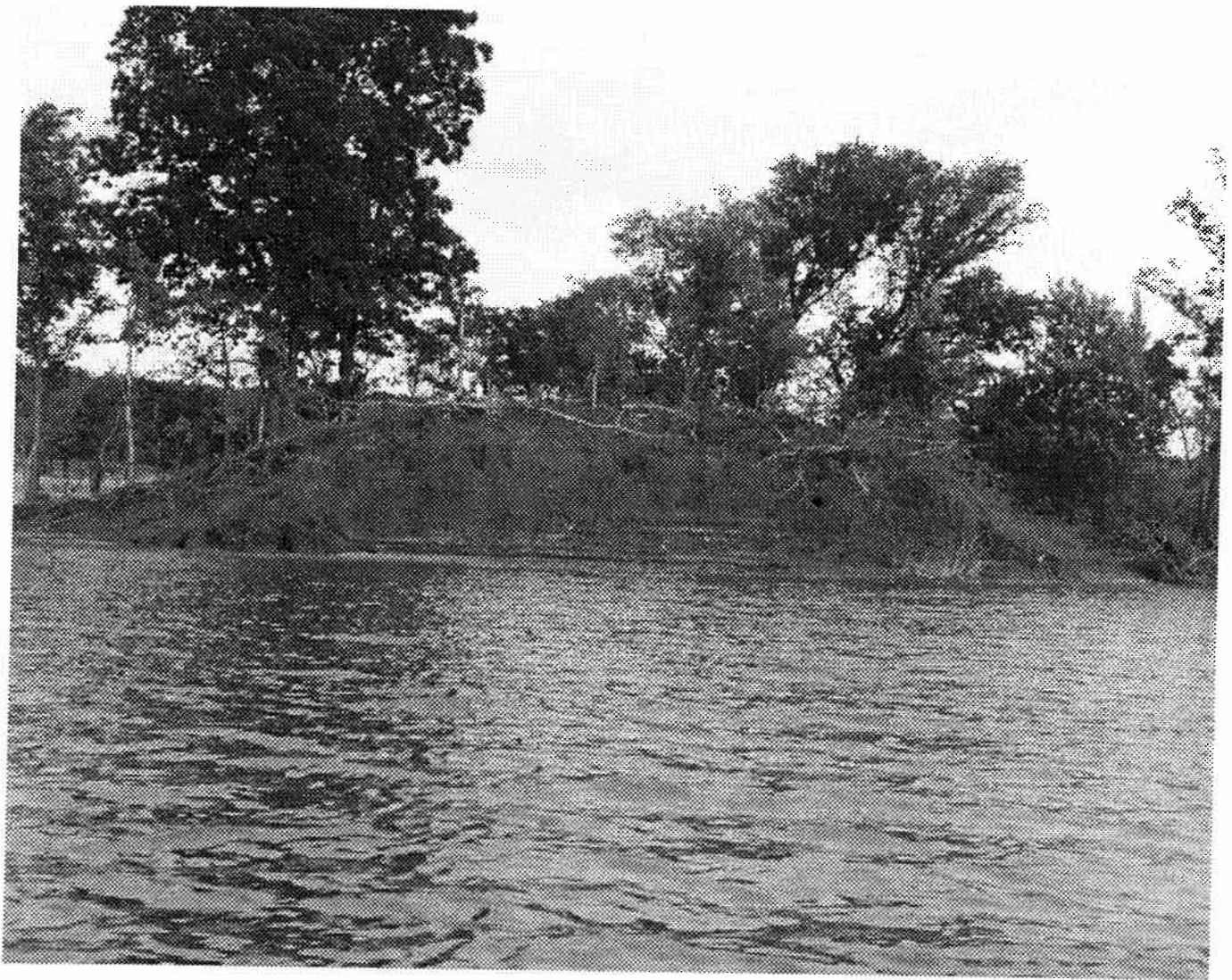


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Cover photo: Current state of Mound I, Norman site (34WG2), Wagoner County, Oklahoma. This is the western half of the mound, west of the trench excavated through the mound by Joseph Caldwell in 1948. The eastern half of the mound, as well as the rest of the site, was destroyed by construction activity. *Photo by Louis Vogeles, courtesy of US Army Corps of Engineers, Tulsa District.*

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Editor's Page

Finally! This double issue of *Caddoan Archeology* containing articles about the Norman site in northeastern Oklahoma is going to press. It has been a long process, and has been entirely my fault. The Oklahoma Archeological Survey has switched over to doing graphics by computer, and I had to learn while I was working on this. I now can work with the basics of Paint Shop Pro. Hopefully, the next issues will come out in a more timely fashion.

The dates for the 43rd Caddo Conference have been set. It will be held March 15 - 18, at the new Sam Noble Oklahoma Museum of Natural History on the University of Oklahoma campus. The Flint Hills Conference will be joining with us. Some people from the Oklahoma Archeological Survey and the museum will be meeting soon with the Caddos to plan further details of the meeting.

A new, on-line version of the calibration program for radiocarbon dates, CALIB 4.2, is now available. It can now be run from your browser at two sites. These are: University of Washington – <http://depts.washington.edu/qil/calib/> Queen's University of Belfast – <http://radiocarbon/pa.qub.ac.uk/calib/>

Operating instructions are given on the web page. It does not have all of the options of the downloadable versions, but some may be added later. The number of samples which can be entered or pasted into the data area for calibration depends

on various factors, but is about 300-400. Plots may be printed directly from your browser, or you have the option of saving them as postscript files. Otherwise, the version is identical to CALIB 4.1.2, and uses the 1998 international radiocarbon calibration datasets. If you need further details about the calibration datasets and calculations, refer to the CALIB 4.1 manual.

Some of you might be interested in a relatively new book issued by the U.S. Geological Survey. It is *Atlas of Relations Between Climatic Parameters and Distributions of Important Trees and Shrubs in North America*, by Robert S. Thompson, Katherine H. Anderson, and P.J. Bartlein. It was published in 1999, and is USGS Professional Paper 1650 (1650-a: Introduction and Conifers, 269 pp.; 1650-b: Hardwoods, 421 pp.). ISBN: 0-607-91368-1. The book costs \$63 and can be obtained from:

USGS Information Services
Box 25286

Denver Federal Center
Denver CO 80225

Telephone: 303-202-4700

Fax: 303-202-4693

Website: <http://greenwood.cr.usgs.gov/pub/ppapers/p1650-a/>

The book contains information about 115 conifer and 239 hardwood species which grow in North America. There is apparently an internet version of this publication, but the URL was not given in my information source.

Meetings and Events

October

6-8 *Ground-penetrating Radar Techniques for Archaeological Mapping*, University of Denver. This intensive three-day course will be taught by Larry Conyers, and will involve hands-on teaching of theory, field acquisition methods, and data processing and interpretation. For more information, contact: telephone (303) 871-2684; web site: www.du.edu/anthro/gprclass2.html.

November

8-11 *2000 Southeastern Archaeological Conference (SEAC)*, Crowne Plaza Hotel, Macon GA. The meeting will feature a full program of papers. In addition, there will be a keynote address by Leland Ferguson from the University of South Carolina on "Africans and German Moravians: Cultural and Racial Alienation in the 18th and 19th Century Town of Salem NC". Other events will include a dance with live music, a reception at the Georgia Music Hall of Fame, and a tour of Ocmulgee National Monument sponsored by the Society for Georgia Archaeology. Meeting registration is \$40 (\$30 with valid student ID) before October 2, and \$45 (\$35 students) at the conference. The hotel room cost is \$79 for single to quad occupancy. For more information, the SEAC web site is www.uakr.edu/campus-resources/seac/index.html or contact Adam King, Savannah River Archaeological Research Project, PO Box 400, New Ellenton SC 29809, telephone

(803) 725-1130; email: aking@sc.edu. Registration forms are on the web site.

8-12 *33rd Annual Chacmool Conference*. The theme will be "Art for Archaeology's Sake: Material Culture and Style Across the Disciplines". The conference will host a conversation across the disciplines of archeology, art history, and material culture studies to break down barriers and share strategies of interpretation. For more information, contact Marc Zender or Calla McNamee, Chacmool 2000 Abstracts Committee, Department of Archaeology, University of Calgary, Calgary AB T2N 1N4, Canada; fax: (403) 282-9567.

9-12 *Midwest Archaeological Conference and Plains Anthropological Conference* (joint meeting), Radisson Hotel, St. Paul MN. Submissions, registration, and other details web site: www.admin.state.mn.us/osa/mw_oarch_conf00.html. Submissions deadline is July 31, 2000.

10-12 *Envisioning the Past: Constructing Knowledge through Pictorial Traditions of Representations Conference*, Southampton, England. This is an international, interdisciplinary conference which will allow researchers to discuss the latest insights into the visual representation of anthropological, archeological, and scientific knowledge.

13 - 16 *Geological Society of America, Reno NV*. Among the sessions to be

offered are several that are of interest to archeologists. They include: "Archaeological Mineralogy and Petrology", "The Employment of Geological Techniques for Archaeological Provenance Studies", "Glacial Erosion at the Scales of Individual Alpine Glaciers, Mountain Ranges, and Continental Ice Sheets: Current Understanding and Future Directions", and "Colluvium: Recent Advances in Applying Geomorphology, Stratigraphy, and Sedimentology to Interpret Late Cenozoic Slope Processes". For more information, contact: GSA headquarters, Box 9140, 3300 Penrose Place, Boulder CO 80301; telephone: 303-447-2020; email: meetings@geosociety.org.

15-19 *The 99th Annual Meeting of the American Anthropological Association*, San Francisco Hilton and Towers, San Francisco CA. The theme will be "The Public Face of Anthropology". The submission deadline is April 19, 2000. For more information, contact AAA meetings, 4350 N Fairfax Drive, Suite 640, Arlington VA 22203-1620; telephone (703) 528-1902 ext. 2; email: jmeier@aaanet.org

January, 2001

10 - 13 *Society for Historical Archaeology*, Long Beach CA. The meeting theme will be "Scientific Tools and Techniques in Historical Archaeology". Topics in-

clude the use (and abuse) of science in historical archeology, as well as geoarchaeology, bioarchaeology, DNA, chemistry, GIS, remote sensing, and materials analysis. For more information, contact: Timothy Scarlett, University of Nevada - Reno, Department of Anthropology/096, Reno NV 89557-0096; email scarlett@unr.edu.

March, 2001

15-18 *Caddo Conference/Flint Hills Conference*, Sam Noble Oklahoma Museum of Natural History, Norman. We will have a joint conference this year. There will be a reception at the new museum on Thursday evening, March 15. The museum is reserved during the day from Friday through Sunday. We will probably go to Binger for a dinner and dance with the Caddos at some time during the conference. More details will be in future issues of this newsletter and in a mailing later in the year.

April, 2001

18 - 22 *Society of American Archaeologists*, New Orleans LA.

November, 2001

5 - 8 *Geological Society of America*, Boston MA. For more information, contact: GSA Headquarters, Box 9140, 3300 Penrose Place, Boulder CO 80301; telephone: 303-447-2020; email: meetings@geosociety.org.

THE OKLAHOMA PREHISTORIAN

VOLUME 3, NO. 3

Cover: Effigy Bottle from Norman Site

The frontispiece for this issue of the *Prehistorian* pictures a small effigy bottle from burial mound WgNrII on the Norman site, Wagoner County, Okla. It was made of a shell tempered ware and red-slipped. It stands 12.8 centimeters high. The figure appears to be wearing a cap with some sort of projection on top. The face is boldly modeled, but the arms are more or less suggestive and the fingers are indicated by incising. This specimen was unassociated, but its proximity to an old excavation suggests the possibility of the burial having been previously removed. (See Fig. 1, k and Page 4).

Bio-File --- J. Joe Finkelstein

In the life of every archaeologist there comes that uncomfortable feeling that "this find is too good to be true, someone's planted this on me".

J. Joe Finkelstein, who wrote "The Norman Site Excavation Near Wagoner, Oklahoma" in this issue of the *Prehistorian* had that heart-sinking feeling when he uncovered a circular copper plate while excavating on the Norman site. But instead of a "plant", the plate was the real McCoy and is one of the prized exhibits from the Norman site.

Activities of Joe Finkelstein are widespread and extend from the southwest to the middlewest, to the southeast:

Born in Oklahoma City in 1910.... B.A. from the University of Oklahoma in

1932....year's graduate work at O.U. inaugurated the O.U. archaeological program with brief survey of northeastern Oklahoma counties the summer of 1932 Laboratory of Anthropology at Santa Fe fellow the next summer, working under Dr. Frank H.H. Roberts on the Allentown or White Water Canyon site in eastern Arizona supervised excavation of the Norman site for 3 seasons beginning in Jan. 1934....5 months on the Reed site in Delaware County, Okla. also working in the Rhoades site there from whence came the infamous eccentric points left Oklahoma archaeology the fall of 1937 for a year of graduate work at Chicago University supervised excavation of one unit of the U. of Chicago's Kincaid site in southern Illinois ethnohistorian for Laboratory of Archaeology, University of Tennessee beginning in 1938 engaged there now in research into historical Tennessee Indian tribes and their archaeological predecessors.

Present research is concerned primarily with the Cherokee Indian prior to the 19th century, results of which to be published as a part of the Bureau of American Ethnology bulletin on the Chickamauga Basin excavations, unit of the TVA dam project authored "A Suggested Projectile Point Classification" in *American Antiquity* served as chairman for the Fourth South-eastern Archaeological Conference presented paper on "A Possible Interpretation of Culture Relationships in the Mississippi Valley" at Central Section meeting in Milwaukee only eccentricity — intolerance of woman dirt archaeologists.

THE NORMAN SITE EXCAVATIONS NEAR WAGONER, OKLAHOMA

J. Joe Finkelstein

The Norman site¹ is seven miles southeast of Wagoner, Wagoner County, Okla., on State Highway 51. It is on the upper terraces on the west side of Grand River just north of the approach to the new bridge. Principal mound is a double unit; the larger mound, clearly visible from the highway, is conical, 27' high and 90' in diameter; the low mound, on the north, is circular, 7' high and 100' in diameter; a low, broad saddle 12' long connects the 2 mounds (Figure A – map, Mounds I-1 and I-2; *ed. note I*²). An extensive habitation

area, Unit IV, extends to the north and northeast of Mound I-2. Unit II was also a double unit; the larger mound was originally conical, 70' in diameter and probably 10' high. It was only 6.5' high when excavated, owing to a large pit previously dug from the apex. The smaller mound, on the north, was circular, 2.5' high and 45' in diameter. The edges of the two mounds overlapped somewhat. Unit III is a low circular mound 7' high and 110' in diameter. Unit VI is a low, circular mound 1.5' high and 45' in diameter. Unit II was completely excavated; approximately one third of Unit II, a portion of Mound I-2 and a portion of the habitation area were also excavated.

1 *The statewide program of archaeological research conducted by the University of Oklahoma with the support of the federal relief administrations was inaugurated at the beginning of 1934 when, with funds made available by the CWA, a small project was started on the Norman site. Later in the same year, with the aid of FERA allotments, the program was expanded to include a project in the Panhandle. In 1936, with WPA assistance, the program was enlarged to its present scope. From its inception, the program has been under the direction of Dr. Forrest E. Clements, state director of archaeology at the University of Oklahoma. The three seasons' work at Wagoner were under the field supervision of the writer, with the exception of the last month of operations, which were supervised by H.R. Antle.*

2 *The figure numbers from the original publication have been retained here. The map did not have a figure number in the original; thus, it became Figure A.*

Mounds II-1 & II-2

Unit II was constructed near the south end of the second terrace, which here dips gradually toward swampy ground. Excavation was carried to a stratum of river gravel which lay from 3" to 8" beneath the present surface of the field. A 3" layer of black humic soil lay on the gravel under Mound 2, but was absent under Mound I. There was no stratification within the two mounds; the fill consisted of humus, subsoil and gravel from the surrounding area and occasional loads of red and yellow clay and hard, gray, ashy dirt.

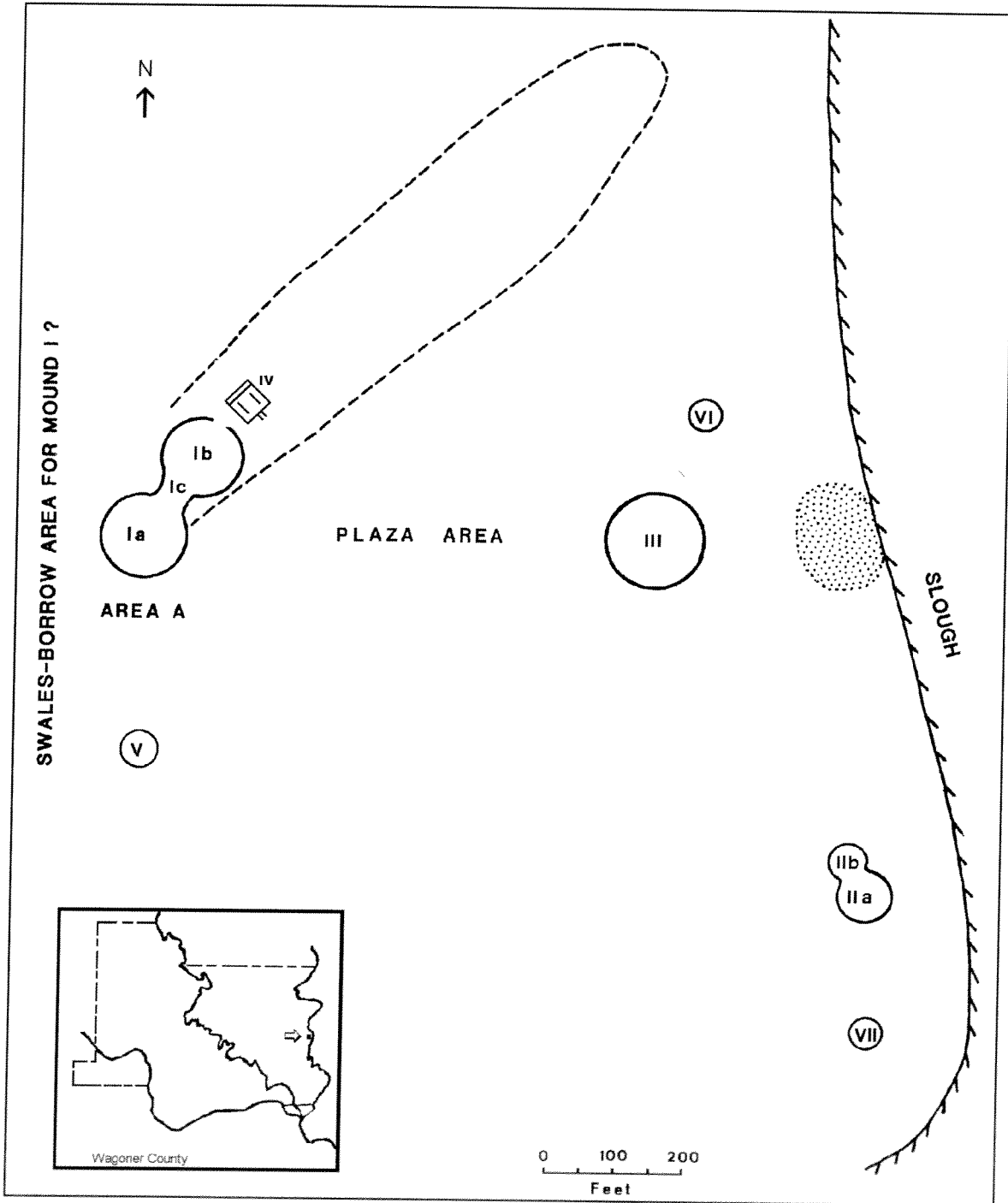


Figure A. Map of the Norman site (34WG2), Wagoner County, Oklahoma (adapted from Finkelstein 1940).

There were no surface indications of a habitation area in the vicinity, although the mound fill contained midden material. The digging of graves for two modern burials where the mounds overlapped has so disturbed the area it was impossible to determine the sequence of construction of the two mounds. The burial complex is common to both; save for minor differences in artifact types and absence of some traits in the small mound, the material culture complex is practically identical.

Both mounds were accretive burial mounds. The 71 burials in the large mounds were distributed throughout, from base to within 10" of the surface; the nine in the low mound were on and just above the base of the mound. Sixty-nine of the burials were bundle, skeletal remains consisting of never more than a few fragments of long bone and several teeth; in 35 instances there was no bone remaining, the presence of a complete pottery vessel, a set of earplugs or a burial basin being considered evidence of a burial. This type of burial was found throughout both mounds, at all levels.

The basins, seven in number, were shallow, circular depressions 2" to 4" deep and 2.5' to 3' in diameter. These were restricted to the floor and lower levels of Mound I and the floor of Mound 2. Absence of these basins in the upper levels of the large mound would suggest the discontinuance of this form of grave preparation, provided it could be proved the small mound is contemporaneous with the earlier phases of the large mound. Three of the basins had been lined with

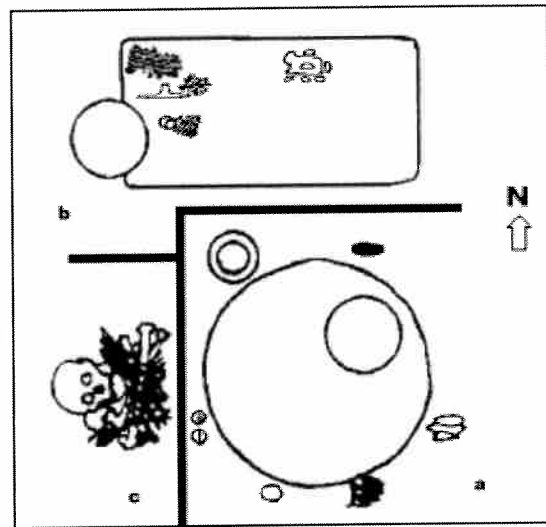


Figure 10. Some burials from Mounds I-1 and I-2.

red clay and fire hardened. Four contained the fragmentary remains of bundle burials. One unfired basin containing no bone remains was accompanied by an unusual quantity of beigabe (Fig. 10,a). One bundle burial was in a pit definitely originating at the surface of the last building phase. The pit was 10" deep slightly larger in diameter; there was no associated beigabe.

There were five piles of six to 12 large stone slabs in the large mound. There were burials under three of these cairns, but the association is questionable as the bone was from 2' to 3' below the stones and there was no evidence of pits beneath the structures. One of these three was a bundle burial.

Three cremation burials were in the southwest quarter of Mound I, associated with the early building period. Of the two cremations in jars, one was on the mound floor and the other was 2' above the floor.

One consisted of charred bone fragments placed in and under two small jars; in the other the few bone fragments were placed in a single small jar. Each was under one end of a stone cairn. The cremation in the prepared basin was on the mound floor. The basin was clay-lined and the body was either cremated in situ, or elsewhere and the ashes of both bone and wood deposited in the previously fired basin.

One deposition in Mound I was made on a thick layer of bark 4' long by 2' wide. Although no bone remained, the quantity and placement of associated beigabe marks this a unique form of interment (Fig. 10, b). This burial was associated with an intermediate building phase. The remaining seven burials were modern, interred in pine coffins, secured with old style squared nails.

Thirty four of the 46 bundle burials containing beigabe were related through common pottery types, stone earplugs, double-stem stone pipes, projectile points and copper plates. The actual artifact associations are indicated on the Beigabe and Burial Relationship Table (Table 1). The four bundle burials in basins were related through common pottery types and earplugs, and were related to the common bundle burials through the same artifact types. The burial on the bark carpet was related to the bundle burial complex through earplugs, double-stem pipe and projectile points; to the basin complex through earplugs, projectile points and large, circular, green clay discs.

Although a number of the burials contained no beigabe, 54 were

accompanied by at least a single pottery vessel or a set of earplugs. Burial associations are indicated on the Beigabe and Burial Relationship Table. Projectile points were placed or strewn along the north or west side of the burial; all other beigabe was usually placed on the east or south side.

POTTERY: Pottery has been classified on the basis of vessel shape and paste texture into four wares. Predominant vessel shape is the jar with wide mouth, short and slightly flaring rim, circular base. Fig. 1, a, indicates the range of forms. Aberrant forms have globular body, no rim (includes cups), high rim, round base, square base (Fig. 1, e-f). A unique jar is supported by four solid columnar legs resting on a flat square base (Fig. 1, d). Both strap and loop handles, the latter riveted to the vessel wall, are common; both types often have a simple or compound knob projecting upward from the lip. This vessel shape occurs in two wares: A — a thin, flaky, porous ware, predominantly fine shell tempered; and B — a thicker, coarse, compact ware, tempered with shell or grit or untempered. There is a paste gradation from one ware to the other, but the majority of the pottery is classifiable as either one ware or the other. The color range in ware A is browns to grays; in ware B, browns to yellow. Both exterior and interior are smoothed, ware B frequently having a slightly burnished surface. Decoration is rare on vessels of this group. Round and elongated applique knobs around the shoulder is the most common technique. Incised or nail-punctate vertical lines on

Table 1. Beigabe and Burial Relationships.

	Ware A	Ware B	Ware C	Ware D	Stone earplugs	Projectile points	Shell beads	Copper plates	Cane matting	Large clay disc	Flint blades	Stone pipe - Ds	Clay pipe - Ds	Stone pipe - Ef	Bodkins & pin	Wooden beads	Green clay mass	Fluted cylinder	Clay effigy	Mineral paints	Paint mano	Engraved shell	Flint scrapers	Bivalve deposit	Carapace in jar	Clay pipe - E1	Wood ear spool	Clay beads	Anise seeds	Flint cores	
7 bundle	J*																														
1 bundle in basin	J*																														
1 cremation in jar	J*																														
2 bundle	J*																									x					
1 bundle	J*	J*																													
4 bundle		J*																													
1 bundle			J†																												
1 bundle		J*	D*																												
2 bundle			D*																												
1 bundle				D†																											
1 bundle	d†																														
2 bundle				B*																											
1 bundle			e†																								1				
1 bundle	J*					1																									
1 bundle				m†		1																								x	
1 bundle			D*			1	1													x								1			
3 bundle						x																									
1 bundle in basin						x																									
1 bundle	J*			B*	x																										
1 bundle	J*				x																										
1 bundle	j†				x																										
1 cremation basin						14																									x
1 cremation in jar	J*					20																									
1 bundle	J*				x	54																									
1 bundle		J*	D*			9						1							x												
1 bundle in basin	J*				x	1						1																			

Table 1 (continued). Beigabe and Burial Relationships.

	Ware A	Ware B	Ware C	Ware D	Stone earplugs	Projectile points	Shell beads	Copper plates	Cane matting	Large clay disc	Flint blades	Stone pipe - Ds	Clay pipe - Ds	Stone pipe - Ef	Bodkins & pins	Wooden beads	Green clay mass	Fluted cylinder	Clay effigy	Mineral paints	Paint mano	Engraved shell	Flint scrapers	Bivalve deposit	Carapace in jar	Clay pipe - El	Wood ear spool	Clay beads	Anise seeds	Flint cores
1 bundle in basin			b†		x	266				1	2						x	x												
1 bark carpet					p	80	x		x	2		1	3	1	p	p														
1 bundle (Burial 40)	J*		D*	B*	p		x	1	x																					
1 bundle			J†					1	x																					
1 bundle								2	x																					
4 bundle							p																							
1 bundle in basin							p																						p	
1 bundle								2					N										F	x						
1 bundle									x													x	T							
1 bundle																				x	x									
1 bundle																				x										

- | | | | | | |
|----|--------------------------|---|-------------------|---|----------------------|
| * | Shape typical of a ware | p | copper plated | j | unique jar form |
| † | Shape atypical or unique | J | jar | d | unique decanter form |
| Ds | double-stem | D | decanter (bottle) | b | unique basin form |
| Ef | effigy | B | basin | T | thumbnail type |
| El | elbow | e | effigy bottle | F | retouched flake |
| x | trait present | m | miniature bottle | N | notched blade |

NOTE: Beigabe as used in this chart refers to those objects placed with or by a burial and no distinction is made between intentional and unintentional beigabe.

the full length of the body also occur. Vessels of this group range from 0.5 pint to more than 1 gallon capacity. A unique form in ware A is a round-bottom bottle with annular base and horizontal flange around base of neck (Fig. 1, i). A unique form in war B is a basin with flaring sides, notched lip (Fig. 1, h).

The bottle shape varies from a slightly flattened to a slightly elongated globe,

with flat base and tall, slender neck (Fig. 1, b). The paste texture of this group, ware C, is generally compact and hard. Temper is fine shell, occasionally grit or untempered. Surface is polished to highly burnished. Colors range from dark red-brown to buff. Some bottles are slipped, the slip color ranging from red to bright orange. Many bottles are decorated with incised and engraved concentric circles, cross-hachured semicircles, leaf motif,

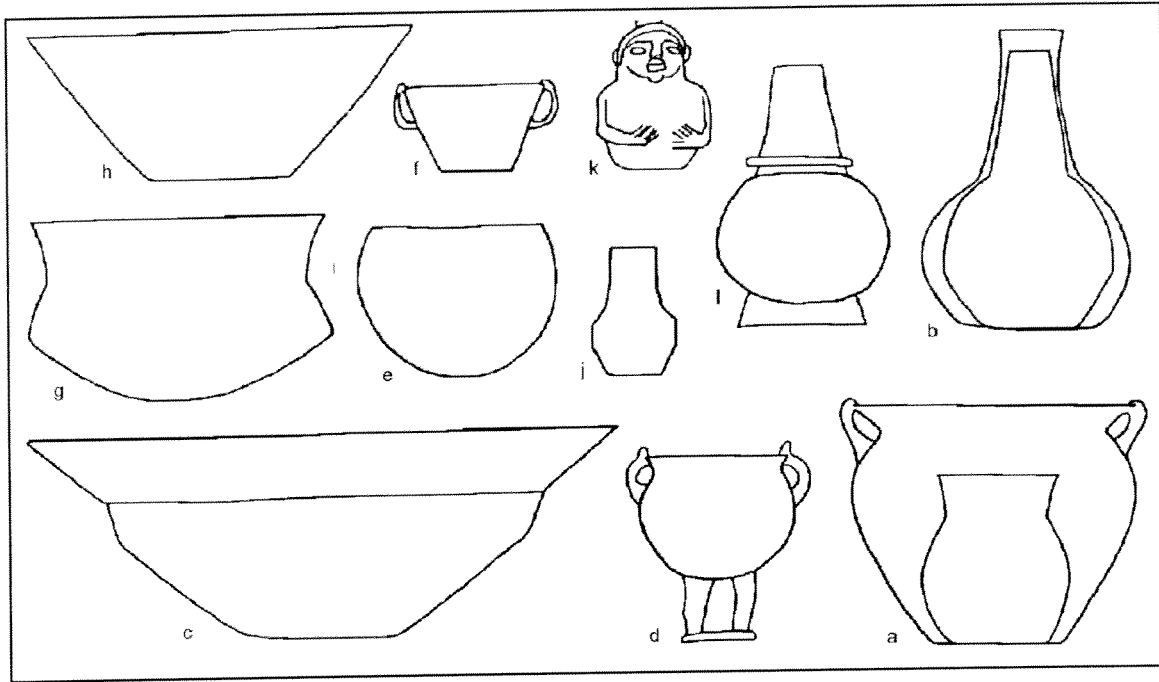


Figure 1. Some vessel forms from the Norman site (34WG2), Wagoner County, Oklahoma. Not to scale.

paneling, and nail-punctate vertical lines. The design element occurs on the body in either three or four units, usually within panels. The neck is occasionally decorated with zig-zag lines or grids. Red paint is frequently found rubbed into the lines. Bottles average slightly more than one quart capacity. A unique bottle form is a small human effigy with orifice at back of head (Fig. 1, k). A unique shape in this ware is a large basin having a round base, incurving shoulder and wide, flaring rim (Fig. 1, g). Also unique are: a small jar with exceptionally high rim (Fig. 1, a); and a jar with square base and applique ridge design, suggesting basketweave, on the shoulder.

Typical of the basin group are: 1) a large, deep basin, the lower portion flaring

broadly from the circular, flat base and the upper portion continuing upward almost vertically; and 2) a variation of this form which has a broad, flaring rim added (Fig. 1, c). These basins are made of a thick, porous ware, heavily impregnated with coarse shell temper. Both exterior and interior of this ware D are red-slipped. This slip frequently flakes away from the surface, which is brown to buff in color. There is no decoration on this group. Capacity of these basins is about 1.5 gallons. One unique vessel of this ware is a very small thick-walled bottle (Fig. 1, j). Another is a thin-walled bottle of conventional shape.

Other artifacts of pottery include pipes, a bead and a ring. One pipe type has a tubular stem 5" long and 0.2813" in

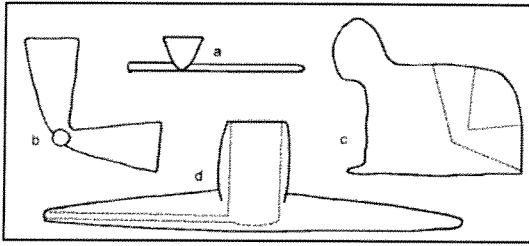


Figure 5. Pipes from the Norman site (34WG2).
Not to scale.

diameter; one end is plugged. A flaring thin-walled bowl is attached 1.5" from the plugged end (Fig. 5, a). These pipes are made of a fine, shell tempered paste, highly burnished, similar to ware C. A pipe of ware B is the large "elbow" type (Fig. 5, b). The conical bowls, each 3" long and 1.375" in diameter at the orifice, are slightly flattened on top and bottom toward the elbow which has a small knob on either side. The single bead is barrel-shaped, 0.75" long and 0.5" thick. This last specimen was unassociated in the mound fill.

Made of unfired red clay is an effigy-like

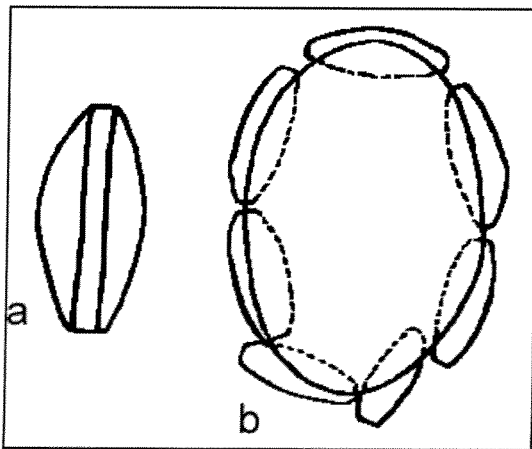


Figure 11. Unfired clay masses from the Norman site (34WG2). Not to scale.

group consisting of a smoothed oblong mass about 15" long and 5" thick resting on a circle of seven green clay cylinders about 5" long and 2" in diameter (Fig. 11, b). A green clay was used to make a unique cylinder, 4.5" long and 2.5" maximum diameter, with three longitudinal flutes (Fig. 11, a). Also of this material are flat discs 1' in diameter and 1" thick (Fig. 10, a & b).

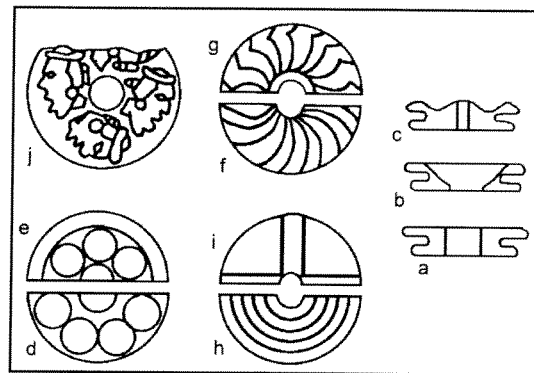


Figure 4. Earspools from the Norman site (34WG2). Not to scale.

GROUND STONE: This industry is limited to earplugs and pipes, executed in a fine-grained brown sandstone and a greenish sandy slate. Earplugs are the large pulley type; the face flanges range in diameter from 2.5" to 3.375", the back flange is slightly smaller. The face is either flat and generally embellished, concave or channeled (Fig. 4, a-c). The common incised designs are concentric circles, curved rays radiating from the center, and quadrants (Fig. 4, f-i). A relief decoration consists of a circle of six to eight knobs around a central knob (Fig. 4,

d & e). A thin plate of copper was frequently clamped to the face. The back is flat and undecorated. Incised on a single broken specimen in a unique design of four human profiles (Fig. 4, j). One set is carved from bauxite.

Pipes are the long double-stem type. The stem averages 12" in length and 1.25" in diameter near the center, tapers toward the ends, and is drilled through one arm only. The barrel-like bowl, 3" deep and 1.75" in diameter inside, is near the middle of the stem (Fig. 5, d). A unique pipe of limestone is probably an effigy (Fig. 5, c). The surface has been so leached that no features are recognizable, but the general shape and style is similar to the effigy pipes from Spiro.

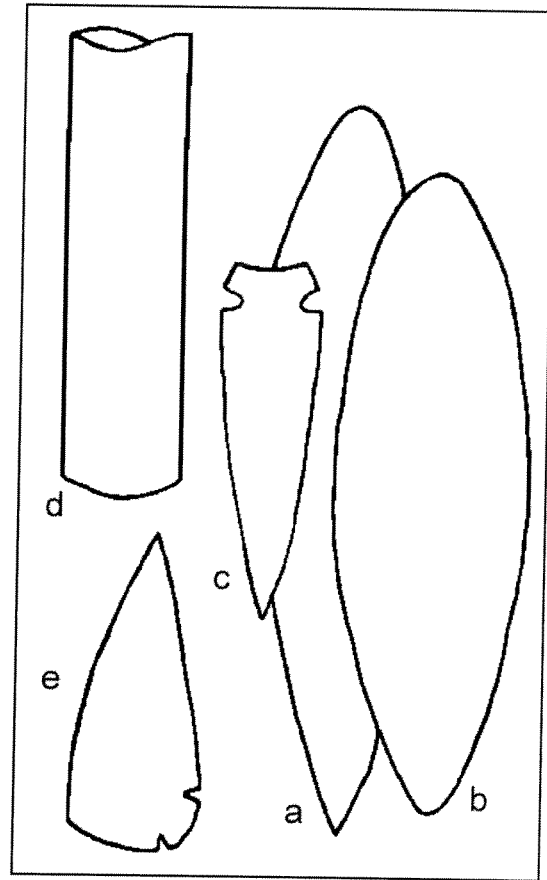


Figure 6. Some additional chipped stone artifacts from the Norman site (34WG2). Not to scale.

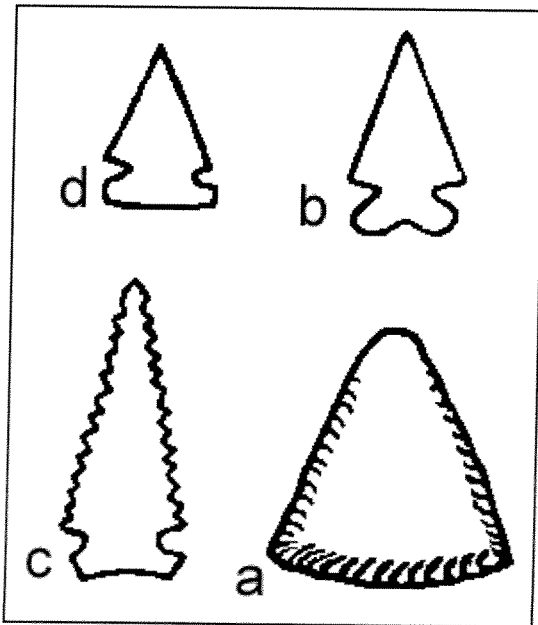


Figure 7. Some chipped stone artifacts from the Norman site (34WG2). Not to scale.

CHIPPED STONE: Chipped stone artifacts include projectile points, knife blade and scrapers. Points are of gray chert, range in length from 0.5625" to 1.6875" and are very thin. The shorter points are broad in comparison to the longer ones, and frequently are worked on one side only; the longer points are finely worked on both sides. There are three characteristic types: FsI, FsIII and Fr-III.*² Found in most instances in bunches, each bunch is consistent in type. Three bunches of the longer points are serrated (Fig. 7, b-d). A single large red flint point,

associated with two knife blades, is 4.5" long and 1.25" broad. Although of unusual size, it conforms to type FsIII (Fig. 6, c). Four other large hafted points were found in the mound fill. All were broken and none conformed to the typical shapes.

The two knife blades are of white chert, elliptical, 8.09375" and 9.1875" long and 2.375" and 2.25" broad respectively. Both are very thin, with very fine secondary chipping (Fig. 6, a & b). A third blade, of gray chert, is smaller and cruder. There is also a unique corner-tanged blade of white chert 4" long (Fig. 6, e). In the midden was a long, parallel-sided brown chert blade 5.875" long and 1.5" broad; one end is worked to a fine cutting edge, the other end is broken off (Fig. 6, d). Other scrapers are small, thin flakes, with secondary chipping along one edge.

COPPER: Copper was employed in making solid and sheet copper artifacts and in plating artifacts of stone and wood. Four breast plates are repousse eagle effigies; three are fragmentary but the

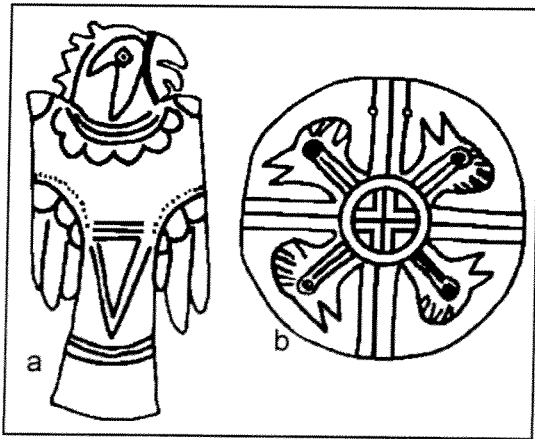


Figure 2. Copper plates from the Norman site (34WG2). Not to scale.

fourth is 11.5" tall and 5" across the shoulders (Fig. 2, a). A fifth plate is roughly circular, 8.5" in diameter. The repousse design consists of a central Greek cross encircled by two concentric circles; the outer area is quartered, with a pileated woodpecker in each quadrant. Near the edges on one side are two small holes (Fig. 2, b).

Bodkin shafts are of 2 kinds: 1) solid copper, 0.3125" broad at the center and tapering to pointed ends, 0.09375" thick, and 17.5" and 16.5" long; and 2) cedar, circular in cross section and averaging 0.1875" in diameter at the center, 12" in length and sheathed in a thin plate of copper. These shafts have artistically carved cedar heads, the most elaborate being a small human-head effigy; others are three and four balls and a long thin point (Fig. 3, b-d). An awl or pin of solid copper is 5" long and 0.1875" square in cross-section.

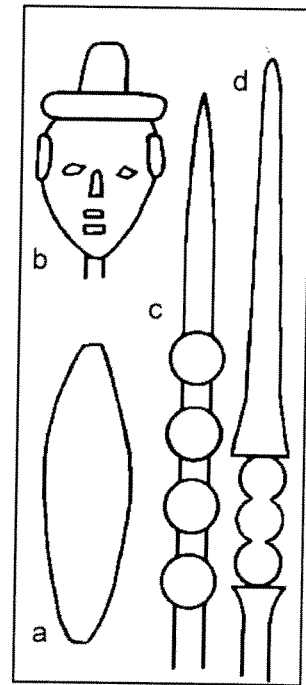


Figure 3. Copper "bodkins" and beads from the Norman site (34WG2). Not to scale.

Six large beads made of cedar were

encased in a thin plate of copper. They are 2.25" long and 0.5" in cross section at the center, tapering toward the ends (Fig. 3, a). One specimen appears to be the remains of a small cedar earplug which also had been encased in copper.

SHELL: A small, thin piece of engraved mussel shell may have been a gorget or pendant. The design is a heterogeneous combination of geometric elements (Fig. 9). A small number of spherical shell beads and pierced pearls were beigabe with several burials. Peals were large, the largest being 0.5" in diameter. Shell beads

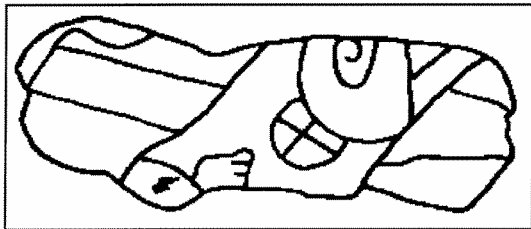


Figure 9. Engraved shell fragment from the Norman site (34WG2). Not to scale.

were fairly uniformly 0.25" in diameter, with the exception of one which was 0.75" long and barrel-shaped. Several unworked clam shells accompanied one burial.

MISCELLANEOUS: Small quantities of paint were deposited with several burials and scattered throughout Mound I; these include shades of red, yellow and brown. There were also deposits of the green putty-like material mentioned above which might have been used as pigment. Significant in connection with pigments is the presence of a block of sandy limestone, rectangular with rounded corners,

3.5" long by 2.75" wide by 1.25" thick. One face is flat and in the pores there yet remained traces of red ochre, suggesting its use as a mano for grinding paint. The opposite face is slightly concave.

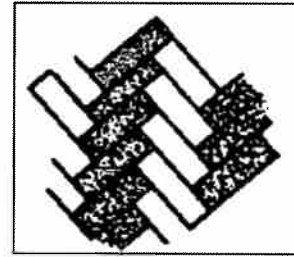


Figure 8. Twilled matting fragment from the Norman site (34WG2). Not to scale.

Several fragments of split cane matting were preserved through their contact with copper. The technique is twilled over three, under three. One specimen has one element bleached and the other stained (Fig. 8). Terrapin carapaces were placed in two jars. The miniature bottle contained seeds of a species of anise. Unassociated specimens in the mound fill include: an implement from the long bone of a large animal which, having a 0.5" square spatulate projection, could have been used equally well as a scraper, cutting edge, or awl; this specimen was just below the surface. Also just below the surface was a polished celt, almost circular in cross-section near the center, 5.5" long but broken at the blade end. One flat metate lay just below the surface; another, broken, was well within the body of Mound I; and two others were associated with stone cairns. Two chert nodules had a small highly polished area, that of 1 being so smooth that it reflects and image, and were undoubtedly used as polishing stones. A wedge-shaped core of white chert, 6" long and 1.5" thick, may have

served as a crude axe as the broad end had been worked from one side to give a crude but effective cutting edge.

Beigabe distribution and associations and the interrelationships of the various artifact types as correlated with the burial types are indicated in the accompanying table. Burial 40 is an ideal burial, having in association all of the most recurring traits, excepting projectile points and the ware B jar. These traits, as indicated in the table, are: secondary disposition of the bone in a bundle, ware A jar, ware C bottle, ware D basin, copper plated stone earplugs, shell beads, copper breast plate and cane matting. Through their occurrence with two or more of these traits many of the traits in the total complex can be related to this combination. Thus, projectile points occur with ware A jar, earplugs and bundle burial in two instances and with earplugs, shell beads and cane matting in one instance; the double-stem stone pipe occurs with earplugs, shell beads and cane matting and the double-stem clay pipes occur with the same combination; the clay effigy group occurs with ware C bottle, shell beads (1), and bundle burial. Detailed analysis of the specific elements of each trait might indicate some temporal change; gross observations suggest little if any.

UNIT WgNr IV

STRUCTURE H1: In the excavation to the north of Mound I-2 were uncovered the whole of one house feature, WgNr IV - H1, and sections of several others (Fig. 12, a). Although there was no prepared floor associated with feature H1, it was evident

that the structure was built on the original surface. This occupation level lay 1' beneath the surface at the north end of the excavation and 5' at the south end where it extended under the periphery of the mound; it was 13" above the clay subsoil. That the structure was several times repaired or partially rebuilt is evident from the three rows of post holes, 2' apart, on the southeast side, the double row 1' apart, on the ends, and the single row of crowded post holes on the northwest side of the feature. Seven feet beyond the last mentioned row was a double row which extended almost the full length of the structure. The narrow room or corridor thus formed, however, was open at one end and only three irregularly placed post holes closed the other. The structure was 40' long; its width may have varied from 26 to 40', depending on which set of post holes formed the side walls. Post holes were 3" to 4" apart, varied from 5" to 12" in diameter, and penetrated into subsoil 3" to 12". Entrance way trenches near the center of the southeast side of the structure were associated definitely with the two inner walls and possibly with the outer wall. The entrances were 1.5' wide and as much as 5.5' long. A single row of post holes extending partially across the southwest end of the structure partition off a section 9' wide. A similar partition may have extended across the other end of the house, but a subsequent storage pit had destroyed most of the evidence. There were several cache or storage pits within the structure. Pits C1, C2, C9, and C10 were oblong with sides and one end perpendicular and the other end slanting to a circular, flat bottom. They measured 4.5' to 7' in length by 2.5' to 3.5' in width, and

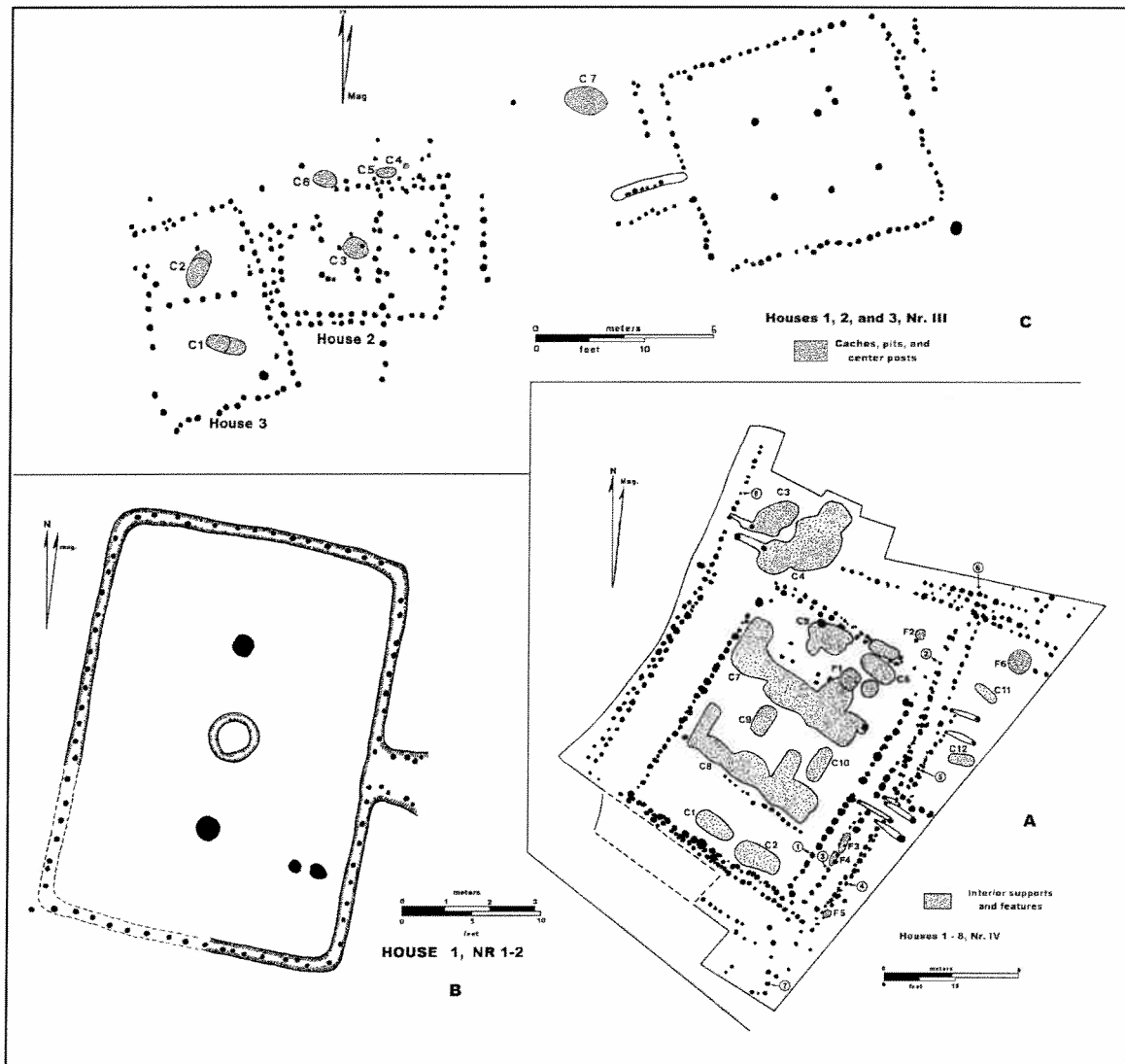


Figure 12. Houses excavated at the Norman site (34WG2), adapted from Finkelstein 1940.

extended into subsoil 24" to 30". (NOTE: The ground plan was drawn of pit outlines observed at the top of the subsoil, and depth measurements were made from the same plane. Consequently, pit outlines do not correspond exactly with the shape of the pits at their plane of origin; and 13" should be added to depth measurements of pits and post holes associated with feature

H1.) Features C7 and C8, composites of several of the simple oblong pits, also were undoubtedly associated with the structure; if, as stated above, the digging of C7 destroyed portions of a partition, then it may be assumed that these complex pits were coeval with a late period of occupation of the structure. There was no evidence of a fireplace associated with the

structure. Small pellets of fired clay were occasionally found in the fill of post holes and storage pits, but in the absence of more evidence it is improbable that this was daub from the walls of a structure that had burned.

STRUCTURE H2: Two rows of post holes 2' apart cut across the east corner of structure H1. Two entrance way trenches extend eastward from the center of the east row. A single row extends westward from the north end, but there was no evidence of either the west or south wall. As the post holes were relatively small and shallow, the absence of the two walls would imply that the floor of the structure was at a higher level than H1 and the holes did not penetrate into subsoil. Position of fireplace F1 supports this conclusion. This feature, a flat 2' square prepared clay fireplace with a hole near one side, was 21" above subsoil and had been disturbed somewhat by the plow. Position of pits C5 and C6 suggests possible association with this floor plan. They would have been exceptionally deep, however, as the circular appendages penetrated into subsoil 30".

Rows of post holes partially uncovered in the north end of the excavation indicate other structures at the original level of occupation, while post holes and thin sand-wash lines at the south end indicate occupation levels at 8" and 10" above the original occupation level.

Several fireplaces can be associated with these upper levels, but none with the lowest level. Fire pits F2 and F5 were 12" in diameter and 12" deep; F6 was 24" in

diameter, 4" deep, has sloping walls and a flat bottom. Fire pits F3 and F4 were 24" long by 8" wide; the sloping bottom as 12" deep at the lower end. There was no evidence of floors with which they could be associated. All fire places contained clean ashes and bits of charcoal.

The irregularly shaped storage pits C3 and C4 penetrated into subsoil only 4" and probably were associated with a late level of occupation. The position of small pits C11 and C12 suggest possibility they were outdoor pits associated with structure H2, but it was impossible to determine their level of origin.

There were practically no artifacts found in this excavation. On the floor of feature C4 were an oblong mano and broken metate. In the fill of feature C12 was the core of a broken earplug.

REFUSE HEAP WgNr V

A large refuse heap lies under the northeast periphery of Mound I-2 at a depth of about 1' above the original occupation level. One edge of this deposit was encountered in the southeast corner of the excavation. In final profile it extended northward about 30', where it became a thin layer; to the west it pinched out at about 15'. At the center it was about 2' deep. In the refuse were identified bones of deer, buffalo, rodents, birds and fish, and terrapin carapaces and clam shells. Two of the shells were perforated hoes. Although few sherds were found, all four wares are represented.

HOUSE FLOOR WgNr I-2 - H1

Near the surface in the southwest quarter of Mound I-2 was a packed and smoothed clay floor, fired red, 29.5' long by 22' wide, the major axis aligned north-south (Fig. 12, b). Extending completely around the outside of the feature was an embankment 3" high and 8" wide. Post holes within the outer edge of the embankment were, on the average, 4" in diameter, 8" to 16" in depth and spaced at 1' intervals. Entrance way, 2.5' wide and at least 3' long, was at the center of the east wall. Two central roof support posts were 2' in diameter and at least 2.5' deep. The central fire basin was circular. It was banked to a height of 1" above the floor making total depth 4". The diameter across the top was 30". The two post holes near the southeast corner of the floor apparently were associated with the structure.

Covering the floor were segments of charred poles 3" to 4" in diameter, charred grass, cane and twigs, and clay daub. Lying on the floor beneath this material were a small piece of ground sandstone which might have been the pole end of a celt, a quantity of charred ragweed seeds, and a few beans resembling lima beans.

A 4" to 5" layer of unfired red clay lay directly on the charred material on the floor and extended indefinitely beyond the edge of the floor, indicating the floor was slightly below the level of the outside surface. Ground around the house within the 3' wide area uncovered was clean of midden refuse; the walls of the burning structure had fallen inward so there was

no burial material in this area.

The edges of the two other wattle covered prepared clay floors were encountered at lower levels in the profile of the trench in the west side of the mound. Neither was uncovered. A large mass of charred maize kernels, showing the imprint of the bottom of a coiled basket, was turned up on the edge of one of the floors.

MOUND WgNr III

The southern one-third of this large domicilliary mound was excavated.*³ Confined to a portion of this area was an intrusive burial complex. House structures on this side of the mound were on and to about 1.5' above the original surface. In a test trench into the west side of the mound there was evidence of a structure 3' above the original level of occupation.

Floor H3, under the southeast periphery of the mound, was rectangular with rounded, open corners, 24' by 22', the major axis aligned approximately east-west (Fig. 12, c) [note says H1 in fig. 12]. The 8' long entranceway was at the center of the west wall. The north wall posts of this passage were set in a 1' deep trench. Two and one-half feet outside the house wall posts of the north half of the east and west walls was a gravel embankment into which had been set small posts slanting in toward the house. Four large central posts form a rectangle 6' east-west and 8' north-south. There were segments of charred posts and wattle on the fired prepared clay floor, but no daub. The north half of the floor was 3" above the gravel subsoil

stratum but the south half lay directly on it. West of this house were two other structure outlines.

Owing to the unevenness of the floor it was difficult to determine the vertical position of Floor H2. It was later than Floor H3, sufficient time having elapsed between the building of the two structures for a considerable amount of debris to have leveled off the slightly westward dipping surface to the west of the earlier structure. The house was approximately 16' square. Near the center was a circular cache pit 2.5' in diameter. On the outside of the north wall were other cache pits, the level of origin of which could be exactly determined although they appeared to be coeval in time with the occupation level of the structure.

Floor H1 was just to the west of the preceding structure, but 1' of midden deposit separated the two levels of occupation. The floor was uneven and the wall outline was irregular. The structure was approximately 20' by 14'; a partition, open at 1 end, divided the house into 2 roughly rectangular rooms. In the center of each room was an ovoid pit, approximately 4' long by 2' wide, one end wall of which sloped to a flat, oval bottom. [note in margin: H3 in Fig. 13]

It was impossible to determine whether either of the two last described structures had an extended entrance; it was equally as difficult to determine which of the several breaks in the wall was the doorway. There were no prepared fireplaces in any of the structures. Thirty feet south of H3, and apparently on the

same occupation level, were two groups of six stones 5' apart which undoubtedly served as hearths.

HISTORICAL RECONSTRUCTION

There was no time available in the laboratory to prepare an analytical interpretation of the Norman site material. A general treatment of the material indicates a homogeneity of the burial beigabe and the close relationship between this material and the material from the fill of the mounds and the midden. It is obvious from such a treatment of the material that, with the exception of the intrusive burial complex in Mound III, the units excavated constitute a single component. This observation together with the inference drawn from the several occupation levels and village areas which show a developmental sequence of house floor types are interpreted to imply a long occupation of the site by a single group, which, however, was probably influenced to some extent by an external but closely related culture.

This external influence undoubtedly came from one or more of several culture centers in northeastern Oklahoma which have presented a common material culture complex: the Reed site near Grove to the north, the Hughes site near Muskogee to the south, the Brackett site near Tahlequah to the east, and the Craig site near Spiro, the largest and most widely known, to the southeast. These components, including the Norman component, are constituents of the Spiro Aspect, Lower Mississippi Phase. The focus, or foci, have not yet been determined.

Historical data shed little light on the tribal identity of the Spiro complex. It does suggest a temporal position, however, for it indicates the probable abandonment of the Spiro sites by the beginning of the period of French explorations down the Mississippi and probably their abandonment before De Soto's incursion west of the Mississippi. The evidence exists in the absence of references by the chroniclers of these periods to such a rich and highly sophisticated culture on the upper waters of the Arkansas River, and the absence of European material at all the sites of this group of highly efficient aboriginal traders.

There is some archaeological evidence indicating the historical identify of this complex. The Gahagan site on Red River in Red River County, La., fits bodily into the Spiro Aspect. According to James A. Ford, the Gahagan site is early Caddoan culturally. It is a development of the early complex at the Crenshaw site, which is a lateral off-shoot of the Marksville sequence, branching off from

the Troyville period. The Gahagan site is coeval in time with the latter part of the Coles Creek complex.*⁴ It is evident that the Spiro Focus complex is similar if not identical to the culture out of which developed the Red River Caddo complex.

*² For classification, see author's "A Suggested Projectile Point Classification", in *American Antiquity*, vol II, No. 3, 1937.

*³ This being the last unit on the site to be excavated, and the supervisor having been transferred before it was completed, the analyses of the midden material and burial complex were not completed. Consequently, only the description of the house floor patterns is presented at this time. A subsequent report will be released as soon as the necessary analyses have been made.

*⁴ Personal correspondence. We wish to express here our appreciation for the prompt and valuable response made by Mr. Ford to personal inquiries concerning this problem.

THE NORMAN SITE: DESCRIPTIONS

Lois E. Albert

ENVIRONMENTAL BACKGROUND

The Norman site (34WG2) lay on a terrace on the west side of the Neosho (Grand) River in Wagoner County, Oklahoma (Figure 1). Throughout much of its course within Oklahoma, this river flows along the western boundary of the Ozark Uplift. East of the river, the limestones, shales, and sandstones deposited during the Upper Mississippian and Pennsylvanian geological periods form the Boston Mountains and the Springfield Plateau (Figure 2; Huffman 1958:11). Several of these formations contain knappable cherts, often of good quality. West of the river, the Mississippian and Pennsylvanian deposits thin and dip under the surface to form the Prairie Plains Province, characterized by low, east-facing escarpments. Sandstone and shale bedrocks underlie the Prairie-Plains Province (Huffman 1958: 11-12). The streams flowing eastward across these are muddy and sluggish.

Creeks and rivers originating in the Ozarks are clear and spring fed. Fourteen Mile Creek joins the Neosho about four miles south of the Norman site. North of this creek lies the Springfield Plateau

whose valley cut 200 - 300 feet deep; southward rear the rugged Boston Mountains. Near their western edge, valley bottoms lie 300 - 500 feet below the mountain crests (Huffman 1958:12).

Along the rivers and streams, Quaternary period alluvial deposits comprise the floodplain and terraces. Many of these Quaternary deposits, such as those at the Norman site, have been covered by reservoirs such as Fort Gibson. Extensive areas of well defined, alluvial floodplain and terraces would have been present along the Neosho before the reservoir was constructed. These bottomlands would have provided ample space for prehistoric horticulture. Because the reservoir was built before a soil survey of the county had been done, the soil types present at the site were not defined. However, for several miles below the Fort Gibson dam, the mapped soils are Radley silt loam on the floodplain and Mason silt loam on low terraces (Polone 1976:20, 25-26, Sheets 40, 46). Both soils were formed under hardwood forest with an understory of tall grasses (Polone 1976:20, 25).

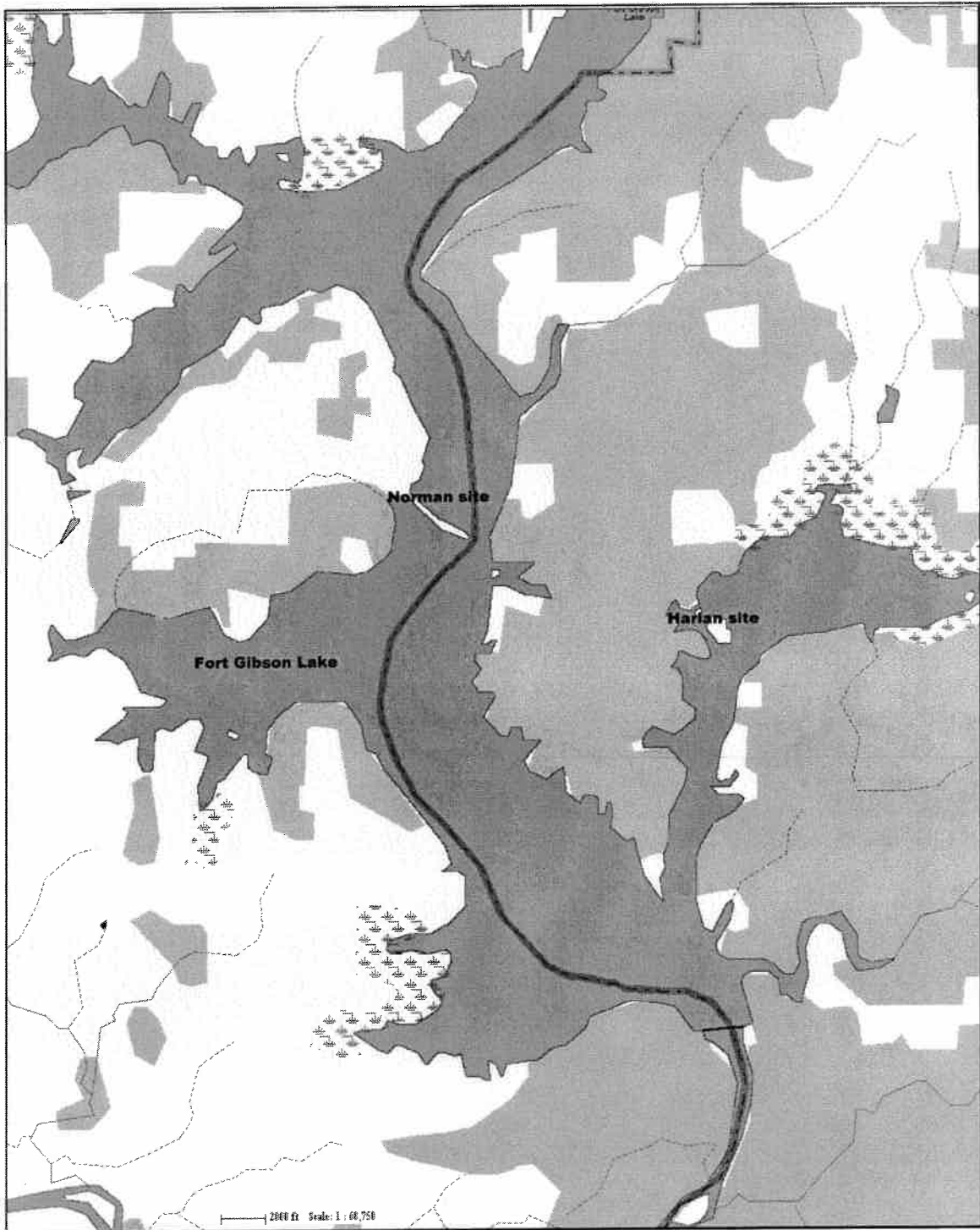


Figure 1. The Fort Gibson Lake area showing the general locations of the Norman site (34WG2) and the Harlan site (34CK6).

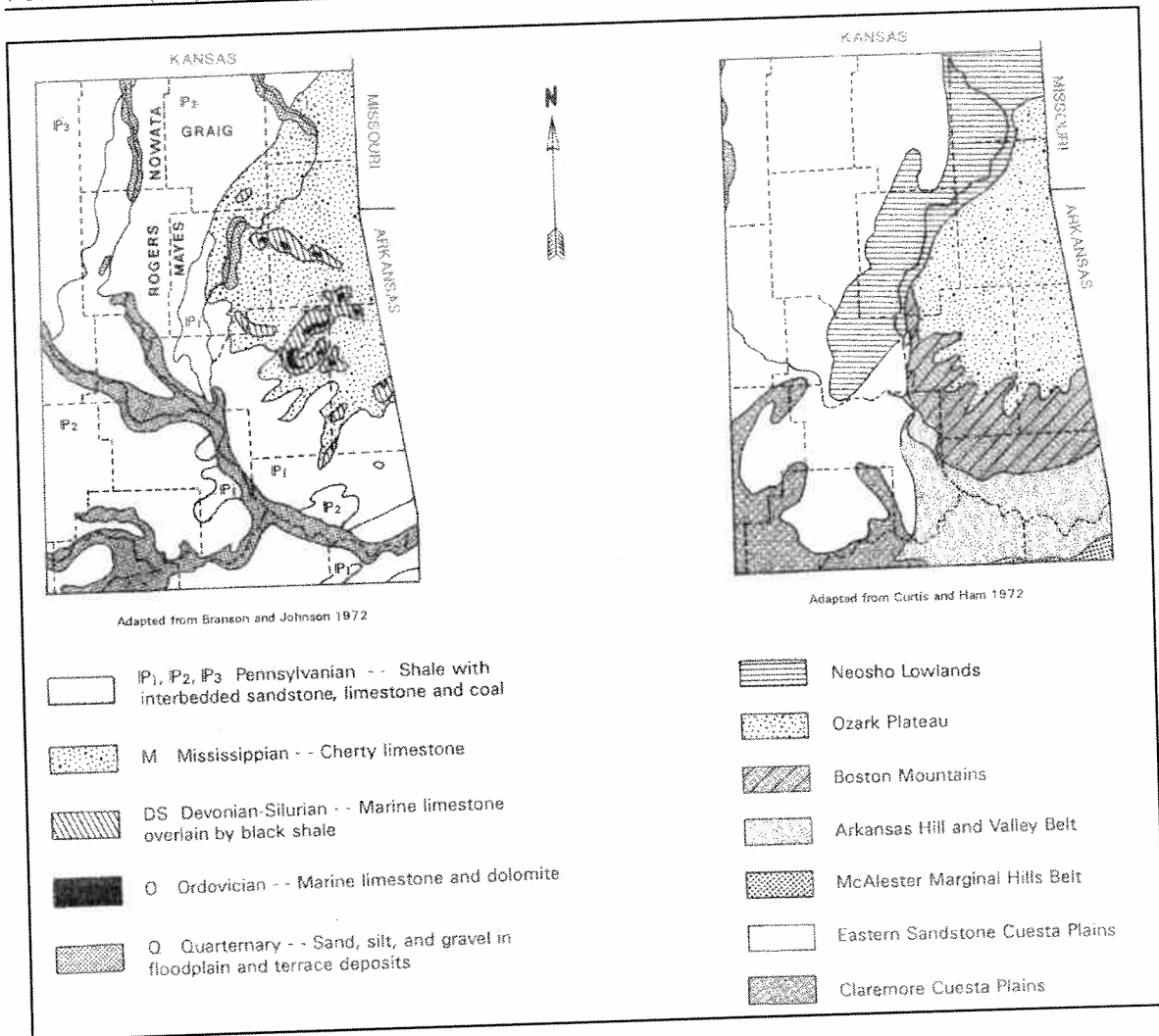


Figure 2. Surface geology and geomorphic provinces in northeastern Oklahoma.

The Neosho River forms the boundary between the oak-hickory forests of the Ozarks and the tall grass prairie to the west (Figure 3). Little (1938), during a vegetation study in adjoining Muskogee County, found four major types of vegetation, controlled largely by physiography. An oak-hickory forest grew on sandstone hills, prairies on shale, maple-oak forest on small areas of limestone, and flood-

plain forest along the streams. Cultivation and overgrazing have destroyed much of the original vegetation.

Oklahoma's climate is continental with long, hot summers and short, relatively mild winters. The prevailing winds are from the south during most of the year, although northerly winds are frequent during the winter months (Polone 1976:

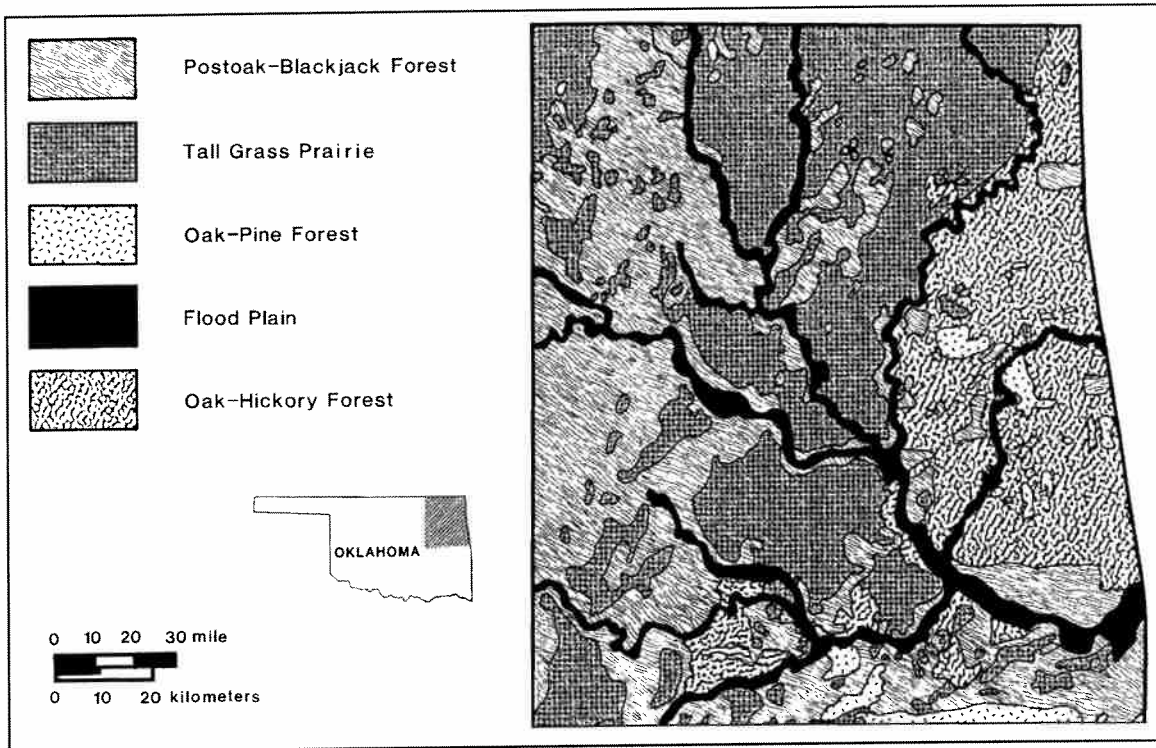


Figure 3. Vegetation types of northeastern Oklahoma (adapted from Duck and Fletcher 1943).

63). At Wagoner, about seven miles from the Norman site, the average annual precipitation for the years 1941-1970 was about 42 inches per year (Polone 1976: 62). The mean minimum January temperature was 27° and the mean maximum was 49° F (Curry 1976). For July, the mean minimum was 70° and mean maximum 95° F. At Muskogee, there was an average of 216 freeze-free days, with a mean last frost date of March 31 and a mean first frost date of November 1. The region's climate has varied considerably in the past, with the end of the Pleistocene

around 12,000 to 10,000 years ago and a warmer period termed the Hypsithermal or Altithermal between 7000 and 5000 years ago (Albert and Wyckoff 1984). However, climatic conditions during the time when mound building began at the Norman site were probably similar to those of today. There are some indications that a drying trend may have been underway by around A.D. 1000 (Albert and Wyckoff 1984:42). This may have contributed to the abandonment of sites such as Harlan and Norman on the western periphery of the Caddoan area after about A.D. 1200.

SITE DESCRIPTION

Although the Neosho River valley is narrow through most of its course in Wagoner County, a wide stretch of bottomland, about a half mile east-west and three-quarters north-south formed the setting for the mound center. The generally southward flowing stream was deflected eastward by a steep hillside just north of the Norman site (Finkelstein and Bell 1950:6). The stream then flowed southward again past the site. At this point, the floodplains and terraces rose about 25 feet above the river. A slough lay to the west, with higher terraces rising beyond the opposite bank. East of the river, a high bluff formed a backdrop for the site.

Some information about 1932-33 site conditions has survived in the form of very brief field notes, by J. Joe Finkelstein and Forrest Clements. Some photos from 1928 are in the Western History Collections, University of Oklahoma Library. According to the WPA notes, the Norman site consisted of three large mounds and at least two, probably three and perhaps more, smaller mounds (see Finkelstein, this volume, Figure A). Two of the larger mounds, I and II, were double lobed. The third (Mound III) was a single, conical feature. Structures were documented by the WPA excavations under the mounds, on several mound surfaces, and to the north and south of Mound I. The following descriptions of the 1930s federal project work through the University of Oklahoma were extracted from notes (Finkelstein 1932, 1934), maps, unpublished reports (Finkelstein 1934/5, 1940a;

Finkelstein and Bell 1950), photographs, and an article in *The Oklahoma Prehistorian* by J. Joe (Bauxar) Finkelstein (1940c; reprinted in this volume).¹ Finkelstein annotated the notes in 1949. Additional site information was obtained during 1948 excavations into Mound Ia and Area A by the University of Oklahoma and the River Basin Survey at the Smithsonian Institution. The 1948 work was documented by notes, drawings, photographs, and unpublished reports by Robert E. Bell (1948a,b) and Joseph Caldwell (1948a,b). These written materials have been curated and stored at the Sam Noble Oklahoma Museum of Natural History (SNOMNH).

¹ *Little attempt has been made to interpret the stratigraphy. Much more excavation has been done at mound sites and more has been published in the years since the work at the Norman site. Because our techniques and knowledge have improved greatly through this time, we know that the number of stages and substages is greater than those presented here. However, this paper is mainly meant to present the views of the excavators at and near the time of the original work. Additional work is planned for the small portion of Mound I which is still extant (see Vogeles, this volume). It is hoped that this new information, which will hopefully be available sometime within the next few years, will be much more useful than an attempt to discern the stratigraphy from the often scanty and confusing documentation from the 1930s and 1940s.*

SITE UNIT IVa

Site Unit IVa was apparently an occupation area with debris extending north and northeast of Mound Ib (see Finkelstein, Figure A, this volume, p. 7). It may have extended as far as 1000 feet; however, only knapping debris was noted on the surface in the northern half of the area (Finkelstein and Bell 1950:9). Debris was

found both on the surface and in test trenches dug at several points in the field around the mound (Finkelstein and Bell 1950). The western extent of the debris was limited by swales which might have been borrow pits for the construction of Mound I or possibly an old channel of the Grand River.

MOUND I

Mound I was the largest of the mounds at the site; it consisted of two conical mounds (Ia and Ib) connected by a "saddle"

(Ic). During the 1930s, the larger mound (Ia; Figure 4) measured 27 feet high and 90 to 150 feet in diameter (this

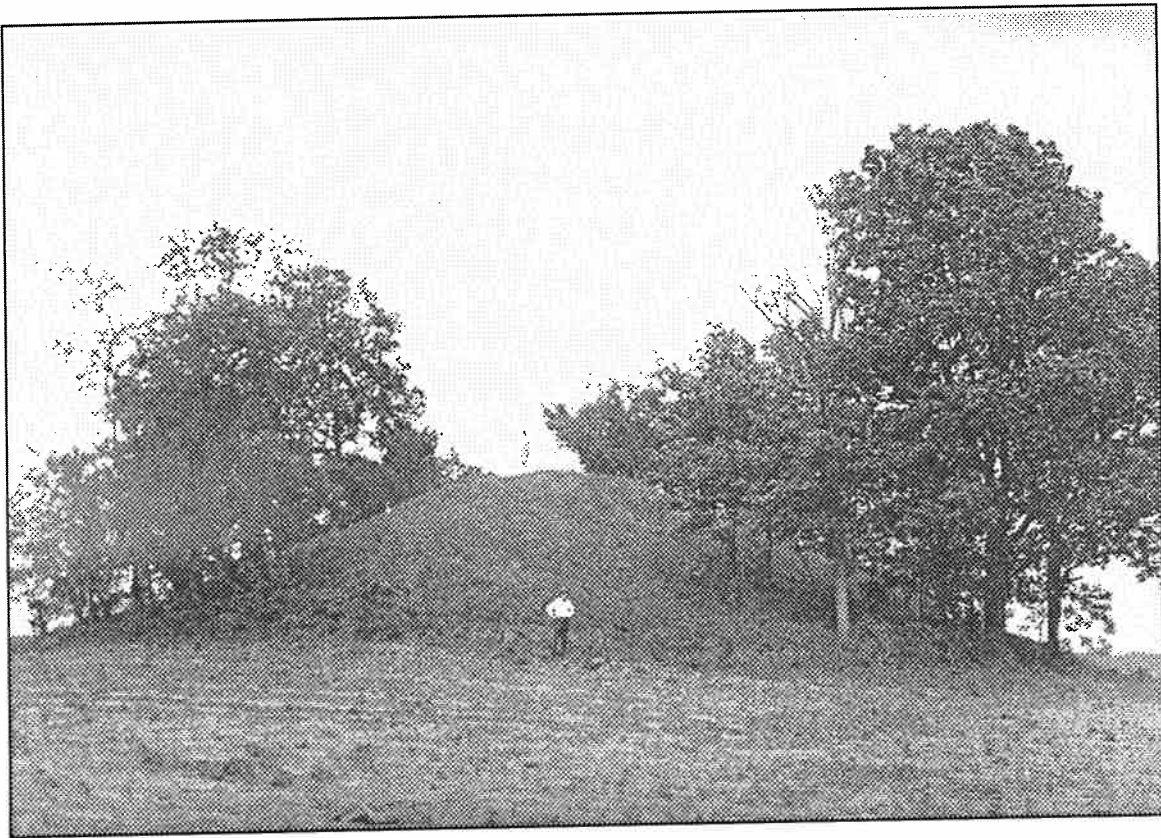


Figure 4. The Norman site (34WG2), taken in 1928, photographer unknown. Courtesy of the Western History Collections, University of Oklahoma Library.

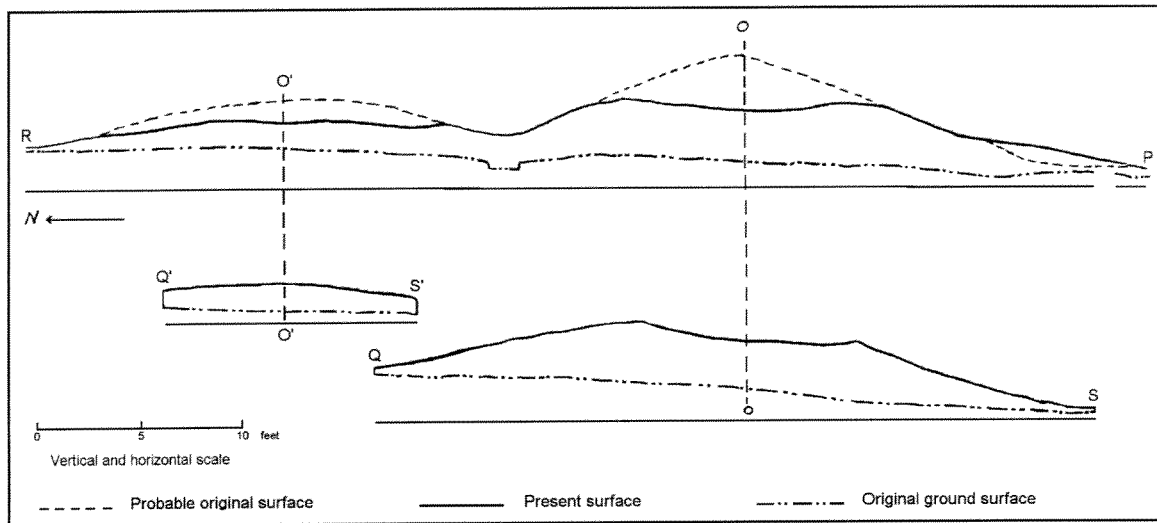


Figure 5. Profiles through Mound IA and IB; adapted from Finkelstein 1934/1935.

varies with the particular set of notes consulted) and the smaller mound six to seven feet high and 100 to 110 feet in diameter; the low, connecting saddle was 25 feet long (Finkelstein and Bell 1950:8). Figure 5 shows profiles through both lobes of Mound I, adapted from sketches made by Finkelstein in 1934 or 1935. Early field notes state that Mound Ia was heavily vegetated, with trees up to 24 inches in diameter growing on its sides (Finkelstein 1932; Figure 4). At some time before the 1930s, a pothunter had dug a hole in the apex of Mound Ia (Finkelstein 1932; Caldwell 1948a; Figure 5). Excavations began in 1934 with test pits and trenches placed just beyond the peripheries of Mound Ib (also shown as Mound I-2 in some notes and reports). These excavations into Mound Ib continued into 1935 as the tests revealed structural and cultural debris (Finkelstein 1934:2-3). After the excavations into Mound Ib were completed, excavations focused on other

areas of the site, especially Mounds II and III. WPA excavations were brought to a halt by the start of World War II in 1941.

In 1948, Robert E. Bell (Department of Anthropology, The University of Oklahoma) brought students to the site for a field school. When he arrived, he found that almost the entire site, except for Mound Ia and the lower portion of Ib, had been removed by heavy equipment working on the reservoir construction. Even Mound Ia had been damaged on its western periphery. The work during this summer was accomplished while fending off bulldozers. Bell called the Smithsonian's River Basin Survey for assistance in salvaging the deposits left at the site. While waiting for this help, he worked on an area to the south of Mound I (Area A) which had not been destroyed, dug a trench through the saddle between Mound Ia and Ib, and began carrying this trench southward into Mound Ia. Five foot units

were used. In mid-August, Joseph Caldwell arrived and hired a crew to help with the excavations. However, funds were not sufficient to accomplish the work by driving back trench faces through the mound from the saddle by hand. Therefore, a north-south trench 10 feet wide was dug with shovels, with a bulldozer being used to clear the summit of the mound as structures were seen in the trench. However, this tactic could only be carried out for the uppermost two substages, because money to hire workers was

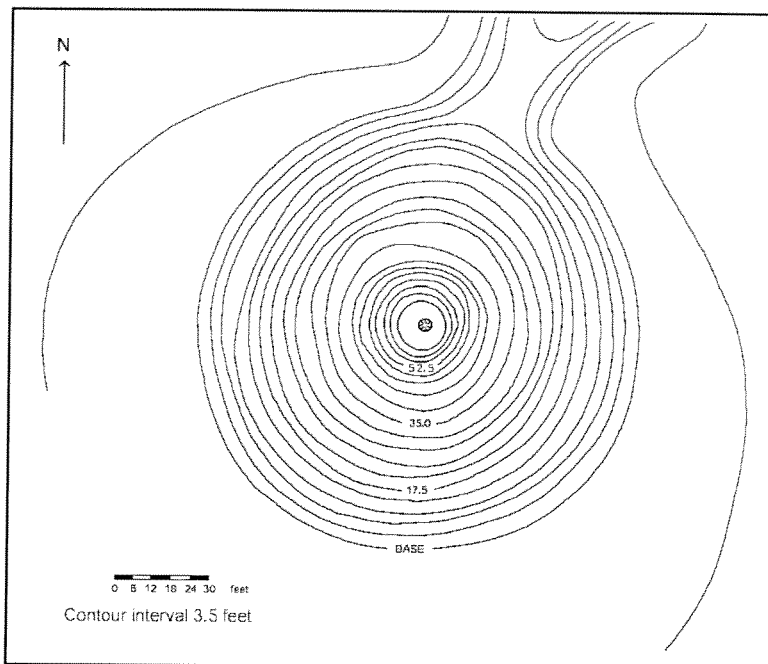


Figure 6. Contour map of Mound Ia, Norman site (34WG2); adapted from Finkelstein 1934/5.

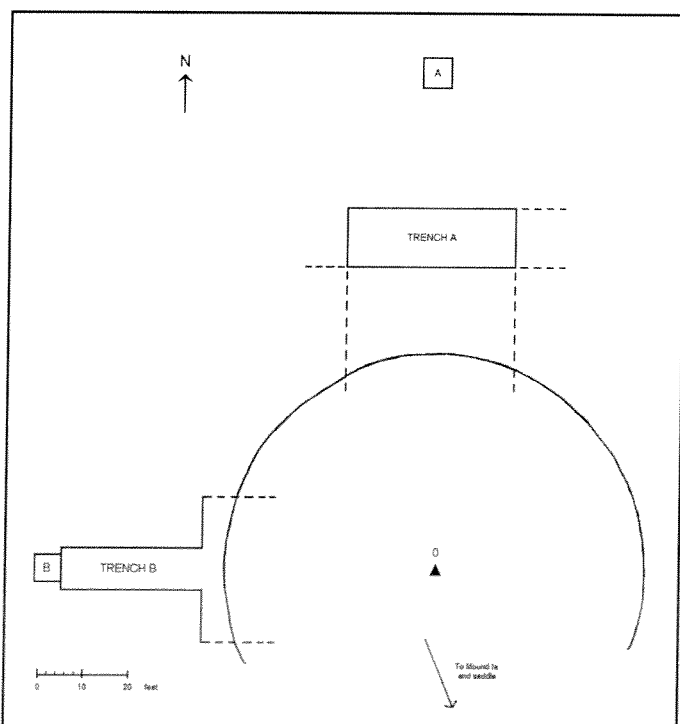


Figure 7. 1934 and 1935 excavations into Mound Ib, Site Unit IV, and Site Unit V, Norman site (34WG2); reconstructed from Finkelstein 1934/5.

very scarce. For the lower substages, only the deposits in the trench were studied. Sometime during the summer, a rough contour map was made of Mound Ia (Figure 6). This was the only contour map made, or at least surviving, for the site.

Mound Ib

In 1934, two test pits (A and B) were dug to "determine the underlying natural stratum" (Finkelstein 1934:1; Figure 7). Test pit A was reported to be 100 feet north of the hypothetical center of this lobe of the mound (Point "0"), although it was not specified whether this was 100 feet measured with a surveying instrument, a tape, or pacing, or whether it was 100 feet on the level or 100 feet on an

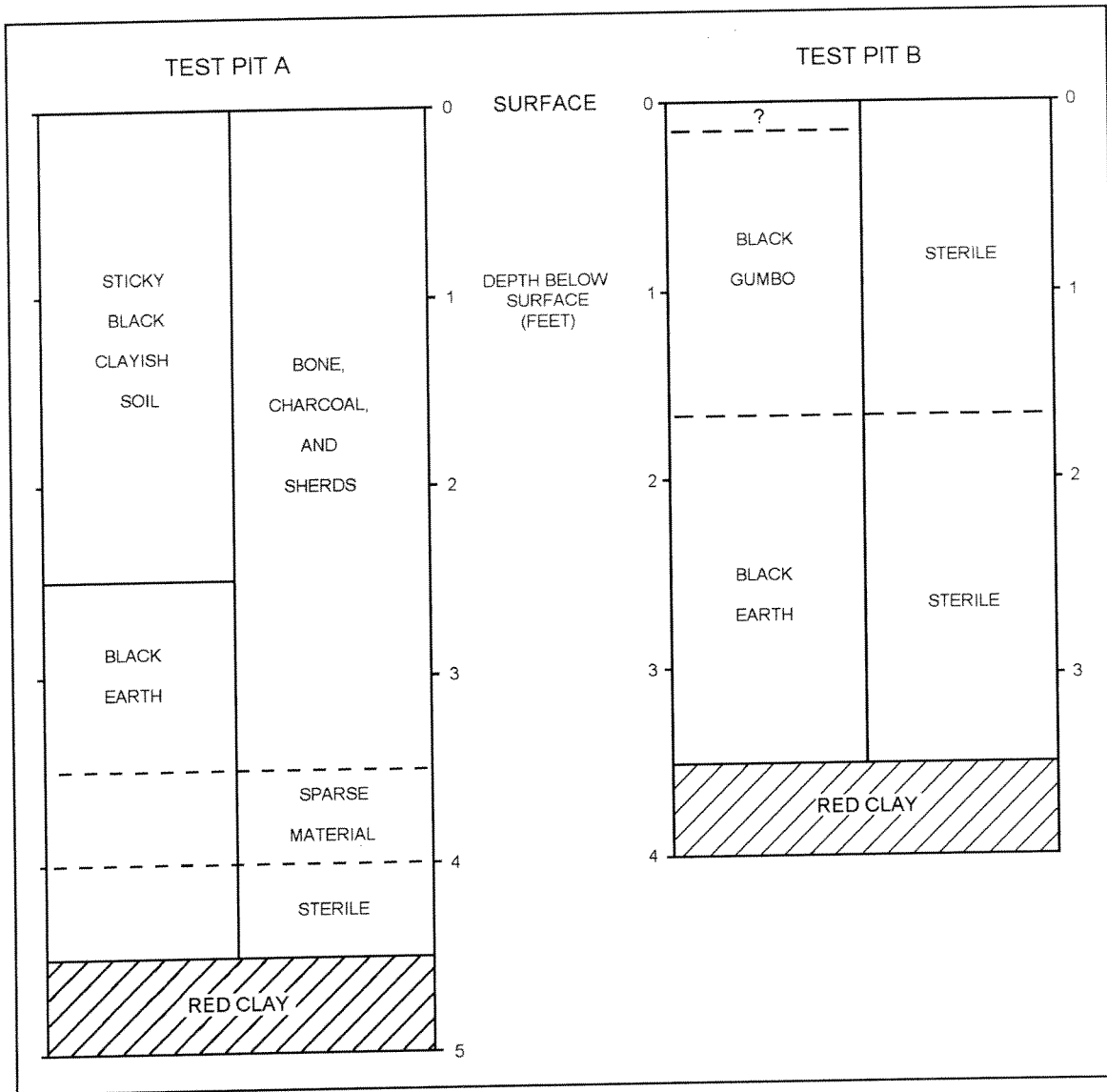


Figure 8. "Profiles" of Test Pits A and B, Mound 1B, Norman site (34WG2). Reconstructed from Finkelstein's (1934) field notes.

feet on the level or 100 feet on an angle to the top of the mound. The test pit was about six feet square and reached a red clay at about 4 1/2 feet. Brief descriptions of the soils encountered in the pit were included in Finkelstein's notes; these have been used to reconstruct "soil profiles" (Figure 8). Some cultural debris was

found during the excavation. Test pit B, 80 feet west of Point "0", reached the underlying clay at 3 1/2 feet (Figure 8). No cultural debris was found in this trench.

After the completion of the test pits, trenches A and B, from the north and

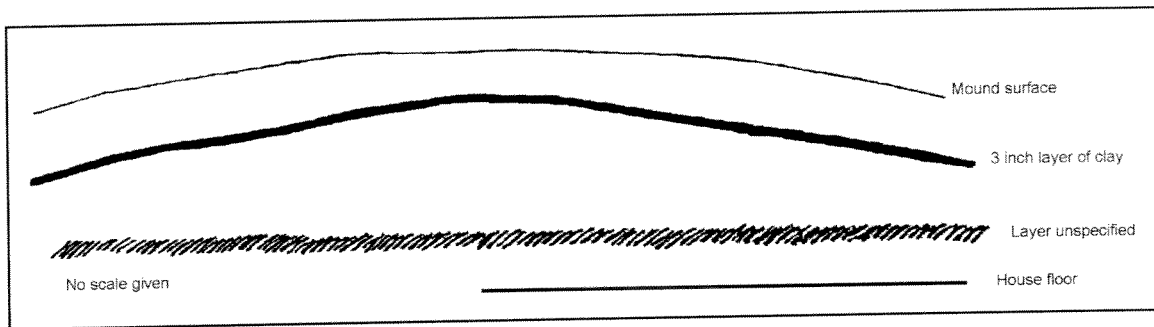


Figure 8. "Profile" of Trench B at 36 feet west of Point "0", Mound Ib, Norman site (34WG2); adapted from Finkelstein 1934/5.

Although it was never specified in the notes, these trenches were apparently dug to or into the "clay stratum", because depths are described in terms of this clay marker. Trench A was thirty feet wide and began about 75 feet north of Point "0". At 63 feet north of Point "0", the trench was 5 1/2 feet deep, with bone and charcoal present to within a foot of the clay. When the floor was cleaned, postholes were seen extending into the red clay. Thin sand layers which could have defined floors or, more likely, mound construction episodes, were also noted. The posthole patterns will be discussed as House Unit IV. Plans for further trenching into the mound from the north were abandoned after this house unit was exposed.

Structures: House 1, Mound Ib. A well defined house floor was uncovered about 36-38 feet (measured from the house center) southwest of Point

"0", near the mound surface (Figure 8). Although the floor was partially excavated and mapped (Finkelstein 1934), work on the structure was completed during the next season (Figure 9). The southwestern corner of the house was about a foot below the mound surface, the northeastern corner about four feet, and the other two corners between one and two feet.

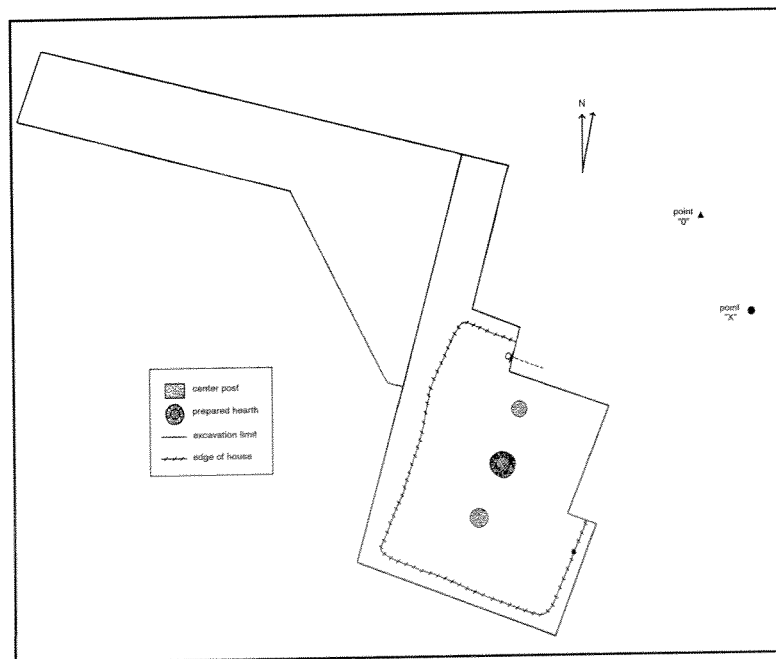


Figure 9. House 1 and Trench B excavation, 1934 season, Norman site (34WG2); adapted from Finkelstein 1934/5.

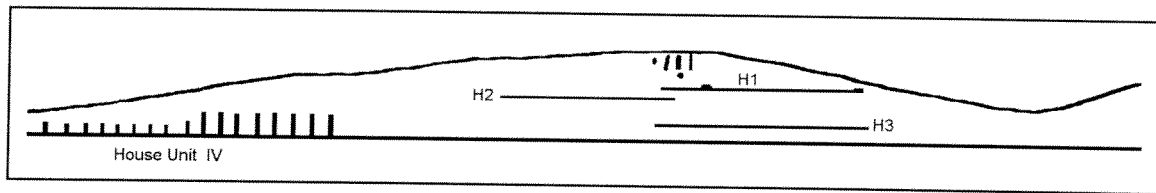


Figure 10. "Profile" through Mound 1b showing relative positions of House Unit IV and House Floors 1, 2, and 3, Norman site (34WG2); adapted from Finkelstein 1934/5.

one and two feet. Removal of the fill revealed a fired, red clay floor with dimensions of 29 1/2 by 22 feet. The long axis was oriented just east of north. Around the periphery of the floor was a raised ridge of clay about three inches high and eight inches wide. The postholes were located just within the raised rim. These postholes averaged four inches in diameter, ranged from eight to 16 inches in depth, and were spaced about a foot apart. In the eastern wall was an extended entryway about 2 1/2 feet wide and at least three feet long. Interior features included an ash filled, central hearth with a raised clay rim. The hearth diameter was about 30 inches and depth about four inches; the rim extended about one inch above the floor. Two center posts flanked the hearth along the "north-south" axis of the structure. Each was about six feet from the center of the hearth. The posts were quite large, about two feet in diameter and were set at least 2 1/2 feet deep.

Although no charred posts were found in place within the postholes, short post segments lay on the floor near the edge of the wall, extending into the room. The fragments averaged three to four inches in diameter. In addition, charred grass, split and whole cane, and small twigs covered the low clay rim and projected into the

inner edge of the room. Pieces of fired clay (daub), some as thick as two or three inches, covered large areas of the floor and filled, at least partially, many of the postholes. Cane or twig impressions were present on many of these pieces.

Above the charred and fired materials covering the floor was a layer, four to five inches thick, of unfired red clay. This layer extended indefinitely beyond the outer edge of the house. Because the full extent of this layer was not determined, it is not certain whether this was unfired daub from the house or a clay cap laid down to mark a mound stage. However, because the charred material and fired daub did not extend beyond the raised clay rim of the house, it is likely that the clay was a mound cap. The only cultural materials associated with this house were a small, smooth piece of sandstone and some charred seeds.

Structures: Houses 2 and 3. Two other prepared clay floors covered with wattle were seen in the trench face below House 1 (Figure 10). Neither was uncovered. A workman preparing a profile of the trench face sank a pick into a mass of charred maize kernels; this mass showed the imprint of a coiled basket on the bottom. The mass was apparently from the edge of

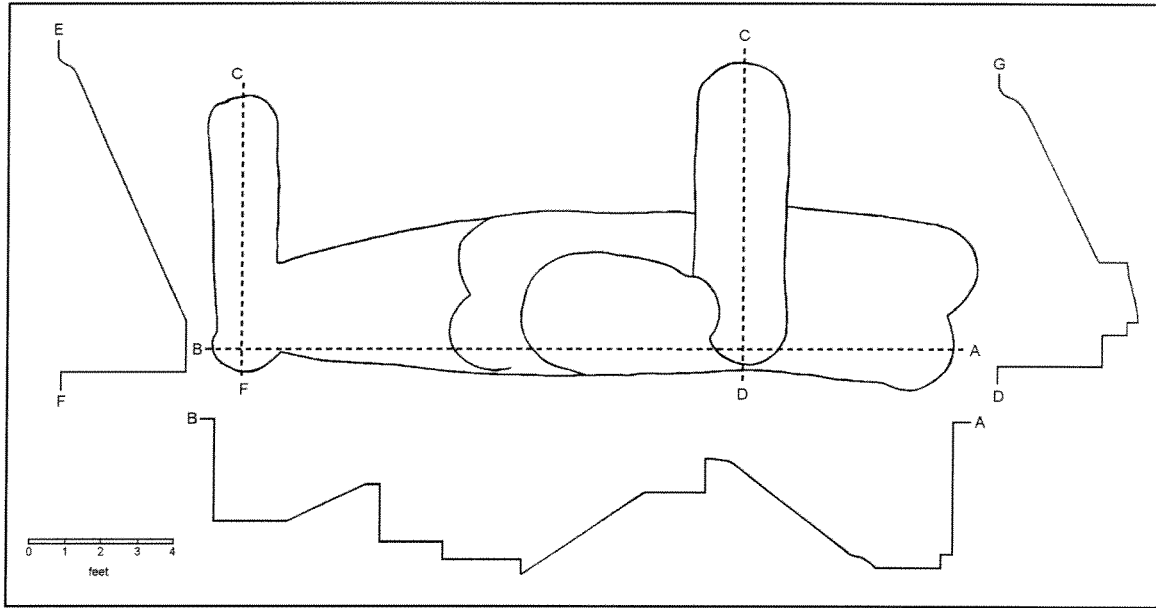


Figure 11. Profile and plan views of central "cache" pits, House Unit IV, Mound Ib, Norman site (34WG2); adapted from Finkelstein 1934/5.

the floor of House 2. A date was run on some of the corn kernels from this mass (Rogers, Albert, and Winchell, this volume).

Structures: House Unit IV. This series of overlapping structures was found within a 30 foot wide and 10 to 12 foot long section of Test trench A (Figure 10). In the preliminary reports, this was identified as a single structure with rooms or corridors and central caches (Finkelstein 1934/5) or as a main structure with parts of other structures (Finkelstein 1940:10-12; this volume, p. 18, Figure 12), which had been "repaired or rebuilt several times". The "caches" were actually features dug to erect and hold large center posts. As can be seen in Figure 11, they were the results of multiple construction episodes. No prepared floors were noted

for these structures during the excavation. No charred posts were found, although the fill in several postholes in the southeastern corner of the excavation had a yellowish tinge of decayed wood (Finkelstein 1934/5:7). A few postholes in the southern end of the excavation were hollow. In only a few instances could posts be distinguished in the trench walls during excavation; the dark fill in the postholes was of "practically the same color and texture as the wall of the post holes" (Finkelstein 1934/5:7). The postholes varied in size from five to twelve inches. The depth of their penetration into the clay subsoil varied from about three to twelve inches, which may also reflect the multiple construction episodes for several buildings rebuilt at approximately the same location, but at differing depths as mound surfaces were covered with fresh deposits.

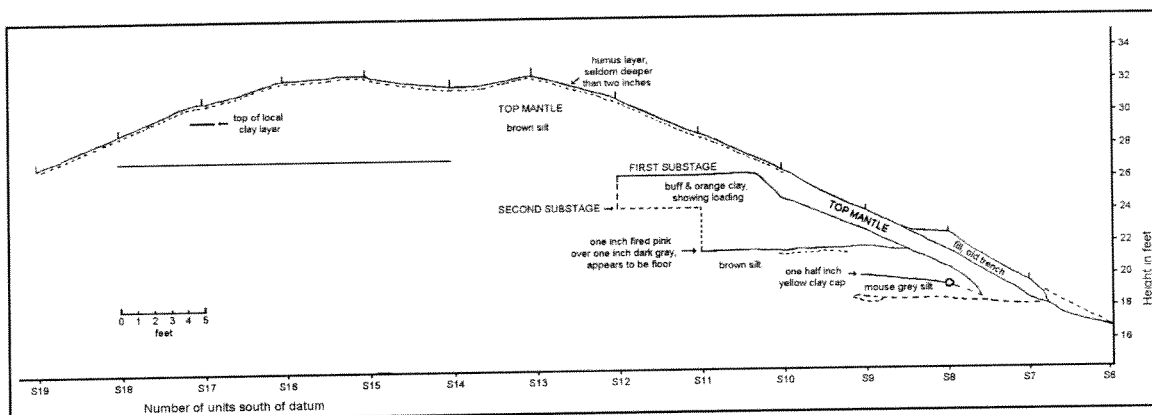


Figure 12. Profile of L8, Mound Ia, Norman site (34WG2); adapted from Caldwell 1948a.

Finkelstein thought that the main structure lay on the original (prehistoric) ground surface, about one foot below the 1930s surface and 13 inches above the clay subsoil. At the southern end of the trench, it was covered by the periphery of the mound at a depth of about five feet. However, the preliminary report by Finkelstein (1934/5:15) stated that the southern end of the house unit was "approximately a foot higher than the northern end", or about 21 to 23 inches above the clay stratum. This may be additional evidence for the presence of structures from multiple mound construction episodes. Walls or corners of additional structures, at least three, were noted in the northeastern corner of the excavation area around House IV, but were not dug (Finkelstein 1940a:8). These structures "were built on practically the same level as the structure excavated".

Mound Ia.

Bell began work in this area by digging a trench from the saddle southward into the

mound (Caldwell 1948b). North-south profiles (Figure 12) were made soon after Caldwell's arrival, as well as a profile of the upper portion of the southern wall of the trench (Figure 13). Further excavations under Caldwell's supervision (1948a,b) revealed that this mound consisted of a series of platforms (substages) with a conical mantle placed over the top. The substages were numbered from top to bottom, not in the order in which they were constructed. At the end of Caldwell's work, the trench through the mound was 90 feet long and 29 feet deep.

Top mantle. The mound was capped with a seven foot deep layer of homogeneous brown silt. Its maximum diameter was about 40 feet (Caldwell 1948b:4). The mantle contained four human burials, each with only a few decomposed bones remaining. Some glass beads, fragments of bison and other bone, and fragments of mussel shell were also found. Other artifacts, such as sherds, were very sparse within the mantle. The beads were found at a depth of five feet and, according to

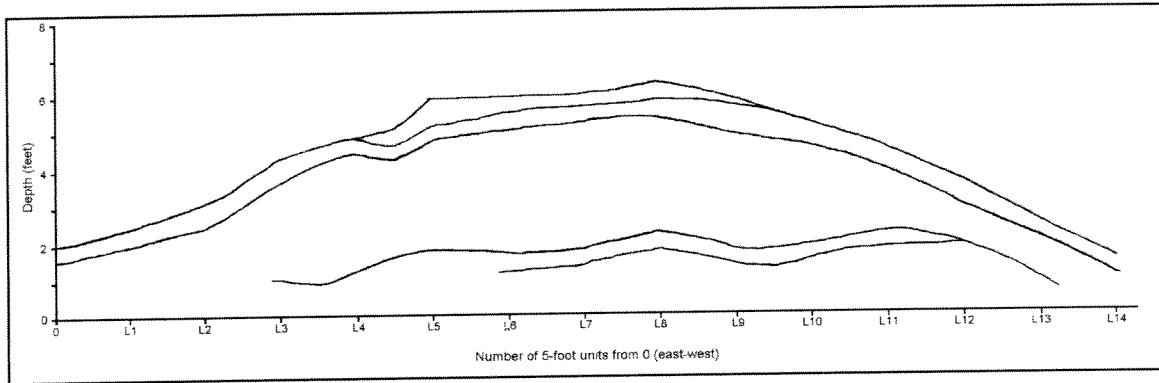


Figure 13. Profile of S6, Mound Ia, Norman site (34WG2); adapted from Caldwell 1948a.

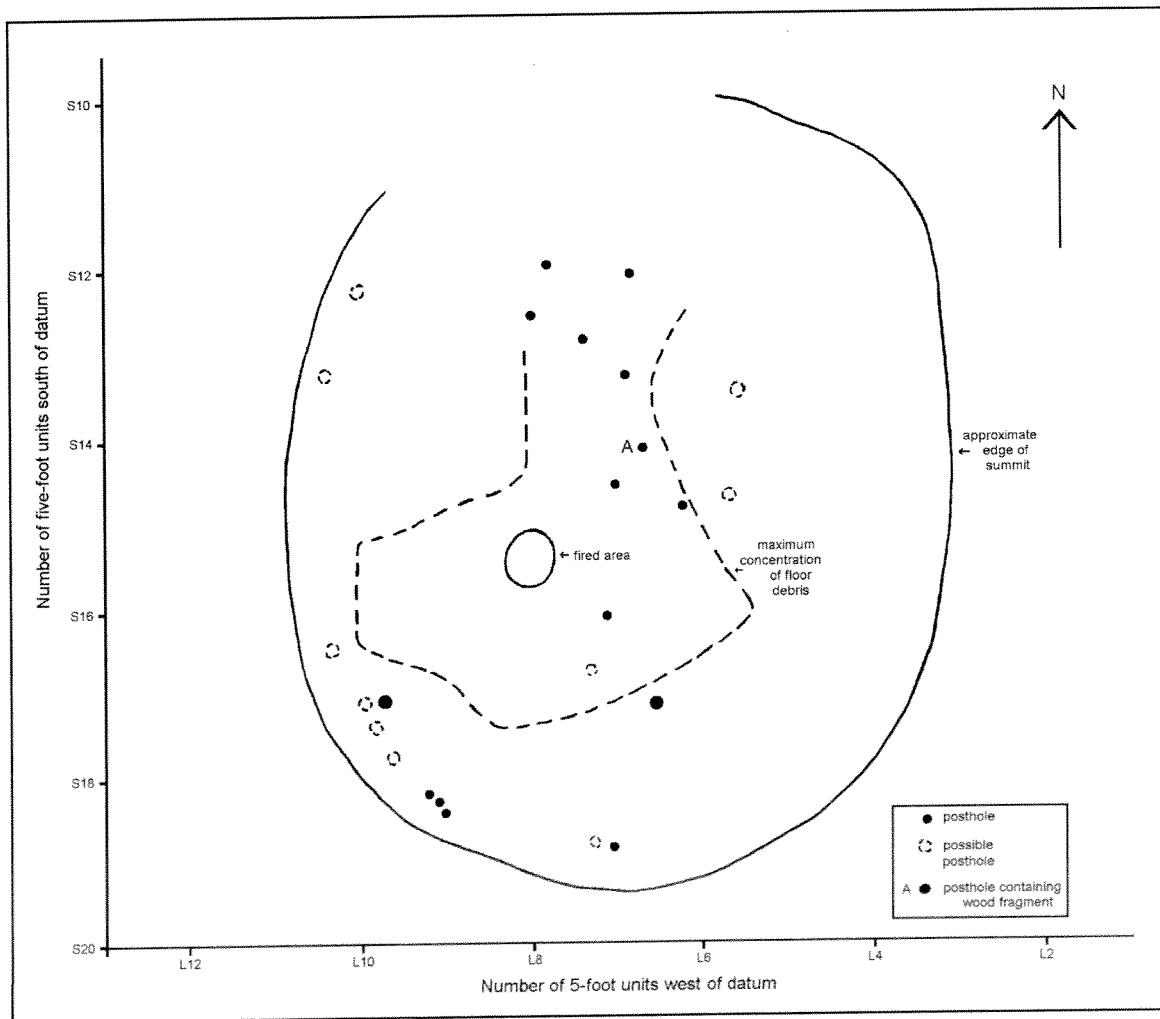


Figure 14. First substage features, Mound Ia, Norman site (34WG2); adapted from Caldwell 1948a.

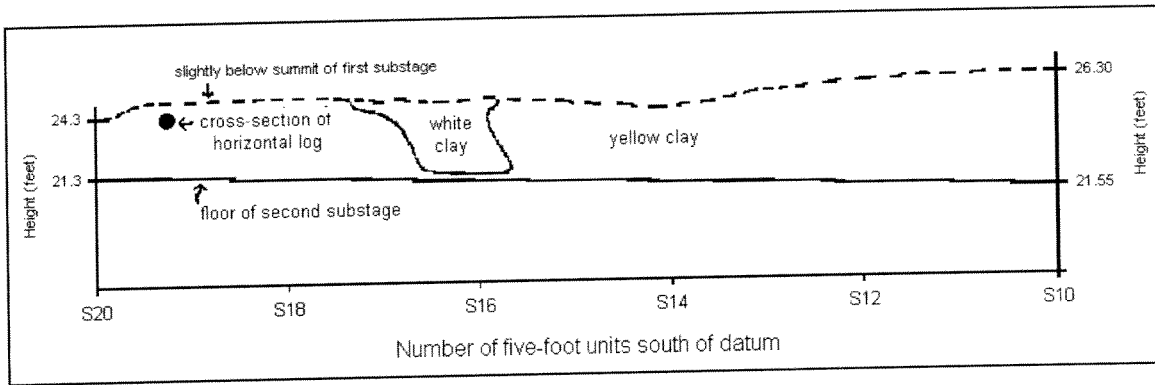


Figure 15. Profile detail, western wall of L6-L8 trench, Mound Ia, Norman site (34WG2); adapted from Caldwell 1948a.

Caldwell (1948b:4), were not associated with any of the burials. Obviously, some historical activity, whether associated with these human burials or not, had taken place in order for the glass beads to be deposited here.

First substage. After the majority of the mantle deposits had been removed by bulldozer, shovels and trowels were used to clean the surface of the first substage. This four-foot thick layer was built up of mottled yellow clay placed on the next lower (second) substage. The summit of this layer was covered by "a thin deposit of organically stained sand with ash admixture" (Caldwell 1948b:5). A fired area and postholes were also present (Figure 14). Although Caldwell states that the

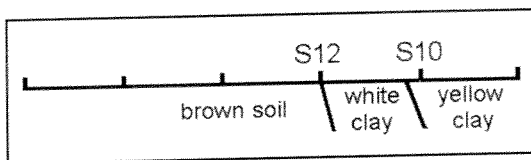


Figure 16. Profile detail, eastern wall of L6-L8 trench, Mound Ia, Norman site (34WG2); adapted from Caldwell 1948.

postholes were difficult to distinguish, a line of them may have encircled the edge of the substage summit. One posthole contained wood fragments which were identified in the field as locust. A few artifacts were found in an area which was designated the occupation area; they included "clinkers", fired "wall plaster", a few mussel shells, bones, and three sherds. Below the summit of the first substage, Caldwell recorded bands of white clay abutting the yellow clay of the fill in the wall profiles of trench L6 - L8. The white clay areas may have been part of one larger feature running more

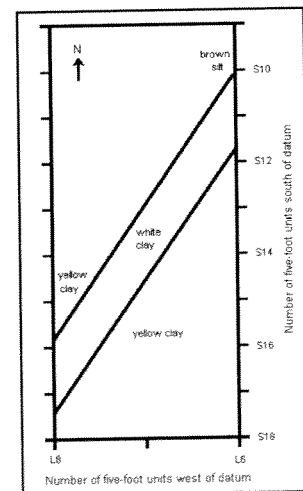


Figure 17. Possible white clay feature noted in walls of L6-L8 trench between first and second substages; from Caldwell 1948a.

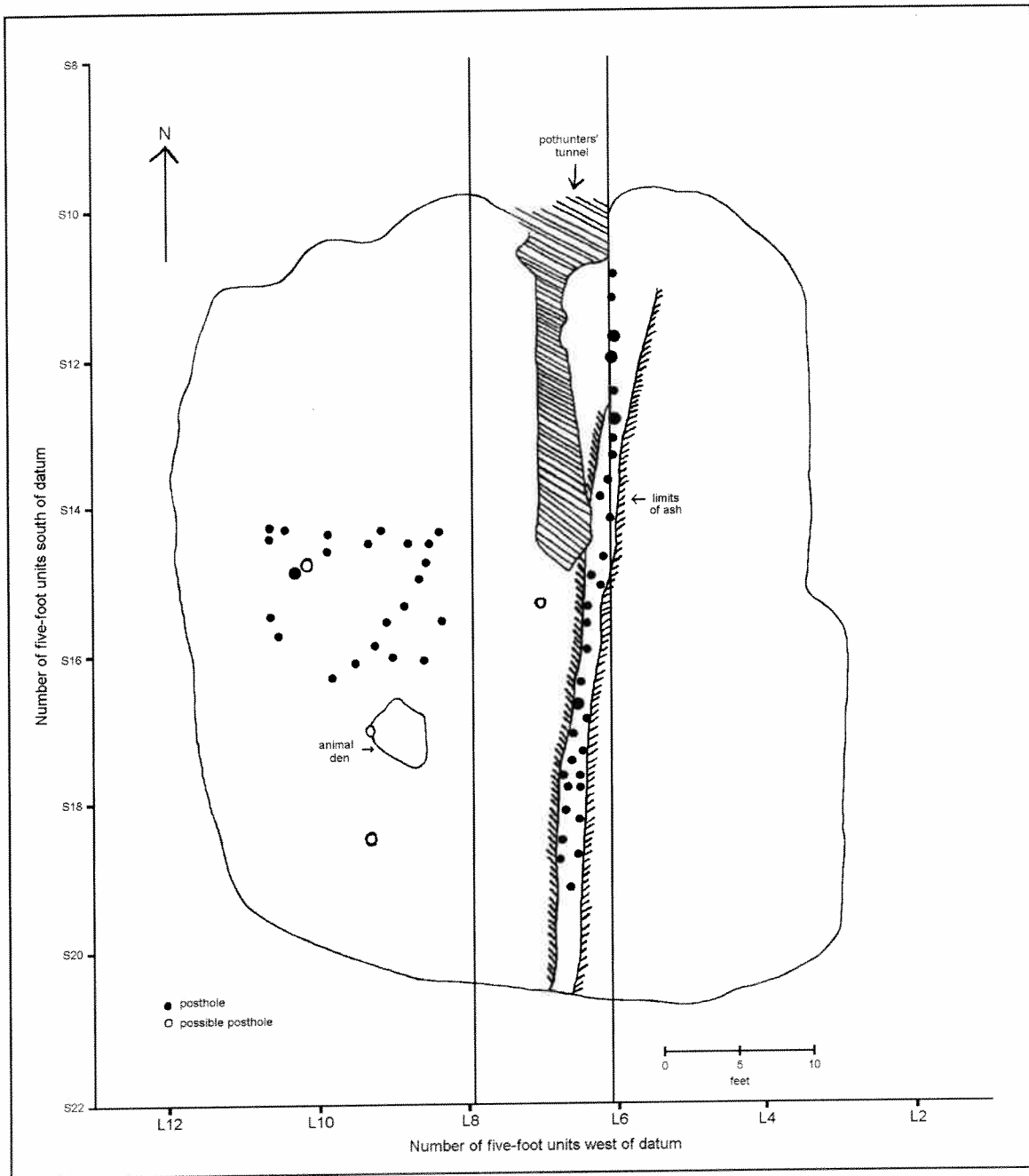


Figure 18. Second substage features, Mound IA, Norman site (34WG2); adapted from Caldwell 1948a.

than ten feet, from between S16-17 on the western wall of the trench (L8) to between S10-12 on the eastern wall (L6; Figures 15

and 16). If this were indeed a feature, it would have run in a northeast-southwesterly direction (Figure 17).

Second substage. At the base of the four-foot thick yellow clay which formed the first substage, the effects of fire could be seen in many places (Caldwell 1948b: 5). Some of the fired areas were clumps of fallen daub. A double row of postholes dug into brown silt ran approximately north-south across the summit, dividing it into two parts. To both the east and west of this possible wall was a line of blue ash (Figures 18 and 19). Other postholes were found to the west of the possible wall; however, they formed no readily discernable pattern. Most of the postholes attributed to this substage did not appear until the workers had cut



Figure 19. Second substage showing line of ash, Mound Ia, Norman site (34WG2). Photo by Joseph Caldwell; courtesy of Sam Noble Oklahoma Museum of Natural History, The University of Oklahoma.

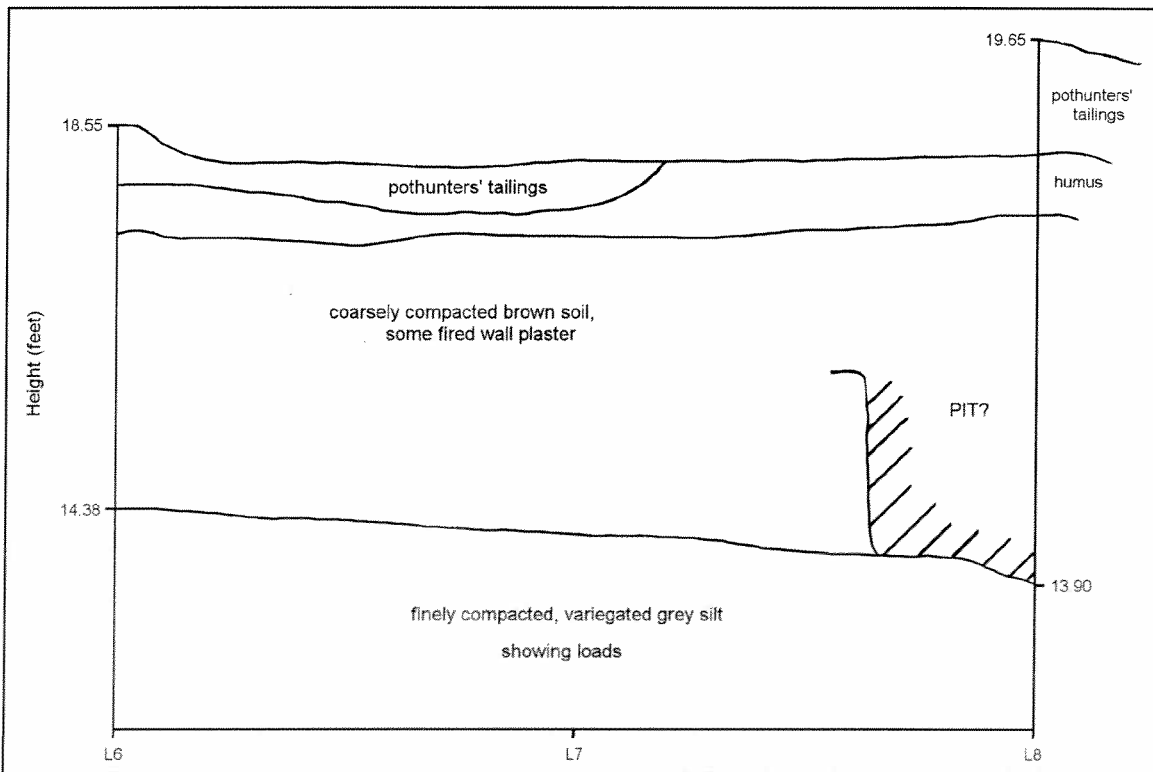


Figure 20. S7 profile, Mound Ia, Norman site (34WG2); adapted from Caldwell 1948a:August 31 notes.

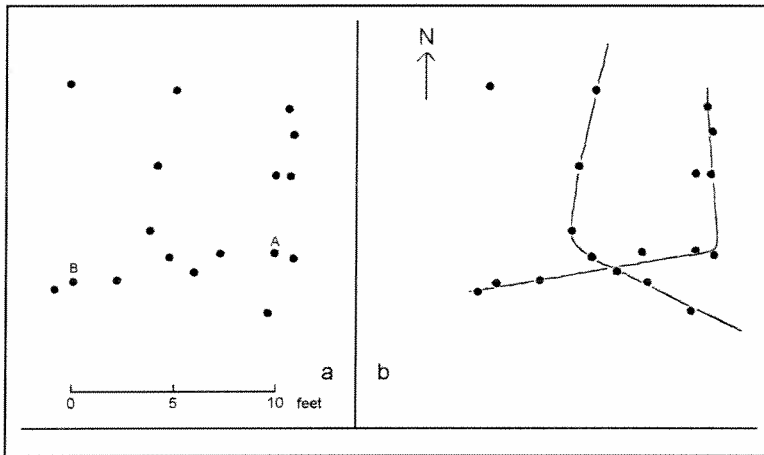


Figure 21. Postholes exposed in the L6 - L8 trench at the third substage; adapted from Caldwell 1948a.

several inches below the substage surface, so there was possibly an additional, unrecognized surface present. However, a pothunter's tunnel had destroyed part of the surface of this substage. Some of the "tailings" from this tunnel can be seen in the S7 profile done on August 31 (Figure 20). In addition, the upper portion of an animal den was noted in the southwestern quadrant of the summit; the den extended into the third substage.

Third substage. The deposits below the second substage were exposed only in the 10-foot wide

trench between the L6 and L8 lines and in "a small area" immediately to its west. Some postholes were found (Figure 21a); Caldwell (1948b) did not recognize a pattern. However, they may possibly be parts of at least two over-lapping structures (Figure 21b).

The fill below the third substage was composed mainly of grey and tan silts. The deposits clearly showed a striped (or "basket loaded") appearance (Figure 22 and 23). They were probably similar to the "zebra-striped" deposits noted in Mound I at the Goforth-Saindon site (Kay, Sabo, and

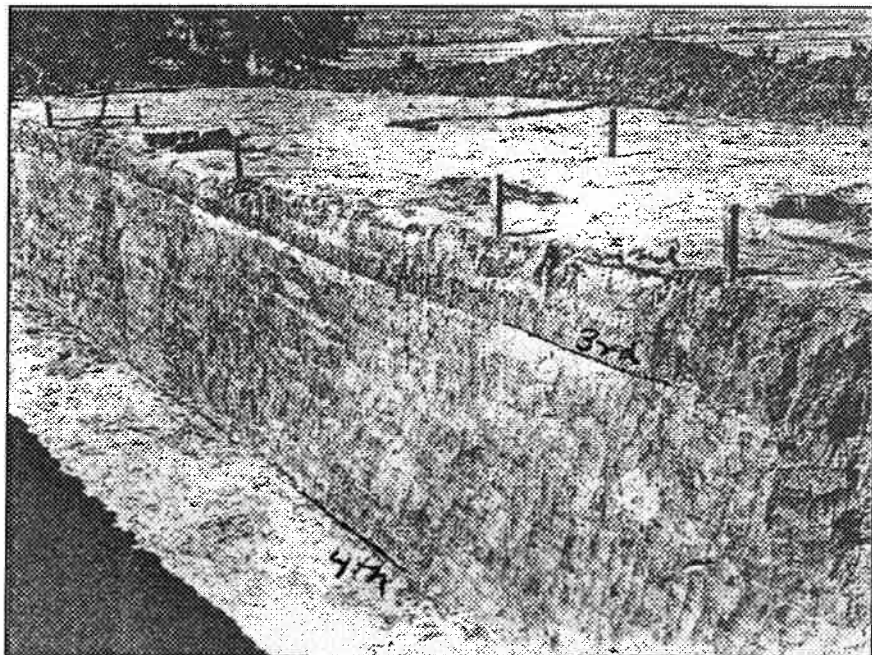


Figure 22. Fill between the third and fourth substages showing the "basket loading" in the L8 profile, Mound Ia, Norman site (34WG2). Photo courtesy of Sam Noble Museum of Natural History, The University of Oklahoma.

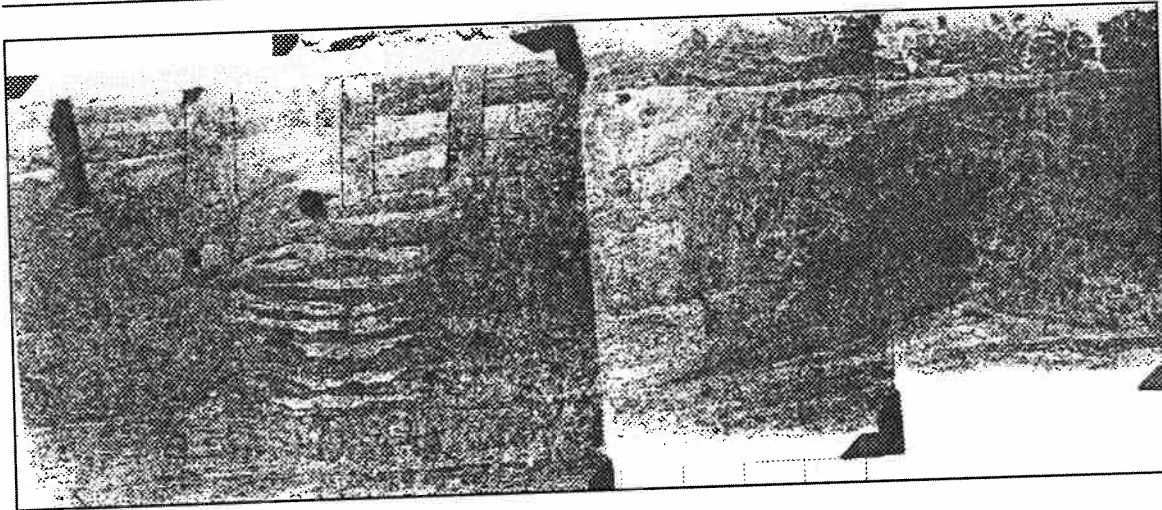


Figure 23. Closeup of "basket loading" in the fill between the third and fourth substages, Mound Ia, Norman site (34WG2). The outlined postholes are from the second substage. Photo probably by Joseph Caldwell, courtesy of Sam Noble Museum of Natural History, The University of Oklahoma.

Merletti 1989:143).

The deposits from the fill above second into the fill below the third substages were disturbed by a pot-hunters' tunnel (Figure 24). This tunnel extended southward from the northern slope of the mound, and then was dug straight down in square S15-L6 to form a vertical shaft extending into the lower substages to a point five feet above the pre-mound surface (Caldwell 1948a). A clay "plug" from higher in the deposits, some large rocks, wood fragments, a spoon, and turtle carapace were found near the base of the shaft. Shovel marks were visible in the walls of the tunnel.

The animal den first noted at the second substage was also present in the fill between the second and fourth substages (Figure 25). This den extended westward from the L8 line westward along the S17 line, and could be seen in the L6 line between S19 and

S21. It was filled with soft, loose silt mixed with organic material, including nuts. The bottom of the den was 14 feet

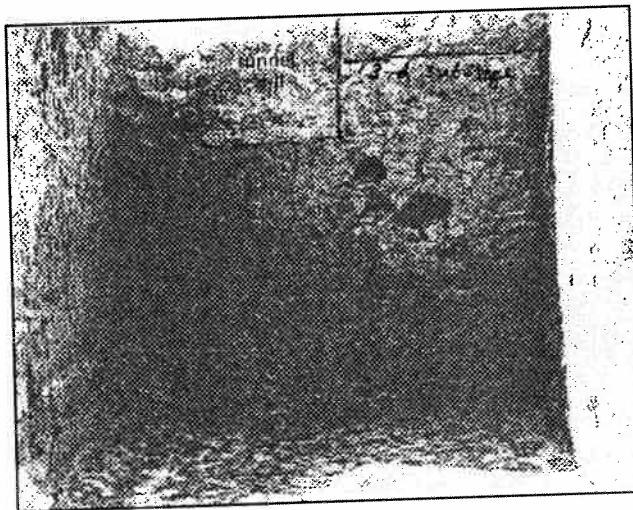


Figure 24. S9 profile between L6 and L8, Mound Ia, Norman site (34WG2). The vertical line is the edge of the tunnel; the fill has slipped downward into the tunnel. Photo probably by Joseph Caldwell, courtesy of Sam Noble Museum of Natural History, The University of Oklahoma.

below the mound summit (Caldwell 1948a).

Fourth substage. Six feet of "basket-loaded" deposits separated the third and fourth substages (Figures 23 and 24). No postholes were noted on the fourth substage surface.

Fifth substage. The surface of the fifth substage lay only two feet below that of the fourth. The fill separating them consisted of grey, brown, and yellow basket loaded deposits. In the southern part of the trench, postholes were found which appeared to

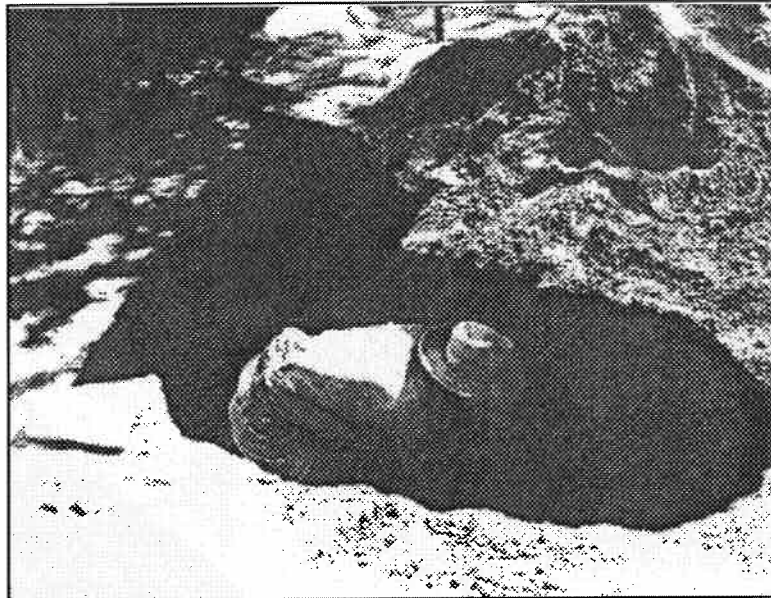


Figure 25. Probable animal den between second and fourth substages, Mound Ia, Norman site (34WG2). Photo probably by Joseph Caldwell, courtesy of Sam Noble Oklahoma Museum of Natural History, The University of Oklahoma.

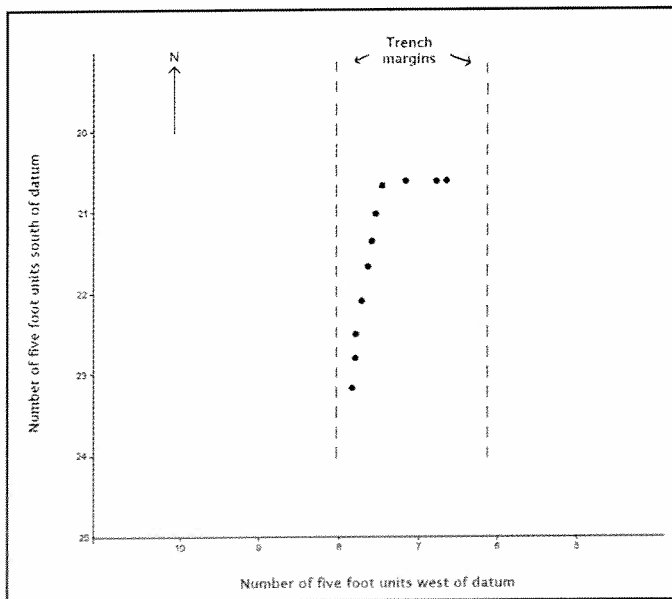


Figure 26a. Posthole pattern in the fifth substage of the L6 - L8 trench, Mound Ia, Norman site (34WG2). Adapted from Caldwell 1948a.

form a rounded corner of a structure (Figures 26a and 26b).

Substage?? 5A. Below the fifth substage surface lay one foot of homogeneous brown silt. This silt separated easily ("showed a good cleavage") from the deposits underlying it. Because no postholes were found in the trench, Caldwell (1948b:6) called this an intermediate level rather than a substage. These possible substages, as well as all others defined by Caldwell, can be seen in Figure 27. Some very distinct color and textural changes were present, as can be seen in the photo collages prepared by Joseph Caldwell (Figure 28).

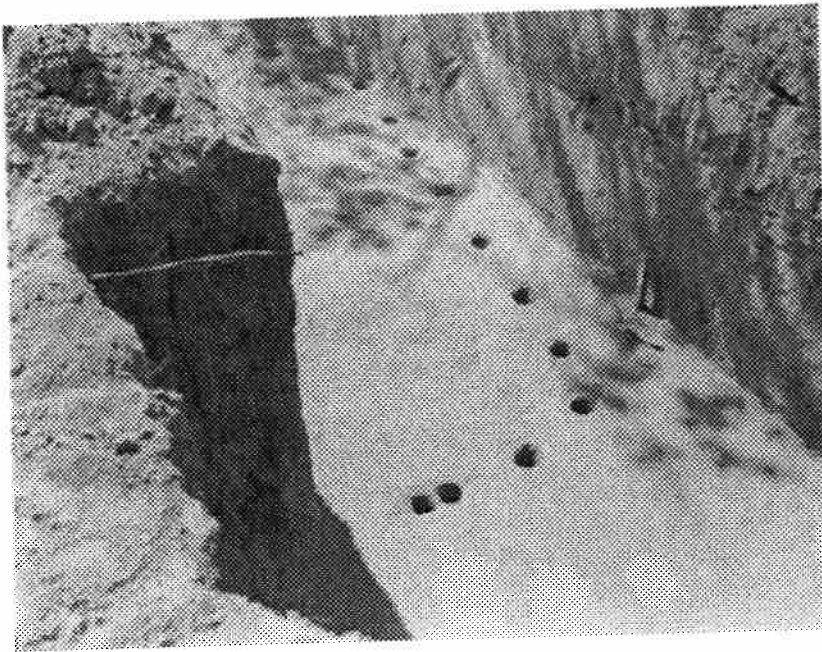


Figure 26b. Postholes at bottom of trench at Substage 5, Mound Ia, Norman site (34WG2). Photo by Joseph Caldwell (1948a); courtesy of Sam Noble Oklahoma Museum of Natural History, University of Oklahoma.

from the underlying deposits and no postholes were seen on the "substage" surface. It is very likely that others were present, but not recognized using the techniques available during the limited time allowed for the work during what was essentially a salvage operation.

Premound stage. Five feet below the possible substage 5B was a thin layer of charcoal and ash. The fill separating these substages was a "dark brown greasy clay

Substage?? 5B. Below substage 5A was a two foot series of "silt and clay loadings". The surface did not cleave well

containing numerous flecks of hematite". There were no postholes or artifacts correlated with this surface, but very little of it was exposed.

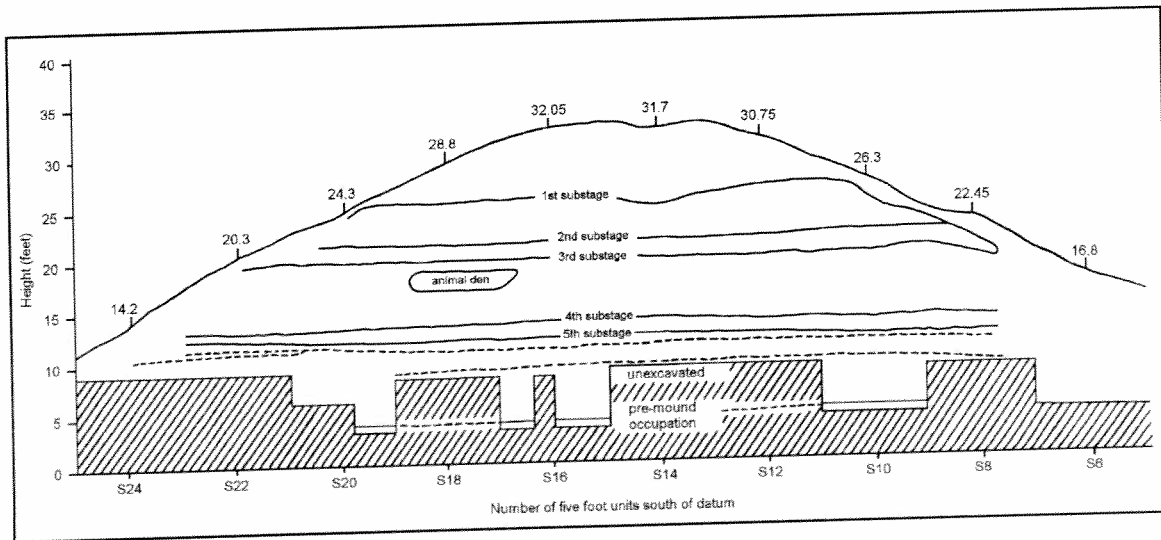


Figure 27. Reconstructed Profile Showing Recognized Substages, Mound Ia, Norman Site (34WG2); adapted from Caldwell 1948a.

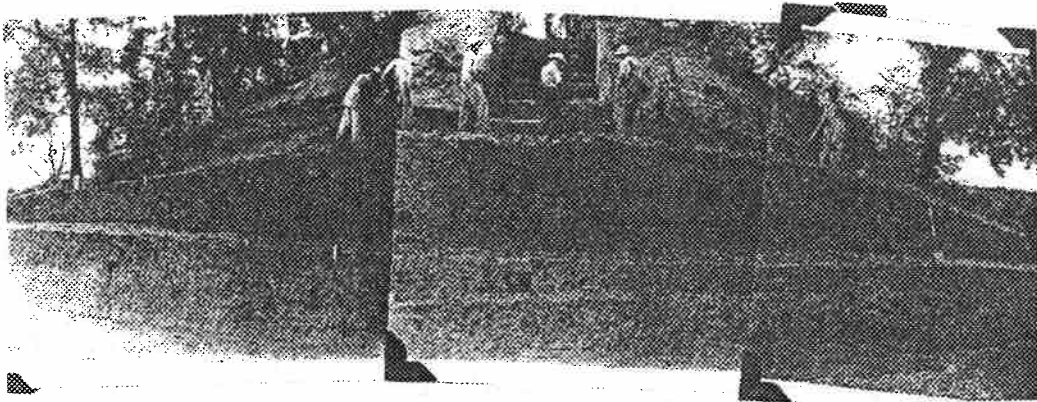


Figure 28. S6 profile through Mound Ia, Norman site (34WG2). Photo probably by Joseph Caldwell, courtesy of Sam Noble Oklahoma Museum of Natural History, University of Oklahoma.

SITE UNIT V

A midden area was first noted in test excavations within Site Unit IV. It was about two feet thick and about two feet below the 1930s ground surface. The soil was richer and blacker than that surrounding it. The midden was about two feet above the clay substratum, which means that it was about a foot above the level defined as the original "occupation" surface (13 inches above a clay subsoil; Finkelstein 1940b:13). This midden was traced northward about 30 feet and west-

ward about 15 feet. Bones of deer, bison, rodents, birds and fish, turtle carapace fragments, "clam" shells (two perforated for use as hoes), and a few sherds were recovered (Finkelstein 1940a:9). The debris partially underlay Mound Ib, and therefore was deposited before the mound was begun, or at least enlarged to its final extent, unless subsequent erosion of the mound had increased its diameter sufficiently to result in coverage.

AREA A

Area A was immediately south of Mound I (Figure 29). Excavations were carried out here during the summer of 1948 during a University of Oklahoma field school under the supervision of Dr. Robert E. Bell. This area was chosen for excavation because a charcoal post was exposed by an

engineer's cut, and it was one of the few areas not completely destroyed by recent construction activity before Bell arrived at the site (Caldwell 1948b:2). The summer's work was done in cooperation with the Tulsa District, U.S. Army Corps of Engineers, and partially funded by the

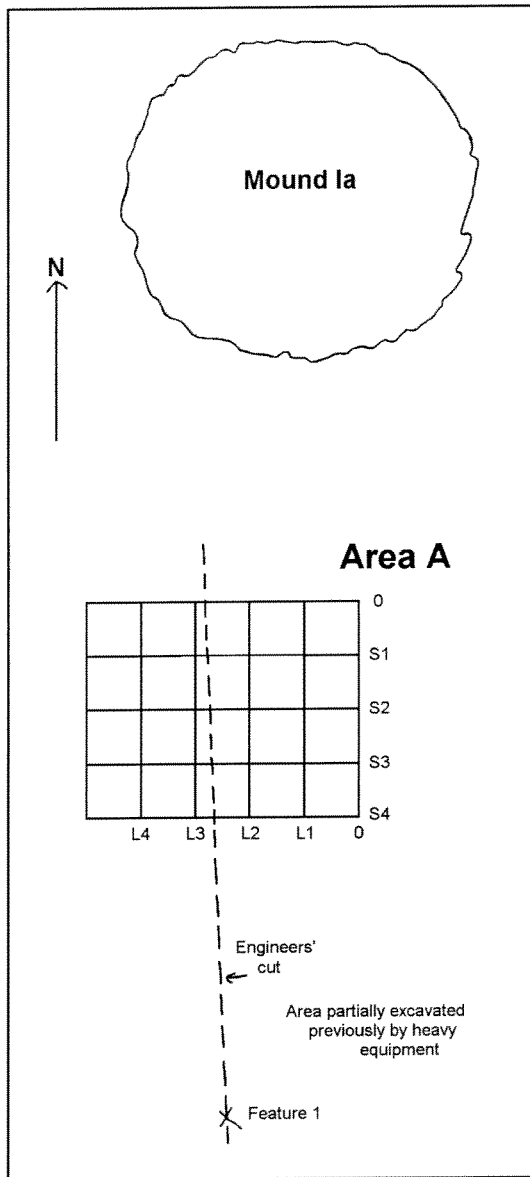


Figure 29. Map of Mound Ia/Area A portion of the Norman site (34WG2); not to scale.

Smithsonian Institution, River Basin Survey. Equipment for clearing surfaces and removing back dirt was loaned by the Evans Construction Company of Ft Smith. No photos of these 1948 excavations have been found at the Sam Noble Oklahoma Museum of Natural History.

The eastern portion of Area A had been stripped by heavy equipment to obtain fill for a nearby causeway across the reservoir. The stripping left a north-south-running cut face. A group of squares was set in south of Mound Ia (Figure 29). South of the squares, the cut was cleared, exposing a refuse pit (Feature 1, Area A, about 25 to 30 feet south of the original squares (Bell 1948b:54). Later, the enlarged excavation included this feature. The pit fill was a "dark black soil containing animal bones, chips, stones, etc.". The basin-shaped pit was roughly circular and measured 43 inches east-west by 42 inches north-south, with a clearly demarcated outline against the surrounding yellow brown soil. The animal bones included two awls, and there was also a shell pendant. The upper limit of the pit was seen at the "old plow surface" (Bell 1948b:54-55).

About 10 feet south of Feature 1, another pit (or grave) appeared as an area of brown

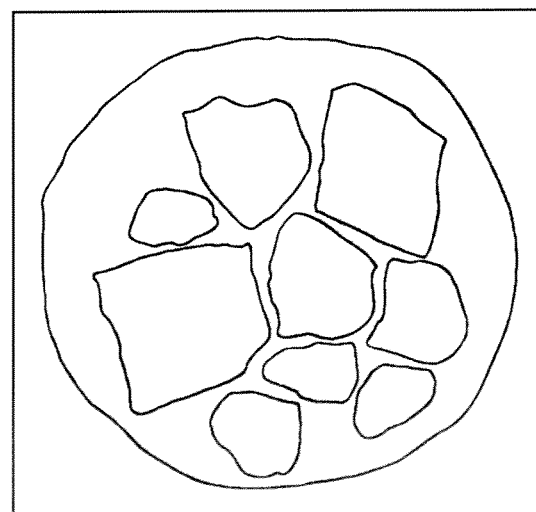


Figure 30. Feature 2, showing pit outline and rock slabs lying on pit floor; adapted from Bell 1948b:56.

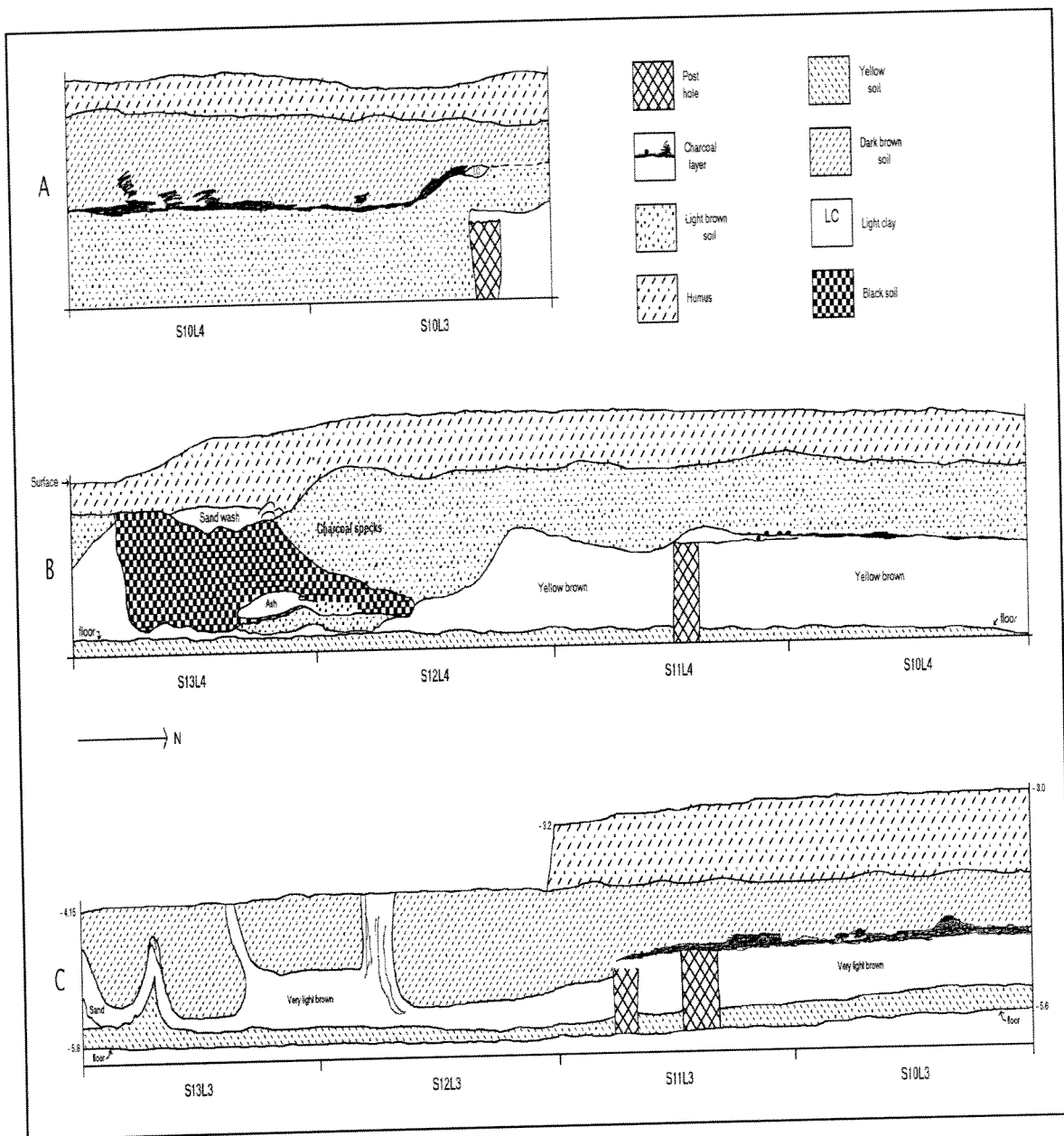


Figure 31. Profiles, Area A, Norman site (34WG2); A shows the north walls of squares S10L4 and S10L3 (July 16, 1948 by "Mac & Hunt"), B the west walls of squares S10L4, S11L4, S12L4, and S13L4 (July 16, 1948 by "Mac & Hunt"), C the west walls of squares S10L3, S11L3, S12L3, and S13L3 (July 12, 1948 by "Mac, Hunt & Hess"); adapted from Bell 1948.

soil extending down into yellow clay (Figure 30). This was called Feature 2 (Bell 1948b:56). It contained less bone and charcoal than Feature 1. The outline was roughly circular, measured 53 inches

in diameter, and was basin-shaped. On the floor of the pit, rock slabs were lying on the yellow clay (Figure 30).

Within the block of squares, an additional

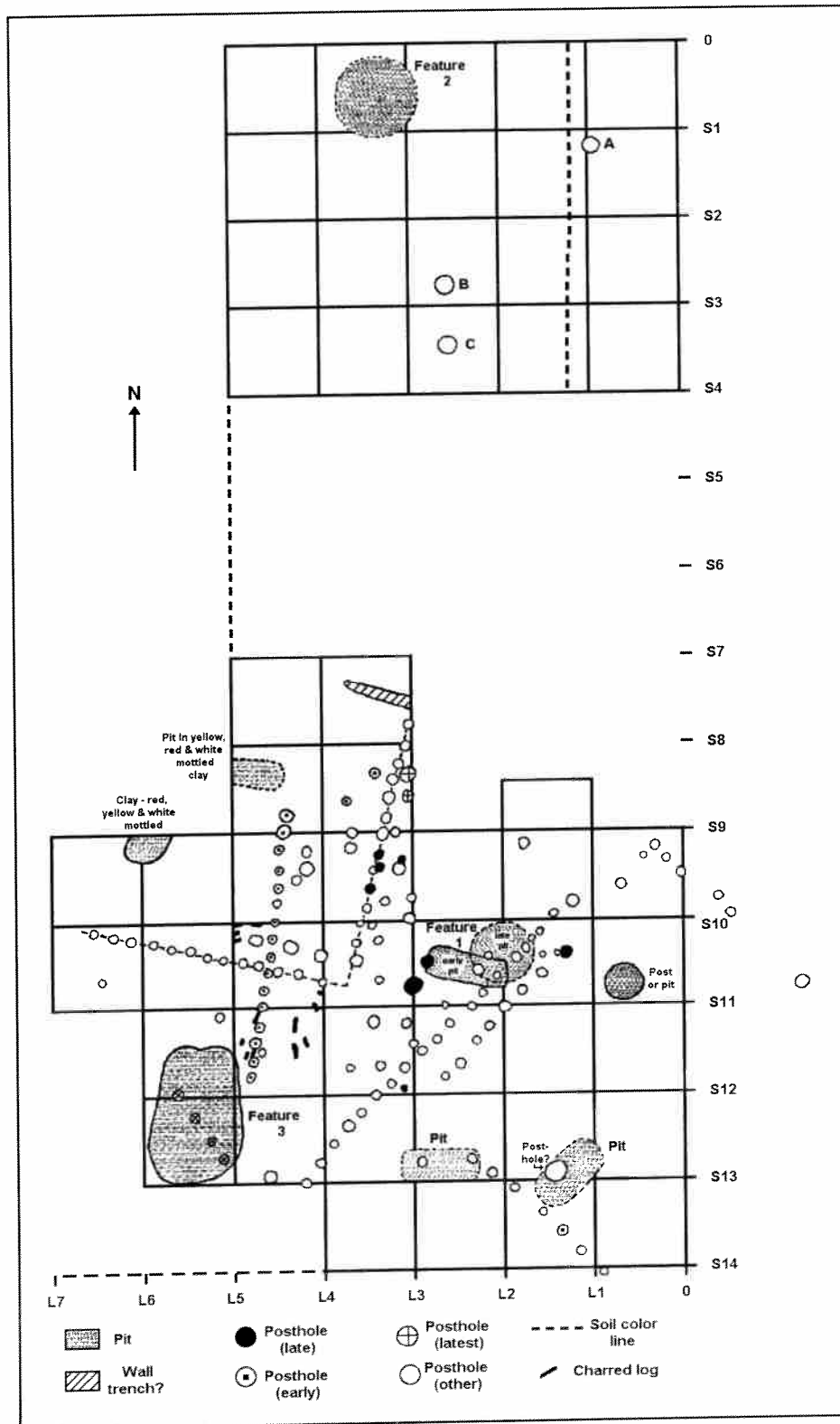


Figure 32. Map of features found in Area A, Norman site (34WG2); compiled from maps with Bell's field notes (Bell 1948b).

six inches were excavated into the mechanically stripped construction area in an attempt to expose any features present. A pit and posts associated with a "house" floor were found in the squares (Bell 1948b:54-55,57). A layer of charcoal delineated the structure's floor (Figure 31).

Additional pits and posthole patterns were exposed in the Area A squares (Figure 32). A possible wall or, more probably, entryway trench was present in S4L3. Nearby features included areas of mottled yellow, red, and white clay; that in S9L4 was in a pit. Other pits were noted, two of these (squares S11L1 and S11L2) overlapping; the subrectangular pit is the earlier. The postholes in squares S12L5 and S13L5 were found below the pit (Feature III). It was not determined whether the feature in S11 was a small pit or a large posthole. There were probably at least three building/rebuilding episodes in this area. Bell designated some postholes in a sequence of early, late, and latest. Al-

though it was not specified in the notes, these designations were probably based on posthole depths. Some postholes appear to form linear patterns, probably structure walls. Diameters for some of the postholes in the west central portion of the block were included on a sketch map. In squares S11L5 and S11L6, the measurements within the row of "late" postholes were given as six and seven inches. The posthole to the south of the row in square S11L6 was five inches in diameter. In squares S8L3, S9L3, and S10L3, the diameters of postholes in the "late" row ranged between seven and eight inches. The diameters of the "latest" postholes in S9L3 were 11 and 7.5 inches. The "early" postholes in square S9L3 were five and seven inches in diameter, whereas those in square S9L4 were nine inches. Charcoal associated with "the floor of the house" was only mapped for two squares, S11L4 and S12L4 (Figure 32). This charcoal was probably post remnants from one of the overlapping structures.

MOUND II

Mound II was a double lobed unit located at the southeastern edge of the site, near a terrace edge which dipped southeastward toward a marshy area (Finkelstein, Figure A, page 8, this volume; Finkelstein 1940a: 1; Finkelstein and Bell 1950:8). It lay about 615 feet southeast of Mound III. The axis of the two circular lobes of the mound was oriented about 24 degrees west of north. The edges of the lobes overlapped somewhat. The southern lobe, IIa, was the larger, being about 6.5 feet

high and 70 feet in diameter when excavated. Finkelstein estimated that it had originally been about 10 feet high. The smaller northern lobe, IIb, was 2.5 feet high in 1934, with a diameter of 45 feet.

Excavations at Mound Unit II began in January 1934 under the supervision of J. Joe (Bauxar) Finkelstein, and were completed in April with funds provided by the Civil Works Administration (Finkelstein

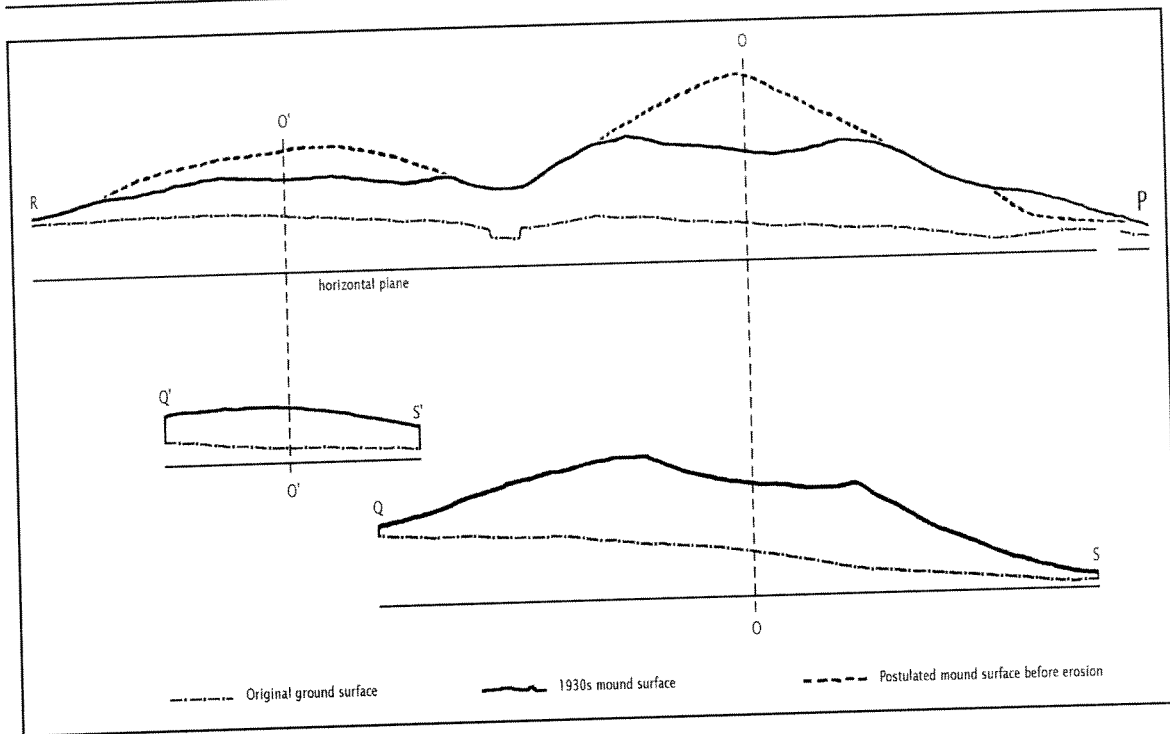


Figure 33. Profiles from Mound II, Norman site (34WG2), showing the original mound surface, the 1930s mound surface, and the postulated original mound profile; adapted from a sketch with Finkelstein's field notes.

and Bell 1950:4). The center of Mound IIa had been removed by pot hunters prior to 1932. The pot hunters' pit was about 17 feet in diameter at the top and about six feet at the bottom where it reached the subsurface gravel layer; however, by 1934 it had been refilled to within two feet of the surface (Figure 33). The eastern side of the mound had also been disturbed by two "dugouts" (Finkelstein and Bell 1950:8). Mound IIa&IIb was completely excavated during the 1930s.

Under Mound IIa, the original soil zones were not clearly defined (Finkelstein and Bell 1950:11). Therefore, the excavations were taken to an underlying gravel layer. Mound IIb was underlain by a three inch

layer of black soil over the gravel. In the field surrounding the mound, the topsoil depth ranged between three and eight inches. The topsoil was underlain by about six inches of river gravel, which was in turn underlain by about six inches of red clay. Gravel was incorporated into the mound fill.

The southwestern quadrant of the mound was excavated first, by removing nine foot wide trenches aligned north-south (Finkelstein and Bell 1950:10). After digging this section, the grid was shifted slightly to coincide with the axis through the two mound lobes (Figure 34). The northwestern quadrant was then removed in 10 foot wide trenches, and the center in two

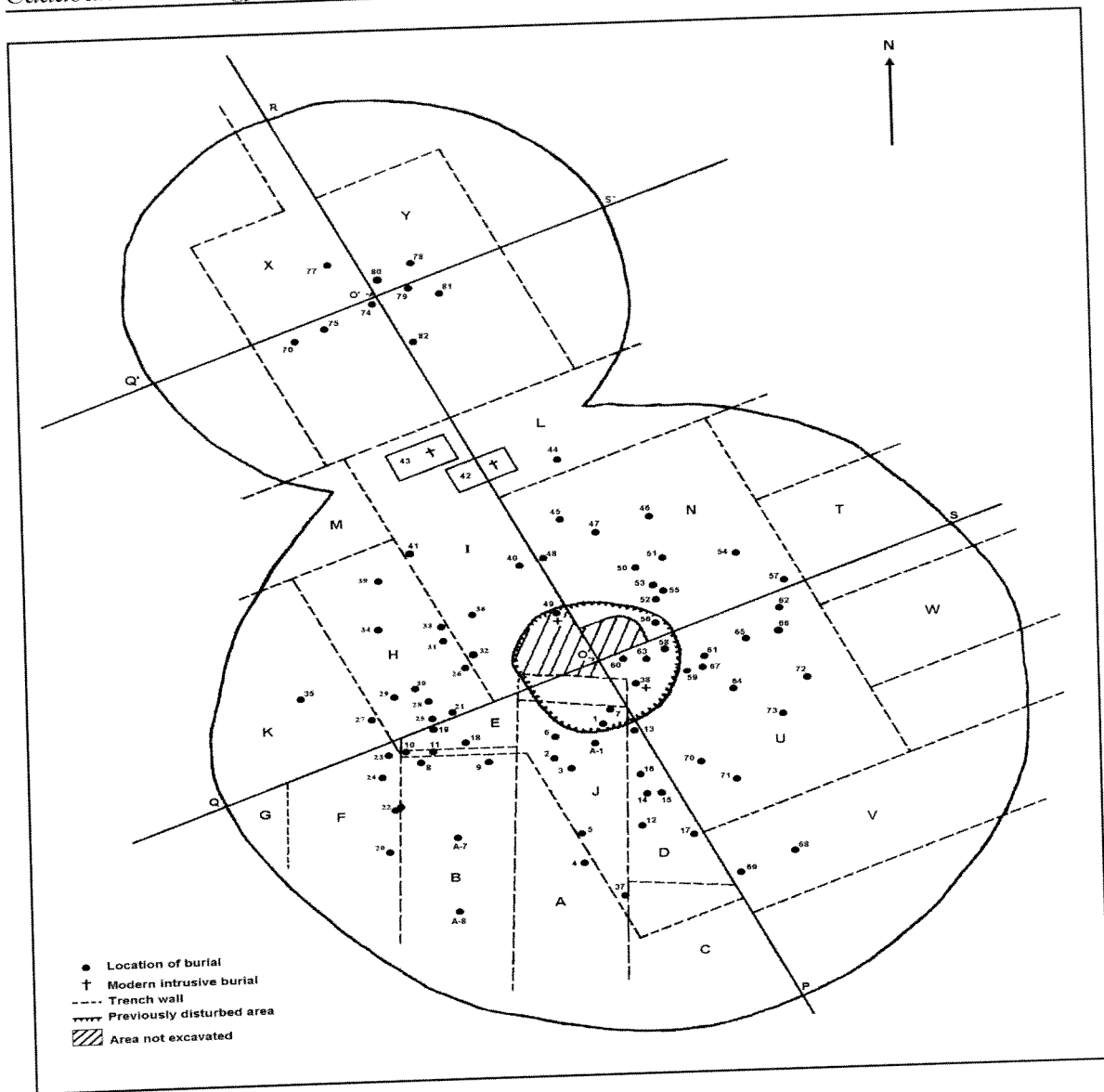


Figure 34. Horizontal distribution of burials in Mound II, Norman site (34WG2); adapted from Finkelstein (1934b).

12 foot sections. A three foot wide test trench from the center of the mound northward to the edge of the mound was then extended. The eastern half of the mound was dug using a 20 foot trench, with the remaining deposits removed by three lateral trenches extending to the edge

of the mound. The trenches were excavated in a stepwise fashion, using levels 18 inches deep (treads) and 36 inches wide.

At first, profiles were taken at nine foot intervals. When no apparent strata were

noted, these were drawn of only the major axes through the mounds (Figure 33). Some loading, with red and yellow clay and hard lenses of grey, ashy dirt, was noted in the generally homogeneous gravelly fill (Finkelstein and Bell 1950: 11). Feature depths, including those of the burials, were measured from the surface of the mound because a surveying instrument was not available. Profiles were measured from the gravel floor until a Brunton compass was obtained late in the excavation. The horizontal distribution of the burials was also mapped (Figure 34).

After analysis done in 1949, Finkelstein proposed a cultural stratification constructed from laboratory data (Finkelstein and Bell 1950:11-13). The burials from Mound IIa were presumed to be deposited on a surface representing a mound building phase, and "profiles" were projected from their placement. These "profiles" suggested periodic building, with three definite phases and possibly four others for Mound IIa. Three burials, including a cremation in a jar, were placed on the original ground surface. This surface was three to eight inches in depth and contained "much river gravel". Below this topsoil was a six inch layer of gravel with red clay below it. Over these was constructed a mound about 45 feet in diameter and 1.5 feet high. About 15 burials were placed on the surface of the primary mound (always remember that a large pothunter's pit removed the central part of the mound). A second phase added three feet to the height and increased the diameter to 53 feet. Three burials were found within the fill of this second phase. Nine additional burials occurred about 0.5 foot

above this for a third phase. The next stage (fourth) raised the height of the mound about four feet with the diameter extended to 60 feet. On the surface of this stage, fourteen burials were placed. Above this height, the burials were scattered and few in number. There could have been two additional episodes of construction, the fifth and sixth. There was a final building phase which resulted in the mound cap. The field notes contained little information about the types of fill in the various stages (Finkelstein and Bell 1950:13). Some burials were found in a compact yellowish dirt, some in a compact black dirt, and some in a compact light grey deposit. Thus, there was either some color symbolism being expressed, or different soils merely came from deposits which were handy to use at the time.

In Mound IIb, there were two or three phases of construction (Finkelstein and Bell 1950:87). An initial burial was made in a shallow, prepared basin (Finkelstein and Bell 1950:14-15). A mound stage about one foot high and 18 feet in diameter was placed above this. On the surface of this first stage were deposited probably five burials. Above this, about midway between the first surface and the top of the mound, were two additional burials, so there may have been three building phases.

From the artifacts associated with the burials in Mound II, no time differences could be seen in the sequence of building the two lobes of the mound. Most of the burials were fragmentary, and the remains were each confined to an area about one foot in diameter, suggesting bundle burials

(Finkelstein and Bell 1950:15-16). Ear spools found with the burials were stacked or lying side by side. Some of the burials may have been in small, prepared basins about two feet in diameter and six inches deep (Finkelstein and Bell 1950:16). Some basins showed evidence of burning and cremation.

Four burials, one of them double, found in Mound IIa contained numerous items of burial goods (Finkelstein and Bell 1950:18-20). These are burial 51 from phase 3, which lay on a bed of bark four feet east-west by two feet north-south (Figure 34a); burial 36 from phase 4, which was in an indistinct basin (Figure 34b); burial 21 from phase 1, which was in a basin (Figure 34c); and burial 40/48, also from phase 1 (Figure 34d).

Both lobes of this mound were completely excavated during the WPA

work. Burial record forms would give additional information, but were not

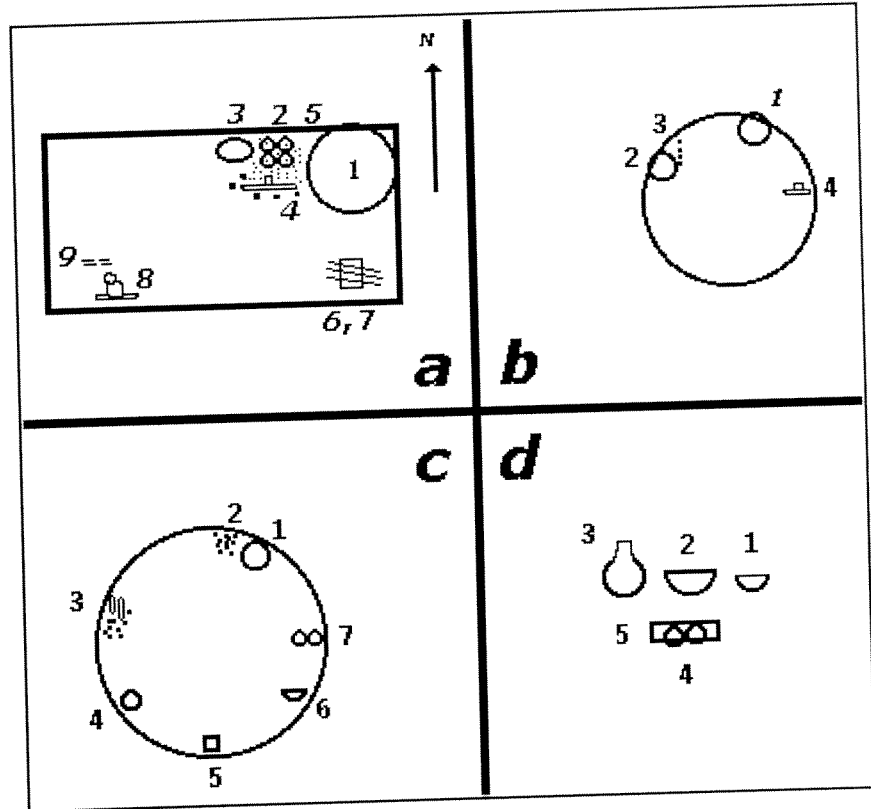


Figure 34. Burials with burial goods from Mound IIa, Norman site (34WG2).
a - burial 51 (1 - two green clay discs, one foot diameter, one inch thick; 2 - two sets ear spools; 3 - wad of red paint; 4 - large stone double-stemmed pipe, fragments of three small clay double-stemmed pipes, aligned east-west; 5 - 25+ pearl beads scattered between ear spools and pipes; 6 - about 80 small projectile points all pointing in the same direction; 7 - bundle of eight solid copper and copper plated wooden bodkins aligned southeast-northwest; 8 - highly eroded limestone effigy pipe; 9 - at least eight long copper plated wooden beads; cane basketry and cloth fragments were seen around some of the objects); *b* - burial 36 (1 - heap of sherds; 2 - heap of sherds; 3 - nine small points in a north-south line; 4 - large stone double-stemmed pipe); *c* - burial 21 (1 - flattened wad of green clay about four inches diameter; 2 - 226 small points; 3 - group of knives and points; 4 - green clay disc, one foot diameter, one inch thick; 5 - fluted barrel-shaped green clay object; 6 - round bottomed basin (bowl?); 7 - set of plain ear spools); *d* - burial 40/48 (1 - pottery cup; 2 - shattered pottery basin; 3 - pottery bottle; 4 - set of ear spools; 5 - small copper bird effigy plate); reconstructed from Finkelstein and Bell 1950:18 - 20; artifacts descriptions as given by Finkelstein.

studied as part of this descriptive project. Because the WPA program was conceived to create work during the Depression, no funds were available to study the items recovered. No comprehensive analysis or

description of the burials and their associated goods has ever been published, although a report was written in 1934 as well as a summary report, probably in 1940, by Finkelstein.

MOUND III

About 745 feet east of Mound I lay Mound III, a single lobed unit (Finkelstein, Figure A, page 8, this volume). The terrace edge dropped away sharply about 325 feet east of the mound (Finkelstein and Bell 1950:8). In the 1930s, it had a diameter of 140 feet and a height of six feet. After being plowed for years, the mound had assumed a domed shape. Because the ground south and west of the mound dipped slightly, the mound appeared higher when seen from the west than it did from the east (Finkelstein and Bell 1950:90).

The excavations into this mound were begun in December 1935 and continued until June 1936 under Joe (Bauxar) Finkelstein's supervision (Finkelstein and Bell 1950:4). The excavations were funded through the Works Progress Administration (WPA). After Finkelstein was transferred to Spiro, the work was continued by Herbert Antle until July.

The work began by sinking four test pits just outside the mound periphery on each of the major axes (Figure 35; Finkelstein and Bell 1950:90). The pits were underlain by gravel; all contained some cultural debris in a dark topsoil. The depth to which this debris extended varied (A - 18

inches; B - 16.5 inches; C - 12 inches; D - 2 inches).

After completion of the test pits, larger exploratory trenches were carried into the mound (Finkelstein and Bell 1950:90). At the western edge, a 20 foot wide trench was dug 10 feet into the mound. The deposits contained a small amount of cultural debris, but no features were found. A trench 60 feet wide (north-south) was excavated on the eastern edge of the mound. Postholes were seen at the southern end of the trench. The trench on the southern edge of the mound contained burials almost immediately. The burial pits could be traced to the mound surface; thus, the burials were considered intrusive and termed the Searcy Complex by Finkelstein (Finkelstein and Bell 1950:91). A preliminary report was written by Finkelstein, probably in 1940, describing the "Searcy Complex". However, because the burials and their associated artifacts were not restudied for this paper, the information contained in it has not been included. Although the cultural material within the mound fill was sparse, some was present. Most common was charcoal, but sherds, a small ceramic male figure, a few points and bifaces, a pipe fragment, a celt, broken metates, hammerstones, bone

awls, an incised bone ring, a terrapin carapace rattle, and a bison-horn spoon were recorded.

After the exploratory trenches were finished, 10 foot wide trenches were dug into the mound on the north side of the

"east-west" axis. Both trenches were continued 30 feet toward the mound center. No features were found in the trench excavated from the east. However, postholes were exposed in the trench from the west. These postholes were first seen at about three feet above the gravel. No

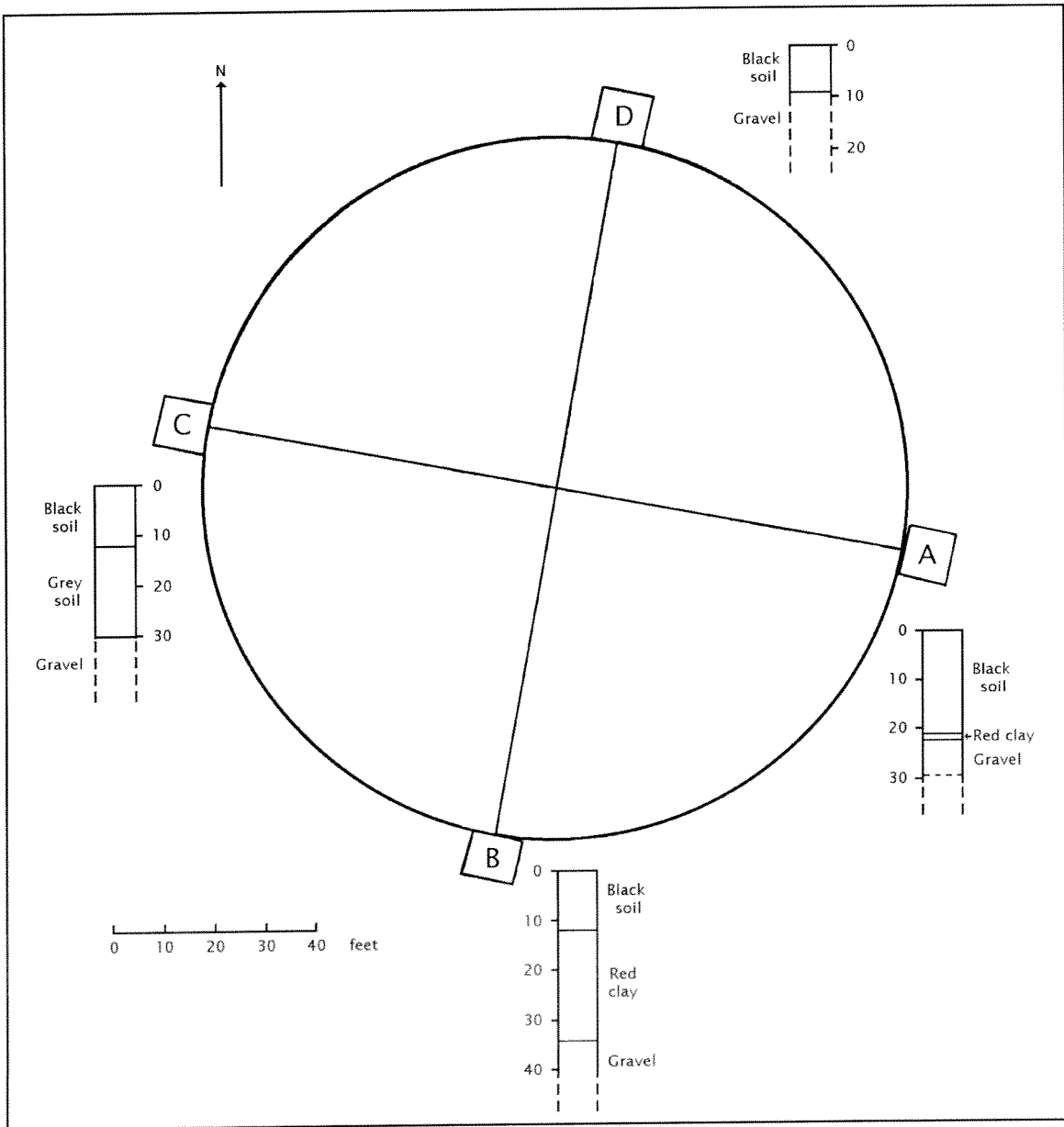


Figure 35. Location of initial test squares and "profiles" of the soils, Mound III, Norman site (34WG2); constructed from Finkelstein and Bell 1950:90.

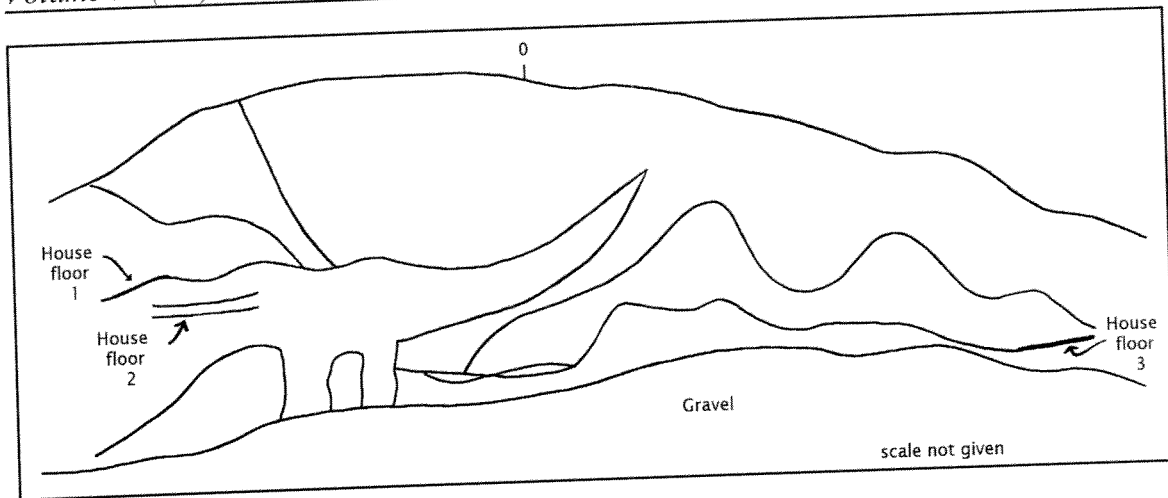


Figure 36. Profile #2, Mound III, Norman site (34WG2); adapted from sketch probably from Finkelstein's 1936 field notes.

prepared floor or mound surface was observed in correlation with these.

The posthole patterns from the southern

end of the exploratory trench on the eastern side of the mound were followed further into the mound, exposing three "house" floors (Profile #2, Figure 36;

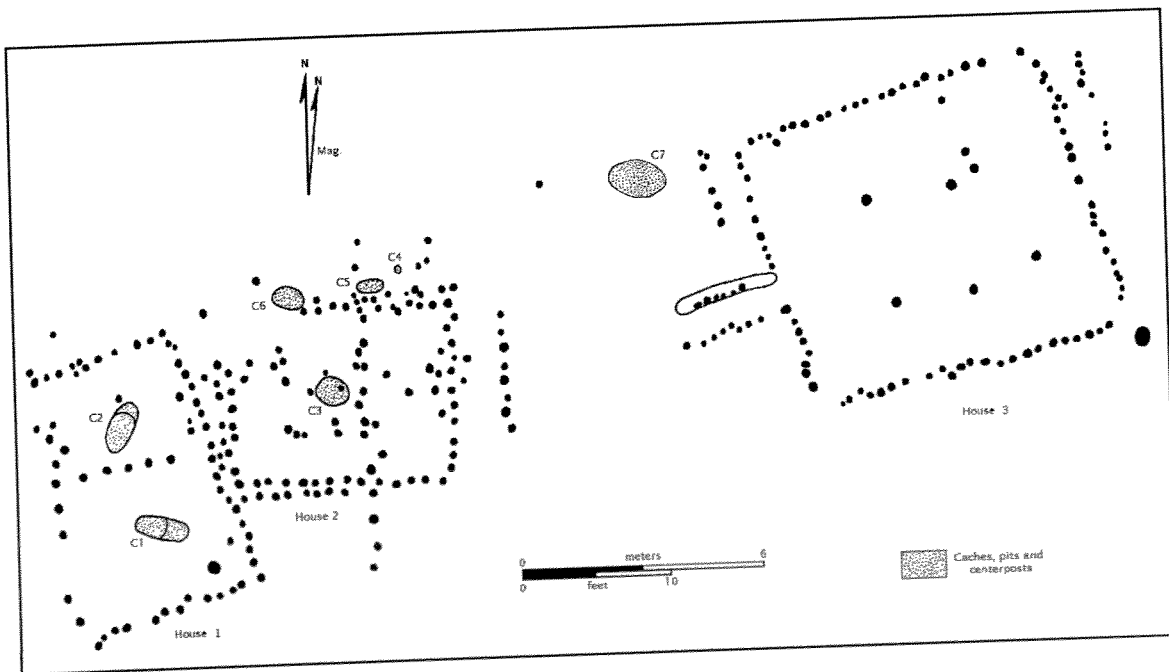


Figure 37. House patterns from Mound III, Norman site (34WG2); House 3 is not shown at the actual distance from the House 1 and 2 complex; adapted from sketch by Finkelstein, probably 1936.

"house" floors (Profile #2, Figure 36; Finkelstein 1934/5:10-11). House floor 3 (H3) measured 24 feet east-west and 21 feet north-south, with rounded corners (Figure 37). An extended entryway was present at the center of the west wall. The structure had four center posts which formed a rectangle six feet east-west and eight feet north-south. On the floor were fragments of "charred posts and wattle", but no daub was recognized. No hearth or pits were found. Outside the house, 1.5 feet to the north, was a small gravel ridge, into which at one foot intervals were set posts slanting toward the house.

West of H3 and on a slightly higher surface were two more structures (Figure 36). One of these structures was about two inches lower, and therefore apparently earlier, than the other. This older "house" was approximately 16 feet square. The upper "house" was rectangular and meas-

ured 20 by 11 feet. Finkelstein (Finkelstein and Bell 1950:11) states that it had two rooms. This assessment may be analogous to the initial view of House Unit IV under Mound Ib, and probably represents overlapping structures. Neither of these "houses" had discrete center posts, a prepared hearth, or extended entryway, although these could have been obscured or destroyed if indeed there were overlapping structures. According to Finkelstein (1934/5:11), "each room of the two structures contained a deep central floor cache". Again, this identification may be similar to that at House Unit IV, Mound Ib, where the central "caches" were actually features used to raise and hold the center posts.

About half of this mound was excavated during the WPA work. The remainder was used as fill during causeway construction.

SITE UNIT IVc

North of Mound II, east of Mound III, and south of Mound VI, was what Finkelstein (1932) described as a "flake bed" (Finkelstein, Figure A, page 8, this

volume). In addition to flakes, some bones (species unknown) were recovered. No further work was done in the area before it was destroyed.

MOUND V

This mound was only 1.5 feet high and had a diameter of about 50 feet. It was about 325 feet south of Mound Ia (Finkelstein, Figure A, page 8, this volume). The wall profile of a small test pit placed in the mound during the 1948 excavations show-

ed "loading". Thus, this mound was probably constructed as part of the ceremonial center instead of being a natural feature. It was destroyed during reservoir/causeway construction, so that no further information could be gathered during later work.

MOUND VI

This dome-shaped mound was 45 feet in diameter and 1.5 feet high. It was located about 200 feet north and slightly east of Mound III (Finkelstein, Figure A, page 8, this volume). Because no testing was done

at this mound, it is impossible to say whether it was of cultural or natural origin. It was also destroyed during the construction of the causeway.

MOUND VII

Mound VII was described as dome-shaped, 45 feet in diameter, and 2.5 feet high. It was located 210 feet south of Mound IIa (Finkelstein, Figure A, page 8, this volume). It was tested in 1936; the notes state that there were no positive

results. This may mean that this was a natural feature or that any construction stages present were not recognized at the time of testing. The mound was destroyed during causeway construction.

THE EXTRA-MOUND AREAS

A sparse scatter of refuse, including knapping debris, extended about 1000 feet northeastward from Mound Ia (Site Unit IVa; Finkelstein, Figure A, page 8, this volume). Knapping debris was also noted on the terrace edge east of Mound III. The large intra-mound area between Mounds I and III was almost devoid of cultural material, as was the area west of Mound I.

However, little, if any, excavation was done in these areas except immediately adjacent to the mounds. It is possible that the area between the mounds could have been a plaza similar to the one at the Spiro site (Rogers, Moore, and Greaves 1982). However, because it was destroyed before any excavation could be carried out, this will never be known.

COMMENTS

Because of the nature of the fieldwork conditions during the CWA and WPA era, documentation of the excavations carried out during this time was frequently quite incomplete. Archeologists often were responsible for supervising crews at

several far-flung sites (Alice Marriott, personal communication). This left them little time to undertake writing of meticulous or voluminous field notes. The workers were untrained, and scientific field techniques were still being refined in

the fledgling field of archeology. Apparently, no screening of the fill was done; thus, any small artifacts were probably lost, except for those noted during the excavation.

As studies are done on the materials recovered, our perception of the stratigraphy of the mounds may well change. It

will certainly undergo a considerable change when new profiles of the remnant of Mound I are done and become available. There is much which will never be known because of the destruction of the site by causeway construction and by the erosion of the remnant of Mound I in the 50+ years since Caldwell's work at the site.

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CHRONOMETRICS AT THE NORMAN SITE

J. Daniel Rogers, Lois E. Albert, and Frank Winchell

Introduction

Unfortunately, some of the most significant sites in eastern Oklahoma have been those with the least published information. This is a well-known consequence of the pre-World War II social aid-sponsored excavations that produced large fieldwork projects, but very little in the way of laboratory work or publication. The Norman site, in Wagoner County of eastern Oklahoma, is a major mound center that falls into this category. This report presents a specific orientation to the further analysis of the site, documentation of the available radiocarbon dates, and a few interpretive comments on regional chronology. Although the authors have an interest in producing a full-scale study of the site, we determined that for now it is beneficial to present some of the key information as it becomes available, such as the radiocarbon dates.

The Norman site (34WG2) consists of a series of mounds (including burial, platform, and other mounds), as well as non-mound habitation areas. These features place the site within the Mississippian period and relate it to many other sites in the area, such as Harlan (34CK6; Bell 1972), Spiro (34LF46;

Brown 1996), and others (see Wyckoff 1980). The Norman site, however, offers the opportunity to significantly add to our understanding of regional social and economic dynamics by presenting a new dimension to the known range of variation in artifact assemblages, features, and site organization. The key to understanding the significance of this type of variation is in being able to specify the underlying causal relationships. If we examine the range of variation of middle-range societies (defined by Taylor [1975] as sedentary horticultural groups with at least minimal evidence for status differences), significant differences become apparent in everything from demography (e.g., Hudson et al. 1985) to domestic organization (Rogers and Smith 1995).

Recognition of variation in regional culture histories and the organization of middle-range societies has resulted in many interpretive dividends. For instance, rather than viewing the origins of Mississippian culture as a singular process emerging from a cultural heartland, as was once widely accepted, the evidence now verifies multiple regional trajectories based on local historical, social, and

environmental circumstances (Smith 1984). This is not to say that local culture history is replacing broad explanations, only that local circumstances are a necessary part of the comparative basis for expanding interpretive potential in explanations of chiefdom development (Blitz 1999; Scarry 1996; Steponaitis 1991). The sheer wealth of new data and improvements in chronological interpretation makes the recognition of similarities and differences across and between regions far more viable. However, with this recognition there is also the potential to overemphasize local differences to the exclusion of broader relationships.

The types of regional variation now being recognized in chiefdoms offer important potentials for explaining social change. Essentially, by concerning our-

selves with variation, we are acknowledging a need to explore several dimensions of the process of developmental change that account for the transition from hunter-gatherer to chiefdom, especially the development and consolidation of authority. One of these processual dimensions involves adding a historical imperative -- the particulars of a specific situation. In general anthropological terms, this is associated with the notion of agency and the role of individuals as decision makers (Johnson 1989). In a broader sense, this is part of discovering how relevant our observations are to the central questions we hope to address. The search for the historical dimensions of variation that contributed to the role of the Norman site in prehistory depends first on establishing a viable site chronology to contextualize the site within the region.

The Site History

In 1934, J. Joe Finkelstein (later J. Joe Bauxer) began excavations at one of the few "mound builder" sites then known in eastern Oklahoma. Under the auspices of the University of Oklahoma and with Civil Works Administration funds, Finkelstein spent three field seasons at the site amassing information. The results of this work were briefly summarized in the short-lived newsletter, *The Oklahoma Prehistorian* (1940:2-15), and are reprinted in this issue. Subsequent salvage excavations in 1948 by Robert E. Bell (University of Oklahoma) and Joseph Caldwell (Smithsonian Institution) added

to this store of information. In 1949, Bauxer began a comprehensive report on the excavations, but was not able to complete it. Bell and Caldwell also prepared unpublished reports on their excavations. Over the years, the field notes, photographs, reports, and collections have been curated at the Oklahoma Museum of Natural History.

In 1958, one radiocarbon date was obtained by Robert Bell (1958) from the Humble Oil Co. laboratory and one from the laboratory at the University of Michigan (Bell 1959). In 1990 and 1991,

twelve dates were obtained by Daniel Rogers from Beta Analytic, and in 1998 Frank Winchell obtained a fifteenth date, also from Beta Analytic. This sample (B-120603) was recently acquired in the field, specifically for radiocarbon dating. The strategy employed for selecting curated material to be dated was directed towards

sampling as many contexts as possible and to establishing the range of occupation for the site. Choices were restricted by the need to use existing materials and by curatorial decisions concerning specific categories of objects deemed too rare or culturally sensitive to permit destructive sampling.

Discussion

Of the 15 dates (Table 1) so far acquired for the Norman site, one (B-38869) is rejected due to its anomalously early time range and the possibility of contamination. Fumigants applied during the sample's decades long storage in the Oklahoma Museum of Natural History may be linked to an unusual "film-like material" emitted during processing, as noted by Beta Analytic. The remaining 15 dates are discussed here by major site feature.

Six of the dates are from various contexts within Mound Ia, the largest platform mound (see Finkelstein, Figure A, this volume). Two of the dates (B-38864 and M-818) are from the same post found lying horizontally on the surface of the 2nd Substage. Although the M-818 date was obtained in 1958, it overlaps substantially with the more recently acquired B-38864 date. Two other dates are also paired, coming from the same context (B-38868 and B-44376). The results from these two samples gave almost identical results, calibrated at A.D. 1160 and 1161 respectively. All together, five of the dates overlap significantly and place the age of the mound at circa A.D. 1000 to 1300.

The habitation areas to the south (Area A) and to the north (Unit IV) of Mound I contained numerous features, including several rectilinear overlapping post patterns. Area A has one date (B-38871) calibrated at A.D. 1263. Although the probability distribution at the two sigma level for this date has multiple intercepts, the date range A.D. 1154-1305 accounts for 94% of the area under the distribution curve. Unit IV also has one date (B-38867), falling into an almost identical time range. The two sigma probability distribution shows that the time range of A.D. 1153-1321 accounts for 83% of the area under the distribution curve. These dates overlap significantly with those for Mound I. Unit IV actually partially underlies the flank of Mound Ib, indicating that the structures in this area were no longer functional by the time the mound was constructed. Given the near identical dates for Area A and Unit IV and the evidence for superposition, the construction of Mound I probably took place well after A.D. 1000 and probably sometime after A.D. 1100.

Only one sample (B-44377) was pro-

Table 1. Radiocarbon Dates from the Norman Site.

Sample No.	Material	Provenience	Measured ¹⁴ C Date B.P.	Calibrated Age(s) A.D. ^a	1 Sigma Calibrated Ranges A.D. with Probability Distributions ^b	2 Sigma Calibrated Ranges A.D. with Probability Distributions ^c
B-38863	Wood charcoal	Mound III, House 3 floor	930 ± 50	1043, 1091, 1119, 1140, 1155	1036-1157 (1.00)	1006-1221 (1.00)
O-595	Wood charcoal	Mound III, House 3 floor	1000 ± 100	1021	903-916 (.07) 961-1162 (.93)	783-788 (.01) 814-844 (.02) 857-1255 (.97)
B-38865	Wood charcoal	Mound III, Square 132, 26.7 cm above gravel, House 2 floor	700 ± 60	1290	1262-1319 (.63) 1354-1389 (.37)	1218-1401 (1.00)
B-38866	Wood charcoal	Mound III, Square 117, 81.3 cm above gravel	710 ± 50	1287	1253-1308 (.71) 1358-1386 (.29)	1216-1334 (.73) 1341-1397 (.27)
B-38872	Charred acorn	Mound III, Burial 60-3	900 ± 110	894	776-1000 (1.00)	663-1051 (.96) 1087-1123 (.03) 1136-1155 (.01)
B-44377	Wood charcoal (<i>Juniperus</i>)	Mound II, Burial 50	1055 ± 55	995	897-923 (.17) 940-1027 (.82)	783-786 (.01) 819-842 (.02) 859-1070 (.88) 1078-1133 (.07) 1134-1158 (.03)
B-38867	Wood charcoal	Unit IV	770 ± 70	1271	1184-1298 (1.00)	1046-1091 (.07) 1118-1141 (.04) 1153-1321 (.83) 1350-1390 (.07)
B-38864	Wood charcoal	Mound Ia, 2 nd Substage, Square S13-L6	790 ± 50	1259	1207-1284 (1.00)	1045-1090 (.05) 1119-1139 (.03) 1154-1301 (.92) 1373-1374 (.01)
M-818	Wood charcoal	Mound Ia, 2 nd Substage, Square S13-L6	1050 ± 150	997	788-789 (.02) 829-840 (.02) 866-1159 (.95)	689-1250 (1.00)
B-38870	Partially charred wood (<i>Juniperus?</i>)	Mound Ia, 3 rd Substage, Near post A	480 ± 60	1434	1337-1341 (.05) 1397-1483 (.95)	1305-1367 (.14) 1382-1525 (.77) 1563-1629 (.09)
B-38868	Wood charcoal	Mound Ia, 3 rd Substage, Near post B	900 ± 50	1160	1042-1101 (.46) 1112-1143 (.23) 1152-1195 (.31)	1023-1245 (1.00)
B-44376	Wood charcoal (<i>Pinus</i>)	Mound Ia, 3 rd Substage, Near post B	890 ± 60	1161	1042-1096 (.42) 1116-1139 (.14) 1153-1213 (.44)	1022-1260 (1.00)
B-120603	Wood charcoal	Mound Ia, Near base	830 ± 40	1265	1225-1280 (1.00)	1159-1302 (.99) 1378-1379 (.01)
B-38869	Charred corn kernels	Mound Ib, House 2-1 floor	2720 ± 50	BC 968, 961, 925	BC 1009-894 (.84) 874-845 (.15)	BC 1118-827 (1.00)
B-38871	Wood charcoal	Area A, Square S4-L3	780 ± 50	1263	1212-1287 (1.00)	1053-1087 (.03) 1122-1139 (.02) 1154-1305 (.94) 1368-1382 (.01)

Note. Dates listed as BP (before present) are based on AD 1950 and include error ranges at the one sigma level (68.3% probability). All dates are reported with a half-life of 5568 years and are listed as non-conventional dates. (i.e. with no correction for isotope fractionation). The computer program CALIB 4.1, Beta 3, Method B (Stuiver and Reimer 1993; Stuiver et al. 1998) was used to calibrate the dates. Calibrated dates were corrected for isotope fractionation using a $\delta^{13}\text{C}$ estimated value of -25 ± 2 per mil as suggested for recent wood charcoal, except for the following: B-38869, $\delta^{13}\text{C}$ measured at -20.0 ± 2 ; B-38872, $\delta^{13}\text{C}$ acorn shell estimated at -10.0 ± 2 ; B-120603, $\delta^{13}\text{C}$ measured at -28.4 ± 2 (see Stuiver and Polach [1977] and Stuiver and Reimer [1993] for suggested mean $\delta^{13}\text{C}$ values).

^aCalibrated date intercept presented in calendar years.

^bCalibrated dates presented in calendar years as a time range with an error margin calculated at the one sigma level (68.3% probability). Probability distributions for the respective radiocarbon curve intercepts are in parentheses.

^cCalibrated dates presented with an error margin calculated at the two sigma level (95.4% probability). Probability distributions for the respective radiocarbon curve intercepts are in parentheses.

cessed from the principal burial mound, Mound II. Wood charcoal from Burial 50 produced a calibrated date of A.D. 995. The date range at the two sigma level extends from A.D. 783-1158, although 88% of the variation is included in the probability distribution for A.D. 859-1070. Other than wood charcoal, the burial associations consisted of shell tempered Woodward Appliqué sherds and other shell tempered sherds with incised lines. The date ranges cited here are early for the time periods usually associated with Woodward Appliqué ceramics. This type of pottery is routinely assigned to the Norman (A.D. 1250-1350) and Spiro (A.D. 1350-1450) phases (Brown 1996: 161, 163-164; see also Rohrbaugh 1982). Numerous other examples of Woodward Appliqué, Spiro Engraved, Maxey Noded Redware, Beaver Pinched, Woodward Plain, Paris Plain, LeFlore Plain, Poteau Plain, Williams Plain, and other types are found among the burial associations in Mound II. Given this assortment of

primarily Norman and Spiro phase ceramics, the early date for Burial 50 should not be considered reflective of the history of Mound II.

The final dated unit at the site is Mound III, a circular dome-shaped platform mound with a significant cluster of intrusive burials, identified as the Searcy component. Five dates were obtained for different features within the mound. Two of the dates (O-595 and B-38863) are from House 3, a square four center-post structure with an extended entryway, found at the base of the mound. These dates overlap significantly, and at the two sigma level the time range of A.D. 1000-1220 accounts for the bulk of the distribution. A third date (B-38865) is from House 2, which was found at an intermediate elevation within the mound. This date has a calibrated age of A.D. 1290, and a two sigma distribution of A.D. 1218-1401. A fourth date (B-38866) is from deposits in the upper portion of the

mound. This sample produced a calibrated date of A.D. 1287. At the two sigma level, the bulk of the probability distribution is encompassed by the range of A.D. 1216-1334. A final sample (B-38872) from Mound III was obtained from a charred acorn associated with Burial 60 from the Searcy component. Given the simple shell-tempered ceramics and other lithic associations with these burials, the Searcy component is usually considered to be very late in the sequence, perhaps even protohistoric, although there are no Euro-

pean materials present. The calibrated age of A.D. 894 obtained for this sample is early and probably not representative of the age of this component, although at the two sigma level there is one intercept as late as A.D. 1134-1158. Taken together, the five dates for Mound III suggest a time range for construction and use of the mound and the buildings at its base of about A.D. 1000 to 1400. Dating of the Searcy component will require further analysis.

Conclusions

It has always been possible to gain a rough idea of the chronological placement of the Norman site based on the scanty, but revealing, early information (Finklestein 1940). However, it has still been difficult to place the site within the regional culture historical sequence, principally because of the absence of a detailed analysis, but also because of the scarcity of radiocarbon dates known to be reliable. This study alleviates part of the problem by providing a new series of dates and by helping to establish the reliability of samples processed early in the history of radiocarbon analysis. With this new information, we can better assess the nature of the occupation and the sequence in which different parts of the site were constructed and utilized.

In general terms, the radiocarbon dates point to an occupation of the site dating from A.D. 900-1400, but with some evidence that the principal occupation is

towards the middle and latter end of this range, especially A.D. 1100-1400. An eventual detailed analysis of the site will probably expand the occupation at both ends of the time range. For now, the radiocarbon dates link the occupation of the Norman site to three phases in the revised cultural phase sequence developed by Brown (1996:153-167; see also Brown and Rogers 1999): the Evans phase (A.D. 1000-1100), the Harlan phase (beginning at either A.D. 1050 or 1100 and continuing to A.D. 1250), and the Norman phase (A.D. 1250-1350).

The chronological placement of the site brings up an intriguing issue in the organization of regional social dynamics (Rogers 1996). Although most mound centers in the Northern Caddoan Region are widely dispersed (Brown et al. 1978: 192-193), the Norman site is only 6 km from another significant mound center, the Harlan site. At Harlan, the occupation

begins as early as A.D. 700 and probably ends by the mid-1200s (Bell 1972, 1984). The principal portion of the occupation at Harlan is earlier than the main occupation at Norman; however, there is significant overlap, on the order of 200 years. The proximity of these two important sites and their respective histories provides a key

resource in the analysis of middle-range social organization. The implication is that the decisions accounting for the establishment and growth of the Norman site involve issues other than effective use of resource distributions. Future studies of the Norman site will surely need to consider the implications.

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CURRENT STATUS OF THE NORMAN SITE, 34WG2

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As defined by Finkelstein (1940) in his description of excavations at the site, the Norman site currently is completely located within the waters of Fort Gibson Reservoir, a U.S. Army Corps of Engineers (COE) lake on the Grand (Neosho) River in northeastern Oklahoma. Due to a combination of archeological excavations at the site during the 1930s and 1940s, pothunting, large-scale earth-moving activities associated with the construction of a nearby highway bridge, and approximately 50 years of wave action and seasonal inundation by Fort Gibson Reservoir, portions of Mounds I-1 and I-2 (*ed. note*: Mounds Ia and Ib in the previous papers) are all that remain of the Norman site.

At normal conservation pool Mounds I-1 and I-2 form a small island located approximately one hundred meters off shore from a popular swimming beach at Fort Gibson Reservoir. During periods of high rainfall and flooding, the mounds

may be completely inundated by the lake for several weeks at a time. Based on topographic information gathered at the site in 1998, it appears that somewhere between one-third to one-half of Mounds I-1 and I-2 at the Norman site still remain *in situ*. In 1998 Mound I-1 was approximately 35 meters long, 20 meters wide, and had a maximum height of around 6 meters. Mound I-2 was much smaller, with dimensions of around 17 meters long, 8 meters wide, and 1.5 meters tall. The mounds are covered with small to medium sized pecan and cottonwood trees and a heavy undergrowth of poison ivy, sumac, and other low shrubs. The western portions of the mounds appear to be relatively undisturbed, with no visible potholes or erosion present. A large cutbank is located along much of the eastern face of the mounds, exposing up to 5 meters of Mound I-1 deposits. Personal observations of the exposed deposits at Mound I-1 during 1999 and 2000 revealed stratigraphy and features very similar to

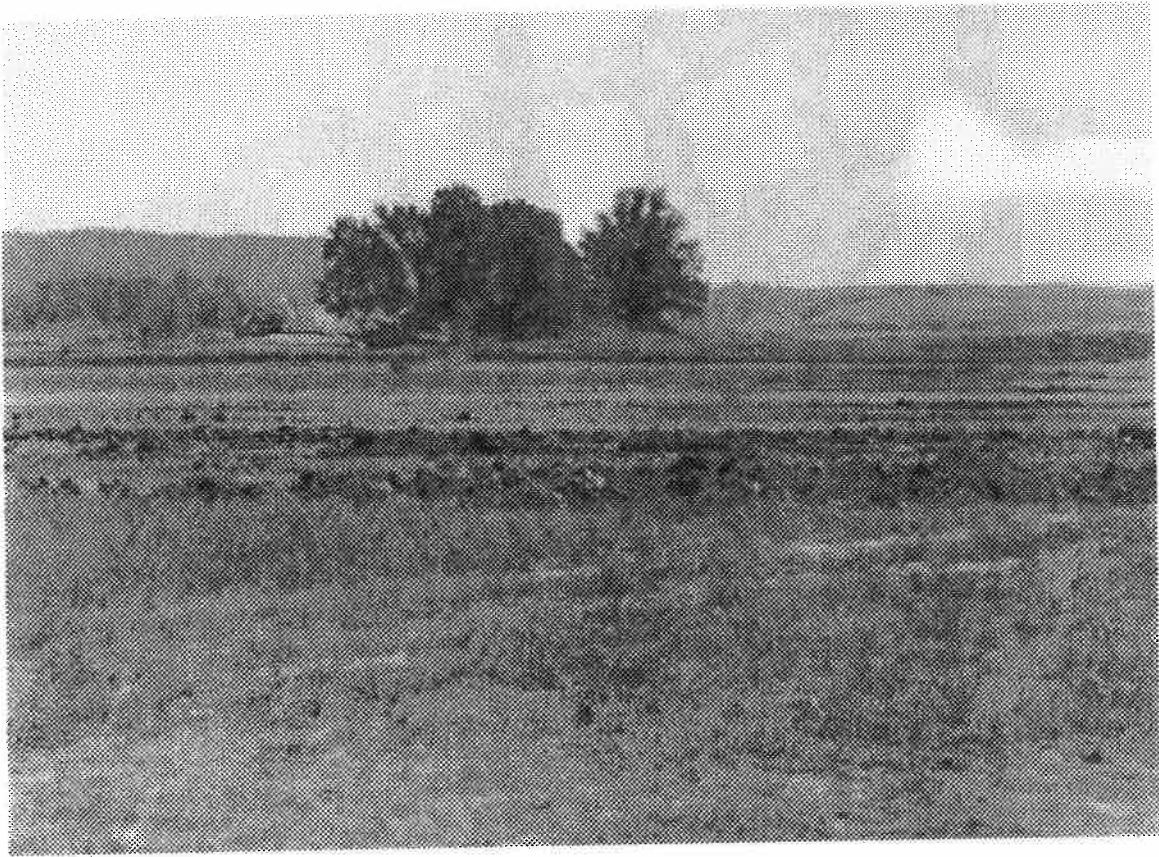
those recorded at other Caddoan mound sites such as the Copple Mound (34LF46) at Spiro, Mound 7 at the Harlan site (34CK6), Mound 1 at the Goforth-Saindon site (3BE245), Mound A at the Huntsville site (3MA22), and Mound A at the A.C. Mackin site (41LR36). These features include compound flat topped fired clay mound surfaces, large structural pit basins, numerous burned structures, and systematic use of specific colored and textured sediments during specific mound construction events.

In recognition of the importance of what remains of the site, the Tulsa District COE has recently initiated a program to record and protect the Norman site. Beginning with efforts by former Tulsa District archeologist Frank Winchell, Tulsa District has been successful in recent years in securing limited funding to undertake basic documentation of the remaining mounds at the site. In 1998, the Tulsa District produced a contour map of Mounds I-1 and I-2. Informal consultation with interested parties, including the Oklahoma Archeological Survey, Okla-

homa State Historic Preservation Office, the Caddo Tribe of Oklahoma, and Wichita and Affiliated Tribes of Oklahoma, on identifying short and long term goals for the further recording and ultimate preservation of the remaining mounds have been underway for the past two years. This consultation has recently been formalized in accordance with the 1999 revisions to the implementing regulations of the National Historic Preservation Act. In the short term, the Tulsa District plans to fund a project to record the stratigraphy visible in the cutbanks of Mounds I-1 and I-2 and in the process hopefully secure radiocarbon and archeomagnetic samples to allow dating of some of the mound deposits. In the long term, the Tulsa District has submitted a project to Headquarters for consideration that would fund development of some permanent protection for what remains of the mounds. What that protection might ultimately entail will be contingent upon the results of the on-going consultation, the engineering requirements of potential options, and the amount of funding provided for the project.

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Norman site (34WG2), Wagoner County, Oklahoma, showing Mound I with partially stripped site in foreground. Photo probably by Joseph Caldwell, 1948; courtesy of the Sam Noble Oklahoma Museum of Natural History, The University of Oklahoma, Norman.



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