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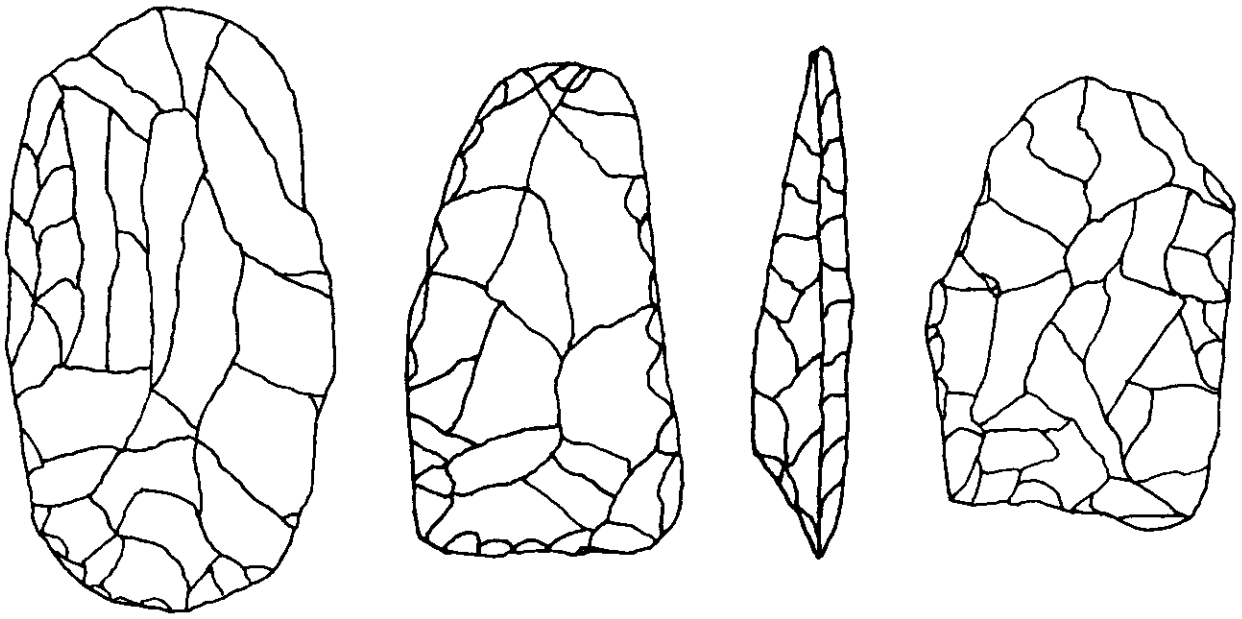

Bifacial Tools from Site 41WH2

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Contents

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Hunter-Gatherer Mobility: Limitations of Interpretation

Leland W. Patterson

Introduction

The mobility of hunter-gatherer cultures has become a popular subject for study by archeologists in North America. Torrence (1994:126) has given some reasons why this subject has become so popular. For example, "One possibility is that Binford put forward some suggestions linking technological organization and mobility, it has been supposed that the latter was good to know about. Secondly, I suspect that the reason mobility is viewed as so important is that it is frequently imagined as a necessary precursor to greater things, of which agriculture is generally the most common discussed."

Many archeologists do not understand or choose to ignore the complex nature of mobility in relation to other aspects of the organization and lifeways of hunter-gatherers. While hunter-gatherer lifeways may seem simple, compared to those of complex societies, even the hunter-gatherer level of society represents a complex, nonlinear adaptive system in which multiple manifestations can occur from small changes in variables (Lewin 1992:11; Waldrop 1992:146,255). This is why it is difficult to formulate any general rules relating mobility to other aspects of hunter-gatherer behavior. There are numerous examples in which there is no correlation between mobility and social or economic type (Torrence 1994:126). Kelly (1995) has given an excellent summary of the diversity of hunter-gatherer lifeways, based on numerous ethnographic examples.

Because of limitations in data, the mobility pattern of a hunter-gatherer social group cannot be directly described in detail from the archeological record, although mobility patterns are available from ethnographic records (Kelly 1995: Chapter 4). Archeologists infer details of hunter-gatherer mobility from the nature of cultural remains, such as house remains, site size, and monumental earthworks. There has been an increasing tendency to infer details of hunter-gatherer mobility from the organization of lithic technology (Carr 1994). As a result, many investigators have attempted to formulate rules that relate degree of mobility to some aspect of lithic technology. Kelly (1994:133) states that technology should be produced and used under sets of rules. This paper questions the concept that many general rules can be formulated for degree of mobility, such as relationship of mobility to the organization of lithic technology. Some other problems in the study of hunter-gatherer mobility are also discussed.

Definition of Mobility

Shott (1989:222) has noted that two important components of mobility are (1) frequency, the number of residential moves per unit of time, and (2) magnitude, the distance covered in those moves. Kelly (1995:149) has further observed that there is no single scale of mobility, since mobility varies along several potentially independent behavioral dimensions. Parameters of mobility include frequency of moves, distances of moves, and types of moves (residential and logistical). Models of mobility are often limited, as these models describe extreme conditions, while most hunter-gatherer behavior falls in a continuum between the extremes given by the models. Variations in mobility can occur during a single year with changes in subsistence patterns, or from year-to-year due to changes in resource availabilities.

Story (1990:269) has observed that "It would be imprudent to assume that there was but one seasonal schedule. Indeed, much of the success of hunters and gatherers surely rested on their ability to implement a number of economic responses, to be able to adjust to the good as well as

the bad times. The tendency for archeologists to reduce an economic system to one model runs the risk of stripping the system of its main mechanism for survival." Kelly (1995:100) has noted that a hunter-gatherer lifeway is not static, even over short periods of time. Most hunter-gatherers will have both residential and logistical moves within the seasonal round.

The best known mobility model is the forager-collector model by Binford (1980). In this model, "foragers" are distinguished by their residential moves to locate near resources, whereas "collectors" make use of permanent base camps, with logistical groups moving out to collect resources for transport back to the base camp. The subsistence activities of most hunter-gatherer groups will fall between these extremes, however, with groups acting as both "foragers" and "collectors" in a spectrum of actions that are dependent on the availabilities of various resources. While limitations of this model are well recognized (Ebert and Kohler 1988:113), some archeological studies still attempt to apply the concepts of "foragers" and "collectors" (Odell 1994:70), at least in a general manner. Kelly (1995:117) has noted from ethnographic data that not all foragers are highly mobile, nor are all collectors nearly sedentary. Most hunter-gatherers make both residential and logistical moves during the yearly subsistence round.

Some other models of mobility are based on the geographic distributions of resources (Cleland 1976) and land use related to site types (Pagoulatas 1992). As with Binford's (1980) model, these other models define only extremes without having methodology to address the spectrum of changes in hunter-gatherer strategies.

Description and Measurement of Mobility

The mobility of a prehistoric hunter-gatherer group cannot be directly measured or described in detail. Radiocarbon dating is not accurate enough to determine if a site was used in any specific year, which precludes determination of frequency and distance of moves. Also, it is not possible to determine which specific social group occupied a site at any given time. The duration of stays at a site cannot be directly determined either. An accumulation of artifacts at a site may represent several visits per year, one visit in each of several years, a short stay by a large group, or a long stay by a small group. Studies of hunter-gatherer mobility using archeological data are based on indirect inferences, using types and quantities of artifacts, site dimensions, etc.

Interpretation of Large Sites

In the current literature, large size hunter-gatherer sites tend to be classified as base camps. However, there are several possible interpretations of any large site. These possibilities include long residential stays, frequent yearly reuse of the site, seasonal aggregation, and repeated reuse of the site during single yearly rounds. It is not possible to determine the length of a long residential stay, which might be from one month to many months, depending on availability of resources.

There is a tendency to describe hunter-gatherer mobility and lifeway in terms of limited numbers of large key sites in a region. This can be misleading, because complete yearly mobility cycles have not been defined. There may be use of both large and small sites in seasonal rounds to exploit various resources. Seasonal exploitation patterns might be variable from year-to-year, not even using the same large sites every year. Studies in western Kentucky are a good example of possible over-emphasis of a few large sites. Dye (1996:155) has used data from a few large sites in this region to propose that environmental change and population growth promoted shifts away from residential mobility to complete sedentism. But Prentice (1996:29) refers to seasonal rounds of site occupation and resource exploitation that covered most of Native American prehistory in the Green

River area of Kentucky. By using only some large sites as examples, Dye (1996) has not defined complete seasonal rounds and associated mobility patterns.

Thomas (1986:241) has observed "Most regional studies of prehistoric hunter-gatherers require that residential areas be operationally distinguished from areas used logistically. While base camps can sometimes be separated from procurement areas on the basis of site structure, assemblage level signatures remain ill-defined and the available base camp diagnostics are notoriously difficult to apply."

Interpretations of Small Sites

Some archeologists have a tendency to generally assume that small hunter-gatherer sites represent satellite sites of large sites, used for extended logistical "collecting" trips. Several interpretations are possible for small sites. A small site can be a logistical satellite of a large site, an occupation location of a small group dispersed from a large group for seasonal subsistence activities, a specialized activity area, or simply a short-time occupation where seasonally available resources do not justify a long stay.

Even rather mobile hunter-gatherer groups can have a series of large and small sites. The mosaic of food resources in a region would seldom be even enough to cause residential stays for uniform time periods throughout the year. The availability of various food resources can be still more variable from year-to-year.

Indications of Mobility

Archeologists use a variety of data types other than the organization of lithic technology to judge degree of mobility of hunter-gatherers. Some of these data types are social complexity, presence of houses, presence of cemeteries, amount of pottery, presence of horticulture, size of sites, diversity of artifact types, and presence of monumental earthworks. There are usually problems, however, in using these types of data as indicators of degree of hunter-gatherer mobility. Increased social complexity does not necessarily indicate a more sedentary lifestyle. There are multiple factors involved in social complexity (Brown and Price 1985:439). In the western part of Southeast Texas, organized burial practices with use of exotic grave goods in the Late Archaic period may not reflect a more sedentary lifestyle. The characteristics of campsites in this area are not different from the characteristics of campsites in the adjacent central part of Southeast Texas where there is no organized mortuary tradition during the same time period (Patterson 1996:68).

Thomas (1986:242) has noted that archeologists often use diversity of artifact assemblages to distinguish residential utilization ("base camps") of sites from logistical satellite locations, but that this line of reasoning is incorrect. "In many (if not most) archaeological assemblages, sample diversity is a direct, linear function of sample size."

Indication of seasonality at a site is sometimes used as an indication of mobility. However, this does not show degree of mobility, but only that resources were being exploited on a seasonal basis. Thomas (1986:241) notes that "Most archaeologists now realize that simple enumeration of seasonal indicators, or absence thereof, on a site or surface no longer provides sufficient grounds for assigning season of occupation."

The presence of houses does not necessarily indicate a completely sedentary lifestyle, because houses may have been occupied only on a seasonal basis by groups that practiced both horticulture and hunting and gathering, such as the Algonquians of the East Coast (Wooldridge 1995:21). Sassaman and Ledbetter (1996:76) have observed that "Architectural variation, like sedentism, must therefore be viewed as a multidimensional continuum that includes individual mobility, group

moves, and territorial shifts, and we must allow a certain degree of independence between structure design and mobility to examine these various scales of inquiry."

The presence of monumental earthworks cannot be used, either, as an indication of a completely sedentary lifestyle. A completely settled existence is not necessary to produce greater social complexity with resulting monumental earthworks. Cobb and Nassaney (1995:207) observe that Coles Creek period societies of the Central Mississippi Valley demonstrate the ability to coordinate labor for earthwork construction even with a hunter-gatherer subsistence pattern, with no great reliance on cultigens. The actual degree of sedentism of some social groups with monumental earthworks, such as the Poverty Point culture, the Adena, and Hopewell/Marksville, remain to be defined. Further, earthen mounds were being constructed in Louisiana long before there were indications of a very sedentary lifestyle (Saunders and Allen 1994). Large shell mounds in western Kentucky that were once thought to indicate a sedentary lifestyle are now viewed as being seasonal aggregation points rather than year-round settlements (Claassen 1996:132).

A large quantity of pottery at a site may be used to indicate more than casual use of the location, because pottery is not an easily transported item. However, the quantity of pottery at various sites can be used only as a general indication of the duration of occupation events, not as a detailed measurement of degree of mobility. A site with a large amount of pottery might indicate residential stays from a few weeks to a several months, or even that the site was reused with a high frequency, causing a large accumulation of pottery. In Southeast Texas, the presence of less pottery at Late Prehistoric period sites than at sites of the previous Early Ceramic period has been interpreted as a possible indication of an increase in mobility in the Late Prehistoric period (Patterson 1976:185).

The presence of horticulture is not always a good indication of degree of mobility. Ethnographically, there are many horticulturists who are seasonally mobile, and the relationship between agriculture and mobility is by no means straightforward (Kelly 1995:150).

Relationships of Lithic Technology to Mobility

There have been many recent attempts to relate the organization of lithic technology to mobility of hunter-gatherers (Carr 1994a; Odell 1996; Stevens 1995; MacDonald 1995). There have been few convincing arguments made, however, that general rules can be formulated that relate lithic technology to mobility in complex nonlinear cultural systems of hunter-gatherers. Odell (1993:113) has observed that "Several ideas concerning mobility organization have now been generated, but it is important to remember that the concepts themselves are abstract and may not be substantiated by data." Kimball (1996:108) notes that addressing anthropological problems through lithic analysis has so far not been too successful. Lithic technology is the product of human behavior which has direct significance for specific activities of hunter-gatherers, such as stone tool manufacture and stone tool use (hunting, butchering, woodworking, etc.). There is little convincing evidence, however, that lithic technology can be generally related indirectly to other types of human behavior, such as mobility. In a separate paper (Patterson 1997), I have discussed several inconclusive attempts to relate types of lithic technology to degree of mobility. A major problem with these studies is that the theories are not testable or at least have not been tested using appropriate archeological data.

Because hunter-gatherer cultural systems are complex and nonlinear, it would be very difficult to relate the characteristic of one subsystem, such as mobility, to the characteristics of another subsystem, such as lithic technology. There are a large number of variables involved, and the interactions between variables cannot be well defined. These variables are not incorporated in static systems. There are interactions between these variables and with variables in other parts of the

cultural system. Advocates of general systems theory love to draw diagrams showing interactions between possible variables. This is usually not a very productive exercise, because in complex systems, all possible interactions between variables cannot be defined in either a qualitative or quantitative manner. In fact, it is usually not possible to know if all important variables have been recognized, or which variables might interact in a specific cultural system represented by archeological data. As Kelly (1995:340) has noted, the archeological record is generally too coarse-grained to record individual events.

In summary, there are few convincing demonstrations so far that types of lithic technologies can be generally related to degree of mobility. Studies of this type use lithic technology to study mobility mainly because this is the most prominent category of archeological data at many sites. Use of lithic technology as an indication of degree of mobility is an indirect interpretation that is difficult for a complex cultural system.

Conclusions

This paper has discussed reasons why it is difficult to formulate rules that relate degree of mobility to other aspects of the archeological record. This is consistent with Renfrew and Bahn's (1996:453) observation that it is very difficult to make universal laws about human behavior that are not either very trivial, or untrue. Jennings (1989:26) states that "There is an unproved assumption that changes in details of the attributes of artifacts are an index to significant changes in other aspects of the culture where the objects had their original value." It has also been noted that there is no single scale to define mobility which would facilitate comparisons of mobility with other aspects of a cultural system.

Little progress will be made in the development of hunter-gatherer theory until investigators can come to terms with how to address the complex nature of cultural systems. Archeologists often conveniently ignore the limitations of archeological data compared to ethnographic data. Odell (1993:118) has noted that "The dominant theme in North American archeology is currently a behavioralistic one, with emphasis placed on evaluating perceived risks and human decisions. Tools are perceived as technological adaptive responses to social and economic strategies, and they exist in constant feedback relationship with the other elements in the adaptive system." Relationships between various elements of an adaptive system are very difficult to define, however, especially on a quantitative basis that would allow measurement of human actions, such as degree of mobility.

This paper has discussed limitations of the archeological record for the interpretation of degree of mobility of prehistoric hunter-gatherers. It is appropriate to ask what can be concluded about this subject with any degree of certainty.

First of all, Binford's (1980) model of foragers and collectors should be used only as a concept of hunter-gather actions, not as a guide to degree of mobility of prehistoric hunter-gatherer groups. Most hunter-gatherers make both residential and logistical moves in the yearly subsistence round, and there is no single scale to define degree of mobility.

I am not saying that hunter-gatherer mobility should not be studied because of numerous problems with interpretation of archeological data, but only that data limitations should be realized when conclusions are made. For example, the presence of house structures indicates more than casual visits to a site, but does not show much about length of stay or how the site fits into the seasonal mobility pattern.

The most convincing models that show prehistoric hunter-gatherer groups with relatively high mobility or with a sedentary lifestyle are based on multiple types of evidence, not on a single type of indicator. For example, Widmer's (1988) model shows the Caloosahatchee people of Florida as a non-agricultural but sedentary culture with emphasis on marine food resources. Some indications

of a sedentary lifestyle of this culture include house structures, mound building, large collections of Busycon shells, a complex form of political organization, and organized burial practices. As another example of use of multiple types of evidence, I have concluded (Patterson 1996:54) that Indians of inland Southeast Texas were more mobile in the Late Prehistoric period than in preceding periods, perhaps in response to high population level. After a population peak in the Early Ceramic period (Patterson 1996:59), there was a decline in population level in the Late Prehistoric, along with indications of greater mobility. Greater mobility may have resulted in lower female fertility, causing a population decline. Some indications of increased mobility in the Late Prehistoric period are less use of pottery, smaller amounts of lithic artifacts, and generally smaller sites.

In summary, it is concluded that degree of mobility of a prehistoric hunter-gatherer group is usually difficult to determine because of data limitations. Multiple types of evidence can be helpful in determining if hunter-gatherers in a specific geographical area were relatively mobile or sedentary. There is no single scale to measure degree of mobility, however.

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Modified Bone Artifacts from Site 41CH161

W. L. McClure

Site 41CH161 is a Rangia shell midden adjacent to Cotton Lake near the former channels of the Trinity River in Chambers County, Texas. Limited excavations were conducted at the site by members of the Houston Archeological Society in 1992 and 1995. Results of the earlier excavations were reported in the Houston Archeological Society Journal (Kindall and Patterson 1993; May 1993a, 1993b, 1994; McClure 1994). Some of the results of the 1995 excavations were reported in the same Journal (Kindall 1996). Several artifacts that had been made from bones are reported here and illustrated in Figure 1.

Item A was made from the right ulna of a white-tailed deer (*Odocoileus virginianus*). The distal end of the shaft of the ulna had been shaped into some sort of tool and then broken. The broken end had then been reshaped into a semicircular tool. All the edges of the break are rounded and polished by use, apparently by pushing action. Item B was made from the left ulna of another deer. The distal end was modified into a sharp rounded point that would have been useful in pushing holes into fabric or hides. The mid-part of the shaft has numerous scarifications on each side. These occur in the naturally thin part of the shaft. No reason is apparent for the scarifications. Both of the ulnae were from subadult deer as indicated by the absence of the proximal part of the bone.

Items C and D are bone tools that were shaped into narrow sharp rounded points. Item C is from a split metapodial of a deer, and Item D is from the shaft of a deer-sized long bone. Both are highly polished in the working area with the proximal ends being broken and lost. They would have been useful for the same purpose as Item B.

Item F is a fragment of shaft of long bone and Item G is from the midshaft of a metacarpal of a deer. Both had been shaped into roughly semicircular bits and had been used for pushing and scraping. The proximal part is missing from each.

Item H is part of a cleithrum of an alligator gar (*Atractosteus spatula*). The end had been shaped and used for some purpose that left the edge rounded and smooth. The half of the bone that would have served as a handle has been broken away.

Item E is a small semicircular fragment of mammal bone. It was part of a longer object of unknown use. The bone is black in color and highly polished. Two parallel diagonal lines had been pecked into the surface at an angle. Item I is half of the shaft of a long bone of a bird. One end has a groove that is not quite perpendicular to the shaft. Apparently the snapping action failed to yield a good break.

This variety of tools and implements from all levels of the deposits documents some of the cultural activities of the occupants of the site.

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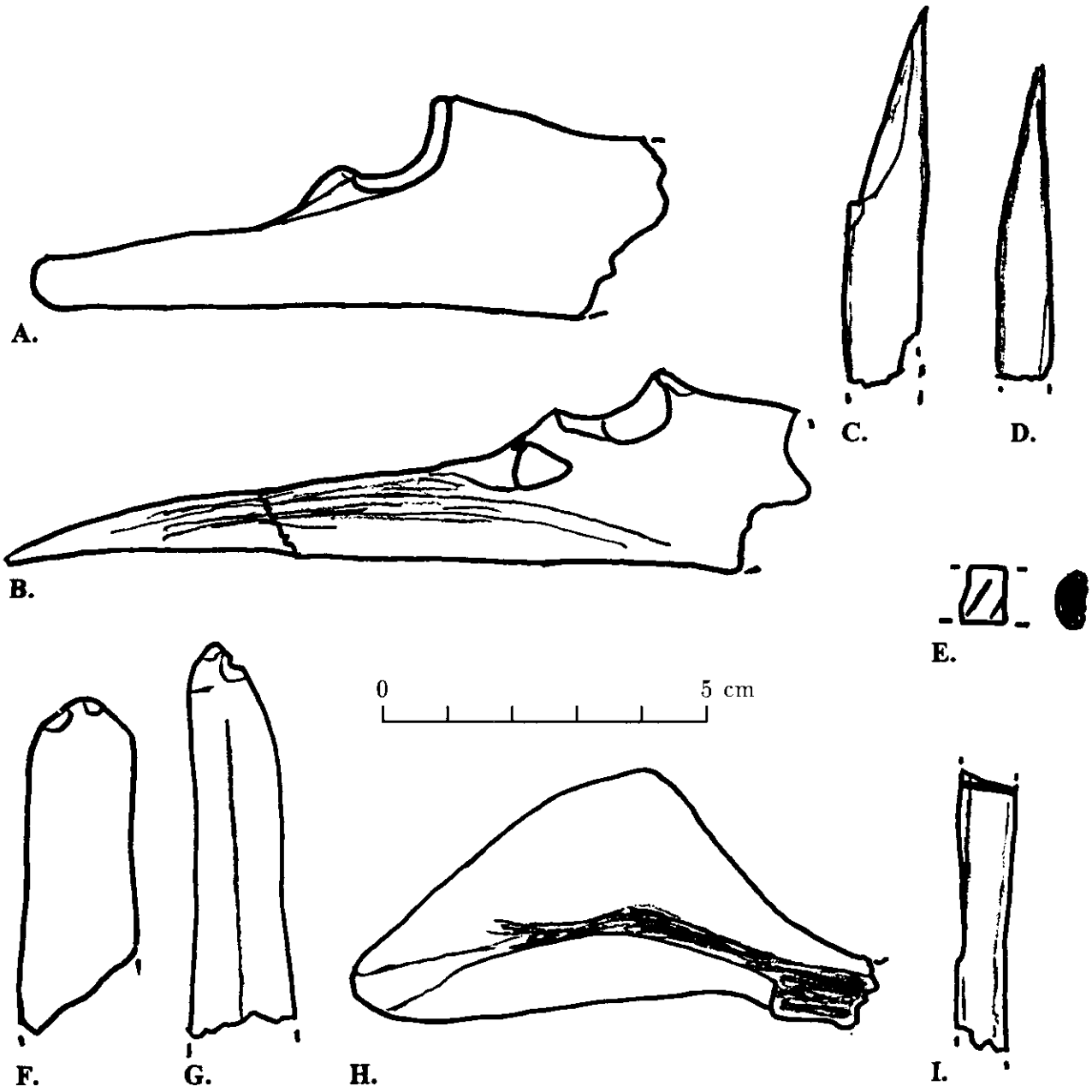

Figure 1. 41CH161 Modified Bone Artifacts

The Albany Scraper in Southeast Texas

Leland W. Patterson

Introduction

The Albany hafted scraper was first classified by Webb (1946) in Northwest Louisiana. Several examples of this artifact type have been given for the John Pearce site in Caddo Parish, Louisiana (Webb et al. 1971). A number of Albany scrapers have been found in East Texas, with the highest concentration in Southeast Texas. In states from Mississippi to South Carolina, this artifact type is known as the Edgefield scraper (Patterson 1991). Turner and Hester (1993:277) have given information on the Albany scraper for East Texas and Louisiana.

This article gives current data for the Albany scraper in Southeast Texas. Geographic distribution of the Albany-Edgefield scraper throughout the Southeast Woodlands is discussed.

Albany Scraper Type Description

The Albany scraper is a chipped stone tool that is characterized as having a diagonal working edge and a side-notched haft. The working edge is usually concave (Figure 1B) or straight (Figure 1A), but sometimes convex (Figure 1C). This artifact type can be unifacial or bifacial. The exact function of this artifact type has not been determined, but it appears to have been used as a hafted spokeshave or scraper (Turner and Hester 1993:277). The Albany scraper seems to be a heavy-duty tool, perhaps used for working of wood or bone.

One specimen has been found in Fort Bend County (Patterson 1997: Figure 22C) that appears to be an Albany scraper variant, with a straight stem instead of a notched stem.

Chronology

No radiocarbon dates are available to determine the age range of the Albany scraper. All specimens in Southeast Texas are surface finds. An age range for the Albany scraper can be estimated from associated projectile point chronologies. The Albany scraper is associated with San Patrice and Early Side-Notched point types at the John Pearce site in Louisiana (Webb et al. 1971). All sites with Albany scrapers in Southeast Texas have San Patrice and/or Early Side-Notched points (Table 1 references). Story (1990:202) provisionally dates the San Patrice point between 10,300 and 9300 B.P. Early Side-Notched points start sometime before 10,000 B.P. in Southeast Texas (Patterson 1996:14). The latest date for an Early Side-Notched point in Southeast Texas is an OCR date of 8090 B.P. at site 41WH38 in Wharton County (Patterson et al. 1994, 1996). However, in the last half of the Late Paleo-Indian period, after about 8500 B.P., there is a trend from Early Side-Notched to Early Corner-Notched points (Patterson et al. 1987, 1994, 1996). The Albany scraper can be given a provisional age range of 10,000-8500 B.P., in the first half of the Late Paleo-Indian period (10,000-7000 B.P.).

Data for Southeast Texas

A summary of Albany scrapers found in Southeast Texas is given in Table 1, and the geographic distribution of this artifact type in Southeast Texas is shown in Figure 2. Albany scraper specimens have been found in Fort Bend, Harris, Polk, and Wharton Counties. The concentration of this artifact type in three adjacent counties (Fort Bend, Harris, Wharton) may be due to the

large amount of survey work done in these counties, rather than being of cultural significance. In Southeast Texas, Albany scrapers are found in lower numbers than associated San Patrice and Early Side-Notched points.

Geographic Distribution in the Southeast Woodlands

There is a continuous geographic distribution of the Albany-Edgefield scraper in the coastal states from East Texas to the Atlantic coast, including East Texas, Louisiana, Mississippi, Alabama, Georgia, Florida, and South Carolina (Patterson 1991). The geographic distribution of the Albany-Edgefield scraper is important in the study of the diffusion of technologies throughout the Southeast Woodlands in the Early Archaic period (Patterson 1995), which is time-equivalent to the Late Paleo-Indian period in Texas. The overall geographic distribution of the Albany-Edgefield scraper is not so far north as that of the associated San Patrice point and its morphological correlate, the Hardaway Side-Notched point (Justice 1987: Map 14).

Summary

The Albany hafted scraper is an important diagnostic chipped stone tool of the early part of the Late Paleo-Indian period in Southeast Texas. The geographic distribution of this artifact type from East Texas to the Atlantic coast signifies a technological relationship of East Texas with the greater Southeast Woodlands during a time period of roughly 10,000-8500 B.P. The Albany scraper is usually associated with San Patrice and Early Side-Notched points.

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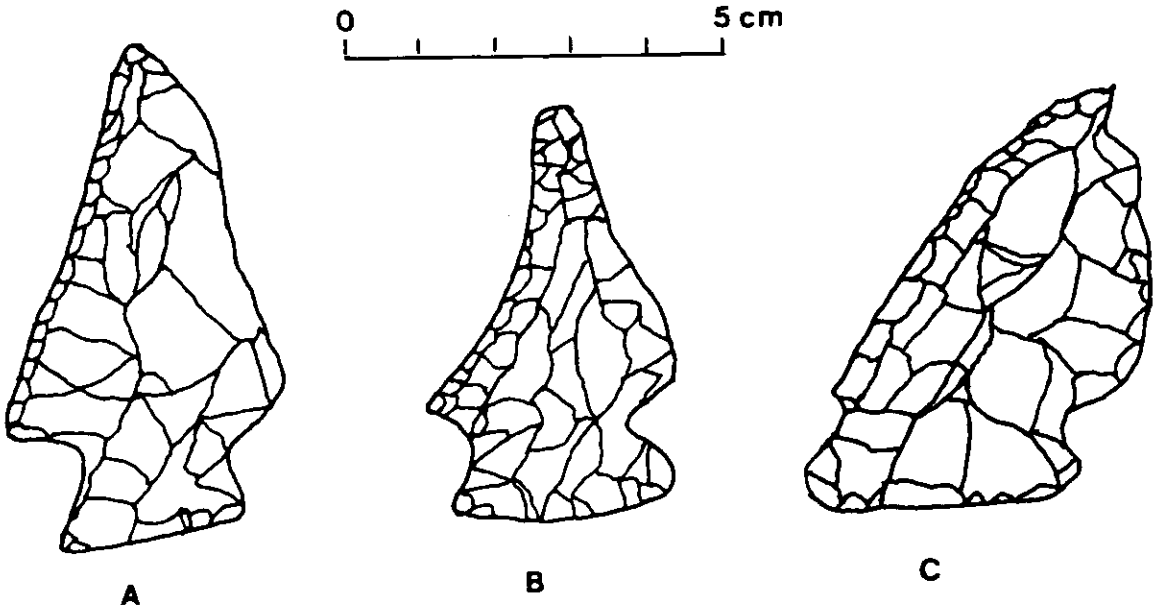
Table 1. Albany Scrapers in Southeast Texas

county	site	number of specimens	reference
Fort Bend	41FB249	11	Patterson 1997
Harris	41HR182	1	Patterson 1990a
Harris	41HR233	1	Patterson and Marshall 1989
Harris	41HR343	7	Patterson et al. 1992
Harris	41HR525	1	Patterson, Murk, Murk 1984
Harris	41HR571	6	Patterson 1986
Harris	41HR624	1	Patterson, Marriott, Marriott 1990
Harris	41HR641	1	Patterson 1990b
Polk	41PK69	1	Ensor and Carlson 1988:Fig. 48G
Wharton	41WH2	1	Hudgins 1993
Wharton	41WH19	2	Patterson and Hudgins 1981



A,B – site 41WH19; C – site 41HR182

Figure 1. Albany Scrapers from Southeast Texas

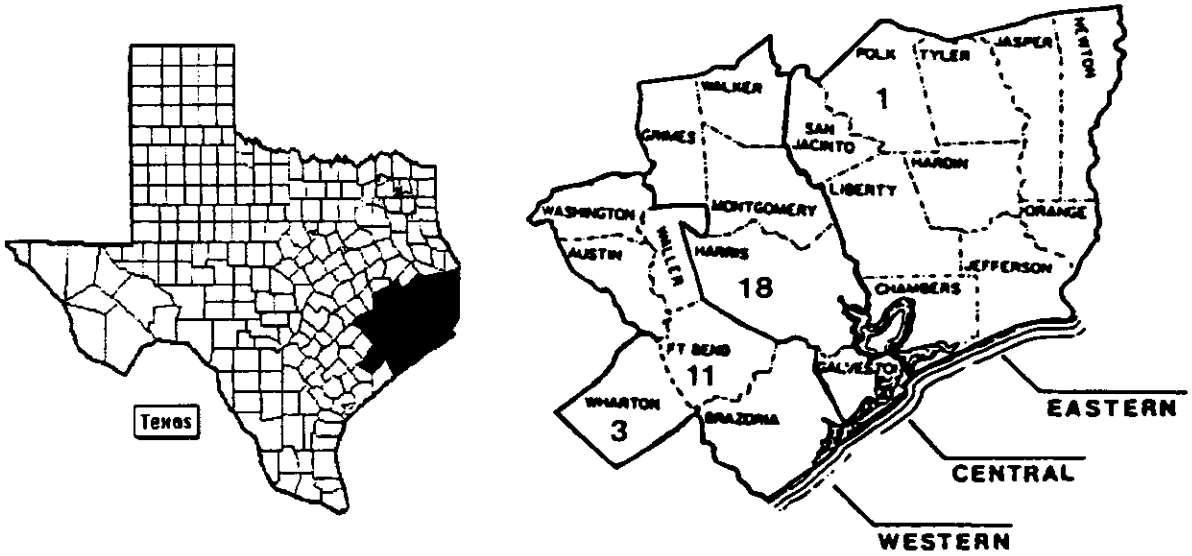


Figure 2. Distribution of Albany Scrapers in Southeast Texas

Bifacial Tools from 41WH2, Wharton Co., Texas

L. W. Patterson and J. D. Hudgins

Introduction

This article describes large bifacial tools found by Bill Hudgins at site 41WH2 in Wharton County, Texas. Another specimen of this type of artifact was previously illustrated as part of a collection from this site made by Joe Hudgins (Patterson and Hudgins 1980: Figure 6C).

The bifacial tool specimens from site 41WH2 resemble Clear Fork bifacial tools of Central and South Texas (Turner and Hester 1993:246). This type of tool is rare in Southeast Texas. Aside from the collection described here for site 41WH2, the only other published concentration of this tool type in Southeast Texas is for six specimens from site 41FB249 in Fort Bend County (Patterson 1997:5). Perhaps the concentration of bifacial tools of this type at these two sites in Southeast Texas indicate some contact with Indians of Central or South Texas.

Clear Fork tools are often referred to as "gouges" (Turner and Hester 1993:246), but it is likely that they were utilized in woodworking tasks, as scrapers or adzes, rather than "gouges." Turner and Hester state that Clear Fork tools begin in the Paleo-Indian and Early Archaic periods and continue into the Middle Archaic period. Exact chronological placement of this artifact type is not possible in Southeast Texas because all specimens are from surface collections. However, this type of large bifacial tool may be related to the Late Paleo-Indian period (8000-5000 BC) in Southeast Texas, because large stone tools occur in this time period at some sites, such as 41WH19 in Wharton County (Patterson et al. 1987).

Artifact Descriptions

The attributes of 13 large bifacial tools found recently by Bill Hudgins at site 41WH2 are given in Table 1, and these tools are illustrated in Figures 1 and 2. Front and side views of a typical bifacial tool from 41WH2 are shown in Figure 3. All specimens are made of chert. The illustrations have the working bit of each specimen oriented to the bottom. The bit angles have a range of 55-77°, compared to a range of 60-75° given by Turner and Hester (1993:246) for Clear Fork tools, and a range of 59-74° for similar bifacial tools at site 41FB249 (Patterson 1997:5). The bifacial tool specimens from site 41WH2 shown in Table 1 have lengths of 46-79 mm, widths of 29-42 mm, and thicknesses of 16-20 mm.

The 13 bifacial tool specimens described here may have been used as adzes. Most specimens have working bits with multiple step fracture scars, which is characteristic of edge damage from chopping use (Patterson 1982).

Summary

Large bifacial stone tools from site 41WH2 have been described that are similar to the Clear Fork tool of Central and South Texas. Lithic analysts should become aware that this type of artifact has been found occasionally in the western part of Southeast Texas, adjacent to South and Central Texas. A number of technological traditions from Central Texas are found in Southeast Texas (Patterson 1996).

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Table 1. Attributes of Artifacts

specimen	dimensions, mm L	W	T	bit angle, degrees	Figure
1	79.0	40.3	19.1	60	1A
2	68.1	42.1	19.0	55	1B
3	54.9	38.9	19.7	68	1C
4	68.9	28.7	16.5	59	1D
5	53.6	33.1	16.1	68	1E
6	63.3	35.8	17.6	77	1F
7	78.7	40.8	17.3	74	2A
8	70.3	40.6	17.0	74	2B
9	48.7	28.0	16.1	75	2C
10	52.9	39.0	19.8	55	2D
11	46.2	37.0	17.8	70	2E
12	57.0	32.2	17.4	69(A)	2F
13	47.4	39.5	19.3	69(A)	2G

A: bit angle not uniform

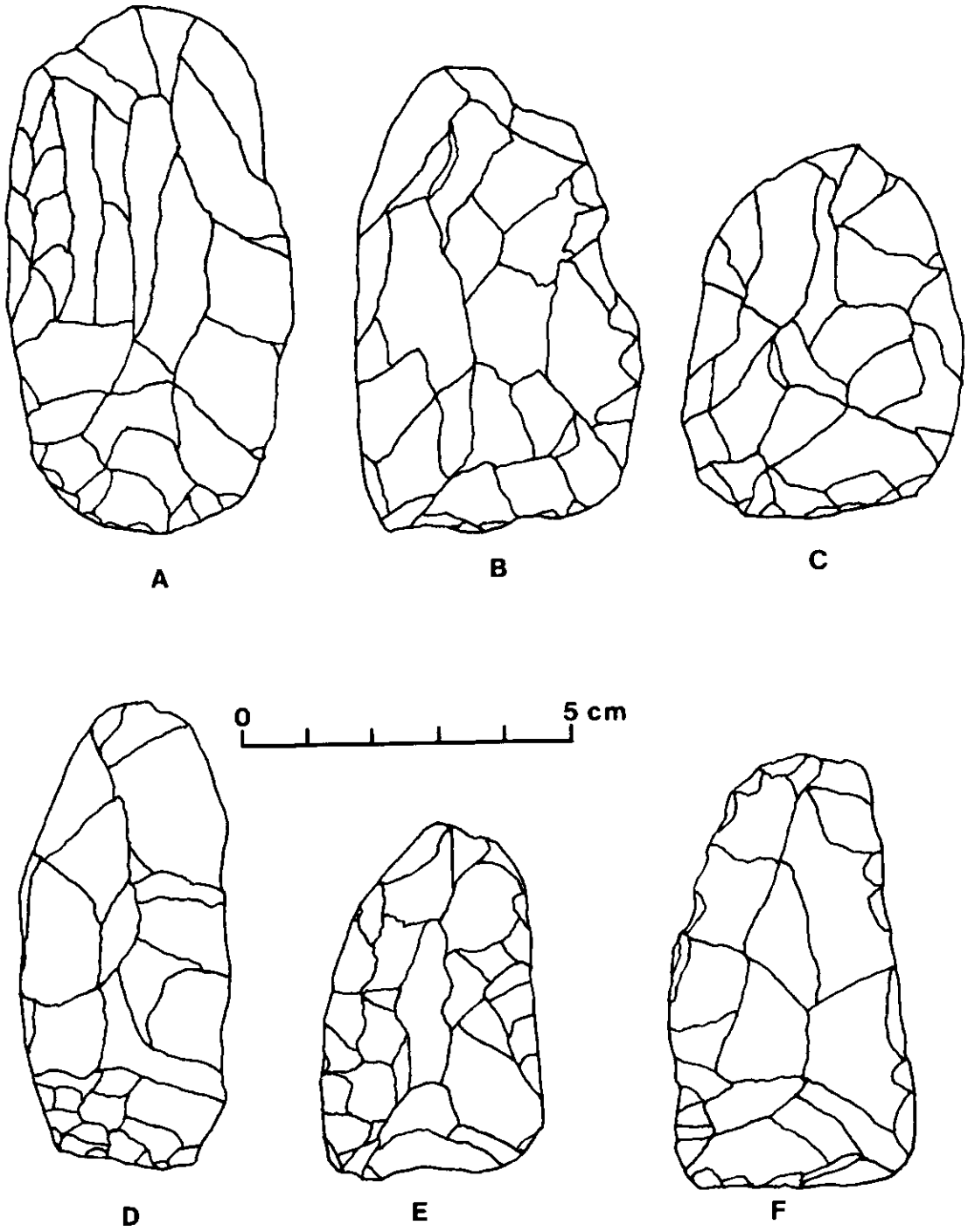

Figure 1. Bifacial Tools from 41WH2

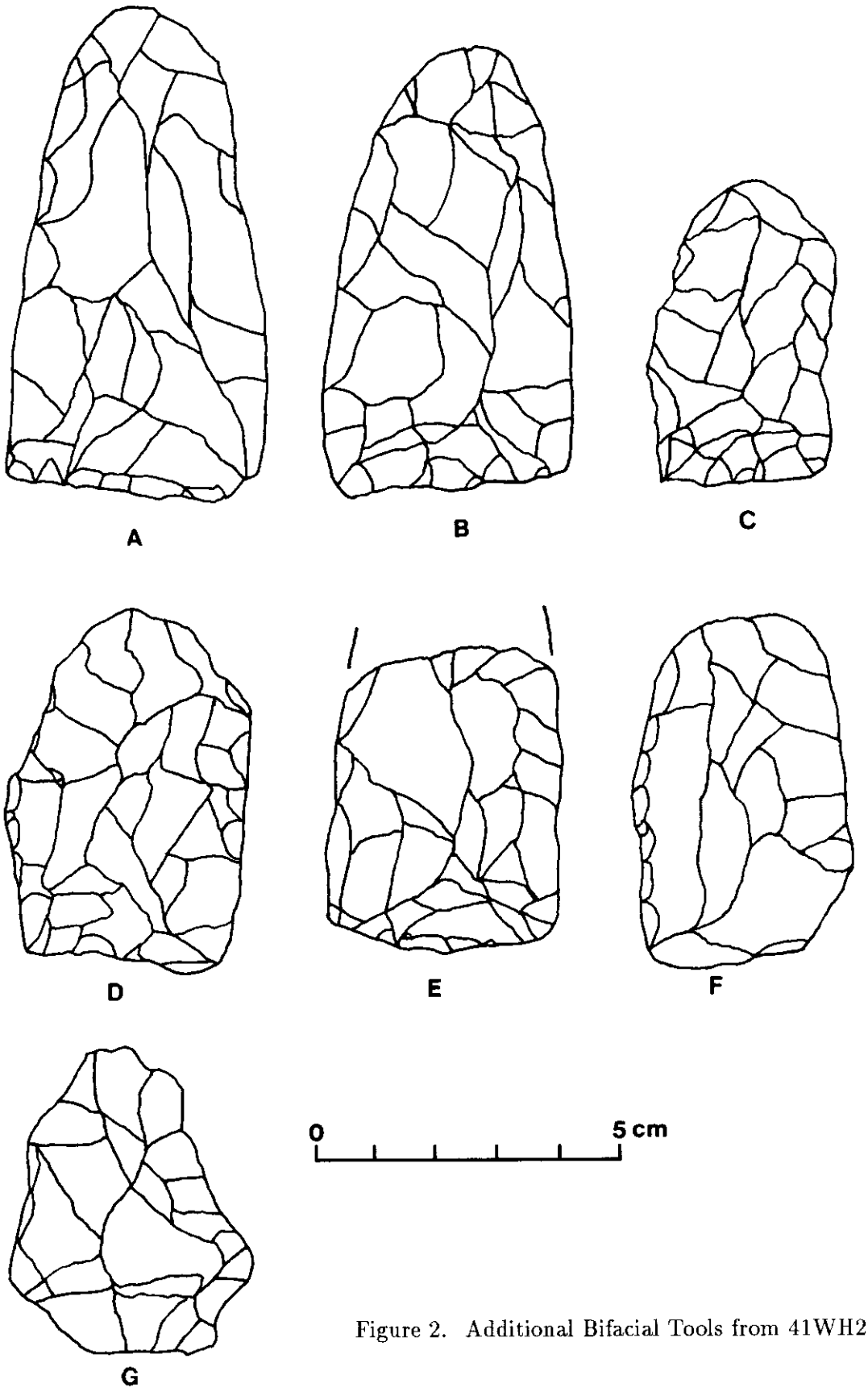

Figure 2. Additional Bifacial Tools from 41WH2

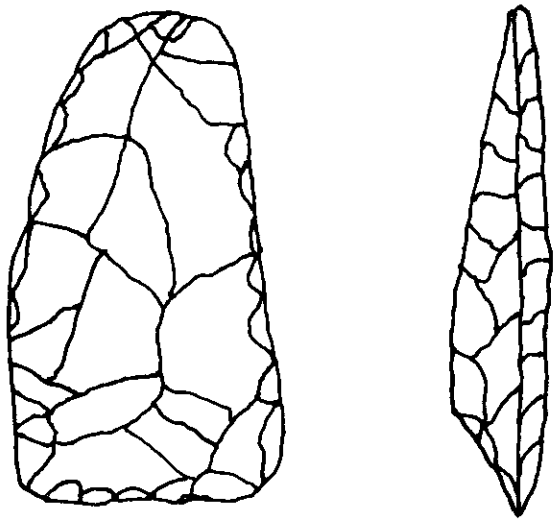

Figure 3. Front and Side Views of Typical Bifacial Tool from Site 41WH2

Dates for the Formation of Huntington Mound, Fort Bend Co., Texas

Leland W. Patterson

The Houston Archeological Society has conducted excavations at prehistoric site 41FB223 in Fort Bend County, Texas (Patterson et al. 1994). This site is located at the edge of a large sand hill designated as Huntington Mound on the USGS quad map of the area. The stratification of soil with cultural deposits at this site was formed by colluvial deposition of sandy material from the mound (Patterson et al. 1994:2). Two Oxidizable Carbon Ratio dates (Frink 1994) have now been obtained for soil samples taken during excavations at this location. The OCR dates are too old to represent Indian occupations of the site, and seem to relate to the time of formation of Huntington Mound.

OCR dates have been obtained for soil samples from Pit H at depths of 160-170 cm and 170-180 cm. Because of the uneven contour of the surface of site 41FB223, excavation levels have been converted to equivalent levels, based on a datum level where soil with a high clay content and different color was first encountered in the excavation sequence. All excavation levels in the clay soil are designated as equivalent "B" levels, and all excavation levels at less depth in sandy soil are designated as equivalent "A" levels. Based on the sequence of projectile point types, the datum level at the interface of clay soil and sandy soil is judged to be at the end of the Late Paleo-Indian period (10,000-7,000 B.P.), and at the start of the Early Archaic period (7,000-5,000 B.P.), in the chronological sequence for Southeast Texas given by Patterson (1995,1996). Soil samples for OCR dating are from equivalent levels A17 and A18, which are the earliest strata in the Early Archaic period, where stemmed projectile point types (Early Stemmed, Wells, Carrollton) become dominant (Patterson 1995: Table 3, 1996: Table 4). At the end of the Late Paleo-Indian period, use of Angostura lanceolate point and Early Corner-Notched points is terminated. An OCR date of 12,735 years B.P. was obtained for level A17 of Pit H, and an OCR date of 14,331 years B.P. was obtained for level A18 of Pit H.

The two OCR dates are obviously too old to represent dates for Indian occupations of this site. Because of the colluvial nature of soil deposition at site 41FB223, Douglas Frink (personal communication) of OCR Carbon Dating, Inc. has suggested that these dates may represent soil formation of Huntington Mound rather than dates of Indian occupations of this site. The OCR dates place the formation of Huntington Mound in the Late Pleistocene period, several thousand years before the first human occupation of site 41FB223 sometime after 10,000 B.P. in the Late Paleo-Indian period. The early OCR dates for this site are a good example of why the geology of a site must be considered when soil dates are used to date cultural deposits.

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Napoleon and the American Dream

A Book Review by Sheldon Kindall

Napoleon and the American Dream (ISBN 0-8071-0770-0) is a narrative about the French Royalists who fled to America following Napoleon's rise to power, and then the Bonapartists who also fled to America following Napoleon's defeat and the return of the Bourbon Monarchy. This is a historical account that was researched in France by Ines Murat and published in French for a French audience in 1976. It was translated into English by Frances Frenaye and published in the United States in 1981 by the Louisiana State University Press. A major part of this book is concerned with the French fort known as "Champ d'Asile" which was constructed near Houston in 1819, and which has been a subject of research for several people in the HAS. This fort would be a wonderful target for excavation if its location could be found.

Prior to the appearance of this book, the only extensive narrative in English which included Champ d'Asile was a combined history and fiction written by two Frenchmen, Hartmann and Millard (*The Story of Champ d'Asile* and *The Heroine of Texas*, both translated into English by Fannie E. Ratchford), who claim to have been a part of the contingent that built Champ d'Asile. They referred to Champ d'Asile as a French colony and called themselves "colonists." Ms. Murat makes it very clear that Champ d'Asile was never intended to be just a simple colony. The real purpose of Champ d'Asile was a military staging post to rally a force for attacking New Spain (Mexico) and possibly ultimately freeing Napoleon from his imprisonment on the island of St. Helena. The two co-directors of this undertaking, Gen. Charles Lallemand and Gen. Antoine Rigaud were both ferocious supporters of Napoleon. Napoleon was aware of their plan. He did not think very highly of their plan but he rewarded both men by leaving them a significant amount of money in his will. Gen. Lallemand collected his reward and returned to France a wealthy man; Gen. Rigaud had the poor sense of timing to die before Napoleon.

The reason for Hartmann and Millard writing their story is clear but not a part of this story. And historians have been confused by the official responses given, usually by Gen. Lallemand, when queried by American officials such as John Quincy Adams as to what their intentions in Texas were. This book makes it clear that Adams was never convinced that he was getting the truth from Lallemand.

This book covers a lot more than Champ d'Asile. For one thing, it offers a really good thumbnail sketch of Joseph Bonaparte, Napoleon's older brother, who had more of an impact on early Texas than generally recognized. During the time period covered by this book, Joseph, who had been King of Spain, was exiled in the United States and living in a small town in New Jersey. Joseph was automatically a focal point for all of the French exiles living in the United States. The most amazing thing about Joseph is that he was well liked by the whole town despite never even trying to learn English.

Also contained in this book is the best discussion of the Alabama Grape and Olive venture that this writer has ever seen. This was a French attempt at establishing a communal colony, but by a completely different set of characters from those at Champ d'Asile. Often the Champ d'Asile story gets folded into the Grape and Olive story, primarily because the Grape and Olive colony elected Gen. Lallemand to be its "third president." Ms. Murat makes it clear that Lallemand "never set foot in Alabama." In fact, this entire venture reads more like a comedy of errors. When the colony sailed into Mobile Bay, their ship sank and they barely escaped with their lives. And it was all downhill from there. They initially established their colony at the wrong location. When they finally got set up in the right place, the soil was not conducive to the growing of either grapes or olives, and nobody in the colony had agricultural experience. With help from a German planter,

they finally got something going but this was a doomed project from the start. Ultimately, one (and only one) of the colony leaders, Gen. Lefebvre-Desouettes, managed to establish a prosperous 480 acre farm, but the original communal project never took hold. Gen. Lefebvre-Desouettes was also linked to plans to free Napoleon. And he also received a large sum of money in Napoleon's will.

Ms. Murat goes on to discuss the influence of the French exiles in Latin America and Canada - not very interesting. Also, there is a long discussion on the difference between American and French political philosophy that is just about as exciting as watching paint dry. The basic problem is that Frenchmen are innately unhappy about everything. It is a way of life, and the English/American concept of an individual's basic right to "the pursuit of happiness" is beyond French comprehension.

This is a good book. First, the sketches of the many individual lives are absolutely fascinating. Although the sketches are necessarily short, Ms. Murat is able to convey the deep tragedy of the principal characters. And second, it is a relief to find some source of information other than Hartmann and Millard about Champ d'Asile. The Champ d'Asile story was a major news item in France but it will take a French researcher to recapture the full story. This is a good start.

This reviewer is indebted to David Pettus, a long time HAS member, who keeps his ear closer to the literary ground than most of us. He found this book and brought it to my attention.