

THE KANSAS ANTHROPOLOGIST

JOURNAL OF THE KANSAS ANTHROPOLOGICAL ASSOCIATION

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COMPARISON OF THE RELIGIOUS PRACTICES OF THE DOBE !KUNG AND THE AMERICAN PENTECOSTAL CHURCH

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Comparison is made between the religious practices of the Dobe !Kung of South Africa and the American Pentecostal Church, which originated in Kansas. Close similarities are shown to exist between Pentecostal and !Kung religious practices and between Pentecostal worship services and !Kung healing dances despite significant differences in parent group social norms and economic practices. The similarities between Pentecostal practices and those of certain traditional religions in Southern Africa and South America may explain the acceptance of and strength of Pentecostalism in these areas.

As members of a complex modern society, we often think of simple, so-called primitive societies and their beliefs as being something strange and distant from anything we know. In our sophistication, we dismiss their superstitions and religious beliefs as being inferior and less developed than our own, and cannot imagine having anything in common with these groups. And yet, people are human, all of us, and some needs and fears would seem to be universal and basic to the human psyche. We seem to all have that need to believe in superior beings and life-after-death, and to find explanations for the mysterious events of nature, and no matter how sophisticated we get, there's still a part in each of us that believes in and fears ghosts. This essay compares the religious practices of one of these traditional societies, the Dobe !Kung, and a modern American religious group, the Pentecostal Christians.

THE DOBE !KUNG

The !Kung, a group of hunter-gatherers located in South Africa, have two major deities, a high god and a low god, as well as various animal spirits. Generally the high god is considered to be a good force while the lesser god is believed to be mischievous or evil; however, this concept seems to be open to debate. While these gods have the highest power in the supernatural world of the !Kung, it is the '//gangwasi', or the ghosts of recently

deceased relatives, that have the greatest influence in the daily life of the !Kung.

According to !Kung tradition, when someone dies their invisible spirit remains on earth to harass and attack living !Kung. Although not equally so, these ghosts of once beloved friends and relatives are considered to be malevolent and the cause of most illness and misfortune within the village. One woman's explanation for their ill-will, as recorded by Lee, is that the dead are very unhappy and long to be with the living instead of moving on to the spirit world, so they stay around the village causing mischief and making people sick in an attempt to bring the living to them (Lee 1984).

Because people are made sick by supernatural means, it is left to the !Kung healers to call upon the power of 'Nu/m' to fight off the attack by the ghosts. 'N/um' is a spiritual medicine that lies in the pit of the stomach of these healers. Through the rhythm and exhaustion brought on by arduous hours of singing and dancing, the 'n/um' is heated up and rises to a boil, and the healer enters a trance-state known as 'kia.' While in 'kia,' the healers have the power to see and communicate with the spirits and to pull the sickness out of the person who is suffering from the ghost attack.

Healing dances, such as the Giraffe dance,

are the primary ritual activity of the !Kung. The women circle around the fire and sing while the men form a circle around them and dance (although sometimes, as with the Drum dance, the roles are reversed). According to Lee's account:

The !Kung believe that the movements of the dancers heat the 'n/um' up, and when it boils it rises up the spinal cord and explodes in the brain. The 'n/um k'au' (healer) then feels enormous power and energy coursing through his or her body. The legs tremble, the chest is heaving, the throat is dry. And strange visions flood the healer's senses. After a period of disorientation, the healer begins to move unsteadily toward the dance fire. He or she lays trembling hands on the chest and back of a person and begins a series of moaning lamentations punctuated by loud shrieks the !Kung call 'kow-he-dile.' She or he then moves to the next person and the next, repeating the action until everyone in attendance, men, women, and children, have received supernatural protection. If sick people are present at the dance, the 'n/um k'ausi' will pay special attention to them, spending up to an hour working on one person, rubbing back, chest, forehead, legs, and arms with magical sweat [Lee 1984].

Often a novice to 'kia' will become disoriented and his behavior become wild and erratic, running into the bush or even into the fire.

These dances are not only a time given to sacred ritual and healing, but also a time for socialization, the first few hours being relaxed and gradually gaining intensity as the men or women start to show signs of trance. It is not unusual for these healing dances to go on for many hours, often all through the night, and sometimes for a number of days.

THE PENTECOSTAL CHURCH

Although most of us in the United States would consider the healing rituals of the !Kung

primitive and foreign, there are Christian groups here in our "civilized" society whose religious practices are not dissimilar to those of the !Kung. Pentecostalism is a form of Christianity which centers on the emotional, nonrational, mystical, and supernatural: miracles, signs, wonders, and "the gifts of the Spirit" (charismata), especially "speaking in tongues" (glossolalia), faith healing, and "casting out demons" (exorcism). Supreme importance is attached to the subjective religious experience of being filled with or possessed by the Holy Spirit.

Most Pentecostals subscribe to the tenets of fundamentalism, which call for strict adherence to Christian doctrine based on a literal interpretation of the Bible. In fact, there's no unanimity on doctrine among different groups except in the matter of Spirit baptism and the practice of charismata.

Modern Pentecostalism was begun in 1900 by Charles Fox Parham, an independent Holiness preacher, in Topeka, Kansas (Figures 1 and 2). Speaking in tongues and other



Figure 1. Charles Fox Parham.
Courtesy Kansas State Historical Society

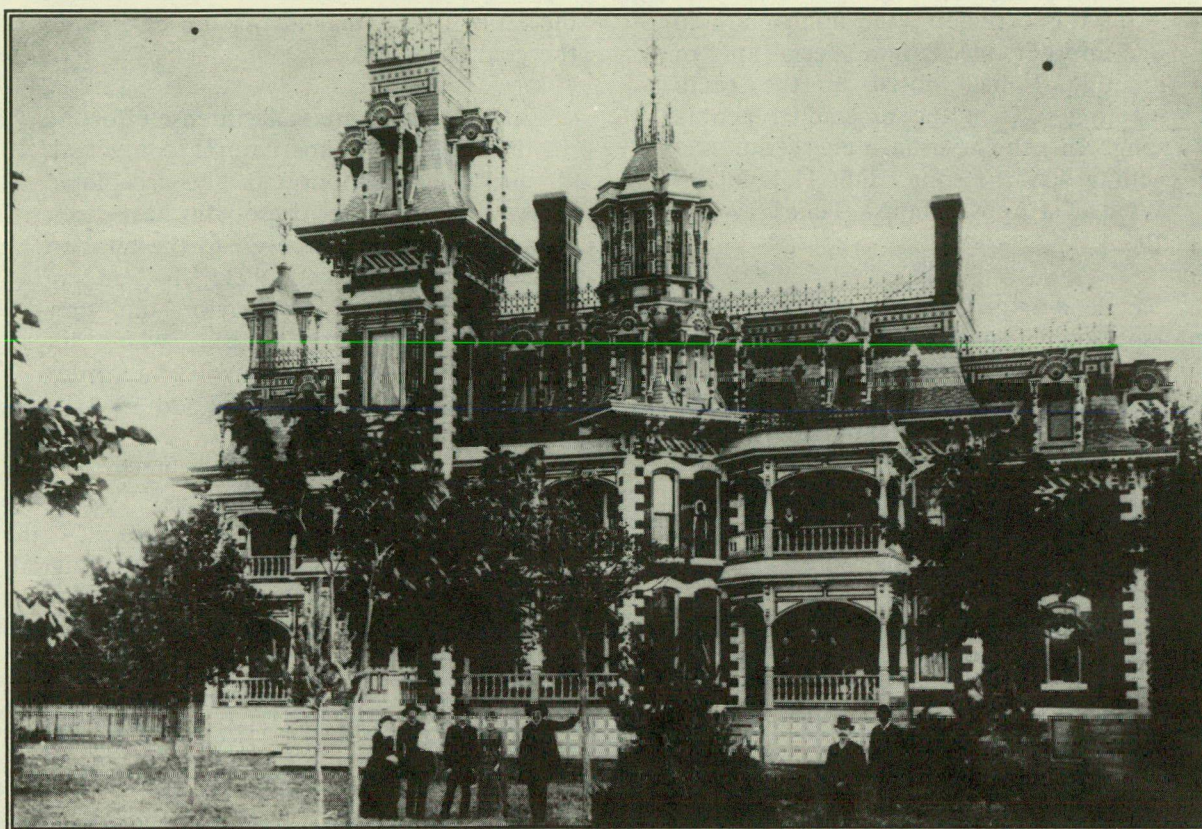


Figure 2. "Stone Folly," Parham's home and location of his Bethel Bible College.

Courtesy Kansas State Historical Society

ecstatic behavior broke out in Parham's Bethel Bible College in Topeka in January 1901. Parham thus asserted that glossolalia was the evidence of the true "Baptism in the Spirit" (Anderson 1979). From that point Parham's Apostolic Faith movement gained some following on the basis of this teaching and faith healing, but also met a great deal of resistance from established churches. Due to intermittent revivals, however, Pentecostalism has survived in various forms and boasts a worldwide practice with an estimated six to seven million followers in the United States.

Pentecostal worship services are marked by speaking in tongues, prophesying, healings, exorcisms, hand-clapping, running, jumping, falling, dancing "in the Spirit," crying, and shouting with great exuberance. Production of rhythmic patterns of response in the audience is stimulated by a variety of musical instruments

and vocalists as a means of increasing enthusiasm.

In his book, *Culture and Personality Aspects of the Pentecostal Holiness Religion* (1965), William W. Wood describes a camp meeting held by the Church of God:

The meeting had been running for several days--morning, afternoon and evening--and on the night I am describing, there was a healing ceremony. A long line of persons moved between two rows of preachers. As the line passed them, the preachers placed their hands upon the heads of the individuals to be healed. Among those going through the line were a few who evidenced minor jerking, one woman who went into an automatic dance, and one produced a violent jerk.

After this ceremony, the ministers held one another's necks in a special kind of greeting I had noted at the camp meeting. Then the assembled people sang in their usual energetic and willing way the song, "Oh! Hallelujah! What a Happy, Happy Time" [Wood 1965].

The leader speaks as the meeting continues, interspersed with testimonies, prayer, and more music and singing, punctuated by the usual shouting and other noises along with the automatism as the fervor builds:

enthusiasm mounted as the music approached the same points in each verse. The musicians were, in turn, stimulated to even more intense performance. A little girl jerked. She was the same one who apparently had gone into a trance on each of the preceding evenings. The audience responded to the rhythmic and empathic music with claps, shouts, and a few jerks. A man "B" who had been active other nights leaped up with a shout, capered toward the rostrum and then returned to his seat. There were cheers. Someone raised his hands over his head and waved or vibrated them. A young man "C" shouted. His neck stretched itself back from his body and became stiff with the chin vibrating. Then his head vibrated while his body was relaxed. Then he danced. The trio was singing right on. Up jumped "A," jerking repeatedly. Then a girl near her jerked and others followed suit. "C" continued his ecstasy in a trance-like dance. The assembled people rose up onto their feet. Then they all sat down...A leader asked the people to give an ovation for the Lord "if you really appreciate Him!" There was a loud roar [Wood 1965].

The meeting continues with more testimonies, a request for offering money to "defer camp meeting expenses," and an urgent and fervent sermon. The preacher draws to the altar those who want to be saved or to receive

the Holy Ghost, magnifying the desirability of the goal:

At the altar there is an intense effort by those seeking supernatural contact to direct their emotion in the acceptable way. The saints (those who have been saved and who come up to the altar to help the seekers) help by adding suggestion to autosuggestion, and they concentrate upon those who are becoming emotionally involved in order to help them "through" [Wood 1965].

Praying "through" means praying at the altar until a religious experience comes. The seeker constantly impresses upon himself the desirability and availability of the religious experience. Pentecostals believe that a person is able to receive a supernatural blessing if he prays at the altar long enough and with enough determination. Activity at the altar concludes the service.

CONCLUSION

The camp meeting illustrates large-scale, mass enthusiasm. This is one form of Pentecostal participation. The camp meeting also provides some insight into the beliefs which give form and structure to Pentecostal emotions and activities, and this example would indicate that there's not a lot of difference between the religious practices of these "civilized" Americans and those more traditional societies such as the !Kung.

In fact, Pentecostalism's emphasis on subjectivity, emotional expression, Spirit baptism, healing, exorcism, and miracles makes it highly congenial to followers of so-called primitive religions that are characterized by animism, spirit possession, shamanism and prophetism. The Pentecostal movement has spread to many of these countries where the people are adopting Christianity and is especially strong in South America and Africa.

We can see many specific parallels between Pentecostal and !Kung religious practices as well as striking similarities between Pentecostal worship services and !Kung healing dances.

They both involve trance-states, spirit possession, and faith-healing by shamans, all being aided by the enthusiasm of the group and the rhythm of the music. Healing involves the laying on of hands and the faith of the followers in both cases.

However, these practices are still deeply rooted within their respective social norms and beliefs. While the !Kung still maintain their hunting and gathering lifestyle embellished with myth and superstition, Pentecostalism stresses an ethic of hard work, discipline, obedience to authority, sobriety, thrift and self-denial--the qualities of the ideal proletarian in a complex modern society.

Whatever the social norms that influence these individual groups, their religious practices still indicate a shared human curiosity about supernatural powers and the desire to experience and control them, as well as a need to believe in life-after-death in an effort to ward off our common fear of death.

REFERENCES CITED

- Anderson, Robert Mapes
1979 *Vision of the Disinherited.* Oxford University Press.
- Lee, Richard B.
1984 *The Dobe !Kung.* Holt, Rinehart and Winston.
- Wood, William W.
1965 *Culture and Personality Aspects of the Pentecostal Holiness Religion.* Mouton and Co., N.Y.

CEREMONIAL BIFACES FROM THE WHITEFORD ARCHEOLOGICAL SITE, 14SA1

by John D. Reynolds
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Four chipped stone knives of western Kansas Niobraraite were discovered during the initial investigation of the Whiteford Archeological site, 14SA1, in the period from 1936 to 1941. A reanalysis of these biface knives revealed that they are extraordinarily well crafted ceremonial knives that were intentionally placed within the cemetery area by the Smoky Hill people who inhabited this site in the period from ca. A.D. 1100 to 1400. These knives appear very similar to Niobraraite ceremonial knives recovered from Harlan and/or Spiro phase sites in eastern Oklahoma. The Spiro phase is considered to be the peak of social complexity and cultural elaboration of the Caddoan tradition in the Arkansas valley and the Harlan phase is directly ancestral to this cultural florescence. The ceremonial bifaces from the Whiteford site provide support for the theory that the presumably Caddoan population called the Smoky Hill phase was intimately linked to Middle Mississippian complexes to the east.

Guy Whiteford, his wife Mabel, and son Jay excavated portions of archeological site 14SA1, the Whiteford site, between 1936 and 1941 (Whiteford 1937, 1941, n.d.). This site is located [REDACTED]

Whiteford was a Salina policeman and amateur archeologist who was enthused about the prehistory of the Salina area and who was fortunate to have been in contact with A.T. Hill, a pioneering archeologist from Nebraska, and Waldo Wedel, Hill's field foreman, when these individuals were excavating three Smoky Hill earthlodge remains at the Minneapolis site, 14OT5, during the summer of 1934 (Wedel 1935). Whiteford eventually excavated portions of two similar earthlodge ruins and a prehistoric cemetery at the Whiteford site and he tested and excavated additional sites throughout the region.

The cemetery area, which was eventually developed as a private commercial enterprise, contained the remains of more than 140 individuals and some associated burial or grave goods. Whiteford left the human remains and many of the grave goods exposed on earth pedestals, covered the entire cemetery area with a building, and charged admission to visitors who wished to view the remains (Figure 1). In

the early 1940s, the farm on which the exposed cemetery was located was purchased by the Price family. The Prices continued to operate this site as a tourist attraction until late December of 1989. This attraction was widely known as the "Indian Burial Pit." In response to public criticism of the burial pit because of its insensitive treatment of the dead, the state of Kansas finalized purchase of the cemetery in January of 1990. By the end of March, the state completed a detailed study of the skeletal remains and associated grave goods and permanently closed the burial area by filling and capping with concrete the pit that had been open since 1936. The *in situ* remains and grave goods were studied but not disturbed prior to the filling and all materials removed prior to the state acquisition and whose whereabouts were known, including the bifaces that are discussed in this paper, were placed in the cemetery area prior to reburial.

The Smoky Hill people who are buried in this cemetery lived in this area some 800 years ago and the study of these remains has provided archeologists and physical anthropologists with a unique opportunity to learn more about both the biology and culture of these people. The study was conducted by anthropologists from the Kansas State

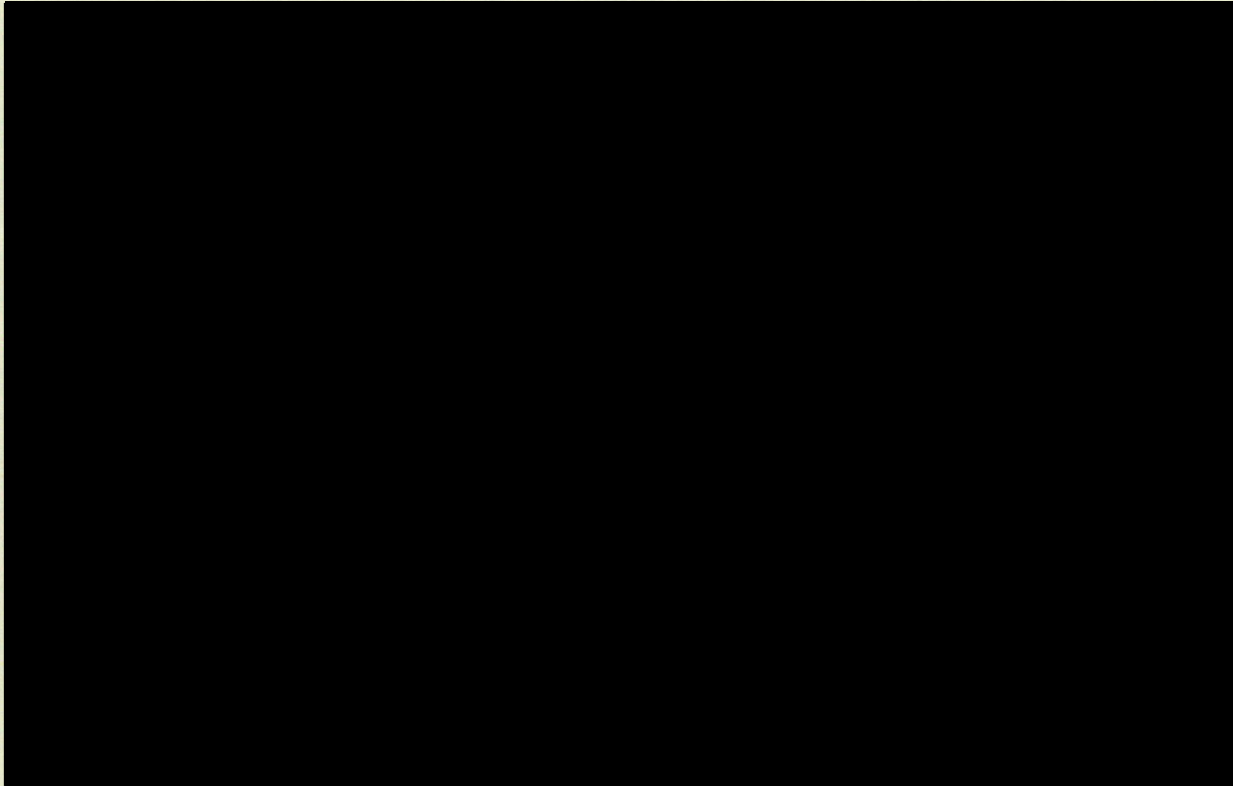


Figure 1. Burials exposed by Whiteford at the Indian Burial Pit.
Courtesy Kansas State Historical Society

Historical Society and Kansas State University. Dr. Michael Finnegan, physical anthropologist from Kansas State University in Manhattan, conducted a meticulous study of the observable human remains in the cemetery and will be able to tell much about the health, stature, ages at death, and other characteristics of this population. Similarly, the Historical Society team, of which the author was a member, learned much about the specific mortuary customs of these Smoky Hill peoples. Of special interest to the author were the flaked stone tools that the Smoky Hill peoples had placed with their dead. Four of these items, out of an estimated total of only 17 chipped stone specimens that are definitely known to have been found in the cemetery area by Whiteford, are large and extraordinarily well made thin bifaces or knives. These four items are so distinctive and diagnostic that they were subjected to close scrutiny by the author. The present report, while still incomplete in terms of the total study of the Whiteford site, focuses on these four specimens and what they reveal

about the lives and times of the Smoky Hill people.

The Whiteford site, which includes the cemetery area that is known as the Indian Burial Pit; the Minneapolis site, 14OT5; and the Griffing site, 14RY21; were utilized by Wedel as type sites for the definition of the Smoky Hill aspect of the Central Plains phase (Wedel 1959:535, 563-564, Figure 2). Lehmer had earlier established the Central Plains phase as a tradition in another taxonomic system and the Smoky Hill culture was thus assigned as a phase within the Central Plains tradition (Lehmer 1954; Gradwohl 1969). The author follows Lehmer's usage and refers the curious reader to Gradwohl (1969) for a discussion of the complexity and history of the archeological taxonomy of the Great Plains.

The time range for the Central Plains tradition is roughly from A.D. 1000 to A.D. 1500 and the most obvious traits include a dual economy based on bison hunting and

agriculture, the presence of square to rectangular-shaped earthlodges, and a developed ceramic technology as represented by globular ceramic jars with external cord-roughening. Various scientists have suggested that the Smoky Hill phase, along with the Upper Republican and Nebraska phases of the Central Plains tradition, may have been ancestral Caddoan speaking groups whose descendants are identified historically as the Pawnee (Roper 1989:34-35; Witty 1984:8). While the antecedents of the Smoky Hill phase are not yet clear, it has also been suggested that these people were in some way related to other Caddoan speakers of the Middle Mississippian area, and in particular populations in eastern Oklahoma. Bell (1984:240) has noted that the Harlan phase of Oklahoma, which dates circa A.D. 900 to 1200, may be ancestral to Caddoan groups of the Central Plains tradition. Interestingly, a section of a Crockett Curvilinear Incised ceramic vessel was one of the items discovered by Whiteford during his study (Wedel 1959:519-520). This is one of the named pottery types of the Harlan phase in Oklahoma (Bell 1984:236) although Wedel (1959:520) suggests that it may also be associated with the Spiro phase in the same area and the Haley focus in southwestern Arkansas. The author believes, as does Roper (1989:34), that Smoky Hill and Harlan phase populations were at least partly contemporaneous and are not lineally related. As will be suggested later, the bifaces from the Indian Burial Pit at 14SA1 may provide evidence of this contemporaneity and contact between the two groups or between the Smoky Hill phase and the Spiro phase. The Spiro culture sequentially followed the Harlan phase in that portion of eastern Oklahoma and dates circa A.D. 1250 to 1450 (Brown 1984:241).

The burial area at 14SA1 represents successive interments of individuals, mostly primary burials, over some period of time. In other words, this was a burial area that was used repeatedly and did not result from a single event interment. This is amply demonstrated by the *in situ* evidence of grave pits intruding into or through earlier burials. Grave goods, while present, were limited in number and included 16 whole or restorable pottery vessels,

perhaps as many as one dozen chipped stone bifaces, 3 small projectile points, 1 utilized flake, 1 ground stone celt, 1 sandstone grinding slab, mussel shell disc beads, shell pendants, a bone awl, and several turtle carapaces (Wedel 1959:518-522). Unfortunately, many of the pots and other artifacts were removed by Whiteford or, in some cases, were stolen during the long time that the burial pit was open as a tourist attraction. Since Whiteford's notes about the specific provenience and appearance of several of these artifacts are too imprecise to allow for their current recognition, Wedel's admittedly rapid and impressionistic artifact list is the only source for the above count. What does seem clear from Whiteford's notes is that several of the artifacts, including ceramic vessels and chipped stone tools, were found somewhat shallowly buried and without direct association with particular burials. What this implies is not clear, although it may be that we are dealing with a number of ceremonial objects which were placed in the cemetery area, presumably for religious purposes, rather than being included as the possessions of specific individuals. It is not known how large a community was serviced by this cemetery, though Whiteford noted that as many as 12 earthlodges may have been present at 14SA1 and numerous other Smoky Hill habitation sites are found in the general area. Most of these latter sites look like farmstead locations with just one or two earthlodges present at each.

THE 14SA1 BIFACES

The four bifacially flaked chipped stone specimens which are the subject of this report were all originally discovered by Whiteford or another member of his immediate family while they were exposing the human burials in the prehistoric cemetery area at 14SA1. One of the bifaces, Feature 119, was associated directly with two infant skeletons while the other three specimens were not directly associated with any particular burial or burials. Nonetheless, it is quite obvious that at least three of the four bifaces are intentionally manufactured grave or burial goods and that all four items were deliberately placed within the limits of the communal burial area. Three of the four bifaces that are the subject of this paper have

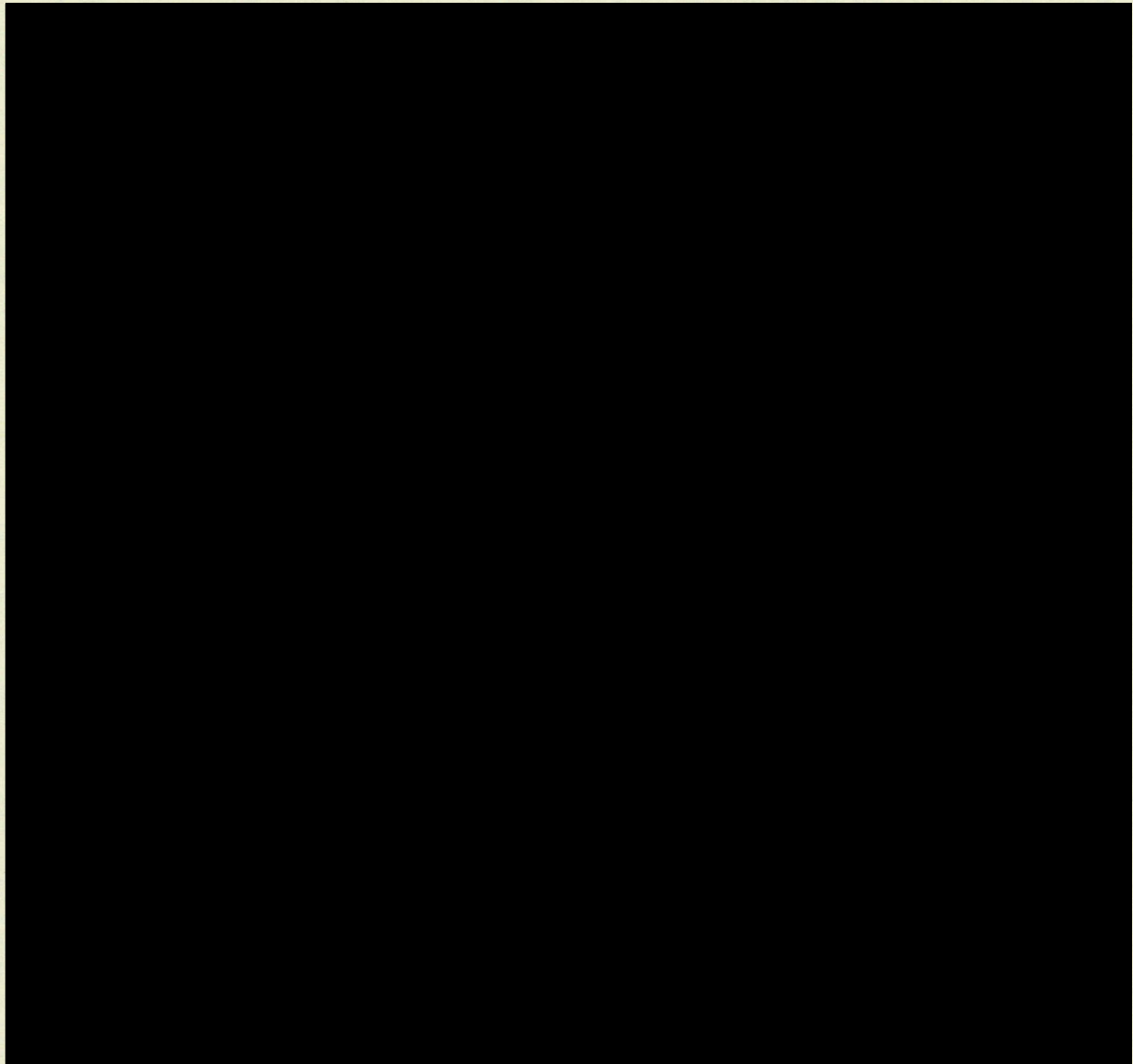


Figure 2. Relationship of archeological phases and the source area of Niobrarite.

been previously described and illustrated by Wedel (1959:520 and Plate 92 b, c, and d) and Whiteford (1937:8-9, 1941:9). The fourth specimen, Feature 119, was never taken out of its *in situ* context and this prevented accurate photographs and drawings of this specimen.

All four knives are made from a distinctive, usually brown colored chert which was originally called Graham jasper but has also been called Republican River jasper, Smoky Hill jasper, Niobrara jasper, and Niobrarite (Banks 1990:96; Wright 1985). Since Wright's

(1985) analysis and description of this material is the most detailed, his term Niobrarite will be used when referring to this material. This material is a silicified chalk that occurs as thin lenses embedded within Smoky Hill chalk in several northwest Kansas counties and extending up into Nebraska.

The thin and tabular nature of Niobrarite makes this material particularly amenable to biface production since it does not require either the removal of masses of material from a parent core or the creation of large flake

blanks for biface production. The author is a knapper and considers the better grades of Niobrarite to be a very superior material for producing bifaces, although it is a somewhat softer and more brittle silicate than the tougher cherts of the Flint Hills Upland of central Kansas or the Pennsylvanian cherts of eastern Kansas.

Niobrarite was used during all of the recognized prehistoric cultural periods in Kansas. The author has seen several Paleo-Indian points in western Kansas that were made from this material and it was a favored source for some Great Bend aspect (Wichita) populations that date from the 1500s. While it has a broad color range that includes red, yellow, green, brown, black, and white, the brown variety is by far the most common both in visible geological outcrops and in artifact collections. Niobrarite was much used by Smoky Hill people at the Whiteford site. While we presently do not have actual percentages of lithic types available for this site, it is obvious that this distinctive stone was used for arrow points, knives, scrapers, and drills and the presence of Niobrarite debitage indicates that at least some portion of the lithic reduction process was being performed at the site. That is, the evidence in Whiteford's collection from both the cemetery and habitation areas suggests that Niobrarite tools were being manufactured on site rather than being made elsewhere and transported as finished objects to the site.

Metric data and observations about the four bifaces are included in Table 1, although the bifaces are so unique and informative that they are described in considerably more detail in the following sections of this paper. The length, width, and thickness measurements are easily understood, though it should be kept in mind that these refer to maximum length, maximum width, and maximum thickness. The width to thickness ratio is simply the width of the biface divided by its thickness (e.g., the ratio of a biface 15 mm wide and 3 mm thick is expressed as 5:1). Callahan (1979:163-171) has proposed that this easily determined ratio provides both a meaningful measure of the place of the specimen in some hypothetical production sequence and can be used to judge the

knapping skill of the producer. The author has found that this ratio provides at least some indication of his own knapping skills, or lack thereof. Basically, the wider an artifact is in relation to its thickness, the more difficult it is to produce. The extreme length of the 14SA1 specimens must have posed additional problems for the prehistoric knapper(s). While Niobrarite is well suited to biface production because of its tabular form and good conchoidal fracture qualities, its brittleness makes it much more prone to end shock than some other cherts. End shock occurs when force or vibration from a percussion blow travels along the longitudinal axis of the specimen and initiates or causes a fracture at some distance from the place where the blow was struck.

For several years (1984, 1987) the author has utilized descriptive categories for chipped stone tools which emphasize the relationship of specific items to an inferred but incompletely known reduction continuum. This scheme, which is adapted from that developed by Callahan (1979), views bifaces as existing within a reduction sequence which, for convenience, can be broken down into discrete stages. This was not an original concept by Callahan since Holmes (1894, 1897) had devised a similar approach to stone tool manufacture before the turn of the century. In the present scheme, a Stage 1 biface is a flake blank, cobble, nodule, chunk, tabular cobble, or minimally tested examples of each of these which is just entering a knapping reduction sequence. A Stage 2 biface is one that has been initially edged. Such specimens are bifacially worked but usually not over all of both faces. Their edges may be quite sinuous, cortex is often still present in the middle of both faces, and they usually have width to thickness ratios of around 2:1. Stage 3 bifaces have a lenticular cross section, a width to thickness ratio of between 3-4:1, and straightened edges. Stage 4 bifaces have flattened cross sections with width to thickness ratios in excess of 4:1. Stage 5 bifaces are simply Stage 4 bifaces that have been shaped by moving in the lateral margins. While it is not presumed that these stages were recognized by prehistoric knappers, they do provide a useful format for subdividing the biface reduction continuum and they are

preferred to such imprecise terms as "thick biface," "thin biface," "celt," or "knife." The first two terms are virtually useless and the last two terms refer to function; the function of specific lithic tools can often be understood only after use-wear studies have been performed.

It is understood that all four of the subject bifaces were produced by flintknapping methods that included both direct percussion and pressure flaking techniques. Direct percussion flaking is a process whereby some type of hammer, typically either a hammerstone or some type of billet, was utilized to strike against the edges of lithic materials to drive flakes off the parent piece. Common hammerstones on prehistoric sites in Kansas are fist-sized or smaller cobbles of stone of various types including chert, quartzite, diorite, sandstone, and limestone. The harder hammerstones, such as those of chert or quartzite, are useful for the initial edging of chert bifaces while the softer varieties are more useful for the various thinning stages. Billets are cylindrical strikers or hammers which, in this area, usually were made from the butt ends of either deer or elk antlers. Billet flaking is a technique that allows knappers to achieve improved biface thinning because it allows for the removal of longer and thinner flakes. Pressure flaking is a controlled finishing technique most often used for margin shaping and notching of bifaces that have already been thinned by percussion techniques. Prehistoric peoples in Kansas preferred the tip ends of deer and elk antlers for this type of fabricator.

The tools that were used to manufacture the four bifaces from the cemetery at the Whiteford site were obviously not found during Whiteford's excavations but we can make some suggestions about what types they were based on the extensive archeological literature that deals with this topic (e.g., Callahan 1979), on the author's own experience as a flintknapper, and his familiarity with the Niobraraite that was the raw material from which those bifaces were made. It is possible that either hammerstones or antler billets were used for the initial preparation of this material. Many lithic raw materials can only be worked into Stage 1 or Stage 2 bifaces with hammerstones since these

materials often lack natural projections which can serve as striking platforms for flake removals. Niobraraite, however, often occurs in thin and tabular forms with natural striking platforms already present. The author has successfully produced stages 1 through 5 from Niobraraite with a single fabricator, an antler billet. Billets of antler or possibly hardwood were probably utilized to perform the thinning phases of stages 3 through 5. Very proficient knappers can, however, achieve excellent biface thinning with soft hammerstones (Callahan 1979:168-171). The edge trimming and margin shaping on these bifaces, and resharpening on one, were probably performed with antler pressure flakers. The knapper's tool kit would also surely have contained leather for pads and rough abrading stones for strengthening and preparing platforms. Observations about the manufacturing trajectories of each of the four bifaces are contained in the following descriptions of these bifaces.

Table 1
Metric observations on four
bifaces from 14SA1

F#	Length	Width	Thickness	W/T Ratio
119	245 mm	50 mm	6 mm	8.3:1
23a	250 mm	53.5 mm	8.35 mm	6.4:1
23b	194 mm	56.3 mm	6.6 mm	8.5:1
24	154 mm	41.8 mm	6 mm	6.97:1

Feature 119 Biface

Feature 119 is a long, thin Stage 5 biface which has one lateral break (Figure 3). This specimen lies *in situ* directly under two badly preserved human infant skulls, features 117 and 118. The artifact, and most of the human bone in the cemetery area, is heavily coated with multiple layers of shellac. Whiteford initially used shellac as a preservative treatment for the human bone and the Price family continued to apply shellac, apparently operating on the theory that if a little is good, then a lot is better. This and its location under the two skulls prevented a full study of the specimen.

This biface is made from a caramel-colored

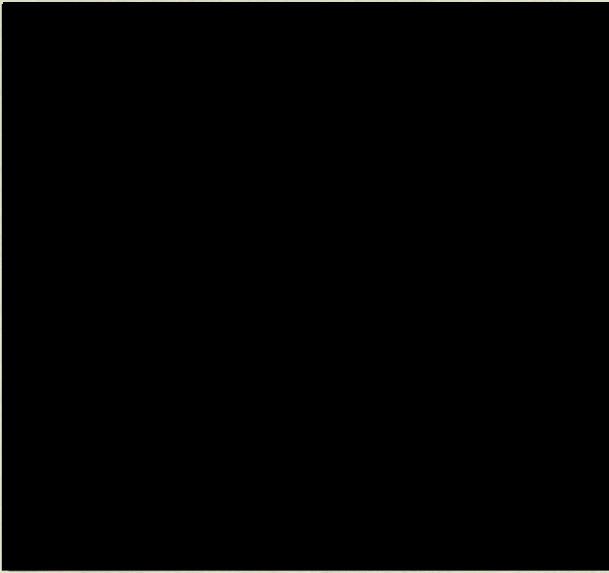


Figure 3. Feature 119 Biface *In Situ*.
Courtesy Kansas State Historical Society

variety of Niobrarite. Precise color could not be determined because of the obscuring layers of shellac but the specimen exhibits the same basic coloration as that of Feature 23b that is discussed below. The biface has a clean, oblique fracture 95 mm from one end. This is a bending fracture of the type that commonly occurs when thin lithic implements are subjected to perpendicular pressure stress, such as occurs in settling of earth deposits or when weight is applied to one small area on the piece. The two broken sections are in near perfect articulation, indicating that the biface was unbroken when it was placed in the ground and that the break occurred at a later date.

This biface has one fairly straight lateral edge and one convex curved edge and it is bipointed. It is flat in both transverse and longitudinal cross sections and this suggests that it was made from a thin, tabular piece of Niobrarite. The two faces are also flat and parallel in relation to each other. This is a characteristic of Stage 5 bifaces, wherein the biface was so perfectly thinned by percussion that a flat cross section was achieved. Careful study of the lateral edges of this specimen revealed that the item was never used as a tool as these edges lack evidence of resharpening and use-wear.

On a well-thinned biface, like Feature 119, we are only able to observe the final stages of thinning and shaping. Nevertheless, with an understanding of the nature of this particular raw material and of the generalized techniques of biface manufacture, we can infer the earlier stages. Thus, we can predict that the specimen was made from a thin and tabular piece of Niobrarite that wasn't necessarily much longer than the completed biface. Since this tabular jasper seldom has irregularities on the faces, it is very economical to work with. The initial stages were probably performed with one or more soft hammerstone percussors or with an antler billet. The large biface thinning flake scars that are visible on the faces of the artifact are broad (10 mm wide or wider) expanding flake scars that are quite long and end in feathered terminations. These flakes were initiated from the lateral margins and are oriented perpendicular to the long axis of the artifact. Many of these extend well past the midline. There are no noticeable hinge fractures, step fractures, or stacks along the midline. The knapper was thus able to thin each face of the artifact by removing a small number of large, flat biface thinning flakes. The extreme lateral edges of the artifact exhibit short, narrow, margin shaping and trimming pressure flake scars. These are discontinuous along the edges and are interpreted to be shaping flake scars rather than evidence of resharpening. Finally, it can be noted that this specimen was placed in the ground after manufacture but prior to having been used as a functional tool. A conclusion follows that this exquisitely crafted object was a deliberately made ceremonial or funerary object.

Feature 23a Biface

The second biface to be discussed is Feature 23a, a long, thin, broken Stage 5 biface made from Niobrarite (Figure 4). This specimen was evidently discovered by Whiteford in direct association with a second large biface (Feature 23b) though neither of the bifaces was associated with a specific burial. Both items were found in the southwest part of the cemetery area at a depth of approximately 20 cm below the original ground surface. Feature 23a is a remarkably long, nearly parallel-sided

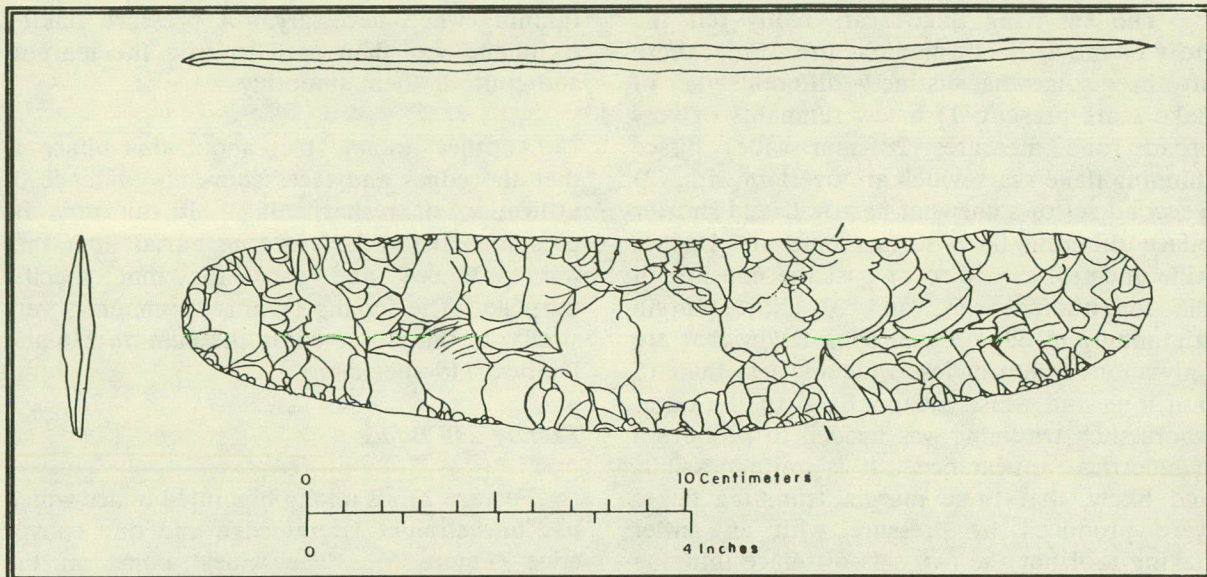


Figure 4. Feature 23a Biface. Dotted lines indicate break.

Illustration by Rick Parker, Kansas State Historical Society

biface made from the brown variety of Niobrarite. This is, in fact, the longest of the four recovered bifaces. One face of Feature 23a consists of Niobrarite of a yellowish brown hue (10YR, 5/4) on the Munsell soil color chart (1954). The opposite face displays a remnant layer of jasp-agate or jasp-onyx of the white (10YR, 8/2) or pale yellow (5Y, 8/3) hue. Wright (1985) has noted that such gradations of chert type are present within the Niobrarite deposits of western Kansas.

The material from which Feature 23a was made was a superior piece of Niobrarite. The reverse flake scars that are present on both faces are light reflective, indicating that the stone is well bonded with minute silica particles. Some lesser quality specimens that the author has worked exhibit a dull sheen and are granular in texture and those types are to be avoided by the knapper who wishes to produce thin bifaces. It is obvious that the knapper who made the Feature 23a specimen had access to the very best quality of stone. The author's search for good quality Niobrarite, stretching across a five county portion of northwest Kansas, reveals that the deposits of high quality stone are very seldom encountered. The fact that all four of the discussed specimens are made from such high quality

Niobrarite would suggest that the Smoky Hill peoples had more than a passing acquaintance with the lithic raw material sources located to the northwest of their core area.

This biface is an extraordinarily well crafted specimen. The width to thickness ratio of 6.4:1 does not adequately convey the extent of the skill needed to produce the piece. The length of 250 mm is of critical importance in this regard. It is extremely difficult to maintain much length on this delicate Niobrarite since this stone is so prone to end shock. Thus, creating a thin artifact of this material with this length was a remarkable feat. Equally impressive is the even cross section which lacks humps and stacks. There is no curvature to this biface when viewed in either longitudinal or transverse cross sections. On the face where the jasp-onyx or jasp-agate is located, the knapper did have minor trouble thinning the piece and some nascent hinge fractures and a slightly greater overall thickness in this area attests to this. The lack of curvature of the piece in both longitudinal and transverse cross sections supports the presumption that this specimen, like the other three, was manufactured from a high quality piece of thin, tabular Niobrarite.

The surviving flake scars really tell the story of the artifact's manufacture. First, there are three somewhat distinctly different types of flake scars present: 1) a few remnants of very broad (one measures 28 mm wide) biface thinning flake scars which are overlain with, 2) a second set of somewhat narrower and shorter biface thinning flake scars (some are 15 mm wide and still extend to or past the mid-line of the longitudinal axis, and 3) short margin trimming and edge regularizing flakes that are only about 5 mm or less wide and less than 15 mm long and which are confined to the edges where such trimming was needed to produce a symmetrical appearance. It is quite possible, and likely, that these margin trimming flakes were produced by pressure with an antler flaking tool but the two sets of biface thinning flakes were obviously produced by very controlled percussion. It is notable that all of these flake scars are either parallel or expanding and that they all have feathered or mildly diving terminations. Thus, there are no stacks or ridges near the midline created by improperly delivered blows terminating in hinge fractures. This demonstrates that the knapper was experienced and was working with a superior grade of lithic raw material. This piece was probably thinned by removing just a dozen or so very large and expanding biface thinning flakes from each of the two margins on each face. It is almost certain that a billet or baton was used to achieve very controlled percussion flaking from very well established platforms. As noted previously, the only place where this knapper had any problems was at one end of the biface on the jasp-onyx face where the layer of jasp-onyx proved somewhat intractable. This resulted in some barely noticeable hinge fractures.

Initial edging of this piece was probably followed by one or more series of removals of large biface thinning flakes. These removals created or maintained a flattened cross section, thereby nearly eliminating the need for first producing a lenticular cross section and later flattening it out. This flat cross section was then made symmetrical by more delicate biface thinning of prominent flake arrises that were left over from the earlier removals. These arrises were used as platforms for further

thinning when necessary. A pressure flaking technique was then used to trim the margins and contour them smoothly.

Another notable fact about this biface is that the edges and faces show no evidence of utilization or resharpening. It can thus be presumed that this is a true burial item that was produced and used for that specific purpose. The flaking on this specimen is very similar to that observed on the Feature 23b and Feature 119 specimens.

Feature 23b Biface

Feature 23b is a long bipointed biface which has one straight lateral edge and one convex edge (Figure 5). The widest point on the biface is approximately midway along the longitudinal axis. It is made from a yellowish brown Niobarite (Hue 10YR, 5/6) which has two areas of brownish yellow (Hue 10YR, 6/6) colored stone. One is located near the tip of one end and the other is confined to the center of one face in a 15 mm wide area. This is normal and expectable variation for this grade of Niobarite, which is, in fact, a high grade of jasper which is highly siliceous and light reflective. The stone is flawed with seemingly harmless vugs in two areas. These vugs are small and do not extend into the stone to any appreciable depth.

This is an extremely well made Stage 5 biface which was probably made from a flat and tabular piece of Niobarite. The specimen displays a mildly sinuous profile in longitudinal cross section although the two faces are flattened in relation to each other both in longitudinal and transverse cross sections. It was produced by a combination of billet flaking and pressure flaking. A minimum of two sets of biface thinning flakes were removed from each margin on each face. The earlier set consists of very large and expanding biface thinning flakes that have feathered terminations. At their most extreme, some of these are 20 mm wide and 30 mm long. A later set of very well placed biface thinning flakes of smaller size (10 mm or less wide and 20 mm or less long) was used to eliminate prominent arrises left from the first set and to regularize the cross

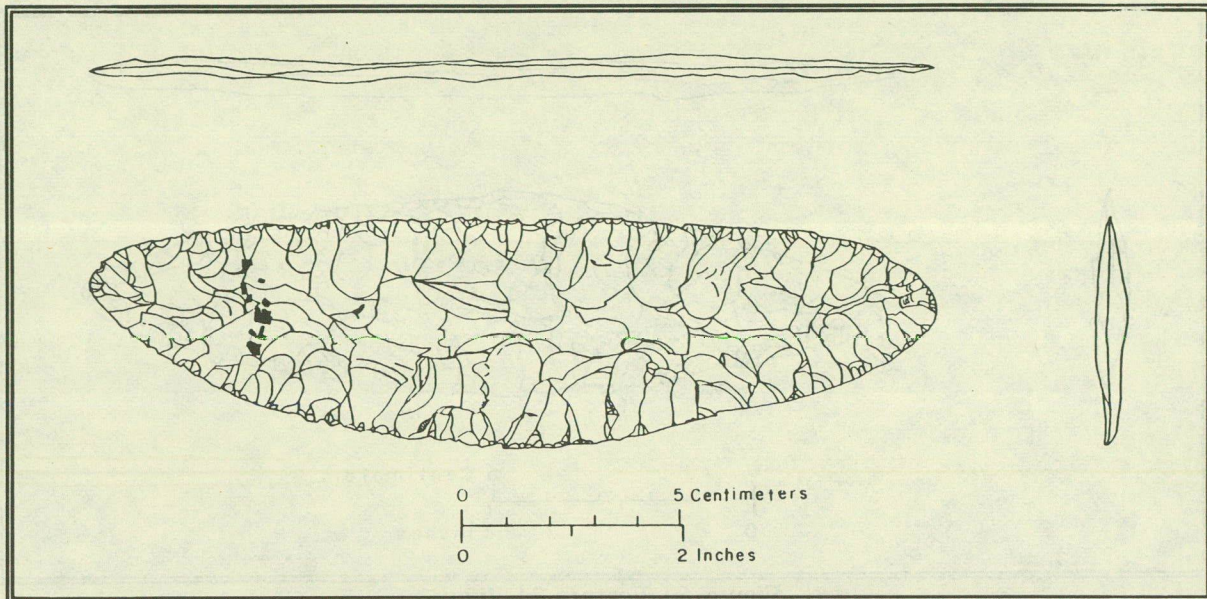


Figure 5. Feature 23b Biface. Dark areas are vugs.

Illustration by Rick Parker, Kansas State Historical Society

sectional outline. A third set of well placed and long (5 mm wide or less and up to about 10 mm long) pressure flaking scars are noted discontinuously on all margins. This technique was evidently used when it was not desirable or feasible to employ billet flaking. A fourth set of steeply angled margin trimming and shaping pressure flaking scars was noted discontinuously on these same margins. These scars are short and narrow (2 to 3 mm wide and less than 5 mm long). The flaking on this specimen was so well controlled that there are almost no hinges or stacks along the midline. In fact, most flake scars end with either feathered terminations or with feathered and slightly diving terminations.

Like the Feature 23a biface, this specimen was neither used nor resharpened after it was manufactured. It is quite obviously a specialized burial item rather than a personal tool or possession.

Feature 24 Biface

Feature 24 is an alternately-bevelled, diamond-shaped bifacially flaked knife that is made from a high quality piece of Niobrarrite which is strong brown (Hue 7.5YR, 4/6) in color (Figure 6). It was found at the south end of the burial area at a depth of approximately

37 cm below the original ground surface. Whiteford (n.d.) noted that several flakes of stone were found lying directly underneath this specimen but he either did not collect these flakes or they were not inventoried by him. The overall shape of the biface, when viewed from either face, is an elongated diamond with the maximum length of 154 mm representing the two pointed ends and the width of 41.8 mm occurring midway along the longitudinal axis. This specimen was obviously first manufactured as a long oval knife form and was resharpened or otherwise shaped to create a diamond shape by alternate bevelling of four created working edges, two of these on each of the opposing artifact margins. The specimen is flat in both horizontal and transverse cross sections. This would suggest that it was made from a thin and tabular piece of Niobrarrite. In addition to the lack of cross sectional curvature, the two opposing faces of the artifact are each flat and parallel to each other. This is a Stage 7 resharpened biface which was still a functional tool when it was placed in the burial pit. None of the other three large Niobrarrite bifaces (features 23a, 23b, and 119) found in the burial pit had been utilized as tools. This specimen, while it is a large and well made biface, could have been a personal possession that accompanied a burial rather than being an item

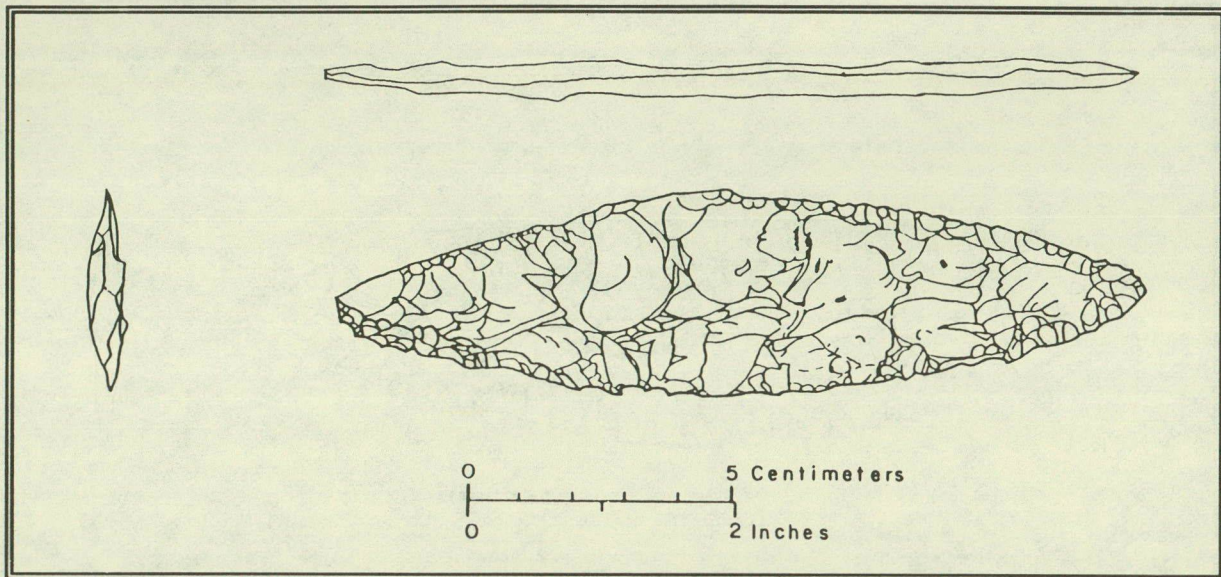


Figure 6. Feature 24 Biface.

Illustration by Rick Parker, Kansas State Historical Society

specifically manufactured for burial use.

This knife contains two sets of flake scars that document the late stages of its manufacture. The first set consists of massive biface thinning flake scars (the largest measures 24 mm long and is 14 mm wide) which were directed in from the margins on both faces to create the flattened cross section. It is likely that previous sets of such scars, attesting to initial and secondary biface thinning of the piece, were obliterated during this late thinning phase. The biface thinning that resulted in the surviving scars was accomplished by billet percussion flaking, probably with an antler billet. Considerable care was taken in preparation of striking platforms and most of the resultant flakes had feathered terminations although some hinge fractures also occurred.

The second set of flake scars consists of short and steeply angled pressure flaking scars that document the various resharpening episodes that ultimately created the diamond-shaped pattern. When the artifact is held upright, with either lateral edge toward the viewer, it is obvious that the flaking pattern was from left to right for each bevelled edge. This suggests that the knapper was right handed. Based on the author's experience, it is unlikely

that a left handed knapper could develop a holding pattern that would result in this pattern.

This artifact evidently suffered a blow or was dropped on one end. A long flake scar originates at one end and travels over 30 mm along one of the bevelled edges. This flake was taken off subsequent to the removal of the resharpening or bevelling flakes on this lateral edge since it truncates those flake scars and none of them invade into this flake scar channel. It is impossible to tell when this blow or drop occurred but there is no reason to think that it happened after it was put in the ground.

DISCUSSION

Three of the discussed bifaces lack any evidence of use-wear or resharpening. They were evidently unused when placed in the burial pit. They are all masterpieces of the knapping art and they were probably all created as special ceremonial or funerary items. The fourth specimen, Feature 24, is also very well made but it is obviously a tool that served a secondary function as a burial item. As a knapper, it is difficult for the author to believe that a society of just a few hundred or a few

thousand people, even over two or more generations, could produce many craftspersons with the skills that are so apparent on these four items. It is even very possible that these bifaces are the product either of a single individual or craft specialists for whom flintknapping was more than just a sporadic occupation. In this regard, it is interesting to note that several "ceremonial" bifaces of Niobrarity have been discovered in eastern Oklahoma in association with the Spiro and Harlan phase sites that are found within that area (Banks 1990:96; Brown 1983:137-141).

The Spiro site in eastern Oklahoma was the dominant or most important ceremonial center for the Spiro phase in the North Caddoan region of the Arkansas River valley and part of the southern Ozarks during the period from A.D. 1250 to 1450 (Brown 1983:134-135). The Spiro phase was an enormously complex culture which included temple and burial mounds, a highly stratified society, and an extensive and wide ranging trade network. Brown notes for the Spiro phase that:

The inventory of exotic lithic items reveals a strong connection to both the Mississippi Valley and to the Plains. In the case of the Plains connection, lithic pieces are the main evidence of contact. The type of connection is clearly revealed by the size of the specialized artifacts that dominate the exotic lithics. Large bifaces in the "ceremonial" size range are the form in which the central Mississippi Valley, the Tennessee-Cumberland Valley, and the Smokey (sic) Hill lithics from northcentral Kansas are fashioned [Brown 1983:137-139].

Brown makes the observation that most of the exotic lithics found at the Spiro sites are represented only by the finished ceremonial pieces. That is, neither functional tools nor debitage of Niobrarity (what he has called Smokey (sic) Hill jasper) were found there. Pictured in Brown's article (1983:140-141) is a photograph of a "Chipped stone ceremonial biface of Smokey (sic) Hill jasper." The illustrated biface is actually a broken specimen

which appears to have an extant length of about 210 mm, a width of slightly more than 50 mm, and an undetermined thickness. The photo is quite interesting because the visible face contains what Brown (1983:140) identified as a "...patch of distinctive hard, creamy cortex." I suspect that this is jasp-agate or jasp-onyx as noted on the Feature 23a biface described above. The object is obviously a very thin biface and is particularly intriguing because of the broad, diving biface thinning flake scars that can be observed. These look very similar to the diving flake scars noted on the Feature 23a and Feature 23b bifaces. Though the author has not yet had an opportunity to view this artifact, its similarity to the bifaces from the cemetery area at the Whiteford site is impressive and does not appear to be coincidental.

An obvious direction for further research for the author is careful study of this and other ceremonial Niobrarity bifaces from the Harlan and Spiro phase sites in eastern Oklahoma. The author visualizes at least two possible analysis areas for this research. First, if it can be established that the Harlan/Spiro ceremonial bifaces are made from the same source material as the ceremonial bifaces from the Whiteford site, and if they share basic manufacturing similarities, then a strong case can be made for direct contact, perhaps a trade relationship, between the prehistoric populations of the two areas. The Crockett Curvilinear Incised pottery section found in the cemetery at 14SA1 and a portion of a human effigy clay pipe found at one of Whiteford's excavated earthlodge locations at 14SA1 had an origin in the Arkansas River valley of eastern Oklahoma (Wedel 1959:515). If it can be demonstrated that bifaces that had their origin, at least in terms of manufacture, at the Whiteford site are also found in the Harlan/Spiro sites in eastern Oklahoma, then the relationship between the cultures of the two areas is shown to be a closed loop. We can then dispose of the idea that the two exotic items found at the Whiteford site are simply a curiosity and start focusing on the meaning and ramifications of contact between these eastern and western Caddoan populations.

A second element of the comparative study will be to focus on the individual characteristics of the bifaces in an attempt to identify what Gunn (1975:37) has called "idial" style. Basically, Gunn proposes that some of the variation in completed artifacts that is observed, particularly on artifacts that are in an advanced stage of manufacture, is personal or idiosyncratic in nature. Different knappers may prepare platforms in different ways, orient flake scars in distinctive patterns, apply force differently, and use different striking angles (Gunn 1975:38). The conclusion that he reaches is that it may be possible to identify the work of individual knappers (Gunn 1975:60). The author has already suggested that the four bifaces from 14SA1 may be the work of a single knapper. If it is possible to similarly isolate the Harlan/Spiro bifaces to the work of one or a few knappers, then the hypothesized link between the cultures in these two areas moves from the general to the highly specific level of the individual. This is a somewhat staggering idea, and probably cannot be realistically accomplished given the state of lithic analysis at the present time but it is certainly worth trying. As anthropologists, we tell students that our science deals with groups, not individuals. Wouldn't it be splendid if we could take the concept of the individual back into the archeological past?

While the Harlan and Spiro phases may be relatively securely dated to ca. A.D. 900 to 1200 for the former (Bell 1984:240) and ca. A.D. 1250 to 1450 for the latter (Brown 1984:241), the specific chronological placement of the Smoky Hill phase is not known at this time. As Brown and Simmons have indicated (1987:E-8), current radiocarbon dates for this phase range from the sixth century A.D. to the 1700s. The author suspects that the actual date for the cemetery at the Whiteford site is in the interval from A.D. 1100 to A.D. 1400 but even this restricted range would make for complications in understanding the site's relationship to the Harlan and/or Spiro phases of Oklahoma. It is probable, however, that the Whiteford site provides evidence of contact between the Smoky Hill people and either late Harlan or early Spiro peoples, with an estimated date for the Whiteford site sometime in the thirteenth

century. The specifics of this contact can only be understood after we have had an opportunity to more closely study the eastern Oklahoma information. Similarly, a comparison of the bifaces from the burial area at 14SA1 with the recovered artifacts from eastern Oklahoma should provide additional data on possible relationships between the two areas.

The cemetery or "Indian Burial Pit" at the Whiteford site appears to be a feature unique to this site. That is, while numbers of Smoky Hill habitation sites are known from central Kansas, this burial area is the only large cemetery that has so far been associated with any of these sites. Complex cemeteries, often with special mortuary practices for high status individuals, are a hallmark of the Spiro phase of Oklahoma and, to a lesser extent, for the earlier Harlan phase. The uniqueness of the Whiteford cemetery, with its definite evidence of contact with Harlan/Spiro sites from Oklahoma, has led one archeologist to suggest that the basic cemetery pattern revealed at the Whiteford site may be a local Kansas adaptation of a complex mortuary pattern that developed or was highlighted in eastern Oklahoma (Thomas A. Witty, Jr., personal communication 1990). The four biface knives are integral pieces of evidence that appear to support this view.

REFERENCES CITED

- Banks, Larry D.
1990 *From Mountain Peaks to Alligator Stomachs: A Review of Lithic Sources in the Trans-Mississippi South, the Southern Plains, and Adjacent Southwest*. Oklahoma Anthropological Society, Memoir 4.
- Bell, Robert E.
1984 Arkansas Valley Caddoan: The Harlan Phase. In *Prehistory of Oklahoma*, edited by Robert E. Bell, pp. 307-324. Academic Press, Orlando, Florida.
- Brown, James A.
1983 Spiro Exchange Connections Revealed by Sources of Imported

- Raw Materials. In *Southeastern Natives and Their Pasts: Papers Honoring Dr. Robert E. Bell*, edited by Don G. Wyckoff and Jack L. Hoffman. Oklahoma Archeological Survey, Studies in Oklahoma's Past, No. 11, Cross Timbers Heritage Association, Contribution No. 2. Norman.
- 1984 Arkansas Valley Caddoan: The Spiro Phase. In *Prehistory of Oklahoma*, edited by Robert E. Bell, pp. 241-263. Academic Press, Orlando, Florida.
- Brown, Kenneth L., and Alan H. Simmons (editors)
- 1987 *Kansas Prehistoric Archaeological Preservation Plan*. Office of Archaeological Research, Museum of Anthropology and Center for Public Affairs, University of Kansas, Lawrence.
- Callahan, Errett
- 1979 The Basics of Biface Knapping in the Eastern Fluted Point Tradition: A Manual for Flintknappers and Lithic Analysts. *Archaeology of Eastern North America* 7(1):1-80.
- Gradwohl, David M.
- 1969 *Prehistoric Villages in Eastern Nebraska*. Publications in Anthropology 4. Nebraska State Historical Society, Lincoln.
- Gunn, Joel
- 1975 Idiosyncratic Behavior in Chipping Style: Some Hypotheses and Preliminary Analysis. In *Lithic Technology: Making and Using Stone Tools*, edited by Earl Swanson, pp. 35-61.
- Holmes, William H.
- 1894 Natural History of Flaked Stone Implements. *Memoirs of the International Congress of Anthropology*, pp. 120-139. Chicago.
- 1897 Stone Implements of the Potomac-Chesapeake Tidewater Province. *Bureau of American Ethnology Annual Report* 1893-94:13-152.
- Lehmer, Donald J.
- 1954 *Archeological Investigations in the Oahe Dam Area, South Dakota, 1950-1951*. Bulletin 158. Bureau of American Ethnology, Washington, D.C.
- Munsell Color Company
- 1954 *Munsell Soil Color Charts, 1954 Edition*. Munsell Color Company Baltimore, Maryland.
- Reynolds, John D.
- 1984 *The Cow-Killer Site, Melvern Lake, Kansas*. Kansas State Historical Society, Anthropological Series No. 12. Topeka.
- 1987 *The Archeology of Grove Reservoir, Kansas, 1969*. Kansas State Historical Society, Anthropological Series No. 14. Topeka.
- Roper, Donna C.
- 1989 *Protohistoric Pawnee Hunting in the Nebraska Sand Hills: Archeological Investigations at Two Sites in the Calamus Reservoir*. A report to U.S. Department of the Interior, Bureau of Reclamation, Great Plains Region, Billings, Montana.
- Wedel, Waldo R.
- 1935 Reports on Field Work by the Archeological Survey of the Nebraska State Historical Society, 1934. *Nebraska History Magazine* 15(3):132-255.
- 1959 *An Introduction to Kansas Archeology*. Bulletin 174, Bureau of American Ethnology. Washington, D.C.

Whiteford, Guy L.

1937 *Prehistoric Indian Excavations in Saline County, Kansas*. Consolidated-Salina, Salina, Kansas.

1941 *Indian Archaeology in Saline County, Kansas*. Consolidated-Salina, Salina, Kansas.

n.d. Field notes of investigations by Whiteford in central Kansas. Ms. on file, Kansas State Historical Society, Topeka.

Witty, Thomas A., Jr.

1984 The Whiteford (Price), "Indian Burial Pit," Archeological Site, Saline County, Kansas. Ms. on file, Kansas State Historical Society, Topeka.

Wright, Carl M.

1985 The Complex Aspects of the "Smoky Hill Jasper," now Known as Niobraraite. *Journal of the Kansas Anthropological Association* 5(3):87-90.

THE BOGAN SITE, 14GE1, AN HISTORIC PAWNEE VILLAGE

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Kansas State Historical Society

The Kansas Anthropologist, 11(1), 1990 pp. 21-32

This article was originally prepared in 1967 but was never published. It is the only report on one of two known Historic period Pawnee village sites in Kansas. Investigations of this site were intended to delineate the site area, conduct limited excavations, and recover a sample of artifacts for research and display purposes. Excavations documented the presence of a fortification around the village, and resulted in the excavation of one house and the testing of one cache pit. The small size of the village and small numbers of artifacts found allowed the conclusion that this site was occupied for only a brief time.

The presence of the visible remains of a small earthlodge village site within the limits of the Milford reservoir area prompted the Recreation Section, U.S. Army Corps of Engineers, Kansas City District, to begin a study of that site's recreational and educational potential. The archeological division of the Kansas State Historical Society was asked to investigate and make recommendations as to the feasibility of developing the site into an interpretive historic park. A sum of \$1,500 was allocated by the U.S. Army Corps of Engineers to the Historical Society for this study. James O. Marshall directed the field and laboratory work upon the site under the general supervision of Thomas A. Witty, state archeologist.

The primary objectives in this archeological investigation were to delineate the site area, conduct limited archeological excavations, recover a sample of the artifact material present for study as well as display, and to make an accurate appraisal for the cultural and temporal identification of the site. Conclusions derived from the field investigations and an examination of the specimens that were found confirmed an earlier supposition that the site is the remains of a Pawnee Indian village occupied in historic times. Secondly, the people at this village were recipients of European trade goods. Finally, enough material was recovered to present an attractive and meaningful display as a supplement to the physical features of the site.

DESCRIPTION OF THE SITE

14GE1 is located in Geary County, Kansas. The site, [REDACTED] [REDACTED] (Figure 1). Before the reservoir was built, the site provided a splendid view of the valley, especially to the north. Today a visitor can enjoy a view of Milford Lake and see the village of Milford on the east shore two miles north.

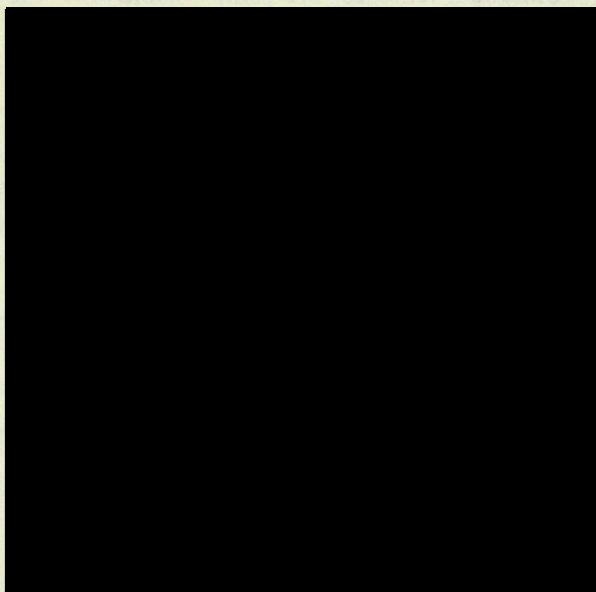


Figure 1. Contour map of the Bogan site showing the outline of the fortification remains and house depressions.

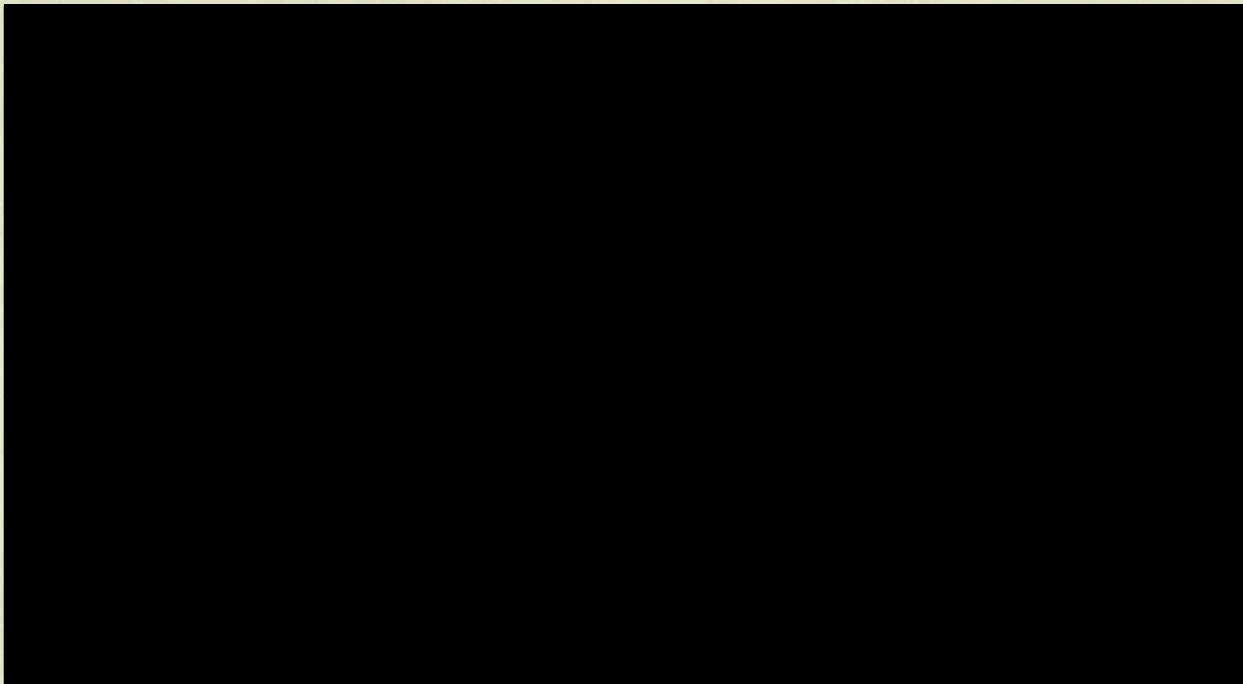


Figure 2. Bogan in 1967 prior to excavation.
Courtesy Kansas State Historical Society

It has been a fortunate accident that the Bogan site has been only partially disturbed by agricultural activity (Figure 2). A major portion of the site has never been cultivated. Prominent features are still visible on the surface of the ground. These features were interpreted to be a fortification, house depressions, and pit depressions. The remnants of a fortification line enclose over one acre of land. The south end of the site has been obliterated by agricultural terracing and contour plowing. By following the outline of the fortification remains, it is estimated that approximately another 100 ft was enclosed.

ENVIRONMENTAL SETTING

Geary County is within the area of Kansas that has been classified as Flint Hills Upland, a division of the Osage Plains which is a section of the Central Lowland Province (Schoewe 1949:280). The Flint Hills Upland is made up of an outcrop of Permian rock stratas consisting of shale, limestone, sandstone, gypsum, rock salt, and chert or flint (Schoewe 1949:263). The eastern border of the upland is

marked by an east-facing escarpment known as the Flint Hills and to the west the upland blends into the Dissected High Plains.

The Smoky Hill River, flowing east, and the Republican River, flowing southeast, join in Geary County to form the Kansas River which in turn drains into the Missouri River. The Kansas River is the only major river that crosses the Flint Hills Upland. Land north of the Kansas River has been modified by glacial advances and thus the Flint Hills are less pronounced than they are south of the river.

Specific data on the climate of Geary County, gathered from the year 1898 to 1942, records the annual precipitation as 31.55 in (Flora 1948:26). Twenty inches of moisture falls between May and September during the growing season. The average annual temperature is listed as 55.6 degrees (Flora 1948:149).

Plentiful moisture and mild temperatures throughout a long growing season are conditions that produce a bountiful yield of

crops, especially corn and alfalfa. Farming is particularly profitable in the Republican valley where there is ample, rich soil. On the upland the soil is thin but it is covered with native bluestem grass that is ideal pasturage for the cattle herds that are kept on feed ranches.

In aboriginal times, the lower Republican valley was probably a woodland environment that supported a varied flora and fauna. Trees, such as cottonwood, oak, elm, ash, and red cedar grew along the river, supporting small mammals and birds. Larger mammals roamed in herds between the upland and valley, followed by predators. Archeological evidence establishes the presence of bison, elk, deer, wolves, beaver, foxes, raccoons, squirrels, rabbits, wild turkey, grouse, quail, and various migratory birds. The river was a source of fish and, more important to the Indian, freshwater mollusks (Wedel 1959:12).

This part of Kansas, then, was just as inviting and profitable to the native inhabitants as it is to modern residents. The archeological record shows that the area was inhabited by several groups, hunters and horticulturists, all utilizing the accessible natural resources necessary to sustain life.

PREVIOUS RESEARCH

The presence of the Bogan site may have been known for a number of years by local residents. An early written reference is found in Andreas' *History of Kansas*:

There is a place close to Junction City, which it is currently believed was a fortified place long, long, long, ago, before gunpowder was invented or cannon thought of. The place is known as the "old fortification" and considerable local interest is attached to it. In shape, it bears some resemblance to that of a fort and the fact that a number of flint arrowheads and other ancient warlike missiles and weapons have been found upon the premises, establishes the belief in its antiquity [Andreas 1883:1004].

Floyd Schultz, an amateur archeologist from Clay Center, did some digging at the site in 1930 (Figure 3). He gave his records to the University of Kansas, including an incorrect legal description. The error resulted in the site being "lost" until 1964. It was not until construction of the Milford reservoir began that the site was rediscovered. Thomas Wittly was directed to the site by Lowery Tague, a local resident who had known of the site since his boyhood days. Wittly recognized the site as the

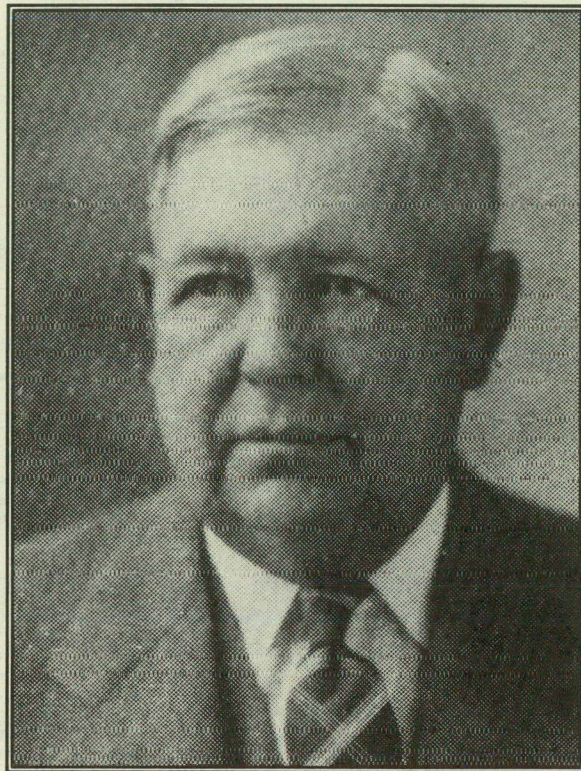


Figure 3. Floyd Schultz
Courtesy Kansas State Historical Society

Bogan site reported by Schultz.

During the summer of 1964, the University of Nebraska, Laboratory of Anthropology, as a cooperating agency of the inter-agency archeological salvage program under the sponsorship of the National Park Service, tested the site. Several small excavations were dug through the fortification to the north of the site. Since the site was not then in danger of inundation, the initial testing was very limited. This work was carried out by James E. Sperry

and Richard Krause under the supervision of Professor Preston Holder.

ARCHEOLOGICAL INVESTIGATIONS

Excavation at the Bogan site followed a preconceived plan to investigate each of the major discernible surface features. Initial testing was done south of the existing site to determine if features still existed within the cultivated area. Testing was restricted to the fortification line and a pit depression. The major excavation was then conducted on one of the house depressions.

Fortification Remains

The fortification line encloses an elongated area which measures 350 ft on the north-south axis. The widest part of the site, measuring 280 ft, occurs on the southern periphery. From this end, the site area constricts to a width of 130 ft at the north end. The outline of the fortification is visible as a linear mound of earth with an elevation 0.6 ft to 1.0 ft above the present ground level. The width measurement, including the slope on each side of the mound, ranges from 4.0 ft to 5.0 ft.

An east-west trench, 7.0 ft in length and 2.0 ft in width, was excavated through the mound at the southwest edge of the site. Beneath the sod, at a depth of 0.5 ft, indications of intense burning were noted. The soil was flecked with charcoal and particles of burned earth discolored to a bright orange. This burned zone was completely bisected and the

trench was excavated to a depth of 1.8 ft, where a yellow soil was encountered. This underlying sterile soil was devoid of any cultural remains.

When viewed in vertical profile, the burned earth was comparatively uniform in thickness, measuring 1.0 ft. A vertical dip at the base of this zone extended the vertical measurement to 1.5 ft. The linear measurement for this zone is

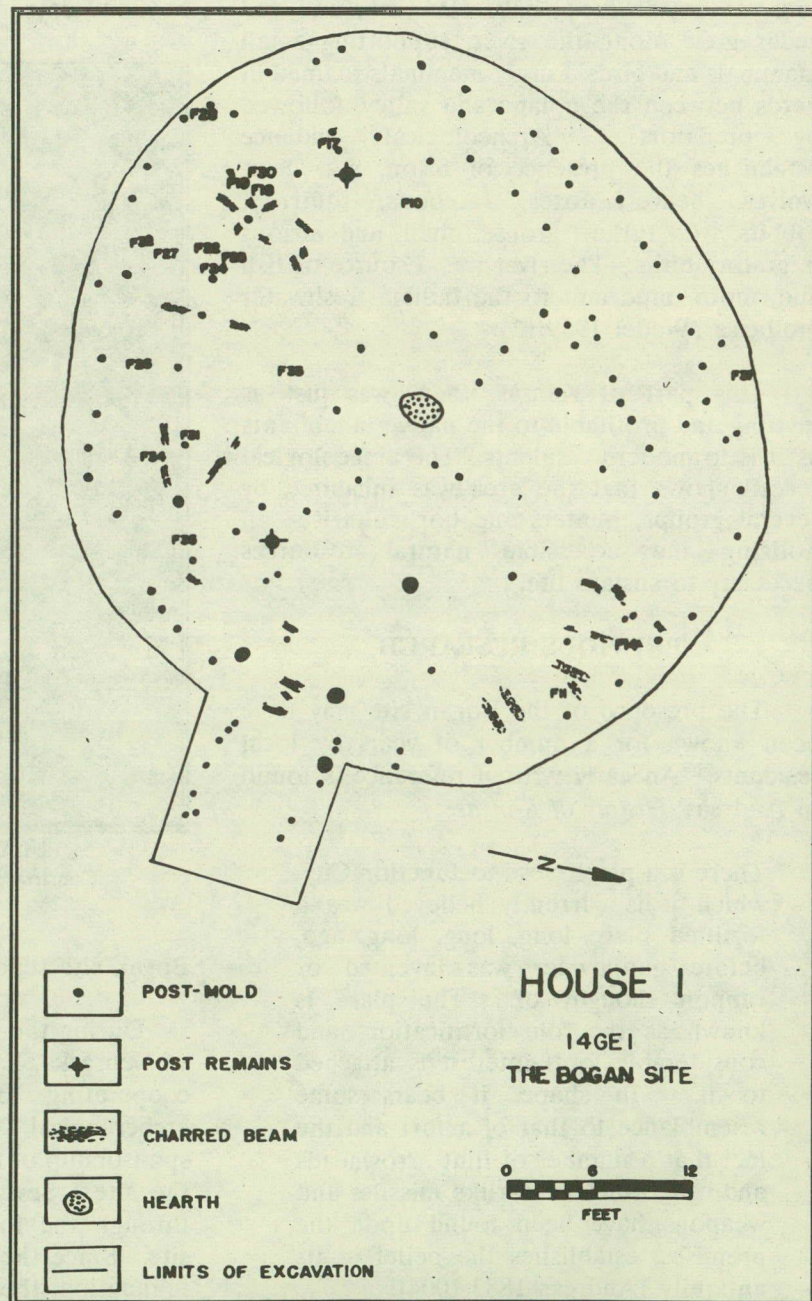


Figure 4. Plan of House 1.

4.0 ft in length and narrows at the base to 0.8 ft. The heaviest concentrations of charcoal were noted within the aforementioned dip when viewed in vertical profile.

Our findings are the same as those recorded by Sperry and Krause in 1964. They noted a dip with a linear measurement of 0.7 ft and a depth which extended 0.5 ft below the major zone. A piece of wood was recovered from their excavation that was 0.3 ft in diameter (Sperry 1964).

Floyd Schultz tested the fortification in 1930 and he found, according to his field notes, a line of charred posts spaced about 15 in to 20 in apart (Schultz 1930).

The archeological evidence indicates that the fortification was originally a palisade. A shallow trench was laid out around the village with posts set in the trench. The trench was refilled and the posts were stabilized. Fire, obviously, was the initial destroyer of the palisade.

House 1

The remains of two houses within the fortification show as depressions ringed by wide, low, linear mounds of earth. The third house site is a flat, raised circular area lacking a raised ring of mounded earth. Schultz did some digging in each depression, but evidence of his trenches is not visible today (Schultz 1930).

The depression chosen for excavation, designated House 1, had been recently disturbed by relic hunters (Figure 4). A square pit, measuring 3.0 ft by 3.0 ft, had been dug near the center of the depression. Our excavation began immediately east of this pit. The floor of the house was reached at a depth of 0.6 ft. A trench was then extended east to the periphery of the depression. The rest of the floor was cleared of overburden by removing wedge-shaped sections from the depression in a counterclockwise direction (Figures 5 and 6).

Architectural features and artifacts were labeled numerically as they were uncovered.

After the floor had been exposed, post molds and the hearth were defined by removing the loose, discolored soil with which they were filled. A map was then drawn showing the pattern of the features including the provenience of the artifacts. Lastly, a series of colored and black and white photographs was taken from a ladder set west of the house overlooking the excavations.

The floor of the house had been prepared with a coating of clay about 0.3 ft thick. This was then apparently fired to leave a crude ceramic floor covering. However, a large part of the prepared floor had been undermined by rodent burrows and was destroyed or in poor condition.

Sections of charred beams were found lying on the floor along the east and south sides of the house. The best examples of these beams were found near the northeast periphery. As shown on the map of the dwelling, they were arranged in a pattern suggesting that they once radiated outward from a central point. If this is the case, the beams were part of the radial structure of the roof. Alternately, these sections of beams could have been a part of the wall that fell inward when the structure collapsed. All the beams are 0.25 ft in diameter with the longest piece measuring 3.5 ft.

The hearth, located in the center of the house, first appeared as a discolored area on the floor. The fill was removed, defining a basin-shaped pit lined with fire hardened soil impregnated with a white ash. Dimensions of the hearth are 2.5 ft in diameter and 0.7 ft in depth. There was no prepared lip around the basin; however, this could have been destroyed by the relic hunter's digging.

The pattern formed by the post molds is that of three concentric circles. The inner circle consists of six post molds around the hearth. Each post was about 5.0 ft from the center of the hearth. There are three additional post molds around the north half of the circle that are interpreted as having been extra supports. The measurements of these nine post molds average 0.5 ft in diameter and



Figure 5. Excavation of House 1.
Courtesy Kansas State Historical Society

0.7 ft in depth.

The second circle of 28 post molds has a radius of from 10 to 17 ft from the center of the hearth. This line of post molds is somewhat flattened along the north side. These post molds, except for two, exhibit the same dimensions as those in the inner circle. Two are larger than the rest. One, west of the hearth, is 1.0 ft in diameter and 1.7 ft in depth. A section of the post was recovered from the mold. The post fragment is 0.5 ft in diameter. Around this post, the floor raised about 0.8 ft, probably to add extra support. The other post mold, located southeast of the hearth, measures 0.7 ft in diameter and 1.5 ft in depth.

There are 60 post molds in the outside circle, marking the limit of the prepared floor. Included within this ring are 13 post molds that extend east 8.0 ft from the east edge in two parallel lines 7.0 ft apart. This extension marks the entryway into the house. The peripheral

post molds also average 0.5 ft in diameter and 0.7 ft in depth.

Between the entryway and the hearth are four large post molds that range from 0.8 ft to 1.1 ft in diameter and from 1.0 ft to 1.4 ft in depth. The southwesternmost mold of this group contained a section of a post that measures 0.7 ft in diameter. These four large post molds could represent supports for the lintels over the doorway.

The remaining post molds are distributed between the middle and inner circle. Five are grouped around the large support post described above as part of the structure for the door. These are thought to have been reinforcements around a main support post. The last six post molds are scattered along the north side of the house. Two of these form a small square with two posts of the second circle northwest of the hearth. If these posts had a function other than extra supports, it is not

known at this time.

In summary, the post mold pattern forms three concentric circles, the peripheral circle measuring 44 ft in diameter. The two inner circles represent support posts and the outer circle is the line for the wall. An entryway extends east from the east side of the outer circle. Charred beams, flecks of charcoal, and daub throughout the overburden and the

such an extent that it could not be delimited. Subsurface soil was dark brown in color and devoid of evidence indicative of cultural activity. It is believed that the pit was left open and filled with debris that later decayed into a humus. This humus was then mixed with the surrounding soil by rodents and root systems. Possibly the depression is the result of Schultz's digging in 1930. His field notes relate the excavation of a pit but do not state the location

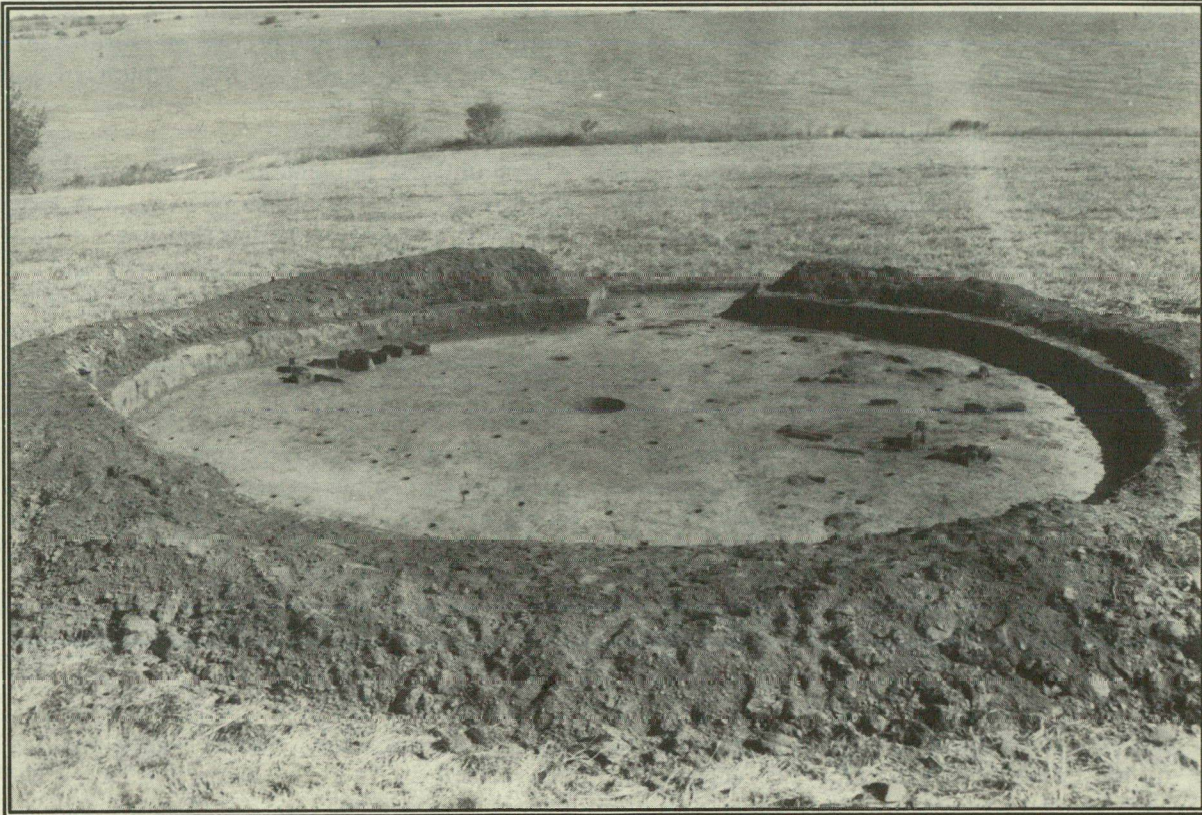


Figure 6. House 1 after excavation.
Courtesy Kansas State Historical Society

burned floor all testify to the fact that the dwelling was destroyed by fire. Soil samples taken from the other two house sites show this same evidence of destruction that was found for House 1 and the fortification.

Pit Depression

One small depression, assumed to have been a pit, was tested. It is located adjacent to the southwest edge of House 1. The pit had been disturbed by the roots of a plum bush to

(Schultz 1930).

DESCRIPTION OF ARTIFACTS

A total of 81 specimens were recovered from the excavations at the Bogan site. Seventy-eight were found in association with House 1 and four were associated with the fortification. Twelve pottery sherds, a piece of shaped clay, eight pieces of bone, six mussel shells, thirty-one specimens of worked and unworked stone, three samples of wood, and

twenty metal specimens constitute the artifact inventory.

Ceramics

Ceramic material consists of twelve pottery sherds, all body sherds, and one piece of shaped clay. One sherd was recovered from the trench that crossed the fortification, seven are from the fill above the floor of House 1, and four sherds were found lying on the floor of the house. The locations of these four sherds on the map of the house are designated F30 and F34 (see Figure 4).

The shaped clay object was found on the floor of the house within an area that had been badly disturbed by rodents. It is identified on the map of the house as F14 (see Figure 4).

The sherds are most similar to a type that is recognized as a part of the Pawnee ceramic tradition (Wedel 1936:71). In general description, these sherds are sand-tempered. The paste is somewhat laminated and has a fine texture. Exterior surfaces of the sherds are buff-colored and they have been smoothed. Scars resulting from the smoothing are visible on the surfaces. The interior surface colors range from a dull orange to a red. These surfaces are uneven due to finger impressions made while the clay was still plastic. One sherd has been decorated on the exterior surface with incised lines. The specimen is not large enough to establish a definite pattern of decoration but a frond or leaf-shaped effect is suggested (Figure 7a).

The shaped clay object is simply a cylindrical piece of clay with flattened ends (Figure 7b). This object measures 34 mm in length and it has a diameter of 14 mm. There is a punctation on one side of the artifact. The object could have possibly been used as a gaming piece but this identification must remain a supposition.

Stone

Stone implements, all recovered from the floor of House 1, are made from sandstone, chert, pipestone, and granite. The inventory

includes two arrowshaft smoothers, F18 and F19; a perforated piece of sandstone, F17; a chert blade, F28; and a pipestone pipe, F27 (see Figure 4).

The arrowshaft smoothers were manufactured from an iron cemented sandstone. They are ellipsoidal in general outline and plano-convex in vertical cross section. Both specimens exhibit a central groove worn longitudinally into one surface. One complete example is 115 mm in length and 30 mm in width. The longitudinal groove measures 8 mm in width and extends the full length of the artifact (Figure 7m).

An unusual implement of unknown usage other than being an abrading stone is a large cylindrical piece of sandstone that has a central perforation through its long axis (Figure 7l). The stone is 113 mm in length with a diameter of 55 mm. The perforation through the length of the stone is 20 mm in diameter.

One oval blade, made from chert, has been bifacially flaked and retouched by secondary chipping along the edges (Figure 7c). It measures 76 mm in length and 45 mm in width.

By far the most spectacular stone artifact is an unfinished pipestone pipe in which the bowl and stem remained to be drilled (Figure 7d). The bowl is round and expands in diameter from the lip to the base. A groove separates the bowl from the stem. The stem is embellished by a keel adding symmetry and balance to the pipe.

There are 12 pieces of sandstone, granite, and limestone that could have been used as grinding stones, milling stones, or as anvil stones. Four sandstone slabs, F37 and F23, are probable milling stones (see Figure 4). Three of these stones are circular in general outline measuring 125 mm in diameter and 15 mm in thickness. One stone has a spatulate form (Figure 7j). It is 240 mm in length and tapers from 130 mm to 60 mm in width. The thickness of the stone is 20 mm.

The best example of a grinding stone is a rectangular piece of sandstone measuring 120

mm in length, 70 mm in width, and 40 mm in thickness (Figure 7k). Its location on the floor of House 1 is designated as F32 (see Figure 4).

Five specimens are irregular in form but each has some indication of being used either

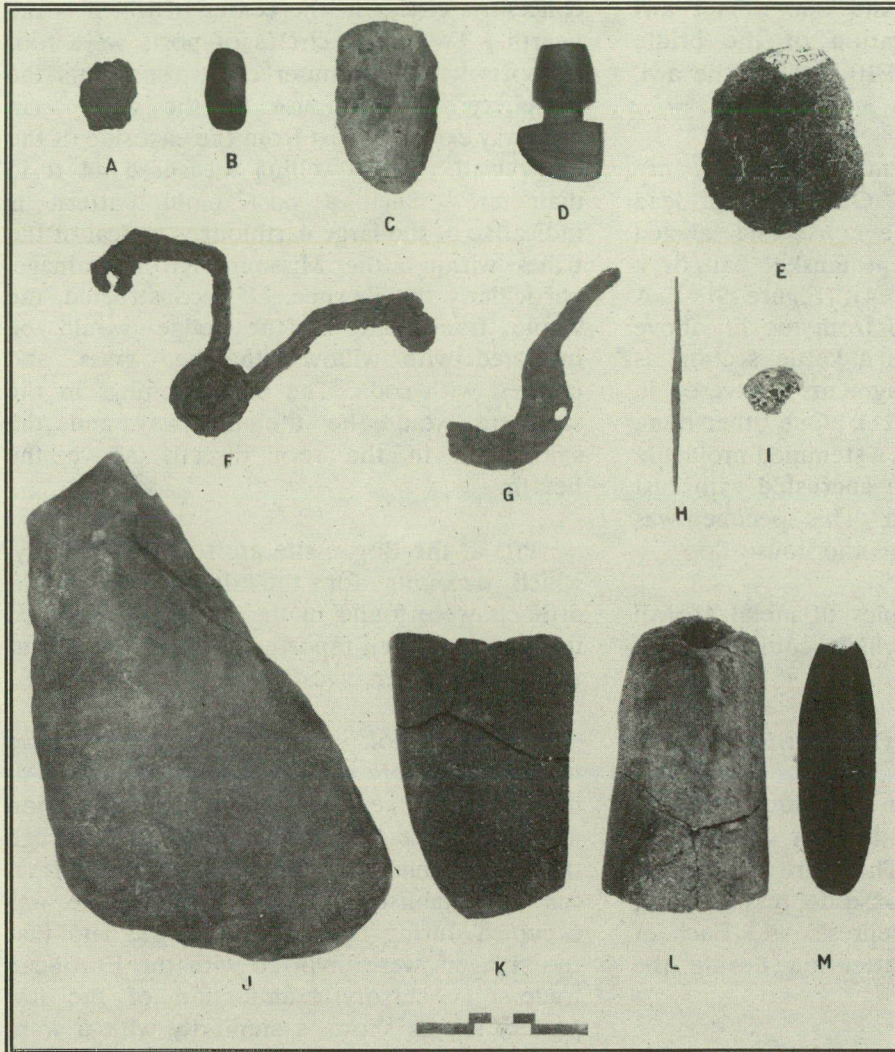


Figure 7. Artifacts from the Bogan site.
Courtesy Kansas State Historical Society

as a grinding stone or as an anvil stone. One face on each stone has been modified by grinding or pecking. Three of these stones are granite, one is sandstone, and one limestone. These implements are located on the floor of the house as F31, F32, F33, F35 and F22 (see Figure 4).

Bone

Identifiable bone specimens collected from the site are sections of two ramii, one from an elk (wapiti) (*Cervu canadensis*) and the other from a deer (Olson 1964:59). The section from the deer ramus is either that of a white-tailed deer (*Odocoileus virginianus*) or a mule deer (*Odocoileus hemionus*) (Olson 1964:60-61).

Two other bone specimens, both fragmentary, are from some large mammal. The sections are from the proximal end of the humerus. It is believed that these functioned as rubbing tools in the tanning of hides (Wedel 1936:83). One specimen was recovered from the fill above the floor of House 1 and the other was on the floor. Its location is labeled F26 (see Figure 4) (Figure 7e). The remaining bone specimens consist of unidentifiable fragments.

Shell

Shell specimens recovered from the site were unmodified.

These shells are all examples of freshwater mollusk and are probably of local origin.

Wood

Wood samples recovered from the site are sections of posts and beams. All will be retained for future dendrochronological analysis.

These are construction materials collected exclusively from House 1.

Metal

Metal specimens are represented by pieces of iron, copper, and lead. Identifiable artifacts are two bridle sections and one off-set awl (Figure 7f-h). The location of the bridle sections is designated as F10 and for the awl, F11 (see Figure 4).

The remaining metal specimens are essentially nondescript. One piece of lead found on the floor of the house and labeled F24 may be either a spent musket ball or a lead splatter (see Figure 4) (Figure 7i). A piece of copper recovered from the fill above the house floor could be a kettle section as identified from copper fragments recovered in Missouri (Chapman 1959:21). One other item, made from iron, resembles a stemmed projectile point. However, it is too encrusted with rust for a positive identification. This specimen was also found in the fill above the house floor.

The remaining examples of metal are all highly oxidized pieces which could not be identified.

SUMMARY AND CONCLUSIONS

The Bogan site is in a unique state of preservation for this area. Major features are still visible on the site. These are the outline of a fortification, three house depressions, and storage and borrow pit depressions. Each of these features received attention during the course of field work.

The fortification delimits the site. It encloses an area 350 ft north-south and 280 ft east-west across the end of the site. The width of the north end narrows to 130 ft east-west. A portion of the south end of the site has been obliterated by cultivation. It is estimated that the fortification once extended about 100 ft further south of the present boundary. Archeological evidence indicates that the fortification was a palisade type. A shallow ditch was excavated around the village. Poles were set in this trench which was then refilled.

This served to stabilize the poles. It is assumed that the poles were set close enough together and were high enough to block the passage of a person.

One of the three house sites was completely excavated. The post mold pattern forms three concentric circles in the center of which is the hearth. Two inner circles of posts were roof supports while the outer circle represents the periphery of the house or the wall. An entryway extended east from the east side of the outer wall. The dwelling measured 44 ft in diameter. Such a post mold pattern is indicative of the large earthlodges typical of the tribes within the Missouri River drainage, particularly the Pawnee. If reconstructed, the whole framework of the lodge would be insulated with willows, thatched grass, and covered with sod. The only openings in the structure would be the entryway and the smokehole in the roof directly above the hearth.

Pits at the Bogan site are seemingly empty, which accounts for the depressions. No artifacts were found in the pit that was tested nor have any been reported found in the pits at this site by other investigators.

Artifacts of European and native manufacture were recovered from the site. All but four specimens were found in association with the house that was excavated. Although the artifact analysis is limited in this report, it can be established that the Bogan site was occupied during the Historic period and that the villagers were involved with the European trade. A cursory examination of the few pottery sherds shows a similarity with a ware affiliated with the historic Pawnee culture (Wedel 1936:71).

An impression gained during the excavation of the site is that it was not occupied for any great length of time and, in fact, was abandoned before the village was fully occupied. The scarcity of artifacts, empty pits, a large area designated for the village, and only a few dwellings point to a brief occupancy. The evidence suggests that fire destroyed the village before it was completely occupied. A fire may

well have been the initial destroyer, either because of enemy attack or a prairie fire that swept the village while occupied or after abandonment.

At present, then, only tentative conclusions can be stated. On the basis of ceramic evidence, the type of dwelling found, and the presence of European materials, the Bogan site was occupied by a group representative of the Pawnees within the Historic period. The village was occupied briefly and abandoned for reasons that are unknown at this time.

Detailed comparative studies of the material from the Bogan site with other known Pawnee village sites remain to be done before exact conclusions are drawn pertaining to village and perhaps band affiliations. For example, the Bogan site is the third Pawnee village that has been found on the Republican River. The other two are the Hill site that covers some 25 a near Red Cloud, Nebraska, and the Kansas Monument site, a 10 a site near Republic, Kansas (Wedel 1936:32-26; Witty 1988:1-6).

The Historical Society has completed a three year archeological project at the Kansas Monument site. It is believed that the data from this site will have a significant bearing on the interpretation of the material from the Bogan site.

Given federal ownership, the Bogan site should receive protection. Its loss to future qualified investigators will mean a significant gap in data needed to interpret accurately the Pawnee culture and society, and the role of the Pawnee in America's western history.

Acknowledgements. The Historical Society is indebted to the U.S. Army Corps of Engineers for this opportunity to begin a study of the site. Particular appreciation is due Col. W.G. Kratz, District Engineer, and his staff. We enjoyed sharing his enthusiasm in desiring to know and preserve a part of Kansas history.

Acknowledgement is given to Dr. Richard Krause, Laboratory of Anthropology, University of Nebraska, and Dr. Carlyle Smith, Department of Anthropology, University of Kansas, for their cooperation. Dr. Krause supplied records of minor testing at the site that were written in 1964 when archeologists from the university were salvaging archeological material from the reservoir. Dr. Smith made

available the notes and maps of the late Floyd Schultz, who first investigated and named the site in 1930.

All records, maps, photographs, and specimens are on file in the archeological laboratory at the Kansas State Historical Society in Topeka, Kansas.

REFERENCES CITED

- Andreas, A.T.
1883 *History of the State of Kansas*. Chicago.
- Chapman, Carl H.
1959 The Little Osage and Missouri Indian Village Sites, ca. 1727-1777 A.D. *The Missouri Archeologist* 21(1).
- Flora, Snowden D.
1948 *Climate of Kansas*. Kansas State Board of Agriculture, Quarterly Reports, 67(285).
- Olson, Stanley J.
1965 *Mammal remains from archeological sites, Part 1 Southeastern and Southwestern United States*. Papers of the Peabody Museum of Archeology and Ethnology, Harvard University, 56(1).
- Schoewe, Walter H.
1949 *The Geography of Kansas, Part 11, Physical Geography*. Transactions of the Kansas Academy of Science 52(3):261-333.
- Schultz, Floyd
1930 Unpublished field notes. Ms. on file, Laboratory of Anthropology, University of Kansas.
- Sperry, James E.
1964 Unpublished field notes. Ms. on file, Laboratory of Anthropology, University of Nebraska.
- Wedel, Waldo R.
1936 *An Introduction to Pawnee Archeology*. Smithsonian Institution, Bureau of American Ethnology, Bulletin 112.

1959 *An Introduction to Kansas Archeology.*
Smithsonian Institution, Bureau of
American Ethnology, Bulletin 174.

Witty, Thomas A., Jr.

1968 The Pawnee Indian Village Museum
Project. *Kansas Anthropological
Association Newsletter* 13(5):1-6.

BOOK REVIEWS

Beyond the Loom: Keys to Understanding Early Southwestern Weaving. ANN LANE HEDLUND; with an introduction by JOE BEN WHEAT. Johnson Books, Boulder, 1990. xiii + 98 pp., 20 figs., 10 color plates, glossary, further reading. \$9.95 (paper).

Reviewed by Jim D. Feagins, Grandview, MO.

The craftsmanship from the American Southwest has long been admired by connoisseurs of the arts as well as the general public. Among the most colorful and attractive of the Southwestern crafts are those done in textile. In spite of this fact, from a technological standpoint, they have only relatively recently been intensively studied to any major extent.

Beyond the Loom is a general introduction to an insightful study of the textiles from three cultures: Pueblo, Navajo, and Spanish Colonial. This publication was written to accompany an exhibit of the same name established by the University of Colorado Museum at Boulder. The exhibit and the book are somewhat of a natural result of the years of Southwestern textile research at UCM. This pioneering research under the direction of Joe Ben Wheat has led to the development of a methodology to enable the comparison of attributes of various Southwestern textiles. The ultimate goal was to study documented examples to establish criteria which would allow undocumented specimens to be identified as to culture and time period. The display and this publication are a fine tribute to Dr. Wheat's successful research.

Wheat developed a standardized form to accurately record the physical descriptions of textiles. While an attempt was made to record (as completely as possible) all the attributes, it was soon realized that some characteristics were more important than others for identifying the culture and the time periods which produced various textiles. In addition to the physical description, the textiles were assigned to style categories and photographed. While the almost 500 Southwestern textiles in the UCM's

collection formed the nucleus of the study, a year's sabbatical enabled Wheat to also examine the documented specimens at many other institutions.

Among the attributes examined were: overall size of the fabric, structure of the weave, corner details, side and end selvage finishes, texture, color and fibers, type of fibers, production methods, spin/ply configuration and count, presence of lazy lines, overall design arrangement, types of motifs, the color scheme, overall style, and the dyes used. Max Saltzman of the University of California at Los Angeles, along with Wheat, made an important contribution in developing a technique called solution spectrophotometry to identify certain dyes found in many textiles. The textiles were grouped into various stylistic and functional types, such as: serapes, chief blankets, saddle blankets, ponchos, etc. Individual tables and group tables and graphs were made to analyze the attributes according to types. The results of the physical and style analyses were compared with ethnohistoric research and the documentation for the various textiles.

The differences and similarities of textiles produced by the three Southwestern weaving cultures were discussed in the text and then summarized in a table for ease of reference. When viewed collectively, the individual traits proved capable of accurately placing the various textiles into a useful cultural chronological framework.

One section of the publication describes selected textiles from the UCM collection that are part of the exhibit. If one had the time, this section could be quite useful to consult while viewing the exhibit. Since only about 15 percent of the textiles described in this section are illustrated in the volume, a reader not able to visit the exhibit would probably gain but little from the descriptions given for each of the 140 textiles. Some descriptions, without a photograph or the actual item to view, are not very informative, for example, "39212 Terraced zigzags, gift of Kenneth Siebel. (III)." This section would have been more interesting if it

had been shortened to include only a few examples (each accompanied by a photograph) of each stylistic/functional category.

The volume's "Glossary of Southwestern Weaving" section is well done and should be a handy reference. It contains 149 terms (accompanied with drawings as needed).

Textile collectors, artists, and students of anthropology and history will find this publication generally useful and quite interesting. This volume provides a good introduction to the methods used for building a better understanding of early Southwestern weaving. These methods of weaving analysis should be of use when applied to textile studies in other cultural/geographic regions.

ABOUT THE AUTHORS

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Jim is a long-standing member and former officer of the KAA whose research interests focus on the Kansas City area. He holds the M.A. in anthropology and is affiliated with the Kansas City Museum. Jim's book reviews are common features in KAA publications, and site records bearing his name abound in Kansas and Missouri.

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Jim was an archeologist with the Kansas State Historical Society from 1965 through 1969. Prior to joining the Society he completed his M.A. at the University of Nebraska where he conducted research in the Glen Elder Reservoir area of Kansas. At the Society, he directed survey and excavation projects at Grove, Perry, Big Hill, and Elk City lakes, was involved in the survey of Salt and Plum Creek and the search for Fort Cavagnolle, conducted excavations at the Bogan site, and participated in KAA digs at the Larned and Curry sites. He formally defined the Cuesta phase and identified the first Cuesta and Grasshopper Falls phase houses. Jim left the Society to pursue his Doctorate at the University of Kansas.

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John is the assistant state archeologist with the Kansas State Historical Society, where he has been employed since 1970. He is a longtime member of the KAA and a past editor of KAA publications. He received the M.S. in anthropology from Iowa State University. John's research in Kansas archeology has been extensive and has resulted in the definition of the Grasshopper Falls phase of the Early Ceramic Period. John is a skilled lithic analyst and flintknapper, a fact well reflected in his article.

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A native of Topeka, Kansas, Pam is currently attending graduate school at Virginia Commonwealth University in Richmond, Virginia, in the field of occupational therapy. Pam's undergraduate degree from Washburn University is in theatre, and she has been employed as a graphic designer for a number of years. She was employed at the Kansas Museum of History as an exhibit technician during the permanent gallery construction of the new museum.

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Tom is state archeologist and archeology department head at the Kansas State Historical Society. He has been a significant figure in Kansas archeology since joining the Society in 1960. Tom was editor of the original KAA *Newsletter* for 16 years, and developed the highly successful Kansas Archeology Training Program in 1975. He received the M.A. in anthropology from the University of Nebraska where he was a student of John Champe. Past president of the Plains Anthropological Society, Tom currently serves as chair of the Kansas Antiquities Commission, on the Historic Sites Board of Review, and is President of the National Association of State Archeologists.

CONSTITUTION OF THE KANSAS ANTHROPOLOGICAL ASSOCIATION

REVISED JUNE 9, 1989

PREAMBLE

The purpose of this association shall be the development and promotion of a greater public interest and appreciation for the cultural heritage of Kansas through the scientific and historic identification, investigation, and interpretation of archeological remains and ethnological materials; the publication and distribution of information concerning Kansas archeology and ethnology; and the preservation and display of antiquities within the State.

ARTICLE I. NAME

The name of this association shall be the Kansas Anthropological Association.

ARTICLE II. MEMBERSHIP

Section 1. Membership shall be open to any individual or institution interested in the history or prehistory of Kansas whose activities are in agreement with the Constitution of the Association.

Section 2. Membership shall consist of classes, as specified in the By-Laws.

Section 3. Membership in the Association is obtained upon payment of the fee as prescribed in the By-Laws for the class of membership desired.

Section 4. All members, excluding institutional members, shall have voting privileges.

Section 5. Members shall inform an officer of the Executive Committee or a professional archeologist of the State of Kansas as to the discovery of significant archeological or ethnological remains, or the destruction or potential destruction of such remains.

Section 6. The membership of an individual who flagrantly disregards the goals and procedures of the Association or through his actions brings discredit upon the Association, may be cancelled, with the forfeiture of dues, at a regular meeting of the Executive Committee by a vote of two-thirds of the members present.

Section 7. An individual whose membership has been cancelled may request reinstatement after a period of one year. An affirmative vote of two-thirds of the Executive Committee shall be necessary for reinstatement.

ARTICLE III. OFFICERS AND EXECUTIVE COMMITTEE

Section 1. The elected officers of the Kansas Anthropological Association shall be a President, a First Vice-President, a Second Vice-President, a Treasurer, a Secretary, an Editor, a Librarian, and a Historian. Any member, excluding institutional members, is eligible to election as an officer of the Association.

Section 2. The term of all officers shall be for two years and they may serve consecutive terms if elected.

Section 3. Each officer shall assume the duties of his office following his election at the annual meeting in April of even-numbered years, and shall serve for the duration of his term. Officers shall fulfill the duties of these offices as specified in the By-Laws.

Section 4. General charge of the affairs of the Association shall be the responsibility of the Executive Committee.

Section 5. The Executive Committee shall consist of the elected officers, immediate past President, Chapter Presidents or their alternates, one member from each of the geographic areas as defined in the By-Laws, and chairmen of standing committees created by the Executive Committee.

Section 6. Vacancies in the offices of President or First Vice-President shall be filled in the following manner:

- A. The First Vice-President shall assume the duties of the office of President for the remainder of the unexpired term.
- B. The Second Vice-President shall assume the duties of the office of First Vice-President for the remainder of the unexpired term.

Section 7. The Executive Committee shall have the power to fill a vacancy in any of the remainder of the Executive Committee positions. Such appointments shall be for the remainder of the unexpired term of the position.

ARTICLE IV. MEETINGS

Section 1. The Association will meet in April each year at a time and place to be determined by the Executive Committee.

Section 2. The President, or the Executive Committee by a majority vote, shall be able to call a special meeting of the entire membership providing notice of the meeting's intent is given to all members ten days prior to the meeting.

Section 3. Executive Committee meetings may be called by the President or by a majority vote of the elected officers of the Association.

Section 4. The members in attendance at an annual or special meeting shall constitute a quorum. Similarly, committee members in attendance at an Executive Committee meeting shall constitute a quorum.

Section 5. The parliamentary authority for conducting meetings of the Association shall be the "Robert's Rules of Order." A parliamentarian may be appointed by the President.

ARTICLE V. ALTERATION OF THE CONSTITUTION AND AMENDMENTS

The constitution may be altered or amended at any annual or special meeting of the Association by a two-thirds vote of the members present provided a written notice of the intention to amend has been sent to the membership by the innovator at least 30 days prior to the meeting.

****BY-LAWS****

Section 1. Membership

- A. Membership shall consist of the following classes: Family, Individual, Student, Contributing, Life, Institutional, Honorary Life, and One Year Honorary.
- B. Children shall be included in a Family membership until the beginning of the fiscal year following their 18th birthday at which time they shall be required to obtain an Individual or Student membership.
- C. Honorary Life memberships may be conferred upon individuals who have made noteworthy contributions to the advancement of Kansas history or prehistory and to the welfare of the Association. Such memberships are granted by the Association at the Annual Meeting by two-thirds vote of the members present. The number of Honorary Life memberships shall not exceed one percent of the total membership.
- D. One Year Honorary memberships may be conferred upon individuals who have given significant service to the Association.
- E. The annual dues of members are established at the following rates:

Honorary Life member	Exempt from payment of dues
One Year Honorary member	Exempt from payment of dues for one year
Life member	\$250.00
Contributing member	20.00
Individual member	12.00
Family member	15.00
Institutional member	15.00
Student member	5.00

(This is a field school membership, June through August, which includes the KAA handbook, but no other publications).

- F. All annual dues are payable to the Treasurer January 1. Members shall receive one reminder before the cancellation of membership.

Section 2. Finances

The Executive Committee shall have the power to expend such sums as are necessary for expenses encountered in transacting the Association's business.

Section 3. Officer's Duties

- A. The President shall act as the Executive Officer of the Association and ex-officio member of all committees. He shall preside at all meetings of the Association; shall act as Chairman of the Executive Committee and shall exercise general leadership and supervision over the affairs of the Association in implementing its purpose. The President, subject to the approval by the Executive Committee, shall have the power to appoint such committees as are deemed necessary to further the objectives and purposes of the Association.
- B. The First Vice-President shall serve as Chairman of the Program Committee and shall fulfill such other duties as are assigned to him by the President, Executive Committee, or the Association.
- C. The Second Vice-President shall: 1) chair the Nominating Committee; 2) be a member of the Program Committee; 3) be the public relations officer for the Association, notifying the news media of the activities of the Association; 4) take care of all correspondence pertaining to public relations and the promotion of the Association; 5) with the area representatives, be responsible for membership promotion for the Association.
- D. The Treasurer shall: execute the duties essential to the maintenance of accurate up-to-date records, including: 1) receive all monies, excepting that which is needed for the maintenance of the Association Library; 2) have custody of the funds of the Association which shall be deposited in the name of the Kansas Anthropological Association excepting that which is needed for the maintenance of the Association Library; 3) report to the Editor the complete list of members and their addresses for inclusion in the last issue of the Association's publication each year; 4) notify the editor of any deletions or additions as well as changes of address for the mailing list; 5) notify members of unpaid dues before cancellation of their membership; 6) maintain accurate records of total membership including latest addresses and telephone numbers where possible in a log book for reference as well as on a Card File, and provide to other officers as needed; 7) sign checks and drafts on behalf of the Association for the disbursement of funds; 8) send appropriate Association information to each new member; 9) make detailed quarterly financial reports and an annual summary for the annual meeting, and have them available as requested by the President; 10) maintain accounts up-to-date so that they may be reviewed by the Executive Committee at any time; 11) turn over to successor all funds, accounts, and books of the Treasurer within thirty (30) days following retirement from office.
- E. The Secretary shall: 1) execute the duties essential to the recording of all Executive Committee and General meetings by keeping permanent records of all such meetings and reporting such to the Editor; 2) assume responsibility for all correspondence pertaining to the business of the Association; 3) assume responsibility for attendance--registration at all Association functions with delegatory power; 4) maintain file of copies of all business correspondence; 5) read minutes of the previous meeting at all meetings; and 6) turn over to successor all files, books, etc., within thirty (30) days following retirement from office.
- F. The Editor shall: 1) edit and send to the Printer in suitable form, a publication to be issued regularly and totaling one volume each calendar year and to be sent to each paid-up member; 2) supervise printing so that no errors in amount go undetected; 3) be responsible for ordering sufficient stationery and etc. for all correspondence of all officers of the Association; 4) notify the Treasurer of all additions, deletions or changes of address received as Editor; 5) include in the Association publication items of current interest, news of all meetings and activities of the Association and Executive Committee; 6) publish in the

last issue of the Association publication each year a list of all paid-up members and their addresses, as furnished by the Treasurer; 7) be available for assistance to any of the members who are attempting to write a report to be published in an Association publication; 8) if, at any time, the current printer proves unsatisfactory, be responsible for reporting such to the Executive Committee for its action.

- G. The Librarian shall: 1) maintain and house the Association Library; 2) be responsible for back issues of all Association publications available for purchase; 3) respond to all requests for back issues of any Association publication; 4) maintain accurate records of finances for the Library of the Association, to be reported to Executive meetings, as requested by the President of the Association; and 5) all such monies on account at the end of the fiscal year to be turned over to the Treasurer for placement in the Bulletin Fund.
- H. The Historian shall: 1) maintain at least one copy of all publications in the Association including issues of newsletters, journals, and bulletins in an orderly file; 2) maintain and keep a notebook/scrapbook of all activities of the Association and all state chapters; 3) maintain a permanent record of membership in an orderly current file.
- I. Deletions or additions to the duties of the above offices will be made by the Executive Committee of the Association. In addition, the duties and responsibilities of any new office created by the Executive Committee shall be determined by the Committee.

Section 4. Nominations

- A. A slate of officers shall be prepared by the Nominating Committee and sent by mail to the members prior to the April meeting on even-numbered years. Additional nominations for office can be made from the floor. Elections will then be made by secret ballot at that meeting.
- B. The Nominating Committee shall consist of one member from each of the six geographical areas as appointed by the Second Vice-President, none of which are to be current state officers. Should a member not be available in one or more regions, then the committee shall be reduced by that number.
- C. The President appoints one member from each of the six geographic regions to the Executive Committee for a term of office to coincide with his own. This person shall be responsible for membership promotion within that area and other assistance to the Association as required.
- D. The six geographic regions are as follows by counties: Area I, Cheyenne, Rawlins, Decatur, Norton, Sherman, Thomas, Sheridan, Graham, Wallace, Logan, Gove, Trego, Phillips, Rooks, and Ellis; Area II, Smith, Jewell, Republic, Washington, Osborne, Mitchell, Cloud, Clay, Russell, Ellsworth, Lincoln, Saline, Ottawa, and Dickinson; Area III, Marshall, Nemaha, Brown, Doniphan, Pottawatomie, Riley, Geary, Morris, Wabaunsee, Osage, Shawnee, Jackson, Jefferson, Douglas, Johnson, Wyandotte, Atchison, Franklin, Miami, and Leavenworth; Area IV, Greeley, Wichita, Scott, Lane, Ness, Hamilton, Kearny, Finney, Gray, Hodgeman, Ford, Stanton, Grant, Haskell, Morton, Stevens, Seward, Meade, and Clark; Area V, Rush, Barton, Rice, McPherson, Marion, Pawnee, Stafford, Reno, Edwards, Harvey, Kiowa, Pratt, Kingman, Sedgwick, Comanche, Barber, Harper, and Sumner; and Area IV, Chase, Lyon, Coffey, Anderson, Linn, Greenwood, Woodson, Allen, Bourbon, Elk, Wilson, Neosho, Crawford, Chautauqua, Montgomery, Labette, Cherokee, Butler, and Cowley.

Section 5. Chapters

- A. All members of a local chapter must be members of the Association.
- B. Five or more members of the Association may organize a local chapter for the purpose of furthering the interests and objectives of the Association by obtaining a charter. They must obtain a charter by submitting a copy of their constitution, the names of all officers of the chapter, and names of chapter members to the President for consideration and acceptance by the Executive Committee. An affirmative vote of the majority of those Executive Committee members present shall be required to approve a Chapter's charter.
- C. An existing Chapter's charter shall be reviewed by the Executive Committee if changes occur in its constitution or By-Laws. Approval of the charter shall be granted by an affirmative vote of a majority of committee members present at an Executive Committee meeting.
- D. In the event that a chapter flagrantly disregards the goals and procedures of the Association, and repeatedly ignores the Executive Committee's suggestions, then its charter may be revoked at an Executive Committee meeting by a vote of two-thirds of the committee members present.
- E. A chapter whose membership had been revoked may request that their charter be considered for renewal after a period of one year. An affirmative vote of two-thirds of the committee members present at an Executive Committee meeting shall be necessary for reinstatement.

Section 6. Publications

- A. The Association will publish in suitable form a publication to be issued regularly and totaling one volume each calendar year, to meet with the editorial policy established by the editor and Executive Committee. The publication shall contain items of current interest, news of the Association, activities of the Chapters, the membership, and bibliography of interesting items related to the subject, etc. All members shall receive the Association publication.
- B. The Association may publish a journal, bibliography, bulletin, or occasional memoir for distribution to the membership as funds or materials are available. Individual publications of the Association may be sold separately at the price set by the Executive Committee.
- C. New or pertinent publications will be displayed at the annual meeting for the benefit of members.

Section 7. Dissolution

In case of dissolution of the Kansas Anthropological Association, all pertinent records concerning Kansas archeology-ethnology or the history of the Association shall be turned over to the Archeology Department of the Kansas State Historical Society. The dissolution of other Association holdings shall be the concern of the Executive Committee.

Section 8.

These By-Laws may be amended by two-thirds vote of the membership present at an annual or special meeting.

Section 9.

Procedures for activities which result in the collection of archeological materials and information.

- A. Archeological activities jointly sponsored by the Kansas Anthropological Association and the Kansas State Historical Society will be directed by an archeologist of the Kansas State Historical Society. The Society shall be responsible for the laboratory processing and the curation of all archeological material collected. A preliminary report of the activity shall be published by the Kansas Anthropological Association within one year of the date of the activity.
- B. Archeological activities sponsored by the Kansas Anthropological Association and/or chapter of the Association shall be directed by a qualified archeologist or a Certified Archeological crew member if the activity is an excavation. If the activity is a major survey or test, it shall be supervised by a qualified archeologist or a Contributing Archeological Surveyor. All activities are to follow accepted procedures as set forth in the Kansas Archeological Training Program for amateur certification. Archeological materials collected may be retained by the Chapter or local sponsor provided there is a local nonprofit or public organization to act as curator; lacking this, the Kansas State Historical Society shall be the curator. The sponsor shall be responsible for all laboratory work on the material and a preliminary report to the Editor within ninety (90) days after the activity. A final report of the activity shall be submitted to the Archeology Department of the Kansas State Historical Society within a reasonable time from the date of the activity. Copies of all records pertaining to any archeological activities shall go to the Archeology Department.
- C. Individual members who collect archeological material should recognize their responsibility for preservation of these materials and should collect only according to the goals of the Kansas Anthropological Association with proper procedures as set forth in the Kansas Archeology Training Program. Individuals should catalog and properly care for their collections and such collections should be maintained as a unit. Recognizing the scientific importance of such collections, members should provide for the permanent preservation of the materials and records either in private, non-profit, or public curation.

INFORMATION FOR AUTHORS

Manuscripts are actively solicited for *The Kansas Anthropologist*. Manuscripts should have a relationship to Kansas anthropology (archeology, ethnography, ethnohistory, cultural/social anthropology, physical anthropology, etc.). The varied readership of the journal should be kept in mind when preparing manuscripts, and jargon should be judiciously avoided. All manuscripts submitted must be original, unpublished work of the author(s). Style should follow that of *American Antiquity*; professionals are expected to submit their manuscripts with this in mind, others who may not be familiar with the *American Antiquity* style guide will receive editorial assistance. Illustrations are encouraged, at least two to three should be used where possible. All illustrations must be of reproduction quality, and must not be protected by copyright. Manuscripts will be reviewed by the editorial staff who will judge whether or not an article will be used and what revisions may be necessary before publication. Outside reviewers may be used.

Book reviews are also solicited. If you plan to review a book and have not been requested to do so by the Editor, it would be best to first check with the Editor to make sure a review has not already been arranged.

Your editorial staff is here to help you. If you have any needs or questions, please contact us:

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