THE KANSAS ANTHROPOLOGIST

JOURNAL OF THE KANSAS ANTHROPOLOGICAL ASSOCIATION

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KANSAS ANTHROPOLOGICAL ASSOCIATION

The Kansas Anthropological Association is the oldest amateur archeological organization in the state. Its membership is made up of individuals and institutions interested in the prehistoric and historic peoples of the area. The objects and goals of the Association are the preservation and interpretation of archeological and ethnographic remains within the state, the scientific study, investigation, and interpretation of archeological remains and ethnographical materials, the publication and distribution of information concerning Kansas archeology and ethnology, and the development and promotion of a greater public interest and appreciation for the heritage of the state.

Type of membership and dues:

Individual	$12.00	Institutional	$ 15.00
Family	$15.00	Life	$250.00
Contributing	$20.00	Student	$ 5.00

Application for membership and dues should be addressed to the KAA Treasurer at the address listed below. A membership begins on January 1 and annual dues are payable at that time. Students may join for $5.00 from June through August of each year; this enables them to attend the annual dig and training program, but does not include the Journal.

OFFICERS OF THE KANSAS ANTHROPOLOGICAL ASSOCIATION

KAA President Neil Rogers died on September 16, 1989. The presidency was succeeded by Cleta Mulder, and Jean Howell was appointed by the Executive Committee to fill the open position resulting from Constitutionally activated reorganization.

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PUBLICATIONS

Members will receive 6 issues of the *Newsletter* a year and two issues of *The Kansas Anthropologist*, the Association's journal. All members and interested individuals, professional or amateur, are invited to submit material to the KAA Editor for use in these publications. Five reprints will be provided free to the author of each major article accepted. Additional reprints or reprints of back issues of the journal or newsletters, if available, may be ordered from the Historian-Recorder. Prices will be furnished upon inquiry.

Welcome to The Kansas Anthropologist!

Volume 10 (1989) presents a new look for the KAA journal. With this volume, the number of journal issues published each year has been decreased from nine to two in order to accommodate publication of the *Newsletter* six times a year. In addition to a new name for our journal, you will find a new format and content. *The Kansas Anthropologist* is modelled after scholarly journals such as the *Plains Anthropologist* and *American Antiquity* and its content will similarly focus on articles, research reports, and book reviews. You will also see items such as the membership list found in this issue. Very short articles, most announcements, and news items will be published in the *Newsletter*.

You will note that the content of this issue relies heavily on articles by KAA members, professional or not. This is a KAA publication and although we welcome articles from any source, we hope that KAA contributions will be the norm rather than the exception.

This first issue of *The Kansas Anthropologist* has taken a long time to produce because it is a new format and because of the change in the editorial staff in mid-1989. Most of the articles published here were originally submitted to former editor Randy Thies and he completed review and initial editorial work on several. The new editorial staff has worked closely on the design and production of this issue and we do hope that you enjoy it.

Volume 10 (1989) is a double issue that combines the spring and fall numbers of the journal. We are now working on the spring 1990 issue and hope that all future issues will be distributed on schedule.

Thanks for your patience!

William B. Lees
John D. Reynolds
Verna Detrich
Debbie Browne

**This first issue of
the redesigned KAA journal
is dedicated to the
memory of KAA President
Neil Rogers
(1945-1989)**

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THE CORONADO STONE FROM OAK MILLS, KANSAS

John M. Peterson
Lawrence, Kansas

The Kansas Anthropologist, 10(1&2), 1989, pp. 1-10

Not much over 50 years ago a would-be historical artifact came to the attention of historians and archeologists in the United States, which, if it had proved genuine, might well be considered the premier relic of Coronado's visit to Kansas (Figure 1). The cast of characters involved in discovering and evaluating this artifact, a limestone slab with letters and numbers carved on it, were a varied and interesting group. Among them were three young men who became nationally prominent in their respective fields: a well-known insurance man and amateur scientist from Kansas City, a number of local experts, and one or two mystery men.

The exact date on which the "Coronado stone," as it came to be called, was brought to light is not known but it must have been about July 1, 1937. It was a piece of yellowish-brown limestone about 3 in thick and of irregular shape. Its length across the top was about 19 in while its width ranged from 10 to 3 or 4 in. It gave the impression of originally having been a roughly rectangular slab of about 10 by 19 in from which a considerable part of the lower right corner and a small piece of the lower left corner had been broken. Carved on the surface, which was fairly flat but not smooth, was the following legend arranged in six lines: AGOSTO EL TRE - 1541 - TOMO - POR ESPANA - QUIVER - RANCISCO (see Figure 1). The letters were roughly 1 to 1.5 in high, all in capitals, clearly readable, and cut fairly deeply into the stone, apparently with a sharp metal tool. They were somewhat irregular as to shape and spacing, giving the impression of having been carved rather hurriedly by someone who was not a professional stone carver. Translated, the inscription, if undamaged, presumably would read: "August 3, 1541 - I take for Spain,

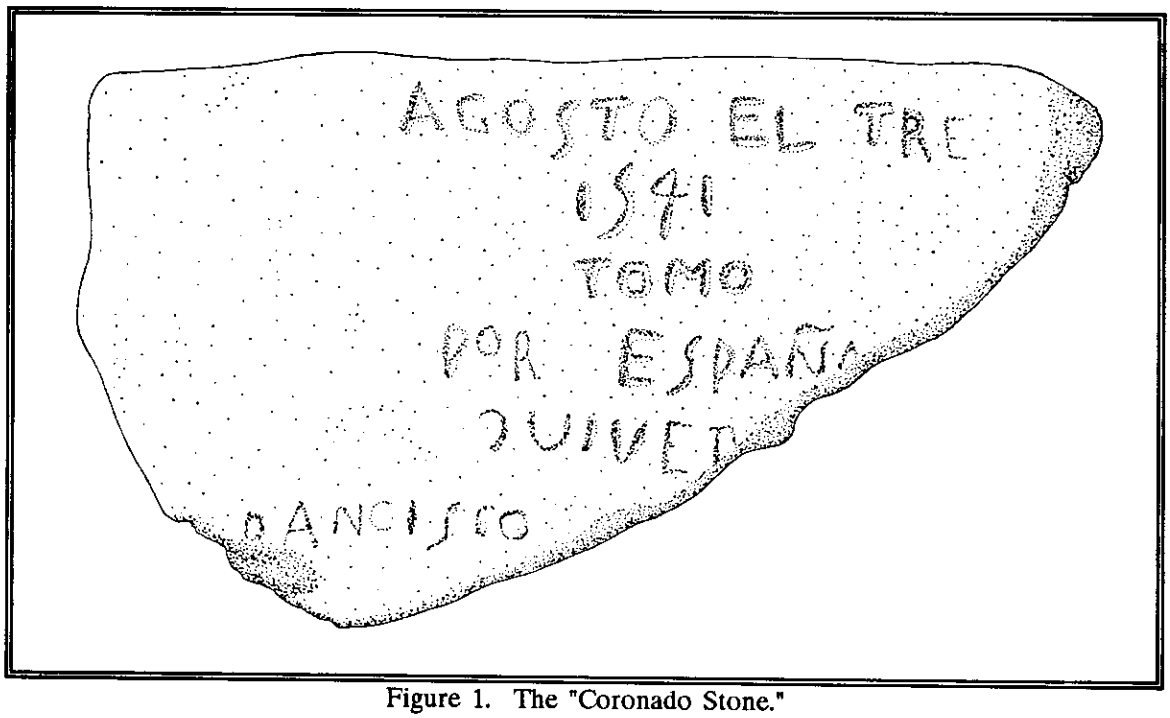

Figure 1. The "Coronado Stone."

Quivera - Francisco Vasques de Coronado."

No one ever came forward to claim to have been the actual finder of the stone. The press carried various stories of fishermen, quarry workers, and others having found it but the first person known to have had the stone in his possession was Ralph Steele, a resident of Effingham, Kansas. His story was that, although others told him where the stone was lying, he was the first to recognize its possible historical value. Not much has been learned about Steele other than that he was interested in some aspects of Kansas history, including Coronado's expedition, and was or had been employed by the Federal Writers' Project of the Works Progress Administration (WPA) in connection with the preparation of the Kansas volume of a series of state guidebooks.

Shortly after the "Coronado stone" came into his hands, Steele notified the *Kansas City Star* newspaper staff of its discovery near Oak Mills, Atchison County, Kansas. The editors of the *Star* assigned Paul I. Wellman, a feature writer who had been with the newspaper for a year or so, to the story (Figure 2). Wellman presumably told Lyle A. Stephenson about the stone and together the two went to Effingham to look at Steele's find. Stephenson was an energetic and widely-known Kansas City insurance man whose short advertisements featuring his motto, "Lev it 2 Lyle," peppered the pages of the *Star*. He also was known for his interest in scientific fields, including geology and fossils, and was credited with being an authority on the insects of the middle west. Stephenson and Wellman examined the carved stone in Steele's yard and decided it was of sufficient interest to warrant further investigations. Stephenson then purchased it for a small sum, according to a *Star* article of July 19, 1937.

Figure 2. Paul I. Wellman.
Courtesy Kansas State Historical Society

The first published report of the "Coronado stone" appeared in the *Kansas City Star* on Sunday, July 11, 1937, and was picked up as an Associated Press item by other regional newspapers on the same date. The artifact was briefly described and said to have been dug up by a WPA worker but pointed out to Steele by fishermen. Stephenson was reportedly planning to have it evaluated by local experts.

Wellman, or someone else at the *Star*, already had decided to consult national authorities. On July 12, 1937, according to an unsigned memorandum of that date in the Smithsonian archives, the newspaper's representative in Washington, D.C., a Mr. Shoop, called the Smithsonian Institution to ask for photographs of known Coronado inscriptions and whether or not there was any record of Coronado having reached the Missouri River. Dr. Alexander Wetmore, Assistant Secretary of the Smithsonian in charge of the U.S. National Museum, took immediate interest in the mention of a carved rock bearing what seemed to be an inscription tied to the first Spanish expedition into Kansas. That same day he sent a telegram to Dr. Waldo R. Wedel, then on an archeological dig in Doniphan County, Kansas, asking him to visit

the *Star* and "examine rock bearing supposed Coronado inscription."

Wedel at that time was the Assistant Curator of the Division of Archeology at the Smithsonian. Since mid-May he had been conducting a general archeological survey of northeastern Kansas. On July 13, 1937, as noted in a personal communication of February 21, 1987, he was excavating "both Nebraska culture house sites and historic Kansa slab-covered burials." His party, consisting of four college students and Dr. Loren Eiseley, had received some local notice and had been bothered by visitors who wanted to sell them relics, a fact reported in the *Atchison Globe* on July 10, 1937. Eiseley, a recent Ph.D. graduate of the University of Pennsylvania, was working with Wedel as a volunteer for a few weeks before taking a teaching position at the University of Kansas. Wedel wasted no time in responding to Wetmore's request. On Thursday, July 15, 1937, he and Eiseley journeyed to Kansas City where they examined and photographed the stone in the *Star's* offices. As Wellman knew little of the provenance of the artifact other than it had been found near Oak Mills, Wedel arranged to meet him, Stephenson, and others at that place early the next week (Wedel, personal communication of February 21, 1987).

Figure 3. Paul Jones.
Courtesy Kansas State Historical Society

The next Sunday, July 18, the *Star's* first major story on the "Coronado Stone" took up the entire front page of Section C and continued on page 2. It was illustrated with a large drawing with Wellman's initials (By-lines in those days were hard to come by). In addition to describing the artifact and telling what was known of its discovery, Wellman summarized accounts of the expedition and the varying interpretations as to how far north and east Coronado had progressed. Many earlier authorities believed he had reached northeastern Kansas or possibly even southern Nebraska, but Paul Jones, the Lyons, Kansas, newspaperman and close student of the Coronado venture, had assembled a good deal of evidence indicating the expedition had gone no farther than the Lindsborg, Kansas, area (Figure 3). Jones had not yet seen the stone but J.G. Braecklien, described as a Kansas City antiquarian, felt the lettering was old although the use of a horseshoe-shaped "U" was questionable. Wedel and Eiseley were quoted in the *Star's* article as being of the opinion that the stone and the condition of the lettering gave the appearance of authenticity but that there might be a problem with the lettering or the form of the inscription. Further informed opinion on this subject would be obtained by sending a photograph of the stone to the Smithsonian for examination by experts there. Wellman pointed out other possible discrepancies such as the spelling of "Quivera" rather than "Quivira" and

the apparent writing out of Coronado's first name in contrast to the abbreviation "Fran" which, according to Paul Jones, he used in his letters.

During the next week a number of Coronado experts and other interested parties commented on the carved stone after viewing it at the *Star's* offices or seeing the photograph in the newspaper. Glenn G. Bartle, chairman of the Department of Geology and Geography at the University of Kansas City, said the stone was native to the Atchison area and, from its appearance, could have been carved 400 years earlier. In this opinion he was in agreement with A.C. Carpenter, an Ottawa, Kansas, geologist who also pointed out that such stone was not found in the Lindsborg area and that where the inscription was carved the stone was sufficiently weathered away to cause the bracheopodic fossils, which were harder than the limestone, to stand out in high relief. Their opinions were described in *Star* articles of July 16 and 19, 1937.

Figure 4. Kirke Mechem.
Courtesy Kansas State Historical Society

Paul Jones, whose second book on Quivira, *Coronado and Quivira*, had just been published, looked at the stone on July 19 and expressed doubts about its authenticity but said, "If it is a fake, it's a half-way good job." In his view, described in a *Kansas City Times* article of July 19, 1937, the best indication that it might be genuine was the date which fitted in with the known dates of Coronado's arrival and departure from central Kansas. If Coronado had sent an exploring party toward the northeast it could have reached the Missouri River on August 3 and returned to the Lyons/Lindsborg area in time to gather supplies and start back south by the middle of August.

Kirke Mechem, Secretary of the Kansas State Historical Society, although he had not yet seen the stone, expressed a number of reservations about it in a letter published in the *Kansas City Times* on July 19, 1937 (Figure 4). He began by remarking on the use of capital letters so much like modern printing as to be questionable as a product of the 16th century. Even more important, in his opinion, were discrepancies in word usage which pointed toward a translation of English into Spanish rather than something originally composed in Spanish 400 years ago. He had arrived at this conclusion in conjunction with a Spanish-speaking member of his staff, and their suggestions had been confirmed by Jose Maria Osma, professor of Spanish and Portuguese at the University of Kansas. The most serious of these discrepancies were the use of "Agosto el Tre" as a date form and "pro Espana" to mean "for Spain." Neither would ever be used in modern or ancient Spanish. Also doubtful were the spelling of "Quivera" and the use of a

rounded capital "U." In the 16th century Spanish letter lower case "u's" were rounded but capitals invariably were made as a "V." Mechem also wondered about the purpose of the carved stone and who was expected to read it.

On Tuesday, July 20, the various interested parties agreed to meet at Oak Mills to try to settle the vexing question as to where and by whom the stone had been found and whether or not there was any possibility it had been protected from the elements. Wedel and Eiseley were of the opinion that if the stone had been tipped over and buried in the soil shortly after being carved there was a good chance the inscription would not have completely weathered away in 400 years. Of course, acid in the soil could damage the stone, but as Eiseley argued in a *Kansas City Times* article of July 16, 1937, there "is at least as good a chance of its being buried in non-acid soil as in acid soil."

As Wedel remembers it, the planned trip to the find site came near to being a fiasco. When he and Eiseley reached the agreed meeting place in Oak Mills, no one was there. After scouting around the area for more than an hour they drove the 20 miles or so to Effingham where they found the others who already had visited the Missouri River bluff where Steele said the stone had been found. As described by Wedel in a personal communication of February 21, 1987, Stephenson and Wellman told him that the site was a short ways north of Oak Mills and that Steele was not the discoverer but that they could not locate or get the name of the original finder. A story in the *Times* of July 21, 1937, mentioned that probing a small depression where Steele said the stone had been dug out did not bring to light any other pieces of the original slab. This same story also implied that the original discoverer had been a member of a WPA work gang who had worked in a quarry and that the WPA workers had been sent elsewhere and no one living in the neighborhood knew who the original discoverer was.

Further views of would-be experts were expressed during the week. The *Star* on July 20, 1937, carried a story outlining J.G. Braecklein's suggestion that a reader of a history of Doniphan County published in the early 1900s might have carved the stone to bring some of the attention and glory of the Coronado visit to northeast Kansas, particularly Atchison County and the Oak Mills neighborhood. In his *Doniphan County History*, P.L. Gray (1905) claimed there was good evidence that Coronado had reached northeastern Kansas in a letter he wrote to the King of Spain. In recounting his travels Coronado said he reached Quivira in the 40th degree and found a larger river than the one he first encountered when he entered the province of Quivira. The 40th parallel crosses the Missouri River near White Cloud in Doniphan County and Gray postulated that to be the spot where Coronado erected the cross he mentioned in his narrative (Gray 1905:1-5). Bliss Isely, a Wichita author and historian, was quoted in a *Wichita Eagle* article of July 22, 1937, as saying it was possible but not likely the carved stone was produced by a Spaniard in 1541. He reportedly took no stock in the supposed misspelling of Quivira but considered that Paul Jones and others were on sounder ground when arguing that Coronado's reported movements would not have got him to the Kansas or Missouri rivers. Even so, he felt there still was an off chance that some members of the expedition might have visited northeast Kansas.

On July 25, 1937, Wedel reported by letter to Dr. Wetmore on his examination of the "Coronado marker" and investigation of its origin. He described the material as "a highly fossiliferous limestone of Pennsylvanian age, identical in apparently every regard with the rock that occurs rather extensively along the Missouri in northeastern Kansas." He felt the inscription had been cut quite deeply, definitely showed signs of weathering, and possibly lacked the "S" of "TRES" due to that factor. Although Wedel had not discussed the weathering of this geological material with a competent geologist, Wellman had told him that a Baker University geologist had said it would take 25 to 100 years to bring the surface to its present condition. Wedel also reported that Steele had obtained the carved slab from a quarry worker who had

left town and "...since he ran out on a grocery bill he left no forwarding address." As there seemed little chance the surface of the stone or its markings would prove or disprove its authenticity, Wedel thought the most useful course of action would be to have the stone or a photograph studied by "...a competent student of sixteenth century Spanish," and he enclosed a photograph for that purpose.

About the time Wedel was working on his letter to Wetmore, Ralph Steele was writing from Effingham to the *Kansas City Star*. In his letter which was published on July 22, 1937, Steele said he had been hired to write a booklet on points of interest in the northeastern part of Kansas. His work was to be used as source material for a state guide being written as part of the Federal Writers' Project of the Works Progress Administration. He had been asked to include information about Indian mounds in the area and had spent considerable time and effort looking for authentic examples. While hiking along the river between Oak Mills and Dalby, Kansas, he met three fishermen and asked them for information. They knew nothing about mounds but said they had kicked over an old tombstone not far up the river. Steele said he found the marker, read the date 1541, and took it home with him. Later he sold it to Lyle Stephenson for four dollars, but never did find an Indian mound. In telling his story in the letter, Steele began by saying, "I am almost, not quite sorry that I found the much disputed 'Coronado stone'." Further on he admitted that "...I enjoy, in a mean sort of way, the row it kicked up among writers, historians, geologists, and archaeologists." Of note in Steele's letter is his failure to mention anything about the find of the stone by a WPA quarry worker.

The *Atchison Daily Globe* took surprisingly little interest in the finding of a possible Coronado relic practically in its back yard, publishing only one Associated Press story during July. However, on July 21, 1937, a full column on the front page chronicled the discovery of a petrified apple on Lime Creek four miles south of Atchison by a local named Roy Lister. He was digging for fish worms when he reportedly unearthed the stone apple on which were carved "...the letters 'A and E' in what appears to be Vedic Sanskrit." The reporter had been informed by Professor W. Wattles Wart of Chicago University that Vedic Sanskrit was one of the world's oldest languages. The professor wasn't sure about the apple but felt the letters could not have been carved by modern man. The apple was taken to the laboratory of Professor Wart who planned to send it to Professor P. Puffle Potts of Germany who could supposedly decide its authenticity in two seconds. The *Globe* story went on to stress the possible importance of this find by saying "...if Professor Wart and Professor Potts decide that Adam carved on the petrified apple that was found at Sumner by Roy Lister, the whole history of the world will be changed, and it will be shown that the original Garden of Eden was at the junction of the Missouri River and Lime Creek...." A month later, in its August 21, 1937, edition, the *Atchison Globe* noted the *Star* was describing the Oak Mills find as the "so-called Coronado stone" after receiving a letter from the Smithsonian, and proudly announced that "No doubt has been raised, however, in connection with the authenticity of Roy Lister's Adam and Eve apple."

During the last days of July and first part of August 1937, Wedel's photograph of the "Coronado's stone" was circulated to various members of the Smithsonian staff for comments on its authenticity. Dr. R.A. Bassler, a geologist, was of the opinion that limestone would weather more over a period of "almost 500 years" than the photograph seemed to show. Although his subtraction is wrong, his point was that limestone tombstone carvings weather away in 100 years. N.M. Judd compared the inscription with Spanish carvings on El Moro rock in New Mexico dating from 1605 to 1700. The inscriptions known to be authentic always used capital and lower case letters, frequently were in script, never began with a date, and never spelled out a figure. He also felt the carving was too sharp, the arrangement of words were "unSpanish," and that the presence of all the essentials of the message except the signature on what appeared to be only part of a broken stone was a cause for suspicion. J.P. Harrington, who had studied

16th century handwriting and inscriptions, spent an hour and a half examining the photo and comparing it with reference works. He agreed with all of Judd's comments and was of the opinion "...that this inscription is surely a fake."

On August 6 before the experts had completed their examination, Wetmore, writing to Wedel on another matter, mentioned in his letter that they were inclined to believe the stone was not genuine. A week later on August 13, 1937, in the Smithsonian's official letter reply to Wedel he was a little more cautious, saying that their study of the photograph had convinced them the stone was "of highly doubtful authenticity." This opinion was substantiated by a summary of the comments outlined above. Wetmore added that the owners could get a more definitive opinion by sending in the stone itself.

Wedel sent Wetmore's letter to the *Star* immediately and the full text was published in the issue of August 20. The *Times* carried an editorial the next morning, August 21, 1937, mentioning the Smithsonian's evaluation of the stone and pointing out that this did not make it any less of a mystery. If a fake, as it seemed, who made it, for what purpose, and when? The editorialist, possibly Paul Wellman, was convinced the carving had not been done recently and speculated it may have been "...carved when there was a fever of Coronado interest in Northeastern Kansas about fifty years ago." He also pointed out that there seemed to be no financial angle to the case and whoever did the carving must have had considerable historical knowledge to come up with the "uncannily correct date."

After publishing the Smithsonian's letter the Kansas City newspapers seem to have lost interest in the "Coronado stone." In an August 31, 1937, edition of the *Times*, Wellman reviewed Paul Jones' book, *Coronado and Quivira* (1937). In his lead-in paragraph he mentioned the discredited artifact but did not discuss it further since Jones had completed his book before the stone came to light. Meanwhile someone at the Smithsonian, probably Alexander Wetmore, had second thoughts about not having examined the actual stone. Wetmore, a noted ornithologist, was a graduate of the University of Kansas and that may have given him a special interest in the supposed Coronado relic. Furthermore, if additional study reversed the decision on its authenticity, the Smithsonian would be in a good position to acquire this historically significant find from Stephenson. In any case, on August 19, 1937, Wetmore wrote to Wedel asking him to arrange to ship the stone to the Smithsonian or to bring it with him when he returned. Wedel, whose dig season was nearing its close, decided on the latter. On September 10, according to a *Times* article of September 11, 1937, he picked up the stone at the *Star's* offices, professing not to know the reason the Smithsonian wished to see it, and carried it back to the Natural History Museum of the Smithsonian. According to his personal communication of February 21, 1987, he is not certain of its subsequent history.

After a delay of several months, a letter signed by Alexander Wetmore and dated January 25, 1938, was sent to Paul I. Wellman at the *Star* who was asked to convey its contents to Lyle Stephenson. Wetmore stated that the Smithsonian, after seeing the actual stone, judged it to be "...much too soft to have retained legible incised characters for the implied four centuries even under the most favorable circumstances." Moreover, all the objections based on the language and characters used in the inscription were reaffirmed. The ultimate conclusion, then, was "...that the stone had no direct connection whatsoever with the Coronado or any other Spanish expedition but is probably of very recent manufacture."

Presumably Wellman passed the Smithsonian's opinion to Lyle Stephenson but the *Star* appears to have decided the public was no longer interested in the subject as no story was published. On January 28, 1938, a government bill of lading (presently in the Smithsonian's archives) was issued to the Railway Express Agency for delivery of one box containing a "specimen of inscribed limestone slab" of 50 lb weight to Paul I. Wellman at the *Kansas City Star*. Early in February, 1938, the "Coronado stone" undoubtedly was back in the hands of its owner, Lyle Stephenson, in Kansas

City.

Very little further mention of the stone from Oak Mills has been found in public print. On August 25, 1940, the *Star* published a letter from A.W. Cunningham of Lawrence, Kansas, mentioning a stone "found near Wamego" inscribed with a date and lettering indicating it had been placed there during Coronado's march. The author seemed to believe the inscription was genuine and that the stone should be obtained and put on display by the State of Kansas as part of the celebration of the 400th anniversary of Coronado's visit.

Of considerably more importance is an article by Kirke Mechem, entitled "Faking the History of Kansas," which appeared in 1951. Mechem repeated most of his 1937 letter to the *Kansas City Star*, referred to earlier in this article, but went on to say the finder of the stone had shown a remarkable interest in Coronado before "discovering" the stone and even had written an article on the subject. According to Mechem "this hoax" was the second phony Coronado inscription to be brought to the attention of the Kansas State Historical Society (Mechem 1951).

In 1949 Herbert E. Bolton's book, *Coronado, Knight of Pueblos and Plains*, was published. Bolton, a distinguished historian of the Southwest, personally retraced Coronado's trail from Mexico City to Kansas and did a great deal of research in the Spanish archives. He mentions a "Quivira stone" said to have been found in northeast Kansas about 100 miles beyond any point reached by Coronado and characterizes it as a "clumsy fraud" (Bolton 1949:306). He contends that the fuller records of the expedition now available to scholars destroy earlier theories of long marches to the north and east and that "...there is no reason for thinking that any explorers were dispatched from Quivira, or that Coronado or any of his men got beyond Lindsborg" (Bolton 1949:295).

I have been unable to find any trace of the fate of the "Coronado stone" after it was returned to Kansas City. Stephenson may have kept it as a curiosity of little or no value in his Kansas City home or his country cottage in Platte County, Missouri. A biographical sketch printed in the *Star* on January 15, 1939, did not mention the episode of the "Coronado stone." Lyle Stephenson died rather unexpectedly on November 30, 1941, leaving a widow but no children. A little over four years later his widow, Grace, died, as noted in the December 23, 1945, edition of the *Star*. Her will, as described in the January 9, 1946, edition of the *Times*, contained two major bequests: a considerable sum to the University of Kansas for a men's dormitory, and most of the rest of her estate to the Kansas City Museum. Although not an alumnus, Lyle Stephenson had enjoyed many field trips with Kansas University groups. The funds from Mrs. Stephenson's bequest were used to build Stephenson Hall which still is in use on the campus. The bequest to the Kansas City Museum also reflected Stephenson's strong interest in natural history and his long-time support of plans for a natural history museum in the city. However, inquiries at the Kansas City Museum, the Museum of Anthropology at the University of Kansas, and the Kansas State Historical Society have turned up no trace of the "Coronado stone."

While I was looking for clues as to what happened to the "Coronado stone" a passage in a book by Margaret Whittemore was pointed out to me. In a book published in 1959, Whittemore, an artist who sketched many historic sites in Kansas, mentioned seeing a carved piece of stone in a case in the Rice County courthouse with what appears to be the identical inscription as that found on the carved slab from Oak Mills (Whittemore 1954:15). Although it seems unlikely, it is possible that Lyle Stephenson gave the stone to Paul Jones who deposited it in the Rice County courthouse. If so, it has disappeared. Florence Monroe, then curator of the Coronado-Quivira Museum in Lyons, stated in a personal communication of May 5, 1987, that they had no knowledge or record of such an item.

Though the object itself has disappeared, there seems little reason to question the Smithsonian's conclusion that the carved stone from Oak Mills was not an authentic relic of Coronado's expedition. Even so, we are left

with the further questions of who carved it, when, and for what purpose.

A number of possible answers to these queries, proposed at the time the "Coronado stone" came to light, already have been mentioned. One suggestion, that it had been manufactured recently for financial gain, seems unlikely although there is a slim possibility it was done by someone who had an unrealistic notion of the amount of money such a find might bring. However, if this had been the origin of the stone it seems likely that there would have been a greater attempt to turn a profit. The only person known to have received any money was Steele and he claims to have received only four dollars.

Another suggestion was that the stone was carved to establish the claim of northeastern Kansas, or possibly more specifically the Atchison area, to share in the glamour and prestige of the visit of Coronado to the state. Provincialism, then as now, was not unknown in Kansas and there long had been partisans of the northern and northeastern sections of the state, to say nothing of Nebraska, who argued that the expedition's records showed that Coronado, or at least some of his men, had reached the Missouri River. In response to such claims some residents of central and southwest Kansas exhibited a similar regional jealousy. For example, the reaction of the *Dodge City Globe* to the Oak Mills stone (as quoted in the *Lyons Daily News*, July 23, 1937) was that the Kaw Valley was trying to steal Coronado from the southwestern part of the state.

As mentioned earlier, the *Kansas City Times* was among those who speculated the stone may have been carved 50 or so years ago when interest in Coronado was high. This theory conveniently accounts for the production of the carved stone, its somewhat weathered appearance, and the evidence it had been designed by someone who had more than a passing knowledge of the history of the Coronado expedition. Its insuperable weakness, however, is the fact that the stone wasn't brought to public knowledge for some 50 years. It would seem that anyone who went to so much trouble to promote his section of the state would make sure the object was found and examined rather than being left on a remote hillside where it might never be noticed.

There also is the possibility that the culprits were regional partisans of more recent vintage. Under this scenario an individual or a group of northeast Kansas partisans prepared the stone, devised some rapid means of giving it a somewhat weathered look, and gave it to the fishermen, or even to Steele himself, to discover and present to the world. This possibility cannot be dismissed out-of-hand, although, if true, it is surprising that no word of the conspiracy ever leaked out.

To go one step further, it is not entirely unreasonable to suspect Ralph Steele of originating the hoax. He was not an unlettered quarry worker as some stories made out, but rather had enough experience in historical research and writing to be hired to develop background material for the Kansas state guide. Also of possible significance is his consistency in claiming that someone else found the stone while failing to ever identify or produce the finder. In view of the amount of publicity the Oak Mills stone received in that area, it is more than a little strange that no claim, or even a hint of a claim, by the finder was ever reported. Furthermore, and only Kirke Mechem has brought this out previously, Steele was very interested in Coronado's expedition and had written on the subject. The day after the discovery of the stone came out in the newspapers the District Supervisor of the Federal Writer's Project, Glenn R. Fockile, wrote a letter about Steele to the State Supervisor in Kansas. The letter dated July 12, 1937, is now in the archives of the Kansas State Historical Society in Topeka (KSHS Correspondence Box 16, "Coronado Relics"). He mentioned Steele's purported discovery, judged it would be a real coup if proved authentic, and expressed his opinion that "...perhaps because of previous experience with the gentleman - I have a vague suspicion that something is screwy." He also described a recent interview with Steele about three manuscripts that he had prepared. Most significant for the purpose of this inquiry is the

District Supervisor's comment that he had "...questioned the wisdom of frequent implications that Quivira was a definite locality including Atchison, Brown, and Doniphan Counties."

A possible secondary motive comes out in Steele's admission that he enjoyed seeing writers, historians, geologists, and archeologists puzzled by the would-be artifact and disagreeing as to its authenticity. If these experts couldn't tell a fake from a genuine relic, then maybe some of their other pronouncements were not to be taken too seriously either. If Steele did originate the hoax, it is possible he had collaborators but there is no reason to believe that Stephenson was involved. He had no monetary needs, had great respect for scientific studies, and seems to have done everything he could to facilitate a full investigation of the "Coronado stone."

Although Stephenson died only four years after the "Coronado stone" came to light and Steele's subsequent life has not been traced, several of the participants in our story enjoyed distinguished careers. Alexander Wetmore within a few years became the Secretary of the Smithsonian Institution, the top job in that organization and possibly in the U.S. museum world. Waldo Wedel's contributions as dean of Plains archeology is too well known to readers of the KAA journal to need further comment. Loren Eiseley stayed at the University of Kansas for several years and later spent 30 years at the University of Pennsylvania. He became a leading anthropologist and one of the most highly praised essayists in this country. Paul Wellman left the *Kansas City Star* in 1944, wrote for the movies for two years, and then became an award-winning author of novels and popular histories. So far as I've been able to determine, he mentioned Coronado only in a narrative history of exploration in the southwest called *Glory, God and Gold* (Wellman 1954). His account of Coronado's trip takes a little over 50 pages of which only three are devoted to Kansas, and no reference is made to the discredited "Coronado stone" (Wellman 1954).

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ARCHEOLOGICAL SURVEY IN SOUTH-CENTRAL KANSAS

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The Kansas Anthropologist, 10(1&2), 1989, pp. 11-17

A survey of two proposed reservoirs in Sumner and Kingman counties, Kansas, recorded several historic and prehistoric sites. The historic sites are mainly related to early to middle 20th century farmsteads. Most of the prehistoric sites date to the Middle Ceramic period (A.D. 1000-A.D. 1500), and seem to be of a short term nature associated with limited activities related mostly to lithic production. A model developed on the basis of soil groups was used to predict site locations.

The Archeological Research and Management Center at the University of Oklahoma surveyed two proposed reservoirs in south-central Kansas for the U.S. Army Corps of Engineers, Tulsa District (Vehik 1988). The Norwich reservoir will be east of Kingman and south of Murdock, Kansas, on the South Fork of the Ninnescah River. The Wellington reservoir will be west of Wellington and south of Anson, Kansas, on Slate Creek. Both are in the Wellington-McPherson Lowlands, but the Norwich reservoir site is slightly east of the High Plains physiographic province (Figure 1).

Among other requirements, the scope of work required that at least 5% of each proposed reservoir be surveyed. This was a nonrandom sample survey of the flood-control pools with special emphasis placed on areas of high archeological potential. Survey locations were determined by a literature search and evaluation of previous work in nearby reservoirs.

The literature and background search involved reviewing collections and documents at the Kansas State Historical Society, the Special Collections Library at Wichita State University, local museums, and various publications relating to previous archeological work in south-central Kansas (Brogan 1981; Brown and Simmons 1987; Gould 1975; Keller 1961; Munsell 1961; O'Brien 1984; Rohn et al. 1976; Thies 1987; Vehik 1967; Wedel 1959; Witty 1963).

FIELDWORK

As indicated above, a model of site locations was developed on the basis of existing information. Site location data from a survey of the Corbin reservoir in southern Sumner County (Rohn et al. 1976) was used to predict the association of sites with specific soil groups. Out of 27 sites in the Corbin reservoir along the Chikaskia River, 59.3% are associated with Old Alluvium, 33.3% with Low Terrace, and 7.4% with Residuum soil groups. Six soil groups (Figures 2 and 3) were defined for the project areas in Kingman (Hoffman and Glaum 1979) and Sumner counties (Fenwick and Ratcliff 1979):

1. Aeolian: These sediments consist of stabilized and unstabilized sand in the Norwich reservoir area. They are not present in the Wellington reservoir.

2. Residuum: These are weathered sediments derived from Permian shale. In the Norwich reservoir area, these sediments are weathered from Ninnescah shales. They are not common in the Wellington reservoir and are mostly along the western and southern edges.

3. Old Alluvium: In the Norwich reservoir area, these probably are terrace sediments deposited by Pleistocene streams. In the Wellington reservoir area they formed in loess and outwash sediments, and occur

mostly along the northern and eastern edges of the proposed lake. They are of Nebraskan age and are composed of poorly sorted sands, silts, and clays.

4. Low Terrace 2: This terrace system is rarely flooded in either reservoir area.

5. Low Terrace 1: These soils are occasionally flooded in the Norwich reservoir area, but they are rarely inundated in the Wellington area.

6. Floodplain: These sediments correspond with recent geologic deposits. In the Wellington area, they occurred only in stream channels.

Lithic resources were another factor used in locating prehistoric sites. Overall, good quality lithic resources are not abundant in either area. The Ogallala formation, which includes Ogallala quartzite, may be a source of some lithics in the Norwich reservoir area (Lane 1960:16). The majority of sediments associated with this formation seem to have been removed by erosion during the Nebraskan glacial advance (Lane 1960), but plenty of quartzitic sandstone cobbles occur in eroded areas of the uplands. There are two possible areas in or near the Norwich reservoir which may be part of the Ogallala formation. The larger area is about one-half mile west of Murdock, and is outside the impact zone. Even though one area is in the impoundment, both are covered by heavy vegetation and were not surveyed.

Another possible source for usable lithics resulted from stream down-cutting during the Kansan glaciation. During this period, a stream originating in the Rocky Mountains ran through south-central Kansas, depositing alluvium of gravels which are similar to types found in the Rocky Mountains (Lane 1960:61-62). In parts of western and southern Oklahoma, similar gravels contain usable lithic materials (Lintz 1980:12-13; Lopez and Keith 1976:137-138).

Even though the geologic situation in Sumner County is not as well documented (Walters 1961), similar events occurred. Nebraskan age terrace deposits are eroded, with the lower parts containing gravels (Walters 1961:60). These are not described and it is not known whether usable lithic materials are present. The same situation is true for Kansan deposits of sand and gravels which occur discontinuously usually more than 15 m above the present floodplain. The Wellington reservoir is closer to large Kay County (Florence-A) chert outcrops and quarries in the vicinity of the Arkansas River in southern Kansas and northern Oklahoma.

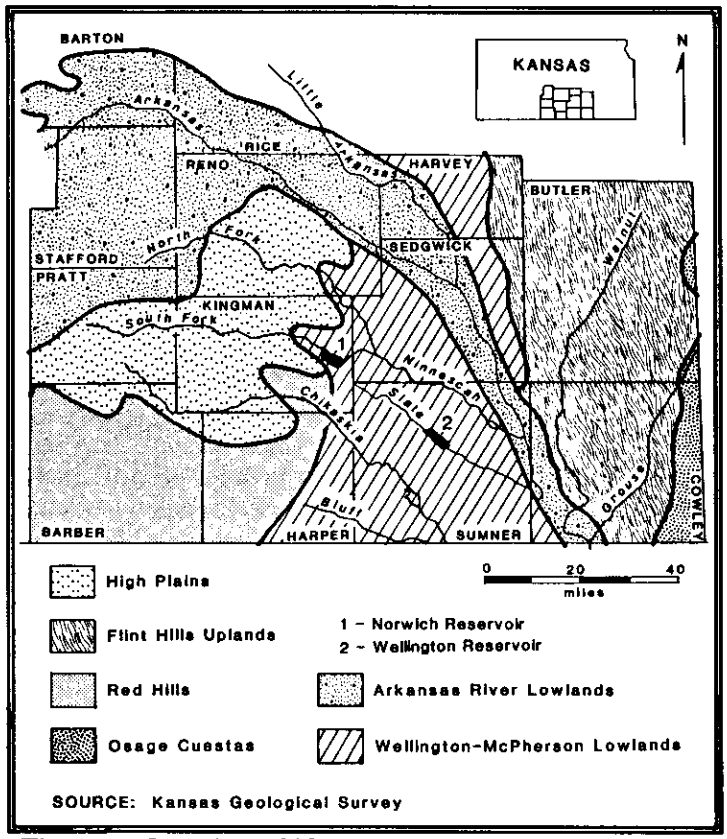

Figure 1. Location of Norwich and Wellington reservoirs.

The fieldwork, conducted mostly by one individual, consisted of a walk-over survey of

the project areas. Very limited shovel testing was employed in some areas of dense vegetation. Since emphasis was placed on cultivated fields and locations in which surface visibility was the greatest, the results are not statistically valid. Landowners and other individuals were asked about site locations, but not much is known about archeological sites in these areas. In fact, only five archeological sites have been recorded in Kingman County and 55 in Sumner County (Brown and Simmons 1987:vi-2).

RESULTS

One multicomponent, five historic, and six prehistoric sites were recorded in the Norwich reservoir area and six historic, one multicomponent, and eight prehistoric sites in the Wellington reservoir area. Most of the prehistoric sites are represented by small amounts of cultural debris. As a result, it is difficult to assess them in terms of function, age, or significance. We have followed the terminology employed by Kansas prehistorians in discussing the area's culture history. None of the recorded prehistoric sites could be assigned to the Paleoindian, Archaic, or Late Ceramic periods. Based on the style of very few projectile points and the presence of Kay County (Florence-A) chert (Vehik 1985a; 1985b), we assigned at least five prehistoric sites to the Early/Middle Ceramic or Middle Ceramic periods (A.D. 1-1500).

Lithic manufacturing is a primary activity at many sites, but there is a difference in the procurement and manufacture of lithic materials between the two reservoir areas. Many items from the Norwich reservoir area reflect procurement of local lithic resources and early stage lithic manufacturing. Only three artifacts are made of Kay County and Alibates chert which are considered to be nonlocal. Forty-one items are made from Ogallala quartzite. Only three of these do not have any cortex.

On the other hand, the Wellington reservoir area does not have many locally usable lithic resources. Materials made from Ogallala quartzite (44.4%) and Kay County chert (38.9%) are the most common, but over 75% of the Ogallala quartzite items are from one site. Most (70.1%) of the Ogallala quartzite items exhibit cortex. These consist of thick bifaces (3), unmodified flakes (15), and blocky debris (6). It is likely that Ogallala quartzite was being tested for quality and large, early stage tools were being manufactured. Cortex occurs on 25% of the Kay County specimens of which six are unmodified flakes and one is a scraper. Over half of the Kay County specimens are

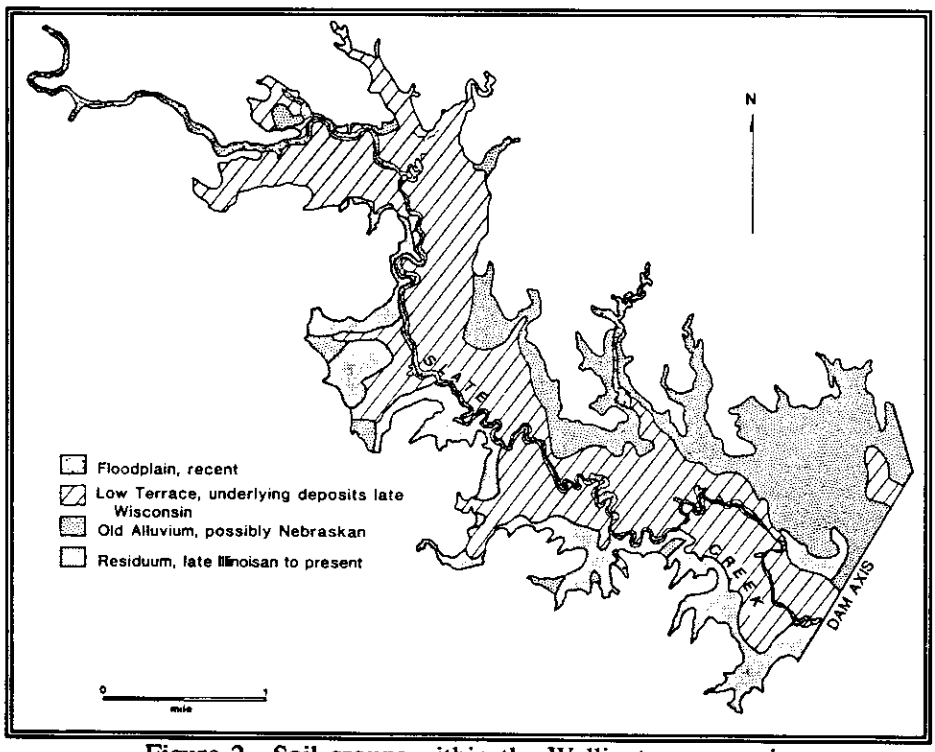

Figure 2. Soil groups within the Wellington reservoir.

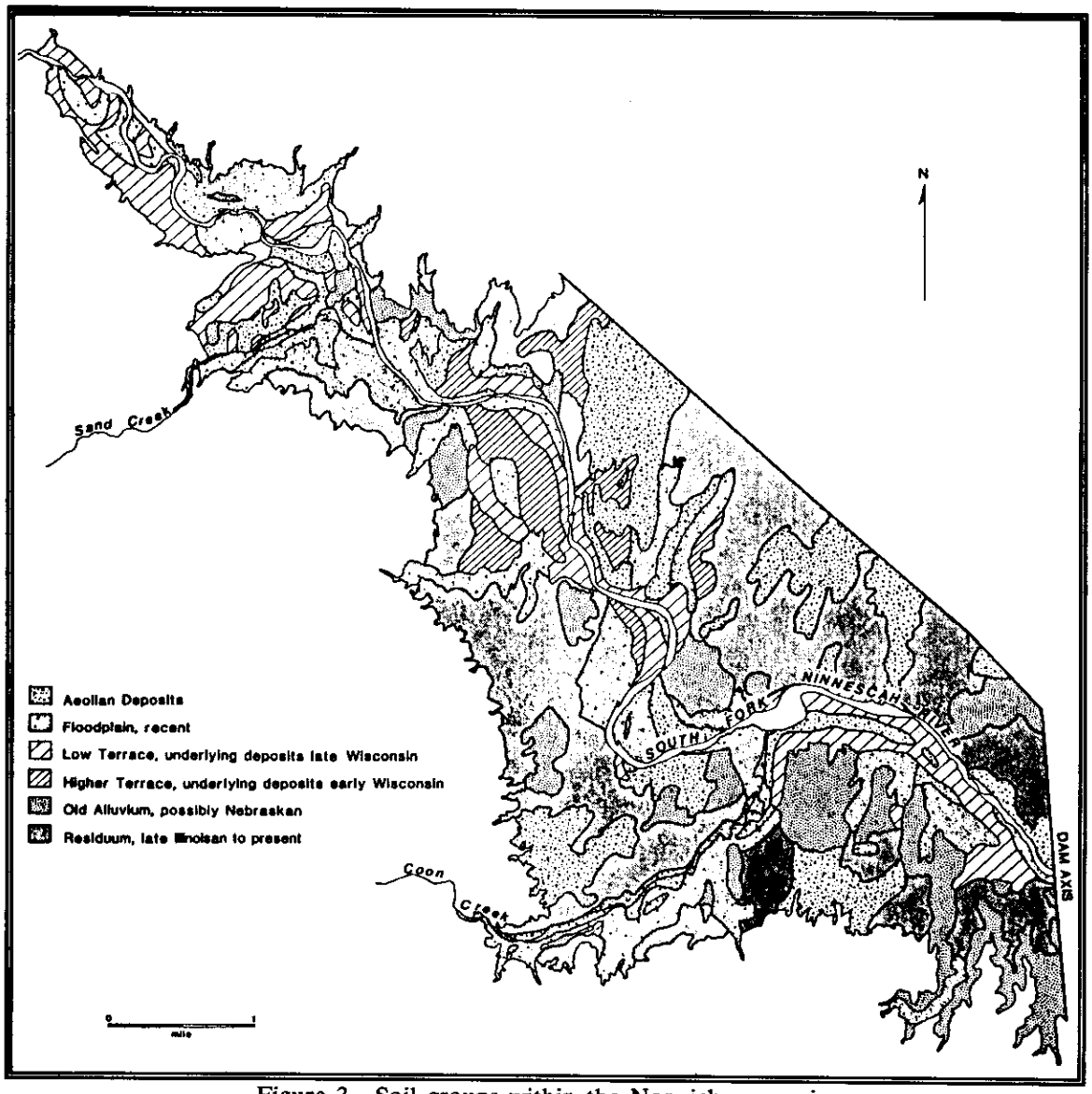

Figure 3. Soil groups within the Norwich reservoir.

thermally altered. The lack of cortex and scarcity of tools associated with early stages of lithic manufacture suggests that complete tools were being brought in, probably from the Flint Hills Uplands to the east, and maintained. In addition to obtaining lithic resources and lithic manufacturing and maintenance, the only other activities may be hunting (projectile points) and processing activities such as cutting and scraping (biface fragments and modified flakes). In sum, the more intensive use of Kay County chert in the Wellington reservoir locale may reflect its proximity to the Kay County quarries in Cowley County, Kansas, and Kay County, Oklahoma. It may, however, also indicate the use of this region by populations derived from larger groups along the Arkansas River.

Site locational data from the Norwich reservoir along the South Fork of the Ninnescah River do not correspond to the Corbin reservoir predictive model. The major soil groups with which sites are associated are eroded Aeolian soils located in the uplands and Residuum soils. Most of these sites are nearly 1,500 m from the river, but range from 15 to

518 m from intermittent creeks. This, in conjunction with the fact that most of the recovered materials are related to lithic procurement, suggests that site occupations are very temporary and short term. One reason why sites are not close to the South Fork of the Ninnescah River may be that the river is not deeply entrenched and occupations could have been easily inundated. It is also likely that sites were closer to intermittent creeks and, possibly, seeps and springs because these water sources were not as saline as the river. Lithic resources seem to be more common away from the river. However, it is most likely that sites in the floodplain of the South Fork of the Ninnescah have either been destroyed by flooding or are deeply buried.

The location of sites in the Wellington reservoir area corresponds more closely to the Corbin reservoir model. Seven (77.8%) of the nine prehistoric sites are associated with Low Terrace soils and two (22.2%) with Old Alluvium sediments. Residuum soils are not common in the Wellington area, and only one historic site was in this type of locale. Prehistoric sites are nearly equidistant from permanent and intermittent creeks; an average 284 m. However, they may have been closer to Slate Creek since many sites are associated with old meander scars of the creek. At least three sites represent campsites associated with the Early and Middle Ceramic periods.

A survey of the Cunningham reservoir in 1988 by the Kansas State Historical Society, in extreme western Kingman County (Reynolds 1988), resulted in findings similar to the Wellington reservoir area. Sites in the Cunningham reservoir area are associated with three Old Alluvium soil groupings (Reynolds 1988:48-49). Another similarity is the frequency of Kay County chert. About 68% of the chipped stone tools were manufactured from this lithic resource (Reynolds 1988:54). The possibility is raised that this large frequency occurs because of the proximity of the Cunningham reservoir to the Middle Ceramic period Pratt site along the South Fork of the Ninnescah River (Reynolds 1988:54). It is possible that sites in the Wellington and Cunningham reservoir areas reflect different spheres of influence during the Late Prehistoric period.

The Kansas State Historical Society in 1988 also surveyed the proposed Arlington reservoir along the North Fork of the Ninnescah in Reno County northwest of the Norwich reservoir site (Reynolds 1988). Several sites located here are also associated with Old Alluvium sediments. Reynolds (1988:47-55) indicates that most prehistoric sites occur on upland soils or on eroded remnants of upland terraces. This seems to be the case in the Norwich locale, but most of the soils there are associated with Residuum sediments. The recent despositional history of the South and most likely the North Fork of the Ninnescah has either removed evidence of prehistoric occupations by erosion or these sites are deeply buried. In the Wellington reservoir area, sites are closer to extant meander scars of Slate Creek and are associated with clayey alluvium. Tributaries here are more deeply incised than the South Fork of the Ninnescah and less likely to overflow on a regular basis.

In summary, recent archeological surveys in south-central Kansas have been based on a model utilizing soil groupings. This model is fairly effective, and with more refinement it should be useful in predicting the location of prehistoric sites in this area.

Not many prehistoric sites were found in either the Norwich or Wellington reservoir areas. Most occupations appear to be short term and related to lithic production, hunting, and some generalized processing activities. Some sites in the Wellington reservoir area may relate to longer term occupations. Relative dating suggests that most sites belong to the Early and/or Middle Ceramic periods, but Reynolds (1988:47) reports the presence of a possible Late Archaic site from the Arlington reservoir area in Reno County.

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ARCHEOLOGICAL INVESTIGATIONS AT THE MAHAFFIE FARMSTEAD, OLATHE, KANSAS

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The Kansas Anthropologist, 10(1&2), 1989, pp. 18-29

In the summer of 1988, a volunteer archeology program was conducted at the late 19th century Mahaffie farmstead in Olathe, Kansas. The Mahaffie farmstead is operated as a city historical museum, and the summer's archeology program was a joint venture of the City of Olathe and the Kansas State Historical Society. During the course of the 20-day dig, a total of 160 individuals volunteered on the project. Two separate localities were investigated: the suspected site of the original 1858 Mahaffie dwelling and the site of an outbuilding for which no documentary record has been identified. Excavations at the suspected dwelling site documented structural remains, but do not conclusively support this as the original dwelling. Excavations at the previously undocumented outbuilding showed this to be an early, short-lived structure that may have served as a smokehouse.

The Mahaffie farm (14JO356) was established by James Beatty Mahaffie in 1858 on 160 acres purchased for $600 (Jackson 1980). This farm was located along the Santa Fe trail immediately east of the community of Olathe, Kansas Territory. The first dwelling on the farm was a small frame building moved from Olathe in 1858, and which has been described as a "five room, story and a half frame house" (Jackson 1980). It was replaced by a substantial limestone dwelling house in 1865 (Figure 1). Although the origin of the reference is not identified, Jackson (1980:101) states that "the temporary frame house then became a granary and hog house." Conventional wisdom holds that the original dwelling remained at the farmstead until the 1920s, when it was moved to another location in Olathe. A cistern and cellar depression on the farmstead are alleged to be related to this dwelling.

The 1865 limestone dwelling exists on the property to this day, and serves as the focus of the Mahaffie farmstead and stagecoach stop historic site, operated by the City of Olathe since their purchase of this property in 1979. Other standing historical buildings on the property include a limestone icehouse (referred to in some sources as a smokehouse), thought to date to 1865 (Figure 2); a wood peg barn; a later barn; and other outbuildings dating from various periods (Figure 3). The 1865 dwelling, ice house, and wood peg barn are listed on the National Register of Historic Places.

The Mahaffie farmstead was, as the name suggests, focused on agricultural production. By 1865 the Mahaffies owned 570 acres and had an extensive livestock herd. Between the years 1865 and 1869, however, Mahaffie took advantage of the numerous roads that passed the farm and operated a stagecoach stop. Stagecoach routes served in this fashion were Westport to Lawrence, Westport to Fort Scott, and Westport to Santa Fe, New Mexico. The basement of the 1865 dwelling was used as a kitchen and dining room for this traffic (Jackson 1980).

In 1985, the Kansas State Historical Society was approached by the City of Olathe, which desired to conduct archeological investigations at the Mahaffie farmstead for the purpose of verifying the location of the original 1858 Mahaffie dwelling and providing information for use in the planned reconstruction of this building. An ancillary

Figure 1. The 1865 Mahaffie dwelling as it appeared in 1988.

goal was to investigate other areas of the property where evidence of subsurface features had been identified. The City was interested in undertaking this work with the use of local volunteers. Because of the Society's strong public outreach program and experience with the use of volunteers on excavation projects, this interest was easily accommodated. The next two years were spent in obtaining funding from the City to underwrite 50% of the Society's expenses on this project, and in planning the project.

The Society has a long history of work with volunteers in archeology. The Kansas Anthropological Association (KAA), founded in 1955, has had an increasingly close relationship with Society archeology since 1960, leading to the establishment of the Kansas Archeology Training Program in 1975. The training program is a partnership between the KAA and the Society, and offers to volunteers the opportunity to participate in a scientific excavation once a year, including both field and laboratory aspects, and to learn through on-site training and from structured classes offered either informally or for college credit. Through the years, KAA members and other volunteers have participated in Society projects including salvage projects, research excavations, laboratory processing, and in the development of museum exhibits.

The Mahaffie project differed from past volunteer projects in several ways. First, it was a joint venture with a municipal government. Previous work with local governments was typically associated with pre-construction salvage. At the Mahaffie farmstead, the focus was on interpretive development of a non-threatened resource. Second, the volunteers were to be drawn locally rather than from an organizational base such as the KAA. Thus, while some draw from the KAA was expected, the project required the development of an entirely new volunteer base.

Another difference resulted from project staffing, which was limited to one professional archeologist, and from the expectation that the volunteers would be largely new to archeology. Typically, there are from two to three professionals on site during Training Program digs as well as a cadre of experienced

Figure 2. The icehouse in 1988.

volunteers. Staff can usually handle as many volunteers as show up to dig; and have handled as many as 70 at one time. At Mahaffie, however, a limit was placed on the number of participants at any one time, and crew levels were controlled by an advanced sign-up process.

Planning and previous experience with volunteers, both on behalf of the Society and the City of Olathe, paid off with productive scientific results and a very positive experience for the 160 volunteers who participated. Of these 160 individuals, 75 were from Olathe and another 44 were from other communities within Johnson County.

RESULTS OF THE INVESTIGATIONS

The excavations at the Mahaffie farmstead were conducted in two ten-day periods. The site was divided into two areas, designated 881 and 882. Project objectives were structured to provide a different focus for each of these sessions (Figure 4).

Area 881

The initial focus was on a site that was hypothesized to be the location of the original 1858 Mahaffie dwelling house. This location was characterized by an intact brick-lined cistern and, adjacent to this, a shallow depression thought to represent a filled cellar. This site was located approximately 35 m (115 ft) to the rear of the 1865 dwelling. At the time of this project, this area was covered with a dense layer of sod, and no artifacts were visible on the surface. Limited shovel testing at this site in 1986 identified the presence of machine cut nails, mortar, and limestone rubble in the vicinity of the suspected cellar location. A total of 88 sq m were excavated in this area. All excavation was conducted within 2 m excavation units, or squares, and all soil was removed in 10 cm (3.9 in) levels and screened through quarter-inch (.635 cm) hardware cloth.

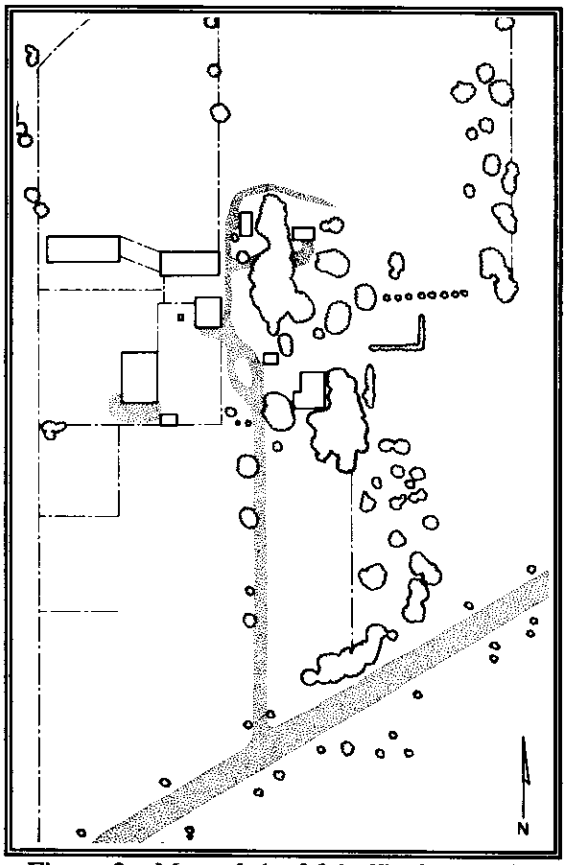

Figure 3. Map of the Mahaffie farmstead in 1941 based on an aerial photo.

Within this area, a number of architectural features were documented (Figure 5). The cistern was the most obvious feature in this area prior to excavation. This concrete-plastered brick cistern has a diameter at the surface of about 2 m (6.6 ft). Investigation of this feature was limited to pumping it dry to determine if any substantial cultural fill had been placed within it. Only minimal, recent materials were observed.

The most substantial feature encountered during the excavations was designated Feature 5 and consisted of a cellar located beneath the shallow depression mentioned earlier. Its interior measured 2.4 m (7.8 ft) north-south and 2.2 m (7.2 ft) east-west. A stairwell, measuring 90 cm (2.9 ft) in width, provided an exit through the western end of the north wall of the cellar. The cellar was lined with a substantial limestone masonry wall, approximately 40 cm (1.3 ft) in width, most of which had been salvaged. The cellar was floored with a limestone flag pavement which had been covered with a thin layer of cement. The original builders had not excavated the stairwell level with the floor of the cellar, but instead sloped it upward at an angle similar to that of stairs that were once present there. The stairs were apparently of wooden construction.

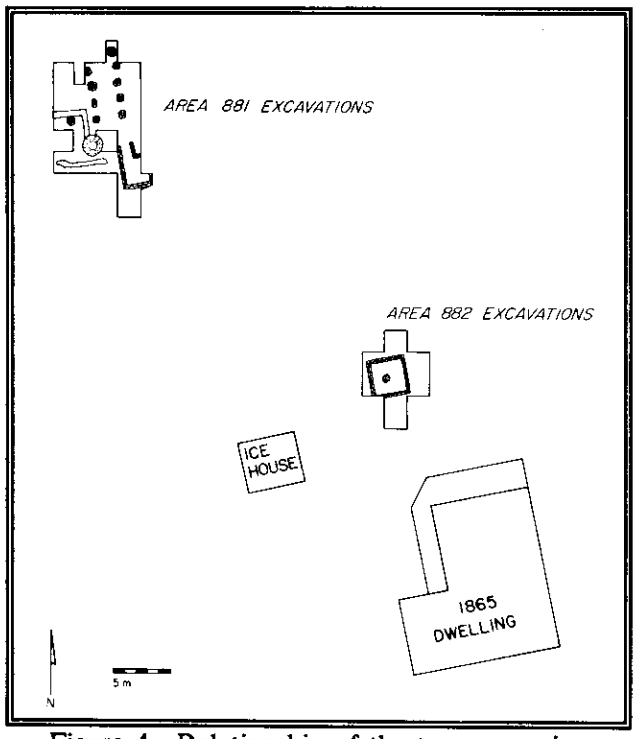

Figure 4. Relationship of the two excavation areas and the standing 1865 dwelling and ice house.

The floor of the cellar was approximately 1.4 m (4.6 ft) below the modern ground surface. Cellar fill consisted of several layers of refuse and soil, here described as it appeared in the approximate center of the cellar (Figure 6): lying on the floor was a 25 cm (.8 ft) thick layer of dark brown soil with large pieces of limestone building rubble and small artifacts; above this was 40 cm (1.3 ft) of densely packed plaster and mortar rubble; overlying this was a zone, approximately 20 cm (.61 ft) in thickness, with numerous large artifacts and artifact fragments sur-rounded by a dark brown soil matrix; and between this zone and the surface was approximately 55 cm (1.8 ft) of dark brown soil with inclusions of relatively small and infrequent artifacts.

The dense plaster and mortar zone appears to be secondarily deposited and is not interpreted as materials resulting from the destruction of this building. The standing 1865 Mahaffie dwelling is reported to have been replastered in the 20th century, and this zone may be the result of this episode (Michael Duncan, personal communication 1988). The artifacts from the cellar fill, and particularly those found in the dense layer of artifacts and soil overlying the plaster zone, are overwhelmingly late. Based on field observations of these artifacts, it does not appear that this cellar was filled any earlier than the 1920s. This date is consistent with the oral history account that the building that stood at this location was moved in about 1920.

Two architectural features, although remaining somewhat enigmatic at the end of the project, may be related to the cellar (see Figure 5). These features are both "ghost" foundations; that is, they consist of subtle outlines of rock and mortar rubble which are

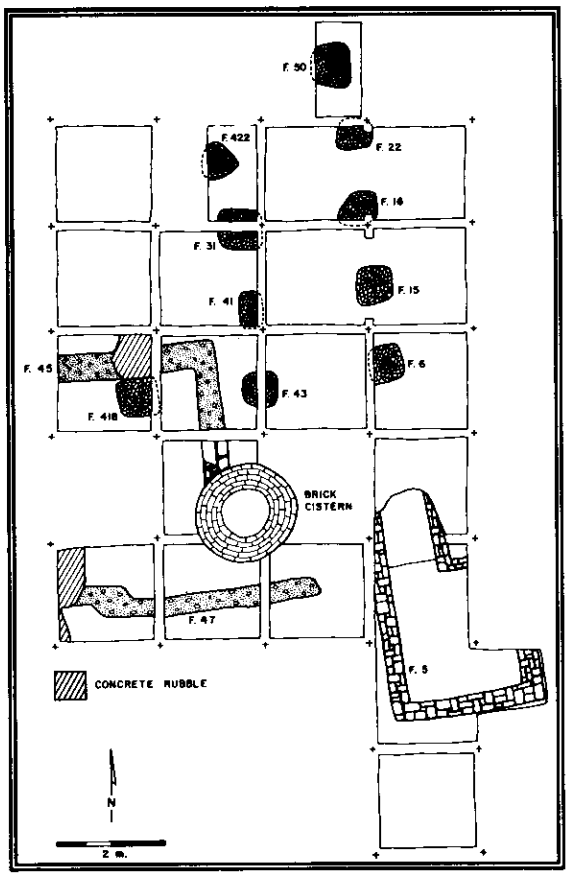

Figure 5. Relationship of architectural features uncovered in Area 881.

more or less clearly the locations of continuous limestone masonry foundations that have been salvaged. The first of these, Feature 45, intersects the western side of the cistern and proceeds north for about 2 m (6.6 ft) and then takes a 90 degree turn to the west. This "ghost" footing proceeds west at least 2.5 m (8.2 ft), where our excavations ceased. This footing was about 55 cm (1.8 ft) in width. Extending approximately 60 cm (2 ft) north of the cistern, a single course of mortared limestone rock remains in place.

The second "ghost" foundation, designated as Feature 47, is an alignment which runs east-west for at least 4.5 m (14.8 ft) and which is about 40 cm (1.3 ft) in width. This foundation trace is less distinct than Feature 45, but it is of interest that this alignment is in line with the northern wall of the Feature 5 cellar. Unfortunately, due to slumping around the edge of the cellar, it could not be determined if the Feature 45 alignment was, in fact, associated with the Feature 5 cellar.

The relationship between the Feature 5 cellar, the cistern, and the Feature 45 and Feature 47 "ghost" foundations is thus uncertain. Both features 45 and 47 are continuous foundations, and both appear to have been mortared limestone masonry. This type of construction is consistent with that observed for the cellar. The fact that Feature 45 intersects the cistern, and that there was no evidence that features 5, 45, and 47 were ever joined, poses problems of interpretation.

An interesting series of features with no demonstrated relationship to the other features documented in this area consists of three parallel alignments of limestone pier subfootings (see Figure 5). These features are consistent in a general sense but are somewhat irregular in their configurations. They each consist of a concentration of angular, fist-sized limestone rocks which were apparently dry-laid (Figure 7). These concentrations are typically squared, although corners are often rounded and rarely approximate 90 degrees. Their dimensions are generally within the range of 70 to 80 cm (2.3 to 2.6 ft) (Table 1). These are interpreted as intentionally prepared subsurface footings for the placement of above ground foundation piers, none of which remain.

A total of ten of these piers were uncovered during the project and the location of what are probably an additional three were identified by solid core probing. The only alignment that was completely exposed was 6.5 m (21.3 ft, measured outside-to-outside) in length and was composed of five regularly spaced piers. Approximately 2.5 m (8.2 ft, measured center-to-center) to the west of this alignment was another alignment, for which four piers were uncovered and a fifth identified. Approximately 2.5 m (8.2 ft) to the west of this second alignment another pier was uncovered and the locations of what are probably two additional piers were identified. Although the western-most alignment appears to be missing two piers in its midsection, the three alignments all appear to be roughly equal in length. Thus,

these piers would have supported a building which measured approximately 6.5 m (21.3 ft) north-south and 5.5 m (18 ft) east-west.

Table 1
Measurements of subfootings in Area 881.
Measures in parentheses are projections.

Feature	East-West Dimension	North-South Dimension
6	.7 m	.75 m
15	.7 m	.75 m
16	.8 m	(.65 m)
22	.8 m	(.65 m)
31	(.85 m)	.8 m
41	(.5 m)	(.75 m)
43	.7 m	.7 m
50	(.75 m)	.85 m
418	(.7 m)	.75 m
422	(.75 m)	.7 m

Looking at all the features encountered in this area, a very speculative interpretation is possible. This posits the Feature 5 cellar, the cistern, and the Feature 45 and 47 "ghost" foundations as being related to a single structure or to related, contemporary structures. The frame dwelling reported to have been moved from this site in about 1920 is presumably also associated with these foundations. The structure delineated by the ten pier subfootings is, however, hypothesized to represent a later building not associated with the other architectural remains in this area. This is suggested by the fact that the building founded on the piers conflicts with that which sat on the continuous foundation designated as Feature 45; that is, they cover the same turf.

Because of the proximity of one of the subfootings to the Feature 45 foundation "ghost," and because of the more intact nature of the subfooting, it is believed to be later than the Feature 45 foundation. It is here suggested, although without independent corroboration, that the building associated with the subfootings is a probably post-1920 outbuilding associated with the operation of the farmstead.

The artifacts from Area 881 have not yet been analyzed, but based on field observations they do not appear to contain the materials expected of a mid-19th century occupation. While an occasional early artifact was encountered, the vast majority are consistent with an occupation dating from the late 19th and early 20th centuries. The artifacts may suggest, once again based only on field observations, that the area excavated was not the location of the 1858 Mahaffie dwelling.

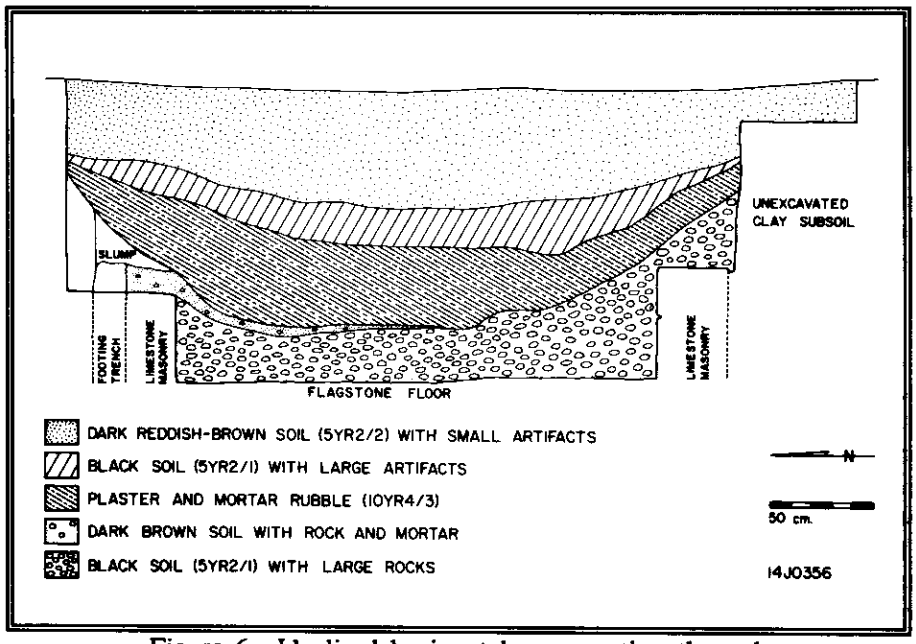

Figure 6. Idealized horizontal cross-section through the fill of the Feature 5 cellar in Area 881.

Figure 7. Photo of subfooting.

Area 882

The focus of the second session was an area located some 5 m (16 ft) north and to the rear of the 1865 dwelling and between the Area 881 excavations and the 1865 dwelling (see Figure 4). This area was covered with a dense sod cover and there were no surface indications of any buried archeological features. Evidence of a buried feature was, however, encountered in 1986 when a utility trench was being excavated (Michael Duncan, personal communication 1986). The mechanical trencher hit a mass of limestone rubble, which the site curator believed might represent a foundation. The utility trench was redirected around this area.

Prior to excavation, it was hypothesized that the building believed present in Area 882 was an outbuilding associated with the 1865 dwelling. Interpretation as an outbuilding was supported because of the relatively small size of this structure, which was determined through solid-core probing of the area. Relationship to the 1865 dwelling was suggested because it was located behind this building in a setting similar to that of the standing icehouse. Since outbuildings are typically located behind the dwelling they serve, an association with the 1865 dwelling seemed likely and, based on the supposition that the 1858 dwelling was located in Area 881, an association with this earlier building seemed equally unlikely.

A total of 34 sq m were excavated in this area in a block composed of nine, 2 m square excavation units (Figures 8 and 9). Excavation of this area revealed a dense layer of cinders between about 10 and 15 cm (3.9 to 5.9 in) below the modern ground surface. This cinder layer covered the entire area, and capped features which were discovered below it. A large number of nails and lesser numbers of other artifacts were found within this layer of cinders. Field observation of these artifacts suggests they were deposited primarily during the late 19th century. The cinders in this layer were probably from stoves within the 1865 dwelling, and were undoubtedly spread over the kitchen dooryard in order to dispose of them and to combat mud in what was certainly a high traffic area.

The predominant feature revealed within this area was the limestone foundation of a building (designated as Feature 7). This foundation was precisely square, measuring 3.3 m (10.8 ft) on a side. The walls were composed of courses of relatively thin, tabular limestone, and were approximately 30 cm (11.8 in) wide. The walls were founded on the clay subsoil at the same level as the floor of the building. This sunken clay floor was encountered at approximately 60 cm (23.6 in) below the modern ground surface, and represents the actual floor of the building.

The stratigraphy within Feature 7 is informative. Approximately 10 to 15 cm (4 to 6 in) beneath the ground surface was a dense layer of cinders which covered the building area. Intermixed with these cinders were late 19th century artifacts; the first indication of the early nature of the building. Beneath this cinder layer and within the limestone foundation was a dense zone of large limestone rubble surrounded by soil. This appears to have been intentionally placed in the sunken interior of the building to level it after it was torn down; the limestone rubble probably represents remains of the building itself. Until

excavation reached about 15 cm (5.9 in) above the clay floor of the building, few artifacts were encountered. Beneath the limestone rubble and lying right on top of the floor of the building was, however, a zone of numerous mid-19th century artifacts (Figure 10).

This zone of artifacts is interpreted to represent refuse which was on the floor of the building when it was demolished, an interpretation made easy by its encapsulation beneath a mass of limestone rock. The artifacts included numerous bottle and ceramic fragments as well as other less numerous artifacts such as the head of a felling axe and an 1854 large cent. The presence of ceramics decorated with polychrome hand-painted floral designs, transfer decorations, and annular motifs, as well as many bottles with open glass pontil scars, indicates an early date for this deposit, probably prior to 1870.

In the approximate center of the clay floor was a basin shaped hearth, designated as Feature 510, which measured about 47 cm (18.5 in) in diameter (see Figure 9). The deepest part of this basin was 11.5 cm (4.5 in) below the clay floor of this building. This hearth was filled with wood ash which contained a number of artifacts, primarily nails. These nails were probably present in discarded lumber that was used for fuel. The entire content of the hearth was collected for flotation, a process designed to recover seeds and small animal remains.

Approximately 1 m (3.3 ft) south of the Feature 7 foundation several features were exposed for which no clear interpretation has been developed (see Figure 9). These include an alignment of relatively large limestone rocks, a pavement of small limestone cobbles, and a pavement of somewhat larger limestone cobbles. The pavement of small limestone rocks is stratigraphically somewhat higher than the pavement of larger rocks. All of these features appear to be intentionally placed and an interpretation of the pavements as parts of walkways is possible. Interpretation of these features will require additional archeological investigation of this area.

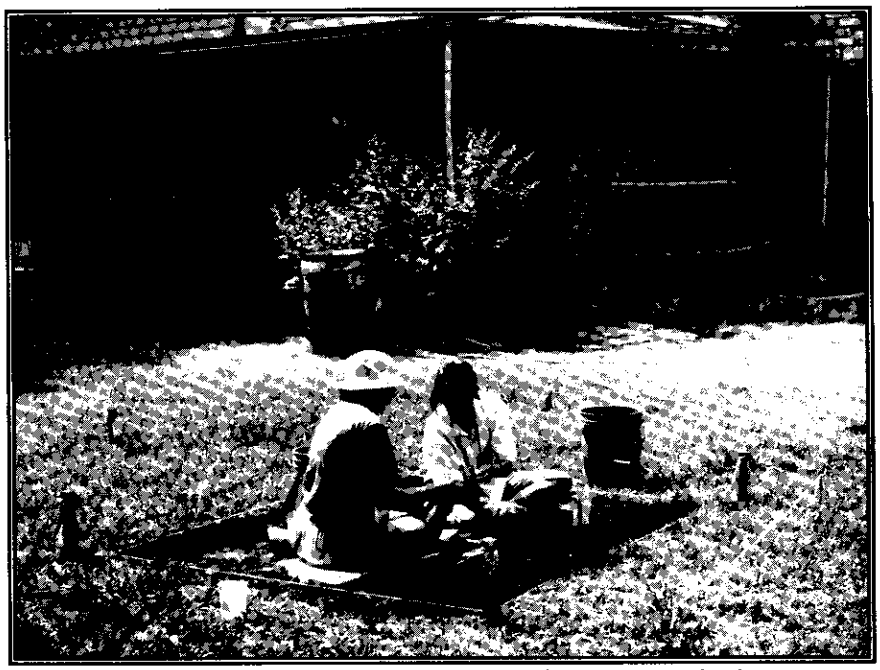

Figure 8. Marion Barre and Kathy Johnston beginning excavations in Area 882.

What is interpreted as a filled posthole was discovered approximately 1.5 m (4.9 ft) east of the Feature 7 foundation (see Figure 9). This feature, designated as Feature 49, measured about 25 cm (9.8 in) in diameter and was identified because of its contents, which included limestone rocks and large sherds of a stoneware vessel. These artifacts, first noted at about 13.5 cm (5.3 in), were oriented vertically as if they had been placed in a hole in the ground, perhaps as it was being filled. When the limestone rocks and stoneware sherds were removed, brick fragments and several large

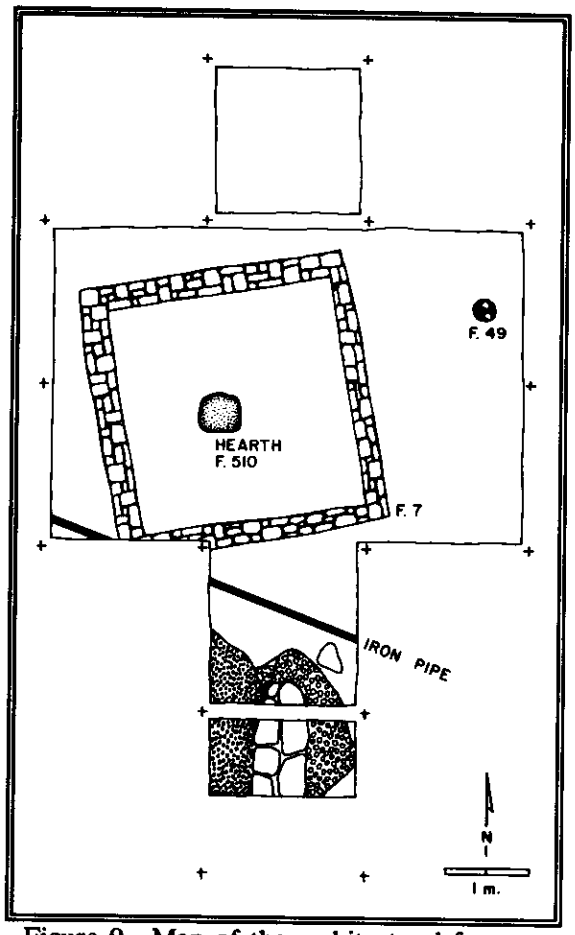

Figure 9. Map of the architectural features uncovered in Area 882. Small circle patterns south of the iron pipe are layers of angular limestone cobbles.

fragments of a glass bottle were found at the base of the feature. Overall, this feature extended to a depth of 38 cm (14.9 in) below the modern ground surface.

The glass bottle fragments removed from Feature 49 could have been made during the very late 19th century or during the first decades of the 20th century. This, and the fact that this feature cut through the cinder layer, provisionally interpreted to date to the late 19th century, suggests that this hole was filled around the turn of the 20th century. This indicates that there is no relationship between this feature and the building represented by the Feature 7 foundation. The precise purpose for a posthole in this location remains, however, uncertain.

A 3.8 cm (1.5 in) diameter iron pipe was found running through the Area 882 excavations (see Figure 7). This pipe passes over the southwest corner of the Feature 7 foundation, and thus clearly post-dates the demolition of that building. Further, the trench for this pipe was noted to cut through the cinder level which covers the entire Area 882, and this pipe thus post-dates the deposition of these cinders. This pipe is therefore interpreted as a 20th century feature which post-dates most of the archeological deposits observed in this area.

Provisional Interpretation. Because of the hearth in the center of this relatively small, square building, an interpretation as a smokehouse is tentatively suggested. During the 19th century, smokehouses were common features on rural farmsteads. An undated reference to the Mahaffie smokehouse provides that:

> at least twelve hogs were butchered each winter with the hams, bacon, sausage, and lard being processed in the smokehouse at home. Beef, lamb, and poultry raised on the farm augmented the diet. A buffalo was kept on the place as a curiosity [Jackson 1980:101].

Although common, smokehouses were built to a variety of specifications. An 1864 publication suggests the proper smokehouse should be as follows:

> it is built of brick with a stone basement for ash-pit from the smoke-house above, and through which the ashes may be poured down. For smoking the meat, a fire is built on this (sic) ashes, where it may be perfectly controlled, and the smoke rises above. A ventilator surmounts the building, which is closed or opened at pleasure, to prevent the dampness so common otherwise with brick smoke-houses on the one hand; as well as a too free escape of smoke on the other [Anon. 1864:320].

Although somewhat later, and certainly later than construction of the Area 882 building, another reference describes a smokehouse with features similar to those excavated in this area:

> a good smoke house should be found upon every farm, large or small, and there are many other families besides those of farmers which would be vastly benefited by one. The object is to be able to expose meats to the action of creosote and the empyreumatic vapors resulting from the imperfect combustion of wood, etc. The peculiar taste of smoked meat is given by the creosote, which is also the preservative principle, but sundry flavors, agreeable to those who like them, are also imparted by other substances in the smoke. All that is necessary for a smoke house, is a room, from the size of a barrel to that of a barn, which can be filled with smoke and shut up tight, with conveniences for suspending the articles to be cured. In common smoke houses the fire is made on a stone slab in the middle of the floor. In others, **a pit is dug, say a foot deep, in the ground, and here the fire is placed**; sometimes a stone slab covers the fire at the hight (sic) of a common table [Halsted 1881:187; emphasis added].

Despite the similarity of this smoke house to the observed features in Area 882, interpretation of this building as a smokehouse will be premature until a detailed analysis of the artifacts is undertaken and before a more thorough consideration of other alternative explanations is undertaken.

The presence of this building behind the 1865 dwelling and adjacent to the 1865 icehouse would appear to indicate a relationship of this outbuilding to the later, 1865 building episode at Mahaffie farm. The early age of the artifacts in this building suggests, however, that it was demolished at about the same time that the 1865 buildings were being erected. References to the standing limestone icehouse having served as a smokehouse are interesting in this light; if this building currently identified as an icehouse was originally constructed as a smokehouse, it could have served as a replacement, for whatever reason, for the building excavated in Area 882.

Figure 10. Pete Peterson cleans dirt from a fragment of a mid-19th century pitcher.

If the Area 882 structure dates prior to 1865, as seems entirely possible, its relationship to the hypothesized 1858 dwelling site is intriguing. This possible smokehouse is located between the suspected 1858 dwelling site and the Santa Fe Trail. Assuming the 1858 dwelling fronted on the trail, this building would have been situated in front of this dwelling; unlikely positioning for an outbuilding. Thus, the early date of the Feature 7 building in

Area 882 serves to bring to further question any interpretation of Area 881 as the location of the 1858 dwelling.

CONCLUSIONS

The 1988 excavations at the Mahaffie farmstead and stagecoach station resulted in the investigation of two areas and the documentation of architectural remains in each. Area 881 was excavated because it was believed to be the location of the original 1858 Mahaffie dwelling. Although substantial architectural remains were identified in this area, field observations as well as insights from Area 882 suggest that this may in reality be the location of a later building. Area 882 was excavated because evidence for a previously undocumented outbuilding was discovered during trenching for the installation of underground utilities. Remains of a small building, possibly a smokehouse, were discovered there; field observations suggest that this building was probably demolished by 1870 if not earlier.

This research thus suggests that the suspected 1858 dwelling site may in reality be the location of a later building, and that the "smokehouse" originally suspected to be associated with or later than the 1865 building episode may in fact be earlier. Taken together, these results seem to point to another location for the 1858 dwelling. It may be that the 1858 dwelling and the 1865 dwelling were located in the same general vicinity; indeed, it is not uncommon for an early dwelling to serve as the nucleus for a later dwelling or at least to remain attached to it.

Acknowledgements. First among those deserving recognition for their part in the 1988 excavations at the Mahaffie farm were the 160 volunteers who made it a success. These individuals are:

Deanna, Robert, and Ben Abel (Gardner); Fran, Rob, and Becky Abram (Overland Park); Adrian, Bill, and Maxine Adsit (Olathe); Judy Ancel (Kansas City, Kansas); Phil Arbuckle (Olathe); Sandy Ballenger (Olathe); Marion and Mandy Barre (Overland Park); Avi Belson (Stanley); Gloria and Erin Bowersox (Olathe); Beth Brown (Olathe); Molly Bucham (Overland Park); Bud Burke; (Leawood); Dan and Steve Burm (Overland Park); Cathy, Carrie, and Jennie Camp (Olathe); Kate Chalfant (Stilwell); Barbara Clark (Liberal); Steve and Shaun Clark (Osawatomie); Maryanne Clem (Olathe); Les, Linda, and Todd Cohn (Overland Park); Jane, Kelly, and Heather Comstock (Olathe); Matt Connolly (Blue Springs, Missouri); Mary Conrad (Kansas City, Kansas); Dana Cooper (Olathe); Georgia Copeland (Lenexa); Bob Danford; Judy, Jeff, and Eric Day (Olathe); Angi DeMars (Olathe); Donna and Lora Didde (Ottawa); Mary Dolan (Westwood); Mary Duncan (Olathe); Billie, Chip, and Rodney Elliott (Hutchison); Jim Ellwood (Wichita); Lisa Emerson (Olathe); Jeanne Eswein (Olathe); Sharon Fisher (Olathe); Marylie Foust (Topeka); Ellen Fowler (Independence, Kansas); Sue Freeman (Springville); David Gast (Olathe); Jeannine Gobberdiel (Olathe); Erik and Kevin Grattam; Denny and Tina Hale (Olathe); Billy Hall; Ray Harper (Overland Park); Earl and LaVonne Hartter (Olathe); Lucille and Truett Hawse (Olathe); Cheryl and Shannon Herrick (Olathe); Jim Hood (Prairie Village); Kelley Hulteen (Olathe); Mike Hurd (Olathe); Kathy Johnston (Olathe); Linda Johnston (Overland Park); Cynthia and Dick Keck (Prairie Village); Jacque and Meagan Kibler (Olathe); Cathy and Jamie King (Overland Park); Sandy King (Olathe); Chris Labruzzo (Olathe); Brandon Lahey; Kelly Larkin (Corder, Missouri); Karen Leabo (Kansas City, Missouri); Dolores Lee (Olathe); Ruth Lockwood (Olathe); Dee, Jennifer, and Michael Luby (Olathe); Lynne Matiel (Olathe); Sandra and Shonda Maupin (Olathe); Kirsten and Anna Lisa McBride (Lenexa); Mike McCord (Olathe); Doris and Jerry Melton (Overland Park); Melinda Milburn (Olathe); Jody Moore (Olathe); Steven Mooy (Olathe); Allan Morphet (Prairie Village); Pat Mummert (Olathe); Dan Nelson (Olathe); Becky and Sally Newendyke (Olathe); Katie and Josh Norman (Olathe); Gerry Nudson (Meriden); Mark Nudson (Overland Park); Gail Pearson (Lenexa); Lorraine Pearson (Prairie Village); John Peterson (Lawrence); Pete Peterson (Basehor); Tom and Kay Plaster (Lenexa); Lonna and Graham Potter (Kansas City, Missouri); Garland and Nancy Powell (Olathe); Marlene and Cara Redhair (Overland Park); Cindy Reiber (Kansas City, Missouri); John and Connie Rode (Leawood); John and Phyllis Romine (Paola); Dorothy Schimmel (Overland Park); Mike Shipman (Olathe); Jill Silva (Kansas City, Kansas); Jim and Joyce Sorenson (Overland Park); Nancy Spuyette; Suzanne and Katy Stone (Olathe); Ginny and Erin Swank (Olathe); Marilyn Swartley (Olathe); John and Karen Taylor (Olathe); Michele Thomas (Olathe); Susan Thomas (Kansas City, Missouri); Gene Walker; Cheri Wallmeier (Olathe); Dave Werner (Olathe); Meredith Whitney (Overland Park); Janet and J.L Wiglesworth (Fairway); Mike Wildgen (Lawrence); Evelyn, Chloe, and Basil Wilson (Hutchinson); Cathy and Daniel Wolfe (Olathe); and Gerry Wood (Olathe).

These dedicated individuals provided hard, quality work during one of the hottest and driest summers on record. Their numbers made them one of the largest groups of volunteers to ever work on an archeological project in Kansas.

Among these volunteers, Marylie Foust deserves special mention. She served as my assistant during the course of the project, and by so doing made the project run much more smoothly than it otherwise would have.

At the Mahaffie farmstead, site director Mike Duncan was invaluable to the project. Mike was of course instrumental in arranging for this project; it was originally his idea and he brought it to fruition through patience and

persistence. During the dig he was always there to help solve technical problems, such as where to plug in the electric fans, how to keep the lemonade cold, when to call break, and where to devour the donuts. In all seriousness, Mike bent over backwards to see to it that we had what we needed, when we needed it.

In the Johnson County area, the Olathe Holiday Inn and Cinnamon Sam's of Lenexa deserve mention for their most generous contribution to the project. The Holiday Inn donated lodging for myself for the first ten-day session. I enjoyed their accommodations and hospitality greatly. Cinnamon Sam's had a direct impact on the crew's temperament in that they donated cinnamon rolls and donuts for our morning and afternoon breaks during both sessions.

At the Society, my colleagues John Reynolds, Verna Detrich, Barry Williams, and Bob Timberlake provided moral support during the course of the project. Sondra Ridgway processed the numerous record sheets into a usable paper file on this project, demonstrating amazing patience and occasionally creativity in her attempts to decipher the handwriting of 160 hot, tired volunteers. Earl Kintner and Barry Worley processed the photographs from the project, and photographed the illustrations appearing in this manuscript.

Finally, my family deserves my thanks for keeping the faith during one of the busiest summers ever; Mahaffie was one of four digs I was involved in during June, July, and August.

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THE STEED-KISKER PHASE FROM THE MILLER SITE IN THE LOWER KANSAS RIVER VALLEY

Jim D. Feagins
Kansas City Museum

The Kansas Anthropologist, 10(1&2), 1989, pp. 30-40

Portions of Steed-Kisker phase pottery vessels were recently obtained from the Miller site (14WY8), located in the lower Kansas River drainage in Wayandotte County, Kansas. In August 1987, James Roberts, Coordinator for the Miller site excavation, asked the author to assemble a group of pottery sherds that had been excavated from one locus of the site by members of the Kansas City Archaeological Society (KCAS). This group of sherds was discovered by Roberts in the northern portion of the site after construction personnel exposed the artifacts with power equipment. This article principally describes the Miller site artifacts produced by the late prehistoric Steed-Kisker phase people and their cultural history is summarized and discussed. This phase dates approximately A.D. 1000-1250 (O'Brien 1978a:13).

The Miller site is located on the north side of the Kansas River, less than 1 km from the mouth of Little Turkey Creek in Wyandotte County, Kansas (Figure 1). The full extent of this multi-component site has not been determined, but, according to Roberts (1987), it appears to occupy approximately 8 ha (20 a). The portion of the site that is being investigated by the KCAS is owned by the construction firm of Amino Brothers Company. The site was named after the former owner of this property, the late A. R. Miller. He and his wife resided on the site for many years, and they collected a large number of prehistoric artifacts from this and perhaps other sites.

Prior to the KCAS excavation, the soil in the eastern portion of the site was removed (to a depth of approximately 30 ft) by the construction company. This soil was used for fill at other locations. In early August, the topsoil over the remaining part of the Amino Brothers' portion of the site was removed and stockpiled. In addition, the rest of this portion of the site's subsoil will eventually be used as borrow fill for construction projects by the company. The removal of the topsoil exposed the concentration of pottery sherds which made up the vessels described herein.

CULTURAL AND PHYSIOGRAPHIC SETTING

Based on a few visits to the site by this author, a casual examination of part of the artifacts, phone conversations with various KCAS excavators, and the written notes made by Roberts and others, it appears that the Miller site contains several cultural components: historic (left by the Miller family); Nebo Hill phase (Late Archaic); Steed-Kisker phase (Mississippian) and Kansas City Hopewell (Middle Woodland). Johnson (1983:100) had previously identified two of these components from the site. A future publication on the site's archaeology is planned by the KCAS after the excavation and analysis have been completed (Conrad 1987). Undoubtedly, that report will primarily focus on the predominant component, the Kansas City Hopewell complex.

During the Pleistocene epoch, the area which now includes the Miller site was greatly modified by glacial action, followed by thick deposits of wind-blown soil. Under these deposits of loess and Kansas age glacial till, Pennsylvanian age rock strata is found (Buchanan 1984). These rocks are mainly composed of shale, limestone, sandstone and coal (Merriam 1963).

In this mid-continental setting, the prehistoric people at site 14WY8 probably experienced quite variable weather conditions from year to year. Based on data from the Kansas City station, the average yearly

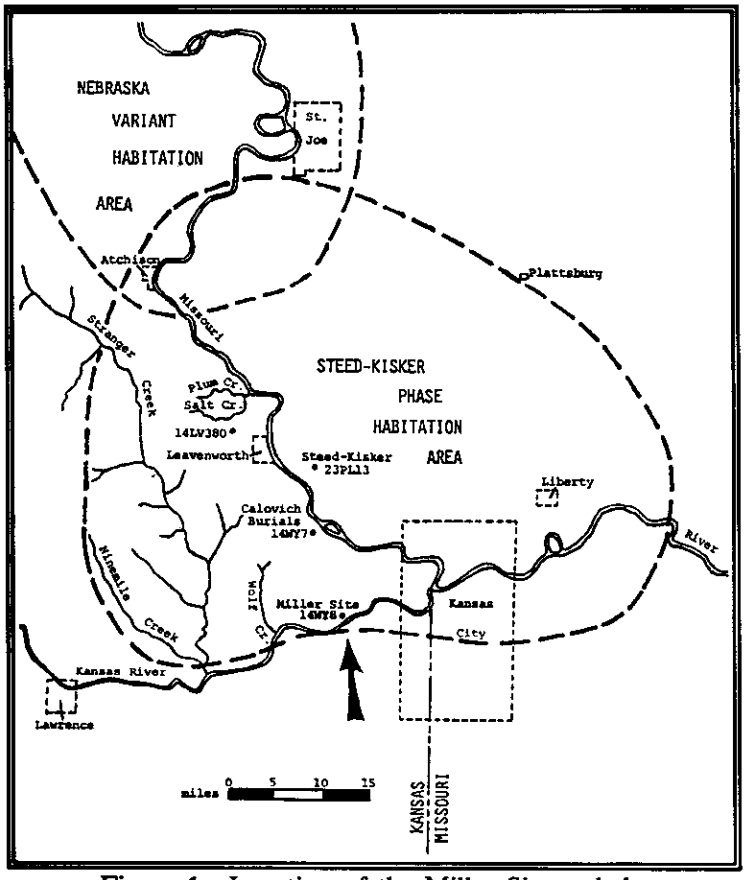

Figure 1. Location of the Miller Site and the general Steed-Kisker phase habitation area.

THE STEED-KISKER PEOPLE

Approximately 750 to 1,000 years ago the Steed-Kisker people occupied a small portion of the lower Missouri River drainage. This location is centered slightly northwest of Kansas City. Sites left by these people have been identified in Clay, Platte, Buchanan, northern Jackson, southwestern Clinton and perhaps eastern Ray counties in Missouri and in Wyandotte, Leavenworth, southeastern Atchison and eastern Jefferson counties in Kansas (Calabrese 1969, 1974; O'Brien 1978b, 1984; Shippee 1972). Also Steed-Kisker phase pottery is often found as probable trade items on contemporaneous Nebraska phase sites near the Missouri River valley from south of St. Joseph and on northward in Missouri (see Figure 1). This also appears to be true for a corresponding area on the west side of the river in northeastern Kansas.

temperature at the present time is 55.6F, with January and July being the coldest and hottest month respectively. There is an average number of 207 days between the last and first freeze. Due to the length of the growing season, frost danger is seldom serious. The mean precipitation is 36.66 in per year, with most of it received during the spring and summer. From this amount the average annual runoff in this area is approximately 6.5 in (Homyk et al. 1967:254).

The prehistoric inhabitants used flora and fauna resources from a variety of environmental niches. The general area consists of a mosaic of interfingering oak-hickory forests and prairie grasses. Hickory, elm, walnut, cottonwood, persimmon, grape, deer, bison, coyote, fox, raccoon, beaver, and cottontail rabbit represent a few of the many species present.

These people lived in isolated farmsteads and dwelling clusters. Some researchers have chosen to call all of these latter sites "villages." This term may be misleading as it appears to overstate the size and function of many of the sites. In some cases the individual dwellings in these small clusters were probably not contemporaneous (O'Brien 1978a:14). When one structure decayed beyond repair or burned down, apparently another was built nearby. In any case, most of the clusters are relatively small and probably do not merit the title of "village" (O'Brien 1973:1, 1981:102). Perhaps in some cases the term "hamlet" would be useful if one defines it as being slightly smaller than a village. At present, it is suggested that the Steed-Kisker habitation sites can be categorized as "dispersed farmsteads," "nucleated farmsteads," and "hamlets." Dispersed farmsteads are widely separated in space. Nucleated farmsteads are clearly part of an

individual community of farmsteads which form a quite loose cluster. However, the individual structures are more dispersed than what one would expect in a village or hamlet. Parsons (1971:22) and Blanton (1972:20) have defined a hamlet as a community which contains under 100 persons. Perhaps a better definition of a hamlet could be based on a determined number of contemporaneous Steed-Kisker structures (or a certain amount of interior living area) in close proximity. From an archaeological perspective, these definitions present some practical problems. First there is always some difficulty in estimating population size. Second, it also may be quite difficult (without more precise methods of dating) to establish that various structures are actually contemporaneous and not constructed a generation or so apart.

Regardless of the semantics used to categorize habitation sites, they usually are found along stream terraces and hill slopes. The habitation sites show no evidence of being fortified, and they are situated in generally hard-to-defend locations (O'Brien 1973:1).

O'Brien (1977:84 & 102-103, 1978b:67, 1981:99) has also suggested that some Steed-Kisker sites were used primarily for storage, although Dale Henning and Alfred Johnson (O'Brien 1977:165 & 168) have with good reason questioned this contention. Wood (1968) indicates that rockshelters were used by these people for shelter while hunting in the Ozarks.

Several types of houses were built. They were generally square or rectangular. Some had quite rounded corners and some contained extended entryways. Internal hearths are present, and storage pits are found both inside and outside the structures. The pits may be either basin-shaped or bell-shaped. A larger than average structure was found at Missouri site 23CL276. McHugh et al. (1982) suggests several functions for this structure including an astronomical use. In spite of a barrage of highly interpretive data (O'Brien and McHugh 1987), an astronomical function is considered by this author to be quite speculative. Perhaps this building served a ceremonial/social purpose for the inhabitants of site 23CL276 and the surrounding community.

The Steed-Kisker people built houses of poles covered with thatch and at least partly plastered with soil, usually clay. This type of building technique is called "wattle and daub" construction. If a house burns down, the layer of soil plaster will naturally be fired. This fired plaster will then crack into many individual pieces which are referred to as daub. Many of the daub pieces will contain impressions of the burned out grass and occasional impressions of small twigs or portions of poles.

Burials were on hill tops, either as unmarked cemetery areas or in mounds of human manufacture. Interments were made in several ways--extended, flexed, semi-flexed, and rarely as bundles (O'Brien 1978b:69, 1981:102). Artifacts were occasionally placed with the burials. Steed-Kisker burials have been investigated at the Shepherd mound (23PL37), Steed-Kisker site (23PL13), Klamm mound (23PL35), Avondale mounds (23CL23), site 23PL11, Vandiver mounds (23PL6), Babcock mound A, Humphrey site (23PL45), Chester Reeves mound (23CL108) and Calovich site (14WY7) (Barnes 1977; Feagins 1988; Fowke 1910; O'Brien 1977; Shippee 1953, 1958, 1972; Wedel 1943).

The Steed-Kisker livelihood was derived from farming, hunting, and gathering. Maize, or corn, was their most important agricultural crop. Beans, squash, marshelder and sunflower were also raised (O'Brien 1970:5, 1981:101; Mary Adair, personal communication). In addition to agricultural produce many wild plants and animals were harvested to round out their diet. While the Steed-Kisker folks are generally thought of as being farmers, the importance of the wild harvest should not be underestimated.

The stone tools the Steed-Kisker people used were generally similar to those used by neighboring contemporaneous cultural groups. Their arrows were tipped with small triangular shaped chert points. These arrow points may be either the notched or unnotched variety (Shippee 1972; Wedel 1943:82). Drills, gravers, choppers, beveled and unbeveled knives, side

and end scrapers, and a variety of chert flakes were used for various purposes. Other tools which are commonly found are ground stone celts, milling stones, pitted stones, grooved sandstone abraders (used as arrowshaft smoothers, awl sharpeners, and perhaps for striking platform preparation during flintknapping), and hammerstones. Also a variety of bone and shell were used as tools and for decorative purposes. Bent tube, biscuit, elevated disk, and elbow pipes were also produced, made out of either stone or fired clay.

The most diagnostic of the Steed-Kisker artifacts is the pottery. Jars are the most common form, but straight-sided bowls, constricted opening bowls, and an occasional bottle were also produced. The jar from the Miller site described in this paper is rather typical of the vessels produced by these people. Miniature vessels were also made. Decorations, when present, are usually confined to the shoulder areas, although rarely an effigy was formed on the rim of a vessel.

While shell is by far the predominant temper, there are a few grit tempered sherds found on the Steed-Kisker site, 23PL13 (Wedel 1943:75), and on other sites containing this component (Calabrese 1974:36; O'Brien 1977:60; Riley 1967:26-27). It is uncertain if the grit tempered pottery was produced by the Steed-Kisker people, by their contemporaries, or by a combination of the two. Some sherds could have been produced by an earlier Woodland people and simply mixed with the later component (McHugh et al. 1982:127). Of course, there is ample evidence of both Nebraska variant and Steed-Kisker phase pottery sherds on a number of sites north and south of St. Joseph. The Nebraska variant people lived up river and they were roughly contemporaneous with the Steed-Kisker people. These two cultural groups were apparently, at least part of the time, on friendly terms and interacted in various ways. Certainly, a few grit tempered sherds on some Steed-Kisker sites were manufactured by Nebraska variant people (R. B. Aker, personal communication; Calabrese 1969, 1974:36 & 77; McHugh et al. 1982:119-120).

With the initial investigation of the Steed-Kisker site, it was recognized as a local variant of the Mississippian culture (Wedel 1943:213). It is proposed that these people migrated to the Kansas City area from the Mississippi River valley, perhaps from Cahokia. Additional research has continued to support the concept of a Mississippian origin for this phase (Calabrese 1969:219, 1974:61; O'Brien 1970, 1973, 1978a, 1981, 1984:58; Riley 1967:30; Shippee 1972:17).

THE SHERD COMPLEX

The Steed-Kisker sherd complex discovered by Roberts was located within square number 455N, 475W. No differences in soil texture or color were noted at this location by the excavators. This 5 X 5 ft unit is a part of the overall grid established for the Amino Brothers' portion of the site by KCAS prior to excavation. Seventy-eight potsherds, thirteen stone items, and one bone were recovered from the small locus within this square.

A Steed-Kisker Pot

Although only one pottery vessel is described in detail, there were portions of two vessels from this square represented by the leached-out, shell tempered sherds. The former presence of the shell particles within the sherds was indicated by the thin, flat, angular holes which remained (Wedel 1943:74; Rogers et al. 1985:90). The shell is often leached out of potsherds by the acid present in some soils (Schiffer 1987:158). The soil from around the potsherds was saved in the laboratory. A chemical test indicated that with a pH of 5.4 the soil is relatively acidic.

The prehistoric potters had added the shell to the moist clay during manufacture in order to reduce shrinkage which can cause cracking of the vessel during the drying and firing processes. The shell had been heated prior to crushing into small particles for use as temper. Shell which has been thermally altered will fracture into thinner layers than unheated shell (Porter 1964:2). Also the mussel shells will crush up into temper sized particles more easily after heat treatment (Peggy Feagins, personal

communication).

Examination of the edges of the pottery sherds indicates that the shell temper lies parallel to the vessel's surface. The flat fragments are somewhat forced into this position by the forming and finishing processes (Shepard 1971:27). Based on photograph comparisons with Rogers et at. (1985:87 & 90) it appears that this vessel contained approximately 20% temper or slightly less. Based on the random sherd breakage patterns and on the arrangement of the particles of shell temper, there is no evidence to suggest that this vessel was manufactured by the use of a coiling technique. Rather, it appears to have been formed by modeling. Shepard (1971:55-56) gives a fine description of this process.

The pot is globular in shape and has a mouth diameter of approximately 12.5 cm (5 in) and a maximum body diameter of 28 cm (11 in). While sixty-eight sherds were recovered from this vessel, six could not be reassembled in the section shown. The estimated height of the vessel is 21.8 cm (Figures 2 and 3). The jar was capable of holding an estimated volume of 7.07 l (approximately 7.5 qt). The thickness of the walls varied from 6.7 mm in the shoulder area, to 7.5 mm at the neck and 9.6 mm where the remainder of the vessel is missing near the base. The missing base undoubtedly was the thickest portion of the vessel except for where the handles were attached.

Although the two handles are missing, a small portion of one is present. It had been attached to the lip by "welding," and to the vessel's body by a large (2 cm wide) clay rivet. While the clay was moist, a small projection (rivet) on the lower part of the handle was inserted into a small hole punched in the body between the vessel's neck and the gently sloping shoulder. Then the base of the handle, containing the rivet, was welded to the vessel with the moist clay on both the interior and exterior surfaces (see Wedel 1943:76-77). Both the lip and the body were considerably thicker in the areas where the handle was attached (see Figure 2b). While it is unknown if the pot contained strap or loop handles, the latter were most common for this type of vessel.

The container had no decoration, unless the handles were decorated, which is unlikely in this case (see Figure 3). The rounded lip is found on a short rim, which, at the neck, forms an abrupt angle with the remainder of the vessel. This pot's features are typical of some of the Steed-Kisker phase pottery which Calabrese (1969:69-74, 1974:31-38) has called Platte Valley ware.

The color of the exterior of the vessel varies from a light reddish brown (5YR 6/4) to a pinkish gray (7.5YR 6/2) when compared with the Munsell soil color charts. Areas of the vessel which appeared to contain light carbon deposits were avoided when making these color comparisons.

The vessel contains several areas of light "firing clouds" or "cooking clouds" and five "pop-outs" or shallow cone-shaped heat fractures on the exterior surface (see Figure 3). The vessel has obviously experienced severe thermal shock during the latter portion of its prehistoric usage. Thermal shock occurs because the outside surface is heated and thus expands first, creating tensile stresses (Schiffer 1987:154). Also moisture may, at times, play a role in this process (Winkler 1975:111).

The presence of the shell temper in the vessel may have contributed to the thermal shock. The shell (calcium carbonate) will start decomposing at temperatures above 650C (Shepard 1971:30; Slovacek 1968:128). This process produces a carbon dioxide gas which could have contributed to the spalling of the vessel's surface and perhaps the later leaching of the tempering material from the sherds.

Other Materials Found Near Vessel

Found with the pot described above were 11 leached-out, shell tempered sherds from a second smaller vessel with thin walls--3.7 to 5.9 mm thick. Ten of these sherds fit together into two small sections. These tan-colored sections are from the body and the edge of the neck areas of a vessel which appears to have been generally similar in shape to the previously described vessel. However, the second vessel is smaller, and it is not known if it contained

handles. The percentage of shell in the paste is slightly greater than in the first vessel. The second vessel has a Munsell color chart reading of 7.5YR 6.5/4.

Also recovered with the pottery sherds at this loci were: one igneous/metamorphic rock fragment, one small piece of limestone, eleven chert items, and one exhausted core, eight unretouched flakes, one broken side scraper, and a blunt-end scraper. The end scraper (see Figure 2d) is made of a gray chert and has a maximum length, width, and thickness of 28.8 mm, 19.7 mm, and 6.1 mm. Its mass is 4.1 g. No grinding appears on the lateral edges, and it appears that the scraping edge had been resharpened, as no evidence of edge wear was observed when examined through a variable power binocular microscope. The end scraper had undoubtedly been shortened as a result of repeated sharpening of the working edge. This type of artifact is typically found on Steed-Kisker sites.

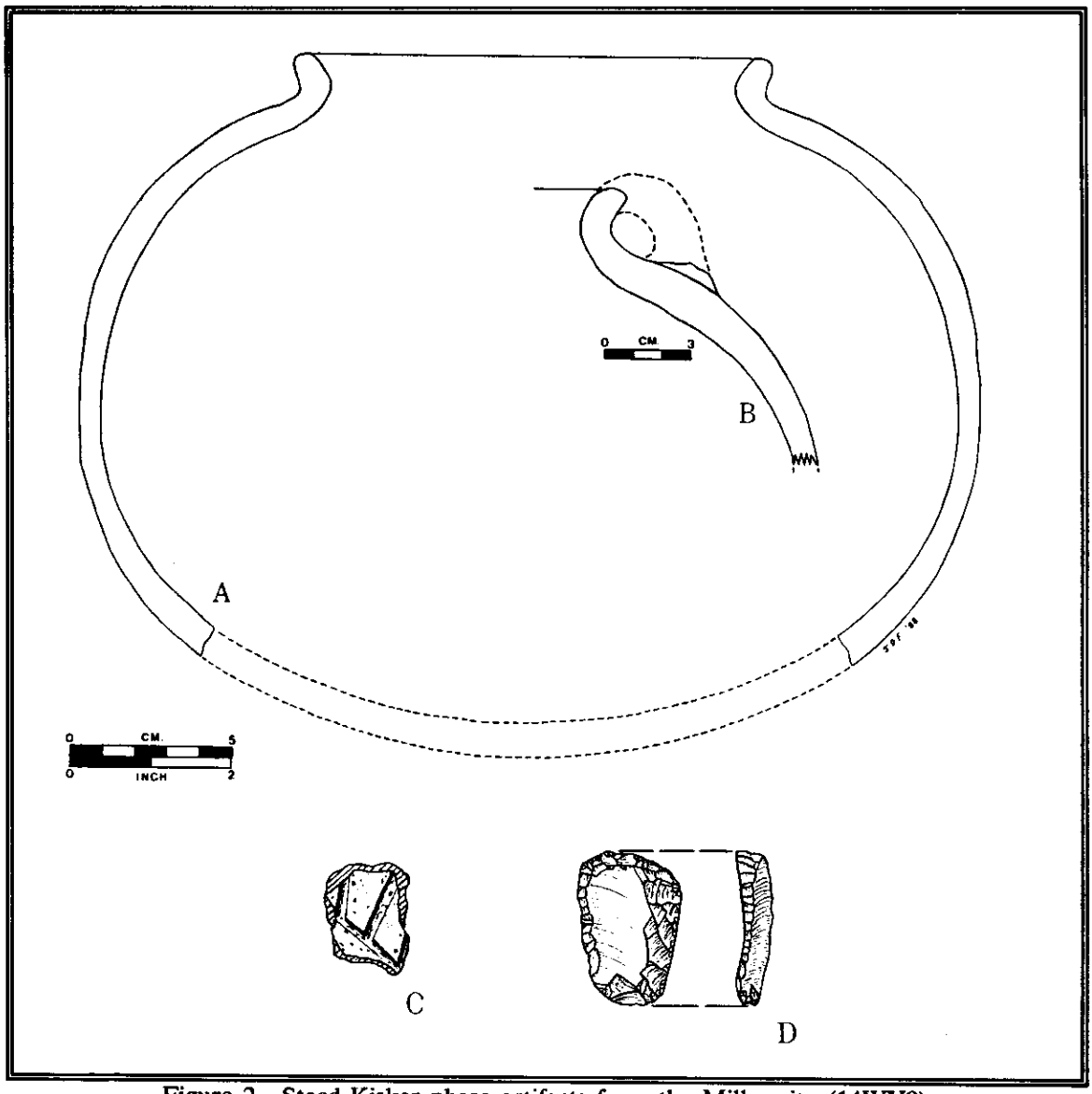

Figure 2. Steed-Kisker phase artifacts from the Miller site (14WY8).

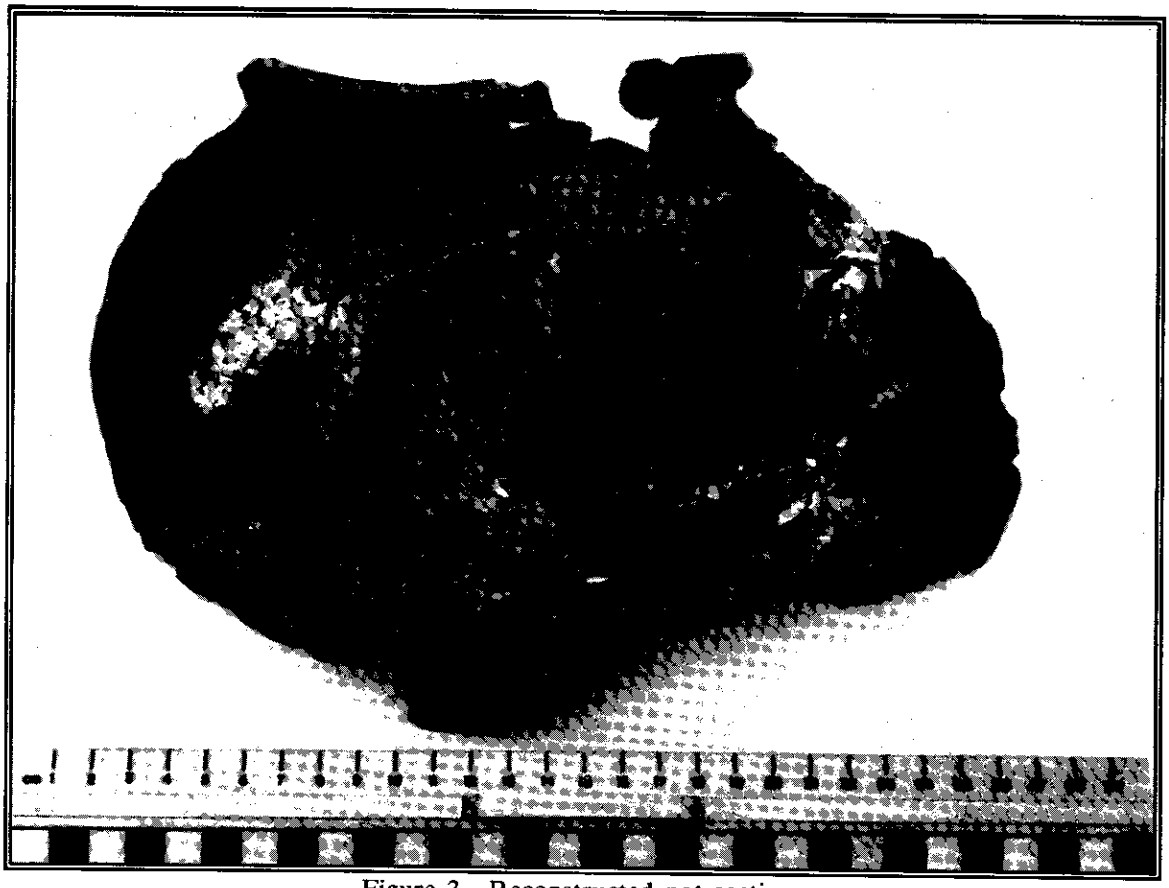

Figure 3. Reconstructed pot section.

DISCUSSION

It is possible that additional data could be forthcoming on the Steed-Kisker component at the Miller site. Little analysis has been done and only one test square has been excavated in the north part of the site near where the Steed-Kisker pottery was found. The surface collection from this north area has produced a number of Woodland pottery sherds and at least four shell-tempered sherds of Steed-Kisker phase origin. Two are typical rimsherds, the third is a decorated bodysherd (see Figure 2c), and the fourth sherd is badly weathered. All the particles of shell temper have been leached from these sherds. The excavations in the south portion of the site have produced an abundance of grit tempered ceramics and other artifacts which are predominantly characteristic of a late Kansas City Hopewell (Edwardsville) occupancy.

The shell tempered pottery vessels from the Miller site are significant in further establishing the usage of the lower Kansas River drainage by the Steed-Kisker people. After the initial discovery of the Steed-Kisker site near Farley, Missouri (see Figure 1), by J. Mett Shippee and the identification of this cultural group by Wedel (1943), other Steed-Kisker sites (Johnson 1974; Mori 1967; Riley 1967; Shippee 1972) were identified on the east side of the Missouri River. Information on the Steed-Kisker phase on the west or Kansas side of the Missouri River is not as well known. O'Brien (1978b:67) infers that Steed-Kisker phase sites were discovered along lower Salt Creek (Witty and Marshall 1968) and Plum Creek in Leavenworth County (Thies 1984), and that Steed-Kisker burials were found at the Calovich site (14WY7) in northern Wyandotte County (Barnes 1977; Philyaw 1986). These sites are all not far from the Missouri River.

In the lower Kansas River drainage several Steed-Kisker sites have been reported from the valleys of Nine-Mile Creek, Stranger Creek (Logan 1981, 1983), and Wolf Creek (Logan 1987; Chris Cooper, personal communication). These streams are northern tributaries and are located west of the Miller site (see Figure 1).

A shell tempered rimsherd with a "sunburst" design, typical of Steed-Kisker pottery, was recently recovered from site 14JO406 along the Blue River in southeastern Johnson County (Franklin 1986:65-67). While it seems doubtful that the Steed-Kisker people were living quite this far south, such an interpretation is not entirely unrealistic. Perhaps this sherd represents a vessel which had been traded to an adjoining cultural group.

The Steed-Kisker people were clearly using the west side as well as the east side of the Missouri River valley. They were also using the lower 30 miles or so of the Kansas River drainage. The exact nature of that utilization still remains to be determined.

Acknowledgements. While I visited the Miller site on a few occasions and worked there one day during the Kansas City archaeological Society excavation, it is James E. Roberts, Chris Cooper, Joe Chandler, John and Barbara Averill, Mary Conrad, Paul DeBarthe, and other members of the KCAS that I want to thank for supplying the majority of my limited information on the site. Roberts and DeBarthe are to be especially commended for their willingness to undertake a sometimes thankless task at different but equally difficult times. Also the Amino Brothers Company should be thanked for allowing the KCAS to rescue part of the archaeological data from an important site prior to its continuing destruction. Brad Logan, Lauren W. Ritterbush, Margaret "Peggy" Feagins, Randall M. Thies, Camille Lechliter, Chris Pulliam, Mary J. Adair, R. B. Aker, and Patricia J. O'Brien also supplied information useful to the writing of this article. Any errors are my sole responsibility.

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BOOK REVIEWS

Human Evolution: An Introduction. ROGER LEWIN. Second Edition, Blackwell Scientific Publications, Boston, 1989. vi + 153 pp., biblio., figs., plates, glossary, index. $33.95 (cloth), $16.95 (paper).

Reviewed by Timothy Baugh, Boston University.

The field of paleoanthropology is constantly changing, and this introductory text by Lewin is an important work for updating one's knowledge concerning the evolution of hominids or, as Desmond Morris refers to us, the "naked apes." When I was a student, *Ramapithecus* was considered the ancestral hominid genus, and Lucy was a TV star. Today, *Ramapithecus* is deemed just another ape and Lucy is considered an important prototypical hominid form. Such rapid change in our understanding of human evolution is one aspect of this field that captures our imagination and draws attention to the study of paleoanthropology.

Lewin's book is divided into eight sections, each with three or more chapters (for a total of 30). The first section, entitled "Human Evolution in Perspective," sets the tone for this volume by examining past and present concepts about the genus *Homo*, which includes only one contemporary species designated by themselves as the wisest of critters. Lewin clearly states that humans are a part of nature, and no matter how much we may try, certain natural disasters (such as the recent California earthquake or hurricane Hugo's rampant display of power) continually remind us of our place in the natural order of the world.

The second section of this work furnishes us with the necessary background for understanding human evolution. This is accomplished by providing us with information on geology, typology, taphonomy, and molecular biology. Don't let these polysyllabic terms fool you -- Lewin presents a clearly written, explanatory text allowing us to wade through these concepts and fields of research with relative ease.

Our place in nature is further outlined in the third section of this book entitled "Humans as Animals." The relatively large size of the primate body, for example, allowed the hominoids to explore more options concerning diet and the quest for food, behavior, and their organization into social groups. To better understand these options, anthropologists frequently turn to the study of contemporary primate behavioral ecology allowing them to make analogies concerning the importance of past developments. Lewin properly cautions us, however, that there is not a one to one correspondence between contemporary primates, who have continued to evolve, and past hominid societies.

Once these sections are presented, Lewin begins with the real purpose of this book in the following three sections that discuss the origins of humans and their relationship to the Australopithescines. This is where Lucy comes into the story. Discovered in Ethiopia during the 1970s, Lucy's skeleton (named for the Beatle's song "Lucy in the Sky with Diamonds" which was being played at the time of her discovery) is nearly 40% complete (making her the best known of fossil hominids). Lucy served as the basis for the new hominid group known as *Australopithecus afarensis* which dates between 5.6 million and 2.9 million years ago. The importance of this group is that they were bipedal or upright walkers even though the proportion of their limbs is closer to apes than humans. The first member of the human line, *Homo habilis*, doesn't appear until nearly two million years ago or nearly three million years after *A. afarensis*. *Homo habilis* is differentiated from the Australopithecines because of a relatively large brain size. Once the evolutionary features of upright walking and greater cranial capacity come into play, other biological and cultural factors begin to separate humans from their primate cousins. Succeeding human groups include *Homo erectus* and *Homo sapiens*.

This brings us to the last two sections of this book which deal with human cultural achievement. Human technology continues to increase in complexity while increasing in

efficiency. For example, the amount of working edges derived from stone (weighing less than half-a-kilogram), Lewin tells us, expands from 20 centimeters or less by *Homo erectus* to more than 12 meters by *Homo sapiens*. The possession of these cultural adaptations allowed humankind to manipulate their environment and to spread into new continents away from their African homeland. As *Homo sapiens* continue to meet various challenges, they initiate other options, such as the domestication of plants and animals, and this is where Lewin decides to end his discussion.

Overall, *Human Evolution* is a well written and printed text. One important aspect of this book is the means by which Lewin integrates current techniques, especially in the field of biology, with the study of our human ancestors. The figures, while not keyed to the text, are informative and usually easy to separate because of their ragged edges (the text is right justified). Only minor flaws can be found in the photographs of the various skeletal remains, which are reproduced on a black background that obscures some of their detail. Unfortunately, the plate of Lucy is quite small, making it difficult to distinguish any features at all. Also, the references cited at the end of each chapter are somewhat difficult to read because of the small text point style. Most readers will find the glossary and index valuable additions for defining and finding terms and concepts used in this work. Despite some minor flaws, this book is an excellent introduction to the study of paleoanthropology, and anyone wishing to learn more about the ancestry of humankind will not be disappointed with the few hours they spend with this introductory volume.

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Views From the Apache Frontier Report on the Northern Provinces of New Spain. JOSE CORTES, edited by Elizabeth A. H. John and translated by John Wheat. University of Oklahoma Press, Norman, 1989. xx + 163 pp., 18 figs., 3 maps, notes, biblio., index. $21.95 (Cloth).

Reviewed by Jim D. Feagins, The Kansas City Museum

Published 190 years after it was written, *Views From the Apache Frontier* contains a well organized synthesis of what was then generally known about the Indians along New Spain's northern frontier. The volume especially emphasizes and documents the Spanish understanding of Apaches at the close of the 18th century. Jose Cortes has written from a perspective of personal observations, oral descriptions from others, and archival research.

Lieutenant Jose Cortes, of the Spanish Royal Corps of Engineers, came to the New World in 1795 and was sent to the northern frontier the following year. He interviewed a number of individuals concerning their knowledge of the northern frontier, including Father Dominquez of the famed Dominquez Escalante expedition to the Great Basin in 1776. Cortes personally observed the Apache, and he had access to the extensive archival material available at Chihauhus and at Mexico City. His manuscript, *Memorias*, and a map of the northern frontier were completed in 1799.

Cortes was an enlightened and dedicated Spaniard; a keen, educated observer. He was well aware of the events taking place elsewhere in the world at the time, and he clearly and concisely analyzed the importance of the northern provinces of New Spain from this perspective. He recognized the threat to the northern portion of the Spanish New World offered by England, France, and even the newly established United States. Cortes' writing is a fragmentary reflection on the intellectual history of the time.

Cortes records considerable information on the Indians and the environment over a wide region ranging from the Mississippi River to the Pacific Ocean. Much of the information on the Indians in the most distant reaches of the frontier is very general and contains errors of fact; details concerning their cultures were not then well known to the Spanish.

The most important part of Cortes' manuscript concerns his detailed descriptions of the Apache and their way of life. This material, based partly on personal observations, is of most interest to ethnologists and historians. As

an outsider, he had a great amount of compassion and a surprising understanding of the Apache. His work is an important early primary source on these people. Lieutenant Cortes described the Apache beliefs, "superstitions," marriages, language, temperament, dwellings, food and nourishment, clothing, agriculture, arts and crafts, trade, leadership, defense, territory, hunting methods, weapons, warfare, death, mourning, and funerals. One of the most interesting sections on the Apache describes a seemingly bizarre funeral witnessed by Cortes. This unique Apache expression of mourning had never been described before (or since).

In addition to serving as editor, Elizabeth John has done considerable detective work on Cortes and his manuscript. Her biographical work on Cortes, comparison of several copies of his manuscript and tracing their history are of interest to the historical scholar and layperson. She has written an Editor's Preface, Editor's Introduction, Epilogue, and an extensive section of Notes. They are obviously well researched and are well written. In addition to Cortes' original map, new illustrations have been added. These include copies of pages from Cortes' *Memorias*, some of his architectural and site drawings, maps of other areas, and a series of 10 paintings by modern Apache artist Allan Houser.

It is fortunate that copies of Cortes' manuscript have survived the passage of time and that his *Memorias* is now published (for the first time in its entirety). *Views From the Apache Frontier* should be of interest to a wide variety of readers.

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Charles Lummis: Letters from the Southwest. JAMES W. BRYKIT, editor. The University of Arizona Press, Tucson, 1989. xlix + 311 pp., 8 illus., index, about the editor. $29.95 (Cloth).

Reviewed by Jim D. Feagins, The Kansas City Musuem

Charles Lummis became fascinated with the cowboys and miners, the Mexican-Americans, the Pueblo Indians, and the American Southwest in general during his first visit to the region, when he walked from Chillicothe, Ohio, to Los Angeles, California, in 1884 and 1885. *Letters from the Southwest* is compiled from a series of 24 letters he wrote for his hometown newspaper (for whom he worked) *The Chillicothe Leader.* Lummis followed the railroads, traveling from Ohio through St. Louis and Kansas City, Missouri, Bavaria, Kansas, and on to Denver, Colorado, prior to entering the Southwest. The title is a little misleading since the volume contains letters from several regions beside the Southwest. His letters from the Central Plains would be of particular interest to KAA readers. While the west of the mid-1880s was no longer completely "wild," it was still "wooly and full of fleas" (almost literally, as Lummis found out on more than one occasion, with the cold weather and the sometimes awaiting bedbugs at days end).

Lummis fell in love with the Southwest, its people, and the land. He became one of the chief promoters of the region. His romantic approach to the region was tempered with the realities of the hardships of his 3,000 mile trek. Lummis himself is every bit as interesting as the country and people he describes. He was a free-spirited man of enormous energy, and had a tough, enthusiastic approach to life.

Lummis' travelog letters concern the "sights that dazzle," his brush with death, and the grit of his character (often with embellishments). He describes his encounters with rattlesnakes and a mountain lion, being attacked by his own traveling companion (a greyhound, who became rabid), adventures in mining, the snowstorms, desert heat, his encounter with robbers, hunting antelope, fishing for trout, the Indians, breaking his arm, and so on. His rich usage of the language, graphic descriptions, and his witty, spontaneous commentary make these letters most intriguing. The editor's introductory essay and the detailed biographic sketch add substantial background for an added appreciation of Lummis and his letters. Lummis' "tramp" letters concern a dangerous adventure that reflects life in an enchanting land of over a century ago.

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