

Countermapping the past:

Reenvisioning ancient Maya spaces at Say Kah, Belize

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This paper explores possibilities for recognizing and analytically using culturally-specific understandings of artefacts and spaces at an ancient Maya archaeological site. In the case study that we present, we use Classic Maya material categories – derived from hieroglyphic texts – to reenvision our representations of artefactual distributions and accompanying interpretations. We take inspiration from countermapping as an approach that recognizes the positionality of spatial representations and makes space for multiple/alternative spatial perspectives. We present spatial analyses based on our work at the Classic Maya archaeological site of Say Kah, Belize, juxtaposing modern modes of visualizing the results of multiple seasons of excavations with visualizations that instead draw upon reconstructed elements of ancient inhabitants’ perspectives on the site, its spaces, and usages (based on information drawn from Classic Maya textual “property qualifiers”). We argue that even incomplete information, such as that available for archaeological contexts, allows us to reimagine past spatial perspectives and experiences. Furthermore, doing so represents a move towards inclusion that changes our understanding of sites in terms of ancient experience and usage. The outcome is a shifted perspective on the spaces of the site that decenters the modern, archaeological vision, accompanied by a more reflexive awareness of the processes we use to construct our interpretations. We end with larger reflections useful for archaeologists curious about translating these ideas to other cultural settings.

Keywords: cognitive, classification, symbols, anthropology, ideology

Introduction

In this paper, we present possibilities for examining culturally-specific understandings of artefacts and spaces at an ancient Maya archaeological site. Specifically, we use Classic Maya material categories to inform our representations of artefactual distributions and accompanying interpretations. To do so, we take inspiration from countermapping, as an approach that recognizes the positionality of spatial representations and makes space for multiple/alternative spatial perspectives and experiences. Countermapping projects to date have frequently focused on modern contexts, emphasizing the political or applied dimensions of mapmaking and its associated knowledge, definitions, and value. We investigate these ideas, and present our approach of juxtaposed visualizations, through specific spatial analyses based on our work at the Classic Maya archaeological site of Say Kah, Belize (figure 1). Unlike the papers from which we draw inspiration, our case study is neither explicitly ethnographic nor political. Nonetheless, we identify places of resonance between foci of countermapping projects and our own intent in this project as we seek to represent indigenous ideas and perspectives from the past.

We approached the work we present here as assaying a set of ideas, in which we implement a countermapping approach in the investigation of an archaeological context. We do so by integrating reconstructed elements of ancient inhabitants' perspectives on the site, its spaces, and usages, with modern modes of visualizing the results of multiple seasons of excavations there. We argue that even incomplete information, such as that available for archaeological contexts, can allow us to reimagine spatial perspectives and experiences. Furthermore, doing so represents a move towards inclusion that changes our understanding of sites in terms of ancient experience and usage: without considering elements of the perspective of ancient inhabitants, our spatial interpretations and accompanying representations will necessarily be partial. The outcome is a shifted

perspective on the spaces of the site itself, accompanied by a more reflexive awareness of the processes we use to construct such interpretations.

We begin by touching on approaches to landscapes and reviewing elements of countermapping approaches that have informed our own analyses. We will then introduce the Maya-derived data that allow us to investigate these topics. We then present a series of brief examples of artefact distributions (and their accompanying visualizations), representing both conventional and Maya-informed categories and assemblages, in order to highlight observations that arise from each. The possibilities – and limitations – of our Maya-derived approach become apparent through two longer examples (related to the culturally salient qualities of jaguars and lightning, ideas that will be discussed at greater length below). We end with larger reflections that we hope will be useful for archaeologists curious about translating our ideas to other cultural settings.

Considering landscapes

Qualitative and experiential landscapes

In this article, we consider landscapes from an experiential perspective, and explore how this might be investigated in archaeological contexts. In this we are not covering new ground, but joining an ongoing dialogue in archaeology (Knapp and Ashmore 1999, Parker-Pearson and Richards 1994). Though the study of space and landscape has been part of archaeology since its beginnings (Ashmore 2002, see also Low and Lawrence-Zúñiga 2003) it is the notably controversial analyses of Barrett (1994) and Tilley (1994) that brought the experience of space into discussion as an analytical tool. Combined with a work on the social life of and around monuments (Bradley 1993) and

contesting the past and present of archaeological spaces (Bender 1999) this intense period of publication brought a revolution to the archaeology of landscapes.

We invoke these, now well established, perspectives in archaeology in three ways. First, we find useful the notion of contested spaces. Typically, these approaches offer communities alternative narratives of past spaces (e.g. Shackle *et al.* 1998, Humphrey 2015, Laluk 2017), but they may also offer archaeologists themselves alternative perspectives (e.g. Parker-Pearson and Ramilisonina 1998).

Second, many modern studies of the social qualities of landscape and space use ethnography (works such as Basso 1996, Ingold 2000 or Lansing 1991) to create an emotional energy that can carry through to archaeological spaces. We see examples of this enlivened landscape, for instance, in Das' (2006) examination of the archaeology of pilgrimage and Crossland's (2003) exploration of fearful empty borderlands.

Finally, we are drawing on approaches that use analogy to interpret the social qualities of spaces. Harrison-Buck's (2012) study of animism in architecture invokes common forms and qualities between buildings and the natural world. Bauer's (2011) study of politics in landscape suggests analogies between overtly political spaces and more utilitarian locales. Together, these three avenues (the alternatives offered by contested spaces in landscapes, an archaeological landscape informed by experiential perspectives, and the invocation of past analogies) inspire our analysis.

The perspective offered by maps themselves has been long recognized as one created by artifice and with particular aims (Harley 1988, Wood and Fels 1992, Bender 1999, Ingold 2000:219-42, Turnbull 2000, Wood 2010). Though the immediate critique is that maps serve to limit perspectives to a particular hegemonic viewpoint, it is worthy of note that several of the examples of archaeological mapping noted above involve unconventional mapping depictions and approaches. Critical awareness of the

viewpoints represented through maps can also be approached with greater nuance through consideration of the multiple ontological modes (per Descola 2013) encoded in different types of maps. For example, see Solari's [2013:62-67] discussion of the colonial Yucatek Maya Bird Map, which represents the Yucatan Peninsula in avian form, rendering the geographical expense inseparable from the animate landscape; this representation draws on an analogical ontological mode, which is distinct from the naturalistic ontological mode represented in a GIS-generated map). One of our aims in this paper is to explore the bridging of such ontological contrasts and the drawing of maps that might access different modes.

Countermapping perspectives

We begin by highlighting several things from the literature on countermapping that are key for critical approaches to mapping both modern and, significantly, ancient contexts. First, mapping and resulting maps are explicitly framed as products of choices (Hunt and Stevenson 2017, p. 4). In understanding maps as representations of particular datasets, this points towards the need for explicit awareness of what is included and excluded, as well as the rationales used for this inclusion or exclusion. In turn, we are then more aware of those things that are rendered visible versus invisible in maps. Such choices, inclusion/exclusion, and visibility/invisibility are ultimately part of acknowledging the particular ways of seeing that we bring to the world, and the specific, professional ways we are trained to look (e.g., Goodwin 1994).

Second, countermapping engages with the interpretive, experiential organization of the world that is encoded into spatial representations and maps. Certainly, we recognize that maps represent particular datasets, which have been recognized and prioritized because of our training (see related discussion of how our equipment shapes investigations and results in Barad 2007, for instance). They do more than this,

however: they represent a particular organization of the world. Countermapping issues an invitation to look at the categories that we employ to organize the world (Bowker and Star 1999), representing not only the types of data that we acknowledge and use, but also certain interpretive realities about the world, its contents, value, and organization (Byrne 2016).

Third, countermapping is predicated on recognizing and documenting multiplicity. Related to the point above about different ways of seeing, countermapping emphasizes making space for different types of knowledge (Turnbull 2007). This often involves knowledge systems that may be undervalued or underrecognized in mainstream representations. The acknowledgment of multiplicity opens the possibility for multiple knowledge systems to co-exist or work together (Turnbull 2007, Campos-Delgado 2018). Importantly, Campos-Delgado (2018) points towards the ways that maps become integrated into narratives, acting as more than just static representations. Countermaps or alternatively imagined maps become ways of representing alternative narratives, and productively playing with concepts of objectivity and ambiguity (Campos-Delgado 2018, p. 6). In the process, we can think about the challenge presented in many current discussions of indigenous ontologies to take them seriously – to put “other” ontologies on equal footing and acknowledge their realness (see discussion in Holbraad 2009).

Adopting a countermapping approach in an archaeological context

Our own use of countermapping in an archaeological context involves several layers of the invisibility that countermapping works to counteract. The landscape we engage with is a distanced reality, moved away by being buried underground and only ever partially exposed. This is paired with the occluded nature of an experiential landscape that may not be apparent through either our professional or cultural lenses. We found

countermapping, as a conceptual tool, and the practice of multiple-mapping, as a practical tool, powerful ways to move commitments to indigenous voices and experiences more commonly found in ethnographic contexts into the archaeological realm. As we will discuss below, using iconographic and hieroglyphic information indicative of conceptual material/spatial categories lets us apply some elements of countermapping to a temporally and experientially remote context that might otherwise seem resistant to this type of interpretive archaeology.

First, a little bit of background on the setting for our work: Classic Maya civilization flourished in modern-day Guatemala, Belize, Honduras, El Salvador, and southern Mexico between approximately 250-900 CE, characterized by a landscape of distinct but interactive city-states, ruled by *k'uhul ajaws* or holy lords. In an evidentiary sense, scholars investigating the ancient Maya have an advantageously omnivorous (Currie 2018) situation with regard to available evidence, in which excavated materials can be examined and interpreted in concert with contemporaneous hieroglyphic texts and iconographic representations, as well as complementary colonial and modern sources. The ability to integrate these sources has led to a deepening and diversification of areas of inquiry in the field of Maya studies, with newfound abilities to investigate a greater range of ancient participants, from underrepresented groups to non-human actants (e.g., Ardren 2002, Hendon 2012, Robin 2013), in order to illuminate cumulative past practices (e.g., Rossi *et al.* 2015, Newman 2018), and to reposition our understandings of representations and realities (e.g., Joyce 2007). Our work fits into these efforts by sharing the desire to creatively draw upon the available evidence, to bring together textual, iconographic and excavation data, and to reflexively examine the positionality of our own methods and interpretations.

Maya perspectives encoded in “property qualifiers”

There is potential in Maya contexts for incorporating the “local perspective” component of countermapping through elements in Classic Maya writing known as property qualifiers, which can be used to characterize distributions of artefacts and differentiation of space in indigenous terms and represent a particularly promising area for insights into specific Classic-era understandings of the material world (e.g., Houston *et al.* 2009, Stone and Zender 2011, Jackson 2017). Property qualifiers are visual markings in Maya hieroglyphic writing that communicate important characteristics of objects and spaces as understood by ancient Maya peoples (figure 2). They are not read phonetically or linguistically as part of the glyph; rather, they are representative of salient qualities and the categories that organized them, ones that would have been logical to ancient viewers. In this way, property qualifiers are understood to provide clues about culturally meaningful visions of the world, indicating modes of parsing reality and evoking associations. In terms of the accessibility of these markings to ancient viewers, we know that hieroglyphic literacy was limited (Houston 1994), but that visual cues like these were more broadly understood; however, we must acknowledge that experience and direct understanding of these property qualifiers would not have been monolithic.

Some of the qualities indicated by property qualifiers sound familiar to archaeologists (e.g., woody, stony, or bony qualities); others are harder for us to imagine or recognize (e.g., bright-shiny-wet, or jaguar qualities). Furthermore, the objects that are “assigned” to these different categories may reflect a variety of associations or meaningful linkages between objects and material categories; Jackson (2017) has argued that these property qualifiers do more than sort objects into particular material categories, but rather request focus and engagement with materials in specific and directed ways. For instance, some examples seem to refer to constituent materials – canoes are woody, flint blades and stelae are stony (Jackson 2017, pp. 597–599). Some

property qualifiers may reference qualities that are imagined and remembered, introducing social and experiential elements to how material categories operated (Jackson 2017, pp. 600–601). For instance, notably, masonry structures are categorized in these hieroglyphic property qualifiers as being “woody” – a surprising mismatch from our perspective, but almost certainly a reference to prototypes and foundational versions (that is, wattle and daub structures) of the built environment of communities in this part of the world. In short, these property qualifiers provide a different system of categorization that can be juxtaposed with the familiar ones used by archaeologists to organize our data.

For the purposes of our project, these property qualifiers provide indigenous categories or typologies that can yield different descriptions of artefact distributions and differentiation of space. In order to destabilize the ways that we document and visualize sites, our field project developed a recording system that includes both a standard archaeological recording page and also a "Maya view" layout that records the salient qualities or characteristics of materials using Classic Maya terms (figure 3) (Jackson *et al.* 2016).

In undertaking this experiment, we acknowledge profound, meaningful differences between these two descriptive systems – at a fundamental level, possibly including the positioned dualism of quality as separable from object or space (e.g., see larger discussions in Descola 2013). In terms of the texts and images that we draw upon in this research, neuroarchaeological approaches provide important reminders that the work done by signs (such as the property qualifiers used in our work) involves particular assumptions and concepts about representation (e.g., Malafouris 2007: 288–9), potentially with both material and cognitive implications (e.g., per Malafouris’s discussion of enactive signs [2013]). More broadly, given our interest in historically

situated understandings, we attempt to heed reminders to recognize material engagement as both familiar and also deeply unfamiliar (see discussions in material engagement theory [Malafouris 2013:15]). For these reasons and others, we may not yet readily understand some of the specific elements of Classic Maya property qualifier meaning or usage. As a result of all of these considerations, the juxtaposition that we present in this paper produces a space of productive questioning rather than a neat fit, or simple shift.

Countermapping approaches at a Maya archaeological site

Say Kah, the site from which we draw our data in this article, is a so-called secondary site, indicating its presumed subordinate relationship with the nearby ancient city of La Milpa, 3.7 km to the northwest (figure 1). Say Kah has been investigated over eight field seasons since 2004, with multi-institutional investigative teams led by Brett Houk (Houk and Lyndon 2005, Houk, Bria, and Fischbeck 2006, Houk, Bria, and Lyndon 2006, Houk and Hageman 2007, Houk *et al.* 2007), and Jackson and Brown (Brown and Jackson in press, Jackson and Brown in press a, in press b, 2012, 2019, Jackson *et al.* 2010). The site was founded in the Preclassic period and was continually occupied through the Late Classic period. Say Kah consisted of four plaza groups (figure 4), including two (Groups A and D) with substantial architectural investment and public plaza spaces meant to accommodate significant groups of people; Groups B and C were primarily residential (including homes, kitchens, and detritus of daily activities), though each also includes evidence of locally-focused religious activities. Excavations have indicated that residents had some access to luxury goods (e.g., jade) and may have specialized in ritual control of sacred water resources and ancestor-focused, divinatory activities. Throughout our years at Say Kah, Wright has collected spatial data through total station mapping of excavations and the surrounding landscape and has integrated

these data with spatially contextualized artefactual finds, enabling the analyses and visualizations that follow.

Conventional archaeological distributions

In order to lay the groundwork for discussing quality-based use of space, we first provide three brief examples of conventional archaeological illustrations of artefact concentrations, corresponding to particular areas of usage and focused activity at Say Kah. We do this to show the types of interpretations and steps taken in conventional analyses as a contrast with the examples that will be presented later in this paper. The brief examples that follow of visualizations of conventional archaeological distributions may not impart major new insights about the site. But bear with us: we use these initial examples to make explicit elements of how the logic of spatial patterning is used to make interpretations about past activities and inhabitants. We want to emphasize that in the sections that follow we are exploring how visual representations – maps – of archaeological distributions operate as a link in the analytical and interpretive process, and how different approaches to artefact categorization may open up alternate spaces of representation and resulting analysis. None of the examples we consider, whether approached using modern, western terminology or Maya descriptors, are simple or obvious, and in all cases, deeper and more complex interpretations (including shifts in interpretive categories) may emerge through processes such as close analysis, comparative approaches, integration of multiple evidence types, etc. Data visualization is often an early part of documentation and analysis, and thus a place to look carefully at patterned moves and places for critical questioning.

Middens: Dense loci

Representing specific deposits such as structures or middens (figure 5) is a common first step in visualizing activity areas at a site. From the perspective of the excavator, dense and defined deposits are typically visible when being excavated in the field, and usually do not require calculations or computer visualizations to come into initial focus. At a minimum, middens are rich in material linked to subsistence and disposal practices and are typically found close to household structures. In comparison with the examples that follow, the midden contexts could be seen as a baseline measure of conventional representation, in that an apparent concentration of deposited materials is shown in its location in the landscape (though its usages and meanings may be multiple and complex [e.g., Newman 2018]). With this example, we see that the exercise of elaborate spatial analysis of artefactual distribution may not always be necessary and to highlight the ways we as archaeologists use density and visibility of phenomena to build interpretations.

Lithics: Patterns across space

Whereas dense deposits such as middens typically stand out in our excavation experience, in other cases contrasts and contexts serve to define the deposit. By using normalized artefact densities by volume to compare contexts around Say Kah, the elevated densities of lithic artefacts found in the enclosed courtyard between Structures C-3, -4, and -5, located within one of the residential patio groups of the site, become highlighted as notable (figure 6). Without mapping comparative densities and locational contexts within the site, this area of activity concentration, which we interpret as a lithic workshop, would be situationally impressionistic and perhaps less apparent as a locus of activity. In an analytical sense, and important for our upcoming analyses of Maya qualities, similar artefactual profiles in lithic deposits demonstrate linkages between

analogous activity areas across the site. The deposits are further linked together by the repeated and patterned past activities (in this case, stone knapping to make household tools), carried out by ancient Maya inhabitants.

Termination: Relationships make interpretations

Our third example of conventional archaeological interpretation at Say Kah demonstrates an important bridge between mapping artefact distributions and interpreting archaeological remains. At the bottom of the staircase of Structure A-6 – located within the largest and most public of the four groups of the site – we found high densities of ceramic but not lithic material. The size of the sherds, location of material on an axial staircase and awareness of other incidences of this pattern suggest that this was a termination deposit, in which broken ceramic sherds were deposited as part of ritual activities that helped to ceremonially “close” a structure, a well-known ancient Maya practice (Mock 1998, Tsukamoto 2017, Newman 2018). This is an example of established patterns of artefactual deposits fitting into Maya ideas about the use and life history of spaces. In a subsequent excavation season, we were able to locate an area on the west side of Structure C-1 that contained similarly high densities of ceramics and low lithic densities, but did not have as clear a locational signature as A-6, though it was close to a central architectural element of the structure -- a door jamb. Relating these different deposits highlights the similarities in several identifiers of a termination deposit and suggests that the Structure C-1 example was likely a termination deposit as well. In this situation we see conventional archaeological data being used in service of an inference about Maya ideas about the material world. Termination practices represent patterned behaviours in which the material world is central to linking inhabited structures, ceramics and households together at a significant moment in their life cycle.

This example shows several interpretive moves undertaken in a spatial analysis of artefacts in context: comparison of contexts, examination of multiple sets of material types, and attention to patterns of find locations. These multiple axes of comparison allow for awareness, definition, and visualization of particular types of culturally-meaningful deposits interpreted through conventional archaeological categories and conditions.

These three examples demonstrate ways in which inferences about connections and functions across sites are made. We discussed these examples only briefly; nonetheless, they force us to pause in our interpretive flow, and articulate some of the basic moves we make.

Integrating Ancient Maya perspectives

In juxtaposition to what we did above, we now discuss several examples in which we created visualizations of distributions of excavated materials at Say Kah using Maya property qualifiers.

Representational issues

To start, we want to point out some differences between these two sets of spatial documentation. One is a structural difference in our methods; the other, a difference in categorization between the two mapping approaches we use. For generating maps of Maya qualities in the examples that follow, we relied on presence/absence of materials in excavated contexts rather than a variable value calculation like density, as we did in the conventional archaeological examples above. One of the biggest visualization challenges in this project has been how to represent ideas about a space as an object in a GIS. We have settled on this simplest possible approach — presence/absence within

areas defined by our recording system — because we are as yet unsure about the validity of statements about boundaries of areas of quality, reaction to visibility, the spatial reach of memory or areas of effect of qualities from an ancient Maya perspective.

Additionally, the mapping of Maya qualities is different from the outset because these qualities are used by the Maya to describe both objects (directly parallel to the artefacts mapped in the Figure 6, for example) *and* spaces. So, within our excavation recording system, Maya qualities are used to describe and tag both artefactual finds (e.g., chert debitage or obsidian blades) and also contextual spaces (e.g., masonry structures or benches). This necessitated different types of representations and approaches to patterned distributions of materials at the site. In attempting this experiment, we realized that we were not merely confronting a category issue; rather, elements of the data are different (or, have to be treated differently). This “translation” is non-parallel and complex from the get-go.

Stony/lithic example: Congruence

We noted above, in discussing property qualifiers, that some of the categories used by the ancient Maya are familiar to archaeologists (e.g., stony, bony, etc.). In addition to thinking about whether descriptors themselves are familiar or not, we have to consider how they map onto and correspond (or not) with archaeological objects. Thus, this process of re-looking involves multiple elements or angles: we recognize different frameworks through which the material world is organized (e.g., stony, jaguary), but then we also look at how these organizational structures work, in terms of what they encompass (e.g. stony for lithics versus woody for houses built of stone – more on that in a moment).

When we use the quality maps to look at our distribution of finds, we see that some qualities map very closely on to our conventional visualization. For instance, the clean correspondence of “stony” (as a Maya quality) and “chert” (as an archaeological, artefactual category) yields identical representations of differentiation of space: this example involves a simple exchange between categorical monikers (figure 7). We see that in some cases, there is close overlap between distributions visualized with the two different systems. This could argue for some congruence between archaeological and Classic Maya perceptions of materials (Jackson 2017).

Bright-shiny-wet example: Cross-cutting categories

In contrast with the lithic/stony congruence noted above, other instances of finds involve Maya qualities that differ more markedly from those used by archaeologists; these more clearly show a different view. Bright-shiny-wet is a category that it is archaeologically unfamiliar: that is, it is not a way we – modern archaeologists — group objects (though, of course, our visual observations may include awareness of reflectivity of different materials, for instance). Furthermore, unlike the lithic/stony example just discussed, bright-shiny-wet crosscuts archaeological artefactual categories. Bright-shiny-wet objects can include, for instance, obsidian, jade, and shell. The map here (figure 8) shows the distribution of bright-shiny-wet in structure interiors, middens, and exterior patios. Thus, one notable outcome of the Maya qualities maps is that spaces or objects that might not be seen as similar in a conventional archaeological analysis are grouped together by these common, perceived qualities from a Maya perceptual position.

The impact of this examination of Maya perceptual qualities is an alternative highlighting of linked spaces. While these materials might have been contextually (in a spatial sense) considered together in archaeological interpretations, grouping them in

this way, as “bright-shiny-wet,” yields a different way of describing their presence and highlighting their connectivity/similarity. These connections are apparent both through the linkage of artefact types, which changes our perception of intensity of presence, but also through the linkages between different types of spaces. In this case between public and private spaces as well as disposal areas, which would be very different spaces in conventional interpretation can be conceptually linked together.

Thus, we can see that in cases like this one, visualizations are distinctive because meaningful material groupings cross-cut artefactual categories. Things get organized differently in these two schemas; these then have different outcomes when it comes to visual representations and perhaps also resulting archaeological interpretations.

Woody example: Significance of setting

The application of material qualities to contextual spaces yields a different view of spatial distributions. Recall that some of the same material categories are used to describe objects and also spaces or contexts. The result of the two modes in which material qualities operate is a distinctive material patterning, in which discrete clustering resulting from the deposition of specific objects can juxtapose with broader background material valences that adhere, for example, to buildings or other architectural spaces.

For instance, looking at context qualities, we see that woody (indicating masonry structures) and jaguary (indicating rooms with sleeping/dreaming benches, located in turn within “woody” masonry structures) are very common, and blanket large segments of the residential built environment. These two examples are also qualities that frequently spatially co-occur, with benches occurring within masonry buildings, representing simultaneous experiences. At Say Kah, Structure C-1, for instance, is a

well-built stone structure consisting of three rooms, each of which included a built-in bench; one of these benches is visible in Figure 10.

This combination (e.g., woody backdrop, stony focus within) suggests different degrees of extent and permanence for qualities as experienced in lived spaces. It also represents a shift in conception and categorization of the material world in which material qualities can take different shapes or sizes, adhere to different materials, and combine to yield different overlays. Thus, an additional juxtaposition between archaeological and Maya spatial representations highlights the application of organizational material qualities to settings or spaces, in addition to objects; the result is a layering of multiple meanings, an intersection between contexts and objects, and different framings for identified areas of activity focus.

Windy-airy-breath example: Differences in perceptual attention

One other example provides further illustration of some of the distinctive elements of looking at spatial characterizations through Maya quality categories. These are instances in which spatial visualizations are distinctive because the meaningful material groupings mapped do not align with our own perceptual categories; these categories include ones like windy-airy-breathy or bright-shiny-wet. These categories both call on different modes of sensing (see recent discussion in Hamilakis 2013, Houston et al. 2006, Howes 2019, for instance). By using Maya quality categories, we not only organize things differently, we recognize different types of information as relevant. With the invocation of these material qualities, we experience clear shifts in our attention and in the value ascribed to contextual and perceptual elements.

For example, bright-shiny-wet, a property qualifier that we have already discussed in terms of the ways that it crosses artefactual categories, is also a perceptual category. Bright-shiny-wet evokes tactile engagement, and attention to texture, perhaps

temperature, coupled with visual acuity – modes of interaction that are only adjacent to typical archaeological practices. The windy-airy-breathy category encompasses both objects and spaces. Windy-airy-breathy objects include musical instruments, in particular, while in terms of spatial context it is used to describe windows in walls of structures (see related discussion in Stone and Zender [2011:174-175], for instance). In our excavations at Say Kah, spots of windy-airy-breathiness (figure 9) include Structure D-2, with an extant window in a standing masonry wall, as well as Oliva shell tinklers (used for visually and aurally decorating garments) found in the Group C plaza.

This is a rare quality at Say Kah to date, but is a lovely category because it is so clearly perceptual, challenging and enlarging our modes of interacting with artefacts and spaces, and framing their salient properties. Windy-airy-breathy is haptic in a distinctive way, aurally-oriented, and movement-aware. A quality like airiness could have been inherent, but also characterized by potentiality. We open up what is relevant and noticed here, and also acknowledge the lability of such categories, depending on usage (is the string of shells being shaken?) or temporal moment (is the air stirring?).

Multiple qualities: Burials

Burials provide an example of the ways in which lived and meaningful contexts would have involved more complicated associations and categorical relationships than a simple association with a particular material valence. Using the framing of Maya property qualifiers, burials and burial spaces are characterized by: the boniness of the remains themselves, and blackness or darkness attached to the spatial contexts of burial architecture (understood as metaphorical caves [e.g., Brady and Ashmore 1999]), typically enfolded within the woody setting of a masonry structure. Additional qualities deriving from associated burial goods (e.g., jade, obsidian, shell, perishable materials) would have been additionally layered onto the meanings of this space. In a typical

example, Burial 4 from Room 1 in Structure C-1 at Say Kah: an adult female was interred in a flexed position with a small piece of jade; the body was housed within a stone cist, covered by a series of chert capstones. The entire burial locus was set within a large plastered bench, located within the masonry walls of Structure C-1; these materials and spaces (bone, jade, chert, bench, stone structure) each had associated qualities.

Burials are challenging contexts for both the interpretation of conventional archaeological excavation and of Maya qualities. So many qualities are represented in the single, and highly charged, burial context. What might the meanings and intentions have been as so many quality embodying objects and spaces were brought together? In an attempt to unpack some of the complexity, and potential, of contexts with multiple qualities we will next discuss the less tightly knotted complex example of benches that contain burials as we move on to position the archaeology of qualities as an example of countermapping in archaeology.

Countermapping in archaeology: Examples

Up until this point, we have been pointing out particular aspects of Maya material qualities and how they contribute to distinctive spatial visualizations, as part of looking at elements of the larger interpretive process. In this section, we examine two examples as the next step in applying ideas from countermapping to our archaeological contexts, particularly regarding the impact of inclusion of multiple perspectives. In talking through these slightly longer examples, we focus on additional questions that arise in the process, bringing into focus additional issues in our attempted spatial “translation” that need to be further considered.

Jaguar contexts

The quality of “jaguariness” is manifested in one of the most common features found in Maya residential architecture, the bench (figure 10). Benches are multivalent built elements, and while variable in specific form, are easily recognizable archaeologically as rectangular, raised platforms found within interior spaces (e.g., see Noble 1999). Benches would have been used for socializing, everyday production tasks, sleeping, eating, or greeting outsiders from a position of authority. The association of jaguariness with benches is connected in Maya textual sources to sleeping benches, referencing material marking of jaguar skin pillows and cushion thrones, as well as the conceptual connection of jaguar material qualities to dreaming and animal co-essences (Houston and Stuart 1989), emphasizing one of the uses of these architectural features (and pointing towards the possibility in future work of additional nuance in identifying when or where different property qualifiers might manifest, or not).

Archaeologically, many benches, including those at Say Kah, act as containers for human burials. The osteological remains housed within benches were understood as ancestors, acting as community resources and ongoing social interlocutors for the living (e.g., Gillespie 2000). The significance of benches as places of seated identity (literally and metaphorically) for users was buttressed by the presence of deceased relatives within and below. As noted in the section above, burials may contain multiple qualities, raising some uncertainties in our understanding of the meaning or experience of these qualities. Specifically, burial contexts within benches -- as delved into in this section -- bring into focus two key issues that arise when taking qualities beyond spatial interrelationships and categorization, related to quality interaction and awareness of qualities.

Co-presence of multiple qualities is a phenomenon we have already noticed. How should we understand the interaction of qualities? Can they be said to

complement, balance, override, or even counteract one another? Significantly, these questions are both *conceptual* – efforts on our part to understand the experience of these qualities and the ways they might have been strategically managed, particularly in the powerful context of burials and ancestors, and also *applied* – how do we show these qualities without glossing over significant elements of their meaning or manifestation?

In the context considered here of burials within benches, each bench could have manifested a bundle of qualities, contained within, adhered to the surface of, and couched by multiple material associations, as discussed above in thinking about the contents of the burial (body and offerings) and the multiple contexts in which it was situated. We do not understand the details of how these assembled qualities interacted, however, in this context the simple spatial relationships between objects and spaces allow us to at least examine the variables of visibility and proximity. For example, are the qualities of a burial contained in a bench and the bench itself mutually enhancing? Are large benches in particular buildings imposing or important because the interaction of qualities? The inverse could also be true, that a burial is a powerful bundle of qualities and must be placed in a powerful bench location in order to be made safe? In this, complex problems of interactions can be broken down into simpler comparisons.

In addition to these uncertainties about how the co-presence of multiple qualities worked, the second uncertainty is to what extent did the quality-literate Maya observer consider hidden qualities? This invisible/visible condition can be examined through benches because they are clearly visible only through the doors or structures and within rooms themselves. Visibility issues also arise in terms of hidden deposits (ancestors, caches, even earlier architectural elements) within benches that would not have been immediately accessible. When areal data, as well as additional stratigraphic information,

from both conventional and quality focused archaeological excavations become available the interaction of benches with other areas will become clearer.

This is related to the larger question of the area of effect of qualities: when did a person feel the need to acknowledge or react to them? And, to what extent would the memory of participation in an event, a burial for example, invoke a quality that was not otherwise directly represented or accessible? The additional wrinkle connected to visibility, memory, and knowledge is the acknowledgement of differential levels or experiences associated with each of these. We are reminded that the experience of these qualities would have differed across individuals, separated by characteristics like time or geography (how spatially or temporally close were they to the ancestor residing in the bench, in terms of awareness and interaction?) but also identity. Understanding the effects of a quality is hampered by the range of human responses possible, as well as the limited impact many of those responses might have had on the archaeological record.

These questions provide hints of what a powerful interpretative and analytical tool Maya qualities could be, but also point towards limitations in what we can currently say. In this case, our study of qualities provides a set of stepping stones into a larger realm of interpretation of how the Classic Maya conceived of the space they inhabited, and how these ideas might guide how archaeologists organize their study of it.

Lightning contexts

Our second example focuses on lightning, a Maya material quality associated with chert. In contrast to our jaguar example above, which raised important questions but also indicated some interpretive limitations, the lightning example points the way forward in terms of the possibility for incorporation of Maya qualities adding depth to archaeological interpretations. A range of ancient Maya evidence indicates a clear association of chert axes with lightning (e.g., per the rain god Chaak's use of this

instrument) (Spero 1986, Taube 1992, Staller and Stross 2013, Brown 2015, Agurcia Fasquelle *et al.* 2016). The Classic Maya understood lightning as thematically related to protection – deities protected communities by throwing lightning bolts in order to kill dangerous entities.

We documented notable chert deposits in several excavated areas at Say Kah (see Figure 6 above). For the current example we focus on the presence of complete or partial chert bifaces. In our excavations, we found the quality of lightning, as embodied by chert axes, occurring in three distinct contexts: proximate to building walls; recovered from in a plaza floor and plaza subfloor fill; and in middens (figure 11). These are notably variable contexts, ranging from public to private, from quotidian to special-use, and from structured depositions to practical discard; however, the quality of lightning plays a role in all of them.

In the case of chert axes within wall fall inside and next to structures, we interpreted them as having been placed within the thatch of the structures' roofs, in parallel to the broad pattern of lithic tool storage (though not of chert axes specifically) that is seen at the well-preserved ancient Maya site of Cerén, a commoner residential site where evidence of perishable remains was preserved due to volcanic activity (Sheets 2002). There, objects including obsidian cutting tools were both practically stored and also meaningfully/symbolically placed within upper frames of structures. That is, functional storage for tools is one way of framing the location of these objects (Sheets 2002, pp. 140–143). But, we might also think of the upper elements of structures as containing lightning, intersecting with Maya examples of houses as cosmograms (Wisdom 1940, Nash 1970, Vogt 1976, Earle 1986). In this way of looking at a dwelling, the house is the universe and the universe is seen as a house. Axes in the roof can then be thought of as being positioned in the cloudy heavens, ready to enact

their protective qualities, or be used by supernaturals as needed. In this example we see, through the medium of the lightning quality, an active engagement with the cosmos in a household. Not all structures at Say Kah seem to have been lightning structures, indicating a potentially meaningful differentiation in the built environment.

The second context in which notable presence of whole and partial bifaces was observed was in the large, open paved plaza space of Group D. This group sits at the top of the highest hill in the Say Kah area. The Late Classic configuration of Group D consists of a large (approximately 40 x 45 m) paved plaza in front of a typical eastern ritual structure – in this case, an 8 m high stone temple pyramid. Our investigations of this structure (Structure D-1), and the Group D plaza configuration generally, have suggested a symbolic and ritual emphasis for this space. Briefly, we have interpreted Structure D-1 as a temple related to management of sacred water (Jackson and Brown 2019), in part because the cistern immediately to its south would have been filled solely by the conceptually “pure” water that flowed over the surface of the temple. This apparently important spot in the elaborate ancient Maya sacred landscape is further linked to the open plaza space through our discovery of a natural seep, in which water issues from the bedrock, immediately in front of Structure D-1.

In the earlier Preclassic era, this seep, and possibly pools of water in the pocked bedrock, would have been exposed; the framing of such plaza as “seas” is noted in Maya sources (Miller and O’Neil 2010). The plaza area was subsequently, in the Late Classic era, built up to create an open, paved space (Jackson and Brown 2019). This is important because it marks Group D broadly and the plaza space in particular as multivalent in meaning, and symbolically referential. Lightning associations within this already naturally charged space became apparent through the discovery of bifaces located in and just below the level of the eroded plaster floor in the plaza. While our

excavations in the plaza to date involve test units rather than broad horizontal exposures, so we cannot comment on the overall distribution of bifaces across the plaza, we found a total of 8 bifaces in 20 m² of excavation in the plaza, just over 1% of the probable surface area. This suggests a high density and a more purposeful placement than occasional items tossed into plaza construction fill. Notably, the majority of these axes were broken in antiquity, connecting with other types of ritually meaningful deposits involving broken materials such as the termination deposits mentioned above. The seeding of a major plaza space with lightning objects suggests both the importance of the change in sacred space from an actual watery landscape to formal plaza and the creation of a protective layer in the transformed sacred landscape.

The potential for chert axes to serve as protection may also be observed in the third context we consider: middens. Chert axes found in middens would have been discarded, exhausted as tools; however, it is also possible that the qualities of the lightning axe were useful in a midden as part of a multivalent disposal process. Typically, middens contain a wealth of information on subsistence and disposal as well as linkages with other locations within and around the community, when used to discuss production and consumption activities, for instance. The presence of axes in middens may indicate deliberate addition of protective lightning to these quotidian, domestic locations. This in turn allows insight into ancient Maya views of 'midden' or waste material, its qualities and even dangers, and perhaps even the experiential risk of having it close to residential spaces (see comparative discussion of sacred and powerful elements of middens in Pueblo traditions (Ortiz 1969, p. 152).

Despite their seemingly clear-cut nature, the multiple qualities in middens and the presence of lightning, a powerful quality in many contexts, makes middens perhaps one of the best places to see the interplay of qualities and to approach Classic Maya

views of disposal and waste management. When we consider middens for their qualities, we again encounter some of the complexities discussed above. Middens contain materials of several distinct qualities — chert, obsidian, and bone, for example. These, and other rarer objects in middens, create a conceptual geography of the community. Like with examples of benches and burials, questions of how the overlap and proximity of qualities was perceived and managed arise. In the case of middens however, the more clearly bounded network of material, location, and sensory experience that defines a midden makes quality-based interpretation and study easier. The potential here is to see certain qualities grouped together and make inferences about the interaction of qualities (for instance, bone-laden middens also containing obsidian, echoing bright-shiny-wet and bony qualities observed in burials). The proximity of middens to residences also extends this analysis towards the interaction of qualities in middens with those in residential spaces. This opens up a path to examine the rationality of disposal and cleanliness around Classic Maya houses, and perhaps to contrast it with ethnographically documented practices and ideas of uncleanliness.

While some of the questions that emerged with the jaguary example above are also apparent here, our consideration of lightning contexts suggests some guarded optimism about the shifted interpretive awareness that is possible in taking this approach. Our ideas about spaces, practices, and beliefs are expanded, and our conventional interpretations not overturned but rather augmented with new possibilities and new connections.

Discussion

Contributions to a conversation about countermapping in archaeology

Through our analyses and visualizations above, we have worked to make analytically and representationally visible a multiplicity of inhabited spaces. We see one of our contributions being the extension of countermapping approaches to the understanding of ancient worlds, making space for both our conventional archaeological landscape and also an array of ancient lived experiences mapped out through the adaptation of alternative ways of assembling spaces. Referring back to our general discussion of countermapping at the outset of this paper, we have indeed rendered previously unvisualized relationships visible and in doing so offered alternative ways of organizing the world of an ancient Maya community. The complexity of Maya qualities highlights the multiplicity of possibilities that can arise from new alternative ways of seeing.

We approached this as an experiment, and in the process, have noticed several important things. First, the data sets we are worked with are profoundly not parallel. This serves as a reminder of the impenetrable conceptual elements of moving between worldviews, and then the logistical complexities of decision making related to representations of divergent realities. Second, in many ways we cannot get away from conventional categories. We found that the significance of juxtaposing the two sets of images was less helpful in identifying things that we were “missing” but more in helping us to see the known archaeological spaces differently. Third, as recognized in other bodies of work about categorization and meaning making (e.g., Hodder 1999, Berggren and Hodder 2003, Yarrow 2003, Webmoor and Witmore 2008, Cobb *et al.* 2012), our foray into archaeological countermapping also raised issues of structural categorical invisibility, indicating that the “layered” view we accomplish with our multiple perspectives is one type of corrective. This involves the transformation or

renaming of categories, for instances, and the social valences and indigenous knowledge valued by shifting our lens: in this sense moving between masonry and woody, or obsidian and black is not just a simple substitution. Our attention is drawn in a different way.

Thinking about representations

In approaching representations of space at Say Kah in an unconventional manner, we nonetheless used conventional depictions – our maps look like the modern GIS generated maps that they are and use immediately scrutable modes of representation. For us, this decision was in part an effort to make an unconventional approach more palatable and understandable. While the lack of extant Classic-era maps is likely due to the poor preservation of bark paper books, we have clues that elements like time, three dimensionality, social relationships, and the draw of powerful sacred loci might all have played a part in Maya representations of space. Examples from neighbouring Central Mexican contexts support this (e.g., Mundy 1998, 2000). We are aware of the positioning of our choice about representations in relation to knowledge value, realness, and the professional gaze. Next steps in this project could even be multi-sensory or exhibition-oriented: we see this work as an opportunity to continue to challenge representational constraints. Certainly, we are aware of the representational impact of creative multivalent maps, that decenter our own dominance – even in small ways – and that make space for multiple valid and meaningful experiences. In a broader sense, Laluk’s discussion – in his study of Apache land/mind understandings – of taking local ontologies into account points towards ways that archaeology may fall short, in both theory and in method, and underscores the importance of deeper conversations “with native ways of knowing” (2017:107). We also note the importance of nuanced awareness of the emergent, responsive, and contextual nature of such understandings

(e.g., see Todd's [2017] process of thinking through how to understand petroleum products in modern day ecological disasters, e.g., in Alberta, through a framework of kinship).

Applying these ideas

As we mentioned above, we were able to begin a process of extending counter-mapping practices to an archaeological setting – by which we mean experiential in an ancient sense (versus modern experiences of an archaeological site). As we contemplate where this project takes us next, we have already discussed the possibility of more radically different types of representations. We anticipate in future work that archaeological interests in analysing patterning could be useful in comparative description or categorization of contexts characterized by similar or different quality constellations. At the scale of particular deposits, might our observations about characterizations and juxtapositions of qualities provide the ability to identify patterns and interpret deposits in new ways or to differentiate seemingly similar assemblages? A test of the constructions of space developed through the study of Maya qualities may be their predictive power. Might observations of distributions of Maya qualities allow us to anticipate findings in unexcavated areas, demonstrating perhaps a larger “unlocking” of spatial logics or organization at Maya sites?

Clearly, this undertaking was facilitated by the rich and diverse types of evidence available for investigating Maya contexts. Our hope is that our work here is useful to archaeologists working in other times and places and that these ideas are translatable to settings that may not have the same types of ancient textual and iconographic evidence. In those cases, the counter-mapping approach to archaeology may turn less on specific cultural material categories (such as those that we are able to reference for the Classic period Maya); instead, archaeologists might use known (or

reconstructed) landscape meanings, cultural logics, or sensory approaches to engage with and represent multiple landscapes referencing differential and culturally meaningful experiences. Any such efforts will necessarily be partial and to some extent speculative; in some cases, they may involve elements of reverse engineering to better understand apparently “anomalous” deposits or patterns, as part of an effort to shed constricting normative ideas of what our evidence should look like. Nonetheless, representational challenges and growing pains associated with methodological shifts should inspire, rather than inhibit, us in thinking optimistically about the ways that archaeologists may be particularly well-suited for creatively mobilizing evidence in order to work with and through the fragmented nature of our evidentiary record (Currie 2018); in fact, such exercises as we have undertaken (and encourage others to try) not only open the door wider in terms of possibilities for archaeological analyses, but also point towards some genuine strengths in terms of how distance, unfamiliarity, or even unknowability can be useful turning points in reframing questions or recombining evidence to illuminate the edges of what can be investigated in the past.

Conclusion

This paper has sought to highlight culturally specific representations in archaeological contexts as a form of counter-mapping the archaeological past. The newly accessible specificity we have brought to the archaeological landscape is based on Classic Maya constructions of associative qualities seen in their written language. Applying these categories to archaeological contexts provides viewpoints for diverse modes of attention that generate different ways of mapping at an archaeological site. However, the most intriguing outcome of this project has been the tentative relationships between parallel depictions that have emerged. Working to understand these relationships between places

and qualities allows us to reimagine the archaeological site and draw on the more diverse range of interpretive possibilities that countermapped landscapes offer.

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Declaration of interest statement

The authors have no conflicts of interests related to this research or publication.

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Figure captions

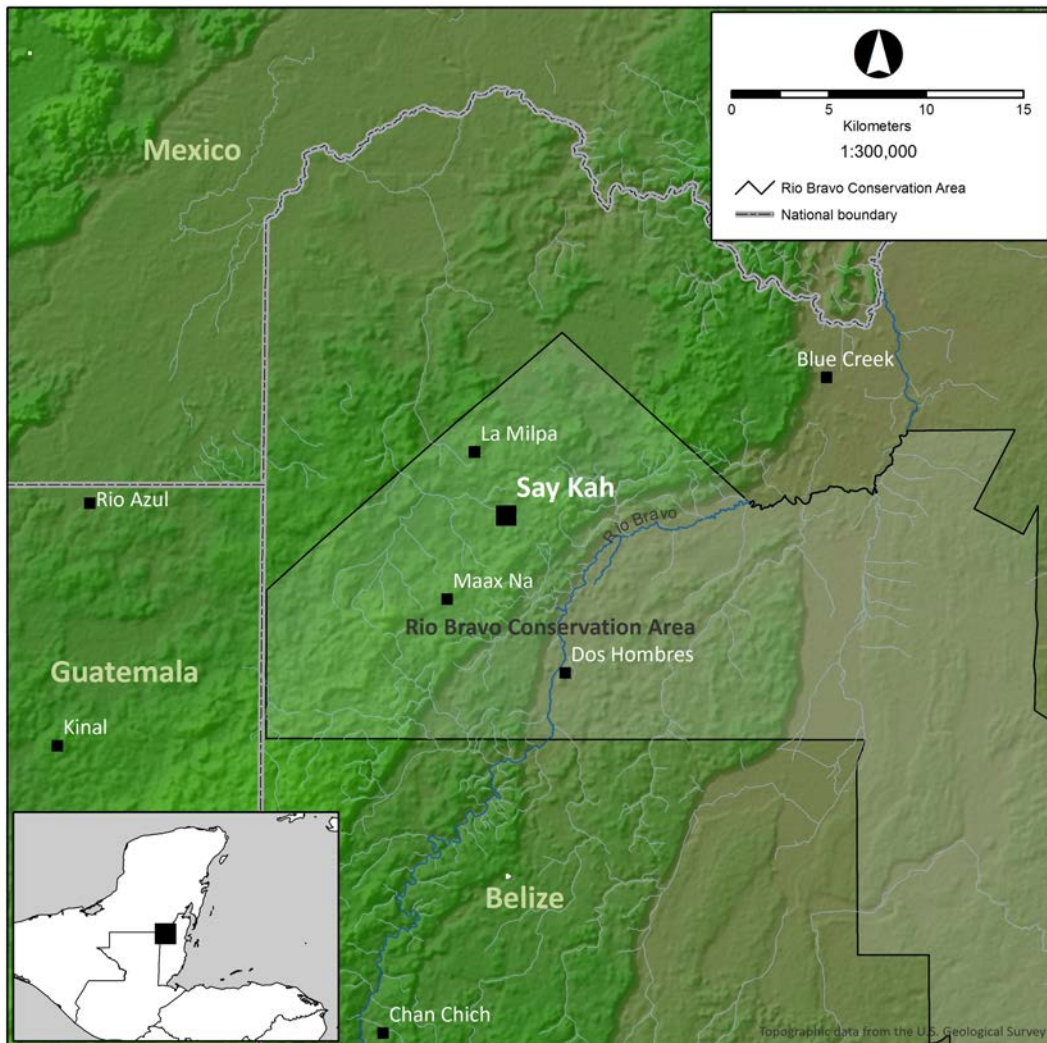


Figure 1. The position of Say Kay in the larger Maya world. The community grew up in the populated inhabited landscape near the large centre of La Milpa. All maps by Joshua Wright.



Figure 2. Examples of property qualifiers (indicated with arrows) included in Maya glyphs. A depicts the glyph for metate (grinding stone) with stony qualities incorporated (redrawn by Sarah Jackson from Stuart 2014); B the glyph for canoe, with the woody element identified (redrawn from Schele and Miller 1986, p. 270); C the glyph for axe with both stony and woody qualities indicated (redrawn from Graham in Stuart 2011); D the glyph for book, with distinctive jaguar elements (redrawn from Graham in Mathews 2001); E the quality of woodiness again, but this time incorporated into architecture (redrawn from Graham and Von Euw 1977, p. 49).

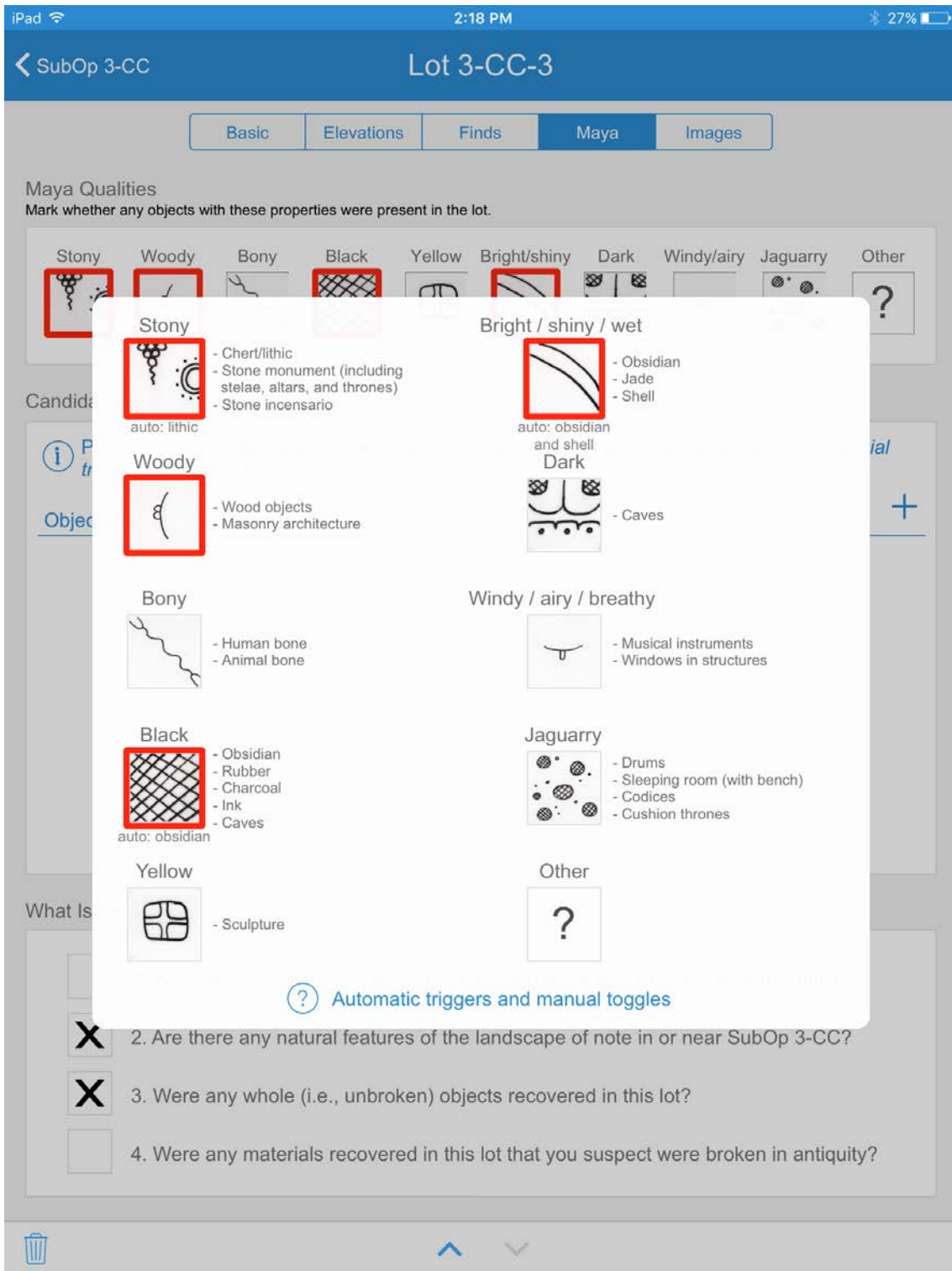


Figure 3. An example of the Maya qualities recording layout from the Say Kah excavation database. Every excavation lot's qualities are tagged here and specific quality bearing items are recorded individually.

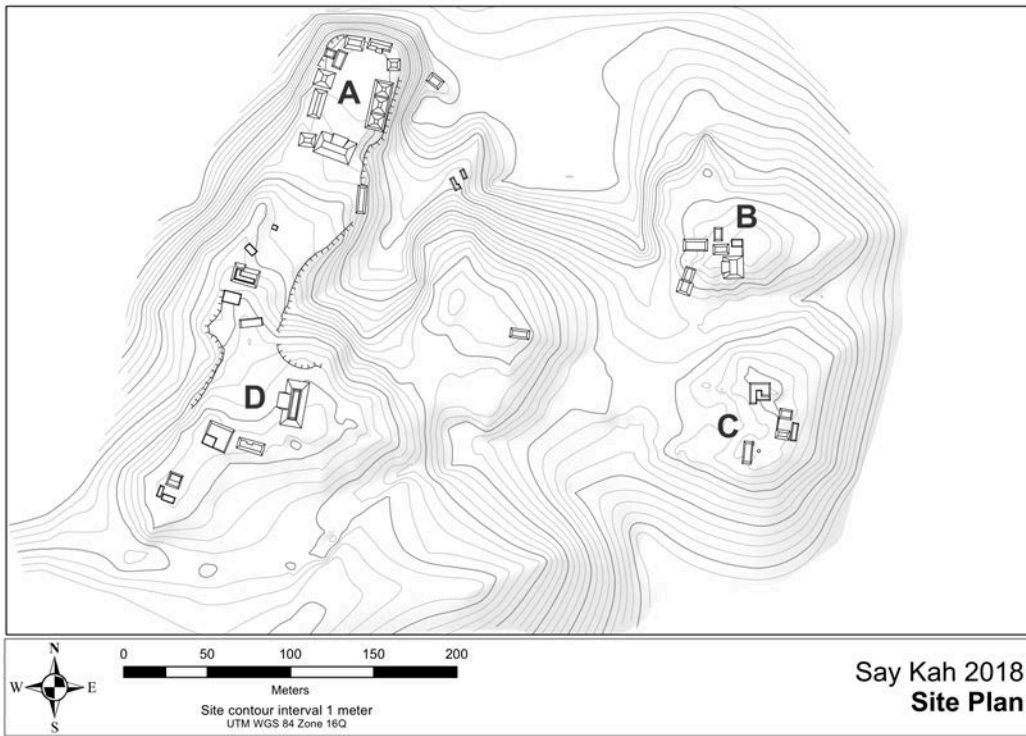


Figure 4. Site plan of Say Kah showing the four structural groups.

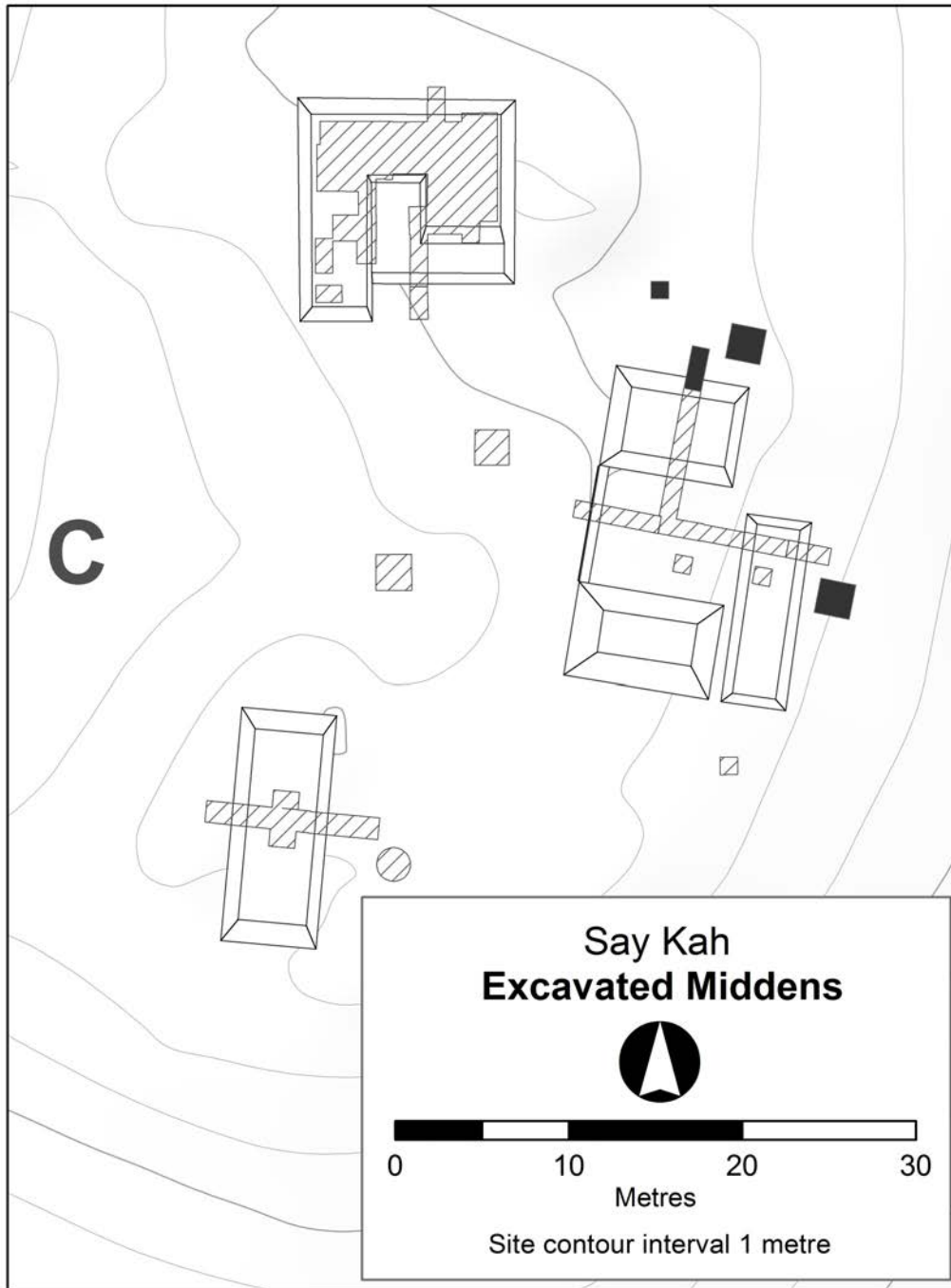


Figure 5. Middens located to the north and east of structures within plaza group C. Shaded areas indicate excavations; black areas indicate middens. High densities of both ceramic and lithic artifacts are found in the black areas.

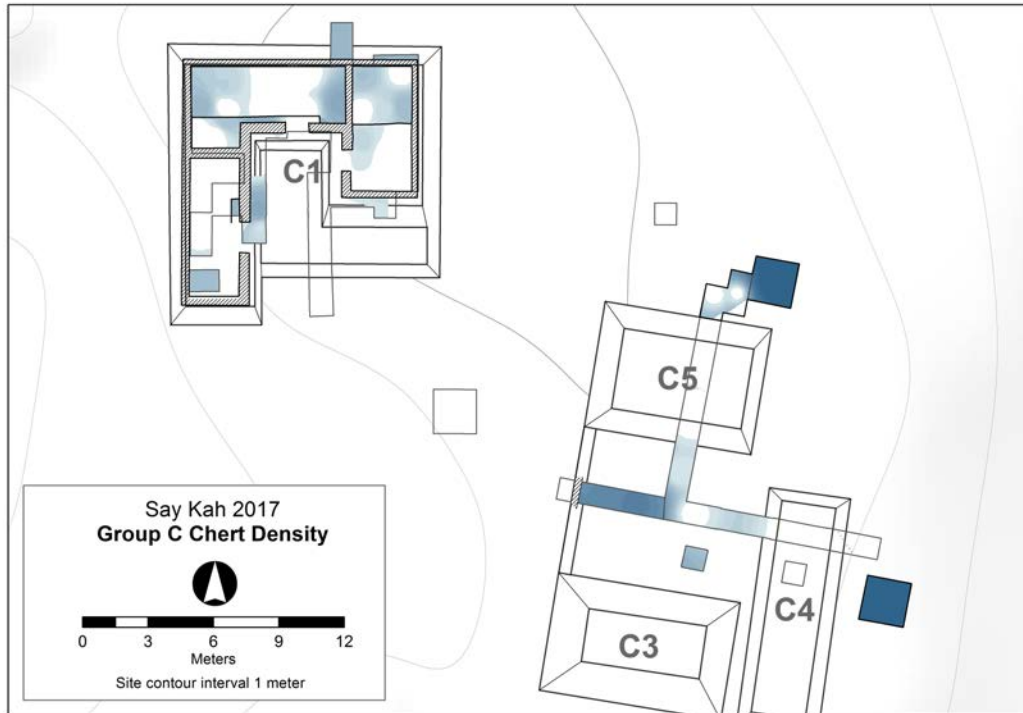


Figure 6. Relative densities of chert debitage found in excavations at group C. Very high densities (indicated by darker colour) are seen in the midden areas as well as in the internal space of the Structures C3-4-5 patio. The latter area of concentration is interpreted as a chert working area.

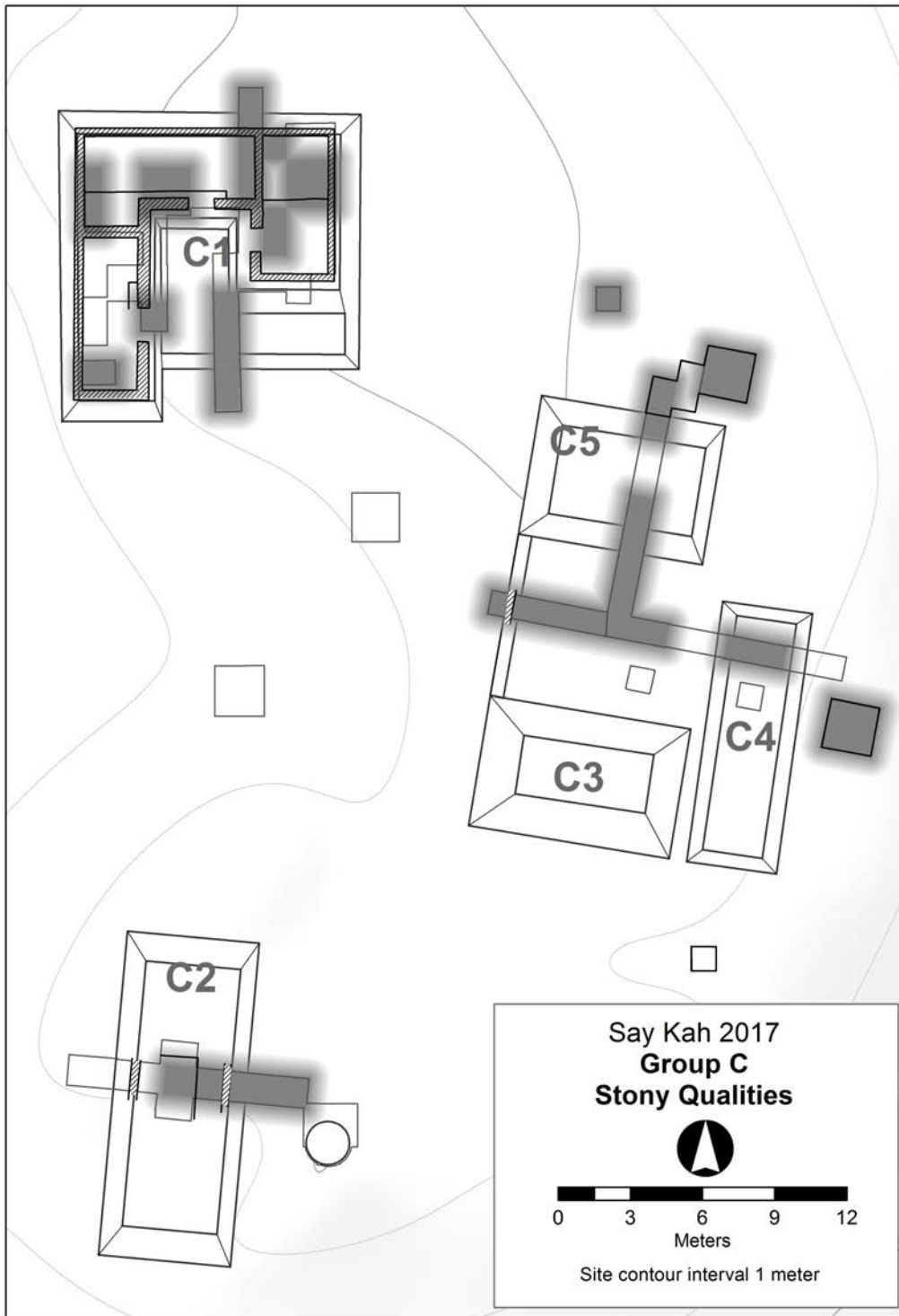


Figure 7. Excavation units containing aspects of stony quality. Compare this to figure 6 and see that these two distributions are almost exactly congruent.



Figure 8. The widespread quality of Bright-Shiny-Wet is manifested by shells, obsidian, and polished hard stones such as jade. These materials and the associated quality can be seen here to be distributed widely across the site in different types of contexts in Groups B, C, and D.

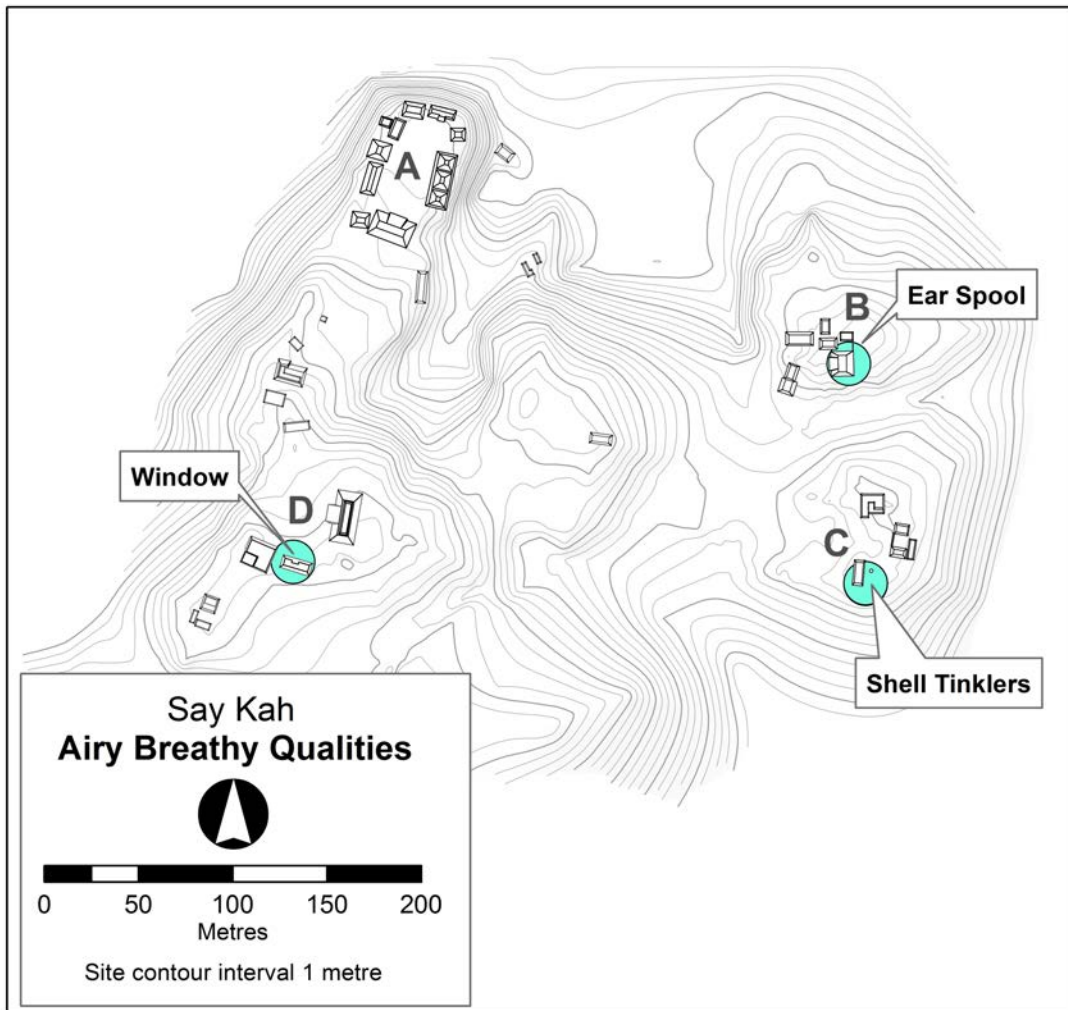


Figure 9. The distribution of the quality of Wind-Airy-Breathy across Say Kah. Here we see both objects related to sound as well as a window found in Structure D-2.



Figure 10. A bench in its context in Structure C-1. The bench itself has the jaguar quality. The damaged plaster atop the bench was a burial cut into the bench made after it was built. The standing walls and door jamb visible in the southwestern corner of the room show the restricted access to and visibility of the bench and its potent qualities.

Photo by Sarah Jackson.

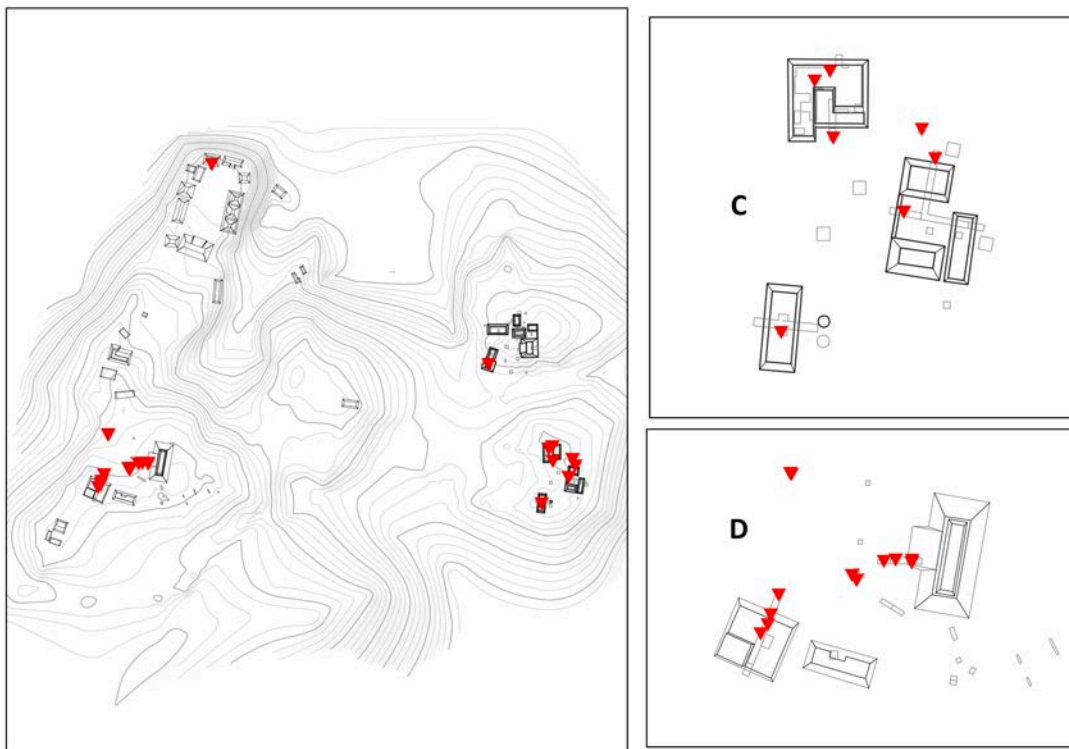


Figure 11. Find spots of chert axes, manifestations of the lightning quality, across Say Kah. In Group D they are densely scattered across the plaza and structure fronts. In Group C, axes are mostly within structures and middens.