

**TRASH RECONSIDERED: A RELATIONAL APPROACH TO DEPOSITION IN THE
PUEBLO SOUTHWEST**

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Deposition creates the archaeological record; however, the social implications of depositional practices are often overlooked, particularly when considering domestic materials found in upper room fill. In this paper, we argue that the term “trash” and its connotations mischaracterize the thought and meaning that motivate decisions about deposition, as exemplified by ethnohistoric and modern accounts of disposal within Pueblo society. Understanding the context and content of deposition can reveal important aspects of the identities, beliefs, and relationships of the individuals and groups who created them. We explore the social role of deposits at Homol’ovi I, an ancestral Hopi pueblo in northeastern Arizona, through detailed analyses of excavation data. Drawing on contemporary Hopi insights, rooms and objects are found to assume distinct social identities, specifically gender, that influence the placement of materials throughout the pueblo. We conclude that patterns of cultural deposition from all contexts have the potential to provide significant insights about the life histories, reuse, and commemoration of spaces and objects when considering archaeological contexts worldwide.

In addition, as the Hopi ancestors migrated, they left behind the graves of their relatives, ancestral villages, petroglyphs, potsherds, and other material culture as kuktota, physical evidence that they had vested the land with their spiritual stewardship and fulfilled their pact with M̄asaw [Kuwanwisiwma and Ferguson 2009:93]

In 1972, William Rathje began a decades-long investigation of Tucson's garbage at the University of Arizona. Researchers on this project distinguished among social groups, cultures, and beliefs based on the things, such as food and packaging, that were thrown away by individual households (Rathje and Murphy 2001). The findings from this study highlighted the intertwinement of trash with people's identities and understandings of themselves as well as the intentionality involved in disposal as a practice. As noted by Rathje and Murphy (2001:134), "Garbology is made possible by the fact that garbage, too, is not a game of chance."

Archaeology, by its very nature, often relies on understanding society through trash. The details of deposition that reveal how and why the archaeological record appears as it does are recorded in the field. The information encoded by context—the location, associations, and sequences of materials—allows sites to be dated, cultures defined, and social processes inferred. While trash disposal is a practical reality of life, it becomes increasingly structured by society and tied to group identities and beliefs with sedentism and aggregation. The Garbage Project provides a modern example by noting standardization increased when disposal, such as taking out a trash bin, occurred publicly (2001:78). Archaeologically, similar social pressures can be expected within nucleated settlements, where the community can observe disposal practices. These pressures may impact what materials are thrown away, where they are placed, and the frequency of their disposal. Increasingly, archaeologists understand that deposition results from

“practices by differentially knowledgeable actors whose work assembling sediments and worked and unworked things created the contextually associated assemblages we interpret” (Joyce and Pollard 2010:301). Thus, deposits, as social practices, contain insights on people, their conceptualizations of themselves, and their understandings of others. Approaching the archaeological record from the viewpoint that deposition is largely intentional provides a framework to understand not only the social actors who contributed to these deposits but also the ways in which these practices were creating, enacting, or contesting the places in which they occurred and past events (memories) associated with them.

Despite acknowledging the importance of depositional practices, researchers often obscure their significance through the application of overarching labels, such as “trash” or “room fill,” to large portions of the archaeological record. While much of archaeology focuses on object analysis, disposal is a prevalent and pervasive social practice integral to all societies. Reconstituting the complex array of materials and relationships that comprise deposits has the potential to produce new insights about social groups and identity. Following an overview of the archaeological study of deposition, we consider the implications of different forms of social practices of deposition. Grounding our analyses in appropriate cultural context, we present and discuss data on the depositional history of Homol’ovi I (H1), an ancestral Hopi village in northeastern Arizona. While our study is focused on the Southwest United States, the importance of considering deposits often classed as “fill” or “trash” in more detail extends beyond this region. There is significant information to be gained by fully embracing disposal of all types and at all scales as a significant social practice laced with meaning and intent as opposed to a problematic rearrangement of materials that obscures our interpretations of the past.

Archaeological Approaches to Deposition

Archaeological approaches to the study of deposition have varied along with theoretical trends in the discipline (see Garrow 2012, Gifford-Gonzalez 2014, and Joyce and Pollard 2010 for more detailed discussions). Initial considerations largely drew on principles from geology to determine chronological sequences and define cultural groups (e.g., Nelson 1916; Spier 1917; Stein 1987). Processual researchers focused on the role of deposits as discrete contexts to test hypotheses about production or social organization (e.g., Binford 1978; Hill 1970; Longacre 1966), but behavioral archaeology challenged the assumption that use and discard location overlapped (e.g., Schiffer 1976). This framework shifted research focus to the determination of universal principles about disposal and cleaning behaviors (e.g., Deal 1985; Hayden and Cannon 1983; Kent 1991; Schiffer 1987; Tani 1972), many of which emerged in association with the Garbage Project (Rathje and Murphy 2001).

Beginning in the 1980s, post-processual research highlighted the importance of understanding the symbolic aspects of disposal (e.g., Richards and Thomas 1984), leading Hodder (1987) to argue against use of the term “trash.” Ethnoarchaeological research, used to develop universal behavioral principles earlier, highlighted the impact of local cultural structures on discard patterns (e.g., Moore 1982, 1996; Stevenson 1982). Recent research draws largely upon practice theory; viewing deposition as a social practice shifted consideration to the ways deposits created, negotiated, and contested social relationships and interactions with space and objects (e.g., Adams 2016a; Bradley 2005; McAnany and Hodder 2009; Mills and Walker 2008; Pauketat and Alt 2003). These approaches are not mutually exclusive, and applications often draw upon elements derived from multiple frameworks.

While the discard of material things is a practical reality of life, it is structured by social expectations, group membership, identity, and cultural beliefs. Recently, Garrow (2012) urged a greater focus on everyday deposition that he considers separate from the ritual/symbolic interpretations tied to the focus on “structured deposits” (Richards and Thomas 1984). While we agree that everyday practices of disposal deserve greater attention archaeologically, this position reaffirms the false dichotomy between secular and sacred (e.g., Bradley 2005; Brück 1999; Fogelin 2006; Fowles 2013). We instead suggest that the study of everyday deposits and their relationships to space provides invaluable but underexplored insights into symbolic structures and social negotiations in past societies.

Depositional Practices

Through a holistic analysis of the range of practices of deposition, archaeologists have the potential to identify intra-village variation in lifestyle, belief, and group identity. Deposits often dismissed as everyday trash or domestic refuse embody important, often unconscious, characteristics of the people who produced them, as even “the routine disposal of refuse...reproduces the symbolic categories that constitute culture” (Pollard 2008:43). While the use of material things inevitably involves discard, what is considered disposable, where it is placed, and what materials are placed together signify deliberate decisions tied to symbolic understandings of materials and space. For instance, a shared village midden necessitates frequent contact among community members, the public display of discarded materials, and thus greater knowledge of one another’s lives. The communal scale of disposal practices implies some level of coordination and cooperation within and between social groups. Alternately, when

disposal occurs within rooms, these practices can be concealed and are often intertwined with closure of the space, e.g., “a suite of practices with material manifestations that ends the occupation of a structure or settlement with the added intent or either remembering or forgetting associated people, groups, or events” (Adams 2016a:43).

Furthermore, social groups may have different strategies for the disposal of certain materials. Moore (1982, 1996), for example, found that refuse patterns reflected gendered understandings of cultural categories for the Marakwet. Even practical aspects of disposal may inadvertently reveal information about social groups. Beck and Hill (2004) noted midden use was largely based on proximity to the residence in the Philippines. Since family groups lived near one another, kinship relations tended to dictate which midden was used. This practical pattern results in the concentration of a family’s refuse, allowing for the comparison of disposal practices at an intra-village scale. Past critiques of processual approaches to deposition, particularly studies linking residence patterns with room fill by Hill (1970) and Longacre (1970), highlighted the issues with ignoring the disposal practices involved in creating the archaeological record (Schiffer 1976). However, this critique has often been overapplied to assume no patterning or significance can be found in fill or midden deposits. Instead, this critique should be fully realized with depositional practices treated as intentional and meaningful activities that shape the archaeological record according to specific cultural and social logics. Food (Oas 2019) and clothing (Bellorado 2020) are now widely acknowledged as practical necessities that are simultaneously extremely socially specific and meaningful; we argue that deposition should be treated the same way.

Deposits in the archaeological record are the material products of a range of social practices that are intertwined with identities and community relationships. Broadly speaking, four distinctive patterns of depositional practice can be identified.

1. Single-event deposits are those created by an isolated occurrence where materials are placed together. Practices resulting in these types of deposits can range from emptying the contents of individual hearths to the creation of highly structured caches of material, such as those placed in foundation deposits (e.g., Adams 2002, 2016b; Adams and LaMotta 2006; Mills 2004; Richards and Thomas 1984). As noted by MacLellan (2019) for the Maya region, the categorization of materials as a “cache” often obscures the processes and activities that produced these deposits. By highlighting how the deposit was created instead, in this case as a single-event, we are better situated to consider the social implications of these practices more broadly. Furthermore, this approach highlights the continuum of ritualization (*sensu* Bell 1997) that exists from an event such as emptying a single hearth to the grouping of ritually charged materials or the internment of human remains.
2. Accumulating deposits, which are formed by the concentration of related or structurally similar materials, occur within a single location over various periods of time. The placement of deposits is socially organized, but the content and form are less restricted. Middens are the quintessential example of similar disposal practices that continue over time, creating an aggregate of materials. However, the source of materials may vary widely, ranging from everyday cooking debris to remains from feasts or other large events, as has been debated for the middens at

the Pueblo Alto great house in Chaco Canyon (e.g., Plog and Watson 2012).

Furthermore, the setting in which accumulating deposits occur, and particularly the visibility of that setting, may significantly impact the conformity and content included.

3. Alternating deposits are created through repeated and regulated, but distinctive and varied, depositional practices. Social consciousness and awareness of earlier deposits within a space are needed, as each deposit is dependent upon those that surround it (Walker 2002). Ash cones, for instance, are formed through the deposition of alternating strata of sand and ash, indicating related social practices and memory (Adams and Fladd 2017). This type of deposition can also be found in some limited room foundation deposits comprised of alternating layers of material (Heitman 2015). While the time frame for their creation can be difficult to ascertain, the regularity and cyclical nature of their formation speaks to their increased ritualization and potential association with periodic ceremonies (*sensu* Bell 1997).
4. Relocated deposits result from the movement of preexisting materials in mass to a new location. Often, this movement occurs to provide leveling fill for a floor surface or to cover burials (Adams 2002; Schiffer 1987; Silko 1996). However, the previous formation of the deposit should not be used to assume its movement was not socially charged as it may represent the gathering of materials following a ceremonial event (e.g., Nelson et al. 2020). Additionally, the use of cultural materials to prepare spaces or cover burials itself signals conscious choices that may be tied to memories within a community.

While there may be practical reasons for these practices, they represent identifiable and accepted strategies of deposition and demonstrate repeated engagement with spaces and materials. Although this discussion covers a range of social practices that can be seen in deposition, these four categories are by no means exhaustive, nor are they mutually exclusive (i.e. alternating deposits are composed of a specific series of single-event deposits). The assignment of deposits to one of these categories is not meant to be sufficient for analysis; rather it provides a starting place for further considerations of the social nuances of depositional practices and the activities they represent. To demonstrate the importance of systematically analyzing cultural deposition, a case study is presented that contextualizes room fill patterns temporally and spatially in the Pueblo Southwest.

Deposition in the Pueblo Southwest

In the U.S. Southwest, modern Pueblo accounts highlight the importance of and respect accorded to refuse and midden areas:

Ford explained that in Tewa Pueblos, Ash Boy, a helpful domestic god, lives on trash mounds. Each community usually has a space on the mound where one communicates in prayer to Ash Boy. At Okay Owingeh, a white quartz stone placed on the mound marks this important place. The souls of ancestors buried in trash mounds gather at the quartz shrine to get their cornmeal and hear the prayers of their descendants. Reciprocity between living humans and ancestors (and other supernatural personages), enacted in the form of feeding with corn and bringing rain that helps corn grow, is at the heart of the Pueblo worldview [Hays-Gilpin and Ware 2015:328].

Ancestors and other supernatural beings inhabit refuse mounds, leading the mounds themselves to become important locations for ritual practices. For example, Ortiz (1969:20) discusses the placement of shrines on ash piles (“middens”), a traditional burial location among the Pueblos, and their visitation by the spirits of the deceased (Duwe 2020:54). Pueblo groups consider discard a natural stage in the lives of materials. As explained by Leslie Marmon Silko (1996:26), Laguna Pueblo member, “remains were merely resting at a midpoint in their journey back to dust.” Building on these frameworks, the processes of deposition—including the formation of ash piles and the filling of rooms—are important social practices that embody deliberate, albeit potentially unconscious, ideas about the life histories of things and places.

For the Hopi people, the greater cultural landscape, in concert with the built environment, embodies important elements of community organization. As the built and natural environments are inextricably intertwined (see also Hough 1902:465), the past and present are interlinked through interactions with built and natural places. Thus, relationships and interactions with space are conditioned by history and traditions. *Hopitutskwa*, (literally, “Hopi land,” the broader ancestral region), while conceived of differently throughout the Hopi community, comprises a “village” and a “plaza” (Jenkins et al. 1994; Kuwanwisiwma and Ferguson 2014). Architecture at Hopi today is organized along a series of binary oppositions that symbolically represent ideals of social form. As explained by Whiteley (2015:275), “The *kiihu* [house] is private, domestic, familial, and female centered. The *kiva* is private, semi-collective, often ritual, and male centered. The *kiisonvi* [plaza] is public, collective, both female and male, and alternately secular and ritual ... All are arranged to comprise a *kitsoki* (pueblo or town).” Hopis conceptualize their village (“mother”) and component parts as animate members of the community. As such,

material culture maintains social identities, which segregates, to a degree, the usage of spaces and things (Leigh J. Kuwanwisiwma, personal communication 2016).

Community membership extends to rooms, which are animated by the social groups who occupy and use these spaces (Whiteley 2015:278). Memories accumulate within a room or area as families and other social groups experience important life events (see also Basso 1996; Mills and Walker 2008). Through the witnessing of these events, rooms become active members of the group, personified by their participation in and preservation of history/memories, and deserving of specialized ritual treatment at certain phases of their use lives, including their closure (Fogelin and Schiffer 2015). The filling of rooms is not solely a practical activity of trash disposal, but an important component in the conversion or retirement of rooms that are intricately linked with specific segments of the population (see also Roth and Schriever 2015.)

As explained by Leigh J. Kuwanwisiwma, Greasewood Clan member and former director of the Hopi Cultural Preservation Office, Hopis maintain deep spiritual and emotional relationships with material culture. Things, past and present, are perceived to embody vital life forces (Ferguson and Anyon 2001:113). Special bonds may be formed in various ways between humans and objects or spaces, such as objects used during important events or handed down through generations. Based on these bonds, objects may materialize significant personal relationships and connections to ancestral times and places. Personal relationships with objects, however, range considerably in intensity as conditioned by their respective biographies. One may have less attachment to a cooking pot broken during firing than a vessel gifted by one's parents or grandparents. Ladles, for instance, may be used to wash infants during birthing ceremonies. Those used in this way would hold more significance to an individual or family than an everyday serving receptacle. Items like this would be carefully disposed, or "retired," with prayer in a

special location, possibly a room important to the family. Thus, the use-lives of items condition their ultimate discard. Additionally, items such as ladles are gendered in Hopi society—in this case female. Ladles then, as female family members, would be treated accordingly. The intentional placement of gendered things in likewise gendered spaces presents a natural biographical convergence of material culture. In this way, deposits can perpetuate the social dualism of Pueblo society (Leigh J. Kuwanwisiwma, personal communication 2016).

Given Hopi perspectives, the use of the term “trash” becomes problematic. “Trash” implies haphazard patterns of discard or disregard following disposal. However, Pueblo society views the placement of materials, including their ultimate discard, as often intentional and commemorative (consider the epigraph). To reflect this belief, Mr. Kuwanwisiwma suggests the Hopi term *naasungni’yta* (to rest, be resting) be used when discussing the items themselves, or *nanasungpi* (resting place) for the room or location of disposal. For the Hopi, this terminology more accurately represents the intention and meaning of the final placement of materials and closure of rooms. We find this conceptual framework useful when considering fill deposits at the ancestral Hopi village of Homol’ovi I (H1; AZ J:14:3[ASM]), where the archaeological record corresponds to and corroborates the antiquity of modern Hopi sentiments. Archaeological correlates of the Pueblo past, both individual and collective, hold a deeper, more significant meaning when considered as integral and interconnected components of the living community.

Building upon Hopi perspectives, depositional studies are required to fully understand the life histories of things and places. Use lives of objects and spaces rarely cease upon the conclusion of their initial function as they can be altered and reused in various ways. Here we focus on postliminary uses; continuations or modifications following cessation of initial use-functions. These subsequent uses, while understudied to date, constitute integral components in

the biographies of material culture. The formation of cultural deposits involves personal choices, themselves influenced by various connections and sentiments, such as traditional practices—social memory, reenactment of events—and the spiritual and emotional attachments to things and places, personal or collective. In part, these deposits, through their engagement with ancestral things, places, or actions, make the past tangible and immutable in theory while demonstrating the ability to reconfigure the past through material practices.

Deposition at Homol’ovi I

The Homol’ovi Settlement Cluster (HSC; Figure 1) consists of seven large Pueblo villages along the middle Little Colorado River (Adams 2002). Village occupation occurred from AD 1260–1400, a time characterized by population coalescence and emigration from surrounding areas (Adams and Duff 2004). *Homol’ovi*—a Hopi toponym translating to “mounded up place” (Hopi Dictionary Project 1998:92)—figures prominently in Hopi migration narratives, particularly among clans who trace their histories through *Palatkwapi*, a location generally associated with lands far south of Hopi (Anyon 1999). The Homol’ovi area is one of a number of ancestral settlement locations situated within the migration corridor connecting *Palatkwapi* and the Hopi Mesas, and the volume of accounts that specifically mention Homol’ovi indicate it was a significant stop in the migration sequence of many clans (Bernardini 2005; Ferguson and Lomaomvaya 1999). Further, ancestral places such as Homol’ovi remain a living part of the Hopi past because they are remembered and commemorated by people in the present (see Koyiyumptewa and Colwell-Chanthaphonh 2011). As Lyons (2003:39) notes, “The Hopi maintain strong connections to *Homol’ovi*, returning occasionally to gather water, plants, and animals for use in ritual activities and making pilgrimages to shrines in the area” (see also

Beaglehole 1936:22–23; Fewkes 1898:525–526; Hough 1915:177). The direct relationship between Homol’ovi and the Hopi Mesas makes the use of ethnographic homology particularly insightful when interpreting the archaeological record.

H1 (Figure 2), occupied AD 1290–1400, is the second largest village of the HSC and contained about 1100 rooms, 70 (6.4%) of which were excavated (Adams 2002, 2004; LaMotta 2006). Given its large size, broad occupation span, and extensive excavation, patterns of deposition can be explored temporally and spatially. Masonry room blocks surrounding three small plazas compose the north half of the village (Adams 2002; LaMotta 2006). Growth of this area was organic with gradual room block additions and fluid plaza areas, which provided opportunities for spaces to be filled as needs and relationships within the village changed. The southern half of H1 incorporates a more formalized layout of adobe brick construction surrounding a single enclosed plaza. While many of the village’s founders were likely immigrants from the Hopi Mesas (Lyons 2003), there is also evidence for migrants from the south and/or east, as well as the aggregation of residents of the earlier, smaller Homol’ovi pueblos (Adams 2002; Barker 2017; Bernardini 2005; LaMotta 2006).

The Homol’ovi Research Program employed a deposit-oriented excavation methodology based in the behavioral archaeology concept of “life history” (Adams 2002:19; Schiffer 1976). Excavators assigned a unique Provenience Designation (PD) number to each discrete deposit that can be attributed to distinct causal factors. PDs can be of any shape or size, ranging from a small ash pocket to a large clay layer. The nature of these excavations makes the interpretation of fill tied to distinct social practices feasible and reliable, allowing researchers to study “the processes of the accumulation of deposits” (Adams 2002:19). Several studies focus on the differential deposition of materials throughout the HSC villages, including the patterning of turquoise

(Hedquist 2016, 2017), ash (Adams and Fladd 2017; Miljour 2016), fauna (LaMotta 2006; Strand 1998), miniature vessels (Fladd and Barker 2019), and the range of closure practices used at the feature, structure, and village level (Adams 2016a; Fladd 2018; Walker 1995).

Strong chronological control exists for H1. LaMotta (2006) was able to divide occupation of the village into four phases of 20–40 years each based on analysis of ceramics from more than 1000 deposits recovered from the village. These phases can be identified in individual deposits using the percentage of decorated pottery comprised by Jeddito Yellow Ware (%JYW; Table 1). This pottery was produced at Hopi Mesa villages indicating strong ties between the two areas. Dendrochronology, radiocarbon dating, and cross-dating with Chevelon Pueblo corroborated this dating method (Cutright-Smith and Barker 2016; LaMotta 2006). The %JYW, along with architectural construction patterns (Gann 2003), allows for the synchronic and diachronic study of deposits.

Our case study concerns the detailed analysis of the depositional histories of three structures from H1's 700s room block (Figure 2). The 700s room block was one of the earliest constructions at H1, beginning prior to AD 1300 in an area originally used as a small plaza between two room blocks (Adams 2002:131–140). Occupation of these rooms ended sometime between AD 1330 and 1365, but deposition continued throughout village habitation. While interesting patterns of use and cultural fill occur across the village (Table 2; see also Fladd 2018), we highlight Rooms 704, 729, and 733 as examples to consider in detail the range of depositional practices, as well as their associations with spaces and implications about the residents of H1.

Room Life Histories

Room 704 (Figure 3a), based on the absence of floor features, was likely used for ritual storage as it is adjacent to and connected with ritual Room 729 to the west. It was constructed and used during the Tuwiuca Phase with fill beginning by the Early Homol'ovi Phase. The floor was made of a tan-orange adobe. A mixture of ash and cultural materials, including miniature vessels, ladles, manos, and an unidentified perching (Passeriformes) bird beak, was placed as a single-event deposit atop it to close the room. Filling continued throughout the Early Homol'ovi Phase – a period of 35 years – with almost a meter of ashy object-laden matrix forming an accumulating deposit. The deposits, based on their various slopes across the room, were added in multiple discrete episodes during this time while the roof was intact. Projectile points, miniature vessels, and manos occur repeatedly in different deposits throughout the room, while other notable items, such as axes (Adams 2016a) and turquoise (Hedquist 2016, 2017), occur in only one deposit.

Of note is a single-event deposit located below the west wall doorway connecting Room 704 to Room 729, which was sealed partially before being fully closed. Here, a painted bighorn sheep skull was placed, likely through the partially opened door, upon a layer of the ashy object-laden accumulating deposit. Bighorn sheep play an important role in Western Pueblo rituals (LaMotta 2006:36); ceremonial headdresses may be used or modeled off of their skulls, or skulls themselves may be placed in shrines as offerings by hunting societies (Parsons 1939:308; Stephen 1936:41). Horns and antlers are also frequently utilized in rituals, including initiation ceremonies for male societies (e.g., Beaglehole 1936; Fewkes 1903:64; Parsons 1939:352; 610, 614; Stephen 1936:41, 46, 70; Stevenson 1904:431–438). Bighorn Sheep was not easy to acquire at Homol'ovi; historic accounts of their habitats and recent strontium isotope analyses suggest a minimum 190 km round trip was necessary to procure them (LaMotta 2006:37; Sheets 2019). In

addition to the skull, an assortment of large stones, including manos and cores, a projectile point, and a raven skull were clustered together. Alongside and above this set of objects, roofing materials were intermixed suggesting the roof had slowly deteriorated during this time and eventually collapsed after cultural deposition within the room had largely ceased. Natural deterioration of the walls and sediment accumulation then capped Room 704.

Room 729 (Figure 3b) is interpreted as a ritual room based on its location, accessibility, and internal room features (Adams 2002:130–143). It possesses a complicated life history marked by frequent remodeling, including repeated episodes of wall plastering and sooting (Meyers 2007). Construction occurred during the Tuwiuca Phase with remodeling likely continuing into the Early Homol’ovi Phase. The structure was set in a relatively central location with doorways providing access to rooms to the north, east, and west. The array of features associated with two floor levels, such as a jacal (wooden) screen and deflector, a ventilator, and a series of remodeled hearths, speak to the specialized use of the space and importance of modifying the area to best suit its social role through time. Room 729 was filled throughout the Middle and Late Homol’ovi phases, including the formal closure of the last hearth with a single-event deposit including ash, turquoise tesserae (Hedquist 2017:125), and a mano fragment. Additionally, a dozen manos were found in association with the debris from the jacal deflector.

Shortly after occupation ceased within this space, the roof was deliberately burned. Ashy object-laden accumulating deposits were added to the room during the roof burning as these materials are interspersed close to the floor surface. Around the burned roofing material and mirroring Room 704, an upside-down bighorn sheep skull was placed in a rock feature over a mano and covered by two cooking vessel sherds, together forming a single-event deposit likely predating the burning of the roof. A whetstone used to sharpen tools was also found in

association with this cluster. Further supporting ties to Room 704, a bighorn sheep horn was located within the roof debris. As the roof continued to deteriorate, green-gray ash and cultural materials were added as an accumulating deposit that included projectile points concentrated along the west wall, manos, two axes, and several ungulate and red-tail hawk mandibles. Axes have been tied to males at Homol'ovi (Adams 2016a; 2016b:56), and red-tailed hawks, linked to hunting societies, are integral to contemporary Hopi practices, at times being raised in captivity and ritually killed during important ceremonies (Fewkes 1900:702; LaMotta 2006:35; McKusick 2001:53–58; Parsons 1939:186–187; Strand 1998:59; Voth 1912). Above the roof debris, fill of the room shifts to a mixture of cultural materials, wall fall, and eolian sand with a noticeable decrease in ash content, suggesting the start of a new accumulating deposit. This combination of materials continued to the modern ground surface, and the shift in content may reflect the greater visibility of the deposit once the roof had burned and collapsed.

Room 733 (Figure 3c) is located to the west of Room 729 and—based on the presence of a corn crib; a clay-formed feature used to stabilize piles of corncobs (Adams 1983:49)—was used in part for corn storage. This room was constructed during the late Tuwiuca Phase atop a leveled sand dune. A ventilator shaft for an adjacent room was constructed during the filling of Room 733 and a partially dismantled mealing bin was found on the floor, further supporting the association of this room with corn processing. Occupation of the room ceased during the Early Homol'ovi Phase with a single shell pendant left on the floor. The first meter or so of fill is formed by a combination of discrete (single-event) and clustered (accumulating) depositional episodes of ash and objects followed by architectural deterioration and the natural accumulation of eolian sands. Ladles, cores, and worked sherds are prominent in these lower fill deposits. After initial filling and while the roof of the structure remained intact, an offset stratified ash

cone—an alternating deposit—was formed through repetitive and controlled placement of layers of ash and sand fill through the hatchway (Adams and Fladd 2017; Fladd 2018). Object abundance was low within these layers, although a number of ladles, associated with corn across H1 (Adams 2016a:48), were identified. A thick layer of accumulating deposit, including several manos and piki stone fragments (stones used to cook wafer bread made from corn flour [Dedecker 2005]), a lens of ash (single-episode deposit), and architectural debris surrounded the ash cone. The final depositional episodes within Room 733 consisted of a new accumulating deposit composed of a mixture of cultural materials, natural fill, and architectural debris, again marking a shift following the increased visibility after the roof had collapsed.

While these three rooms are contiguous and contemporaneous, their treatment after occupation highlights their distinctive roles within the village. Whereas Rooms 729 and 733 were filled throughout the occupation of H1, deposition into Room 704 occurred only in the Early Homol’ovi Phase. Three of the four depositional practices outlined above can be seen in these rooms. Single-event deposits are most clearly demonstrated by the bighorn sheep skull and stone concentrations in Rooms 704 and 729. These materials, including at least one mano in each cluster, were deliberately grouped together and placed as a unit within the fill. Their general similarity in content suggests shared and persistent memory of the event and the deliberate creation of a material citation between the rooms (Pollard 2008). Accumulating depositional practices are observed in the ashy object-laden content used to fill all three rooms at different points of their life histories.

These practices fulfilled a practical need for disposal, but access, intensity, and duration varied greatly, reflecting important components of village life. For instance, the initial filling of Room 733 with cultural materials intermixed with architectural deterioration and natural fill

reflects a less intensely cultural accumulating deposit than is seen in the other two structures. Lower deposits consist of burned roofing materials and an ashy object-laden matrix whereas the upper fill of the room is dominated by wall fall, naturally deposited sands, and cultural deposits of objects. This break serves to distinguish between two different practices of accumulating deposition as the content and intensity changed. Additionally, the ash cone in Room 733 emblemizes alternating deposition. The cone was created through the layering of at least fourteen thin lenses of alternating green to gray ash and sand (Miljour 2016). This precise pattern required planning and indicates some degree of control was exercised to ensure that proper materials were introduced to the room. These efforts were largely obscured from view, suggesting their significance derived from the production itself rather than direct viewing of the product. The ability to regulate the addition of materials indicates that placement in this space was socially restricted and that the proper composition of deposition was important, although similarities in the materials included in ash cones throughout the villages of the HSC demonstrate a degree of shared and cross-cutting knowledge (Fladd 2018). The objects and care exercised in deposition within these rooms varied through time, but the patterns observed demonstrate the complex social conditions and meanings embedded in depositional practice, such as the purifying and protective qualities of ash at Hopi (Adams and Fladd 2017; Parsons 1939:364).

Object Distributions

Objects and their contexts contribute significantly to our understanding of room and village closure practices. As deposition occurs, rooms and objects become engaged in reciprocal relationships as physicalities, histories, and memories are intertwined. Assessing the objects within rooms, including those within fill, can enhance understandings of the meanings of the space, just as space can aid interpretations of associated objects. Here, we detail the contexts of

ladles and projectile points—recovered in diverse quantities from Rooms 704, 729, and 733—to highlight their contributions to differential depositional practices across H1. Projectile points and ladles were selected given their presence in the three rooms of interest, as well as their abundance and diversity throughout the village. Further, the cultural significance of both endures within contemporary Hopi communities (e.g., Parsons 1939).

Projectile points—initially crafted for hunting, a practice associated with males in Pueblo culture, and associated with lightning (Parsons 1939:126–127, 332; Potter 2004)—are found in compelling depositional contexts throughout the HSC (see also Adams 2016b) as well as the three rooms of interest (Table 3). Room 733, a female gendered space based on the processing (mealing) and storage of corn (Adams 2002; Crown 2000; Heitman 2016; Mobley-Tanaka 1997), contained only one projectile point, placed in a layer of ashy object-laden accumulating deposit added late in the filling of the room. This contrasts with the much higher quantities recovered in Rooms 704 and 729. Points in these rooms were found throughout the fill and in several different contexts, though multiple points were often concentrated within individual deposits.

While most of the projectile point types correspond temporally with the occupation of H1, a late Archaic (Datil) point was found in an ashy accumulating deposit in Room 704 and an obsidian point made to resemble local pre-ceramic point types was found in an accumulating deposit below the wall fall in Room 729. The early date and style of these two points suggest references to the past—early points were considered particularly powerful and valued for ritual use (Medeiros and Vonarx 2016:221), and the repeated placement of projectile points within Rooms 704 and 729 demonstrates shared knowledge of appropriate locations for these objects. It follows that the use of these rooms for ritual and ritual storage was remembered long after initial

decommissioning and projectile points were tied to the social memory of these spaces at H1 (Medeiros and Vonarx 2016).

Across the pueblo, projectile points (Figure 4a) were found in the fill of 45 excavated structures. These objects were deposited in 75% or more of the kivas, ritual, habitation, and ritual storage structures (Table 4). Among excavated structures at H1, only three projectile points occur in the three female-associated mealing rooms. Further, they do not appear in the sole excavated piki room, a female-associated space with a distinctive hearth and whole piki stone (Adams 1983:46; 2002; Dedecker 2005). The vast majority (77%) of projectile points recovered from the village were attributed to culturally formed deposits. Additionally, about one third of these deposits contain some type of ash, which can be used to purify the associated materials or neutralize potential contamination from other objects (Adams and Fladd 2017).

Ladles and ladle fragments were also recovered from contexts across H1, including the three rooms of interest (Table 3). The densest concentration was found in Room 733 with both bowl (8) and handle (11) fragments recovered. This object type occurred throughout the room from floor to surface, including several placed within the ash and sand layered cone found in the center of the structure. The ceramics that could be identified are largely contemporaneous with the village, consisting of Awatovi and Jeddito Black-on-yellow types (Adams 2002). Additionally, one whole ladle was found near the floor associated with the dismantled mealing bin, an association also noted at Chevelon Pueblo (Adams 2016:50). Room 704 contained 10 ladle fragments, evenly split between bowl and handle portions. These are largely Chavez Pass Black-on-red, a type consistent with the early filling of the structure. In contrast, Room 729 contained only one ladle handle located near the surface in an accumulating deposit. Within this

subset of H1, ladles are prevalent in the ritual storage and mealing rooms, but rarely occur in the ritual space.

The distribution of ladles (Figure 4b) throughout rooms at H1 expands upon these initial observations (Table 4). These objects were identified in over half of the excavated structure at H1, including every kiva, mealing room, and piki room. With 30 ladles occurring in one storage room, their deposition appears to have been clustered and restricted to certain areas within the village, likely related to the life history and identity of the objects themselves as well as the associated spaces. Within rooms at H1, ladles (or portions thereof) were found in 145 discrete deposits, 114 (79%) of which were formed through cultural practices. About half of the cultural deposits (53%) also contained ash (Adams and Fladd 2017). Additionally, ladle handles were recovered from ash cones—the predominant alternating deposit—in four different structures, largely dating to the Middle Homol’ovi Phase. The degree of control required to create the patterned ash and sand layers suggests the placement of associated materials was also socially regulated (Fladd 2018).

Ladle fragments were often recovered in association with features in both excavated mealing rooms and the piki room at H1; ladle bowls have been found beneath many mealing bins across the village and involved in distinctive single-event closure deposits, including in association with neonatal burials, at several villages within the HSC (Adams 2016b:206). Ladles can be associated with specific individuals at Hopi and are viewed as female (Leigh J. Kuwanwisiwma, personal communication 2016), potentially explaining their placement with human remains and architectural features linked to female work at H1. Their distribution and concentration in certain rooms (Table 4) suggest prolonged memories associated with these objects informed their postliminary placement and may symbolize ties between the rooms and

female groups who used them. The placement of ladles likely both signify individualized attachments within families and larger female social organizations whose role within society could then be marked through subsequent deposition.

Discussion

Depositional practices at H1 vary greatly within and between spaces, often with single rooms receiving multiple types throughout their closure. Rooms 704, 729, and 733 illustrate this variability, as well as the unique relationships and distinctions that occur among contiguous spaces. Rooms 704 and 729, connected by a doorway and related in their ritual use, contain almost identical single-event deposits in the midst of accumulating depositional practices. In contrast, Room 733 exhibits a distinctive alternating deposit in the form of an ash cone. While an overemphasis on objects can obscure variability in depositional practices, the material content of these rooms helps to further illuminate their meaning and relationships. Projectile points are found in large quantities and throughout the fill of Rooms 704 and 729, whereas ladles are found in the highest quantity in Room 733 and throughout the ashy object-laden matrix in Room 704.

The contents and contexts of deposits in these rooms point to three distinct gender identities. Room 733 is female and embodies women's roles within the pueblo, as evidenced by the processing and storage of corn, as well as the placement of ladles throughout its fill. Room 729 is distinctly male, tied to religious rituals and replete with an abundance of projectile points. Additional ties to males include the presence of a whetstone, bighorn sheep remains, axes, and red-tailed hawk mandibles. In contrast, Room 704 represents a shared gendered space, containing objects identified with both males and females. This duality is clear in the similar

numbers of ladles and projectile points, highlighting its role as a storage room for objects related to both male and female members of society. Whereas the placement of projectile points in Room 729 and ladles in Room 733 were marked by distinctive inclusions in carefully prepared single-event and alternating deposits, these materials largely occurred in accumulating deposits within storage Room 704, suggesting less deliberate care in their placement. Taken together, the deposits in these rooms demonstrate the biographical convergence of gendered materials and spaces, perpetuating Hopi views of social duality and complementarity, as well as the extra care involved in creating these alignments through highly regulated depositional practices. Where the gender of the material and space did not match, the objects were found high in the accumulating fill, indicating once visibility increased, control over material placement may have decreased. Thus, accumulating deposits possess different meaning dependent upon the localized conditions of their placement.

Village-wide patterns of projectile points and ladles also support the often intentional and deliberate placement of materials along gendered lines, patterns that are missed when their deposition is assumed to be inconsequential. In the Pueblos, rooms identified with ritual—ritual rooms and kivas—are largely utilized by and associated with men based on ethnographic homologies and the presence of loom holes indicative of weaving, a culturally male activity (Adams 2002, 2016b; Crown 2000; Heitman 2016; Mobley-Tanaka 1997; Ortiz 1969; Ware 2014). These spaces are generally employed by sodalities, which Ware (2014:124) defines as “male interest groups attempting to enhance their status within and beyond their community.” Female groups are based in mealing/piki rooms, where their activities also contribute to the ceremonial life of the pueblo, often being viewed as complementary to male ritual activities (Adams 2016b:56; Crown 2000; Fowles 2013; Mobley-Tanaka 1997; Whiteley 2015:272).

Throughout H1 and exemplified by the 700s rooms discussed, the placement of projectile points appears to highlight the association of these objects with males and male spaces. Projectile points are regularly encountered in ritual storage rooms, ritual rooms, habitation rooms, and kivas, which mirrors their identification with men. The deposits that contain these objects are predominantly located within accumulating deposits, suggesting continuities in social decisions about placement.

Ladles are found in most room types across H1, including the piki and mealing rooms. While deposition did occur frequently in kivas, the mealing spaces contained the highest density of ladles per room (8.7). Their placement in all kivas and a large portion of the ritual rooms may speak to the complementary nature of ritual practices carried out by males and females (e.g., Fowles 2013; Mobley-Tanaka 1997). Support of ceremonies by women, including the care and feeding of important ritual paraphernalia (e.g., Heitman 2016), may explain the presence of ladles within these male-dominated spaces. Their frequent association with features and throughout the fill of ash cones links the placement of ladles with alternating deposits, potentially tied to regular ceremonial events. The repetitive treatment of these objects suggests a shared view of proper placement that included frequent association with female activities and spaces.

In many ways, deposition is, by its very nature of discarding and covering up materials and practices, a secretive and restricted act in many contexts. However, the continuities encountered across H1 and the careful placement of certain objects suggests that deposition can also represent a shared way of knowing within a community or alternatively a restricted expression of individual/group identity. The H1 example strongly supports the expectations for deposition based on current Hopi perspectives. The correspondence to expected patterns

highlights the value of viewing the practice of deposition as deliberate placement, rather than practical yet careless discard. The Hopi conceptualization of *nanasùngpi* allows for more nuanced interpretations of the archaeological record based on culturally specific understandings of the symbolic meaning of materials and spaces.

Conclusions and Broader Implications

Building on Hopi views, we argue that cultural deposits in Pueblo rooms, regardless of their vertical or horizontal position, cannot be disregarded as meaningless. On the contrary, all deposits should be approached as potential extensions of important social practices and relationships and, as such, culturally meaningful and empirically insightful. The content and context of deposits, when carefully scrutinized, may shed light on the social structure of the community itself, e.g., cultural beliefs or social identities. This perspective highlights the intentionality of the personal and collective choices behind deposition that may otherwise be dismissed and provides a starting point to discuss variability within accumulating deposits themselves based on alternative criteria such as visibility.

At H1, the room fill generally mirrors gendered practices and religious rituals implied by associated architecture, suggesting spaces maintain social significance and connections to particular groups long after their initial decommissioning. Careful scrutiny of room fill is an important way of studying continued relationships with space that extend the life history of rooms and objects beyond use and occupation based on social memory and identity. Although deposits within kivas and other ritual contexts are generally deemed significant (Adams 2016a; Walker 1995), this approach highlights the potential for *all* fill in *all* spaces to represent

meaningful “resting places.” Thus, we argue that deposition, when treated as a central component of archaeological analysis, can deepen and enrich our ability to address questions about past Pueblo societies through the focus on postliminary use and meaning.

Extending beyond the Pueblo Southwest, the implications of the definition of four distinct practices of deposition—single-event, accumulating, alternating, and relocated deposits—are threefold. First, the necessity of considering the social practices involved in the production of deposits rather than treating the deposits themselves as discrete and bounded entities is emphasized (see also MacLellan 2019). This shift in focus highlights formation over form, encouraging further consideration of deposits that are often dismissed under broad and largely un-descriptive labels, such as “trash.” Second, we push back against notions that every day and ritual deposition can and should be segregated in analyses. Through a focus on depositional practice, it becomes possible to highlight similarities in practices such as cleaning an individual hearth and the grouping of rare materials in a foundation deposit. These types of depositional practice provide a starting point from which to further consider how different deposits may be tied to similar social practices within a village through the consideration of factors such as visibility, accessibility, and regularity. Finally, the complex relationship between specific spaces and practices of deposition suggests reciprocal analyses are required to parse out their significance. Further consideration of the locations of deposition and their implications for the formation of deposits can provide insight into the complex ways in which identity and memory are embedded and enacted in place.

Increasing consideration of the practices of deposition that form the archaeological record have already proven fruitful in studies across the world. For example, Düring’s (2005) analysis of house societies in the Central Anatolian Neolithic used the repetitive elaboration of

decorations within the house and the repeated placement of human burials (single-event deposits) to differentiate “lineage houses” from others. Studies of Neolithic Europe have continued to problematize depositional practices through greater considerations of caches (single-event deposits) and their relationships to one another (e.g., Bradley 1998; Pollard 2008; Richards and Thomas 1984). In the Mississippian culture, the social role of depositional practices have been widely explored, including the patterning of light and dark fills in mound construction (Pauketat 2004, 2008), the grouping of materials (accumulating deposit) to symbolically gather a dispersed community, and the ending of such gatherings through the placement of clean fill (single-event deposit) (Kassabaum and Nelson 2016), as well as the movement of mixed materials (relocated deposit) associated with a cyclical ceremony (Nelson et al. 2020). These studies all highlight the role of depositional practice in the social negotiations of identity and memory occurring within their regions. Through the definition of four core types of different depositional practice, we hope to provide a vocabulary through which these considerations may be discussed more explicitly across regional divides.

While our approach emphasizes the involvement and perspectives of descendent communities, the archaeological value of considering depositional practices as important aspects of symbolic and social negotiation extends beyond the U.S. Southwest, as illustrated above. Humans inevitably dispose of materials, but where, how, and what gets placed together reflect social and symbolic structures. While focus on the context of burials or prestige items has long been common in archaeological practice, sharpened attention to the practices of deposition, including disposal of everyday objects, can provide new insights on the social components that guided their placement and the reciprocal creation and/or contestation of meaning for the spaces involved in these practices. Careful documentation of depositional patterns, regardless of intra-

village context, can greatly enhance the abilities of current and future researchers to interpret the social conditions of past populations.

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Data Availability Statement

Data discussed in this paper are currently available through the Homol'ovi Research Program at the Arizona State Museum in Tucson, Arizona. These data will be made available on the Digital Archaeological Record (tDAR) in 2021.

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Notes

1. Absolute dates determined by ^{14}C were compared to the production dates of three White Mountain Red Ware types and two Roosevelt Red Ware types within Kiva 279 at Chevelon Pueblo (Cutright-Smith and Barker 2016:127–128). The ^{14}C dates corresponded with the production dates in all but one case, which was likely an heirloom vessel.

Figure Captions

Figure 1. Map of the Homol'ovi Settlement Cluster.

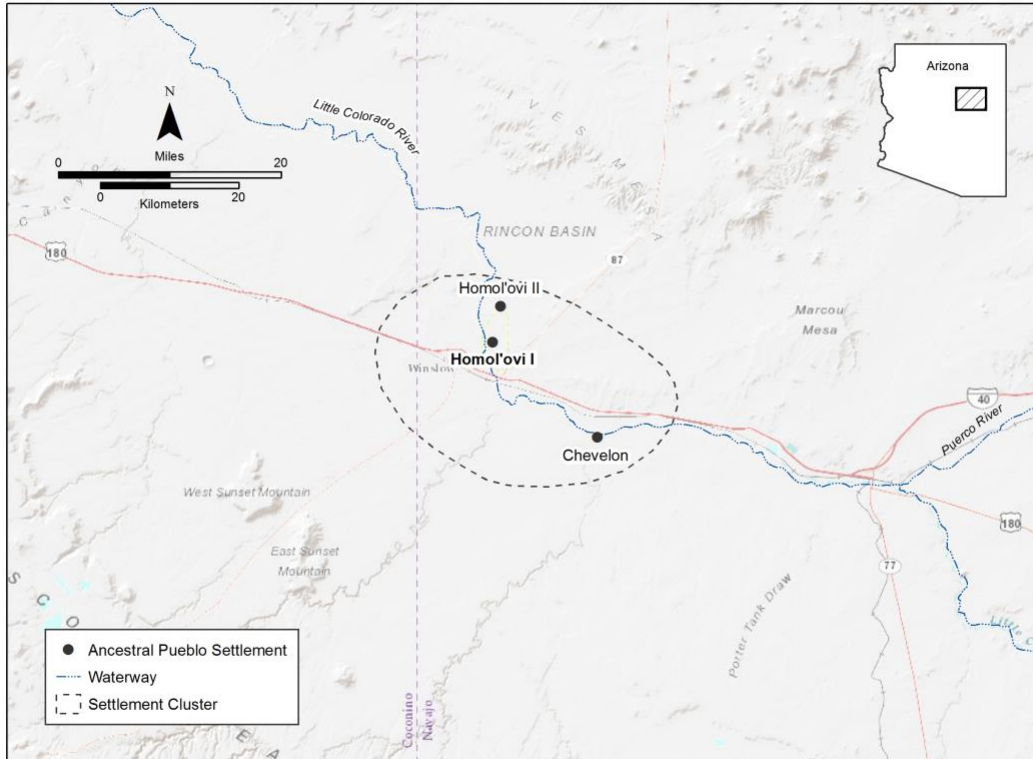


Figure 2. Plan map of Homol'ovi I highlighting rooms 704, 729, and 733, as well as respective proportions of projectile points and ladles.

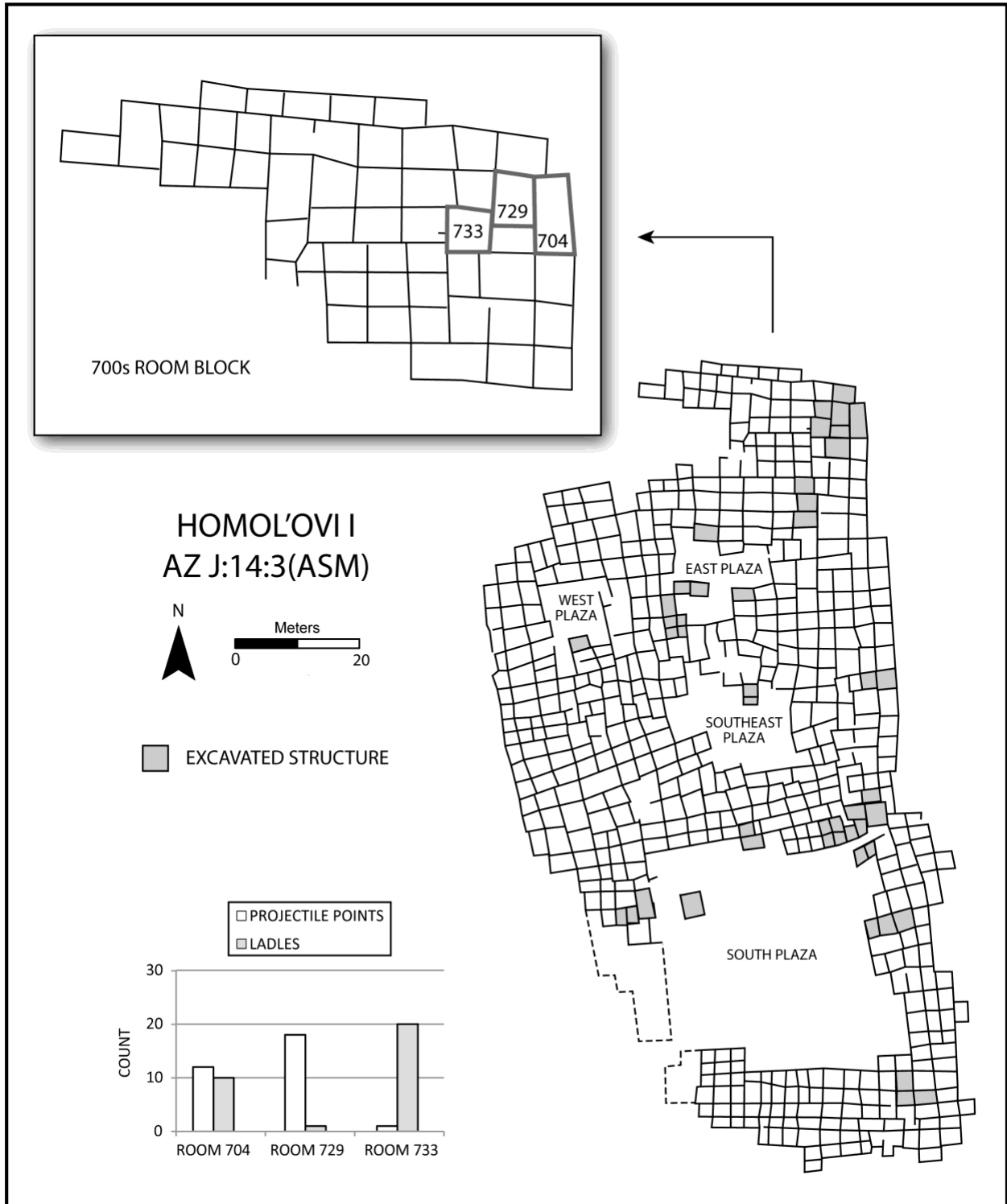


Figure 3. Profile maps of rooms (a) 704, (b) 729, and (c) 733.

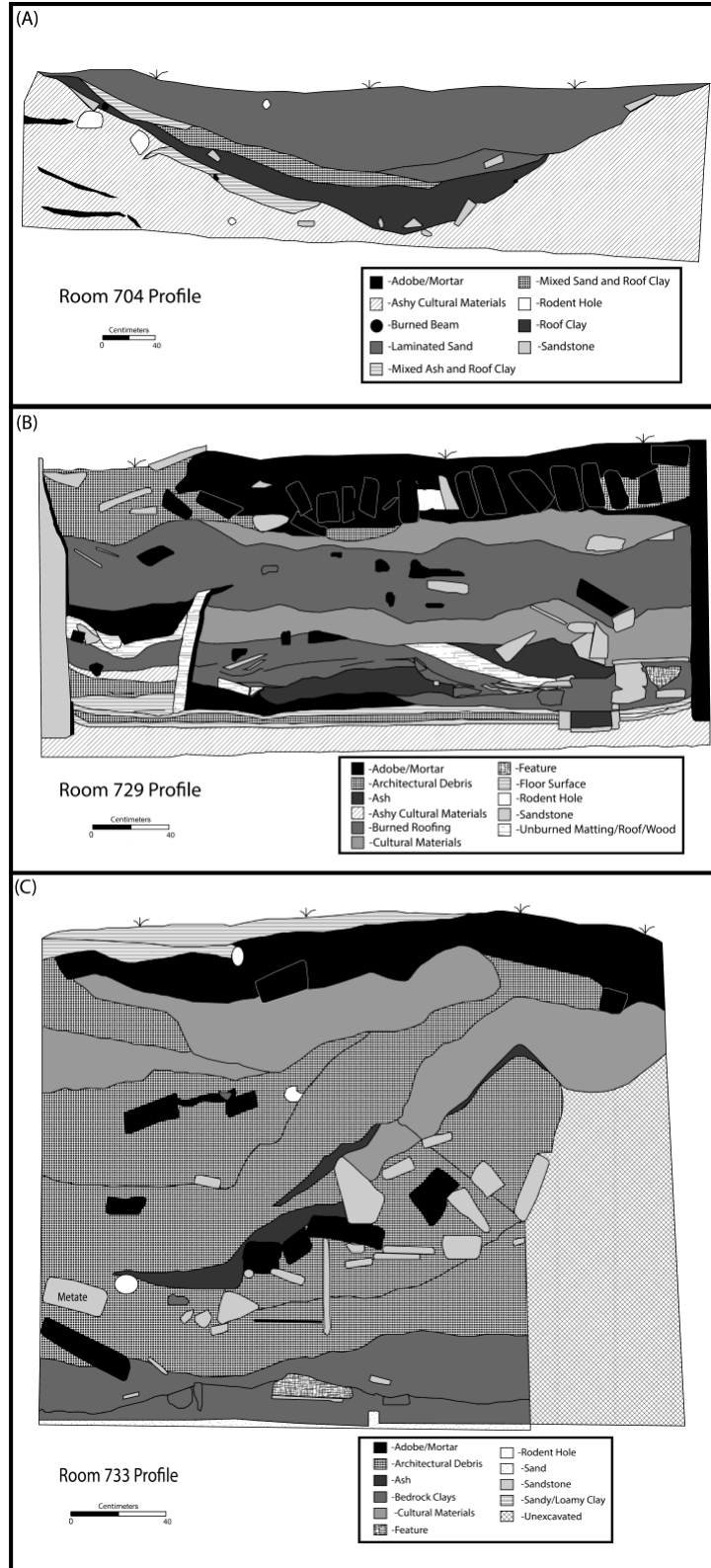
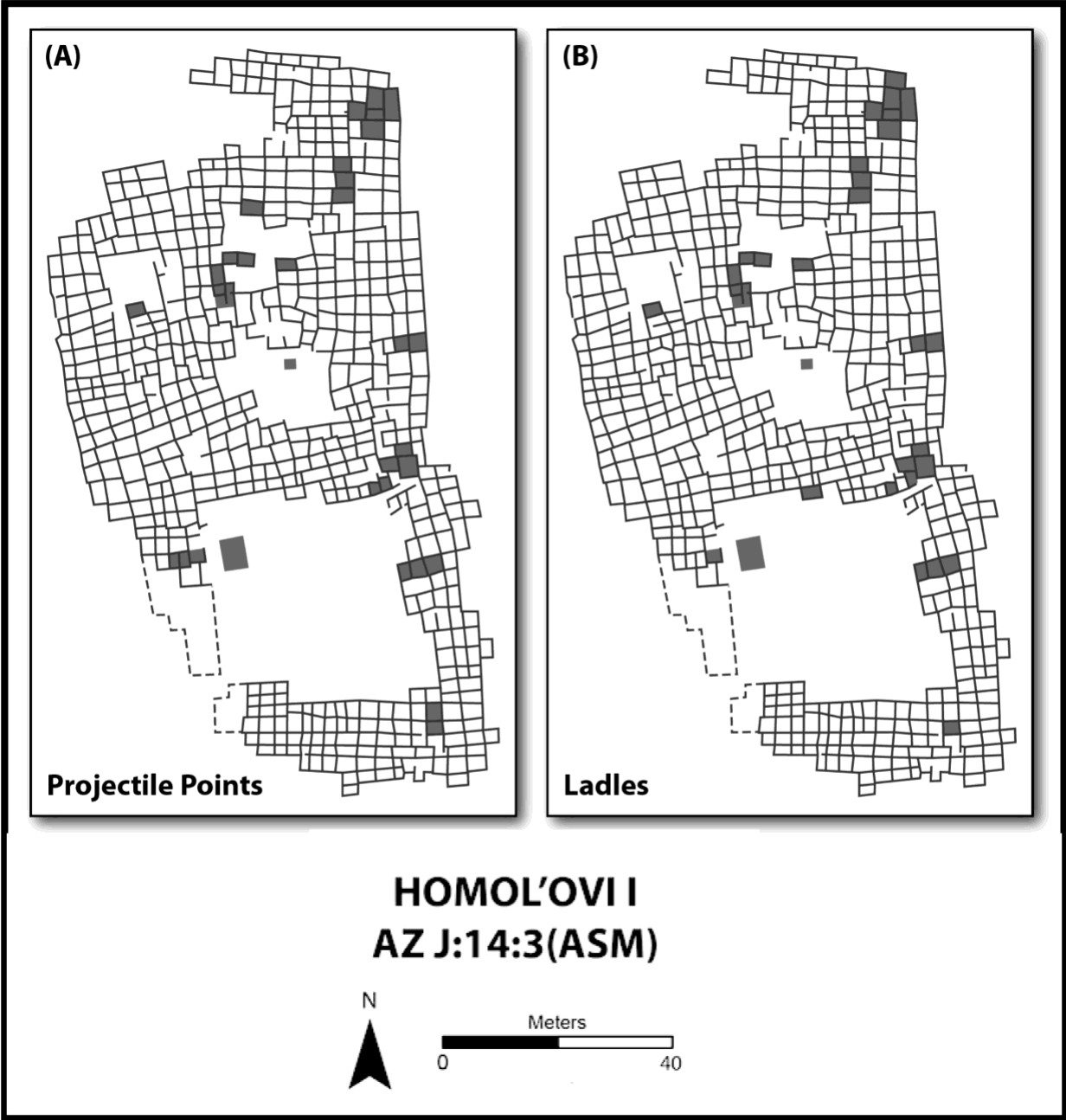


Figure 4. Plan map of Homol'ovi I showing the distribution of (a) projectile points and (b) ladles.



List of Tables

Table 1. Homol'ovi ceramic phases (LaMotta 2006:Table 2.1).

Ceramic Phase	Approximate Dates (AD)	Percent Jeddito Yellow Ware in Deposits (%)
Late Homol'ovi Phase	1385–1400	60–100
Middle Homol'ovi Phase	1365–1385	40–59.9
Early Homol'ovi Phase	1330–1365	1–39.9
Tuwiuca Phase	1290–1330	0

Table 2. Types of Deposits Recorded within Excavated Structures at Homol'ovi I

Room Deposit Type	Count	Percentage (%)
Arbitrary	159	8
Architectural	460	23
Artifact Cluster	4	0
Between Floor	36	2
Cultural	434	22
Disturbed	80	4
Feature	371	18
Natural	171	9
Subfloor	39	2
Floor	166	8
Floor Fill	85	4
Unspecified	4	0
<i>Total</i>	<i>2009</i>	<i>100</i>

Table 3. Projectile Points and Ladles found in Rooms 704, 729, and 733.

Room	Type	Fill	Projectile	Projectile	Ladles	Ladles/Volume
		Volume	Points	Points/Volume		
		(m ³)	(Count)	(Count/m ³)	(Count)	(Count/m ³)
704	Ritual Storage	25.7	12	0.5	10	0.4
729	Ritual	11.5	18	1.6	1	0.1
733	Mealing	5.8	1	0.3	20	3.4

Table 4. Distribution of projectile points and ladles at Homol'ovi I

Room Type ^a	Number and Percent of Excavated Rooms	Expected Number of Artifacts per Room Type ^b	Actual Number of Artifacts per Room Type	Average Number of Artifacts per Room	Number and Percent of Rooms with Artifact
<i>Projectile Points:</i>					
Habitation	9 (13%)	30	41	4.6	8 (89%)
Kiva	4 (6%)	13	22	7.3	3 (75%)
Mealing	3 (4%)	10	3	1.0	2 (67%)
Piki	1 (1%)	3	0	0.0	0 (0%)
Ritual	8 (11%)	26	32	4.6	7 (88%)
Ritual Storage	5 (7%)	16	25	5.0	5 (100%)
Storage	23 (33%)	76	96	6.0	16 (70%)
Indeterminate	17 (24%)	56	11	1.8	4 (24%)
Total	70 (100%)	230	230	5.1	45 (64%)
<i>Ladles:</i>					
Habitation	9 (13%)	27	19	4.9	7 (78%)
Kiva	4 (6%)	12	32	8.0	4 (100%)
Mealing	3 (4%)	9	26	8.7	3 (100%)
Piki	1 (1%)	3	1	1.0	1 (100%)
Ritual	8 (11%)	24	27	3.9	7 (88%)