

CHAPTER 8 DESCRIPTIONS OF BURIAL FEATURES

Burials Excavated During the 1970s Investigations

Two small clusters of prehistoric human burials were encountered and excavated during the 1970s. Both clusters were within the eastern part of the site above the 8-foot contour line, one in the Cross Area immediately adjacent to the Eckert Bayou shoreline, the other some 150 meters to the west in the Burial Area. Five burial pits were found in the Burial Area (see Figure 8.1). Four of the pits contained a single individual, the fifth contained two individuals. Each individual was given a burial number designation by the excavators, so that the Burial Area contained Burials 1 through 6. Five burial pits were found in the Cross Area as well (Figure 8.2). Here, three of the pits contained the remains of a single individual and two contained two individuals each, for a total of seven, designated by the excavators as burials 7 through 13.

As is the case with other features excavated during the 1970s, field notes are lacking for the burials. There is, therefore, no detailed information available on the precise size or depth of any of the burial pits, nor on the exact position or degree of articulation of human bone, nor on the position of artifacts associated with burials. Fortunately, we do have field maps of each burial cluster (redrawn herein as Figures 8.1 and 8.2), which provide key information on the approximate position of the bodies. It is thus possible to determine that (a) most, probably all, of the burials were primary interments, since the bones appear to be more or less in articulated positions, (b) all but one of the buried individuals were placed in flexed or semiflexed positions, and (c) all but one of the individuals were placed with the head oriented toward the west or southwest.

During the process of inventorying the 1970s collections, artifactual grave offerings were found for three of the burials. The absence of detailed field notes precludes a completely confident conclusion that these represent all of the materials associated with all thirteen burials. However, unlike most of the materials found in the general occupation areas, these burial goods had been carefully wrapped, boxed, and labelled according to provenience. The apparent care taken to provenience and package the burial goods suggests that we may have a complete representation of such materials. Though it must be stressed that this may not, in fact, be the case, it is cautiously assumed in the discussions which follow that burials for which no associated artifacts could be found in the collection actually did not contain grave goods.

With these limitations in mind, the following summaries of the burials are presented on the basis of the information which is available, along with radiocarbon age determinations obtained on human bone samples from five burials (all assays on human bone were run on the collagen fraction). For these and all other radiocarbon-dated burials, calibrated calendar date ranges are given at 2-sigma of error (95% confidence level) in order to (a) generally maximize the reliability of the dates for chronological examination of long-term trends and changes in mortuary patterns and (b) accommodate certain radiocarbon results on Early Historic burials which, presumably because of the wide fluctuations in ^{14}C during historic times resulting from changes in atmospheric carbon association with industrial pollution, make sense only when bracketed by the 2-sigma range. All radiocarbon data are summarized in the Appendix, and key information on the burials is summarized in Table 8.1.

The Burial Area

Burial 1

This appears to have been a primary flexed interment, with the head toward the west-southwest. No data are available on the depth of the burial below the ground surface (as is the case with all burials excavated during the 1970s). The approximate plan dimensions of the burial pit can be estimated on the basis of the pit outline indicated in the extant field map shown here as Figure 8.1. The pit was oblong, oriented west-southwest to east-northeast, and measuring approximately 70 x 150 cm. Examination of the bones, discussed in detail in Chapter 9, indicates a relatively old adult male, 50+ years in age. This burial was apparently not accompanied by grave offerings.

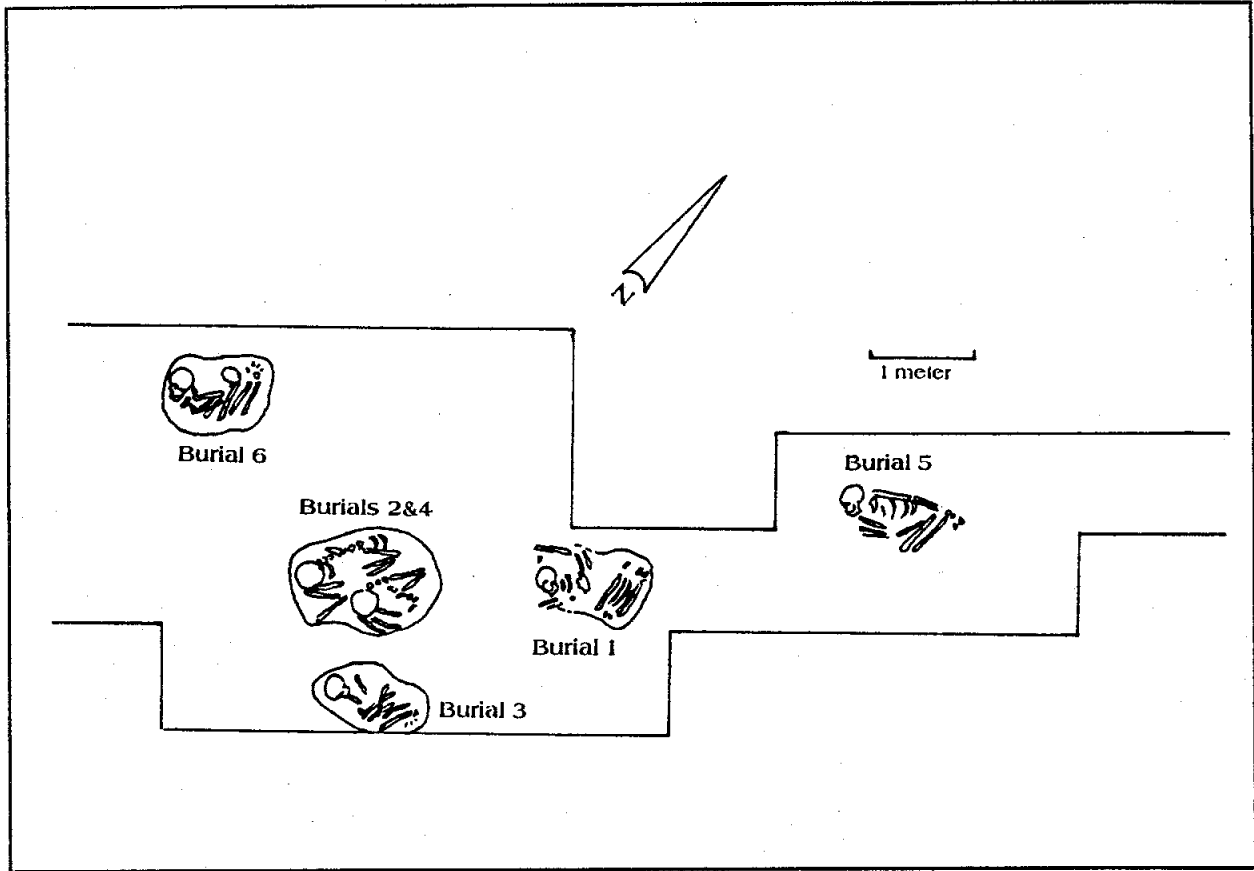


Figure 8.1. Map showing Burials 1-6, Burial Area, 1970s excavations.

Burials 2 and 4

Burials 2 and 4 were within a single oval pit measuring approximately 105 x 145 cm. In the field map, the vertebrae appear to be indicated in articulated positions, and the skulls seem to be articulated with the vertebral columns. Assuming on this basis that these are primary interments, it is apparent that both burials are flexed interments, since the pit is too short for extended burials and what are probably leg bones appear to be at opposite ends of the pit from the skulls. Because the two burials appear also to be distinctly articulated, the interment of one does not seem to have caused jumbling of the bones of the other (as is the case in some burials excavated in 1992, discussed further on in this chapter). Both individuals are clearly oriented with the heads toward the southwest. Burial 2 was an older adult female, 50+ years in age. Burial 4 was an adult male 20-50 years of age at death. No offerings accompanied these individuals.

A small sample of longbone from Burial 4 was submitted to Beta Analytic, Inc. for accelerator mass spectrometer (AMS) radiocarbon dating. The assay (Beta-64565) produced an uncorrected age of 980 +/- 60 B.P., which corrects for ^{13}C to an age of 1110 +/- 60 B.P. This calibrates to a 2-sigma dendrochronologically calibrated calendar date range of A.D. 785-1005, with an intercept at A.D. 967. This result places this burial within the Initial Late Prehistoric Period.

Burial 3

This is a primary flexed interment of an adolescent female, 11-15 years old at death. The head

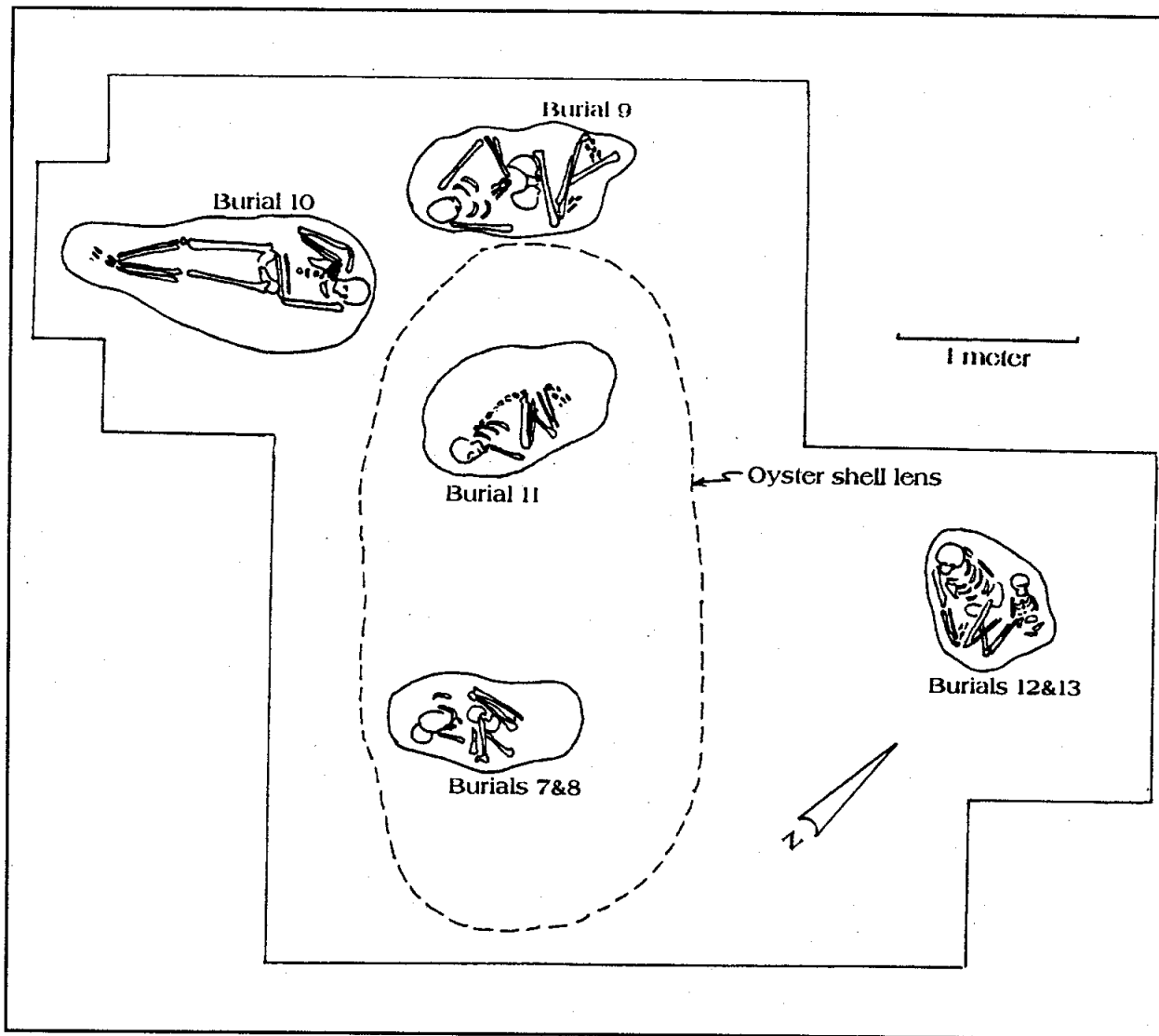


Figure 8.2. Burials 7-13, Cross Area, 1970s excavations. Oyster shell lens was noted as overlying the graves.

is oriented toward the west-southwest. The burial pit is oblong in plan, measuring approximately 60 x 100 cm.

A small sample of longbone was submitted for AMS dating (Beta-64564), which resulted in an uncorrected radiocarbon age of 570 +/- 50 years B.P. This corrects for ^{13}C to 680 +/- 50 B.P., which calibrates to a 2-sigma calendar date range of A.D. 1268-1401, with an intercept at A.D. 1298, placing Burial 3 in the Final Late Prehistoric Period.

Burial 5

This single interment was represented by the remains of an adult female, 20-50 years of age, buried in a flexed position. Judging by the field map (Figure 8.1), the body was placed on the right side with the arms in front of the chest. The head was oriented to the west-southwest. The size and shape of the burial pit cannot be determined, since they are not indicated on the field map.

This is one of the few burials excavated in the 1970s which contained grave offerings. The offering

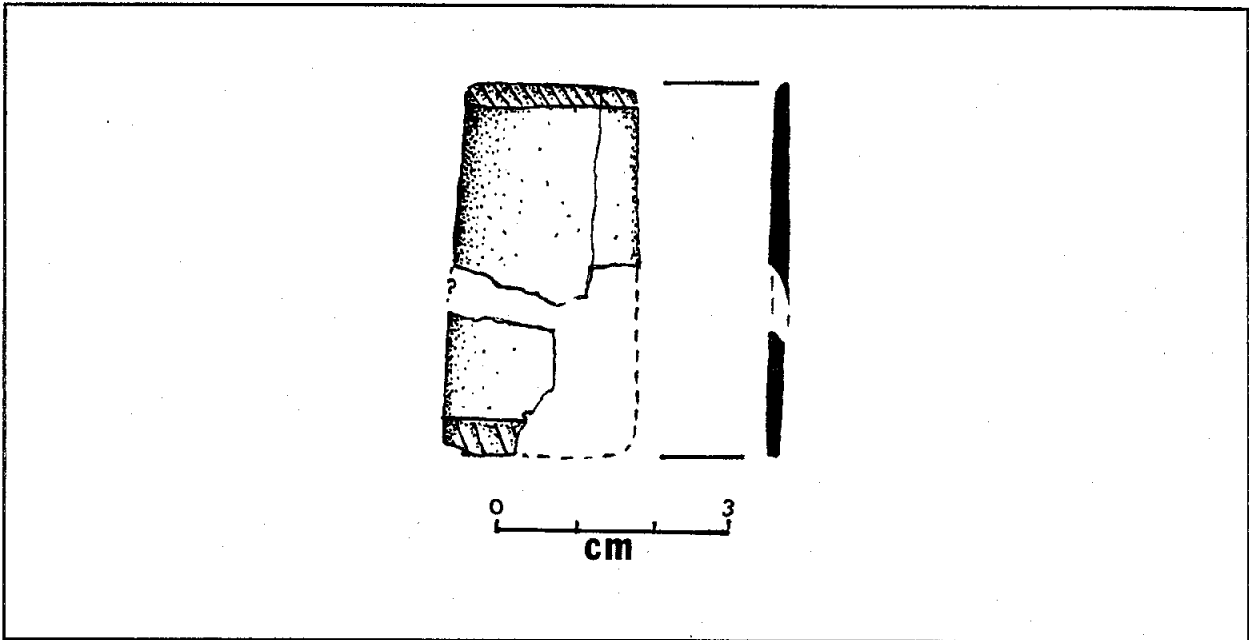


Figure 8.3. Rectangular engraved bone artifact associated with Burial 5 in the Burial Area.

in this case consists of a piece of mammal longbone ground to a rectangular shape and ground flat on the interior surface of the bone. The piece is fragmentary, so dimensions are incomplete. One end is intact, and measures 25 mm in width. The length had to have been at least 47 mm. Both ends bear engraved decorations, consisting of short oblique lines bounded by a line running perpendicular to the long axis of the piece (see Figure 8.3). The function of this object is unknown, but its decoration and placement as an apparent burial offering suggest a non-mundane significance. Except for the engraved designs, it closely resembles rectangular bone objects, described earlier and illustrated in Figure 6.6, which came from the general excavations. It is virtually identical to two specimens recovered from the Harris County Boys School Site, suggested to have served as gaming pieces or dice (Aten et al. 1976:36-37).

Burial 6

This burial contained the flexed remains of an adult male, 30-40 years of age. The burial pit was roughly oval in plan and measured approximately 75 x 110 cm. The head was oriented toward the west-southwest. This individual was apparently unaccompanied by grave goods.

The Cross Area

Burials 7 and 8

These burials consist of the remains of two probably flexed individuals placed in an oblong pit measuring approximately 55 x 100 cm. Burial 7 was an adult male, 35-50 years old, and Burial 8 was a juvenile of indeterminate sex. It is not clear whether the two individuals were buried simultaneously or whether one individual was first buried and the pit later reopened for interment of the second individual. The heads of both individuals were oriented toward the southwest.

The adult male, Burial 7, was accompanied by six artifacts. Four of these are thick, tubular whelk columella beads ranging in length from 38 to 43 mm (Figure 8.4, a-d). All four specimens retain traces of the natural spiral configuration of the columellae. The beads are all perforated lengthwise, with the

Table 8.1. Data on burials excavated in the 1970s.

Burial number	Pit Dimensions (cm.)			Burial type	Head orientation	Age / Sex	Grave goods
	L	W	D				
1	150	70	NA	semi-flexed	WSW	adult male 50+ yrs.	none
2	145	105	NA	semi-flexed?	WSW	adult female 50+ yrs.	none
3	100	60	NA	semi-flexed	WSW	adolescent female 11-15 yrs.	none
4	145	105	NA	NA	NA	adult male 20-50 yrs.	none
5	NA	NA	NA	semi-flexed	WSW	adult female 20-50 yrs.	Engraved rectangular bone piece
6	110	75	NA	semi-flexed	WSW	adult male 30-40 yrs.	none
7&8	100	55	NA	burial 7 flexed?	SW	adult male 35-50 yrs.	2 bifaces 4 conch columella beads
				burial 8 flexed?	SW	juvenile 6-10 yrs.	
9	120	60	NA	semi-flexed	SW	adult female 20-25 yrs.	none
10	170	75	NA	extended, on back	NE	adult male 20-25 yrs.	socketed deer metapodial point Godley dart point Cockle shell fragments
11	115	60	NA	flexed, on right side	SSW	juvenile 6-10 yrs.	none

Table 8.1, cont.

Burial number	Pit Dimensions (cm.)			Burial type	Head orientation	Age / Sex	Grave goods
	L	W	D				
12&13	80	60	NA	burial 12 semi-flexed, on back	WNW	adolescent female 10-20 yrs.	1 Scallorn point (possible cause of death)
				burial 13 indeterminate	WNW	juvenile 2-6 yrs.	none

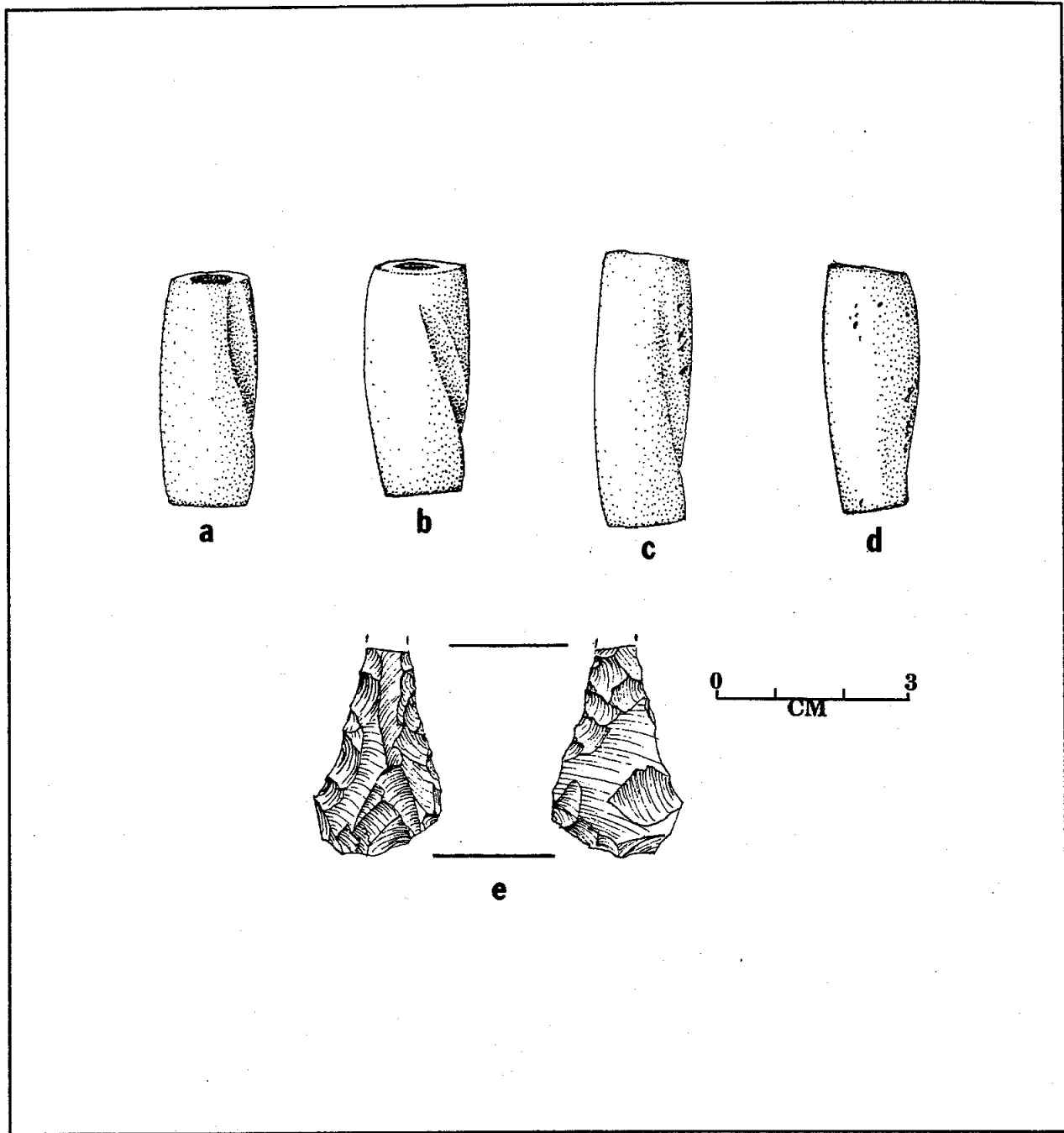


Figure 8.4. Artifacts associated with Burial 7. A-d, whelk columella beads; e, basal fragment, chert drill.

perforations accomplished by drilling from both ends. The two other artifacts are lithic items. One (Figure 8.4, e) appears to be the expanded base of a rather large and thick bifacial drill or perforator of gray chert, from which the distal bit end is broken off. The width of the base is 20.4 mm, and maximum thickness is 7 mm. The other lithic artifact is a tertiary flake of tan chert with edge retouch.

A sample of longbone from Burial 7 (Beta-58746) was submitted for AMS radiocarbon dating. The uncorrected age is 870 +/- 90, which corrects for 13C to 990 +/- 60 B.P. This calibrates to a 1-sigma calendar date range of A.D. 1004-1156, with an intercept at A.D. 1025. The chronological placement of this burial thus falls into the Initial Late Prehistoric Period.

Burial 9

The remains of a young adult female, 20-25 years of age, this burial was semiflexed in an oblong pit with the head toward the southwest. Judging from the field map, the body rested on the back, with the left forearm placed across the torso and the legs bent toward the right hand side of the body. No grave offerings appear to have been placed with this individual.

Burial 10

This burial consisted of the remains of a young adult male, 20-25 years of age, in an oblong pit which measured approximately 75 x 170 cm. The burial is unique among the prehistoric interments at the site in a number of aspects. First, it is the only prehistoric burial which was placed in an extended position. Second, the head was oriented toward the northeast, unlike all other burials at the site (except for an infant, with headward orientation to the north, all others had headward orientation toward the west-to-south). Additionally, the burial offerings include a large stemmed dart point and several socketed bone points, items not found in other burials at Mitchell Ridge. Finally, a radiocarbon assay on longbone place this burial markedly earlier than any other at the site.

The sample of human bone from this burial (Beta-58748) yielded a radiocarbon age, corrected for C13, of 1920 +/- 70 years B.P. Calibrated dendrochronologically, this produces a 2-sigma calendar date of B.C. 45-A.D. 310, with an intercept at A.D. 84. This date puts Burial 10 either in the terminal Preceramic Period or the beginning of the Early Ceramic Period. As such, this is the only radiocarbon evidence of aboriginal occupation at Mitchell Ridge prior to the Initial Late Prehistoric.

The kinds of grave offerings are in accord with this relatively early chronological placement. The stemmed dart point (Figure 8.5, a) fits best into the Godley type, a type found in southeast Texas and adjacent areas and attributed to the late to terminal Archaic (Turner and Hester 1993). It should be noted, however, that nearly identical points are reported from the Poverty Point culture assemblage of the Lower Mississippi Valley (e.g. Neuman 1984, plate 11), which is considered to date several centuries or more earlier than the calibrated radiocarbon age range for Burial 10 (Phillips 1970; Neuman 1984). The possibility that the dart point from Burial 10 was a curated object, or one that was picked up by later people, should thus be considered. The distal end of the point was reworked to a drill-like tip, indicating reshaping for a secondary purpose, which would not be inconsistent with re-use at a date later than that of original manufacture.

The socketed bone points, all made from the distal ends of deer metapodial bones, have exact counterparts to the east in the Lower Mississippi Valley and Louisiana coastal zone, where they are part of the Tchefuncte culture assemblage (see Neuman 1984, plate 23; Weinstein 1986:112), which is dated to the latter part of the last millennium B.C. and into the very early first millennium A.D. This artifact type also is widely distributed in late Preceramic or Early Ceramic contexts in the upper Texas coast area. Aten (1971:41-43) reported them from the Early Ceramic component at the Dow Cleaver Site (41B)35 in the Brazos delta area, and from refuse assigned to the Clear Lake and Mayes Island Periods (A.D. 100-600) at 41HR80 and 41HR85 in Harris County (Aten et al. 1976:39, 41). Other specimens have been documented from Preceramic and Early Ceramic zones at 41HR50 (Ambler 1967:54) and 41CH13 (Ambler 1973:102). Aten (1983a:264) suggests that socketed bone points dropped out of upper coast assemblages with the appearance of the bow and arrow after ca. A.D. 600.

The seven socketed bone points from Burial 10 (see representative examples in Figure 8.5) range from 40 to 80 cm in length. All were made by removing the distal articular end of the bone, grinding the medial shank to a point, and reaming out the distal end to facilitate insertion of a shaft, which presumably was of wood. That a shaft was in fact inserted is indicated by the presence of asphaltum mastic on the interior of all specimens.

In addition to these points, the grave offerings also included four unworked distal sections of deer metapodials (see example, Figure 8.5, B). Considering their association with the socketed points made of the same bone element, these were probably blanks for the manufacture of new points. The placement of raw material with the deceased for future use in some kind of afterlife is suggested by the presence of these items.

Another item found with Burial 10 is a piece of pumice measuring 62 x 69 x 38 mm. Although there is no apparent use-modification, this piece may have been placed in the grave for future use as an

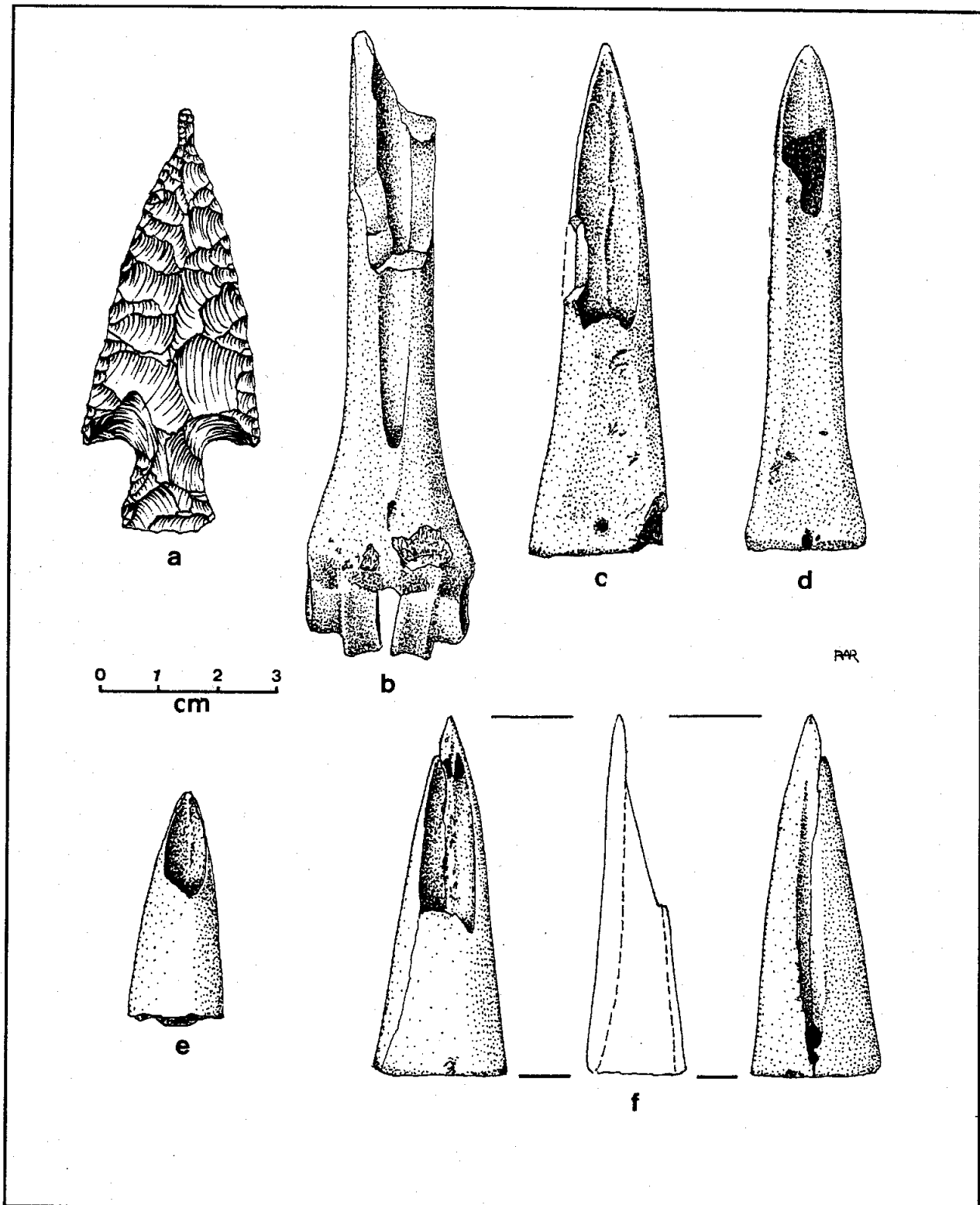


Figure 8.5. Artifacts associated with 1970s Burial 10. A, stemmed chert dart point; b, distal deer metapodial (probably a blank for socketed bone point manufacture); c-f, examples of socketed deer metapodial bone points. Note asphaltum on inside of d.

abrader. As such, it might have been intended for use in working the deer metapodials into points.

Three other objects, one a modified deer ulna, the other two modified shells, complete the list of offerings from Burial 10. The distal end of the deer ulna is cut and smoothed and is worked to a narrow point on one side, possibly for use as a perforator. A complete valve of Atlantic cockle (*Laevicardium robustum*) shell exhibits smoothing on one lateral edge, perhaps from use in scraping or abrading. A complete valve of quahog shell (*Mercenaria campechensis*) shows similar edge modification, though it consists of flaking of the shell edge rather than smoothing. This specimen too was clearly utilized, perhaps also in scraping tasks.

In various attributes-- extended body position, headward orientation, kinds of grave goods-- Burial 10 is anomalous among the Mitchell Ridge burials. Combined with its age, which predates other burials at the site by at least several hundred years, these anomalies strongly suggest that Burial 10 represents a different mortuary tradition than the other burials at the site, as well as various burials documented at other sites in the Galveston Bay area. Burial 10 is, in fact, similar in its extended body position, and northeast headward orientation, to most of the burials in Group 2 at the Ernest Witte Site near the lower Brazos River in Austin County, radiocarbon dated to ca. 500 B.C.-400 A.D. (Hall 1981, n.d.). In a very general sense, Burial 10 also resembles Late Archaic burials from the central coastal plain of Texas in containing a relative abundance and variety of grave offerings (cf. Hall 1981, n.d.), though it does not contain the *kinds* of items, such as boatstones and large whelk shell pendants, which are most diagnostic of the Late Archaic burials at sites such as Ernest Witte (Hall 1981), Crestmont (Vernon 1989; Hall n.d.) and Albert George (Hall n.d.). Clearly, no firm conclusion concerning the larger cultural relationships of mortuary patterns at Mitchell Ridge during the period of Burial 10 can be reached on the basis of the evidence of this single interment. At the same time, it is apparent that this burial is (a) anomalous at the site, (b) dates to a distinctly earlier time period than the rest of the burials at the site, (c) and shares some basic attributes with contemporaneous burials at other locales on the Texas coastal plain. The available data thus suggest broader affinities with a regional, Late Archaic mortuary tradition. And, whatever the larger sociocultural linkages with such a tradition may have been, it is apparent that the burial patterns at Mitchell Ridge changed by Late Prehistoric times, when nearly all buried individuals were headed toward the west or southwest, and placed in flexed or semiflexed positions. The shift to flexed burials in the Late Prehistoric is paralleled at Ernest Witte and other sites on the central coastal plain (see Hall 1981, n.d.; Huebner and Comuzzie 1992:11-15).

Burial 11

The remains of a juvenile individual of indeterminate sex, 6-10 years of age, were found in an oblong pit measuring approximately 60 x 115 cm. The body was in a flexed position on the right side, with the head oriented toward the west-southwest. No grave goods are documented for this burial.

Burials 12 and 13

These burials were both placed within a more or less oval pit measuring approximately 70 x 90 cm. Burial 12 was an adolescent female 10-20 years of age, resting on the back in a semiflexed position, with the right arm extended, parallel to the torso. Burial 13 was a juvenile of indeterminate sex, 2-6 years old, also placed on the back in a semiflexed position. The head of both individuals was oriented toward the west-northwest.

Two Scallorn arrowpoints, probably the cause of death, were associated with Burial 12. One of the points was found near the lumbar vertebrae (Atkins n.d.). The other was found embedded in the third lumbar vertebra during osteological analysis (see Powell report, Chapter 9 herein). This is the only instance at Mitchell Ridge of projectile points associated with human skeletal remains in such a position as to suggest violent death. This find is congruent with widespread evidence from prehistoric burials in Texas for Scallorn arrowpoints as the cause of death, suggesting relatively intense and/or frequent intergroup conflict ca. A.D. 700-1300, the period to which this arrowpoint type is thought to pertain (e.g. Hall, n.d., Mokry n.d.)

The results of an AMS radiocarbon date on human longbone from Burial 12 are congruent with presence of the Scallorn arrowpoints. The sample (Beta-58749) yielded a radiocarbon age, corrected for $13C$, of 1200 ± 70 years B.P., which calibrates to a 2-sigma calendar date range of A.D. 690-958, with an intercept at A.D. 872. A chronological placement in the Initial Late Prehistoric Period is indicated.

Burials Excavated in 1992

During the course of the 1992 investigations, 22 burial pits were discovered, excavated and documented. Ten burial pits were found in Area 1, one in Area 3, and 11 in Area 4. Fifteen, or 68% of these burial features have been radiocarbon dated, giving a good representation of the chronology of burials at the site, from the Initial Late Prehistoric through the Early Historic Period (all but two assays are on the collagen fraction of human bone; the two exceptions are on wood charcoal from discrete concentrations within grave pits). A total of at least 38 individuals is represented by the human bone elements from the 22 pits. In contrast to the findings made during the 1970s, which consisted almost exclusively of primary interments, the burials excavated in 1992 present a range in the mode of burial. Nineteen (50%) of the individuals were buried as primary interments, six (16%) were secondary cremations, and 13 (34%) were secondary burials. The latter group is comprised of secondary interments containing many or most of the bone elements of the individual, and a subset termed here "token burials", in which only a single bone element or one or two anatomical parts of the individual were intentionally placed in a grave. The salient attributes of all burials excavated in 1992 are presented in Table 8.2.

Artifacts were recovered in association with many of the graves. Grave goods of native manufacture include several kinds of shell ornaments, whistles (or so-called "flageolets") made from whooping crane ulnae, small clusters of pebbles and/or black drum molars possibly representing rattles, lithic tools, bone and antler implements and one unusual object which was probably a shaman-curer's bloodletting tool. In graves of the Protohistoric and Early Historic Periods, items of non-native origin include glass trade beads, a small spherical brass bell, a probable mirror fragment, and iron tool fragments. These items are described and briefly discussed in the feature descriptions which follow. More detailed consideration of the grave goods is presented in Chapter 11.

Area 1

Area 1 produced a discrete cluster of burials just above the 8-foot contour line (see Figure 8.6). The remains of 13 individuals were found in 10 burial pits. Five individuals were primary interments, two were secondary burials, four were secondary token burials and two were secondary cremations. In addition to these, the incomplete skeletal elements of five individuals (4 adults, 1 juvenile) were collected from the backdirt of the machine-dug pilot canal, which, it will be recalled from Chapter 5, had intruded into the burial cluster when the presence of human bone was recognized and mechanical operations halted by The Woodlands Corporation. There are, then, a total of 18 individuals represented in Area 1, all of which are discussed in the report presented by Powell in the next chapter.

Since our purpose here is to describe archaeologically documented burials and their contents, only the 10 burials found after cessation of machine operations are discussed in this chapter. These and all other burials investigated in 1992 were located by defining pit outlines in the surface of the light colored, sand/shell hash matrix into which burial pits had been dug. Because, prior to hand excavation, a given pit could not be identified with certainty as a burial, possible burials were simply assigned feature numbers within the numerical sequence used for all features, according to the order of their discovery.

Feature 92-1

This feature and one other, Feature 92-2, were assigned numbers upon initial examination of the pilot canal, and prior to the development of plans for further excavations. The number "92" represents 1992, the year of discovery, and was used to distinguish these two burials from those excavated in the 1970s. Once it became apparent, upon consultation with the U.S. Army Corps of Engineers, Galveston District, that extended investigations were to be carried out, additional features were numbered in order of discovery.

Feature 92-1 had been partially removed by dredging of the pilot canal, and was clearly visible in cross-section in the north wall of the canal (Figure 8.7). The exposure, in which several human bone elements were visible, showed the pit to have a U-shaped profile. The pit was clearly distinguishable from the surrounding geologic matrix by virtue of the brown color or the fill. The pit was 68 cm across at the surface of the geologic matrix, and had a depth of 45 cm below the surface of the matrix.

Table 8.2. Burials Excavated by Coastal Archaeological Research, Inc., 1992

Fea. number	Pit Dimensions (cm.)			Burial type	Head orientation	Age / Sex	Grave goods
	L	W	D				
92-1	NA	68	45	secondary	NA	1 adult male 30-50 yrs/ 1 juvenile 6-10 yrs	none
92-2	111	68	45	semi-flexed on back	SW	adult female 18-25 yrs.	none
3	52	32	26	cremation	NA	NA	none
24	54	38	8	cremation	NA	NA	none
25	92	72	NA	semi-flexed on back	SSW	Adult male 20-50 yrs.	none
26	72	43	14	token burial single patella	NA	NA	none
27	55	55	20	extended with token patella	N	neonate	none
28	136	80	20	token burial	NA	juvenile 8-10 yrs.	1bird bone whistle, 358 Black Drum teeth
30	158	73	30	semi-flexed on right side	WSW	adult male 20-35 yrs.	1 freshwater mussel shell fragment
35	140	80	15	flexed on right side	SW	adult female 30-50 yrs.	none
52	122	80	45	flexed on left side	WSW	adult male 30-50 yrs.	49 otoliths (possible food offering)
61	103	80	63	flexed on left side 2 token burials	SSW NA	adult female, 25-30 yrs juvenile, 6-15 yrs adult, age indet.	28 Olive shell beads around head

Table 8.2, cont.

Fea. number	Pit Dimensions (cm.)			Burial type	Head orientation	Age / Sex	Grave goods
	L	W	D				
62	166	149	70	double burial, 62-1 disturbed by interment of 62-2. 62-2 semi-flexed on left side	SW	62-1 adult female 62-2 adult female	7 small glass beads in grave fill around bones
63	152	145	45	burial 1 semi-flexed on back Bundle burial; disarticulated bones of infant and cremated bone fragments of adult	SW	adult male 1 infant 1 subadult 1 adult, cremated 1 subadult, cremated	1 glass and shell bead necklace 1 prismatic blade 1 bird bone whistle 5 conch columella beads 5 Olive shell tinklers 975 glass beads
64	210	193	115	token burial burial 1 extended on back	NA	1 juvenile (articulated radius, ulna, metacarpals) adolescent female	none 2 bird bone whistles 20 pebbles in cluster (rattle?) 1 conch shell bracelet 1 modified freshwater mussel shell 2 small conch decoidal beads 1,373 glass beads

Table 8.2, cont.

Fea. number	Pit Dimensions (cm.)			Burial type	Head orientation	Age / Sex	Grave goods
	L	W	D				
64 cont.				burial 2 extended on back	SW	juvenile approx. 5 yrs.	2 tubular conch columella beads 1 brass flange loop bell 40 glass beads
				burial 3 extended on back	SW	juvenile approx. 3 yrs.	1 Olive shell tinkler waist band on shirt fringe 57 glass beads
				burial 4 extended on back	SW	adult male	3 tubular conch columella beads 1 Olive shell hair(?) ornament 2 freshwater mussel shell ornaments 4 bird bone whistles pebbles in cluster (rattle?) 1 prismatic blade 485 glass beads
65	200	195	80	semi-flexed on back	SW	adult male	1 iron spike fragment near head 1 perforated ark shell 3 antler points 1 antler billet 2 iron tool fragments 3 iron nails 2 chert drills

Table 8.2, cont.

Fea. number	Pit Dimensions (cm.)			Burial type	Head orientation	Age / Sex	Grave goods
	L	W	D				
65-A				secondary cremation	NA	NA	3 chert drills 1 iron spike fragment engraved bone pin 1 bone "dagger" 1 antler billet 1 glass mirror fragment 67 small glass beads
82	88	77	55	token burial (disarticulated, incomplete)	NA	adult, sex indet. young adult female	3 Olive shell beads 41 conch columella beads 1 chert drill 1 engraved bird bone whistle red ochre 2 blue-green glass beads
83	97	66	20	semi-flexed on left side	SSW	juvenile approx. 5 yrs.	1 shell and blue-green glass bead necklace 2 Black Drum teeth red ochre yellow/orange ochre
84	105	53	15	semi-flexed on right side	S	adult, prob. male, 50+ yrs	none
85	107	86	18	secondary cremation	NA	adult	5 bird bone beads deer skull fragments

Table 8.2, cont.

Fea. number	Pit Dimensions (cm.)			Burial type	Head orientation	Age / Sex	Grave goods
	L	W	D				
86	142	84	40	semi-flexed on back	WSW	adult male, 34-45 yrs	2 engraved bird bone whistles 1 Olivella shell necklace 1 polished freshwater mussel shell 14 chert blades/flakes 1 chert bifacial knife 1 bird bone bead
87	134	110	30	semi-flexed on back	WSW	adult male, 35-39 yrs.	2 small chert bifaces 14 small chert flakes 2 shark teeth 1 blood letting tool 1 chert drill

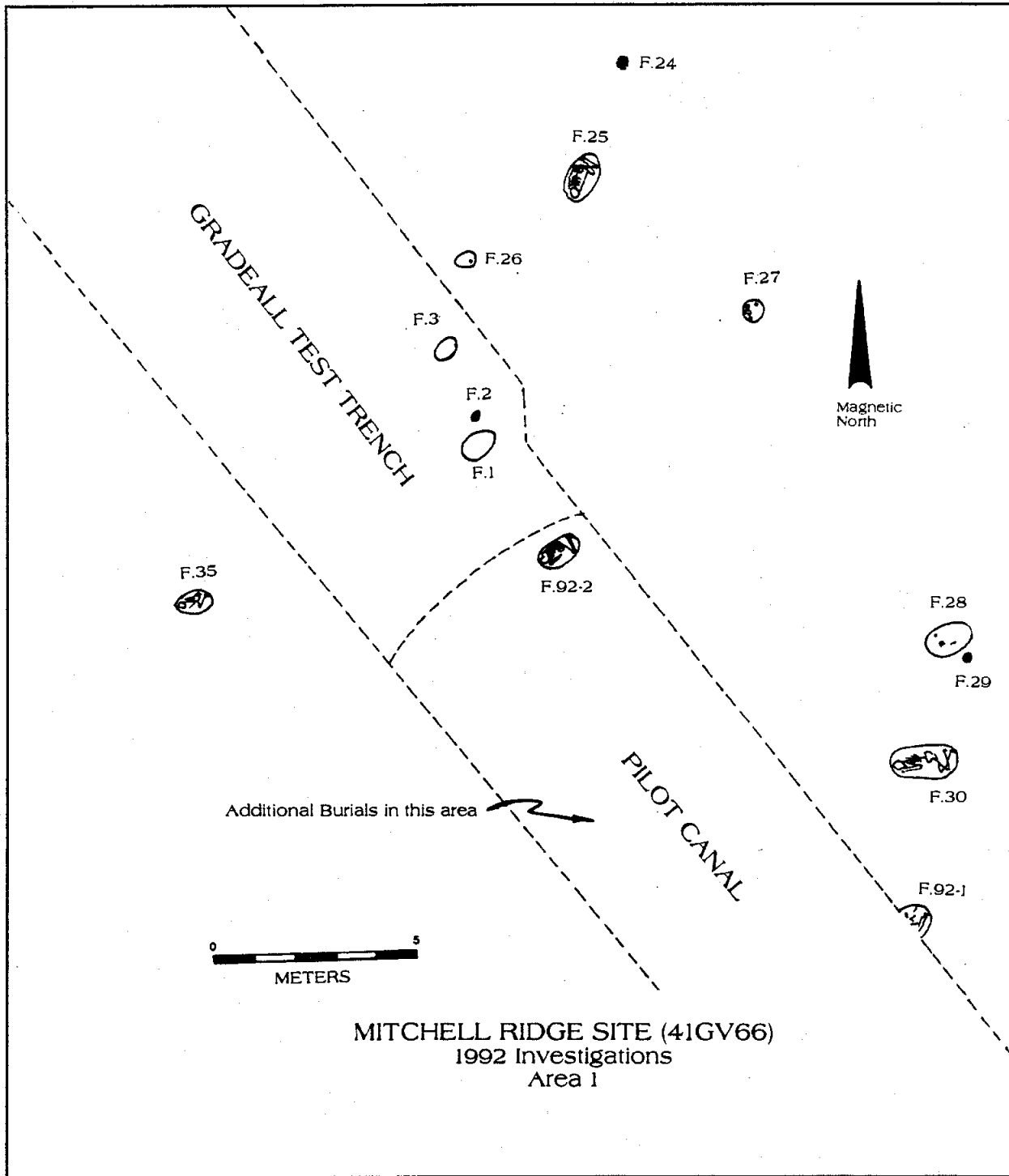


Figure 8.6. Map of Area 1, showing locations of features, pilot canal and initial grade-all test trench.

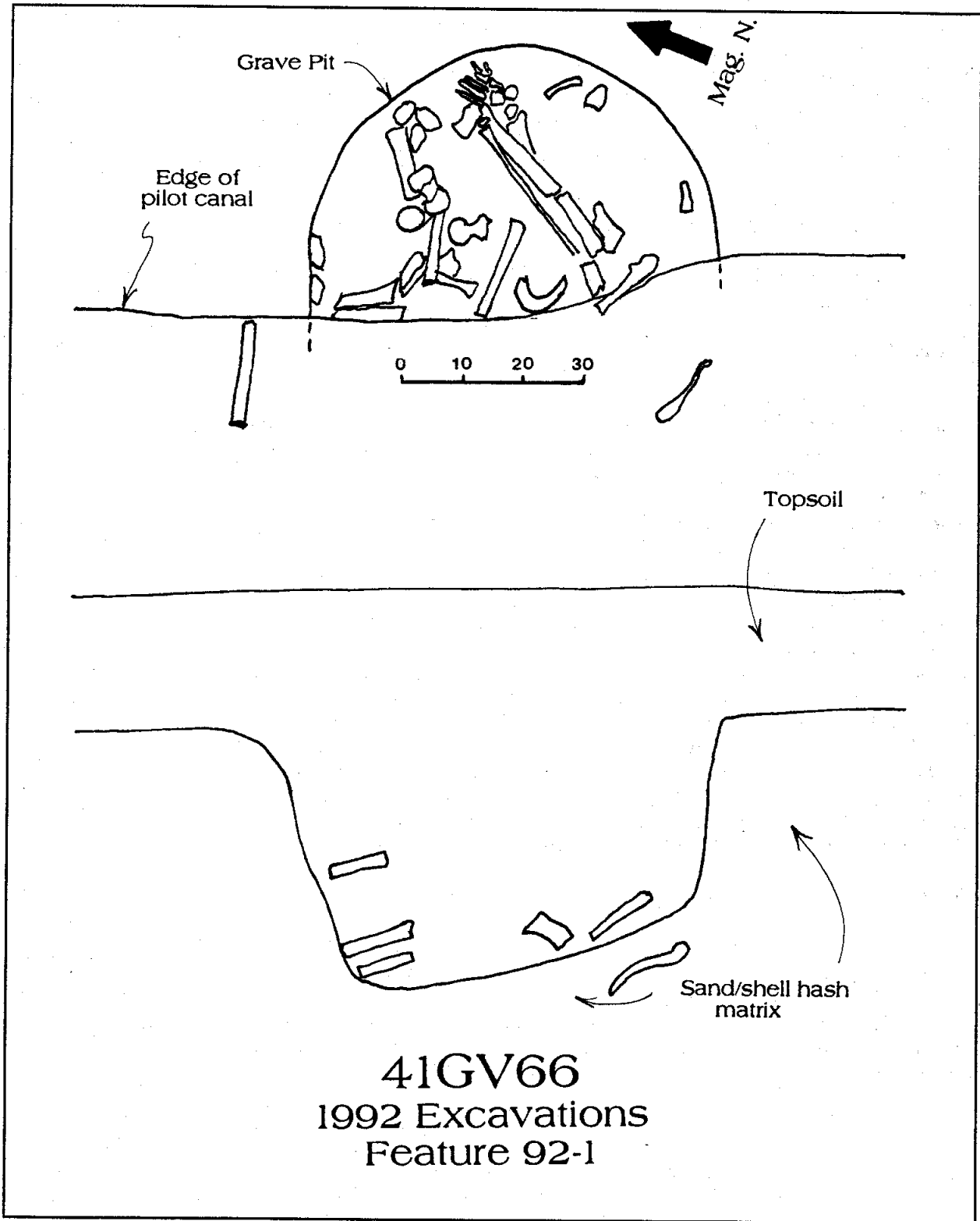


Figure 8.7. Plan and cross-sectional views of secondary burial, Feature 92-1.

Hand excavation involved horizontal exposure with shovels of the surface of the intact part of the pit, and excavation of the fill with small hand tools. The pit contained the disarticulated bones of two individuals, both secondary interments (Figure 8.7). These were an adult male, 30-50 years of age, and a juvenile of indeterminate sex, 6-10 years of age. Traces of red ochre are present on some of the bones, but none was present in the grave fill, suggesting painting of the body as opposed to placement of ochre as a separate grave offering (ochre is here considered a grave offering only if it was observable in the grave fill). No grave offerings were present in the pit fill, though it is possible that such were present but were removed during excavation of the pilot canal.

A small sample of longbone from the adult male was subjected to radiocarbon assay (Beta 53668), which yielded an age, corrected for ^{13}C , of 450 ± 60 years B.P. This calibrates to a 2-sigma calendar range of A.D. 1402-1631, with an intercept of A.D. 1444. This burial thus falls into the latter part of the Final Late Prehistoric Period or the Protohistoric Period.

Feature 92-2

This burial was located at the end of the pilot canal when operations were stopped. Machine operations were halted because the operator noticed that the dredging shovel had cut into what appeared to be human bone (D. Srader, pers. comm. January 17, 1992), which proved upon our investigation to be a tibia in Feature 92-2. Fortunately, only the proximal end of a tibia and fibula were damaged, and the burial remained in otherwise intact condition. Hand excavation revealed the articulated skeleton of a young adult female (Figure 8.8), 18-25 years old, resting on the back with legs loosely flexed in a burial pit measuring 68 x 111 cm and with a maximum depth of 45 cm from the surface of the geological sand/shell hash matrix. The body had been tightly placed in the pit with little room to spare, so that the chin was pushed onto the upper chest and the knees were resting against the pit wall at an elevation higher than the pelvis and the feet. The right arm was bent at the elbow, with the right hand in front of the face. The left arm was likewise bent at the elbow, with the forearm across the chest and the hand in front of the face. The head was oriented toward the southwest. No grave goods were present.

A radiocarbon assay on a sample of longbone yielded an age of 200 ± 60 years B.P., corrected for ^{13}C . The calibrated 2-sigma calendar range is A.D. 1529-1955, placing this burial in the Protohistoric or Early Historic Periods. The calibrated date had intercepts at A.D. 1672, 1781, 1795, 1946, and 1953. The last two can obviously be rejected for this burial; the first three fall into the end of the Protohistoric Period and the Early Historic Period. For the purposes of chronological analyses, discussed further on, it will be assumed, based on the corrected radiocarbon age and the intercepts, that this burial pertains to the Early Historic, though a Protohistoric Period placement cannot be ruled out.

Feature 3

This feature consisted of an oblong pit, measuring 52 x 32 cm at the surface of the sand/hash matrix, with a depth from the matrix surface of 26 cm. The pit fill was a homogenous brown fine sand mixed with shell hash. Resting in a loose cluster in the center of the pit were the cremated bones of a young adult of indeterminate sex, described in detail in Chapter 9. There was no indication of in situ burning, and this feature is interpreted as a secondary cremation (i.e., the body or bones were burned elsewhere and then collected for burial). No grave goods were present.

Feature 24

This feature consisted of an oval pit measuring 38 x 54 cm and having a depth from the surface of the sand/hash matrix of only 8 cm. A cluster of intensely burned and highly fragmented human bone rested in the center of the pit. The absence of any trace of in situ burning indicates that this was a secondary cremation. No grave goods were present.

Feature 25

This burial consisted of the semiflexed interment of an adult male 20-25 years old. The body was placed on its back, with both arms extended parallel with the torso (Figure 8.9) and the knees drawn up

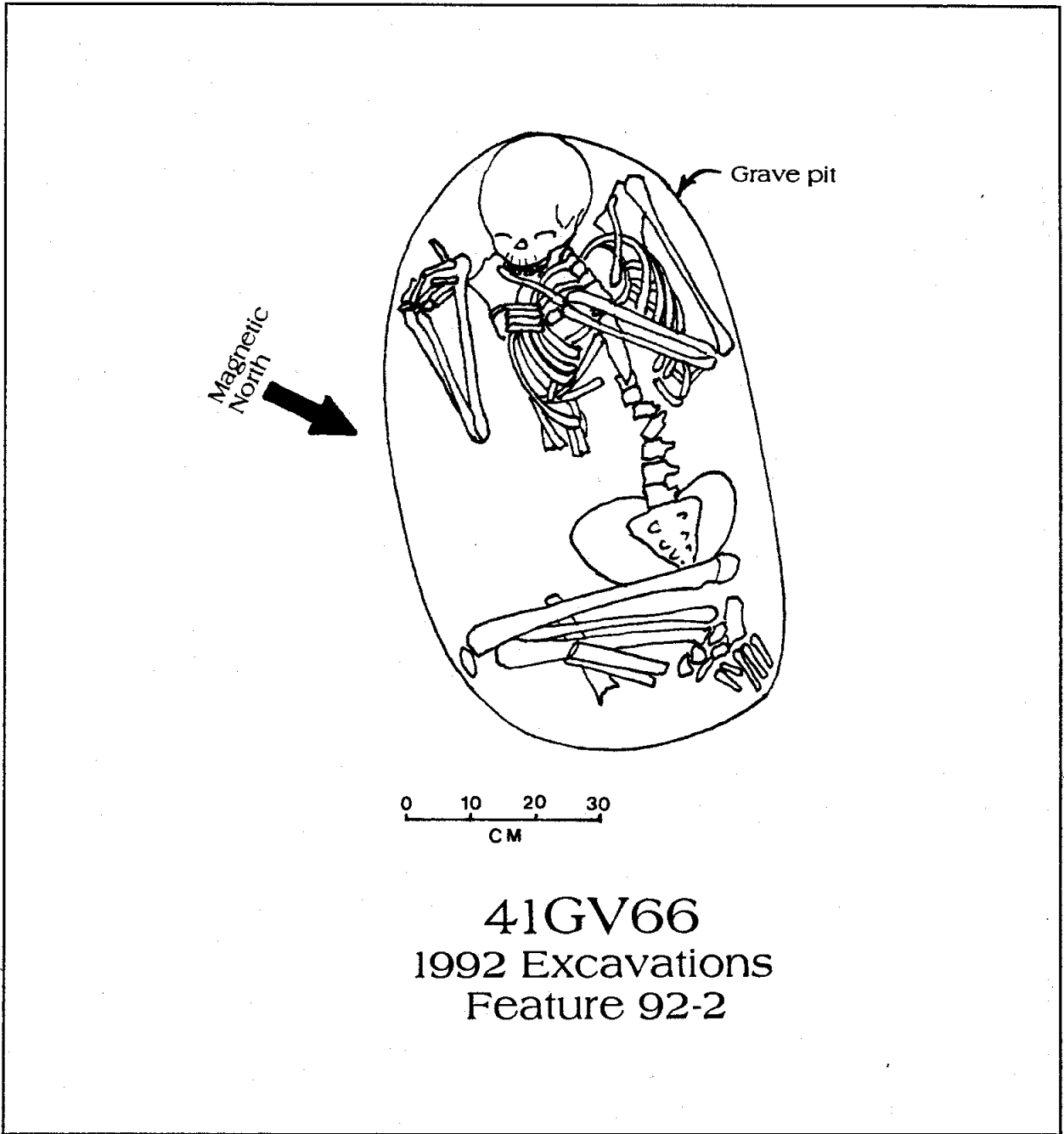


Figure 8.8. Plan drawing Feature 92-2.

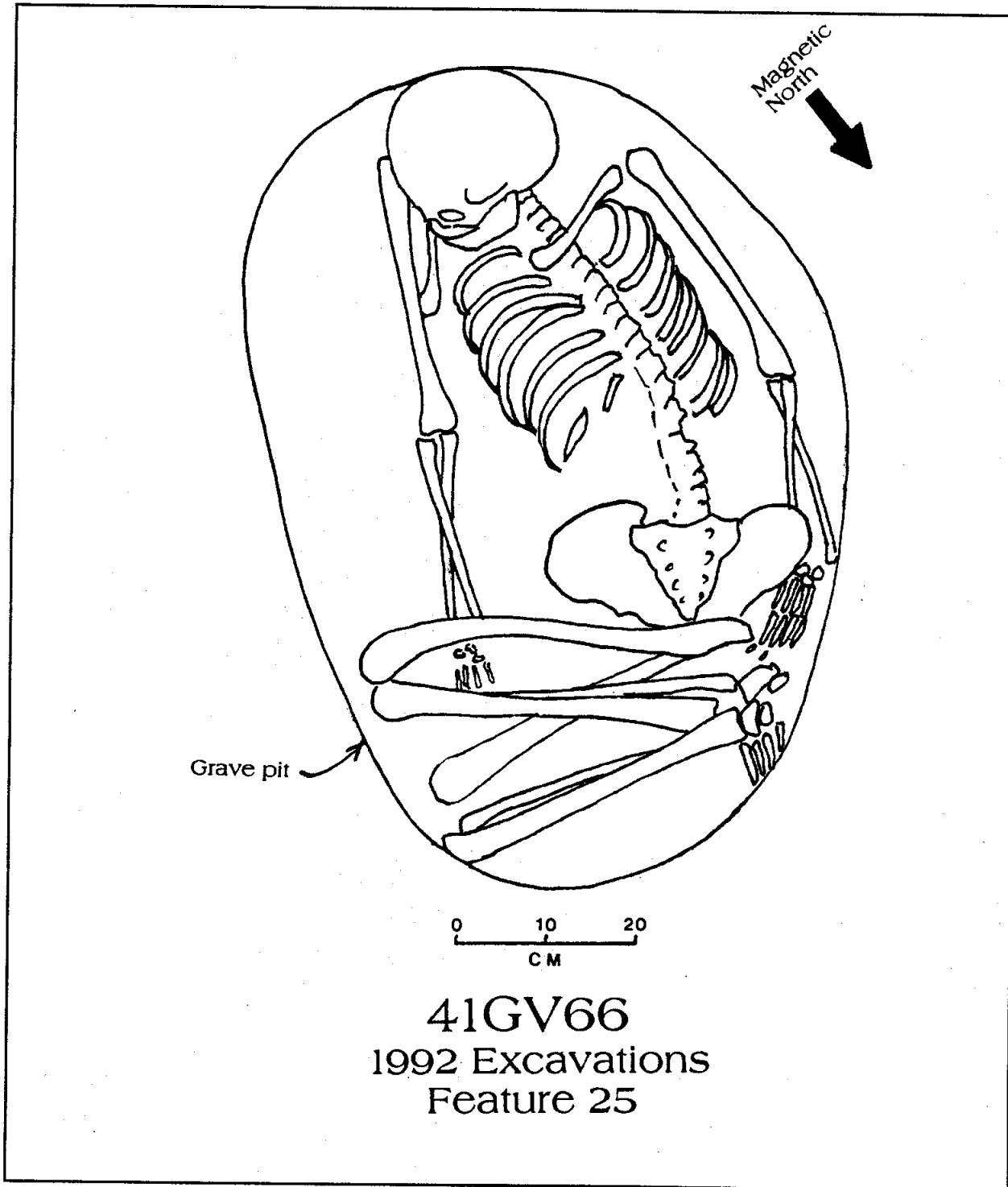


Figure 8.9. Plan view of adult male burial, Feature 25.

about even with the pelvis. The pit was barely large enough for the body, so that the head was forced up against the pit wall with the chin resting on the right shoulder. The head was oriented toward the south-southwest. No grave goods were present.

A sample of longbone submitted for radiocarbon dating yielded an age, corrected for C13, of 1040 +/-90 years B.P. This calibrates to a 2-sigma calendar date range of A.D. 789-1215, with an intercept at A.D. 1011, indicating that Feature 25 dates to the Initial Late Prehistoric Period.

Feature 26

This feature consisted of an oval pit measuring 43 x 72 cm at the surface of the sand/hash matrix. In profile, the pit had a shallow, basin-shaped profile with a depth from the surface of the matrix of 14 cm. The feature is a good example of what is here termed a token burial, since the only skeletal element was a single patella from a juvenile of indeterminate sex. There is no question that this bone represents intentional burial in the pit, since it was clearly resting on the bottom of the center of the pit, without any trace of other bone elements. No grave goods were present.

Feature 27

Two individuals are represented in this feature, a circular pit 55 cm in diameter and 20 cm deep from the surface of the geologic matrix (Figure 8.10). One of the individuals is a neonate infant, resting on its back with legs slightly flexed, arms extended along the torso, and head oriented toward the north. The infant's body had been placed near the west wall of the pit. Resting on the bottom of the east half of the pit was a single patella of a juvenile of indeterminate sex. The fact that the remains of each individual were placed on the pit floor, and in different sectors of the pit, suggests simultaneous interment. It can be inferred that the juvenile patella is a token of that individual, which was intentionally associated with the infant, perhaps reflecting close social relationship during life. No grave goods were present.

Feature 28

Feature 28 contained the token remains of at least two juvenile individuals, resting on the floor of an oval pit which measured 80 x 126 cm and had a depth of 20 cm below the surface of the sand/hash matrix. Bone elements, an engraved whistle made from a whooping crane ulna, and a cluster of black drum teeth rested on the floor of the pit in what appears to be a carefully intended arrangement (see Figure 8.11). The bird bone whistle rested among a discrete cluster of hand bones (metacarpals, carpals, phalanges) of both individuals; although highly fragmented by ground pressure, the original orientation of the whistle was clearly indicated by the contiguous alignment of conjoinable fragments. About 30 cm to the north rested a discrete, circular mass of 359 black drum fish teeth; the clear shape of the cluster suggests that the teeth were inside a circular container made of perishable material (gourd, bark, wood?) at the time of burial. Found *within* the mass of fish teeth were two proximal human radius epiphyses from two subadult individuals, probably those represented by the hand bones (see Chapter 9, Powell report). Finally, the unfused proximal epiphysis of a juvenile humerus was resting on the floor of the pit some 25 cm from the cluster of fish teeth.

The whooping crane ulna whistle (Figure 8.12, a) bears a set of simple geometric design elements of opposed engraved chevrons and parallel lines at right angles to the long axis of the instrument. Although that part of the specimen which would probably have contained the sound hole is missing, such was almost certainly present, judging from very similar specimens from Mitchell Ridge and other sites in the upper coast-southeast Texas area (e.g. Jelks 1965; Aten et al. 1976; Gadus and Howard 1990:305).

The mass of black drum teeth may represent a rattle, a function inferred for a cluster of pebbles and drum teeth found with a burial at the Harris County Boys School cemetery (Aten et al. 1976). Such an interpretation makes sense insofar as the drum teeth were found near a bird bone whistle, an association repeated in two other burials excavated at Mitchell Ridge during 1992.

A circular patch of black, ash-stained sand/hash matrix, some 20 cm in diameter, was found approximately 20 cm from the southwest edge of Feature 28. Designated Feature 29, this patch had no appreciable depth, penetrating the surface of the sand/hash only 1-2 cm. It may, however, represent the bottom of a shallow pit which originated within the overlying dark brown fine sand soil. Although a

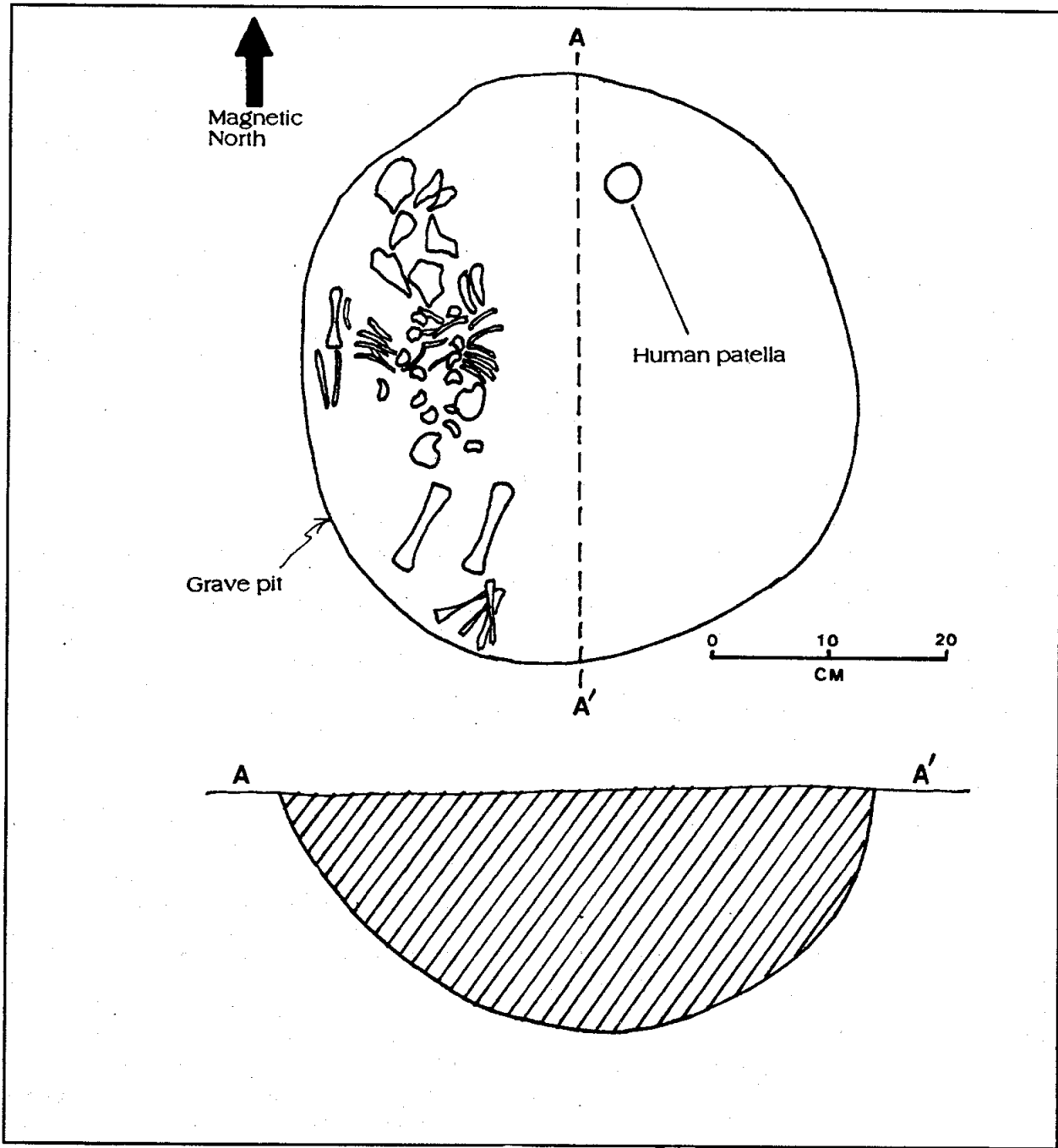


Figure 8.10. Plan and pit profile views, Feature 27. Note extended body position of bones of neonate infant in west half of pit (skull fragments at the north end), and juvenile patella resting on pit bottom.

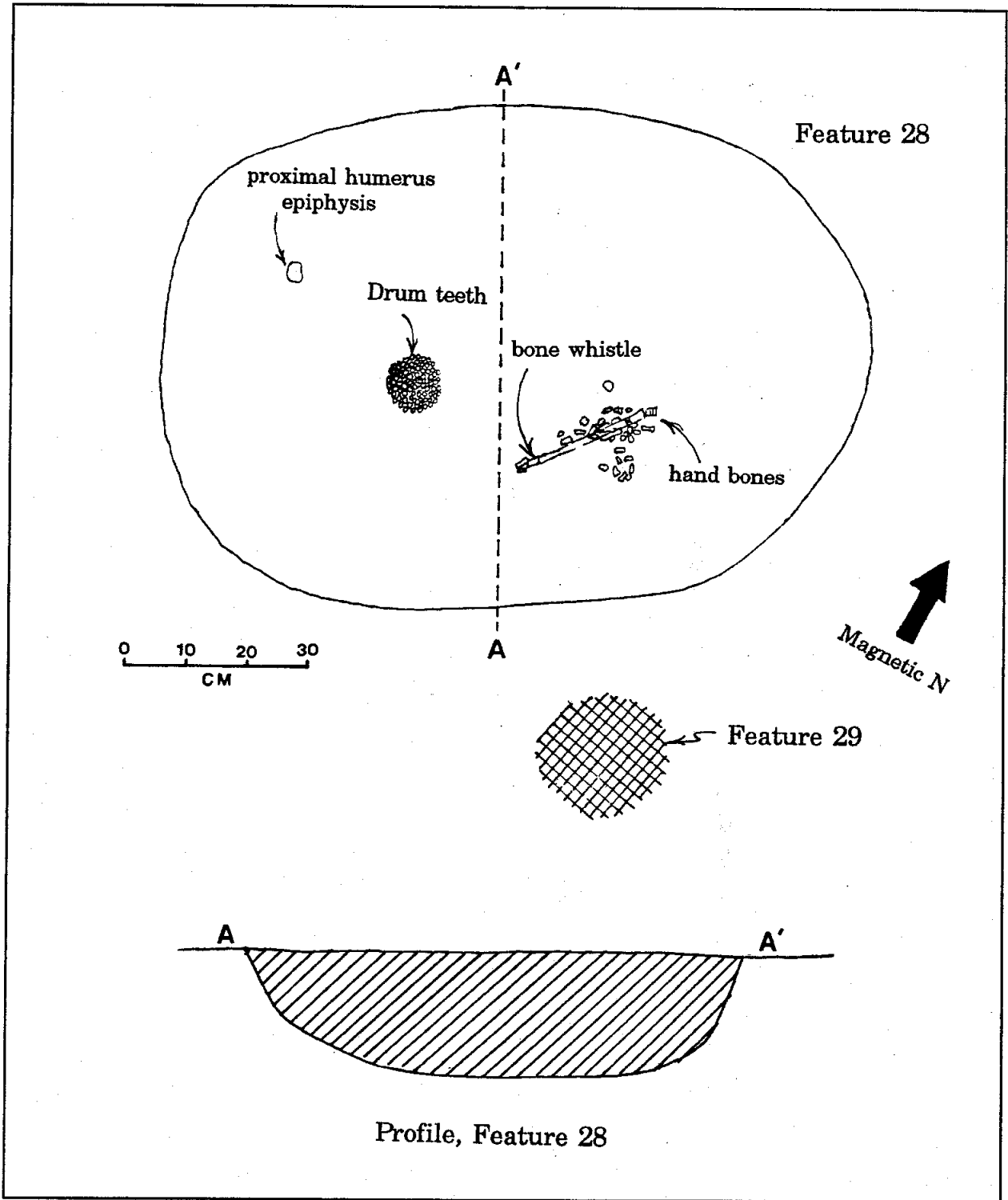


Figure 8.11. Plan view of Feature 28 and cross-sectional view of pit profile. Note Feature 29, burned spot in surface of sand/shell hash sediment, Feature 29, shown to scale.

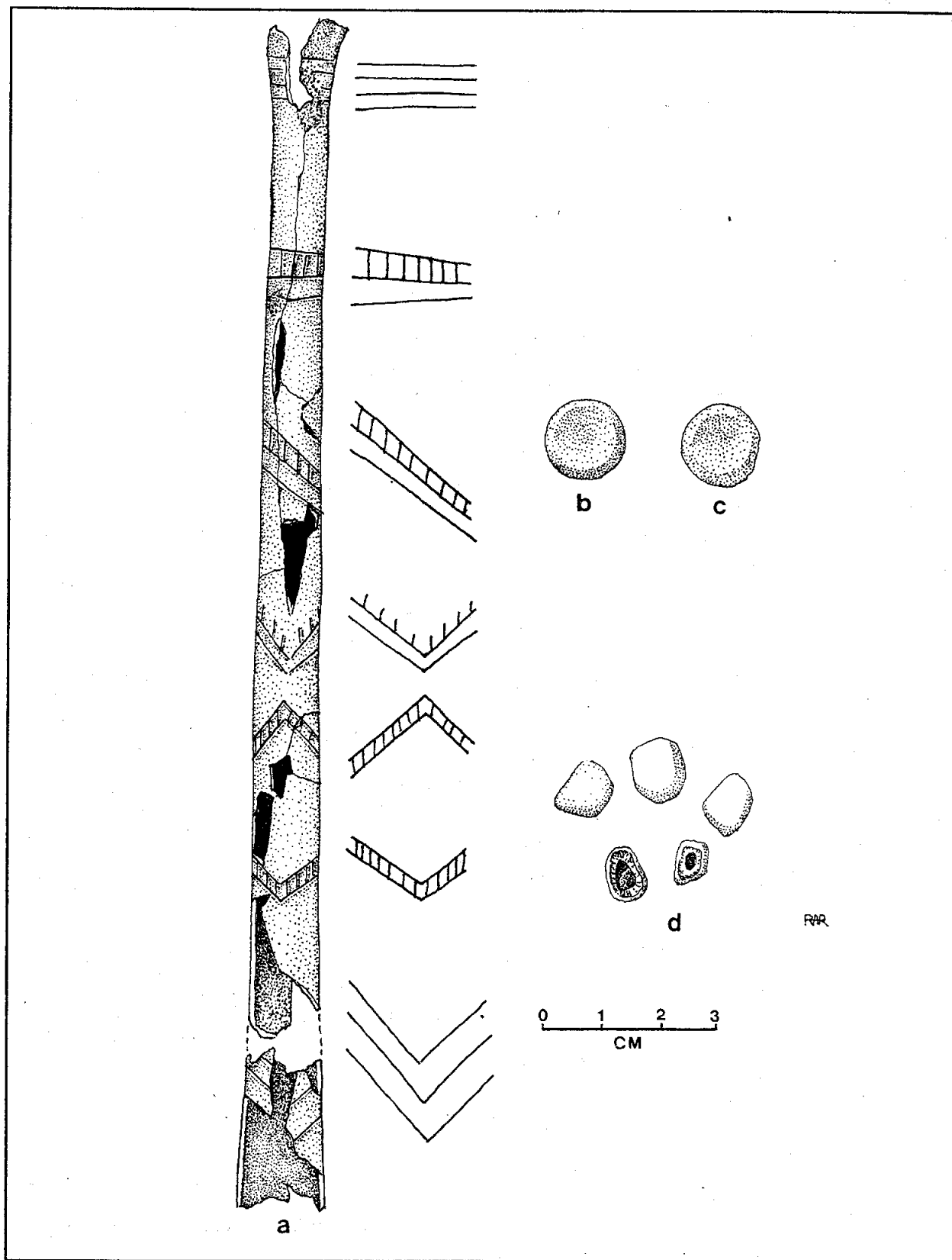


Figure 8.12. Feature 28: A, Whooping crane ulna whistle; b, c, unfused human proximal radius epiphyses; d, five of 359 black drum fish molars.

functional association with Feature 28 cannot be demonstrated, such is suggested by the close spatial proximity. Possibly, a small fire was burned next to the burial pit during a mortuary ritual which included interment of the remains found in Feature 28.

Feature 30

This is a single primary interment placed in an oblong pit measuring 73 x 158 cm and having a depth from the surface of the geologic matrix of 30 cm. The body of an adult female, 20-35 years old, was placed in a semiflexed position, laying on the right side (Figure 8.13). Both hands were drawn up in front of the face, which was inclined slightly downward. The head was oriented to the west-southwest. A single grave good consisted of a roughly rectangular piece of fresh water mussel shell, with dimensions of 9 x 34 mm, resting above the cervical vertebrae between the skull and the left scapula. The shell is highly weathered, so it is not possible to determine whether or not it was artificially modified or simply a fortuitously rectangular fragment. However, it is likely that it was a bead or pendant, considering that it rested in the neck area of the individual.

A radiocarbon assay, run on a longbone sample (Beta-53667), produced an age corrected for 13C of 370 +/-60 years B.P. This calibrates to a 2-sigma calendar range of A.D. 1432-1657, with three intercepts at A.D. 1488, 1609 and 1611. Because two of the three intercepts are in the early seventeenth century, this burial probably falls into the Protohistoric Period.

Feature 35

This is the flexed interment of an adult female, 30-50 years old, resting on the right side, with hands drawn to the face and head oriented toward the southwest. The burial pit measured 80 x 140, and had a depth of only 15 cm below the surface of the geological matrix. No grave goods were present.

Area 3

Feature 52

This was the only burial in Area 3 and, as such, is the only interment found at Mitchell Ridge not included within a spatial clustering of graves. The remains of a tightly flexed adult male, 30-50 years old, rested on the left side with head oriented toward the west-southwest. The burial pit measured 80 x 122 cm, and was 45 cm deep from the surface of the sand/hash matrix. As can be seen in Figure 8.14, the body was placed against the northwest wall of the pit, leaving the southwest half of the pit apparently empty. However, the nature and contents of the grave fill suggest that this part of the pit contained food offerings. The fill to the southeast of the skeleton was stained to a darker brown color than that in the rest of the pit (suggesting the decay of organic materials), and numerous bones of fish and hispid cotton rat, and 47 fish otoliths, were found within this part of the pit (these are listed in Table 8.3). In general the bones were highly fragmented. In combination with the dark organic staining, the presence of numerous fragmented bones of what were, judging by findings across the site, food animals, suggests deposition of food in the grave as an offering.

Also present within the area of organic staining, and also in some cases resting upon the skeleton, were mollusc shells, including 14 oyster valves, two fragments of Atlantic cockle, a small lightning whelk and a marsh periwinkle. Six of the oyster valves were resting on or close to the skeleton, suggesting they may have been intentionally placed upon the body. None of the shells shows evidence of having been artificially modified, and they may also represent food remains or, perhaps, symbols of such. A sample of longbone was subjected to radiocarbon assay (Beta-53670), yielding an age, corrected for 13C, of 730 +/-60 B.P. The 2-sigma calibrated calendar range is A.D. 1217-1393, with an intercept at A.D. 1286. A date at the end of the Initial Late Prehistoric or the early part of the Final Late Prehistoric Period is indicated.

Area 4

Eleven burial pits, containing the remains of at least 24 individuals, were found in Area 4. All of the pits were clustered within a restricted area measuring approximately 8 x 15 meters (see Figure 8.15).

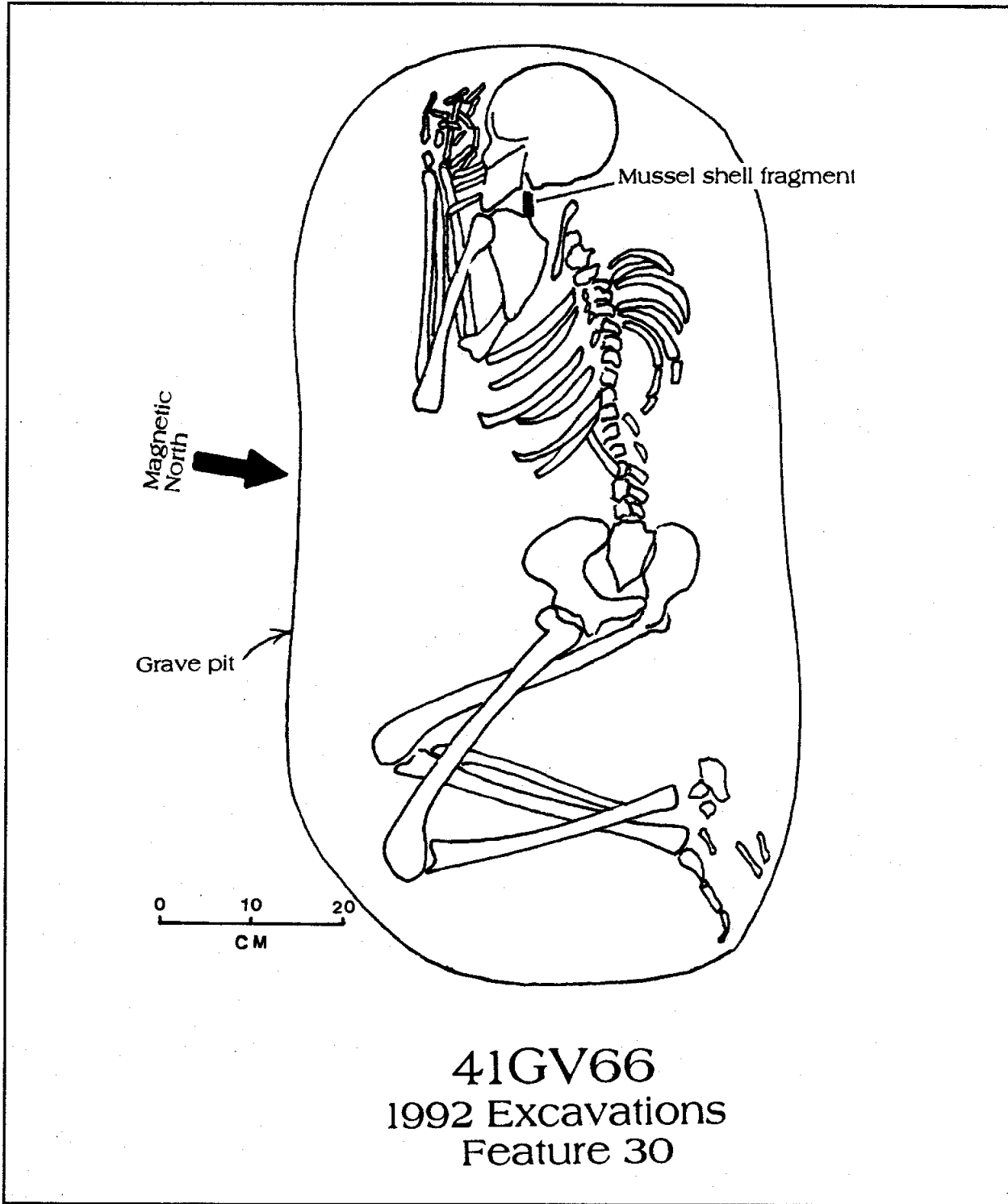


Figure 8.13. Plan drawing of adult male burial, Feature 30.

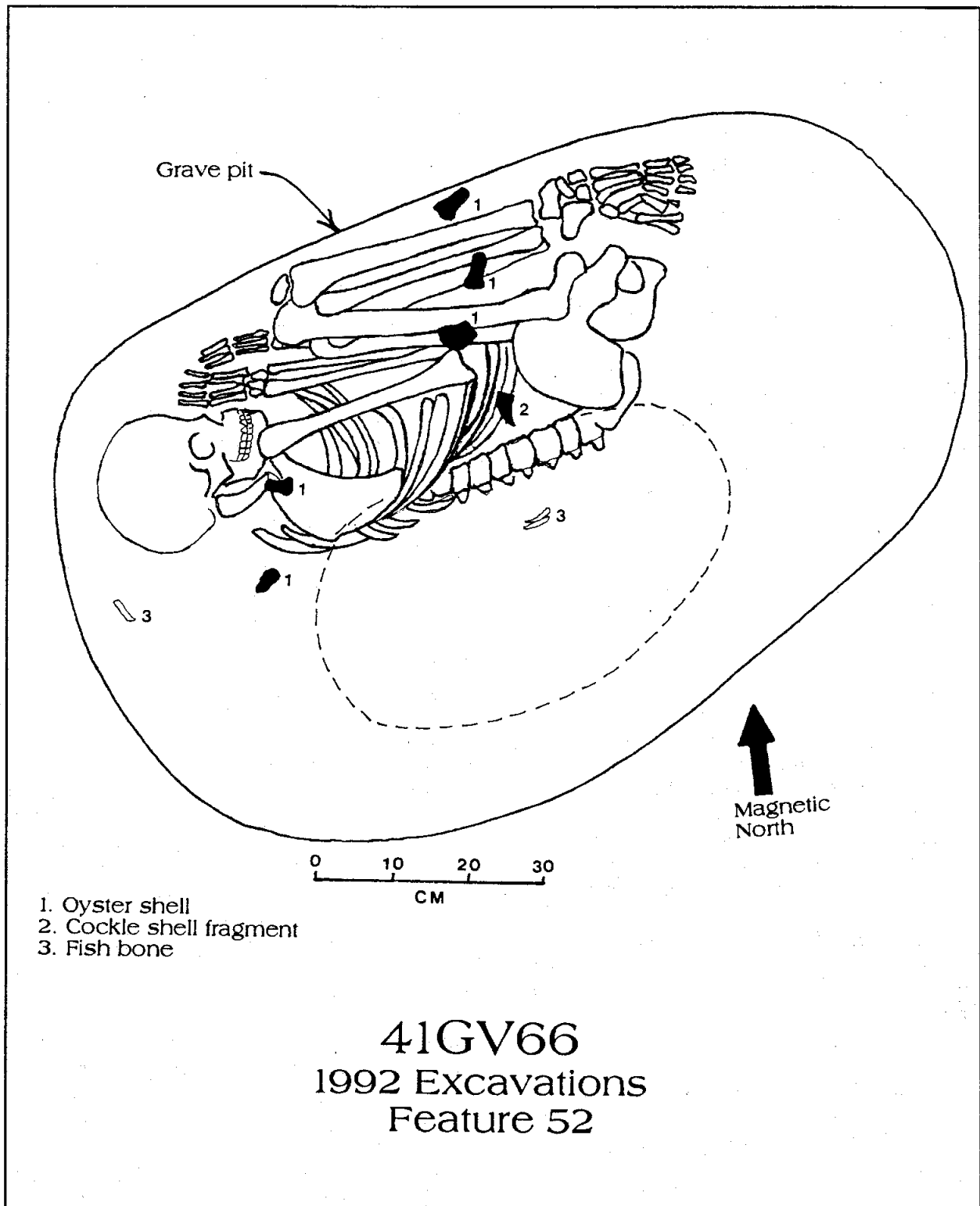


Figure 8.14. Plan drawing of isolated adult male burial, Feature 52, in Area 3. Dashed line delimits area of organically stained soil next to skeleton, which contained numerous bones, mostly of fish (see Table 8.3).

Table 8.3. Faunal remains in grave fill, Feature 52.

Fish	
Otoliths	
21 marine catfish	
18 redfish	
7 seatrout	
2 black drum	
13 black drum molars	
8 black drum mandible fragments	
14 marine catfish fin spines	
1 shark tooth	
11 fish rib fragments, unburned	
5 fish rib fragments, burned	
5 fish gill plate fragments	
275 fish vertebrae, unburned	
3 fish vertebrae, burned	
25 miscellaneous fish bone fragments	
	Hispid cotton rat
	82 mandibles
	57 mandible fragments
	93 longbone fragments
	Bird
	5 longbone fragments, medium-sized bird
	Miscellaneous small unidentified fragments
	14 burned
	1,017 unburned
	Molluscs
	14 whole oyster valves
	2 Atlantic cockle shell fragments
	1 small lightning whelk shell
	1 marsh periwinkle shell

Feature 82

Upon initial exposure, this pit was believed to actually be two overlapping burial pits, due to its somewhat angular plan shape (see Figure 8.16). Upon excavation, this proved not to be the case. There were no internal spatial distinctions in the grave contents, which extended throughout what apparently was a single pit. The pit measured 77 x 88 cm and had a depth from the surface of the geologic matrix of 55 cm. Intermixed bone elements representing the secondary burial of two individuals, an adult of indeterminate sex and an adolescent or young adult female, were present on and within 15 cm of the floor of the pit. Found among the bones, in no apparent order, were 41 short tubular conch shell beads, 3 olive shell beads (see Figure 8.17), a flaked chert drill (Figure 8.17) an exquisitely engraved whooping crane ulna whistle (Figure 8.18, a), and two blue-green glass European trade beads. Red ochre was found throughout the western half of the pit among the bones and artifacts. Despite a lack of articulation or tight clustering, most of the shell beads were also within this half of the pit, and many bear heavy ochre staining. Bone elements showed a tendency to cluster in and near the center of the pit.

The intermixing of the bones and artifacts does not appear to be the result of post-burial disturbance, but seems to reflect the original placement, as though the various items were thrown into the pit prior to backfilling. Although the base of a wooden utility pole intruded into the pit just northwest of the center, this must have been inserted in an auger-drilled hole, since bones and, most notably the bird bone whistle, lay nearby in intact condition.

The adult is represented by several teeth, the right ulna, nine ribs, two cervical vertebrae, carpals and metacarpals, tarsals and phalanges. The adolescent or young adult female is represented by several thoracic vertebrae, two fragmentary ribs, the distal left clavicle, the left humerus, the left distal radius and ulna, the right radius and carpals and hand phalanges.

A sample of human longbone was radiocarbon assayed (Beta-64566), providing an uncorrected age of 220 +/- 50 years B.P. With correction for 13C an age of 320 +/- 50 B.P. is obtained, which calibrates to a 1-sigma calendar range of A.D. 1482-1654, with intercepts at A.D. 1530, 1537, and 1635, most probably placing this burial in the Protohistoric Period.

A Protohistoric age is in accord with the two blue-green glass beads from the burial. Both

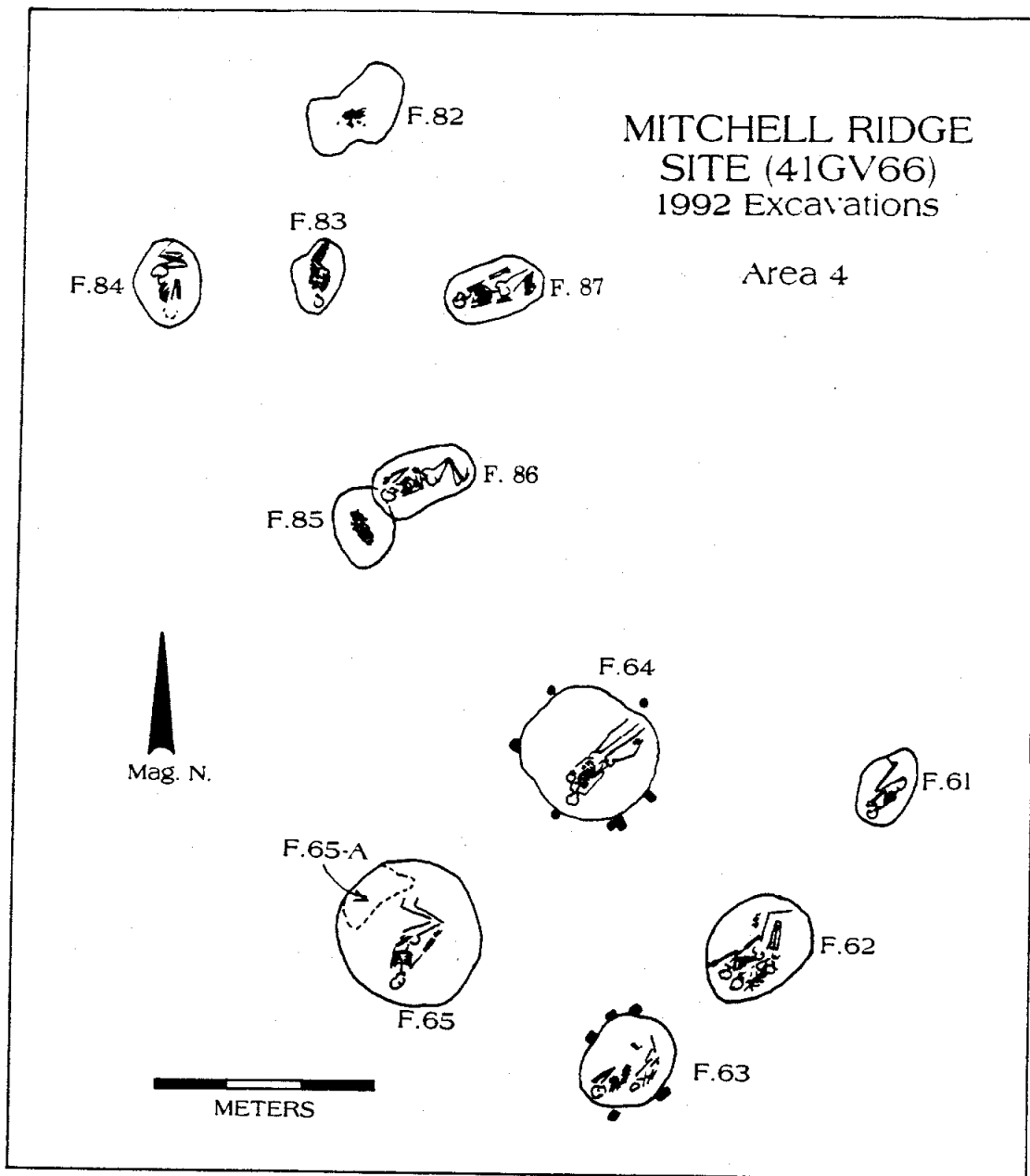


Figure 8.15. Map of burial cluster in Area 4.

specimens are relatively large, round beads, 7 mm in diameter. The glass is opaque turquoise blue in color. They are of a type known as "Ichtucknee Plain" in the Southeast (Marvin Smith, Valdosta State Univ., pers. comm. 5/25/93) and "Early Blue" in the Northeast (Martha Sempowski, Rochester Museum and Science Center, pers. comm. 6/2/93). These beads appear in the Southeastern trade bead sequence ca. A.D. 1575 and become increasingly popular in the seventeenth century; they do not pertain to the earliest period of Spanish contact in the early to mid sixteenth century (M. Smith 1983 and pers. comm.; more on this bead type is presented in the discussion of Feature 83, which contained a complete necklace made from these beads). The 1-sigma radiocarbon date range of A.D. 1482-1654 and the estimated date of

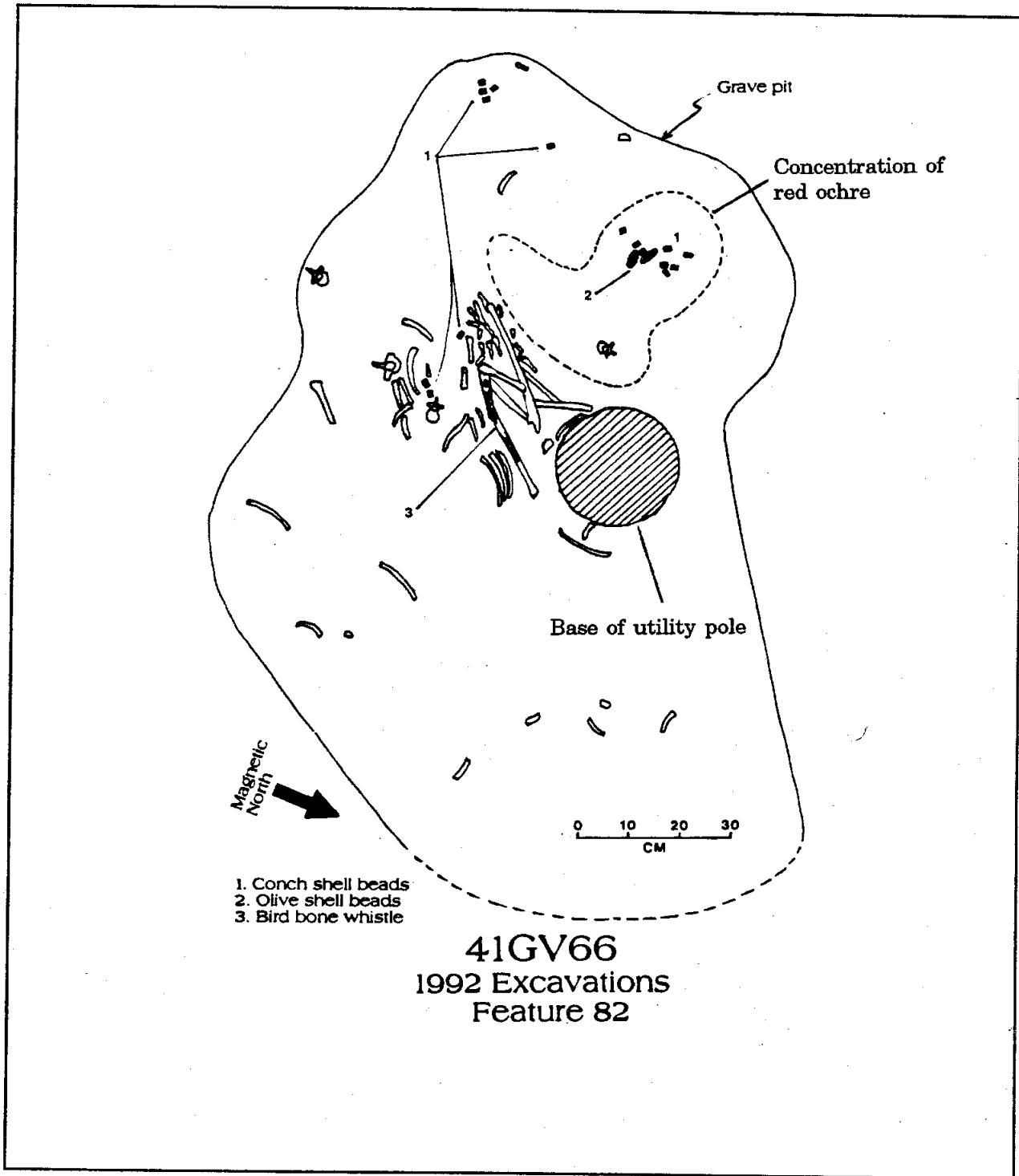


Figure 8.16. Plan view of Feature 82.

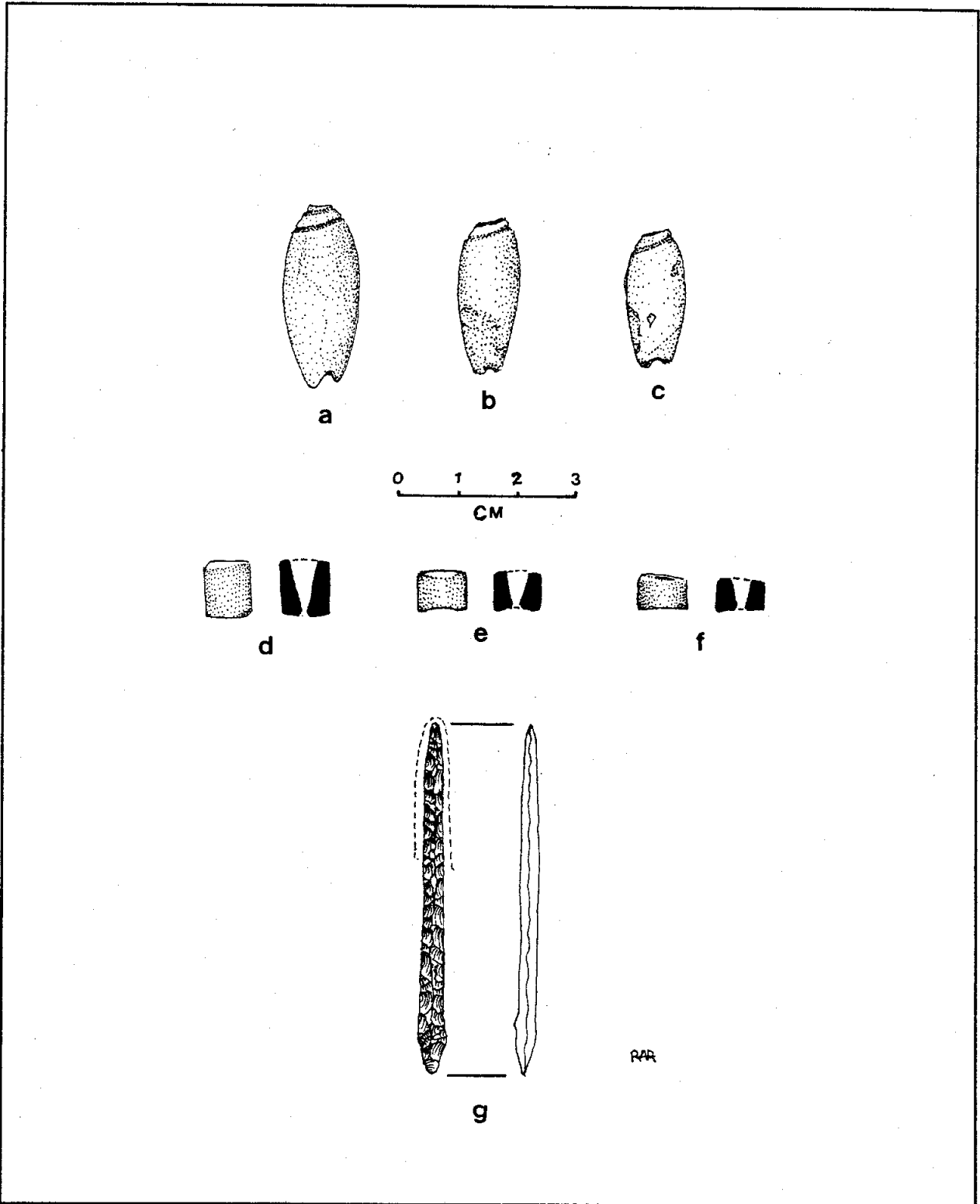


Figure 8.17. Selected artifacts, Feature 82. A-c, *Oliva* shell beads; d-f, short conch columella beads; g, cylindrical chert drill (dashed line indicates extent of heavy lateral edge wear).

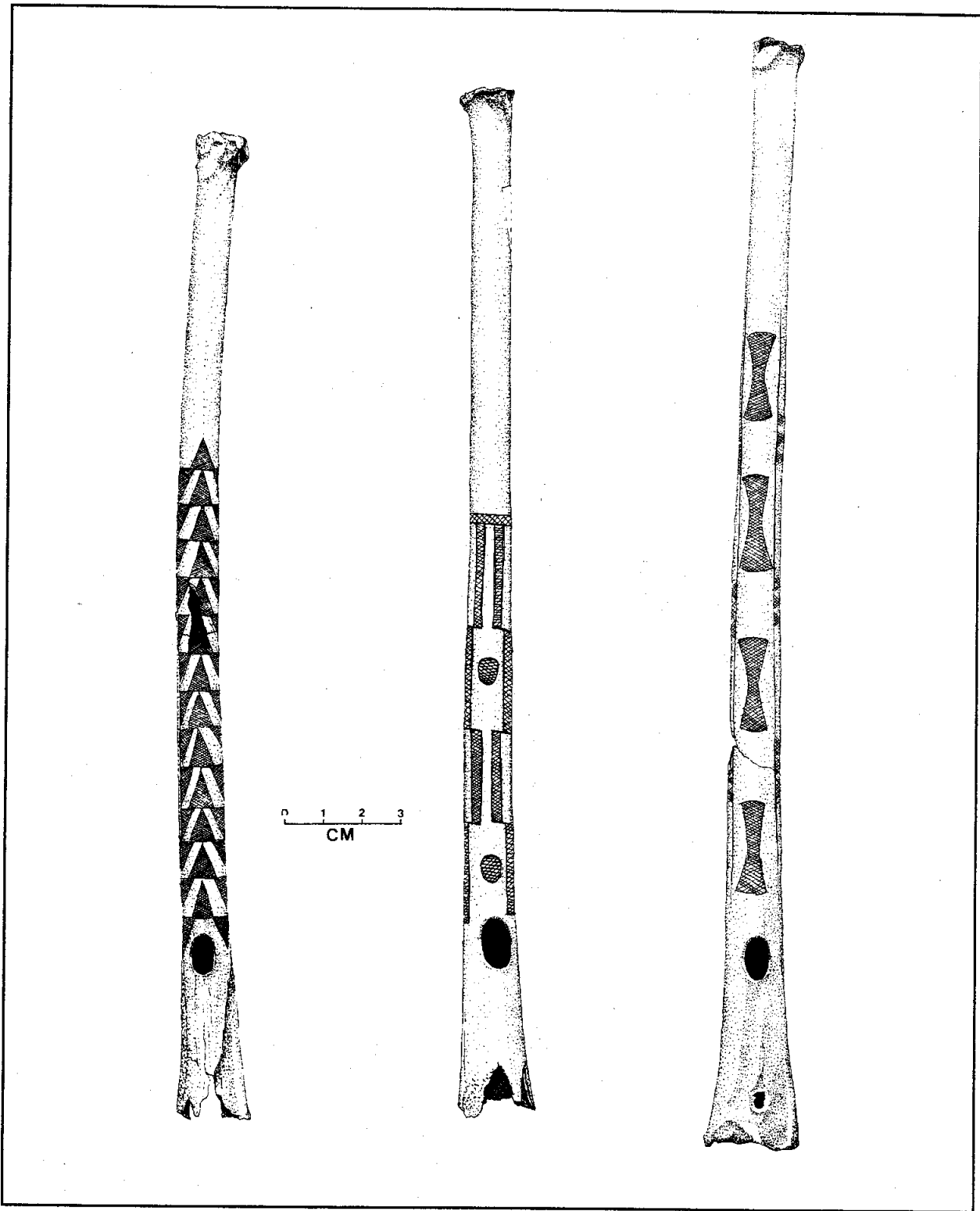


Figure 8.18. Engraved whooping crane ulna whistles from burials in Area 4. Left specimen from Protohistoric burial, Feature 82; two others from Late Prehistoric burial, Feature 86.

appearance of this bead type combine to most likely place Feature 82 between ca. A.D. 1575 and 1654. The presence of these beads (and specimens of the same type in Feature 83) indicates that native people in the Galveston Bay area were obtaining European trade goods at a relatively early date, well prior to any documented presence of traders in or near the area.

The conch columella beads were invariably drilled almost the entire length from one end, with only minimal drilling, or "touching up", from the opposite end (see Figure 8.17; these and other shell artifacts from the burials are discussed at length by M. Dreiss in Chapter 11). It is interesting to note that the bit of the finely flaked chert drill from this burial fits perfectly in most of the holes in the beads, suggesting that it may have been used to perforate these or similar shell beads. Heavy edge smoothing along the two lateral edges of the drill extends from the tip of one end for some 23-25 mm. This is about half the length of the longest examples of tubular conch beads found in burials at Mitchell Ridge in which holes drilled from each end meet at approximately the mid-point of the bead (e.g. Figure 8.37, e-g).

Feature 83

This is the single primary interment of a juvenile, 4-8 years of age and of indeterminate sex, in a pit measuring 66 x 97 cm and 20 cm deep from the surface of the geologic matrix. The child was placed on its back with legs slightly flexed and both hands placed over the pelvis (see Figure 8.19). The head was oriented toward the south-southwest.

Grave goods included an articulated necklace made from blue-green glass and native conch shell beads, two black drum teeth at the top of the skull, and what is interpreted as a solar symbol made of powdered red and yellow ochre and placed over the lower abdomen. The necklace (Figure 8.20) consists of 14 intact glass beads of the Ichtucknee Plain or Early Blue type, each of which was alternately strung with one of 21 short tubular conch columella bead of native manufacture. Five of the glass beads originally in the necklace are not present; these were recognizable only as pale blue-green powder when the necklace was exposed; they had disintegrated (and all of the glass beads in the necklace are in friable condition). The intact specimens range from 4 to 9 mm in length and 7-9 mm in width; holes are 2-2.6 mm in diameter. Close-up color photos of these beads were sent to Marvin T. Smith of Valdosta State University, Georgia who indicated that they were of the Ichtucknee Plain or Early Blue variety (pers. comm. 5/25/93). These terms refer to turquoise blue glass beads which appear in the latter part of the sixteenth century and continue through the seventeenth century. Based upon examination of the photos, Smith suggests that these specimens probably predate 1680, based on overall shape, and notes that they constitute the most common trade bead on seventeenth century Spanish mission sites in Florida, though they extend into the eighteenth century. Based on his bead seriation from sites in the Coosa River drainage of Georgia and Alabama, Smith suggests that relatively early specimens tend to be subspherical (greater width than length) to spherical, whereas later examples tend to be more elongated (pers. comm. 5/25/93). Nine of the 14 specimens from Feature 83 are wider than they are long, only 3 are longer than they are wide, and the remaining 2 are spherical.

The 21 native conch shell beads in the necklace are a short variety of the cylindrical conch columella beads found in other burials at Mitchell Ridge, and at other sites along the upper Texas coast and beyond (see Dreiss report herein, Chapter 11). Some specimens are in fact slightly wider than they are long. In all cases, the holes, which run the length of the beads, are drilled almost entirely from one end and only very slightly from the opposite end. In addition to the conch shell beads, the necklace contains two contiguous olivella shell (*Olivella dealbata*) beads, each about 12 mm long, placed where the necklace rested on the nape of the neck.

Placed on the lower abdomen of the child were masses of red (Munsell 10R 3/6) and yellow (7YR 6/8) ochre powder (see Figure 8.19). The red ochre formed a circular mass, some 20 cm in diameter and 1-2 cm thick. The yellow ochre consisted of a spot mass of powder, approximately 5-8 cm diameter and about 2 cm thick, resting on the mass of red ochre. The colors were placed so that, viewed from above, they formed a concentric pattern, with a small circle of yellow surrounded by a larger circular mass of red. This geometric pattern observed in the field is replicated, using small samples of the actual ochres, on the cover of this report. The colors and the geometric arrangement of concentric circles strongly suggest that the ochres made up a solar symbol.

The final offering with this burial consisted of two black drum molars near the crown of the head. The significance of these is entirely problematical. Because drum teeth from other burials probably

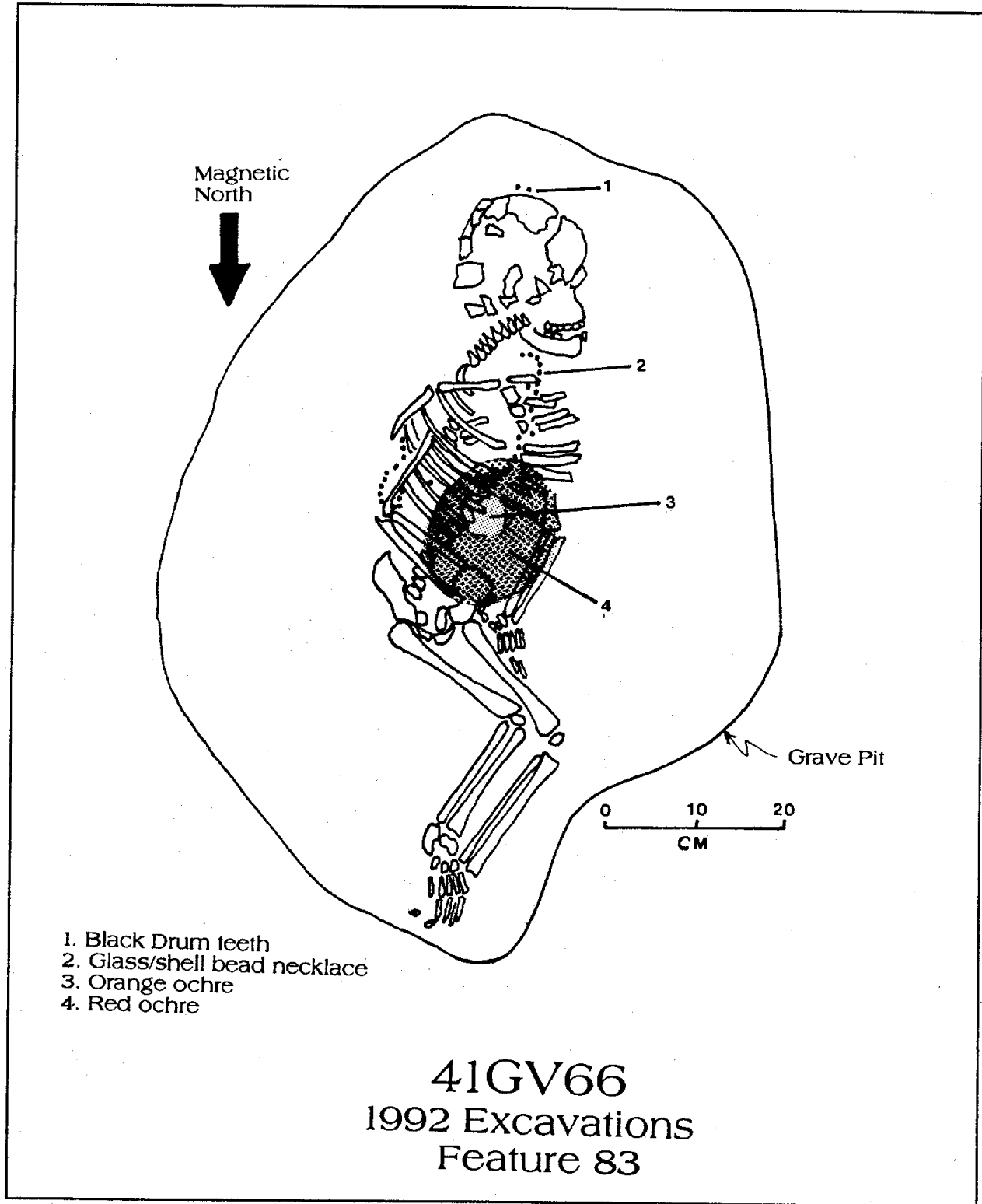


Figure 8.19. Plan view of Protohistoric child burial, Feature 83.

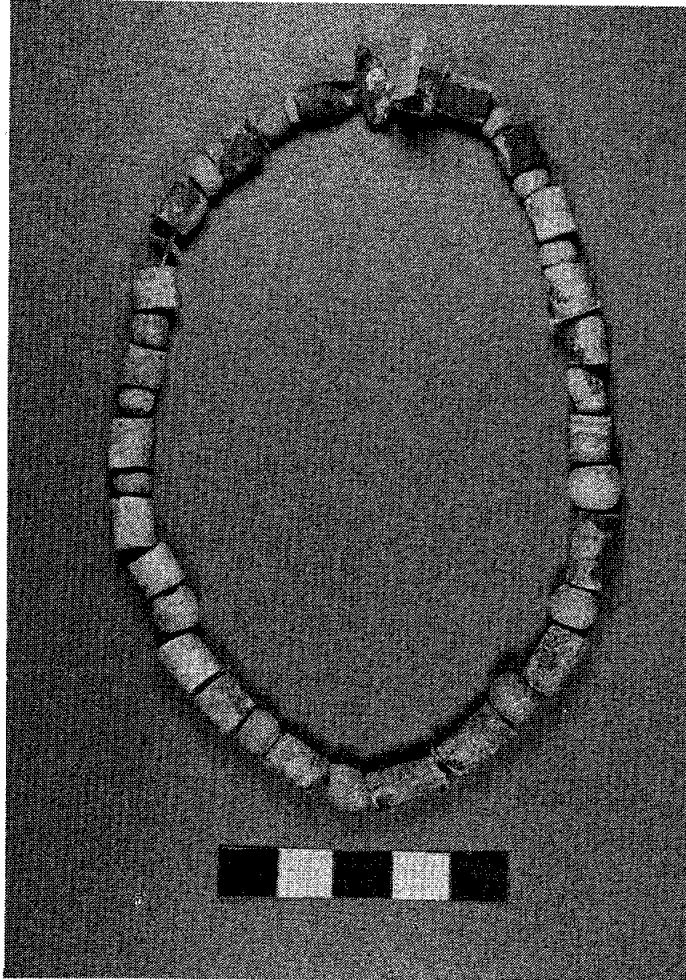


Figure 8.20. Necklace of blue-green glass and shell beads, Feature 83, with beads assembled in original articulated positions. Scale is in centimeters.

represent rattles, it may be that the two specimens from Feature 83 were in some small container of perishable material tied in the hair and meant to make a rattling sound.

A small sample of human longbone produced a radiocarbon age, corrected for $13C$, of 420 ± 60 B.P. This calibrates to a 2-sigma calendar range of A.D. 1409-1641. If it is assumed, as Smith suggests, that the large blue-green bead type found with the burial date to after ca. A.D. 1575, this feature probably falls between that date and 1641. A chronological placement in the Protohistoric Period is indicated.

Feature 84

This was the primary flexed burial of an adult, probably a male, 50+ years of age. The body had been placed on the right side, with the legs drawn up even with the pelvis and the hands in front of the face. The head was oriented toward the south. The grave pit measured 53 x 105 cm. The pit was unusually shallow, having been dug only to the surface of the sand/shell hash zone. For this reason, some of the skeleton, including the skull, was damaged during machine stripping. A large potsherd rested between the femur and tibia of the left leg, probably an accidental inclusion in the grave fill.

Feature 85

This burial is a secondary cremation placed in a shallow pit, 18 cm deep from the surface of the sand/hash matrix, and measuring 86 x 107 cm in plan dimensions. The pit overlapped with Feature 86; Feature 85 clearly was the later of the two, since slight differences in the brown colors of the pit fill made possible the determination that it intruded into the upper part of the fill of Feature 86. Resting on the floor of the pit was an oblong mass of burned human bone, 28 x 65 cm (see Figure 8.21), containing over 1500 fragments of burned bone representing a minimum of one individual. Four tubular bird bone beads and fragments of a white-tailed deer skull rested as grave goods among the bone fragments. These clearly were put with the bones after burning, since they were all completely unburned. The tight clustering of the burned bones suggests that they were placed within the pit in a perishable container.

The bone beads were manufactured from cut sections of the longbone(s) of a very large bird, perhaps whooping crane. The cut ends are smoothed and the beads exhibit slight overall polishing. In one case, small nicks extend around the circumference of both ends. In maximum width and length, the beads measure 16 x 8 mm, 20 x 16 mm, 20.5 x 16 and 27 x 19 mm.

Feature 86

The semiflexed skeleton of an adult male, 35-45 years old, rested on the back in a burial pit measuring 84 x 142 cm by 40 cm deep. The left arm was bent at the elbow so that the hand rested near the face, and the right arm was positioned so that the forearm crossed over the abdomen (Figure 8.22). The head was oriented toward the west-southwest.

This individual was accompanied by an impressive array of grave goods. Around the neck and resting on the chest was a necklace of 124 olivella shell beads (illustrated on p. 423, Chapter 11). Two finely engraved whistles made from whooping crane ulnae (Figure 8.18, middle and right) were lying together, parallel to and against the left arm. A large freshwater mussel shell with polished exterior surface rested on the left side of the chest (Figure 8.23, a). On the lower abdomen, near and around the right wrist, was a tight cluster of relatively large lithic artifacts, including a thin bifacial knife and thirteen prismatic blades and blade-like flakes (Figures 8.24 - 8.26; see Table 8.4 for metric and other data on these lithic items). Among the fingers of the right hand were two conjoinable halves of an engraved bird bone bead (or finger ring?), similar to those from Feature 85, except for three more or less equally spaced panels of engraved geometric designs on the exterior surface (Figure 8.23, b).

A sample of longbone produced a radiocarbon age (Beta-58745), corrected for 13C, of 520 +/- 70 years B.P. This calibrates to a 2-sigma calendar date range of A.D. 1302-1483, with an intercept at A.D. 1421, placing Feature 86 in the Final Late Prehistoric Period.

Feature 87

Feature 87 is the single semiflexed interment of an adult male, 35-39 years of age. The burial pit measured 110 x 134 cm and the depth was 30 cm from the surface of the sand/shell hash zone. The body rested on the back, and both arms were extended parallel to the torso (Figure 8.27). The head orientation was to the west-southwest.

Several classes of offerings accompanied this individual. Lithic items, clustered in the area of the lower abdomen and pelvis, include a distal end fragment of a finely flaked chert drill (found on the screen and thus not shown in situ in Fig. 8.27), two small, crude chert bifaces (Figure 8.28, a, b), a biface fragment (Figure 8.28, c), a fragment of a small prismatic blade and 12 lightly retouched and utilized flakes (utilization inferred on the basis of contiguous microflaking on one or more edges; see Figure 8.28, d-j). The two complete bifaces are of indeterminate function; under 20X microscopic examination, neither showed edge attrition or polish which would indicate utilization. One has patches of asphaltum adhering to both faces of one end (Figure 8.28, a), suggesting hafting and possible use as a blunt projectile point. The biface fragment exhibits contiguous microflaking along one edge, possibly indicative of use.

A most unusual object was found with this individual, resting next to the elbow of the extended right arm (see Figure 8.29, c). This consists of a row of 13 sharpened incisors of hispid cotton rat inset into an asphaltum handle 48 mm long, 17 mm in maximum width and 8 mm thick. An ethnohistoric account left by Jean-Baptiste Talon, a French boy captured by Karankawans at La Salle's Fort St. Louis,

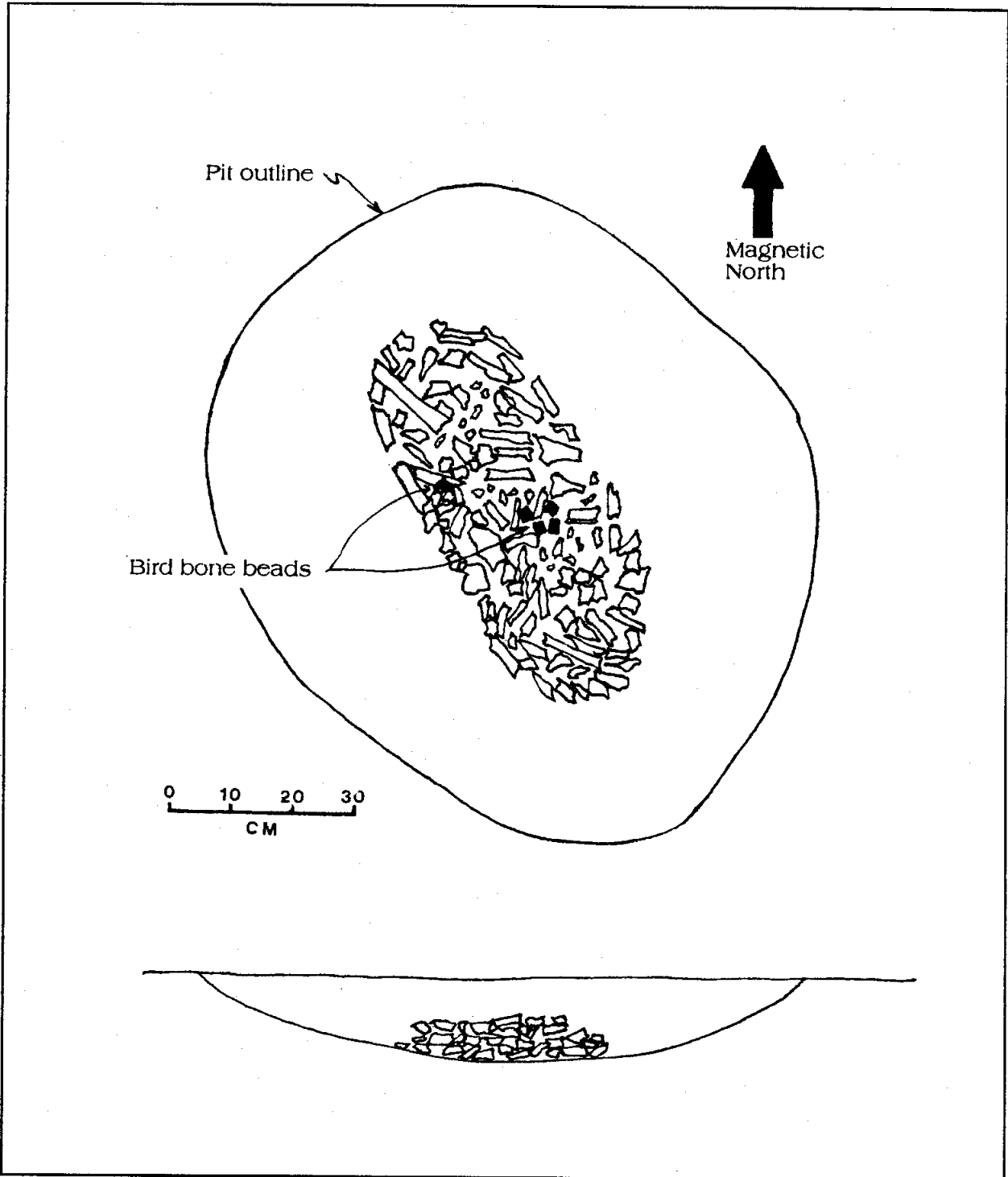


Figure 8.21. Plan and cross-sectional views of secondary cremation, Feature 85. Cross-section is through middle of mass of cremated bone along a NNE-SSW axis.

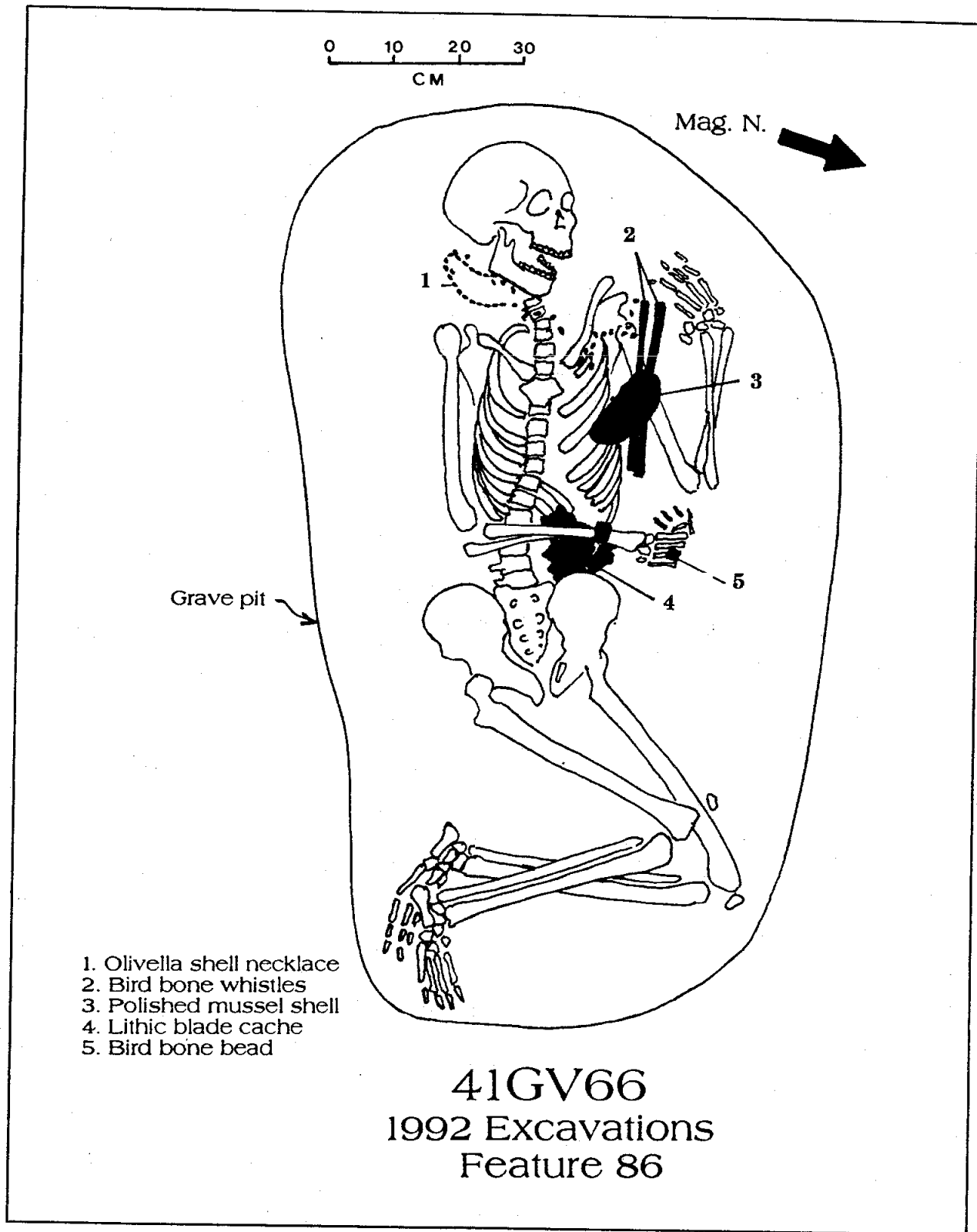


Figure 8.22. Plan view of adult male burial, Feature 86.

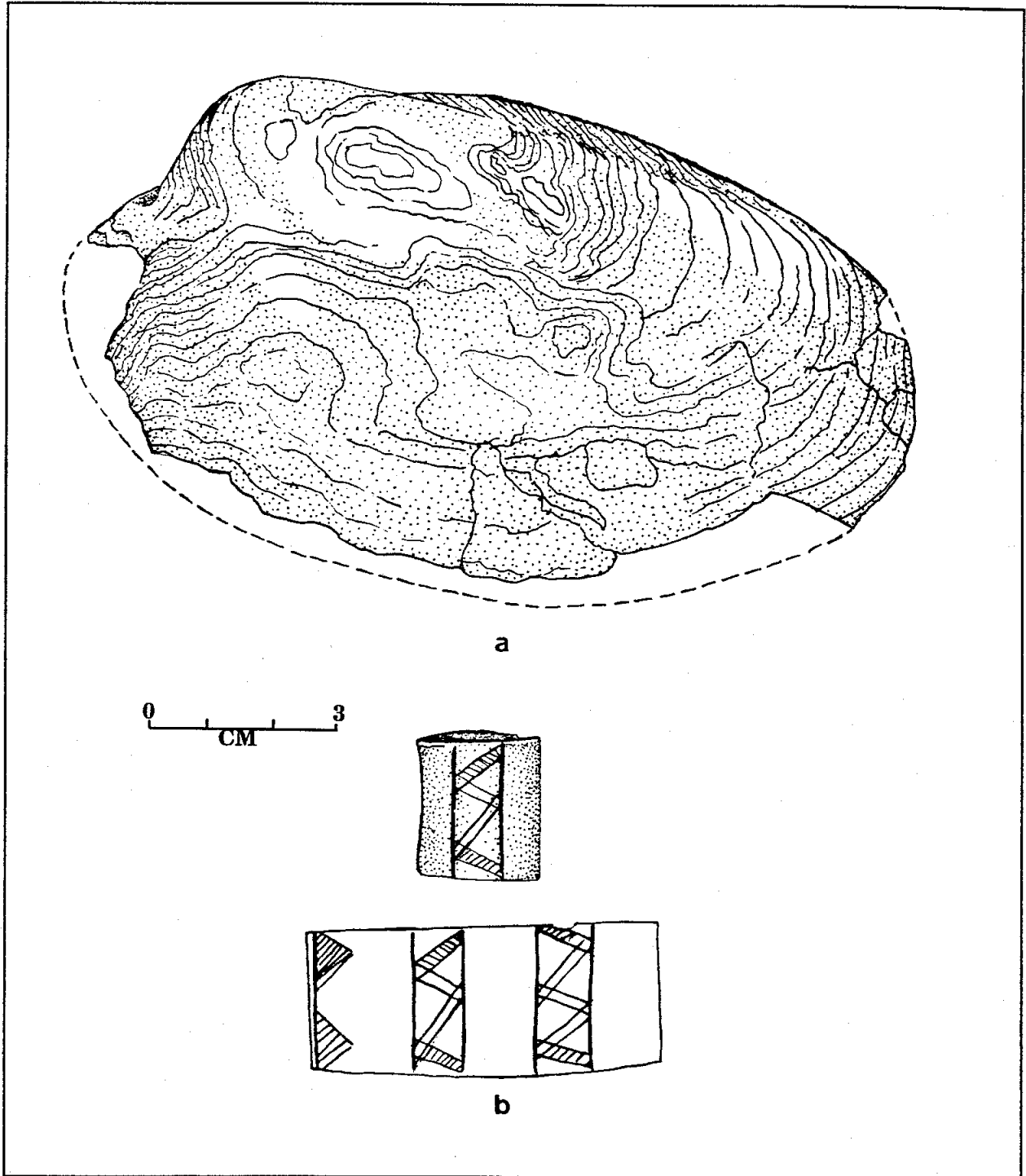


Figure 8.23. Artifacts, Feature 86. a, modified fresh water mussel shell (exterior surface is abraded and polished, revealing internal shell laminations); b, bird bone bead with engraved geometric decoration (shown in expanded form below).

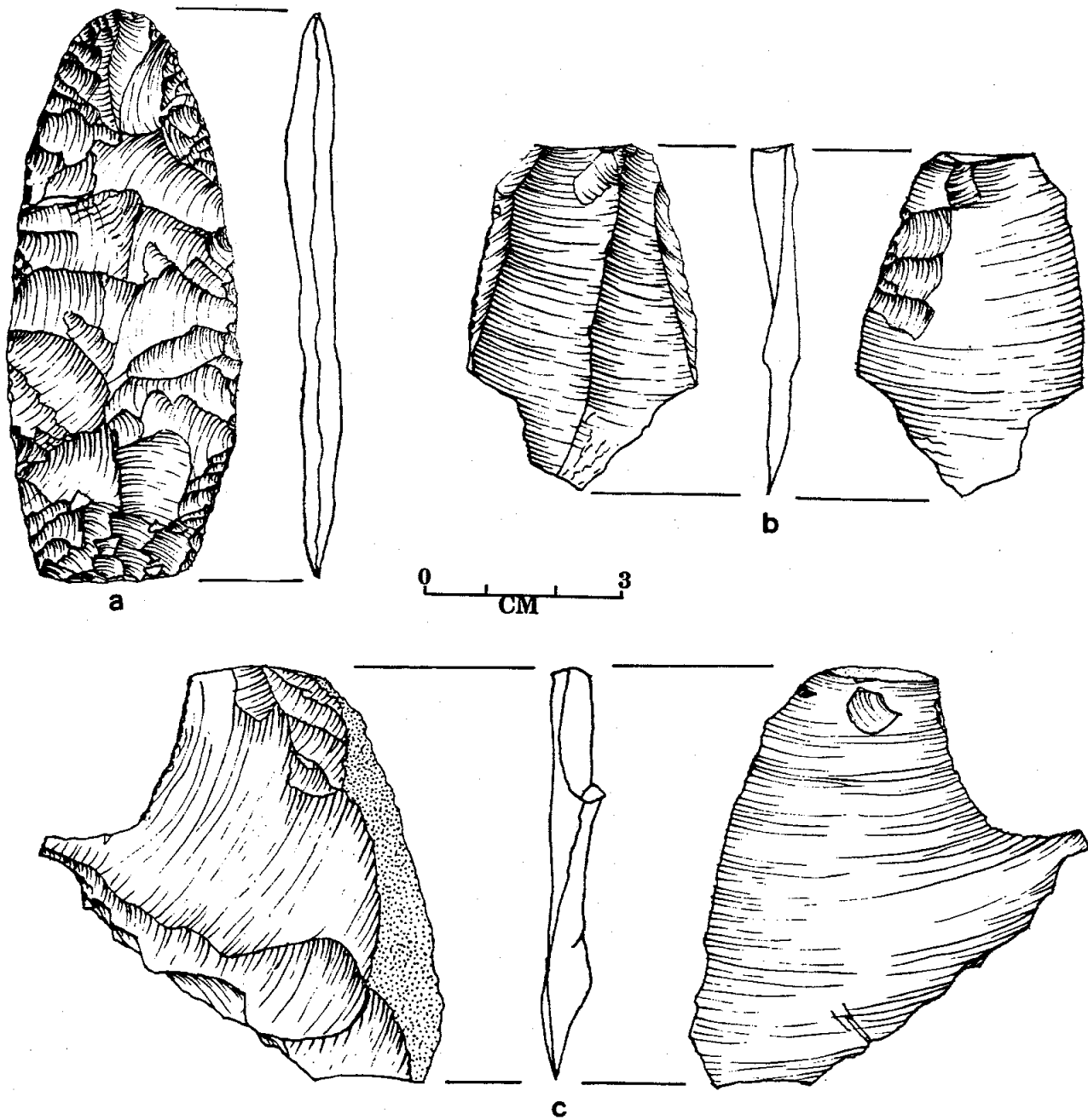


Figure 8.24 Lithic artifacts, Feature 86. A, bifacial knife; b, utilized prismatic blade; c, utilized blade-like flake. These and lithics shown in Figures 8.25 and 8.26 were all found clustered by right wrist of adult male (see Figure 8.22).

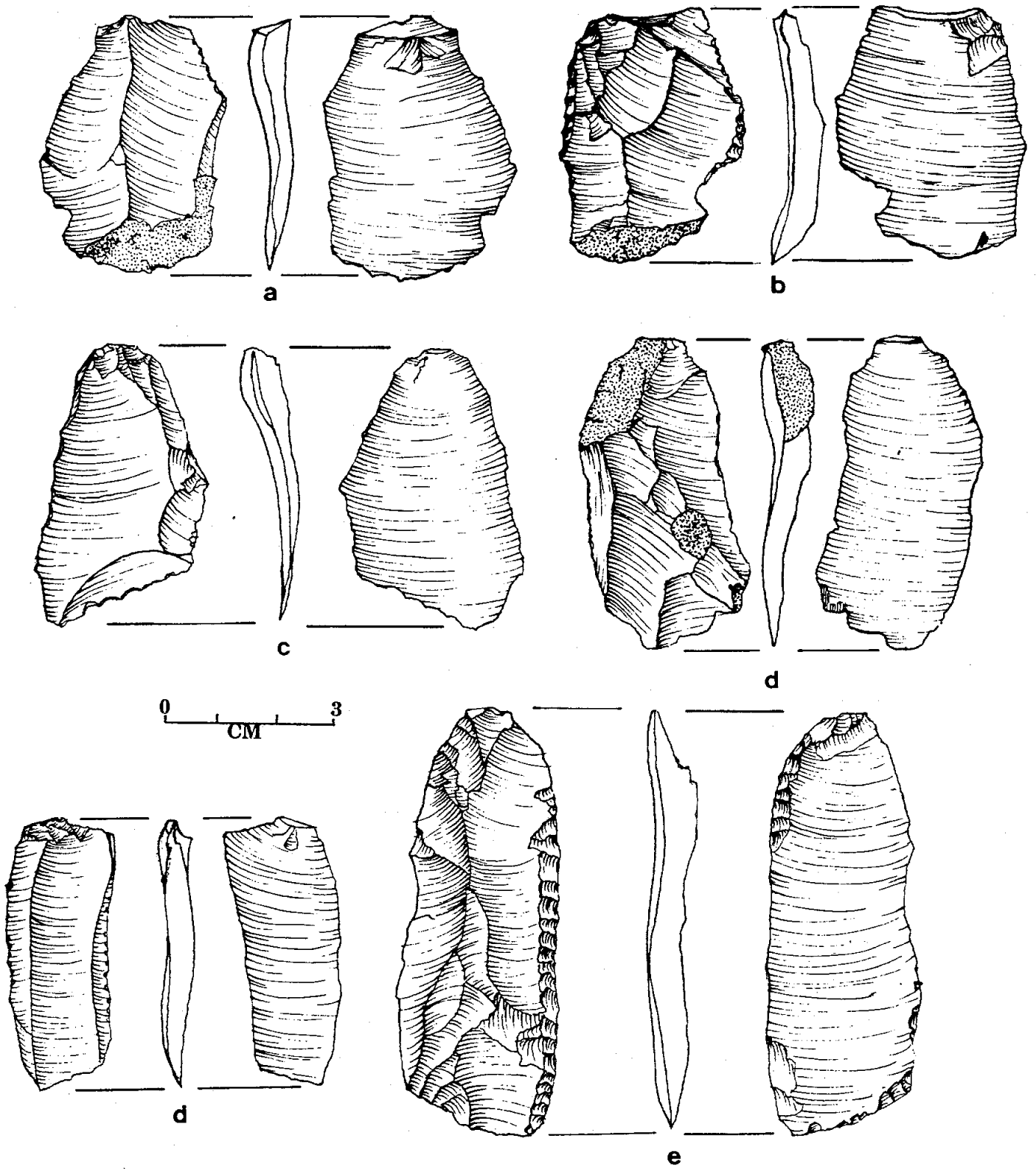


Figure 8.25. Chert blades and blade-like flakes from Feature 86.

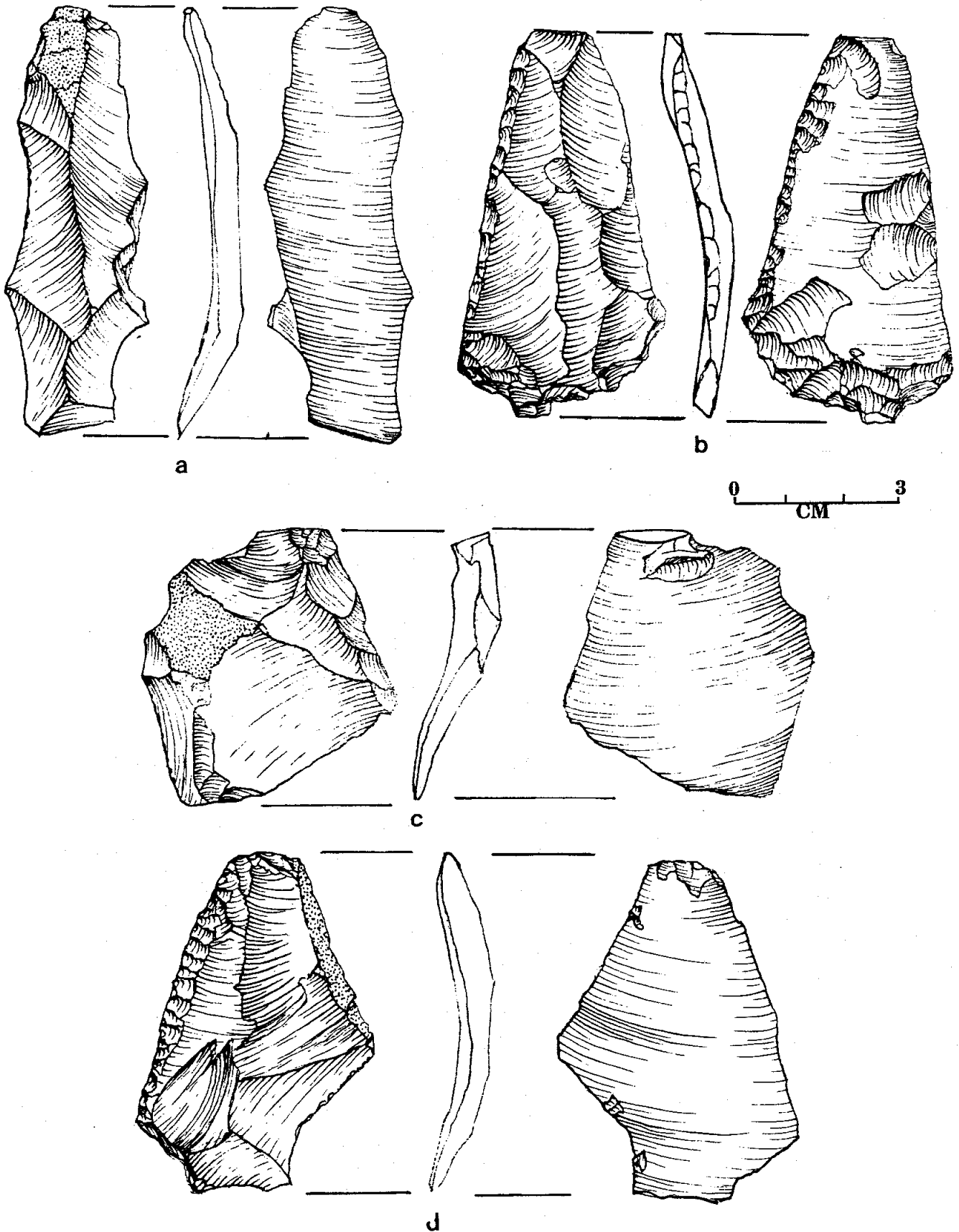


Figure 8.26. More chert blades and blade-like flakes from Feature 86.

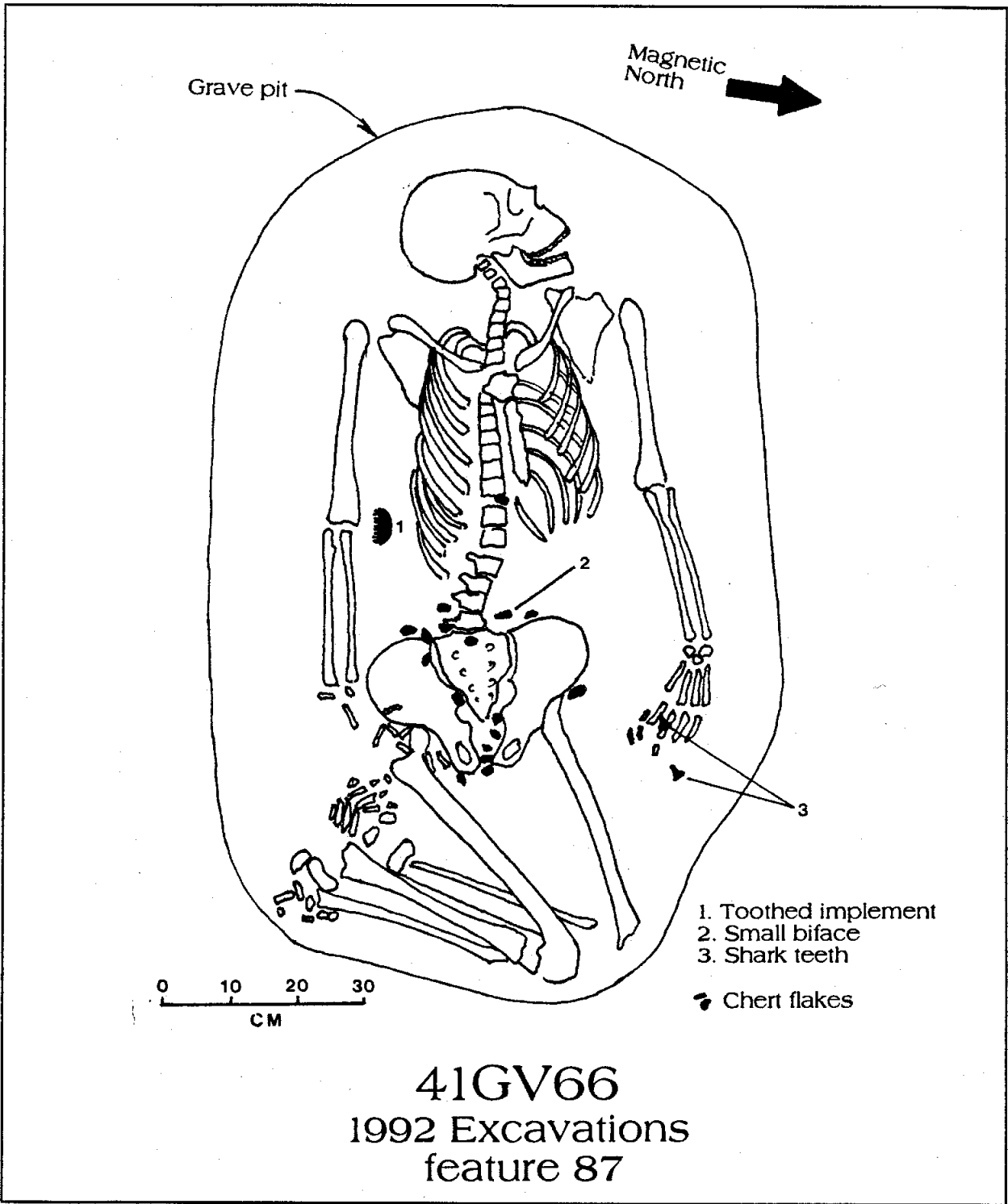


Figure 8.17. Plan drawing of Late Prehistoric adult male burial, Feature 87.

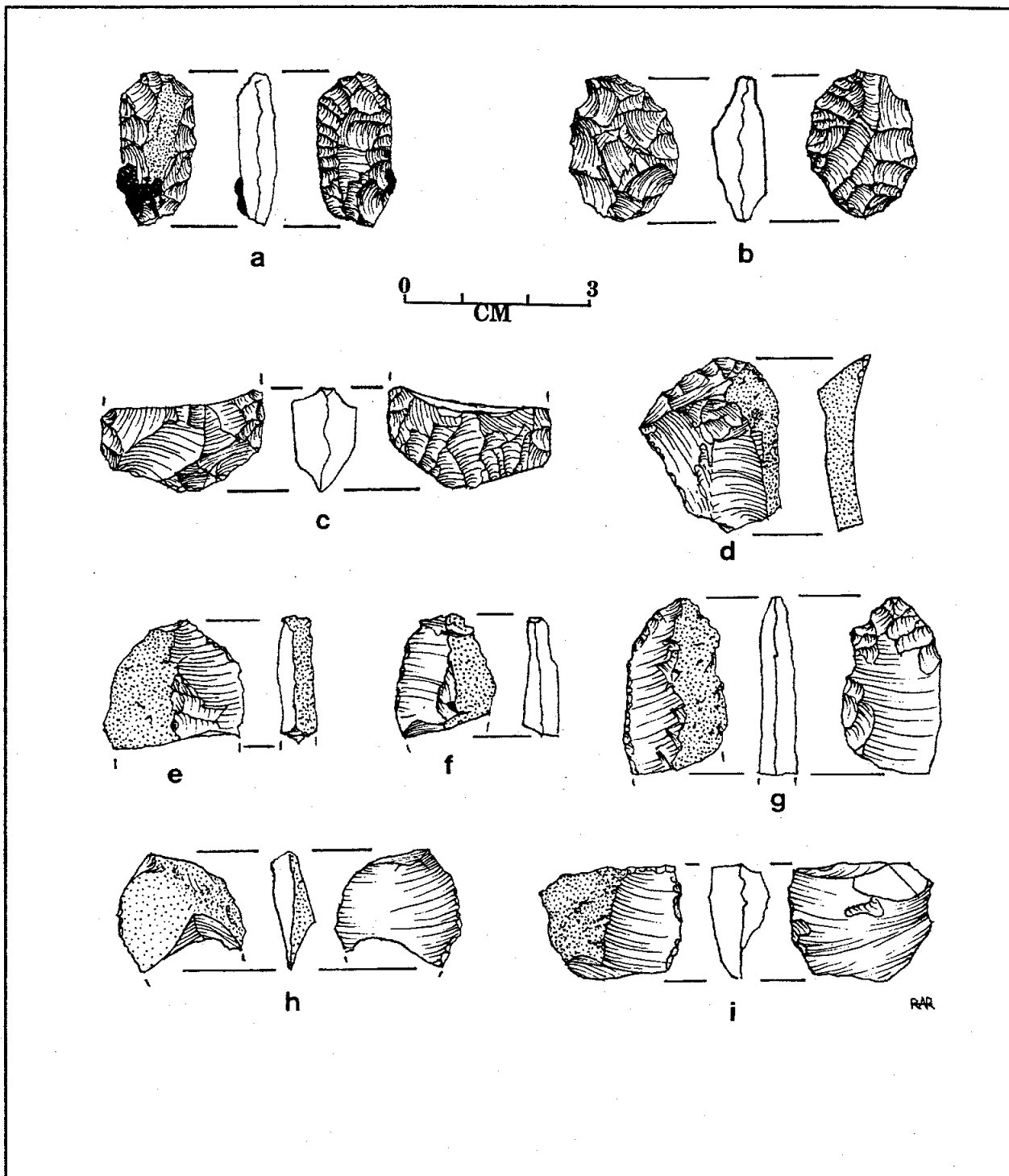


Figure 8.28. Chert artifacts from the pelvis/lower torso area of adult male burial, Feature 87. A, b, small bifaces (note asphaltum on base of a); c, biface fragment; d, scraper-like retouched flake; e-j, utilized flakes.

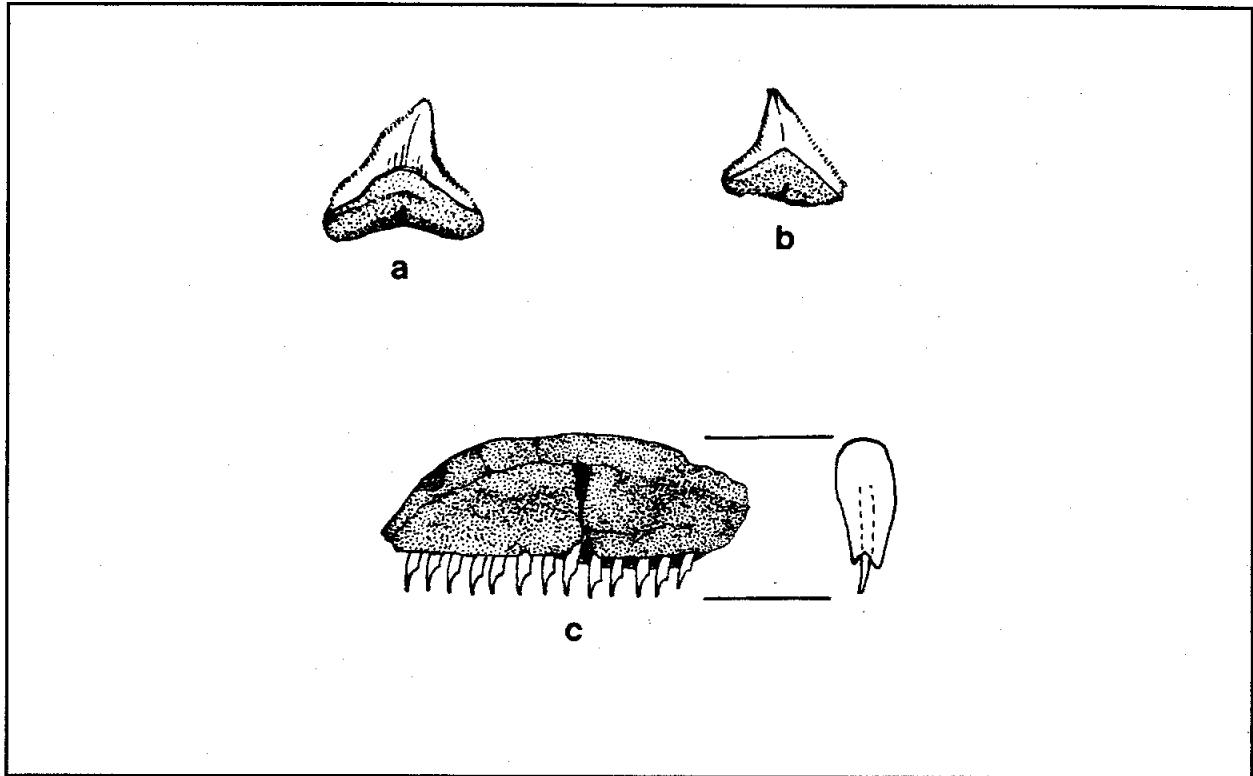


Figure 5.29. Artifacts with adult male, Feature 87. A, b, shark teeth; c, rat teeth inlaid into asphaltum handle, interpreted as a shaman-curer's bloodletting tool.

who lived with a group of Karankawa, appears to describe a similar object and reveal its function as a shaman-curer's bloodletting tool:

Besides the perfect knowledge they have of the properties of medicinal herbs, as has been said, they draw blood and practice the sucking of wounds. To draw blood, they have little combs, made with the teeth of a kind of large rat found in that country, with which they scrape and tear the skin, and the very spot where one feels the pain. When they want to cure a headache, they prick the skin [of the head] in several places, depending on where the pain is, and then they suck the blood, which spurts out with very great force. These practices are successful (Bell 1987:225).

Although most unusual, this item is not quite unique. A nearly identical specimen was recovered during excavations at the eighteenth century Spanish mission of Espiritu Santo at present-day Goliad and is on exhibit in the museum there. Apparently these specimens represent a distinct tool type, albeit one which is rarely recovered archaeologically.

This individual was also accompanied by two shark teeth (Figure 8.29, a, b) that were resting among the phalanges of the left hand.

A radiocarbon assay (Beta-58746) was run on a sample of longbone from Feature 87. The uncorrected age proved to be 440 +/- 70 B.P., which corrected for 13C to 610 +/- 70 B.P. The calibrated 2-sigma calendar range is A.D. 1281-1439, with intercepts at A.D. 1322, 1340 and 1393, placing this burial in the Final Late Prehistoric Period.

Feature 61

This burial pit contained the fully flexed skeleton of an adult female 25-35 years of age, and token bone elements of a juvenile of 6-15 years and an adult, both of indeterminate sex. The grave pit measured 80 x 103 cm and was 63 cm deep from the surface of the sand/shell hash zone. The flexed adult female rested on the left side with the hands in front of the face and the head oriented toward the south-southwest (Figure 8.30). The token adult burial is represented by four carpals, two metacarpals and one metatarsal fragment. The token juvenile is represented by four carpals, two metacarpals, two metatarsals and 13 unidentifiable bone fragments.

The primary flexed female was accompanied by 28 olive shell beads (Figure 8.31) which encircled the skull and apparently represent a head ornament. When restrung, the beads form a circular band, 10 cm in diameter, which could have rested on the crown of the head, or may have been attached to the hair.

The primary flexed female burial is of particular interest because discrete trait analysis of the cranium indicates that this individual was at least partly, if not entirely, of Caucasian racial stock (see discussion in Powell report, Chapter 9). European ancestry is thus indicated, suggesting that this person found her way into native society or, perhaps, was born into it through mating of a native and a European individual.

A radiocarbon assay (Beta-55870) on longbone suggests a late Protohistoric or Early Historic age for this individual. The uncorrected radiocarbon age is 190 +/- 70 B.P., which corrects for ^{13}C to 310 +/- 70 B.P. This calibrates to a 2-sigma calendar range of A.D. 1443-1954, with a single intercept at A.D. 1638. Given the caucasian ancestry of the individual, the actual age cannot fall at the early end of the range, prior to European entry into North America. It is, however, impossible to determine where in the protohistoric or historic periods the burial should be placed. On the basis of site-specific and historical contextual information, an age at the end of the Protohistoric or in the Early Historic seems likely; this is discussed further on, after presentation of other evidence of racial mixing from other burials at Mitchell Ridge.

Feature 62

Two individuals, an adult female 25-35 years old and a young adult female approximately 18-20 years of age, were interred in a relatively large pit measuring 149 x 166 cm and having a depth below the surface of the sand/shell hash of 70 cm. The bones of the older individual, who had been buried first, had been disturbed by the interment of the second. The completely articulated condition of the feet and right arm and hand of the first individual indicates primary interment, doubtless in a flexed or semiflexed position, since the pit was too short to accommodate an extended adult burial (see Figure 8.32). After some time, the pit was reopened, the bones of the first burial were pushed aside, and the second individual was interred in a semiflexed position with the left arm extended parallel with the torso, the right hand drawn in front of the face, and the head oriented to the southwest.

Both patellae and the first two cervical vertebrae of the first burial were found at the top of the grave pit. Given the fact that in at least two other cases (Features 26 and 27), patellae served as token burials, it is possible that these bone elements were intentionally removed from the bottom of the grave and placed at the top of the pit when it was backfilled after the second interment, in a gesture having some kind of symbolic significance.

The only grave goods present were seven small blue-green glass beads found in the grave fill among the bones; it was not clear in the field with which of the two individuals the beads were associated.

Radiocarbon assay (Beta-55871) on longbone from the second (articulated) individual produced an age, corrected for ^{13}C , of 60 +/- 8 B.P. This calibrates to a 2-sigma calendar range of A.D. 1689-1955, indicating an Early Historic or later time frame. As discussed further on, artifacts from other burials in the group indicate an eighteenth century age, which probably applies as well to Feature 62.

The bioarchaeological findings gleaned from the skeletal material from Feature 62 are discussed in detail by Powell in Chapter 9. It is noted here, however, that metric dimensions of the skulls of both individuals are so similar as to suggest a direct biological relationship, perhaps common family membership.

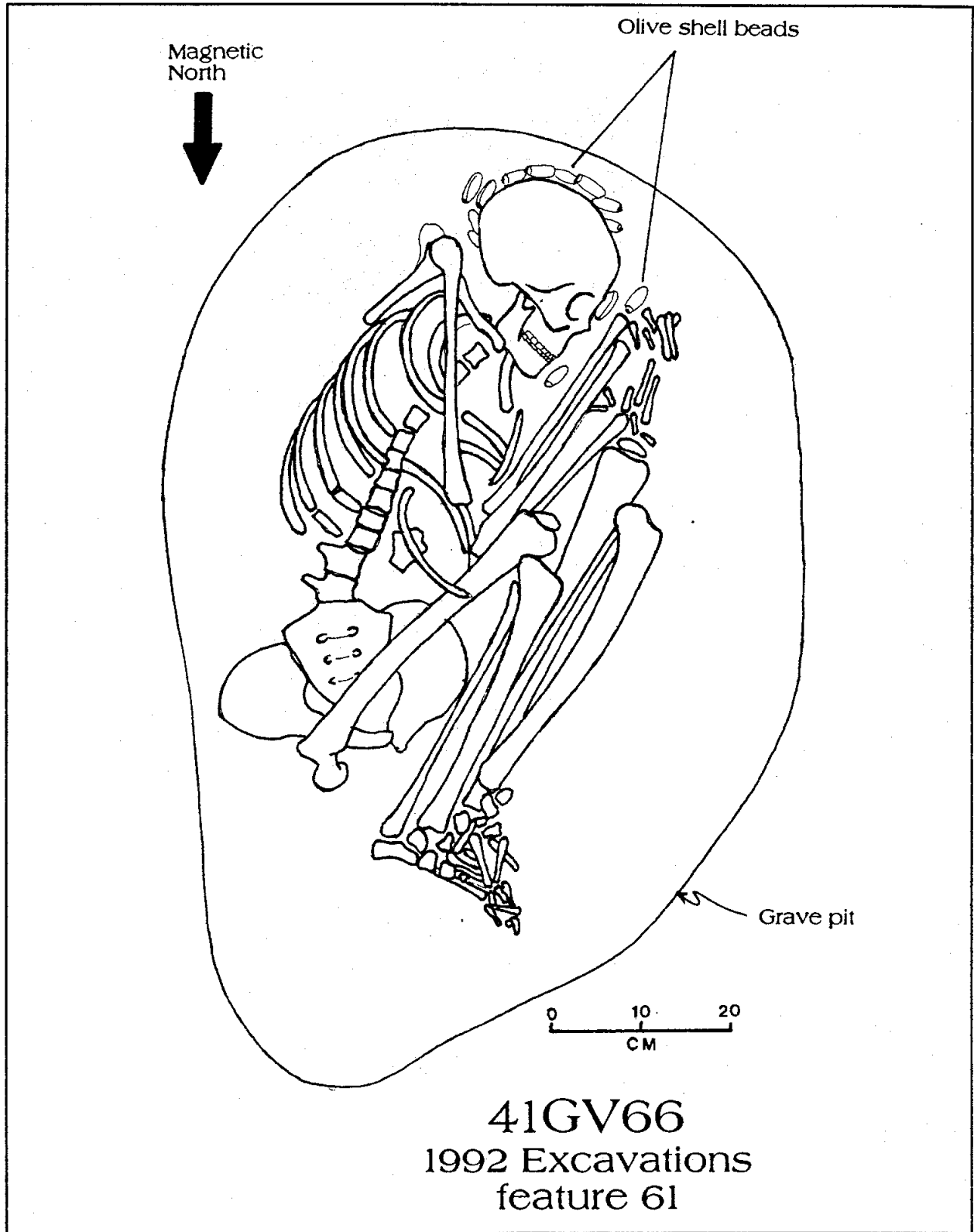


Figure 8.30. Plan drawing of Feature 61.



Figure 8.31. Photograph showing olive shell beads around skull of flexed adult female, Feature 61.

Feature 63

This is the most internally complex burial feature documented at Mitchell Ridge. The pit contained the remains of at least six individuals ranging in age from infant to mature adult, in modes of burial including primary, secondary, secondary cremation, and secondary token burial. As in the case of Feature 62, the original burial was reopened for additional interments.

The pit was relatively large, with the nearly circular plan having dimensions of 145 x 152 cm. Depth below the surface of the sand/shell hash was 45 cm. An unusual aspect of the pit is that it was surrounded by six large post molds (see Figures 8.33 and 8.34), indicating enclosure of the grave. The post molds were readily recognizable by their shape and brown sandy fill, which contrasted markedly with the surrounding light tan sand/shell hash matrix. In plan view all six post molds were square to rectangular in plan, with greatest dimensions ranging from 22 to 44 cm. All of the post molds were cross-sectioned, revealing rounded bottoms (see Figure 8.34). The plan shape suggests that the post were hewn prior to insertion in the ground.

The placement of human remains in Feature 63 involved at least two episodes of burial. The first interment was that of a robust adult male, 20-25 years of age. The body was placed in a semiflexed

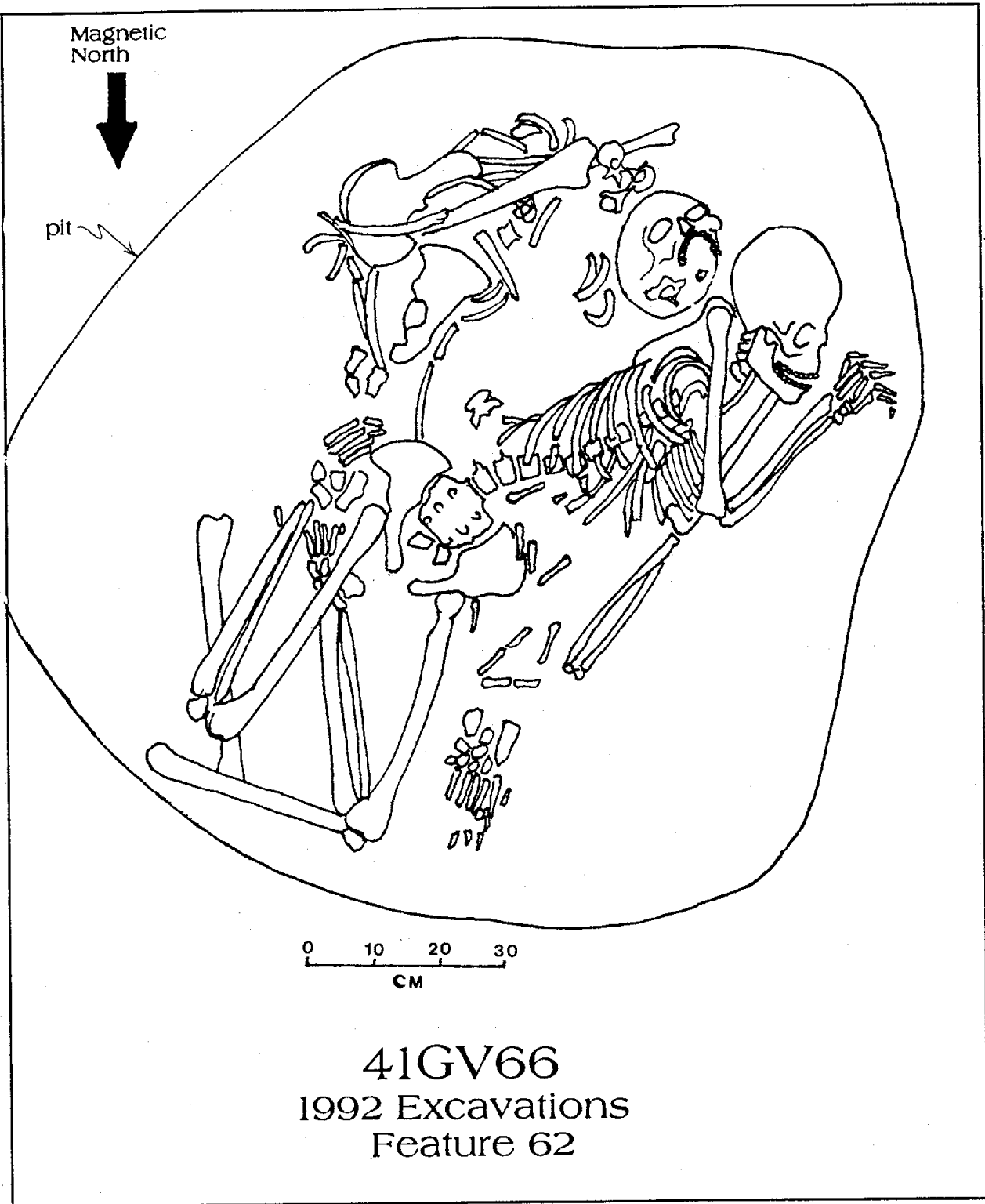


Figure 8.32. Plan drawing Feature 62. Note disturbance of bones of Burial 1 by later interment of semiflexed Burial 2.

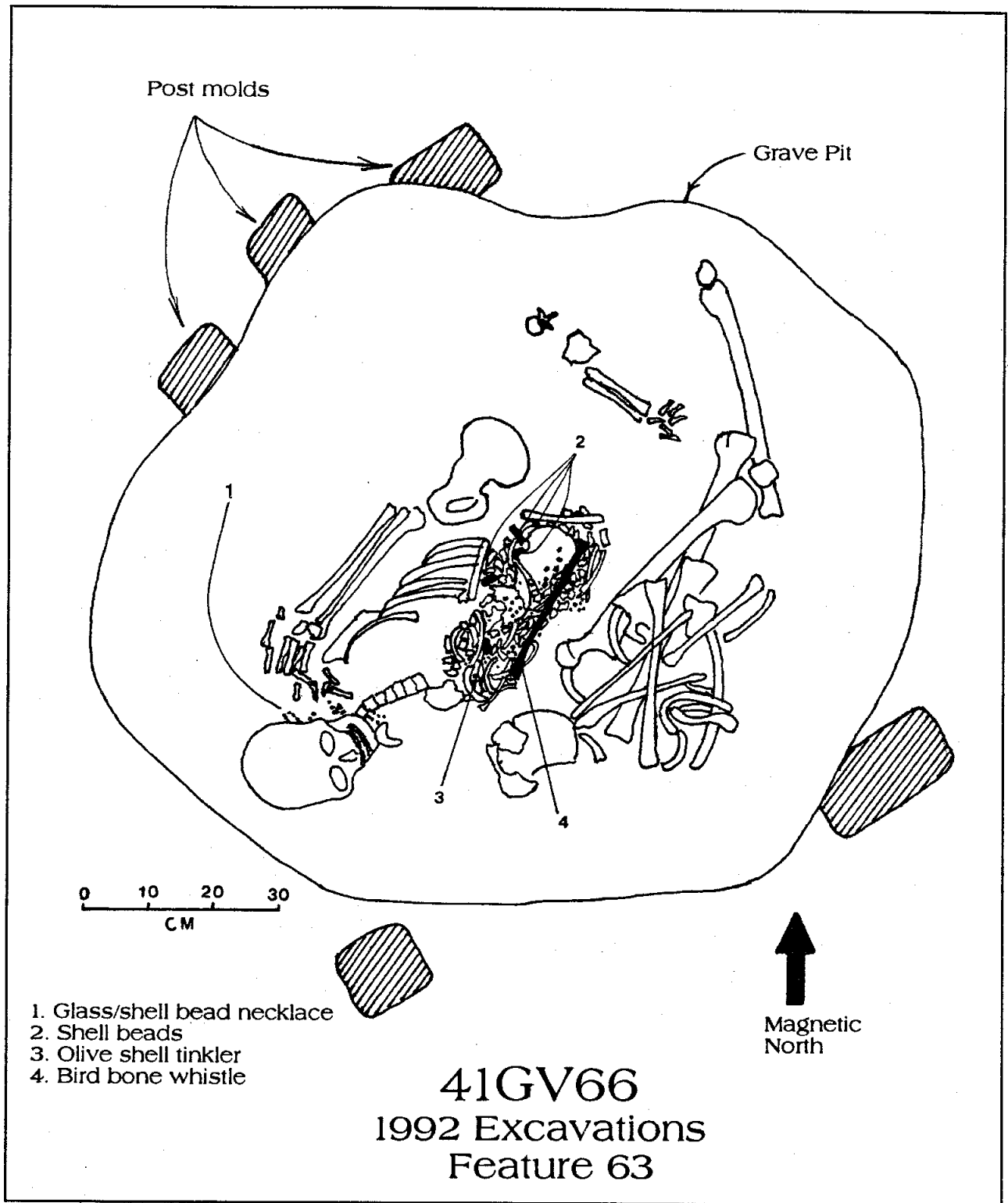


Figure 8.33. Plan view of Feature 63. Note bundle burial overlying lower torso area of adult male, displaced condition of bones from the latter individual, and articulated radius, ulna and metacarpals of token juvenile burial to northeast of bundle.

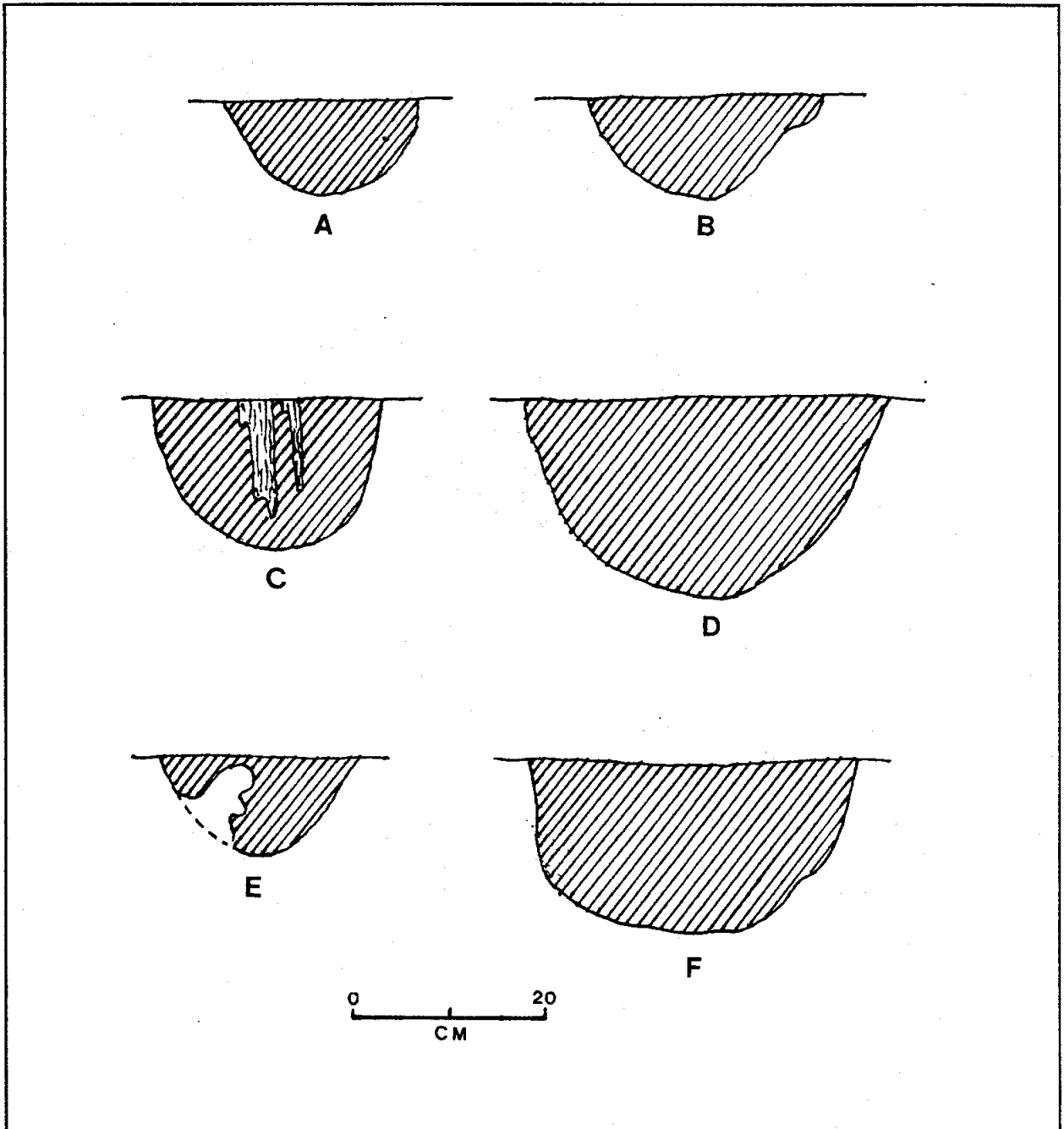


Figure 8.34. Cross-sectional views of post molds surrounding Feature 63 (individual post molds correspond, from top left, to clockwise order of post molds from top left of pit plan, Figure 8.33 (with exception of one post mold just beyond limits of Figure 8.33).

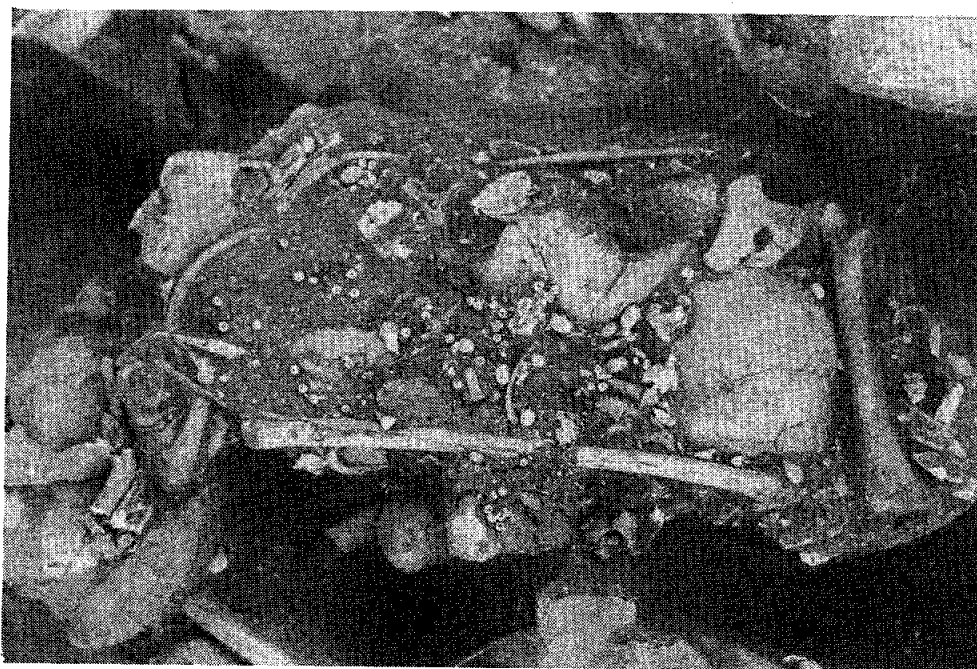


Figure 8.35. Two views of Feature 63. Top: Exposed burials in grave pit; note bundle burial resting on torso of adult male, articulated radius, ulna and metacarpals of juvenile token burial to lower right of bundle, and post mold stains around perimeter of pit. Bottom: Close-up of bundle burial; note whooping crane ulna whistle along lower edge of bundle and numerous glass trade beads.



Figure 8.36. Glass and shell bead necklace found with semiflexed adult male, Feature 63, showing beads in original articulated positions. Scale is in centimeters.

position, resting on its back with the left arm bent at the elbow and the left hand drawn up next to the face (Figure 8.33). Some time later, the pit was reopened, and a bundle burial was interred. In the process, many of the bones of the semiflexed adult male were pushed aside, completely disarticulating the lower vertebrae, pelvis, legs and feet and the right arm.

The bundle burial (Figures 8.33 and 8.35) was highly discrete and rectangular in shape, suggesting that it was interred within a rectangular box of perishable material such as wood or bark. It measured approximately 40 cm long by 17 cm wide by 12-15 cm thick. Within this compact mass were the disarticulated partial skeleton of a neonate or very young child (0-2 yrs.), the nearly complete disarticulated skeleton of a young child, and the highly fragmented cremated bones of at least one adult and one subadult. The uncremated bones tended to rest above the cremated ones, suggesting that the latter were

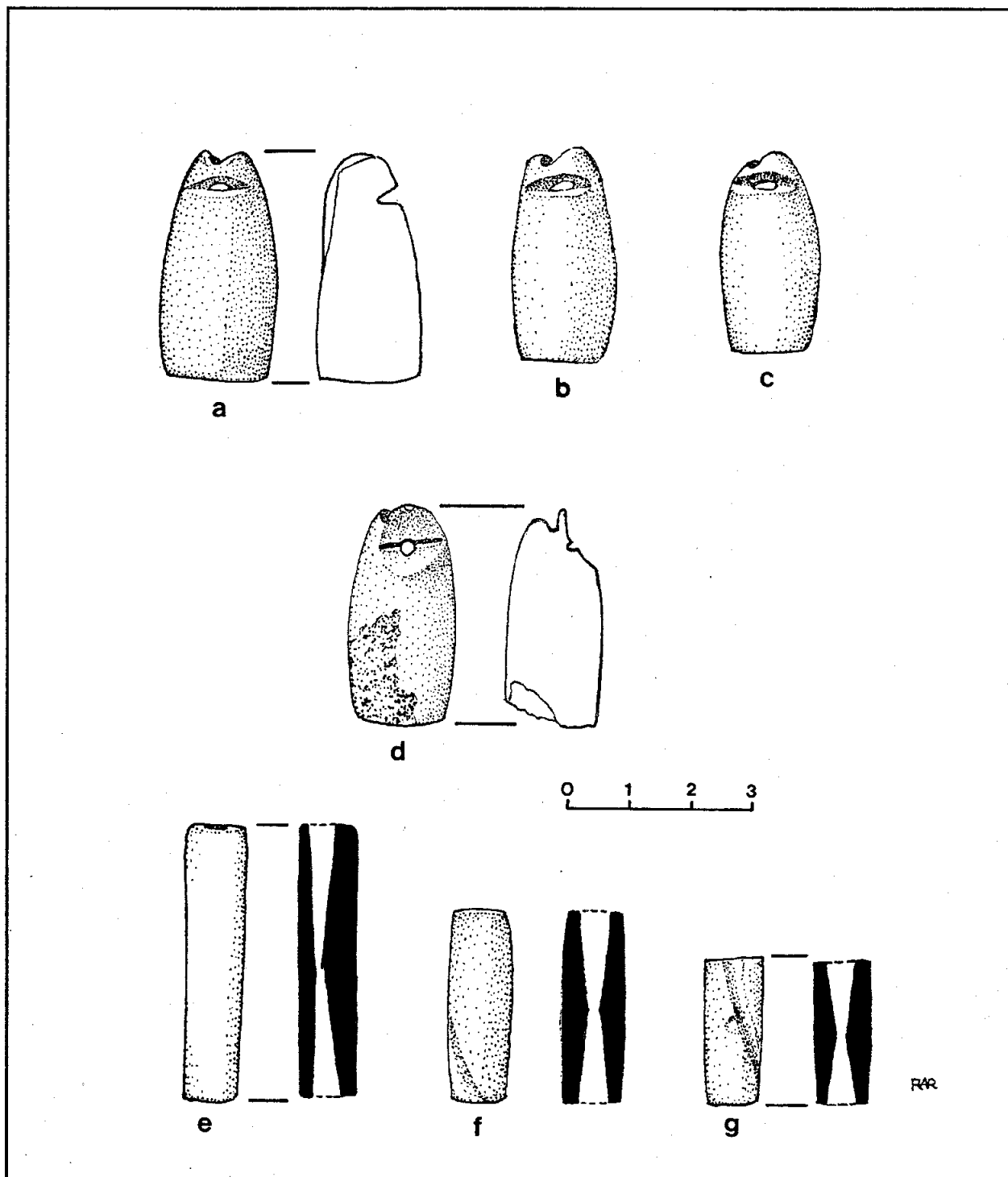


Figure 8.37. Shell ornaments, bundle burial, Feature 63. A-c, *Oliva* shell tinklers with grooved perforations; d, *Oliva* shell tinkler with ground, grooved and drilled perforation; e-g, conch columella beads.

placed on the bottom of whatever contained was used, and the former were then laid on top.

Finally, a sixth individual is represented by the articulated radius, ulna and metacarpals of a juvenile of indeterminate sex, placed on the floor of the pit some 30 cm north of the bundle burial.

Grave goods accompanied the semiflexed adult male, and were also placed within the bundle burial. Around the neck of the semiflexed individual was a necklace consisting of 81 medium-to-large glass trade beads (13 of which had disintegrated to powder), seven small cylindrical conch columella shell beads and discoidal conch columella beads. The beads were still articulated at the time of excavation, and could thus be removed in their original order. Several types of glass trade beads were in the necklace, and beads of each type were strung together so as to form groups, as were most of the shell beads which formed two groups in symmetrical opposition, one on each side of the necklace (see Figure 8.36; also see Chapter 11 for discussion of glass bead types). In addition to this necklace, 151 small blue-green glass beads were found scattered in the grave fill around the neck and upper torso. These may have been sewn onto the upper part of a shirt or blouse, or have been strung in a second necklace which had become disarticulated; none were found with the articulated larger beads of the glass and shell bead necklace, and they definitely do not appear to have been part of that piece.

Also apparently associated with the semiflexed adult male was a chert prismatic blade, 60 mm in length, with evidence of utilization in the form of microflaking on both lateral edges. This rested on the floor of the pit immediately under the right rib cage.

A relative wealth of goods was placed in the bundle burial. A whistle made from a whooping crane ulna rested on the top and along one side of the bundle. This specimen is undecorated (as are all whistles of Early Historic age from Mitchell Ridge) and has a rectangular air hole cut near one end. Shell ornaments consist of five olive shell (*Oliva sayana*) tinklers (Figure 8.37, a-d) and five tubular conch shell beads. Finally, a total of 975 small and large glass trade beads were scattered throughout the bundle. For the most part, these appeared to be randomly distributed. However, several partial, articulated strands of beads were present, suggesting that at least some of the beads were strung as one or more necklaces. Interestingly, both small (so-called "seed") and large beads were strung together. The types are described in Chapter 11, along with a discussion of their chronological significance. Suffice it to say here that the different types found in the bundle, as well as those in the necklace with the adult male, form a typical early to middle eighteenth century trade bead assemblage.

A sample of longbone from the semiflexed adult male was radiocarbon assayed (Beta-55872), yielding an age corrected for ^{13}C of 220 ± 70 years B.P. This produces a 2-sigma calibrated calendar date range of A.D. 1511-1955. The kinds and quantities of glass trade beads provide a narrower temporal bracket for this feature, placing it most probably sometime between ca. 1720 and 1760 (see discussion in Chapter 11).

One of post the molds surrounding the grave pit still contained a small remnant of the wood post (see Figure 8.34). A sample of the wood was submitted for radiocarbon dating (Beta-55874), but yielded a modern age. In the absence of a significant correction factor for ^{13}C on wood, it is not possible to obtain a calibrated date on this sample. However, statistically, the assay result is indistinguishable from other radiocarbon ages obtained on the Early Historic graves: Any radiocarbon age within the last 300 or so years will produce calibrated age ranges which extend to the present (M. Stipp, Beta Analytic, pers. comm. 2/25/94). While it is possible that a modern post was fortuitously placed at the same spot as the post mold, or in alignment with the other post molds surrounding the grave pit, this intuitively seems highly unlikely.

Feature 64

This is another complex Early Historic burial which is anomalous in the context of other burials at Mitchell Ridge. The burial pit was nearly circular in plan and unusually large, measuring 193 cm north-south and 210 cm east-west. The depth from the surface of the sand/shell hash zone was 105 cm. Like Feature 63, Feature 64 was surrounded by post molds, indicating that the pit was contained within some kind of enclosure. Two of the seven post molds were rectangular in plan shape, the others were round or slightly oval (see Figure 8.38). The rectangular post molds had plan dimensions of 17 x 35 cm and 22 x 40 cm, and respective depths below the sand/shell hash surface of 36 and 40 cm. The circular post molds ranged in diameter from 17 to 22 cm and in depth below the surface of the sand/shell hash of 5 to 24 cm. The bottoms of the rectangular post molds were flat, those of the circular post molds were rounded (see Figure 8.39).

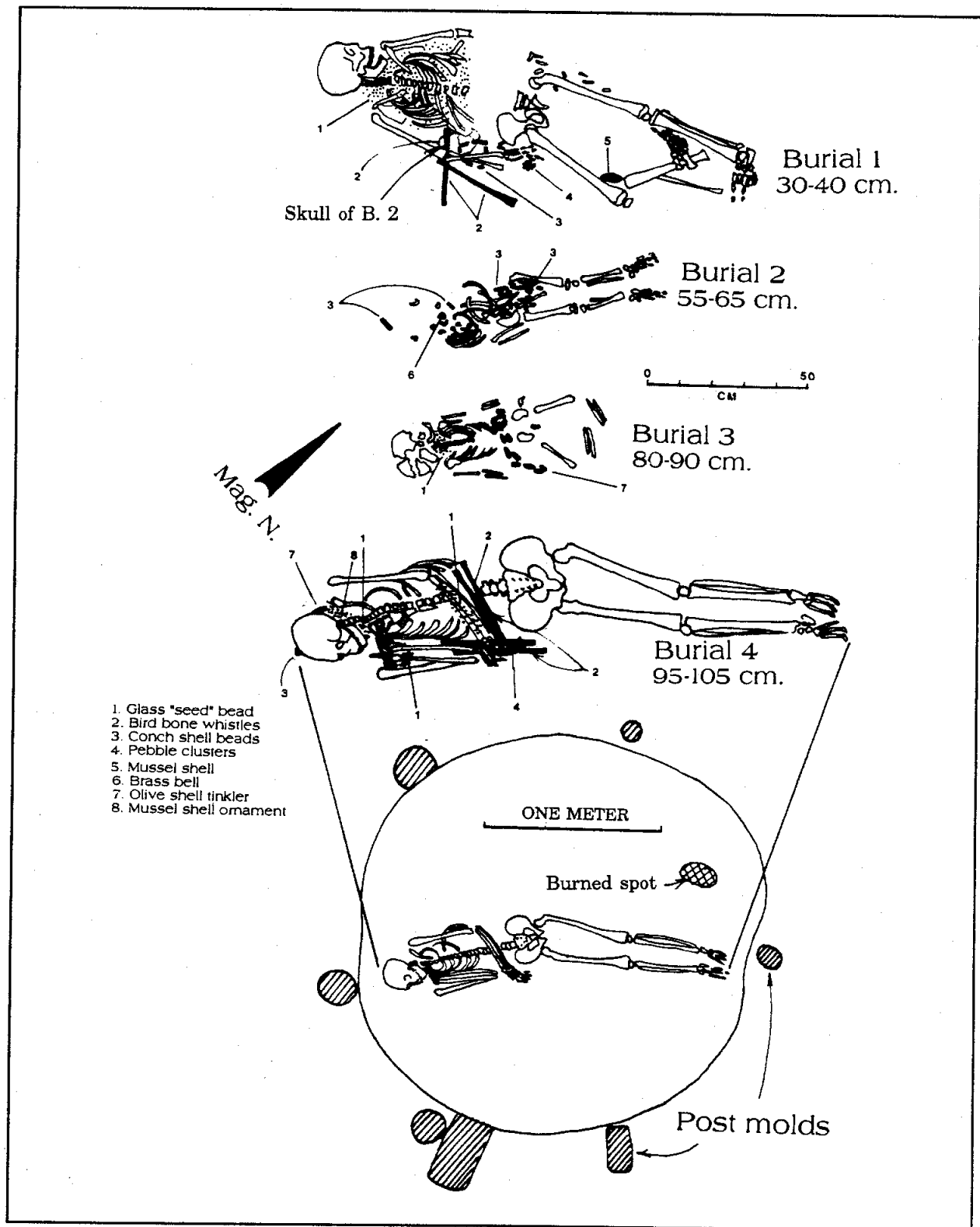


Figure 8.38. Plan of Feature 64, showing the individual burials which were stacked one on top the other in the grave pit.

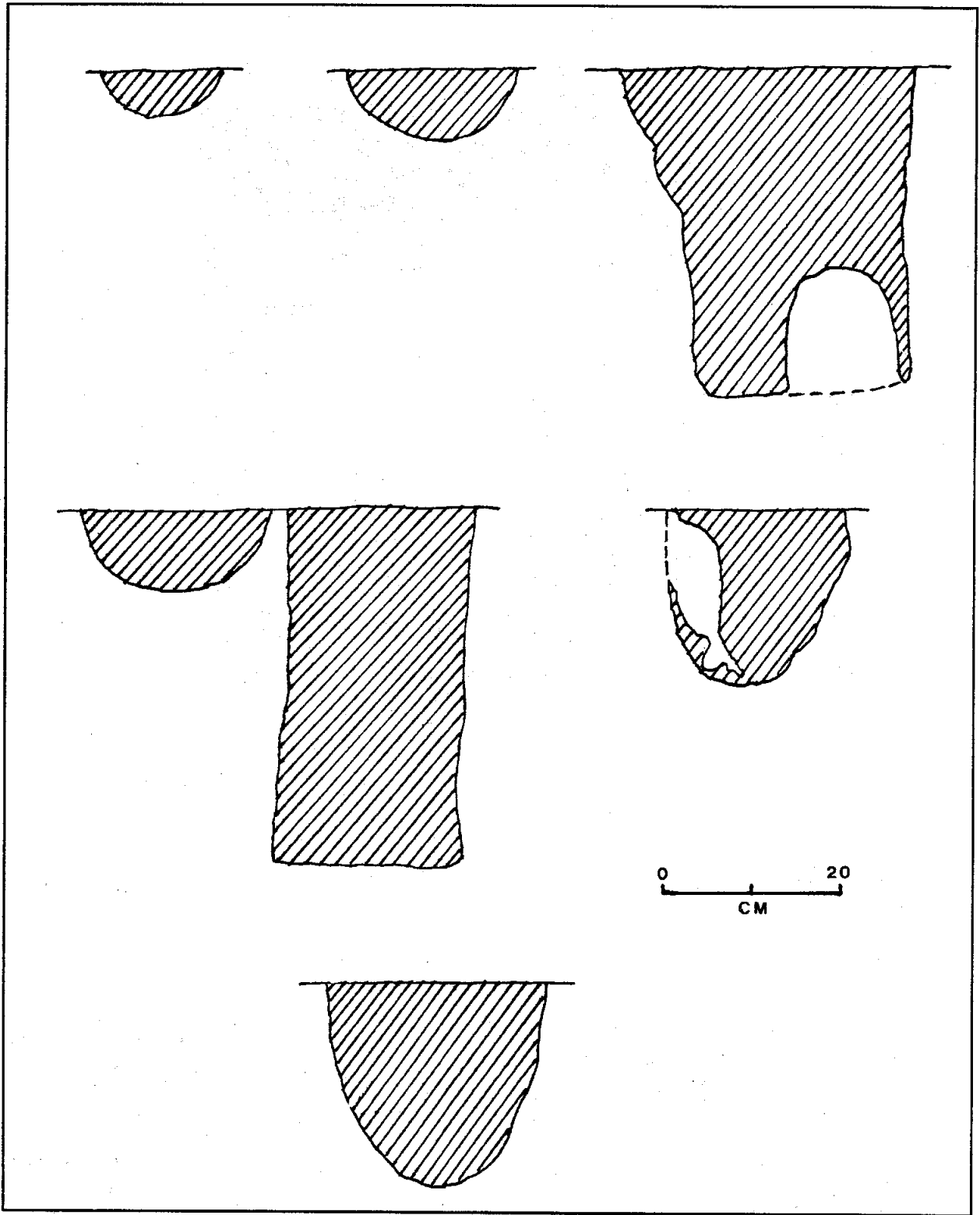


Figure 8.39. Cross-sectional views of post molds surrounding Feature 64 (individual post molds correspond, from top left, to clockwise order of post molds from top of pit plan, Figure 8.38).



Figure 8.40. Photograph of Burial 1, Feature 64. White arrows point to right arm and foot bones of underlying Burial 2.

Feature 64 contained the remains of four individuals. All were articulated, and had been placed in the grave resting on the back in extended position. The four skeletons were stacked one on top the other, each separated from the other by about 10-25 cm of grave fill (see Figure 8.38). In all cases the head was oriented toward the southwest. Each burial was assigned a numerical designation in the field, with Burial 1 the shallowest and Burial 4 the deepest.

Burial 1 was the remains of an adolescent female, approximately 13-15 year old at death. The body was fully extended, though the right tibia and fibula were displaced (see Figure 8.40). The right foot, though itself fully articulated, was disarticulated from the leg (see discussion in Powell report, Chapter 9). An old rodent burrow had disturbed the area of the lower torso and pelvis, displacing the left lower arm and hand, the lumbar vertebrae and the left ilium. Grave goods with this individual consisted of (a) two undecorated whooping crane ulna whistles with rectangular air holes (Figure 8.42, a), placed by the lower right arm, (b) a cluster of pea-sized pebbles, probably representing a rattle, near the right hand, (c) 10 tubular conch columella beads encircling the lower right arm (Figure 8.42, c), (d) a freshwater mussel shell,

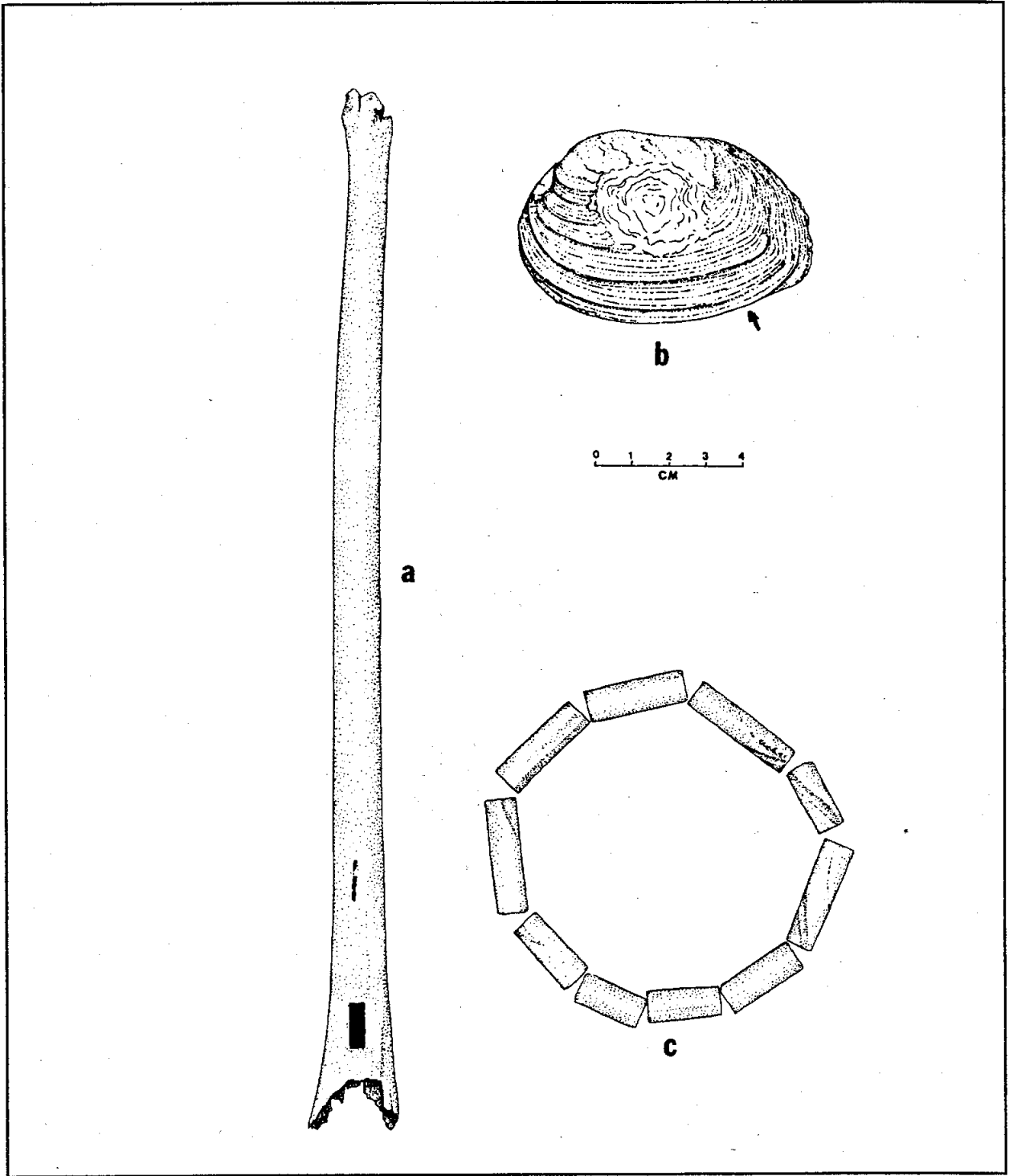


Figure 8.41. Artifacts associated with Burial 1, Feature 64. A, Whooping crane ulna whistle (one of two specimens); b, modified freshwater mussel shell (note worn spot on shell surface; arrow indicates smoothed edge); c, conch columella bead bracelet.

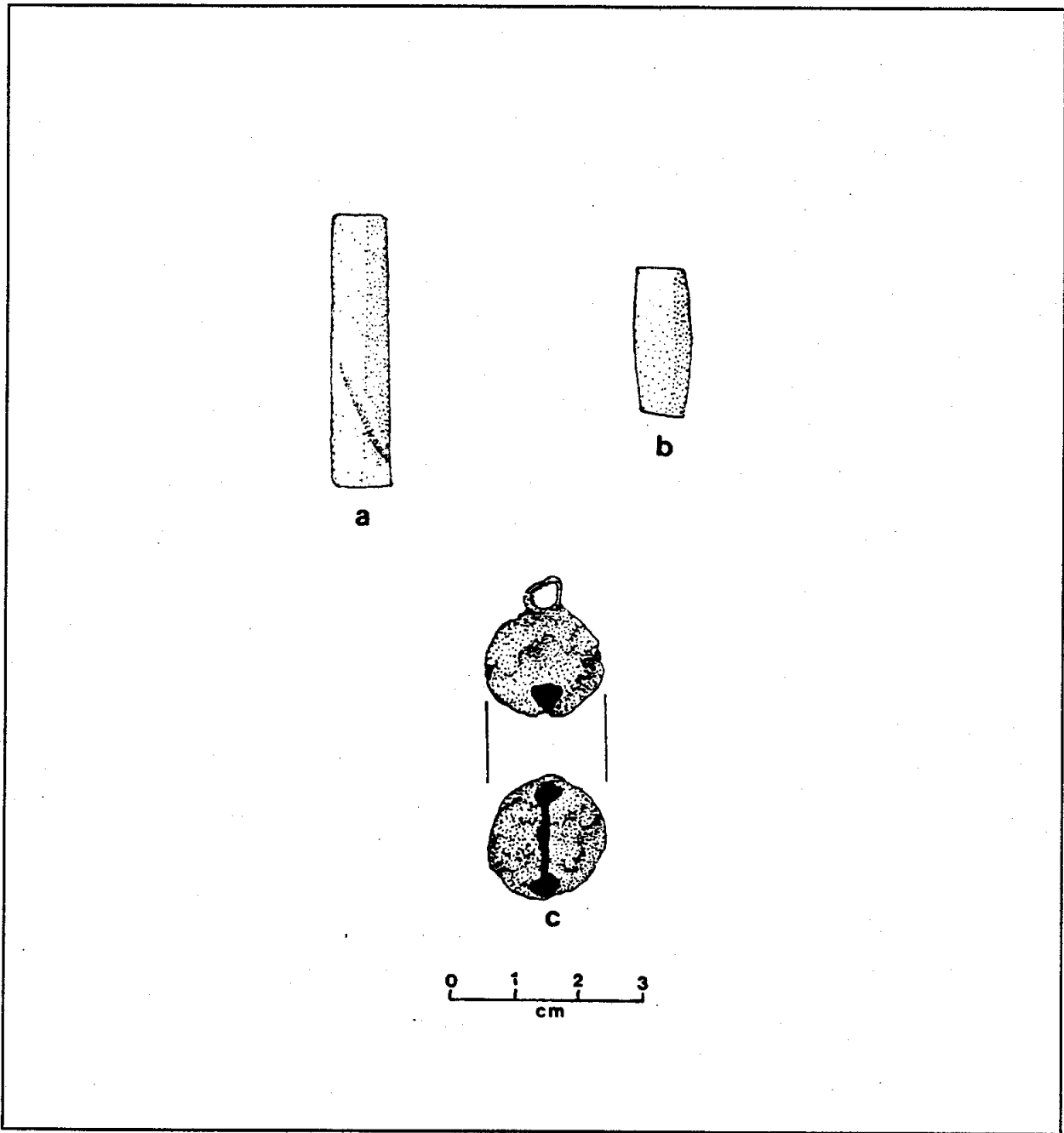


Figure 8.42. Artifacts associated with Burial 2, Feature 64. A, b, conch columella beads; c, brass flush-edge bell, side and bottom views.

with an artificially smoothed edge and outer surface, resting just inside the right knee (Figure 8.42, b), and (e) 1,373 small glass beads in the area of the chest and neck; at least some of the beads were probably part of a necklace, since several articulated specimens were found under the mandible, whereas others may have been sewn onto a shirt or blouse.

A longbone sample from this burial was subjected to radiocarbon assay (Beta-55873), and an uncorrected, modern date was indicated. However, when corrected for ^{13}C , the age becomes 130 ± 50 years, which in turn calibrates to a 2-sigma calendar range of A.D. 1663-1955, with intercepts at A.D. 1695, 1725, 1816, 1922 and 1954. Based on the glass bead types found with the burial, discussed in Chapter 11, it is probable that the burial falls into the early end of the range.

Burial 2 was the extended skeleton of a child approximately 6-7 years old, of indeterminate sex. The body of this individual underlay that of burial 1; the two were separated by about 15-25 cm of grave fill, depending on the point from which vertical measurement was made. The two individuals lay in approximately the same orientation, though Burial 2 was headed south-southwest rather than southwest, as was the case with Burial 1. The same rodent burrowing that had displaced some of the bone elements in the area of the lower torso and pelvis of Burial 1 had also dislodged the skull and cervical vertebrae of Burial 2; most of the latter group of bones had come to rest under the right arm of Burial 1 (see Figure 8.38).

Grave goods with Burial 2 consist of 40 small glass beads in the area of the upper torso, 4 tubular conch columella beads (see illustrated examples, Figure 8.42, a, b) and a small spherical brass bell of the flush-edge type (Brown 1979) resting in the area of the neck (see Figures 8.38 and 8.42, c).

Burial 3 was the remains of a very young child, 2-3 years old, resting approximately 25 cm below Burial 2. Although not disturbed by bioturbation, the thin skull had been crushed by ground pressure. The head was oriented to the south-southwest. The body was in an extended position, with the arms extended parallel to the torso, although the legs were bent at the knees (Figures 8.38 and 8.43). Grave goods consist of 57 small glass beads, all found in the area of the torso, and a waistband or perhaps shirt fringe of 14 olive shell ornaments (see Figure 8.43). Thirteen of these are "tinklers" perforated by means of a groove cut into the shell, and one is a bead, in which perforation is achieved by removal of the tip of the spire.

Burial 4 was the extended skeleton of a young adult male, 18-20 years old, resting on the floor of the pit, with the head oriented toward the south-southwest. The right arm was bent at the elbow with the hand resting below the face. The upper left arm was parallel with the torso and the forearm was placed across the abdomen. The skull of Burial 4 exhibits intentional fronto-occipital deformation, anomalous on the Texas coast but found frequently among Mississippian and Caddoan populations to the east and north. Other locally unusual characteristics of the skeleton were an absence of the tooth wear commonly found among hunter-gatherers, and a remarkably gracile bone development. A final significant difference between this skeleton and most others at the site is the high incidence of caucasian cranial traits, suggesting a partially European ancestry. In combination, these anomalies strongly suggest an extralocal origin and unusual personal history for this individual.

Grave goods accompanying Burial 4 were varied. They include small glass trade beads, shell ornaments, bird bone whistles and a small cluster of black drum molars and pebbles that probably are the remains of a rattle.

Four-hundred eighty-five small glass beads were in the area of the upper body. While many of the beads were scattered within the torso area, they were noticeably concentrated around the left forearm and the neck, suggesting attachment to sleeves and collar of a shirt. It is also possible that the concentration of glass beads in the neck area represents a necklace, although none of the beads were articulated.

Six shell ornaments were found close to the skull. Three small, finely made, wampum-like tubular conch columella beads (Figure 8.44, d) rested in a cluster near the top of the skull, suggesting they were either attached to the hair or sewn onto some sort of headgear. A single olive shell tinkler (Figure 8.44, c) was at the back of the skull, again suggesting attachment to the hair or headgear; unlike all other olive shell ornaments from Mitchell Ridge, this specimen was decorated with engraved lines as well as punctations made by drilling partway into the outer shell surface. Two small triangular beads or pendants of cut freshwater mussel shell were also near the skull, one on each side of the head near the mastoid processes, suggesting use as ear ornaments. Each has a small hole drilled at the apex, and two punctations, one on each of the two sides of the base (see Figure 8.44, a, b).



Figure 8.43. Burial 3, Feature 64. Note olive shell tinklers in waist area.

Four whistles made from whooping crane ulnae accompanied Burial 4. Two rested adjacent to and parallel with the left forearm and two appear to have been placed in the left hand, parallel to the torso. All four specimens are undecorated. The air holes are rectangular in three specimens and oval in the fourth (see Figure 8.45).

A cluster of three black drum teeth and five pea-sized pebbles rested near the left hand. These are interpreted as having been part of a rattle which was otherwise made of perishable material, and represent the third co-occurrence at Mitchell Ridge of pebbles and/or drum teeth in apparent association with one or more whooping crane ulnae whistles (the other cases being Feature 64, Burial 1 and Feature 28 in Area 1).

A patch of blackened, ashy soil containing small bits of wood charcoal was located in the floor and near the north wall of the pit, some 40 cm from the feet of Burial 4 (see Figure 8.38). The patch was oval in shape, and measured 22 x 10 cm. A cross-sectional profile revealed a basin shape which intruded 9 cm into the sand/shell hash pit floor. This closely resembles a small patch of blackened soil, Feature 29, found adjacent to the token burial, Feature 28, in Area 1. In both cases, construction of a ritual fire associated with mortuary rites may be represented.

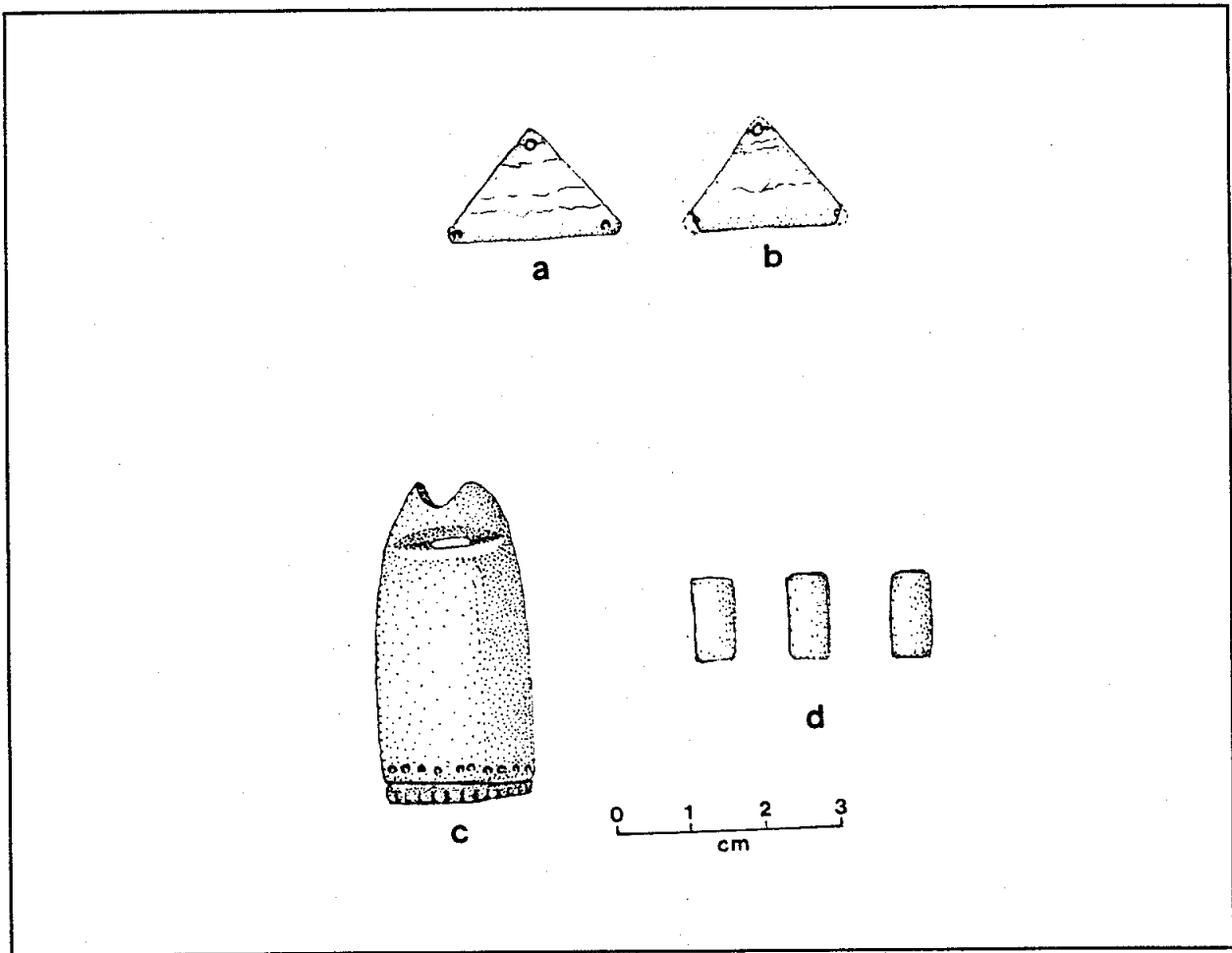


Figure 8.44. Shell ornaments, Burial 4, Feature 64. All were found next to skull.

Sufficient wood charcoal was obtained from the blackened patch for radiocarbon dating. The assay (Beta-55865) yielded an uncorrected age of 150 ± 80 B.P., which corrected for ^{13}C to 130 ± 80 B.P., the same age obtained on the corrected bone collagen date from Feature 64, Burial 1. The corrected charcoal date calibrates to a calendar date range of A.D. 1669-1955, with five intercepts at A.D. 1695, 1725, 1816, 1922 and 1954. The nearly identical corrected and calibrated dates obtained on human bone from Burial 1 and the charcoal from the floor of the pit suggest that (a) associated charcoal and human bone produce the same ages when corrected for ^{13}C , and (b) no appreciable time elapsed between the infilling of the bottom of the pit and the interment of the topmost burial. Chronology of the bead types, discussed in Chapter 11, suggests a placement in the early part of the calibrated date range.

Features 65 and 65-A

Feature 65 was a large circular pit 195-200 cm in diameter and 80 cm deep from the surface of the sand/shell hash zone. Two burials were contained within the pit. Resting on the floor of the pit was the semiflexed skeleton of an adult male approximately 30-40 years of age. The body had been placed on the back, with legs drawn up toward the pelvis, right arm extended parallel with the torso, left arm bent slightly at the elbow with the hand over the pelvis, and the head oriented to the south-southwest (see Figure 8.46). Feature 65-A was a discrete mass of ashy, black-stained grave fill in the northwest part of

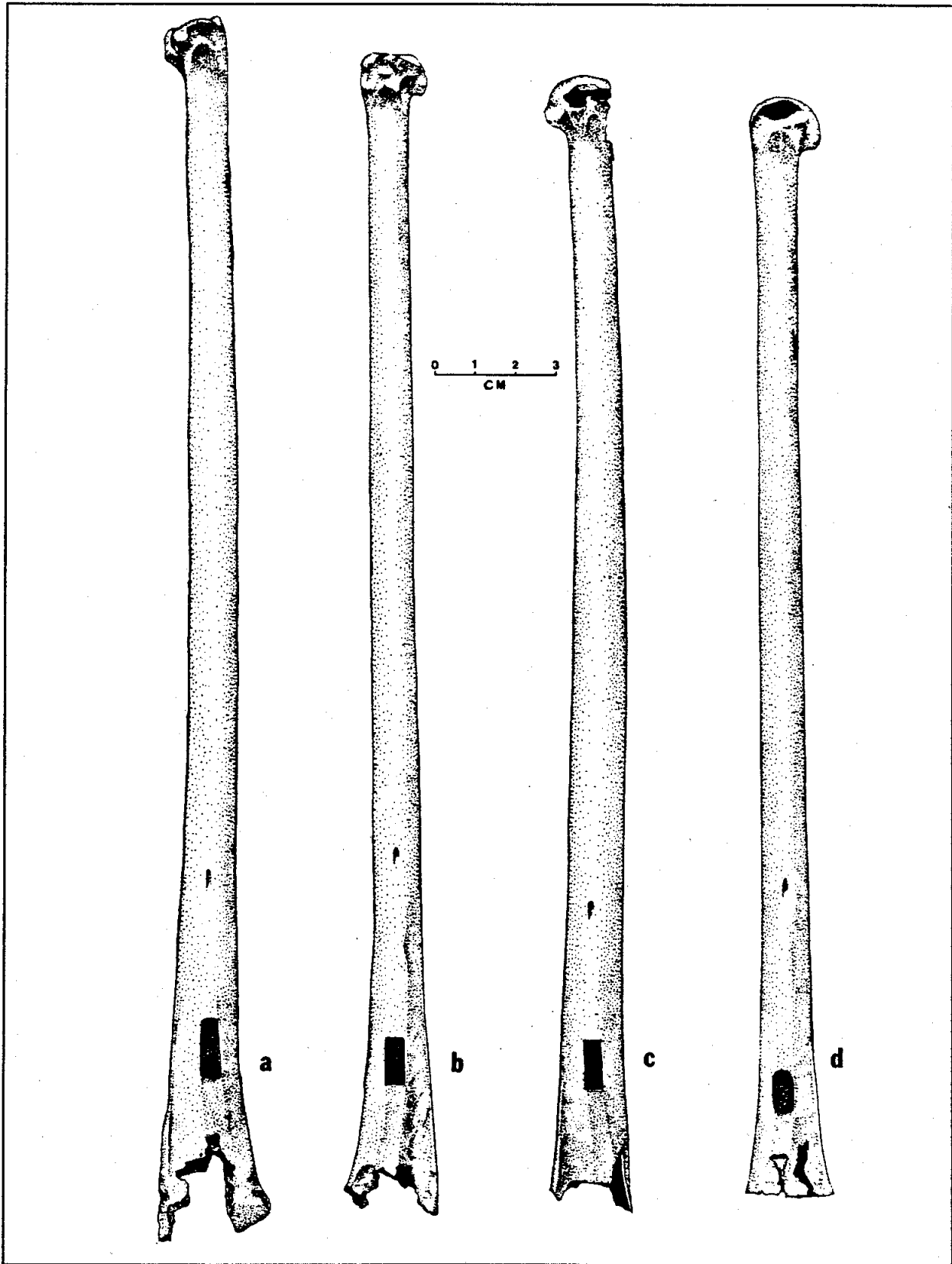


Figure 8.45. Whooping crane ulna whistles associated with Burial 4, Feature 64.

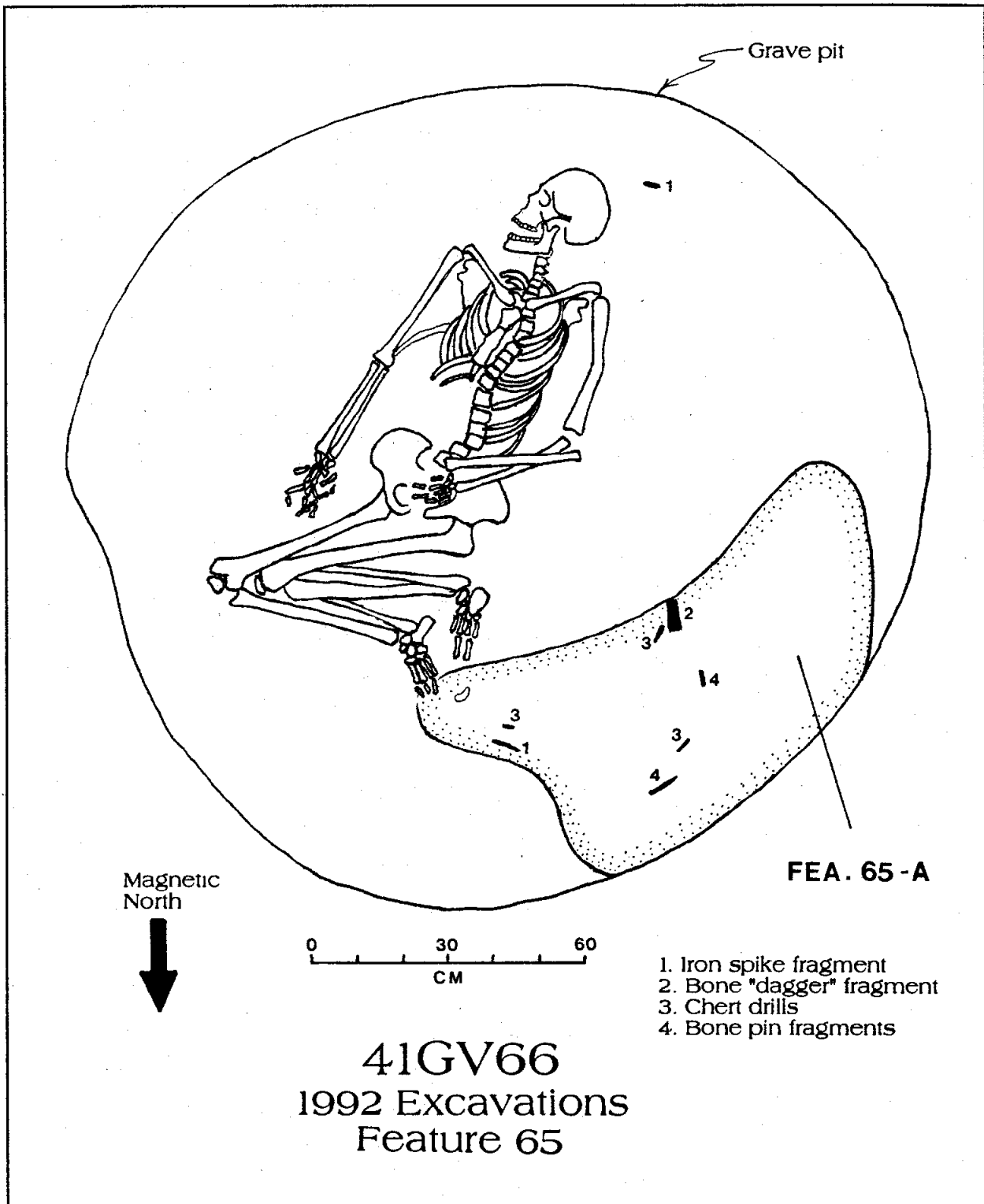


Figure 8.46. Plan view of Feature 65, showing horizontal extent of secondary cremation, Feature 65-A. Burial goods associated with semiflexed adult male were found in grave fill overlying torso and pelvis.

the pit, containing the cremated remains of a young adult of indeterminate sex, a wide array of grave goods, and numerous small bits of wood charcoal.

The only grave good found in close association with the semiflexed male was the heavily oxidized tip of what appears to have been an iron spike, which rested 10 cm from the back of the skull. In cross-section the spike was square, and the length of the fragment is 46.5 mm. A number of other implements of both native and European origin were found loosely clustered within the grave fill above the skeleton, within an area approximately 60 cm in diameter in the center of the pit at depths between 25 and 50 cm below the surface of the sand/shell hash zone. These items, which include three bone points, an antler stone-flaking billet, a large chert drill, and iron nails and tool fragments, appear to have been placed or tossed into the grave as offerings during backfilling. The three bone points are made from fin spines of a large, unidentified fish (but closely resembling kingfish; Figure 8.47, e, g); all are pointed at one end and cut to a wedge-shape at the opposite end. The wedge-like configuration may have been created to facilitate hafting, a supposition supported by the presence of asphaltum mastic on this end of one of the specimens (Figure 8.47, e); the lengths range between 48.3 and 53.6 mm. The billet, 87 mm long, is made from a cut section of white-tailed deer antler (Figure 8.47, b). The cut end is smoothed, and the wide, basal section of the antler is ground smooth on that side which would have been used for flaking stone. The latter surface shows no trace of pitting, suggesting that the tool was never actually used. The chert drill or perforator, 75 cm long (Figure 8.48, e), is bifacially worked to rather blunt points at both ends. One end is wider than the other, perhaps to facilitate hafting. The tips and edges show no attrition or polish indicative of use.

The five heavily oxidized iron artifacts include three wrought nails and two fragments of what were probably tools. The nails are 18-19 mm long, and square in cross-section, with more or less round heads. One of the tool fragments appears to be the corner of a flat artifact of indeterminate form and function. The fragment has a rectangular shape, created by two breaks at right angles to each of two finished sides, and measures 34 x 45 mm and is 8 mm thick. The other specimen is a thin strip of iron 21 mm wide by 50 mm long by only 2 mm thick. Because of the heavy oxidation, it is difficult to determine the exact shape, or whether the piece is complete or only a fragment of a larger object; it may be part of a thin knife blade or perhaps a fragment of strapping.

Feature 65-A

The discrete mass of ashy, black grave fill that constituted Feature 65-A measured 105 cm long by approximately 50 cm wide, and had a maximum thickness of some 30 cm. As shown in Figure 8.49, Feature 65-A appeared in cross-section as a discrete lens that sloped downward from the edge of the pit to its center, more or less paralleling the contours of the pit wall and floor. Such a configuration could only have resulted from deposition of Feature 65-A during backfilling of the grave pit. It can be concluded, therefore, that Feature 65-A is a secondary cremation which was intended to accompany the flexed adult male who was placed on the floor of the pit.

Feature 65-A contained, in addition to fragments of burned human bone (see Powell report), numerous bits of wood charcoal and grave goods consisting of chert drill fragments, an antler billet, an engraved bone pin, a large spatulate, bi-pointed implement, fragments of a possible bird bone whistle, an iron spike(?) fragment, a fragment of a possible glass mirror, and 67 small glass beads. The bone and antler implements, the chert drills and many of the glass beads are burned, suggesting that, unlike grave goods found with cremated bone in Features 85 and 63, these offerings were placed with the deceased prior to, or during, rather than after, cremation. Except for the glass beads, all of the artifacts were fragmented, at least in part the result of exposure to intense heat.

There are five fragmentary chert drills or perforators, and all show evidence of burning in the form of heat spalling of surfaces and reddening and/or blackening. Three specimens are tip fragments (Figure 8.48, b, c), one is a medial fragment, and the fifth is a slightly expanded basal fragment (Figure 8.48, a). All are bifacially pressure flaked, and all show a high level of workmanship.

The antler billet (Figure 8.47, c) is incomplete, and was found in six fragments, five of which are conjoinable. The engraved bone pin (Figure 8.47, d), recovered in three conjoinable fragments, is also incomplete. The restored portion is 106 mm long. In cross-section, the pin is square, and tapers from a maximum thickness of 6.9 mm near the point to 5.4 mm at the broken end. Two of the four surfaces bear engraved criss-crossing lines. On one surface, there are seven sets of crossing lines which create a pattern

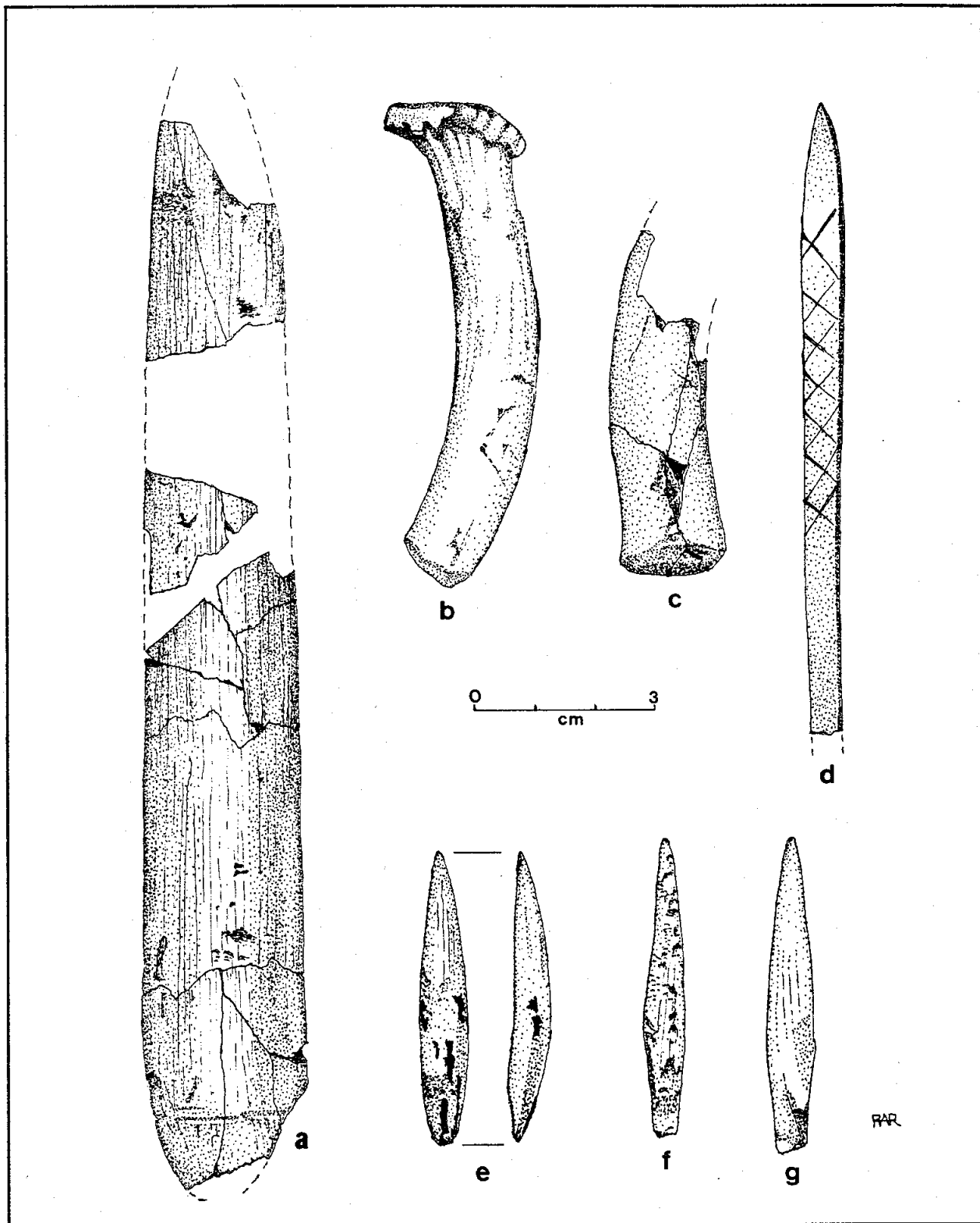


Figure 8.47. Bone and antler artifacts, Features 65 and 65-A. A, dagger-like implement, F. 65-A; b, antler billet, F. 65; c, antler billet, F. 65-A; d, engraved pin, F. 65-A; e-g, bone points, F. 65 (note asphaltum on base of e).

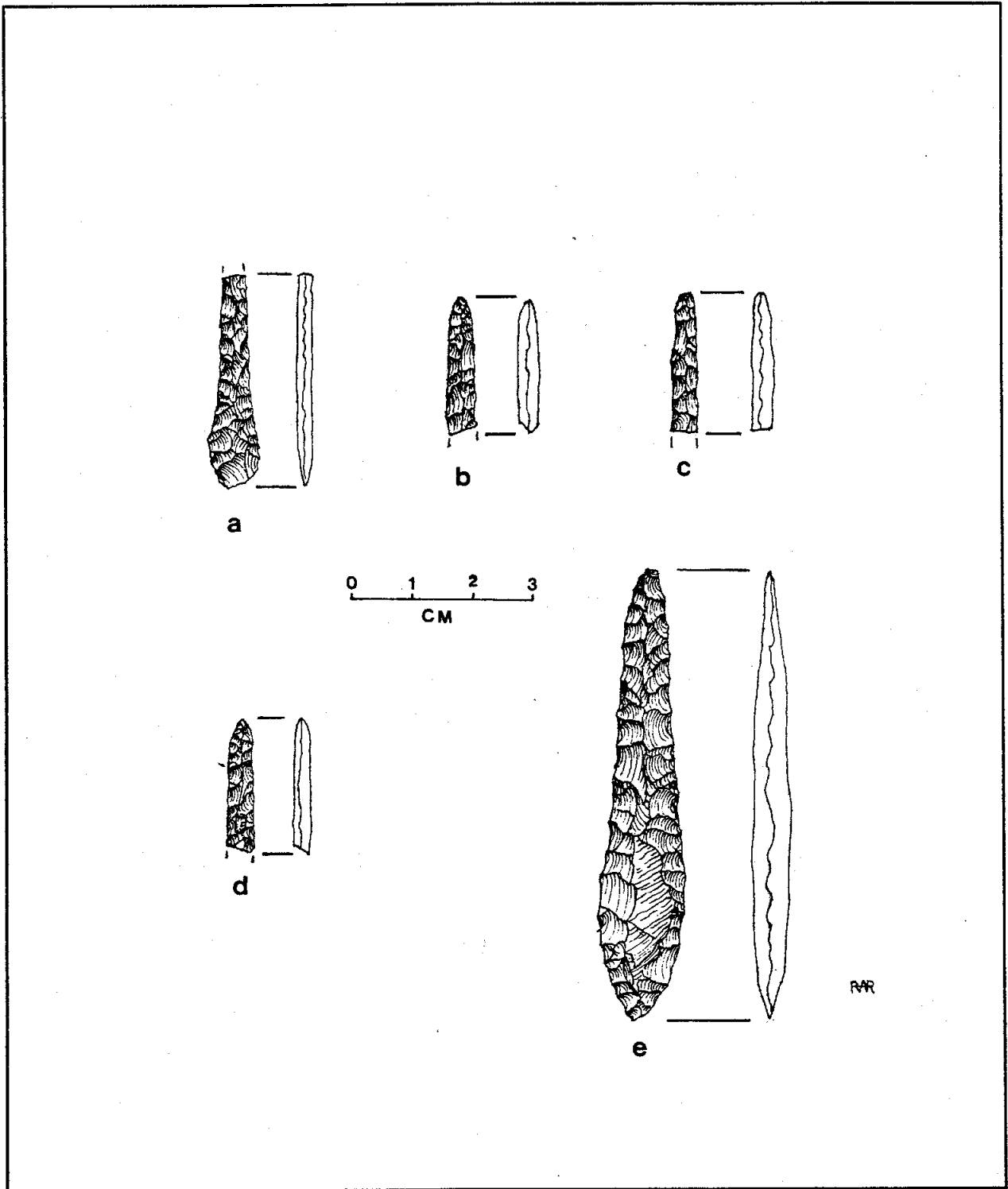


Figure 8.48. Chert drills and drill fragments from Features 65 (e) and 65-A (a-d).

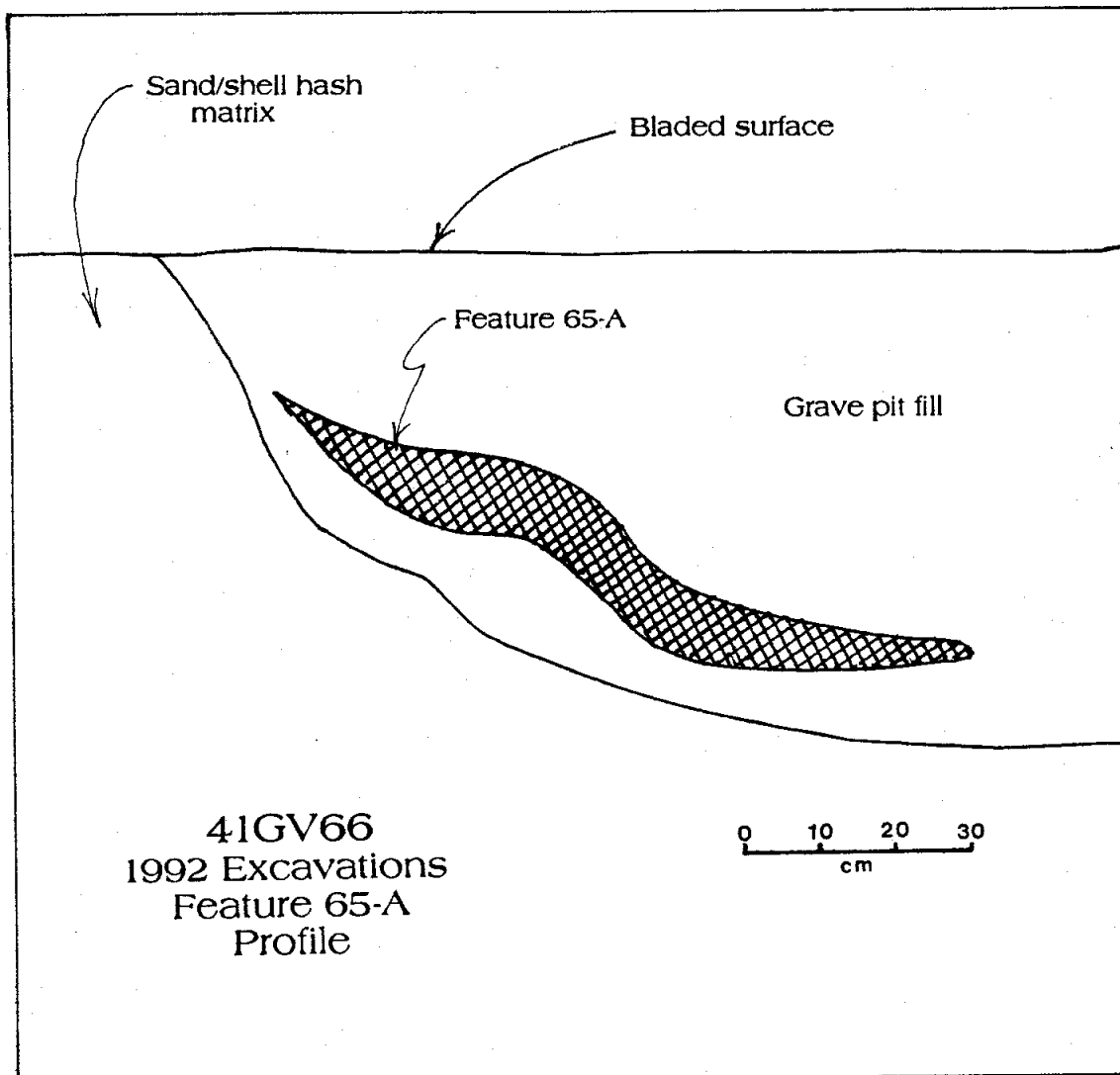


Figure 8.49. Cross-sectional view of Feature 65 and secondary cremation, Feature 65-A. Note that Feature 65-A is contained entirely within pit fill and parallels the contours of the pit, indicating that it was tossed in during pit backfilling. Cross-section was made in the middle of Feature 65 along the east-west axis.

of repeating diamonds and triangles. The opposite surface bears only a single set of crossed lines to create an X-like configuration. The pin is partly burned, so that its color varies from light brown to black. It bears a high polish on all four surfaces. A second implement of bone from Feature 65-A is the spatulate implement of worked mammal longbone represented by 11 fragments (Figure 8.47, a). Although the length of the original artifact is indeterminate due to its fragmentary condition, it must have been at least 190 mm long. The maximum width is 27 mm. The parallel sides taper at both ends, indicating that the implement was bi-pointed. Both lateral edges are smoothed, and the interior and exterior surfaces of the bone have been scraped, leaving striations which run parallel to the long axis. Extrapolating from the curvature of the bone, the original diameter was approximately 35 mm, probably too large for deer and two small for bison or cow; also, the bone is only about 2.5-3 mm thick, too thin for bovid bone, though some of the original thickness has apparently been reduced by scraping. The implement may have been

made from a human leg bone (femur or tibia). The function of this artifact is also open to question, though it could have served as a dagger or other penetrating tool. It is quite similar in size and shape to two long, spatulate bone implements from the burial of a flexed adult male, thought to possibly date to Aten's Round Lake Period, at the Redtail Site (41HR581) near the mouth of the San Jacinto River (Gadus and Howard 1990:158, 305). The final item of bone from Feature 65-A is represented by 19 fragments of polished longbone of a large bird. The presence of a row of papillae (small bumps) on the exterior surface of one fragment suggests that the bone is the ulna of a crane or other large shorebird. The fragments may pertain to a bird bone whistle, given the fact that whistles from other burials at Mitchell Ridge were made from crane ulnae.

Artifacts of non-native origin from Feature 65-A include the flat glass (mirror?) fragment, the iron spike fragment and the 67 small glass beads. The possible mirror fragment actually consists of two pieces of heavily oxidized clear glass 2.7 mm thick which fit together to make a roughly square fragment measuring 48 x 52 mm. The iron spike fragment is 101 mm long and round in cross-section, with a diameter of 5 mm. It is pointed at one end. The glass beads are all of the small, so-called "seed" variety. Fifty-six are blue-green in color and four are white, while the color of the remaining seven cannot be determined due to burning.

A radiocarbon assay (Beta-55864) was run on wood charcoal collected from Feature 65-A. Because this feature was deposited during backfilling of Feature 65, the assay results should also date the burial of the flexed adult male on the floor of the pit. The sample yielded an uncorrected age of 60 +/- 50 years B.P. Corrected for 13C, the age is 30 +/- 50 years B.P. This calibrates to a 2-sigma calendar date range of A.D. 1694-1955, with an intercept at A.D. 1955. Given the artifactual associations and the context of the feature within a native burial group, it can be postulated that the actual age falls within the early part of the range, in the Early Historic Period.