Ritualized Animal Use in an Early Kiva

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In the Northern San Juan drainage during the A.D. 900-1030 period, population levels were low in comparison with other times of Puebloan occupation (Lipe et al. 1999:253). Most of the people who did not leave the area by the end of the ninth century were living in small settlements of one or two households and were relatively dispersed across the area. Only a few large communities have been identified. One of these, Champagne Spring Ruins (5DL2333), is located on upper Squaw Point near Dove Creek, Colorado. In 2003, with the aid of a grant from the Colorado State Historic Preservation Office (Dove et al. 2006: iv), a project to assess the site was undertaken.

The main ruins lie on two hilltops near the head of Squaw Canyon, approximately seven miles south of Dove Creek, Colorado. Remote sensing studies conducted in 2003 and 2004 indicate the sites include approximately 50 kivas or pit structures and 250 surface rooms including a Great Kiva and one 6-meter over-sized pit structure (see Figure 1). Tests of the North and South Hill room blocks indicate that a significant number of rooms or pit structures lie beneath later buildings.
Several methods of remote sensing were employed during the 2003-2004 assessment of the sites (Hensen 2006: 21-31). The magnetic cesium gradiometer was the most effective for detecting subterranean features and structures. Data generated from these scans proved to be substantially reliable and it helped guide subsequent excavations. The summer 2011 work on the North Hill was designed to provide information on site formation, function and chronology in this section of the site where the architectural footprint around the Great Kiva is notable. A group of six early kivas or late pit structures on the west and north side of the Great Kiva (see Figure 2) have been the focus of recent testing. With the exception of Structure 34, all had burned. They are bounded on the west and south by large room blocks. Directly east of these pit structures/kivas lies a burned surface structure built on a northeast to southwest alignment which varies from the typical architectural layout at Champagne Spring. In 2008, test excavations in five of these buildings were made to further evaluate the site chronology, architecture, and ceramics. Profiles developed from this work indicated that all were probably built within a one hundred and fifty year period (A.D. 900-1050).

Figure 2 - Some of the North Hill Structures Tested
This brief report focuses on Structure 34 which is located roughly seven meters west of the Great Kiva. It was an early form of kiva. The 2008 test exposed a portion of the building’s hearth as well as a central floor vault which was constructed on the north-south axis across the center of the structure. On the south side of the vault and spread across the southern third of the excavation unit were the formally buried articulated remains of a turkey, two dogs and a cottontail rabbit (Lyle 2008).

Animals were important to prehistoric Puebloans for multiple reasons. Turkeys could provide feathers, eggs, or a source of protein. Dogs could be used for hunting, defense, early warning, fur, companionship, and possibly, a meal (Lang et al. 1984:88). In some regions, dogs, turkeys, and other animals were buried with more frequency than we find in the Northern San Juan.

Favored locations for burying turkeys were structure pits, ventilators, pit structure fill, and more rarely on pit structure floors. Animal burials on structure floors are likely related to ritualized structure closings.

Up until the early PII period in the Mesa Verde region, turkey burials were not a rare occurrence but they apparently were also not common (Driver 2002:154). As artiodactyl populations were depleting toward the middle Pueblo II times, the turkey became a more important source of food and were buried even less frequently (Driver 2002:156). Eric Reed’s work in Mancos Canyon in the 1950’s convinced him that turkeys were kept for feathers until about A.D. 900 and were used as a food source thereafter (Reed 1958). Windes work in Pueblo Alto suggests they may not have become a food source there until the early A.D. 1100’s (Windes 1987:687). Turkey bones with evidence of processing for consumption are present but rare in pit structure and kiva midden deposits at Champagne Spring. It appears they were eaten but were never a primary protein source.

Dog burials were more common than turkeys here and most occurrences date to the A.D. 900-975 period (Emslie 1977:181). Akins (Pojoaque Corridor Project in prep 2011) provides a background of ceremonial animal use and notes (following Frisbie) that dogs may have been treated with higher esteem early on when they were believed to be used for hunting deer. Considered to be a valued food item in some societies, only limited evidence of canid consumption has been found at Champagne.

At the Twin Lakes Site in the southern Chuska Valley, several formally buried cottontails were found in an intramural pit that was apparently associated with a large Basketmaker III community pit structure (Tim Kearns personal communication). They were articulated and intertwined with a golden eagle. Other instances of formally buried rabbits at Puebloan sites probably exist but are either very uncommon or have not previously been recognized as formal burials. Bones from rabbits exhibiting evidence of processing for consumption are commonly found in Champagne Spring structure midden deposits and this is also the case in other regions from Basketmaker through the Pueblo III era.

Additional testing of Structure 34 in the summer of 2011 suggests that the quantity and variety of buried animals represents the elaborated ‘closing’ of one of the village’s ritually important buildings. This kiva was built into a section of the site that appears to have functioned as the ceremonial center of the greater Champagne Spring Community.
NOTABLE FEATURES AND CONSTRUCTION HISTORY OF STRUCTURE 34

As of this writing, tests of the buildings discussed above have only been completed for Structure 34. Chronologically, Structures 35, 36, and 46 pre-date Structure 34 (Figure 2). Nearby Kiva 2, which was probably built in A.D. 1030, postdates Structure 34. Structure 37 also appears to date to around or slightly later than A.D. 1000. All four of the late pit structures incorporate a four post-in-floor roof support system, whereas the final form of Structure 34 used posts placed into an earthen bench (more on this below). Kiva 1, located 70 meters to the east-south-east (Dove et al. 2006: 38-40), was abandoned around A.D. 950-1000 and is morphologically similar to Structure 34 in that it also incorporates an earthen post-in-bench roofing system. This later roofing style was an improvement to the four-post system as it served to add floor space and visibility without increasing material requirements and the overall space beneath the roof. The post-in-bench system was adopted at Champagne Spring by around A.D. 950-975, around the same time corrugated pottery appears in the area. Ceramic evidence from on and just above the floor also suggests an abandonment date of around A.D. 975-1000.

The Structure 34 primary roof supports were moved and/or replaced on at least three occasions.

Figure 3 - Structure 34 looking south
Originally, a four post-in-floor system was installed. It isn’t clear if the post holes which surround the floor were part of that system or part of the next roof, but they may have been used to bridge the distance between the four primary support beams and the exterior of the structure. In a subsequent remodel the bench and upright slabs at the base of the bench were added and the floor supports were removed. A third remodel or reroofing replaced the bench-based roof supports again and moved them 15-20 cm, but still within the bench (see Figure 3).

Structure 34 retained a sub-rectangular footprint although its shape was closer to round than the earlier previously mentioned four-post sub-rectangular pit structures that could be described as resembling the shape of a pear. This kiva was probably a very important building to the community. It had a significantly longer use-life than most contemporary subterranean buildings as it was re-roofed at least three times. Pit structures of the late Pueblo I and early Pueblo II period are believed to have an average life span of 20 years (Mahoney et al. 2000:70).

With the exception of Kiva 3 which was probably built around A.D. 1050-1100, four other tested early kivas or pit structures on the North Hill likely date in the A.D. 900-1025 range and all contain ash pits. Kiva 2 (A.D. 1030 cutting date from its burned roof) was remodeled at least twice. During the final hearth remodel, the ash pit was removed and a slab lined square fire box was built in the same location. In this building, the ash pit fell out of favor by around A.D. 1040.

No tested kiva or pit structure at Champagne Spring used an upright air-intake deflector stone. Instead, pit structures and early kivas used short and thin stones set upright and vertically into adobe. This feature provided the boundary between the ash pit and the hearth. To deflect the incoming air from the vent shaft, these stones may have supported a mobile rock slab, the base of which could have been held in place by the contents of the ash pit. Such a feature was incorporated into Structure 34 (see Feature G-2 on Figure 3).

Sipapus have a long history as Puebloan pit structure or kiva ritual features. Ethnographic accounts of features resembling the prehistoric sipapu describe them as a symbol of the Puebloan place of origin. Wilhusen identified three varieties of sipapus from the large scale excavations of Pueblo I pit structures during the Dolores Archaeological Project (Wilhusen 1989:100). Simple and complex sipapus were common features in average sized structures whereas central vault and lateral vault sipapus were primarily found in much larger structures averaging 34.2 square meters of floor space (Wilhusen 1989:102). In the Northern San Juan drainage, they were commonly built into large subterranean community buildings from Basketmaker III through Pueblo III times. Central and lateral vaults or roofed sipapus are occasionally found in smaller pit structures and kivas.

Structure 34 is an average sized early kiva with approximately 18 square meters floor space. It isn’t clear if central and lateral vaults were generally found in larger structures because the rituals associated with it were ordinarily performed in front of large groups, but this association would seem to suggest as much. Rituals involving roofed sipapus may have only been performed when specific individuals were present. Wilhusen (1989:103) suggests that structures with central vaults represent community kivas which were utilized by member groups living in the village. If Structure 34 represents a community kiva, its floor space would have restricted the number of people who could have been present during
ceremonies. This may indicate that if Wilshusen’s suggestion is correct, Structure 34 was shared by members of the community meeting in small groups or, that these rituals involved specific individuals and the presence of the community was not required to perform those ceremonies. Wilshusen (Wilshusen 1989:103) notes ethnographic evidence that roofed sipapus or floor vaults were found inside the chief kiva of some historic pueblos. Mindeleff described the chief kiva at Tusayan as the largest in the village and the one where the most elaborate ceremonies were performed (Mindeleff 1891:134).

In the 1930’s, White (1932:31, 41) described and illustrated a roofed sipapu in the head kiva at Acoma and remarked that this feature was exclusive to the chief’s kiva.

The vault of Structure 34 (Feature F-4) was constructed into the middle of the north-south axis through the center of the building, approximately 50 cm north of the hearth. A common feature of floor vaults are recessed insert moldings built into the adobe upper vault rim (Wilshusen 1986:245-254). This appears to be the place where wooden boards, a single plank of wood, or a wooden frame with stretched animal hide was seated into and over the top of the vault. It’s been suggested that the sound created by stomping (Gumerman 1984: 80) or pounding on the wood or hide would have simulated the sound of thunder, evoking a symbolic link to rain.

Just north of the northwest corner of the vault are three shallow holes designated Features F-1, F2, and F3. They were filled with reddish fine sand. All averaged 8-10 cm in diameter and all were around 10 cm deep. These features may be loom anchor holes or altar anchor holes. There was no evidence of prayer stick impressions, which are often found in association with sipapus. They were used during many ceremonies and were planted in the ground near the sipapu (Wilshusen 1989:96).

Animal Burials and the Structure 34 Kiva Closing

As noted above, the excavation of the western half of Structure 34 revealed it was ritually ‘closed’; a term used to describe the way some pit structures and early kivas were abandoned after final use. It
had not burned. Research during the DAP excavations determined that out of the 15 tested pit structures which had central or lateral vaults, nearly all had burned (Wilshusen 1989:102).

Prior to the final structure abandonment, the floor vault, and ash pit were filled with soil and capped by a dense layer of sandy red adobe. Not long after this final modification, the animals were laid out over the floor. In two cases, turkeys were placed on top of large flat stones. After the bodies were arranged, numerous flat stones were piled around them. In several cases, stone shims were used to level the surrounding stones. The buried animals were then covered with approximately 25 cm of soil.

Several ounces of burned corn and beans were collected from the floor around the burials. These cultigens were not found on other areas of the structure floor and they may be an indication that these grains were used as part of the closing ritual.

The arrangement of the stones around the bodies was apparently intended to prevent the covering soil, stones and roof beams from crushing the buried animals. In three instances, flat stones were carefully placed over the heads of two turkeys and one canid burial. Evidently the roof beams were removed and in the south half of the structure, they were reset in a position directly above the buried animal’s remains, effectively entombing them (see Structure 34 stratigraphic profile in Figure 6). Stones placed around the burials acted as supports for the beams. The excellent condition of the skeletal remains confirms that great effort was made to protect the crypt they had created. It’s fairly common to find evidence of carnivore damage on buried animal remains but the Structure 34 bones exhibit none. The
clever use of stone and wooden beams acted as a shield from the weight of the overburden and performed as intended for over ten centuries.

Akins (Pojoaque Corridor Project in preparation 2011) notes that animal burials, especially when found with other buried animals, items or evidence, is an indication they were ritually deposited. At Pena Blanca, located on Pojoaque Tribal lands near Santa Fe, she notes three instances where dogs were buried in contexts suggesting they were part of structure closing rituals. Articulated buried animals deposited on structure floors are almost certainly associated with ritualized closings as they represent one of the final events that took place inside the building.

The Structure 34 analysis is ongoing but to date, 16 turkeys, 3 canids, a cottontail rabbit and a rattlesnake have been identified. All were apparently formally buried on the floor of the southwest quarter of the building. There are at least two uncounted animals whose remains were protruding out of the unexcavated eastern half of the kiva, immediately east of EU 34-g&h.
Given the evidence in the archaeological record for elaborate kiva ‘closings’, the question remains; what does the final abandonment event in Structure 34 represent? With the possible exception of canids, the buried animals inside Structure 34 were used as sources of food and they were generally consumed rather than sacrificed and buried. To date, we have found only limited evidence that the residents of Champagne Spring (Greenlee) utilized dogs for food. The lower portion of a canid ulna was found in the middle fill, roughly a meter above the floor of Structure 34 but it shows no sign of butchering, pot polish, or carnivore scavenging (Larry Tradleener personal communication). It is not clear when the residents of Champagne Spring starting using turkeys for food. There is some evidence they were consumed here. All of the proveniences yielding turkey bones date in the 10th century. Rabbits and probably snakes were also food items and at least one of each was included in this ‘closing’. It is the author’s opinion that these sacrificed animals were held in high regard and may have been placed in specific locations on the kiva floor to simulate their emergence or return to the underworld through the central vault.

Although the analysis of the Structure 34 materials have not yet been completed, my impression is that there were higher than average quantities of complete artifacts in the fill. Two specimens of volcanic glass and several beads were found, as were several bone awls and complete projectile points. Residents continued to occupy the immediate area after the abandonment of this early kiva, and it is possible this building was remembered as having special significance and subsequent villagers acknowledged this with offerings of items which were still valuable to them.

The ceramics of Structure 34 indicate that corrugated gray ware pottery is present in about equal proportion to Mancos Gray in floor and floor fill deposits but is represented by significantly smaller proportions in subsequent deposits with the exception of the uppermost fill. White ware was found at 119% of the frequency of red ware in the floor and floor fill and steadily decreases to 82% of red ware in the uppermost fill. This is the opposite of what we expected. Redwares are dominated by Bluff Black-on-red with much lesser quantities of Deadmans Black-on-red. Cortez Black-on-white and what appears to be a local late variety of White Mesa Black-on-white (which I have referred to as Champagne Black-on-white), dominate the white wares.

Ceramics and architectural evidence indicates that less than one hundred years passed from the abandonment of Structure 34 to the abandonment of the village and it probably took significantly less than 25 years of intensive use of the midden inside the collapsed structure to completely fill with debris and sediment. Even without the help of humans contributing to filling the depressions left by abandoned pit structures or kivas, these buildings can fill quickly from the effects of wind and weather related events (Dove 2006:76). The functions performed within Structure 34 may have subsequently shifted to another one of the six clustered kivas oriented around the Great Kiva as all of these buildings were not in use contemporaneously.

Further study of the information and materials recovered during the excavations of this unusual building will provide a more complete picture of its function. Future work will include a complete report of the excavations performed during the 2008, 2011 and 2012 seasons as well as a comprehensive analysis of the materials recovered during this period. With any luck, we will be able to include the results of the many collected and submitted tree-ring samples at that time.
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