

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Propertyhistoric name N/Aother names/site number Mugler Lodge Site; 14CY1-A**2. Location**street & number _____ ☒ not for publicationcity or town Clay Center ☒ vicinitystate Kansas code KS county Clay code 027 zip code 67432**3. State/Federal Agency Certification**

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this ☒ nomination ☐ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ☒ meets ☐ does not meet the National Register criteria. I recommend that this property be considered significant ☒ nationally ☐ statewide ☐ locally. (☐ See continuation sheet for additional comments.)



Signature of certifying official/Title

12-17-93

Date

State Historic Preservation Officer

State of Federal agency and bureau

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. (☐ See continuation sheet for additional comments.)

Signature of certifying official/Title

Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

Signature of the Keeper

Date of Action

☐ entered in the National Register.
☐ See continuation sheet.☐ determined eligible for the
National Register
☐ See continuation sheet.☐ determined not eligible for the
National Register.☐ removed from the National
Register.☐ other, (explain): _____

Mugler Lodge Site
Name of Property

Clay County, Kansas
County State

5. Classification

Ownership of Property
(Check as many boxes as apply)

- ☒ private
☐ public-local
☐ public-State
☐ public-Federal

Category of Property
(Check only one box)

- ☐ building(s)
☐ district
☒ site
☐ structure
☐ object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing
	_____ buildings
1	_____ sites
	_____ structures
	_____ objects
1	_____ Total

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)

N/A

**Number of contributing resources previously listed
in the National Register**

0

6. Function or Use

Historic Functions
(Enter categories from instructions)

Domestic

Current Functions
(Enter categories from instructions)

Agricultural Field

7. Description

Architectural Classification
(Enter categories from instructions)

N/A

Materials
(Enter categories from instructions)

foundation _____
walls _____
roof _____
other _____

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

See Continuation Sheet

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- ☐ **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- ☐ **B** Property is associated with the lives of persons significant in our past.
- ☐ **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- ☒ **D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is: N/A

- ☐ **A** owned by a religious institution or used for religious purposes.
- ☐ **B** removed from its original location.
- ☐ **C** a birthplace or grave.
- ☐ **D** a cemetery.
- ☐ **E** a reconstructed building, object, or structure.
- ☐ **F** a commemorative property.
- ☐ **G** less than 50 years of age or achieved significance within the past 50 years.

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- ☐ preliminary determination of individual listing (36 CFR 67) has been requested
- ☐ previously listed in the National Register
- ☐ previously determined eligible by the National Register
- ☐ designated a National Historic Landmark
- ☐ recorded by Historic American Buildings Survey

- ☐ recorded by Historic American Engineering
Record # _____

Areas of Significance

(Enter categories from instructions)

Archeology/Prehistoric

Period of Significance

A.D. 800-1420

Significant Dates

N/A

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

Smoky Hill Variant of the Central Plains

Tradition during the Plains Village

Period

Architect/Builder

N/A

Primary location of additional data:

- ☒ State Historic Preservation Office
- ☐ Other State agency KSHS, Archeology Dept.
- ☐ Federal agency
- ☐ Local government
- ☒ University University of Kansas, Museum of
- ☐ Other Anthropology

Name of repository:

Mugler Lo Site
Name of Property

Clay County, Kansas
County and State

10. Geographical Data

Acreage of Property 8

UTM References

(Place additional UTM references on a continuation sheet.)

1	1	4	6	5	8	4	1	0	4	3	5	7	8	4	0
Zone	Easting		Northing												
2															

3															
Zone	Easting		Northing												
4															

☒ See continuation sheet

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Dr. Lauren W. Ritterbush, Research Associate and
Dr. Brad Logan, Director, Office of Archaeological Research
organization Museum of Anthropology date July 3, 1992
street & number University of Kansas telephone 913-864-4245
city or town Lawrence state Kansas zip code 66045

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A USGS map (7.5 or 15 minute series) indicating the property's location.

A Sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

Representative black and white photographs of the property.

Additional items

(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name
street & number telephone
city or town state zip code

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 *et seq.*).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reduction Projects (1024-0018), Washington, DC 20503.

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The Mugler lodge site, 14CY1-A, is a Central Plains Tradition site located in north-central Kansas, near the present town of Clay Center, in central Clay County, Kansas. The site is buried in an alluvial terrace remnant near the south or right bank of the Republican River at its confluence with Five Creek (Figure 1). A Smoky Hill variant lodge was excavated at the site by Floyd Schultz, a conscientious amateur anthropologist, in 1927/1928. The lodge floor was buried 40-60 inches below the surface at that time. Schultz's collection of 788 artifacts and field notes from the Mugler lodge (along with other site assemblages) were donated to the University of Kansas in 1948 and are now curated by the Museum of Anthropology at that institution. The terrace remnant in which the site is buried is cultivated and has been modified within the past 75 years by a road and farming activities. Nonetheless, test excavations conducted in 1991 indicate that intact cultural deposits still exist at depths greater than 70 cm below the present ground surface. The presence of a postmold in one of the test units indicates that another lodge may exist at the site. Other features may be cultural (e.g., drainage troughs) or natural (e.g., flood scour marks). These features, combined with the depth of these relatively recent prehistoric deposits, may provide insight to the environmental dynamics associated with Plains Village period occupation of the region.

The site was first discovered in the latter portion of the 1920s by John Mugler, past tenant/landowner of the site area, in a road cut through the terrace remnant. He reportedly found portions of a prehistoric pot protruding from the side of a field road (John Mugler, personal communication, 1986). He brought this to the attention of Floyd Schultz of Clay Center, Kansas in 1927. Schultz was an early amateur anthropologist in Kansas (Hawley 1991). After inspection of Mugler's find, Schultz carefully excavated back from the road cut. This led to the discovery of a lodge floor, which Schultz excavated in 1927/1928. As he excavated, he kept notes recording the depth of the overburden and location of visible features and selected artifacts. Redrafting of these notes provided a profile of the excavation and plan of the lodge floor. The profile indicates that the lodge was buried nearly 60 inches below the surface in a layer of "black dirt", overlain by a thick (33 inches) layer of sand, and a shallow "topsoil" or plow zone (Figure 2). His plan indicates that the lodge included six cache pits, a central firepit, and a number of posts (Figure 3). Schultz recovered a total of 788 artifacts from the floor and pits of the lodge.

These artifacts and the notes associated with Schultz's excavation were donated to the University of Kansas as part of the Floyd and Adah Jane Broceus Schultz Collection in 1948. Analysis of the Mugler assemblage has been conducted through the Schultz Archaeological Project funded in part by a grant from the National Park Service, Department of the Interior administered by the Historic Preservation Department of the Kansas State Historical Society (Ritterbush and Logan 1991, 1992a).

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The Mugler lodge assemblage of the Schultz Collection includes the entire range of artifacts commonly associated with Smoky Hill variant habitations (Ritterbush and Logan 1992a; cf. Brown 1982; Johnson 1973; Schmits *et al.* 1987; Sperry 1965; Steinacher 1975; Wedel 1959; Witty 1962, 1963). The majority of the ceramic rim sherds (93%) are Riley Cord Roughened ware, the diagnostic ware of the Smoky Hill variant (Hedden 1992; Wedel 1959; Johnson 1973). The remaining 7% of the rim sherds are from smooth-surfaced, shell-tempered vessels. Many of the latter have incised opposed diagonal line decorations on the shoulder. The body sherds are primarily cord-roughened (74.2%) and sand/clay tempered. The smooth-surfaced body sherds are largely shell-tempered (81.8%). Projectile points are small triangular arrowpoints or preforms with or without notches, and scrapers are planoconvex end scrapers. Also included in the assemblage are chipped stone drills/perforators, bevelled and unbevelled chipped stone "knives," chipped stone blanks, chipped and ground stone celts, modified and unmodified debitage, sandstone abraders, metates/mortars and manos, hammerstones; various bone tools, including deer mandibles "sickles"/"shellers," awls, tubular beads, scapula hoes and other scapula tools (e.g., "squash knives"), a fishhook blank, shaft wrenches, and antler billets; some unmodified bone, modified and unmodified mussel shells, a sample of charred corn, and pieces of daub (Ritterbush and Logan 1992a). No absolute date has been obtained for the site, although other Smoky Hill variant sites with similar artifact assemblages have been radiocarbon dated between A.D. 800 and A.D. 1420 (Logan and Ritterbush 1991).

Schultz's notes have been used to relocate the Mugler lodge site. It was first relocated by graduate students of the Department of Anthropology at the University of Kansas in 1963 (Muller and Schock 1964:18-19). Its general location was also known to Keith Gilmore, previous landowner and active member of the Flint Hills Chapter of the Kansas Anthropological Association, when we first visited the site in 1986 (Ritterbush 1986). More detailed survey and mapping of the Mugler site locality was conducted in 1990 as part of the Schultz Archaeological Project (phase I). This survey resulted in definition of the limits of a sparse to moderately dense scatter of prehistoric artifacts on portions of a terrace remnant above the present floodplain of the Republican River near the mouth of Five Creek. The site area has been cultivated for many years and is associated with Eudora very fine sandy loam (Wehmuehler and Rott 1984).

The location of the Mugler lodge site on a terrace remnant near the Republican River and its tributary Five Creek indicates that the site was well situated for access to aquatic and terrestrial resources. The site is located near the boundary between the Smoky Hills and Flint Hills Uplands of the Great Plains physiographic province of the Interior Plains (Schoewe 1949:273-275, 286-289, 307-309). Both of these physiographic regions are source areas of abundant and useful lithic resources in the

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form of Cretaceous sandstone (commonly used for grinding and abrading tools) and Permian limestones (also used for groundstone tools) and cherts (for chipped stone tools). Plant and animal resources were available from nearby aquatic, riparian, and upland prairie habitats. This is evident from the faunal remains from the Mugler lodge. They include bones of deer (Odocoileus virginianus, O. hemionus), bison (Bison bison), eastern cottontail (Sylvilagus floridanus), river otter (Lutra canadensis), plains pocket gopher (Geomys bursarius), mink (Mustela vison), beaver (Castor canadensis), raccoon (Procyon lotor), badger (Taxidea taxus), coyote (Canis latrans), prairie chicken (Tympanuchus cupido), red-eared slider turtle (Chrysemys scripta), fish and the shells of various mussels (Ritterbush and Logan 1992a:81-83). These animals served food needs as well as raw materials for tools and clothing. Subsistence was augmented by horticulture, which is evident from charred corn from the lodge floor and various horticultural tools, including scapula hoes, squash knives, and mandible sickles or shellers (Ritterbush and Logan 1992a; Adair 1988).

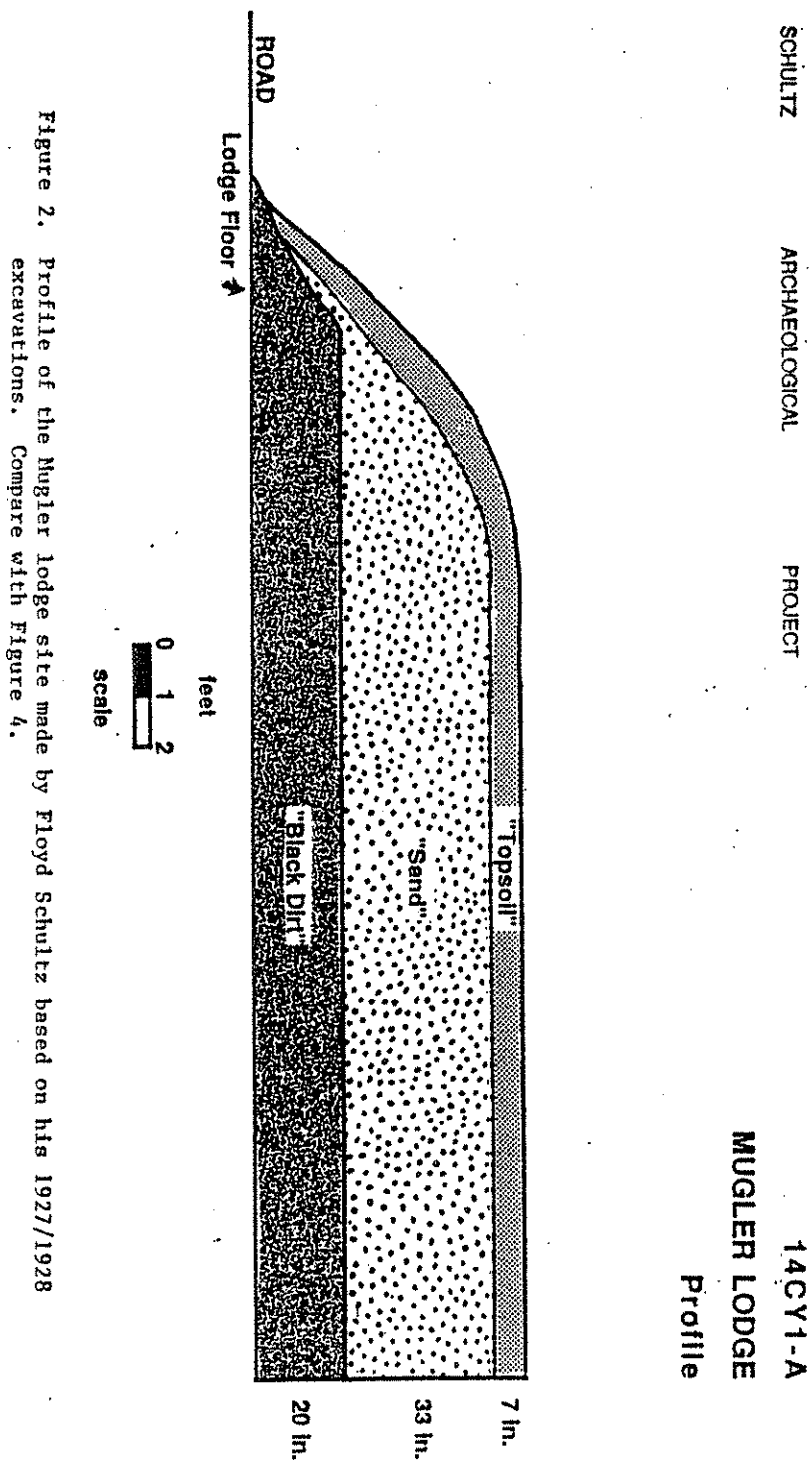
Schultz's field notes and the depth of his excavations suggest that intact cultural deposits might remain at the site. However, the presence of artifacts on the surface also suggested that this might no longer be the case. Past and present landowners reported that edges of the terrace below which the site was buried had been modified over the years in order to facilitate irrigation and control erosion. Test pits were excavated in 1991 to determine if intact cultural deposits exist and to verify Schultz's stratigraphy.

These excavations yielded significant results. Although one test unit indicates that deposits in one portion of the site may have been mixed by previous excavations and/or land modifications, two other units demonstrated that some intact deposits still remain. Like those of Schultz, our excavations penetrated a thick layer of sand below the present cultivated surface. A dark cultural layer was encountered at 66-80 cm (approximately 30 inches) below the surface (Figure 4). It contained various artifacts, including Riley Cord Roughened ware ceramics and triangular arrowpoints. This stratum neatly correlates with Schultz's lodge floor level in terms of the relative stratigraphy, artifacts, and features. Two features were identified in the units at this level (Figure 5). One is a postmold of a diameter (26 cm) comparable to those described by Schultz. The other feature is a linear trench with a convex cross-section filled with finely laminated silts and sands. Interpretation of the origin of this feature requires further analysis; however, it may be a drainage trough or a flood feature.

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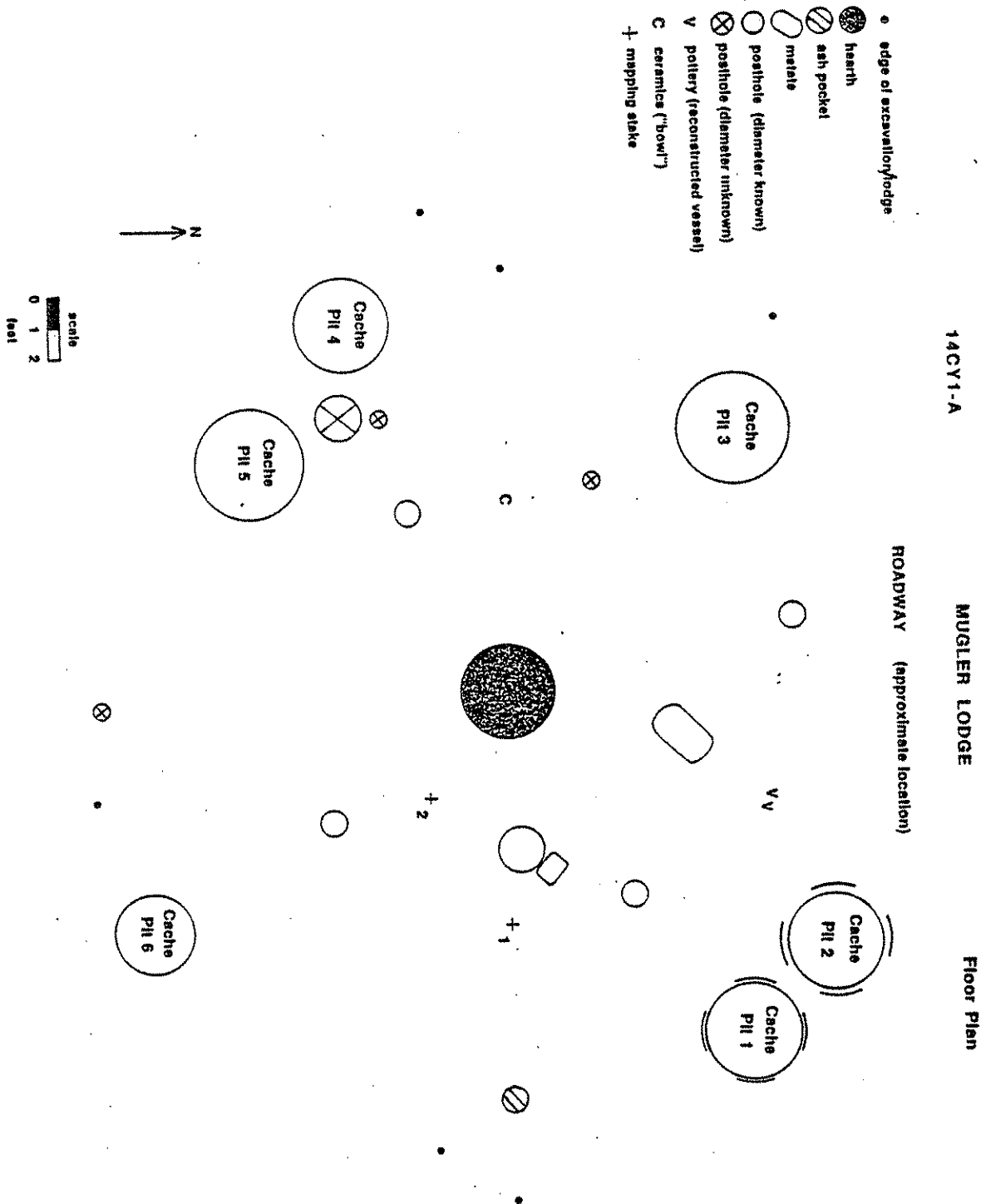


Figure 3. Plan view of the Mugler Lodge floor. Redrafted from Floyd Schultz's notes.

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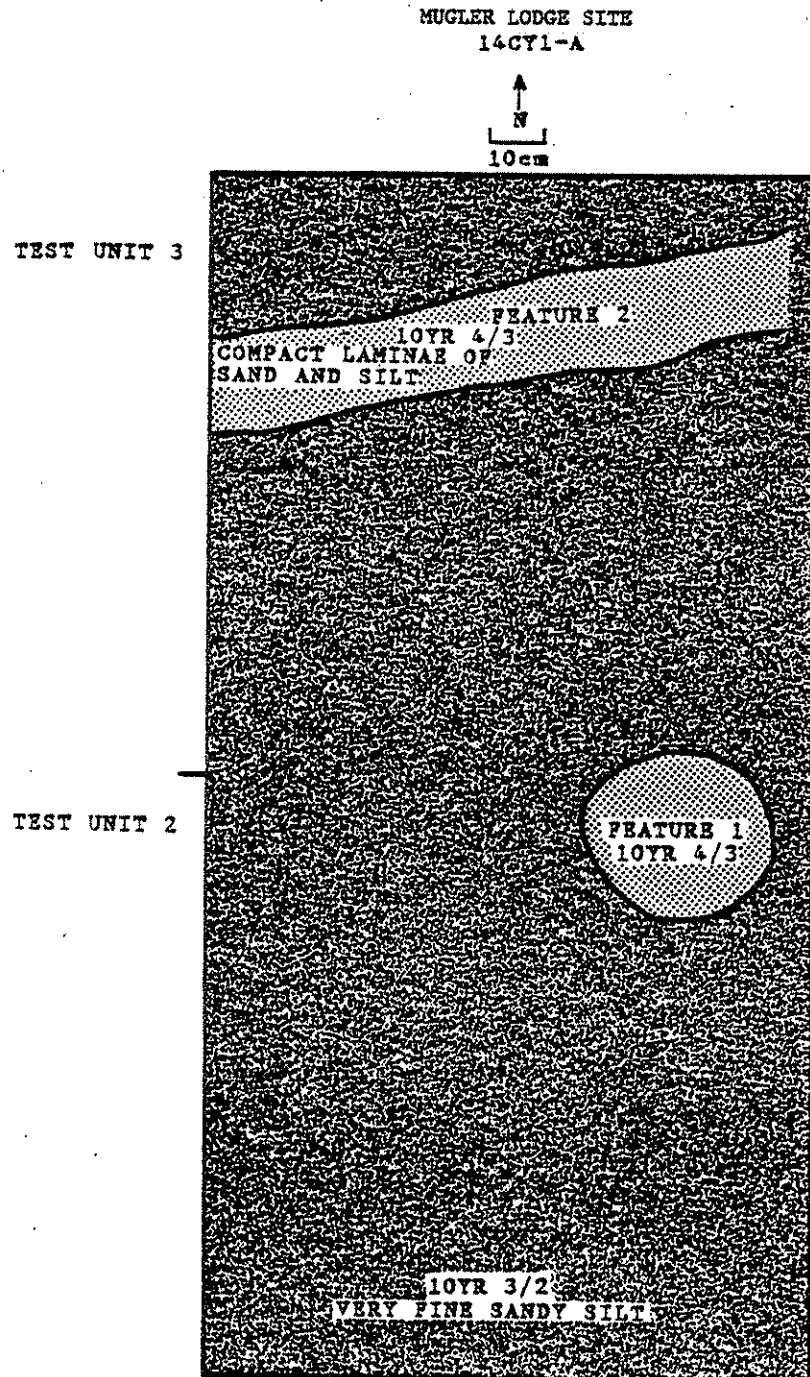


Figure 5. Plan view of test units 2-3 at 14CY1-A showing the location of Features 1 and 2. From Ritterbush and Logan 1992:92.

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14CY1-A
MUGLER LODGE SITE
PROFILE WEST WALL TEST UNIT 2-3

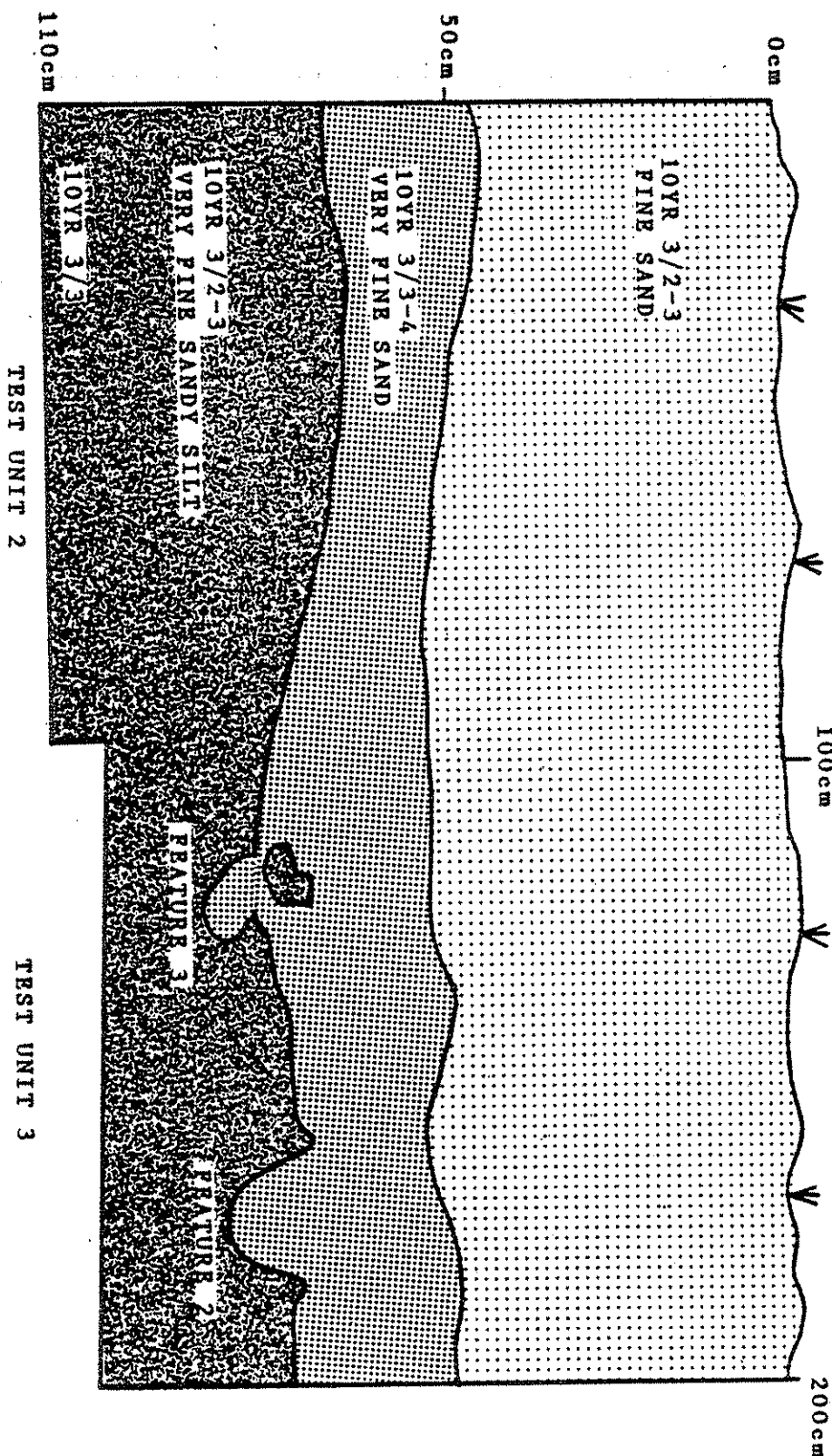


Figure 4. Profile of the west wall of test units 2-3 at 14CY1-A, excavated in 1991 (from Riltterbush and Logan 1992:97).

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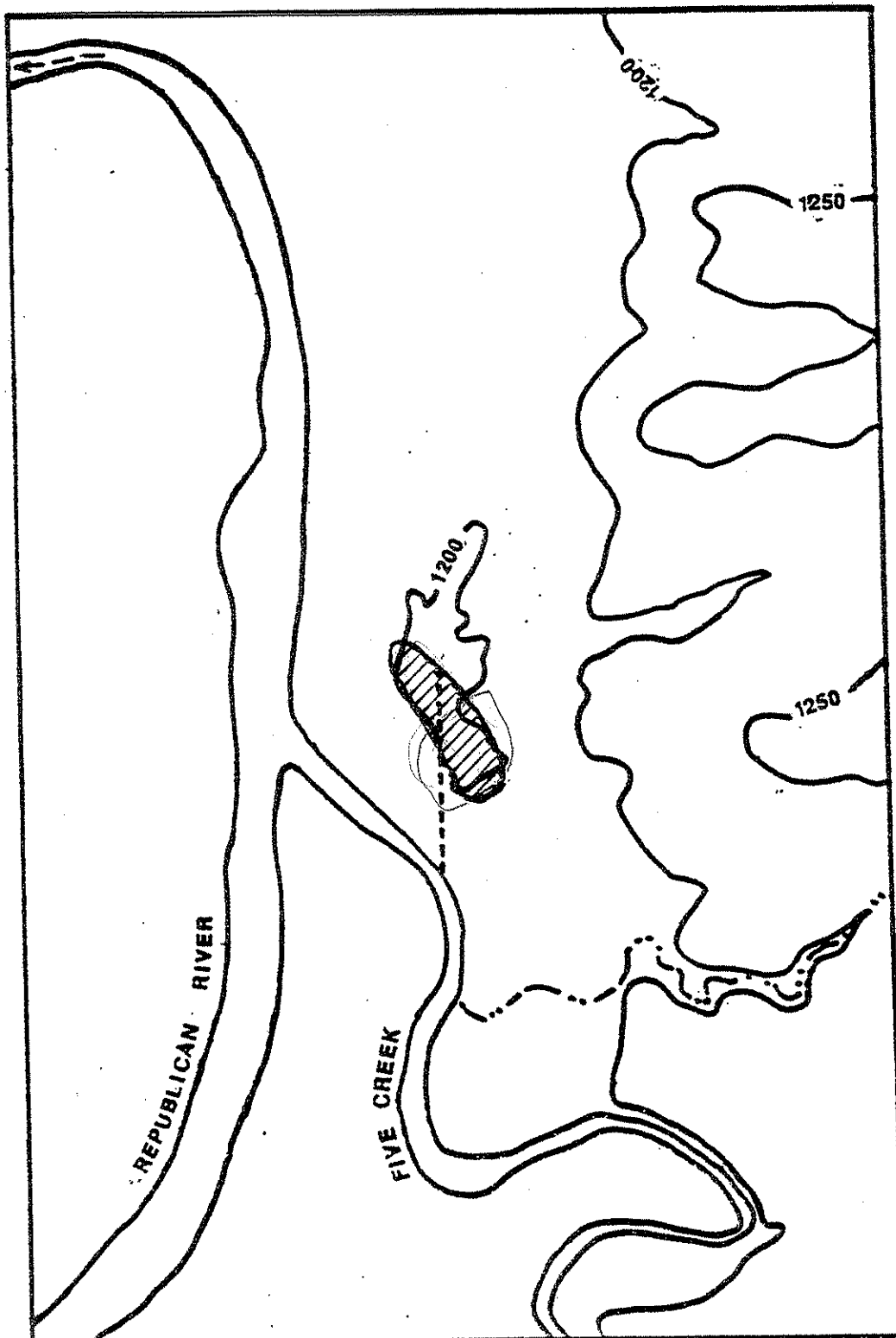


Figure 1. Sketch map showing the location of the Mugler lodge site (14CY1-A) on a terrace remnant in the Republican River valley. East-west dotted line across the site area corresponds to the old road cut/property line described by Floyd Schultz.

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The Mugler lodge site (14CY1-A) is significant in American archaeology because of the information it yields and will continue to yield to our understanding of state and local prehistory (Criterion D). The existing assemblage of artifacts (and associated excavation notes) from the Mugler lodge contained in the Schultz Collection at the Museum of Anthropology, University of Kansas is large and varied. It is representative of the Smoky Hill variant of the Central Plains Tradition of the Plains Village period. Although no absolute dates have been obtained from the site, the potential for radiocarbon dating of existing materials and/or organic remains obtained in the future does exist. It will likely date between about A.D. 800 and A.D. 1420, the range of dates from other Smoky Hill variant sites in the region (Logan and Ritterbush 1991; Schmits *et al.* 1987; Witty 1962, 1963; O'Brien 1984; Crane 1956; Johnson 1973; Brown 1982; Reynolds and Wulfkühle 1991; Ritterbush and Logan 1992a). Recent (1991) test excavations at the site indicate that cultural deposits remain intact, buried beneath some 70 cm of alluvium. A postmold feature similar to those excavated by Schultz indicates that a second lodge may be present. Other trough-like features and the overlying sterile deposits will potentially yield important environmental information related to the occupation of this site, as well as of the Central Plains region during the Plains Village period. Excavation of a second lodge would be extremely useful in understanding the site in particular and the Smoky Hill variant in general since it would provide additional data for comparison with those obtained from the few Smoky Hill sites that have been described. Future investigation would also provide the opportunity to apply the most modern and thorough recovery methods available at a site not yet destroyed by erosion, cultivation, nonprofessional collection and excavation, and/or urban expansion. Both cultural and geomorphic contexts of a lodge at the Mugler lodge site would provide significant new insights to the nature of the Smoky Hill variant in particular, the adaptation of Plains Village people to the Central Plains in general, and the effects of environmental changes on those people and their archaeological record.

The Mugler lodge is a premier example of a habitation site associated with the Smoky Hill variant of the Central Plains Tradition. During his excavations, Schultz found a great number and wide variety of complete and broken ceramic vessels, chipped and ground stone tools and debitage, modified and unmodified bone and shell artifacts, and various other materials (e.g., daub, corn). These artifacts, as well as those collected during recent test excavations, are similar to those found at other Smoky Hill variant sites in the region. Although as many as two dozen Smoky Hill variant sites have been excavated, data from many of these sites are limited. For example, the assemblages from nine other sites excavated by Schultz are small in relation to those from the Mugler lodge (consisting of from 61 to 418 artifacts). Most of these sites also appear to have been destroyed over the last 65 years by erosion, cultivation, and urban

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expansion (Ritterbush and Logan 1991, 1992a, 1992b). Of the professionally investigated Smoky Hill variant sites, many were excavated prior to the application of modern techniques, such as flotation and associated analyses (e.g., Wedel 1959; Johnson 1973). Several other excavated Smoky Hill variant sites have as yet only been tested (e.g., the Fancy Creek site, 14RY8), providing a small sample of data relevant to their occupation. Descriptions of only a few are available in published sources (Wedel 1959; Johnson 1973). Therefore, despite the existence of an archaeological data base pertaining to the Smoky Hill variant, the information it provides is somewhat limited.

This is evident in our present understanding of the Smoky Hill variant. It is the least understood of the three variants comprising the Central Plains Tradition. Its relationship to contemporaneous populations is unclear. For example, how this prehistoric population was related to or interacted with eastern Mississippian populations is uncertain (i.e., Sperry 1965; Steinacher 1976; Scott 1989). Its origins are also unclear. Furthermore, recent research (Hedden 1992 and John Hedden, personal communication, 1992) suggests that the distinction between the Smoky Hill and Upper Republican variants of the Central Plains Tradition may not be as clear as previously believed. Although tentatively proposed as a possible ancestor to the historic Pawnee, this ancestry has yet to be clearly established. With the many questions related to the Smoky Hill variant, it is imperative that additional research and preservation of productive Smoky Hill variant sites, such as the Mugler lodge, be pursued.

The results of recent investigations of the Mugler lodge site (in conjunction with inspection of several other Smoky Hill variant lodge sites originally excavated by Schultz) show that a unique and remarkable situation of site preservation exists at this site (Ritterbush and Logan 1991, 1992a, 1992b). Unlike many other contemporaneous sites in the region, the Mugler lodge site contains intact cultural deposits preserved through deep burial. Cultivation and erosion have affected the surface of the terrace below which the lodge was buried (as indicated by shallower burial than in 1928), but a thick sandy stratum protects the cultural deposits from surface erosion accelerated by cultivation. Preliminary geomorphic analysis suggests that flooding and subsequent aggradation may be responsible for the deep burial of the site.

The deep burial of the lodge that has protected the cultural deposits is significant because of its implications concerning the environmental dynamics of the region during the Plains Village period. Given the age of the cultural deposits, burial of the site under a thick deposit of alluvium had to have occurred within approximately the past 500-1,000 years. A somewhat similar situation of site burial was noted by Wedel (1941, 1947, 1953) in the Upper Republican drainage. He attributed this

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to climatic change, namely drier conditions (i.e., a situation analogous to the "Dust Bowl" of the twentieth century). Recent geomorphic studies in south-central Nebraska lend some support to this interpretation (May 1986). However, recent geomorphic work in the lower Republican River basin has also suggested that such deep burial may not always be attributable to increased xeric (i.e., arid) conditions. William Johnson (personal communication, 1991) of the Department of Geography at the University of Kansas suggested, following his review of photographic documentation of the buried cultural horizon at Mugler, that a climatic regime characterized by increased precipitation might also account for such deposition. More detailed geomorphic analysis of the Mugler lodge and other sites is required to fully understand the environmental setting of Smoky Hill variant occupation of the region and to interpret the effects of possible climatic change on the prehistoric populations.

Some research questions that could be addressed during any future investigation of the site are discussed below. They fall within two broad research domains, culture and environment, and are organized according to them. We emphasize that both domains are related and that the resolution of some questions will require their integration.

Culture: The artifacts recovered from the Mugler lodge by Schultz and their context, when noted, provide a tantalizing glimpse into the lifeways of the Smoky Hill culture. Had they been excavated with current archaeological techniques, they could have provided much more data. For example, Schultz collected a sample of charred corn from the lodge floor that provides evidence of corn horticulture. No doubt other domestic and wild plants were also harvested. Although Schultz did not note the presence of other seeds, they may have been present, but not readily visible during excavation. The application of modern flotation techniques and associated analysis would potentially indicate what other plant resources were harvested by the Mugler site occupants.

Total recovery and more detailed provenience information would also provide a more detailed picture of the Mugler site occupation. For instance, according to Schultz's notes, all of the shell-tempered sherds from the lodge were found on the floor. No such material was recovered from any of the six cache pits. Riley Cord Roughened ware, however, was found both on the floor and in the pits. Such a spatial distinction may reflect functional variation between shell-tempered and Riley Cord Roughened wares. Unfortunately, we do not know Schultz's collection biases. Today archaeologists adopt a more "total recovery" approach to cultural deposits in combination with the recording of precise artifact provenience. Consequently, archaeological excavation of another lodge at the Mugler site might resolve one of the most perplexing problems about the shell-tempered ware at Smoky Hill sites. Does this material differ from Riley Cord Roughened ware because it was traded from non-Smoky Hill

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peoples in other areas or was it produced locally and used for different purposes (e.g., cooking vs. storage; "fine ware" vs. utilitarian pottery)?

Recovery of a substantial ceramic assemblage would also make it possible for investigators to test the implications of Hedden's (1992) findings regarding a possible directional variation in Riley Cord Roughened pottery. His results are based in part on the ceramic assemblage from the Mugler lodge. Inclusion of a sample from a second lodge in his statistical tests might enhance or alter his findings and serve as a check on the first Mugler ceramic sample. In addition, comparison of the ceramic assemblages of two lodges at the same site might be useful for determining the relative contemporaneity of their occupation, detecting differences or similarities in the activities associated with them, etc.

Lithic tools from a second lodge at the site, when compared to those in the Schultz Collection, could also reveal intriguing differences or similarities. Indeed, data from a second lodge could permit comparison with respect to a variety of artifact types on an intra-site and inter-site basis. Given a sufficient sample, one could statistically (e.g., a t-test) compare the attributes of tools such as projectile points or scrapers from each lodge to determine if they represent the same "population". Comparison of the ratios of local to non-local cherts (e.g., Permian vs. Niobraraite) provide insight to different degrees of mobility or trade of the occupants.

Though Schultz provided the dimensions and relative position of some features, such as the hearth, cache pits, and some postmolds, of the Mugler lodge, it is not possible to reconstruct the exact dimensions or outline of the lodge from his notes. Excavation of a second lodge might result in more architectural information and increase our sample (and its comparability) of Smoky Hill variant houses. Schultz did find a sample of blackened daub which indicates a structure of wattle-and-daub construction that may have burned. Archaeologists who recover more adequate samples of any such material from another lodge might reach more sound conclusions about the nature and fate of the Mugler site houses, as well as discern detailed construction methods and materials.

Absolute dating of the Mugler lodge would provide comparative data about the temporal range of the Smoky Hill occupation of north-central Kansas. The opportunity for such dating may well be within reach through further investigation of the site and recovery of organic materials (e.g., charcoal, bone, shell). Radiometric dating (supported, for example, by archaeomagnetic dating) of the Mugler site would considerably enhance its comparative value both with respect to other Smoky Hill sites and to Plains Village sites throughout the Central Plains in general.

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Schultz may not have collected all the faunal remains that existed in the lodge at the time of his excavation. Nearly all of the animal bone in his assemblage consists of complete or modified elements. In addition, only relatively small unmodified bones were collected. It is unknown if other faunal materials existed at the site. Once again, Schultz's recovery methods give a good picture of the modified bone technology of the Smoky Hill people and a hint of which animals were sought for food and raw materials, but they do not provide a complete view of subsistence practices. Additional faunal materials would greatly expand our knowledge of which animals were hunted, trapped, and fished and for what purposes. As noted above, flotation would contribute information on subsistence practices regarding the faunal exploitation and cultivation and harvesting of domestic and wild plants. Flotation samples of the cultural horizon or "floor" in the area of the 1991 test excavations and all of the fill from any cache pits might provide faunal and floral remains sufficient for investigation of Smoky Hill subsistence practices. Such data could augment or refine comparable studies of Plains Village horticulture, hunting and gathering (Adair 1988; Brown 1982; Bozell 1991).

Environment: Data pertaining to faunal and floral remains not only furnish information about the cultural practices of the Smoky Hill occupants of the Mugler lodge, but also about the environment of the area at that time. An adequate sample of biological evidence from Mugler can be treated as a sample, admittedly biased in its selection by the preferences of the Smoky Hill people, of the catchment area around the site. Plant and animal material can then be seen in terms of the various habitats (woodland, grassland, aquatic) they reflect. Information derived through techniques such as cementum analysis of deer teeth, presence of migratory fowl or seasonally exploitable wild plants might indicate during which times of the year the site was occupied and whether it might have been abandoned seasonally in favor of less sedentary activities.

Perhaps the most intriguing aspects of any future work at the site will be explored through geoarchaeological means. Detailed geomorphic analysis during archaeological excavations combined with exploratory trenching (if not destructive of cultural deposits) or coring should be conducted to trace the extent of the buried soil horizon and to discover why changes in the stratigraphy across the site vary. These studies would undoubtedly explain why the stratigraphy exposed in one test pit at the southern edge of the terrace differed from that of the others nearer its northern edge. Such exploration may also reveal the precise location of Schultz's excavations and the spatial relationship between it and any other lodges. This approach is also necessary to determine the geomorphic evolution of the Mugler landscape.

Geoarchaeological investigation of the Mugler terrace must be accompanied by a broader survey of the Five Creek-Republican River

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locality. Although the Mugler lodge site locality presently appears unique, future geomorphic studies may show that similar settings exist. An example of this may be in the Five Creek drainage, upstream from the Mugler site. Survey of the Kemp-Meek site locality on Five Creek resulted in the discovery of a buried soil, which has yet to be investigated by a geomorphologist. Several lines of archaeological evidence suggest, albeit indirectly, that this soil may be related to the period of Plains Village occupation of the region (Ritterbush and Logan 1991:82). At least one other paleosol on the Republican River nearer the Junction City area has been radiocarbon dated to the last half of the first millennium A.D. (William C. Johnson, personal communication, 1991). More recently, archaeological survey of the Lovewell Reservoir on White Rock Creek, a tributary of the Republican River northwest of our study area, has indicated that Plains Village period sites there are extremely rare. Though as yet unsubstantiated, the scarcity of such sites in that locality may be attributable to geomorphic processes (Logan and Hedden 1992). Though scanty, these lines of evidence suggest that the physical environment of the Smoky Hill variant in the lower Republican River valley was considerably more dynamic than heretofore believed. The reasons for this dynamism, so dramatically apparent at the Mugler terrace, are now unknown. Whether they reflect increased or decreased precipitation during the Plains Village period is presently unknown. Whether these changes also demanded a change in the adaptation of the Plains Village peoples of the Lower Republican River basin is also unknown. It is obvious that our understanding of both the Smoky Hill variant and the extent and nature of the cultural resources of that region will be incomplete or badly misinformed without additional investigations (including geomorphic) of the Mugler site and its environs.

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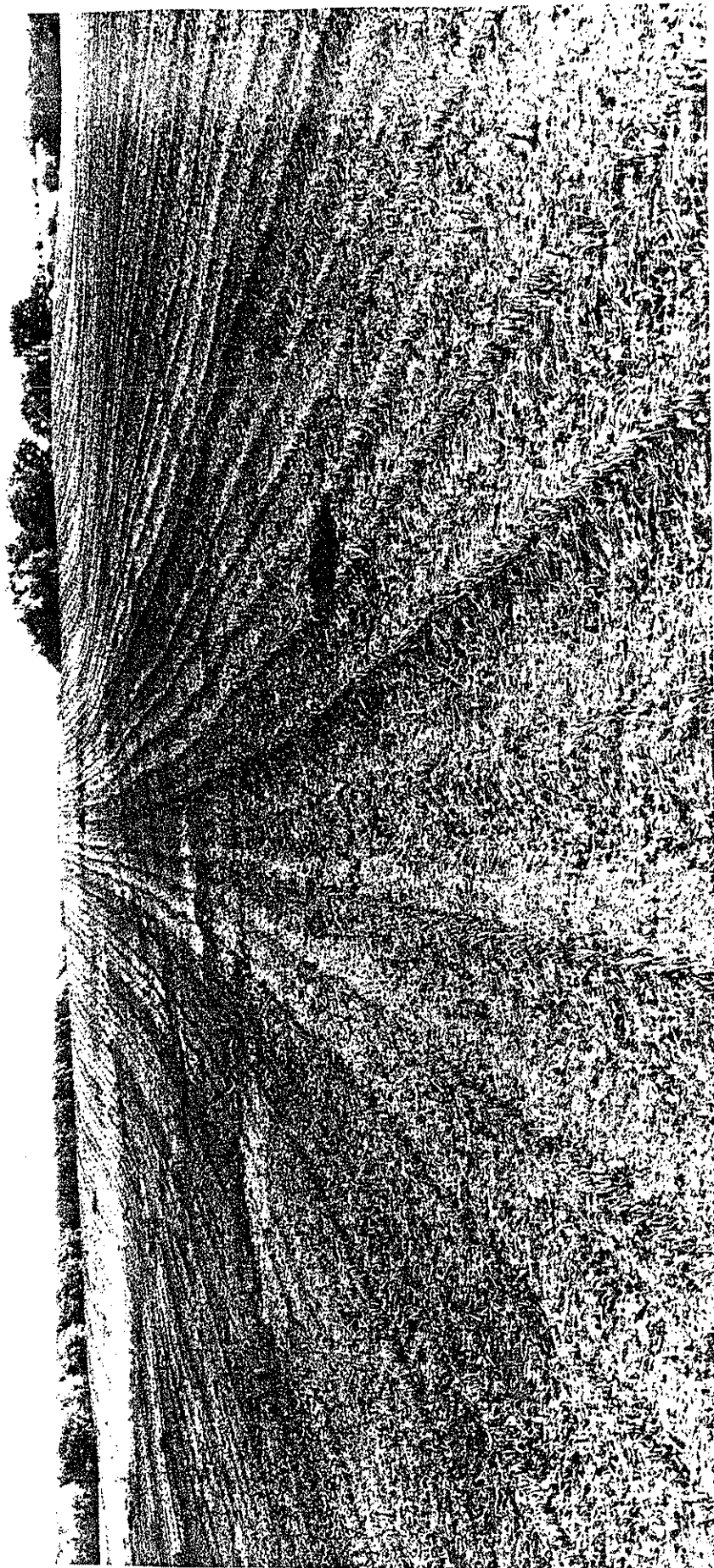
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Verbal Boundary Description:

The Mugler lodge site (14CY1-A) is associated with the western half of a terrace remnant in the N 1/2, NE 1/4, NW 1/4, SW 1/4; S 1/2, SE 1/4, SW 1/4, NW 1/4; and SW 1/4, SW 1/4, SE 1/4, NW 1/4, Section 13, T8S R2E. Its northern boundary corresponds with a modern artificial terrace. The western and southern boundaries correspond with the respective slopes of the terrace remnant. The western boundary is arbitrarily placed as discussed below. These boundaries are shown on the accompanying U.S.G.S. 7.5 minute topographic quadrangle (Clay Center SW Quadrangle).

Boundary Justification:

Because the Mugler lodge site (14CY1-A) is buried below the surface of a terrace remnant, its boundaries (as shown on the accompanying map) have been variously identified. A recently constructed artificial terrace along the north edge of the terrace remnant is identified as the northern site boundary. This was determined on the basis of surveys of this terrace prior to and immediately after its construction. Few artifacts were noted in erosion rills in this area during the earlier survey. None was observed in the impacted area immediately after construction. Artifacts are scattered on the surface of the western and southern slopes of the western portion of the terrace remnant. The limits of this scatter form the western and southern boundaries of the site except where a test excavation (test unit 1) uncovered possibly disturbed cultural materials (Ritterbush and Logan 1991, 1992). The artifact scatter extends onto the upper surface of the western portion of the terrace remnant for a short distance. Test excavations show that intact cultural deposits remain buried below portions of the terrace where artifacts are not present on the surface (Ritterbush and Logan 1992). It is impossible to determine the exact eastern boundary without more extensive excavations in this area. Nonetheless, it can be confidently approximated from information provided by previous landowner and amateur archaeologist, Mr. Keith Gilmore. He reported finding an occasional artifact in rills and along the northeastern edge of the terrace remnant within the eastern site boundary shown on the accompanying map.



MUGLER
XU 2 3
80 CM



MUGLER LOOGE SITE
CLAY COUNTY, KANSAS
BRAD LOGAN

OCTOBER 17, 1991

UNIVERSITY OF KANSAS, MUSEUM OF ANTHROPOLOGY

VIEW TO EAST OF TERRACE REMNANT CONTAINING THE SITE. LOCATION OF TEST UNIT 1
IS AT THE FAR RIGHT PART OF THE TERRACE, MARKED BY TRIPOD SCREEN SUPPORT AND
EXCAVATOR. LOCATION OF UNITS 2/3 IS ON THE TERRACE SUMMIT AT CENTER OF
PHOTO.

1 OF 2

MUGLER LODGE SITE
CLAY COUNTY, KANSAS

BRAD LOGAN

OCTOBER 7, 1991

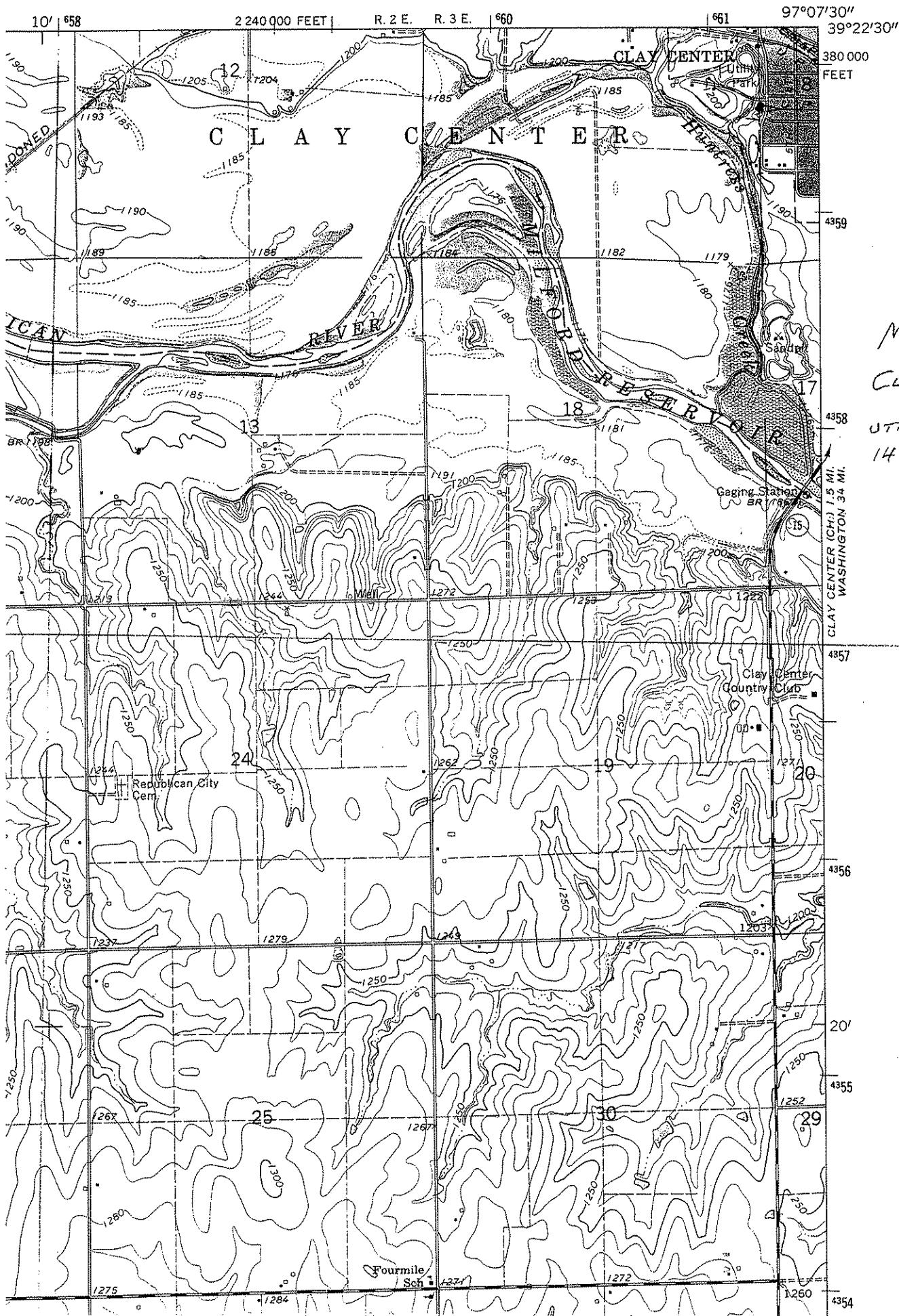
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EXCAVATION UNITS 2 & 3, VIEW SOUTH AT 80cm BELOW SURFACE, FEATURE 1, POSTMOLD,
IS JUST NORTH OF TROWEL. NOTE THE LIGHTER-COLORED SAND THAT MAY REPRESENT
FLOODWASH ACROSS THE DANIEL PALEOSOL.

2 OF 2

CLAY CENTER SW QU. DRANGLE
KANSAS-CLAY CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

5562 1 NE
(CLAY CENTER NE)



MUGLER LODGE SIDE
CLAY COUNTY, KANSAS

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