Introduction

The Deposition and Manipulation of Ash in the Past

E. Charles Adams and Barbara J. Roth

This volume focuses on the deposition of ash and its varying meanings as part of depositional processes across North America. Ash and its companion, fire, are often ubiquitous and can take many forms depending on the context and meaning associated with their deposition. The symbolic substitution of ash for fire often results in ash taking on multiple meanings in protection, ritual closure, and cleansing. Because ash is essentially inert, it persists in the archaeological record, a quality not lost on societies in the past. The transformative power of fire and ash documented ethnographically and ethnohistorically by many Native American cultures illustrates that ash played an important role in many domestic and ritual activities, which suggests it played a similar role in the past. The chapters in this volume examine the multiple contexts where ash can be found in the prehistoric record and explore the concomitant multiple roles that ash played. They highlight the importance of the patterned deposition of ash as a social practice.

Ash appears in the archaeological record in many forms, reflecting its many social roles (Adams and Fladd 2017). One approach to understanding the social role of ash deposition is that of social stratigraphy, an approach introduced by McAnany and Hodder (2009) that provides an alternative means to understanding the deposition of both materials and sediment. This theory emphasizes that individual deposits within a unit of deposition are related both physically and socially. Thus, social stratigraphy broadens the focus of analysis to include the order and association of the depositional content and placement as reflecting social decisions; what was deposited before and after affects the meaning and social understanding of any individual deposit. This allows for the investigation of variability in deposits as representations of different social practices mediating relationships among people, materials, and spaces (see also Pollard 1995).

Unlike object-agents that animate the material world of traditional societies past and present (Alberti and Bray 2009), and which are distinctive to those traditions (for example, objects of pottery, stone, or bone), ash and fire are universal elements of human society. Fire is used for cooking, heating, or transforming material from one state to another, such as clay to pottery or wood to ash. Ash is transformed by fire and in turn is seen as having transformative properties. Thus, ash can serve as an agent of change.

For example, in the Marakwet tribe of Kenya (Moore 1982), ash can be a metaphor or mnemonic for an actor (female) or action (cooking) and simultaneously represent destruction (burning) and life (female and birth). Due to its potential for harm—causing infertility or even death—ash is disposed in socially specified and structured ways. In contrast, a fertile woman can cover herself in ash to deny a suitor (Moore 1982: 78), providing object-agency to ash. Even in its prescribed disposal fifteen meters from the house, ash is an active agent in the lives of the Marakwet.

During winter ceremonies at Zuni Pueblo in New Mexico, ash may not be removed from any house for a period of ten days lest the family fields suffer from drought (Parsons 1939: 573). Following the ceremony, ash must be handled by a woman and sprinkled on the ground before refuse accumulated over the same period can be deposited (Parsons 1939: 516). All Pueblos in the Southwest pass embers along the walls of homes to cleanse them from trouble and witchcraft before discarding them outdoors (Parsons 1939: 517). In all instances, ash is the first line of defense against witchcraft among Pueblo groups (Parsons 1939: 464). Typically, the remains of burned witches are deposited in designated areas (Parsons 1939: 730). Some Pueblo groups have ash piles where spiritually contaminated objects or fluids are discarded. Ash is also a central element in exorcism (Parsons 1939). The central role of ash in causing or preventing harm yields the need for its careful disposal.

The act of introducing ash, almost certainly as an acknowledged by-product of and metaphor for fire and its transformative properties, invokes agency of individuals or groups, as well as objects bundled with these ashy deposits (Pauketat 2013). The chapters that follow detail the cross-cultural occurrences of these practices (see table 0.1 below). Importantly, they also highlight the manipulation of ash distinctive to their circumstance and show that modification of deposits by the addition of ash is intentional and transformative. The addition of ash can symbolize transformation from the living to liminal world, intentional erasure or forgetting of the past, or be symbolic of events or places (Mills 2008; Plunket 2002; Twiss et al. 2008; Whiteley 1998). Ash can provide structure to social practices with its repeated occurrence in mounds, houses, features, or their filling (sensu Giddens 1984). Within such social structure, ashy deposits can also be modified through bundling with objects, humans, or even adjacent deposits (Ortmann and Kidder 2013).

Table 0.1. *Manipulation of Ash Described by Authors.*

Use of Ash	Ethnographic/ Historical Examples	Archaeological Examples	Authors
Hearth ash	Pueblo, Ute, Zuni, Cherokee, Iroquois	Domestic, community, and ceremonial hearths	Adler, Fladd et al., Fox, Rodning, Roth, Ryan
Ash enlivens	Maya, Pueblo	Bundled with other objects or adjoining deposits – see bundling of ash below	Baltus & Baires, Claassen, Fitzsimmons, Fladd et al., Ryan, Walker & Berryman
Ash cures/ heals	Pueblo (Hopi, Zuni, Tewa, Zia), Navajo, O'odham, Iroquois, Caddo, Aztec	Hearths, with turquoise, with projectile points	Adler, Fladd et al., Fox, Kay, Roth, Walker & Berryman
Ash transforms/ renews	Maya, St'át'imc, Nlaka'pamux, Cherokee, Iroquois, Dakota, Aztec	Covers occupation surfaces, below surfaces where new communal structures are built, covers burnt offerings	Adams, Baltus & Baires, Claassen, Fitzsimmons, Fladd et al., Fox, Prentiss et al., Rodning, Roth
Ash purifies	Pueblo, Ute, Maya, Hopi, St'át'imc, Tewa, Nlaka'pamux, Aztec	Cover burials, cover "bloody and filthy" objects, cover powerful objects	Adler, Claassen, Fladd et al., Fitzsimmons, Prentiss et al., Ryan, Walker & Berryman
Ash protects/ closure	Pueblo (Acoma, Hopi, Zuni, Tewa, Zia, Laguna), Ute, Navajo, O'odham, W. Apache, St'át'imc, Nlaka'pamux, Cherokee, Iroquois, Caddo, Aztec	Cover burials, cover powerful objects or spaces, block entrances or exits of ritually powerful or mortuary spaces	Adams, Adler, Fladd et al., Fox, Kay, Prentiss et al., Rodning, Roth, Ryan, Walker & Berryman
Ash transitions	Pueblo, Cherokee	Cover burials, cover surfaces to be repurposed	Adler, Baltus & Baires, Kay, Prentiss et al., Rodning
Ash as fertility	Pueblo, Hopi, Cherokee, Dhegihan	Gendered areas such as rock shelters, hearths	Adler, Baltus & Baires, Claassen, Fladd et al., Rodning
Bundling of ash	Pueblo (Zuni, Hopi, Acoma), Navajo	Manos (corn grinding), animal bone, palettes, projectile points, pottery, turquoise, tobacco, red cedar	Adams, Baltus & Baires, Fladd et al., Roth, Ryan, Walker & Berryman,
And social memory	Hopi, Maya, Navajo	Destruction of objects associated with closure	Adams, Fitzsimmons, Fladd et al., Ryan
Ash as food	Zuni, Maya, Iroquois	Left in hearths – usually maize or animal bone	Baltus and Baires, Fitzsimmons, Fladd et al., Fox
Color symbolism	Iroquois, Caddo	Colors of ash important in Caddoan charnal houses, rock shelters used by women	Claassen, Fox, Kay
Gendered	Hopi, Cherokee, Dakota	Rock shelters, hearths	Claassen, Fladd et al.
Disposal outside village	Pueblo, Cherokee	Ashes usually associated with evil or witchcraft	Adler, Rodning

Ash Deposition

Archaeological ash is present as a result of human action. Ash can either be a byproduct of daily activities, such as cooking, or a ritually meaningful deposit, depending on where and with what it was deposited.

In general, ash is present as either primary or secondary deposition (sensu Schiffer 1976, 1987). Primary deposition means ash is located where it was initially created through fire. Common examples are ash within hearths, firepits, or other thermal features. Presumably this ash is a result of fires burned in the feature; however, hearth ash often exhibits other characteristics associated with its use in a more ritualized manner. For example, at a fourteenth-century ancestral Hopi village in northeastern Arizona, Miljour (2016: 127) has documented the purposeful filling of hearths, following cessation of their use, with multiple colors of ash. Hearth ash has a particularly meaningful role for many of the chapter authors as either a means of closing a structure or as a portal for accessing and sometimes feeding ancestors by leaving real or symbolic food (Adler, chapter 5; Baltus and Baires, chapter 7; Fladd et al., chapter 4; Fox, chapter 9; Rodning, chapter 8; Roth, chapter 1; Ryan, chapter 3).

Another source of primary deposition of ash is from structural fires, usually roofs made of combustible material. In the Pueblo Southwest, for example, roofs are made of wooden beams covered by brush and grass. When the fire is hot and of long duration, the smaller elements of the roof are reduced to ash. These primary deposits will occur on floor surfaces or within the fill of structures, usually associated with larger burned elements of the roof. With structural fires, there is a question of intentionality and purpose. Occasionally structural fires can be accidental or caused by non-human factors, such as forest or grass fires (Lally and Vonarx 2011). More often, fires were intentionally set for one of a host of reasons: (1) to rid the organic roofing of infestations of insects or rodents (and other practical motives) often resulting in reuse of the structure; (2) to burn in a hostile manner, via acts internally or externally derived; (3) to serve as closure due to social factors (migration is an example); (4) to provide physical safety (burning organic remains of abandoned buildings); or (5) to prepare ritualistic space for spiritual purposes due to a death in the family or religious practices concerned with ancestors. Discerning the reasons for structural fires is usually done using other elements of the archaeological record to contextualize the event; for example, objects may be placed on floors or within features prior to or after a structure is burned (Icove et al. 2016; Lally 2005; Lally and Vonarx 2011; Twiss et al. 2008). Ash, then, is usually perceived as a fiery byproduct of burning and is imbued with the transformational powers that fire brings (see Adler, chapter 5; Fitzsimmons, chapter 13; and Prentiss et al., chapter 6).

Ash associated with fires from primary sources, while common, is a minor element of the quantity and diversity of archaeological ash. The vast majority of ash is a result of secondary deposition, meaning ash has been moved from the site of its original production to another location. Secondary deposition can appear random and uniform, sometimes characterized as "ashy fill," but just as often it can be concentrated into lenses or layers (Adams and Fladd 2017). Critically, these ashy deposits may occur in only limited architectural spaces and with suites of other behaviors manifest in associated objects or non-ashy deposits. Thus, its context as well as its composition is critical to understanding the role ash plays in the creation of the deposits (McAnany and Hodder 2009; Miljour 2016; Ortmann and Kidder 2013). One underappreciated element is the color of ash, because color can be manipulated, appearing often in the same depositional sequence as yellow, green, gray, or black (Miljour 2016). The ability to control its color encouraged its use as a coloring agent in complex, often foundational, deposits (Ortmann and Kidder 2013) or as a coloring agent and nutritional additive to many maize-based recipes as described by Baltus and Baires (chapter 7) and Fox (chapter 9).

The secondary deposition of ash is rarely random or socially meaningless. Its removal from primary deposits implies intentional cultural practices important and meaningful to members of the society, and the manipulation of ash usually occurred in culturally prescribed ways. For example, during the Hopi New Fire Ceremony (Fewkes 1900), four powerful religious societies rekindle fire in their ceremonial structures and deposit the ash in the direction of ancestral homes to harken the start of a new ceremonial year while invoking social memory of the community's ancestral homes.

Ash as an Agent of Change

The use of ash in the transition and/or transformation of a variety of features is consistent across a wide variety of site types and locations. Its association with fire is the powerful subtext of ash's agency, and, as described below and in the chapters to follow, this association offers powerful protection, purification, transformation, and potential for renewal.

Globally, ash's association with fire inherently embodies it with transformative properties, which are often associated with purification and protection. Ash can therefore be used to transform spaces from one state of being to another (Grove and Gillespie 2002; Manzanilla 2002; Plunket 2002; Twiss et al. 2008; Whiteley 1998). The use of ash for transformation and purification is often linked to concepts of renewal or closure. Activities surrounding deposition of ash in these cases can result in the

destruction of objects and areas that are considered to be spiritually contaminated or that pose a danger to the uninitiated who are not able to protect themselves (Titiev 1944: 106; Walker 1995). Ash can be used to seal or cover lower deposits containing dangerous objects—usually sacra discarded in decommissioned religious structures or in mortuary contexts within or outside structures. It can also be used as a means to cleanse and renew. Thus, fire and ash, as symbols of transformation, serve as agents of change. They are used to end one chapter and begin the next in the life history of a hearth, building, or community.

One final aspect of ash deposition is its association with social memory. Ash frequently appears multiple times in complex deposits associated with the repeated use of objects, signifying knowledge of previous practices associated with a particular space. For example, the burning of Neolithic structures dating back seven to nine thousand years in southeastern Europe and the Near East has been characterized as creating permanent memories materially manifested in deposits of ash and charcoal in important places, serving to strengthen community identity (Tringham 2005; Twiss et al. 2008).

The Chapters

The chapters in this book focus on the deposition of ash and its purposeful manipulation by societies across North America. All the cases presented here show that ash, whether associated with primary deposition and fire or manipulated secondary deposits, held deeper meaning beyond simply burning down an infested roof, cooking, or other uses connected to daily practice. Instead, ash served alternative functions usually associated with domestic or communal ritual.

The chapter authors rely on archaeological context, historical documents, ethnographic accounts, or first-person experiences to describe the use of ash to protect, close, transform, renew, and purify. These important uses of ash explain its presence in hearths; pits; domestic, community, and ceremonial structures; exterior spaces; burials; and more. Whether combined with artifacts or other deposits, ash alters the purpose or intent of the object(s), space, or event. Ash even has traits of color (Claassen, chapter 11; Kay, chapter 10), odor (Fitzsimmons, chapter 13), and gender (Claassen, chapter 11; Fladd et al., chapter 4) that influence its actions. It is the inscription of ash with the transformative power of fire that enables its animation and active engagement with human and nonhuman actors.

The chapters also highlight the use of ash as a protective agent in ritually closing domestic, community, and ceremonial structures, burials, pits, rock shelters, and mortuary spaces. Many of the authors note the impor-

tance of ash as an agent of renewal and transformation, such as from the mundane to the sacred or as regeneration. Related to this concept is ash, again symbolizing fire, used to purify spaces, features, or structures. This is particularly apparent in Claassen's (chapter 11) interpretation of the burning of bundled objects associated with women's menstruation and giving birth, resulting in "blood and filth," necessitating the use of white ash to cover and purify these deposits in rock shelters in the eastern and western United States.

Chapter Organization

The chapters are divided into two sections. Part I includes nine chapters that address the role of ash and fire as transformative agents used in ritual closure and transformation in the United States (Southwest, Midwest, Southeast), British Columbia, and Ontario.

In "Ash Matters: The Ritual Closing of Domestic Structures in the Mimbres Mogollon Region," Barbara Roth examines the role that ash played in the ritual closure of domestic structures using data from pithouse and pueblo sites in the Mimbres region of southwestern New Mexico. Her data show that ash was used to close the lower floors of superimposed houses, that ash-filled hearths represent the final closure of pithouses, and that ash was used in particular burials, generally those associated with important households in the community. She argues that the use of ash in these contexts represented both closure (ash-filled hearths) and renewal (ash layers between superimposed floors).

In "Complex Closure Practices Involving Ash at a Small Pueblo in Northeastern Arizona," E. Charles Adams argues that ash was essential in the transformation of a small village in northeastern Arizona from a living community to its afterlife. The integral role of exterior space to the life (and afterlife) of the pueblo documented in his chapter is a reminder that more of pueblo life was spent outside pueblo rooms than inside them, and that the manipulation of ash was not solely confined to structures.

In "Sequencing Termination Events: Preparing Hearths for the Ritual Decommissioning of Ancestral Pueblo Pit Structures in the Northern U.S. Southwest," Susan C. Ryan uses data from multiple ancestral Pueblo sites in the Mesa Verde region of southwestern Colorado to examine how kiva hearths were ritually prepared prior to termination of the structure. Ryan argues that burning was an esoteric, transformative process that converted matter from one form to another, making communication of a termination event visually potent.

In "Symbolic Associations: Assessing the Co-occurrence of Ash and Turquoise in the Ancient U.S. Southwest," Samantha Fladd, Saul Hed-

quist, E. Charles Adams, and Stewart Koyiyumptewa argue that ash provides a ritually meaningful medium through which to alter or close spaces. In the U.S. Southwest, the patterned deposition of ash in archaeological contexts has been linked to practices of purification and the preservation or suppression of social memory. Turquoise also carries important symbolic meanings in the region, with notable links to moisture, sky, and personal and familial vitality. In archaeological contexts of the Pueblo Southwest, turquoise is often associated with ash or related features like hearths, suggesting an intentional link. This material linkage may represent a broader North American pattern.

In "Fire, Ash and Sanctuary: Pyrotechnology as Protection in the Precolonial Northern Rio Grande," Michael Adler contextualizes the use of fire and ash as part of a larger suite of practices used to protect past, present, and future occupants of villages from malevolent "others" across the pre- and postcolonial northern Rio Grande region of New Mexico. Like Adams, Adler sees the use of fire and ash as a crucial aspect of the transition of domestic and ritual structures from the living to the afterlife.

In "Burned Roofs and Cultural Traditions: Renewing and Closing Houses in the Ancient Villages of the Middle Fraser Canyon, British Columbia," Anna Marie Prentiss, Ashley Hampton, Alysha Edwards, Ethan Ryan, Kathryn Bobolinski, and Emma Vance draw on multiple data sets to develop conclusions on the history of (re)roofing Housepit 54 at the Bridge River site in British Columbia. They suggest the large-scale burned roof deposits typically found at housepit villages in the mid-Fraser region are representative of rituals designed to close and renew the life of a house, which is considered a living entity.

In "Agentive Ash and Dispersed Power in the Cahokia Mississippian World," Melissa Baltus and Sarah Baires draw on indigenous knowledge and tradition to show that fire was a transformative agent in the midcontinental prehistoric city of Cahokia. The power of fire and the communicative abilities of smoke are used in reconstructing the meaning of burning events in various archaeological contexts at Cahokia. The authors argue that ash was an active transformative agent, specifically focusing on the "gathered" or "assembled" nature of ash in conjunction with other burned materials and spaces.

In "Townhouses, Hearths, Fire, Smoke, Ash, and Cherokee Towns in Western North Carolina," Christopher B. Rodning also examines the remnants of fire and smoke—including ash—which were substances handled with care and carefully emplaced at particular points within the built environment of Cherokee towns in the southern Appalachians. Rodning considers evidence from both oral tradition and archaeological sites in addressing the agency of fire, smoke, and ash.

Finally, in "Ash as an Agent of Transformation in Iroquoian Society," William Fox examines ethnographic and historically documented Iroquoian domestic and ritual activities involving ash. These groups associate ash with curing rituals, protection, and a means to connect the mundane to the sacred. He uses data from Ontario Iroquoian longhouse features to compare archaeological and ethnographic evidence from New York State and the Southeast.

Part II contains four chapters that examine the ritual use of ash more broadly, using examples from the Plains, Great Basin, U.S. Southwest, and Mesoamerica. In "Ashes to Ashes, Dust to Dust in Caddoan Mortuary Ritual," Marvin Kay considers Caddoan mortuary rituals where sediments of varied textures and colors, including ash, were used in sometimes complex ways. Ash was retained from deliberately burnt charnel houses and then layered with dense black clay or a black charcoal layer from a burnt thatch-and-cane roof in mound construction. Kay argues that smoke emanating from a fire and its ash signified the passage of souls to the upper world and of life resurrected from death, whereas the black underlayer was a metaphor of death.

In "Ashes for Fertility," Cheryl Claassen examines evidence from caves and rock shelters in the Southeast and the Great Basin, paying particular attention to the contexts of ash deposits found in them. She argues that because women's work groups used the caves, the inevitable objects resulting from menstruation and giving birth, which ethnographic groups associate with "blood and filth," had to be burned, and the association of white ash with purification, renewal, and transformation made it appropriate for covering these deposits, leading to the abundance of ash in these shelters.

In "Ashes, Arrows, and Sorcerers," William Walker and Judy Berryman argue that strata of ash and projectile points deposited on floors and in the fill of abandoned houses in pueblos in southern New Mexico may derive from protective magic in response to malevolent power. In the ethnographic record of the American Southwest, ash and projectile points offer protection against death and sickness caused by witchcraft and sorcery. The authors argue that perhaps the use of ash and arrow points in the ritual closure of pueblo rooms served prophylactic functions to protect these places and their former occupants from harm.

In "Divine Food and Fiery Covenants: The Significance of Ash in Ancient Maya Religion," James L. Fitzsimmons provides an overview of the use of ash in ancient Mesoamerica, particularly within the context of mortuary behavior. He notes that peoples of ancient Mesoamerica frequently engaged in fiery ceremonies, viewing fires as sources of heat and life, light and power. As a result, they used fire not only to purify but also to vivify places, including shrines and burials. They also opened, purified, and

closed these spaces, leaving behind burned layers and deposits of ash. The ash deposits provided proof to subsequent visitors of prior religious practices and strengthened their connection to gods and ancestors.

Conclusions

This book explores the properties, uses, meanings, and cross-cultural patterns in the deposition and manipulation of ash as it relates to ritual closure, social memory, and cultural transformation. The chapters in this book document these practices in areas covering all of North America, paralleling the manipulation of ash in association with burning/fire in the Old World (Mentzer et al. 2017; Tringham 2005; Twiss et al. 2008). Thus, using ash in ritual practices and viewing it as an active agent in transformative behavior regarding humans, structures, features, and objects is a practice going back thousands of years, and includes hunting and gathering as well as farming communities and simply to complexly organized societies. This book is intended to highlight practices involving ash and to encourage archaeologists to be more aware of the active role ash deposition played in creating the archaeological record.

Acknowledgments

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