered to adults, they do not reflect handedness in the population as a whole (Kushner 2017).

While the idea of using tasks to determine handedness may be a faulty assessment tool in modern surveys, it does have validity in some historical and archaeological contexts. Osteological analysis can reveal evidence of repetitive and/or strenuous activity through bone lesions and wear associated with particular tasks. Differentiation of right- and left-handed bone wear provides an indication of the individual’s handedness for those tasks. Finger and palm prints left embedded in pottery also reveal which hands were used for specific steps in ceramic production. Lithic hand tools, such as scrapers, are tooled to snugly fit the dominant hand of the user. Imagery depicting people engaged in activities may also illustrate the preferential hand for identifiable tasks; however, such imagery might also be documenting culturally dictated uses of left or right hands for specific tasks or contexts rather than the actual handedness of those pictured (Alpenfels 1955: 9).

Neurological studies of handedness and sidedness assert that humans’ right-handed bias has its physical roots in the formation of our brains, where the greater development of our left cerebral hemispheres, which drive muscle movement on our right sides, has given humans a greater likelihood of right-hand dominance (Casanto and Chrysikou 2011; Hertz [1907] 1960; MacKinnon 2010; McManus 2002; Porac 2016). Because most of the human population has favored the right hand since Neandertals walked the earth (Uomini 2009), it is no surprise that there also exist cultural-level associations with right (the norm) and left (deviation from the norm), with most of the world looking most favorably upon the right side or that which is most familiar, common, and expected.

Thus far, the terms left and right have been defined through discussion of their cultural connotations as well as their inextricable connection to the human body as reference points. Before we proceed, other key terms used in the title and throughout this book also require definition and discussion. As the title states, this book is about *interpretation* in the *archaeological record*. It may seem to some, unnecessary to define these terms, but my many years’ experience teaching archaeology and artifact analysis courses has shown that the distinction between analysis and interpretation is far from clear unless unambiguously explained. Simply stated, *analysis* is the noting of each attribute of a feature or artifact (e.g., the frequency of burials with weapons in their right hands; window banks consistently placed on the left side of rural school-

houses). Whereas *interpretation* uses the factual data from the analysis to ask questions or make decisions about that data (e.g., why would some male burials have weapons situated on the left?; left-side window placement in schools was advantageous for right-handed students' writing).

One interpretive process is to create classification systems for the data using the artifacts' various attributes. The act of classification is by nature a series of choices influenced by the archaeologist's beliefs about which attributes are most important (or telling) or which are most directly related to the research question at hand. Choosing some attributes and omitting others for a classification system entirely alters the conclusions that can be drawn about any set of data. In our instance, omitting the left or right placement/orientation of features and objects as meaningful attributes, rather than just directional descriptors, obscures our ability to properly understand the thoughts and actions behind the material expressions. Classification systems must be as comprehensive as possible to allow for alternative approaches to the data for, as Christopher Tilley (1993: 3) explains, "given the polysemous nature of social acts and material culture, interpretations always lack finality. The same material is always open to different and further interpretation." This caveat certainly applies to the interpretation of left and right with their numerous sociocultural, religious, spiritual, political, and gendered associations. Regardless of the possibility of there being various interpretations for any given occurrence, the plausibility of interpretations rests in the methodical process required to formulate credible explanations. According to Tilley (1993: 3), "To give an interpretation we have to provide reasons and conditions for understanding it as such. . . . Interpreting material culture in a particular manner involves learning how to experience from a particular perspective." In other words, we must go beyond the merely observable (e.g., left/right placement) to understand what left and right meant to the people we are studying and how and under what conditions it would have made sense to them to express those ideas in their material culture. Bringing these embedded meanings to the surface, to make them "visible," involves a more finely nuanced level of interpretation (Tilley 1993: 6).

The other key term necessitating discussion is *archaeological record*. Basically, this term refers to all the artifacts (human-made objects), features, and ecofacts (natural objects) pertaining to archaeological sites from which data can be abstracted to piece together narratives of times and places in the past. It is not the objects themselves, but what the objects reveal about the people who created and used them that makes the archaeological record important. In essence, archaeologists should be attempting to tease from the material culture (the archaeological record) the underlying "mentifacts" or ideology that precipitated the creation of the artifacts and features and impacted the ecofacts associated with archaeological sites. For our purposes, then, the archaeologi-

cal record comprises not only the tangible elements of artifacts, features, and ecofacts, but also the intangible elements such as left and right that may be symbolized in material form but are themselves formless.

It all comes down to spatiality. Everything exists within space and is both influenced by and influences that spatiality; therefore, all human behaviors and creations can only be truly understood in terms of their relation to the space in which they occur. Although left and right positioning may indicate various cultural notions as we have been discussing and that will be expanded upon throughout this book, it must be remembered that they may also be useful tools to reveal feature/artifact patterns and temporal horizons in the archaeological record.

The chapters in this book are designed to provide examples from a wide range of contexts and material evidence to illustrate how left/right orientations or placements are essential concepts within cultures across time and place. While the specific meanings of left/right may be culturally and situationally relative, the universality of left and right as structuring systems for human behavior means that they are important variables for archaeological analysis and interpretation.

As left and right are frequently correlated with notions of evil and righteousness, chapter 1 focuses on a discussion of the widespread association of these concepts. Exploring religious doctrinal justifications and cultural ideas of normalcy and deviance, this chapter sets the stage for several of the following chapters whose themes (such as gender, death, and sacredness) directly interface with or illustrate the left (sinister) and right (righteous) ideological associations. To demonstrate how these ideas manifest culturally and through material culture, this chapter will cite several of the attitudes against left-handedness, including the long-standing stance of psychological experts that left-handers were psychotic, criminal, dangerous, or deficient, and traditional beliefs in the evilness (contrariness of going against the normal flow) of counterclockwise (leftward) movement while providing suggestions of how these beliefs may be translated into material form visible in the archaeological record.

Although gendered associations of left and right play out in mortuary and sacred contexts as will be reiterated in chapters 3 and 4, chapter 2 establishes that association with a detailed discussion of the widespread correlation of left/right with gendered constructs and their basis in creation stories and religious doctrine. Using historical and archaeological evidence for gendered segregation in rural schoolhouses will demonstrate how these entrenched socioreligious ideas of gendered placement play out in the processes of child socialization and education. Other related ideas of cultural identity expressed through hierarchical structures of superior/subordinate will also be considered where the subordinate is located to the left (e.g., wives on their husband's left)

or a person with an ambiguous identity, role, or sexuality is depicted or placed contrary to usual left/right enactments. Various archaeological examples of ambiguous figures that confuse the usual left-female/right-male associations will be discussed as possible occurrences of cross-gendering figures and roles.

Chapter 3 turns to the interpretation of left and right in the mortuary setting. A great deal of archaeological research focuses on mortuary contexts. As tableaux of intentional placement, orientation, and positioning of both corpse and grave goods, these contexts provide especially rich opportunities to study ideas of right and left and their correlates of above and below. Above and below refer to the layering of body and objects within the graves, the states of life and death, and the realms of the living and the dead. Each will be discussed as they relate to right and left, such as the idea that the spiritual afterlife is a mirror-image of the mortal world, in other words, a reversal of right and left. Other cultural and archaeological examples of left/right in mortuary contexts that will be examined include the sidedness of gravestone inscriptions and the situation of burials in relation to other features/structures.

Understanding one's world, both the immediate surroundings and the greater universe, is crucial for one's functioning and positioning in that world. To attain such a grasp, humans have assembled their observations, experiences, thoughts, and feelings into complex explanatory frameworks that establish the "principles of the universe and the place of humans, animals, plants, and supernatural beings in that cosmic order" (Augé 2020: 57). Part of this framework entails beliefs about how the cosmos is structured and interrelated, which includes things like directionality and orientation. Chapter 4 considers these beliefs as they are iterated through religious doctrine and spiritual belief, which gives authority and justification to their left/right associations. Cultural and archaeological examples of left/right in sacred contexts include the designation of left/right areas of sacred, ritual, or religious sites for specific genders, identities/groups, functions, offerings, or intended messages. The depiction of divine, spiritual, or demonic beings or their association with particular places and objects may also be indicated through their left/right placement in relation to other places, beings, or objects.

Chapter 4 will also explore the connection between worldviews and ideology of left/right as they apply to beliefs about the nature and efficacy of magical power. Magical power wielded by specialized practitioners (e.g., shamans, cunning folk, alchemists) or lay practitioners was heavily ritualized in its enactment, which often included a left/right element. Cultural and archaeological examples of this construct include noting the hand with which objects are controlled or plucked, the side (human or structure) on which objects are placed or carried or from which they are acquired, and the correlation of spiritual power with those who are left-handed or ambidextrous.

Various worldviews included ontological belief in an agentic and numinous world in which animals and other nonhuman entities can be sentient and transformative. These beings are often thought to share human characteristics, including handedness, which may be the only distinguishing feature to identify a being as human or nonhuman, for example. Certain animals or spirit-beings may be specifically associated with the left or right, so any offerings to them may also be indicated by its left placement or left-side origin. Such discussions of left/right as they apply to beliefs about the nature of animals and other non-human beings throughout the chapter will provide cultural and archaeological examples including left-handed bears, sidedness of animal offerings or ritual feasting elements, and beliefs in left-handed or left-positioned spirit-beings.

Chapter 5 looks at the use of symbolism and ideology in the left/right placement of figures and objects within representational and abstract imagery. Archaeologists often use paintings and other artworks as resource documents. These images can also be used to reveal right and left ideologies as the body positioning (especially of religious figures and societal leaders) in paintings, carvings, mosaics, and other visual mediums often communicates the cultural meanings of those ideologies. Related to visual imagery is written language, which itself is directionally dictated by notions of left/right, front/back, and up/down. This chapter will explore these writing conventions and correlate them with other message-conveying modes employing left/right structures.

The previous chapters have tended to emphasize belief-based ideas of left and right, but in chapter 6, more practical applications of laterality to structures and objects are considered. Realizing that humans are predominately right-handed, military tacticians of the past built their fortifications in such a way as to give the defending forces a right-hand advantage while hampering the progress and arm-swing of attackers. Likewise, weaponry was designed for right-handed operation. In other sociopolitical structures, passageways, throne rooms, and feasting halls employed left/right arrangements used to segregate particular groups and send political messages of dominance and subservience. To explore these ideas, this chapter will present examples that include the twist of spiral stairways in castles, weaponry for right-handed operation, and building structures/features that channel or situate adversaries, subjugates, or subordinates to the left.

The conclusion recaps the culturally meaningful use of left/right as an important aspect of cultural worldviews as a way to express notions of identity and relationships (including gender, human/nonhuman, mortal/spiritual), and as a way to convey messages of power through the advantageous use of right-handed material culture. It asserts that cultural worldviews are based on everything having its proper place; to be “out-of-place” could send ambiguous or erroneous messages or seriously compromise social or spiritual order. Thus,

appropriate left and right placement was an important factor in numerous contexts. The conclusion ends with a reiteration of how giving more attention to left/right representations can expand archaeologists' understanding of past peoples and the reasoning behind the design, construction, placement, and association of objects and imagery.