HISTORICAL ARCHAEOLOGY IN OKLAHOMA

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PREFACE

The State Historic Preservation Office (SHPO), Oklahoma Historical Society, administers the federal historic preservation programs in Oklahoma in accordance with the National Historic Preservation Act, including the development and implementation of the statewide preservation plan. Developed in consultation with Oklahoma's preservation community, *Tomorrow's Legacy: Oklahoma's Statewide Preservation Plan* (State Plan), provides an overview of the State's archaeological and historic resources, identifies threats to these resources, and sets forth goals and objectives for their preservation. The State Plan is updated every five years, and it is available upon request from the SHPO. Additionally, State Plan-related materials such as historic context documents, survey reports, and National Register of Historic Places nominations are available at the SHPO.

A component of the State Plan, *Historical Archaeology in Oklahoma* presents an informative discussion of efforts to identify, evaluate, and treat historical archaeological sites, resources which are important reminders of our heritage but which are often ignored, as development plans are established and executed. This document was originally published in the *Oklahoma Anthropological Society Bulletin*, Volume 44, 1995. The SHPO greatly appreciates the Society's interest in publishing the material and in assisting us with additional copies for distribution to Oklahoma's preservation community.

HISTORICAL ARCHAEOLOGY IN OKLAHOMA

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INTRODUCTION

Oklahoma archaeological research has tended to concentrate on the prehistoric periods. It was not until the early 1970s that focused efforts on historic sites began to appear in archaeological literature. This situation is not unique to Oklahoma. Indeed, as noted by Hayes et al. (1989:101), only four articles concentrating on historical archaeology appeared in the first fifty volumes of the *Texas Archeological Society Bulletin*.

As would be expected, Bell's (1984a) *Prehistory of Oklahoma* concluded with a paper (Bell 1984b) focusing on the Protohistoric period, during which the French traded with the Wichita at sites along the Arkansas and other major rivers. This Protohistoric period marks the beginning of Oklahoma's historical archaeology. More recently, the Corps of Engineers, Fort Worth Region, has produced a regional overview that includes Oklahoma. In this volume Oklahoma historical archaeology is summarized in a single chapter (Hays et al. 1989). An appendix (Hays: 1989) addresses historic tribal groups in the region. In both of these sections the treatment of historical archaeology, though well researched and written, is insufficient in scope and detail to provide a comprehensive picture of Oklahoma's historical archaeology.

Until recently the interests of specific scholars, primarily in the prehistoric period, have tended to dominate archaeological research in Oklahoma. Historic research prior to the mid-1970s was limited largely to two special circumstances: sites of such historical significance they could not be ignored; or historic components which overlay targeted prehistoric components. Typical of the first group are historic Forts Towson and Washita and sites associated with the Protohistoric Wichita, all of which have received considerable public and/or scholarly attention. Exemplifying the second group are the historic Choctaw components at the E. Johnson (Wyckoff 1967) and Pate-Roden (Rohrbaugh et al. 1971) sites. These two prehistoric sites in the Hugo Reservoir were excavated during the early years of implementation of the National Historic Preservation Act of 1966. The historic components were investigated only because they overlay a prehistoric component.

Under the influence of the National Historic Preservation Act and 36CFR800, the regulatory section derived from the act, "historic" and "prehistoric" resources receive equal recognition, protection, and attention. Gradually "historic properties", defined in federal regulation as properties fifty or more years old and including historic archaeological sites, began to be investigated on their own merits. Indeed, with this regulatory definition of "historic" properties (including archaeological sites) in place, whole classes of relatively recent historic resources have received archaeological attention. Classes of properties intensively studied just as they reached the 50 -year mark in Oklahoma include the cultural resources (including historic archaeological sites) associated with the Works Progress Administration and the Civilian Conservation Corps. Other categories of resources, such as those associated with the Cold War, have generated a great deal of interest prior to reaching the 50-year mark.

As historical archaeology received more attention, emphasis shifted from broad-based research questions to more narrowly focused ones. This evolution in research orientation is, in part, a

reflection of the growing refinement of the National Register of Historic Places, specifically as it relates to Criterion "D".

Despite limited attention by Oklahoma archaeologists, a considerable amount of historical archaeology has been accomplished and published. This paper brings together the available material to provide an overview of historic archaeological research in Oklahoma. Through a review of the work accomplished to data and by addressing potential research topics that might be significant areas of further research, it is the intent of this review to provide a comprehensive introduction to the historic archaeology of Oklahoma. This review is a context statement for historic archaeology in Oklahoma.

THE HISTORICAL ARCHAEOLOGY CONTEXT IN OKLAHOMA

Townsend, Sprinkle and Knoerl (1993:32) have clearly defined the difference between an historic context and an historical archaeology context. They note:

> A historic context is defined as a body of thematically, geographically, and temporally linked information that provides for an understanding of a property's place or role in prehistory or history. For a historical archaeological property, the historic context is the analytical framework within which the property's importance can be understood and to which a historical archaeological study is likely to contribute important information.

The reference above, contrasting the content of an "... historical archeological property" historic context and other historic contexts, also applies to context statements for prehistoric archaeology. Context statements in Oklahoma conform to this definition, the regional prehistoric context statements being similar in structure to this statewide historical archaeological context. Oklahoma's historic contexts were developed as topically defined and regionally restricted statements, e.g., "Historic Context for the Agriculture Theme, Management Region #1, 1885-1942" (Baird and Gebhard 1991) or "The Energy Theme in Management Region Six, 1912;1951" (Oklahoma Historic Preservation Survey 1991). Prehistoric contexts, on the other hand, are presented regionally with a single context statement serving the entire region, e.g., "Region 1: Short Grass Plains" (Wyckoff and Brooks 1983). Temporally defined units, cultural/historic units, variations in economic, political and social life, and different settlement patterns are all incorporated into a single statement and are treated in subsections of the single prehistoric context statement.

The analytical framework and other scholarly constructs which form the subsections of a prehistoric context statement are rarely restricted to one of the State Historic Preservation Offices's seven regions. Further, within any region, specific archaeological resources may or may not be present and archaeological research may or may not have provided significant information applicable to some portion of a significant analytical framework or geographically defined construct. In contrast to historic contexts, prehistoric contexts cannot be written without site discovery, excavation and analysis. Background sections of prehistoric archaeological contexts extend the analytical constructs from outside the subject area into the area and/or expand the application of the analytical constructs developed within the area. There is no first person documentation or, indeed, any available documentary information independent of in-ground field research that permits the development of a prehistoric archaeological context.

Because historical archaeology resources are largely unknown to historians, historical archaeology has not been included in Oklahoma's historic context statements. Likewise, by definition, historical archaeology has also not been included in *prehistoric* context statements. As might be expected an "Historical archaeology context" statement combines elements of both the historic and prehistoric contexts. Similar to an historic context, the general background, and indeed many of the details of specific sites, can be developed for an historical archaeology context from documentary resources. For example, the details of the removal of the Choctaw to Indian Territory remain the same when interpreting either the extant Choctaw courthouse in Tuskahoma or the site of a small Choctaw farmstead. Like the prehistoric context, however, the context for historical archaeology relies on, and is in part defined by, the field work. The primary difference between an historic context and prehistoric or historic archaeology contexts is that the former requires no

field work, while the latter depend on it.

The requirement of fieldwork is a direct reflection of the National Register criteria most commonly applied to non-archaeological, as opposed to archaeological, sites. Criterion "A" (properties associated with events related to broad patterns of history), Criterion "B" (properties associated with the lives of significant persons) and Criterion "C" (properties which embody distinctive characteristics or represent the work of a master) are typically applied to historic resources. Criterion "D" (properties that are likely to yield important information about history or prehistory) is most commonly applied to archaeological sites. For historic sites considered under Criteria A, B, or C, resource preservation is oriented toward the preservation of an intact site. For historic archaeological sites considered under Criterion D, the focus of preservation is the information within the site, even if the site has been destroyed through excavation.

Most historical resources possess National Register significance through a combination of historic and archaeological information. What type of information is emphasized varies according to the National Register criteria applied. At one end of the scale are historic sites which contain archaeological information that requires no fieldwork for nomination. The site of a decisive Civil War battle is easily nominated on historical information alone. A site such as this would simply not be nominated under Criterion D, even though archaeological investigations of the battlefield might provide undocumented details of the battle. Likewise, the ruins of a well-documented and historically significant house might be nominated solely for its historical significance.

At the other end of the scale are sites which could not be nominated without fieldwork. This often involves fieldwork at both the site proposed for nomination and others from which the nomination context is developed. These sites are not well tied to specific historic events, and are rarely singled out in the historical record. While their position in the broad sweep of history may be known, their primary importance lies in their ability to inform us through detailed analysis of aspects of our past not usually documented.

Historic properties considered under Criteria A, B, or C tend to represent aspects of the past that are primarily recorded in documentary form. For example, the Choctaw courthouse, if not in completely original condition, may have extant plans which allow for its rehabilitation or reconstruction. When visiting the site we can stand in the place where important events occurred and important decisions were made. We know the names of the people who made these decisions, the results of these decisions, and in some cases, even what the people who made the decisions looked or sounded like. Historical documentation has provided that information. Research may focus on either the "people and events" (Criteria A and B), which is documentary historic research, or the "structure" (Criterion C), which almost always includes documentary historic research and/or archaeology.

When the primary impetus for research at a particular site is Criterion A, B, or C, anything learned through the various techniques (for example archaeology in and around the historic courthouse) is used to tie the site to the persons, events or architectural styles that are the focus of the nomination. Archaeological research does not provide a primary structure or definitive form to the nomination, but serves to supplement the documentary resources used to develop the nomination.

Typically, the historic record beyond the reach of oral history provides very little information on traditional lifeways, social history, and similar topics. For a small Choctaw farmstead, for example, the historic record will probably provide little beyond a general picture of Choctaw farming. For both "people and events" and "structure" research we are forced to rely on the archaeological record.

The nature of the archaeological record is such that, while detailed information about some elements of the lives of the occupants will be available, these details relate to subjects different from those recovered through historic research. Specific names, events, opinions and recorded images of the occupants will not be discovered by archaeological research. On the other hand, details of the occupants' occupations, diet, general quality of economic life, health, and some aspects of social life are quite reasonable expectations from archaeological data.

In order for an historic context to be of value,

it must provide guidance for anticipating undiscovered resources and for evaluating these resources when discovered. If this guidance cannot be formulated from the analysis of documentary sources, then other sources must be utilized. It is therefore the archaeological research demanded by Criterion D and its analytical framework that sets historic archaeological contexts apart. The development of any context related to archaeology, historic or otherwise, is impossible without previous research.

In historic contexts this guidance focuses on the discussion of "property types," which serve to alert researchers to resources that might be encountered. Through the analysis of existing resources, information derived from property types serves as a guide for evaluating newly discovered properties. In prehistoric contexts, past research and the analytical frameworks serve a similar purpose. Resulting analytical frameworks and models provide the prospective researcher with a way of anticipating the nature of the material that will be encountered. Research questions developed within an analytical framework, in combination with judgements concerning the quality of data sets present at the site, provide the structure necessary for assessing the quality of newly encountered sites. Unlike an historic context with a theme and background developed independently of the physical resources, the entire prehistoric archaeological context is based on physical remains. The discovery of a rare or unusual historic resource is unlikely to change an historic context, whereas each new excavated archaeological site alters the existing archaeological information. Within the historical archaeological context, historical research provides background, while archaeological field work provides the data sets that, when analyzed, yield information necessary for assessment of National Register quality.

Because fieldwork and publications in historical archaeology in Oklahoma are limited, the entire body of historical archaeology within this state is considered in this paper. A statewide format is essential because, if we were to consider the subject within a regional framework, we would find that some regions have almost no historical archaeology to contribute.

This statewide historical archaeology context is similar to a regional prehistoric context. It is defined temporally (i.e., it is historic) and, like prehistoric contexts, the subdivisions utilized in the statement further limit and refine the spacial and temporal aspects of the statement. The subject is divided into subsections which provide the reader with more of an historical background than an analytical framework. Thus the headings reflect a typology based on site function and broad chronological period. Further, the subsections reflect the degree to which the site types within a category may be linked to a specific National Register criterion. For example, Euro-American domestic archaeology focusing on homesteads and farms is almost exclusively a social history of sorts, and cannot be allied with any of the criterion other than Criterion D.

Before the overview is presented, some comments concerning the organization of this review and the nature of the material cited are necessary. First, while a political unit like Oklahoma has no reality in prehistory, in historical archaeology the opposite is true. The forced settlement of Native Americans into territories defined by the Federal Government and the subsequent unique distribution of land prior to statehood is a central theme in Oklahoma history. No other state had the allocation of land by commission, lottery, or "run" to the extent utilized in Oklahoma. Likewise, no other state was a target for the forced relocation of tribes from the entire North American continent. Thus within Oklahoma, the historic boundaries define general settlement patterns, as well as past and current geographically distinct ethnic units.

Second, much of the information concerning historical archaeology in Oklahoma occurs in the so-called "grey" literature. This material consists of reports and documents generated as part of activities associated with Section 106 of the National Historic Preservation Act, and they typically have an extremely limited distribution. Where extensive information on a single site has been published, and especially when this information has had wide distribution, the treatment in this review has been relatively less intense. More attention is devoted to the lesser-known sites reported in this "grey" literature. This is not to be construed as a comment on the work, but reflects an effort to compensate for the availability of detailed information.

The organization of this review presents some problems, because of the diverse nature of the

historic sites and the relatively short span covered by the majority of the occupations. Each sub-section of this paper presents some background material, but little effort has been made to discuss the detailed history of the individual sites.

The sections of this presentation vary greatly in detail, depending on the number and nature of sources on the topic. One of the goals of this work is to highlight these differences. The contrast between Euro-American Domestic Archaeology and Military and Battlefield Archaeology provides an excellent example of the problem. Although a great number of Euro-American Domestic sites have been recorded and reported, most have been documented in surveys required as part of the environmental review process. Aside from particulars of location, information reported for these site consists of a description of the usually small artifact collections recovered, a site map locating any features, and a description of the observed surface features -- all of which provides little in the way of analytical detail. This contrasts sharply with the section on Military and Battlefield Archaeology, in which almost all of the references from the few sites included are the result of excavations with well-defined, but typically limited, goals. Often related to the interpretation of a specific building, common elements in these reports include detailed backgrounds, primary documentary research, and extensive artifact, feature and architectural descriptions.

Trading posts and trading areas are the focus of the first section. The oldest Euro-American site in Oklahoma, the Deer Creek site, is a French/ Wichita trading site from the late 18th century. Other trade-related sites dating from the first quarter of the 19th century have also been investigated and reported in Oklahoma.

The archaeological evidence for tribes that resided in Oklahoma comprise the second section. The Caddo in the east and Comanches in the west are but two of the tribes whose territories were taken by the Federal Government to serve as the forced home of other tribes from across the United States.

Beginning in the first quarter of the 19th century and continuing until the turn of the century, tribes from across the United States were shipped to sections of land designated by the federal government in the so-called "Indian Territory." Almost every region of continental United States is represented in the tribes forced to settle in Indian Territory. The sites of these unwilling migrants comprise the third section of this presentation.

Military posts and battlefields comprise the fourth group of sites. From Forts Gibson and Towson, both dating to the 1820s, to Cantonment, the last permanent fort established on the Southern Plains, military sites have served as staging areas for foreign wars, as forts in the Civil War, as warehouse and warehouse distributors, and a variety of other functions.

Euro-Americans settled within the boundaries of the various Indian Nations before the creation of Oklahoma Territory. Later, with landruns and lotteries, towns grew overnight. Farms and home places, as well as other sites related to the domestic life of these early settlers, are the subject of the fifth section.

Like the rest of the nation, the growth of industry has had an important impact on Oklahoma. In the sixth section, sites tied to the coal and oil industries, as well as sites associated with timber, ranching and other minor industries, are discussed.

The seventh section reviews some of the specialized studies and techniques that have been applied to historical archaeology in Oklahoma. Many of these studies are related to the relatively short history and ethnic diversity of the state. Topics covered in this section include ethnoarchaeology and informant-directed archaeology.

Not all of the known historic sites of any one type have been included in this review. If a site has not been the subject of archaeological activity (very loosely defined), it has not been included here. An effort has been made to discuss all of the sites that have undergone some level of investigation.

This presentation has also made an effort to standardize the presentation of the trinomial site number. In the bibliography and other occasions in which the title of a report incorporated a trinomial site number, the number has been presented in the original published format. In all other cases, it has been standardized. The pre-

sentation used here is the state number "34," followed by the two-letter county designation, both in upper case, (e.g.,"LF") followed by the consecutive site number (e.g., "512"), with no punctuation separating the three elements: thus, 34LF512.

EXPLORATION, EXCHANGE AND TRADING POSTS

The first Euro-Americans to enter what is today Oklahoma were French explorers/traders. Their motives were the same as most early travelers in North America, i.e., to trade with the tribes encountered and to establish, if possible, the exclusive right to future trade. The French, like other explorers/traders, utilized the great rivers of North America to provide access to the interior. Unlike the Spanish, who sought wealth in the form of precious metals, or the English, who viewed wealth as dependent colonies of their own people, the French sought wealth through trade with local tribes.

Jean-Baptiste Benard, Sieur de la Harpe, accompanied by 10 to 18 men, was the first known Frenchman to visit Oklahoma. The Lasley Vore Site (Odell 1989), located south of Tulsa, contained trade material dated to the 18th century and appears to link la Harpe and the Wichita. Further up the Arkansas River the Bryson/ Paddock and Deer Creek sites in Kay County, the French met to trade with Native Americans who were ancestral to the present-day Wichita.

The trading posts of the Chouteaus on the Verdigris and Grand Rivers and the trading post of Hugh Love, also on the Verdigris River, reflect the use of rivers in establishing early trading posts. Dating to the first three decades of the 19th century, these sites were abandoned prior to 1838.

In the southwestern portion of the state, two trading posts in the vicinity of Fort Sill. The Bill Mathewson House and Store (a.k.a. Tyree South and Tyree North) and the Red Store (a.k.a. Agency Store) both date to the late 19th century.

THE ARKANSAS RIVER

Past investigations to pinpoint the location of la Harpe's 1719 visit have focused in the vicinity of Haskell, Oklahoma, located some 20 miles southeast of Jenks. An intensive survey and review of the surface collections from this region failed to yield any materials directly attributable to the 18th century (Bell and Bastian 1967:122). Other investigations concentrated around Leonard, 10 miles southeast of Jenks. They also failed to produce material that could be tied directly to the early 18th century (Odell 1989:88). However, the Lasley Vore (34TU65) site, just upriver from these areas, yielded 80 features and a variety of early 18th century artifacts. This is the first site discovered that may be directly related to the trade mission of la Harpe (Odell 1989:86).

Trade beads constituted a significant class of material. Sufficient in number to produce a reliable sample, the trade beads at the Lasley Vore site dated the site to the first half of the 18th century. White beads dominated the collection, as might be expected, but just as important is the lack of yellow beads that would be anticipated in a collection from a later period. Gun parts and other firearm-related items, knives and native-made tinklers (probably cut from discarded brass pails) were the dominant metal artifact classes. The site also contained exotic lithic materials, indicating occupation by a people who traded or traveled over some distance.

The only issue not completely resolved is the nature of the settlement. George Odell considers it possible that this is the Wichita site visited by la Harpe, while Larry Banks holds that it is "a" Wichita site of the correct era and locale, but is linked to the as yet undiscovered site of la Harpe's visit only by trade (Odell 1989:88).

Odell (1989) has built a good case for Lasley Vore as "the" site visited by la Harpe. It would seem to fit the Wichita settlement described by la Harpe, who noted that the village he visited was a permanent one containing numerous visitors for a ceremonial or commercial meeting (Odell 1989:90-91). The trade network described by la Harpe testifies to a considerable exchange of goods at the site, which involved groups from around the region and not just the local village. Whether or not this is "the" site visited by la Harpe is not as important as the fact that, after years of searching by numerous archaeologists, an early French presence in the area has been confirmed.

THREE FORKS AREA

In the Three Forks area the Ross (34MY80) and Posey (34WG19) sites are what remains of the two trading posts of A. P. Chouteau (Wyckoff and Barr 1964:42;1968:84). Additionally, the Vandever-Haworth site (34WG16) has been tentatively identified as the remains of the post of Colonel Hugh Love. Love was an employee of Chouteau who branched off and established his own post on the east side of the Verdigris River opposite that of his former employer (Baugh 1970:72). During the early part of the 19th century, trading posts in the Cherokee Nation were licensed by the federal government. In addition to A.P. Chouteau and Hugh Love, other licensed traders included Thompson, Drennan, and James B. Turley. Sam Houston also maintained a trading post in the area; however, his name does not appear as a licensed trader. Perhaps Houston had a licensed partner; or alternatively, his marriage to Diana Rogers, a Cherokee, may have made him exempt from the license fee (Gregory and Strickland 1967:113).

Jean Pierre Chouteau controlled the Osage trade during the last decade of the 18th century. There is no evidence that Chouteau or his son established a trading post earlier in the century. Although not issued a trading permit until 1815, a schism within the Osage tribe may have prompted trade by the Chouteaus as early as 1804 (Williams 1947:490:491). The material recovered at the Ross Site (including shell edge ceramics, molded pipe stems and beads) is compatible with the period of historic use, i.e., 1800 -1838. Excavation of the Ross site failed to yield architectural features, and the authors seem hesitant to identify the site positively as the Grand River Chouteau post (Wyckoff and Barr 1964:42). With comparative collections now available (Burton 1971:109-143; Lewis 1972; and Spivey et al. 1977), and given the site's location and the compatibility of the dates, it seems reasonable to assign the material with some confidence to the Chouteau post.

In their analysis of the Posey site, Wyckoff and Barr (1968) placed a heavy emphasis on the functional distinctions among various site areas. Analysis revealed functionally distinct areas, including one which was interpreted as a blacksmith forge area. The presence of this specialized blacksmith area is good evidence that the site functioned as a trading post.

Excavations at the Posey site were concentrated in an area interpreted as a commercial structure and labeled "Feature Area Three." All structural elements were left in place during excavation, revealing upon completion a square structure approximately 25 feet on a side (Wyckoff and Barr 1968:14). Structural elements at the site included sandstone slabs, the remains of beams, apparent chinking, some clay that was possibly representative of a packed earth floor, and a separate concentration of sandstone slabs that may have served as a fireplace (Wyckoff and Barr 1968:14).

Posey site artifacts include a variety of materials which, taken as a whole, date the site to the first two decades of the 19th century. These materials include shell edge ceramics (Figure 1), hand- painted ceramics (Figure 2), a wide variety of buttons (including 1821-1830 general-issue military buttons), a wide variety of firearm parts and sherds of an historic Creek pottery type, McIntosh Roughened (Wyckoff and Barr 1968:45 & 80).

Although no house foundations were discovered, the Vandever-Haworth site did contain numerous features (Baugh 1970: 7,12, 64). The three areas in which features and artifacts were concentrated were interpreted as a blacksmith shop, a residence and a commercial center (Baugh 1970:65-71)

That the complex should contain several buildings is not surprising. In March of 1834 Love purchased two Kiowa prisoners from the Osage

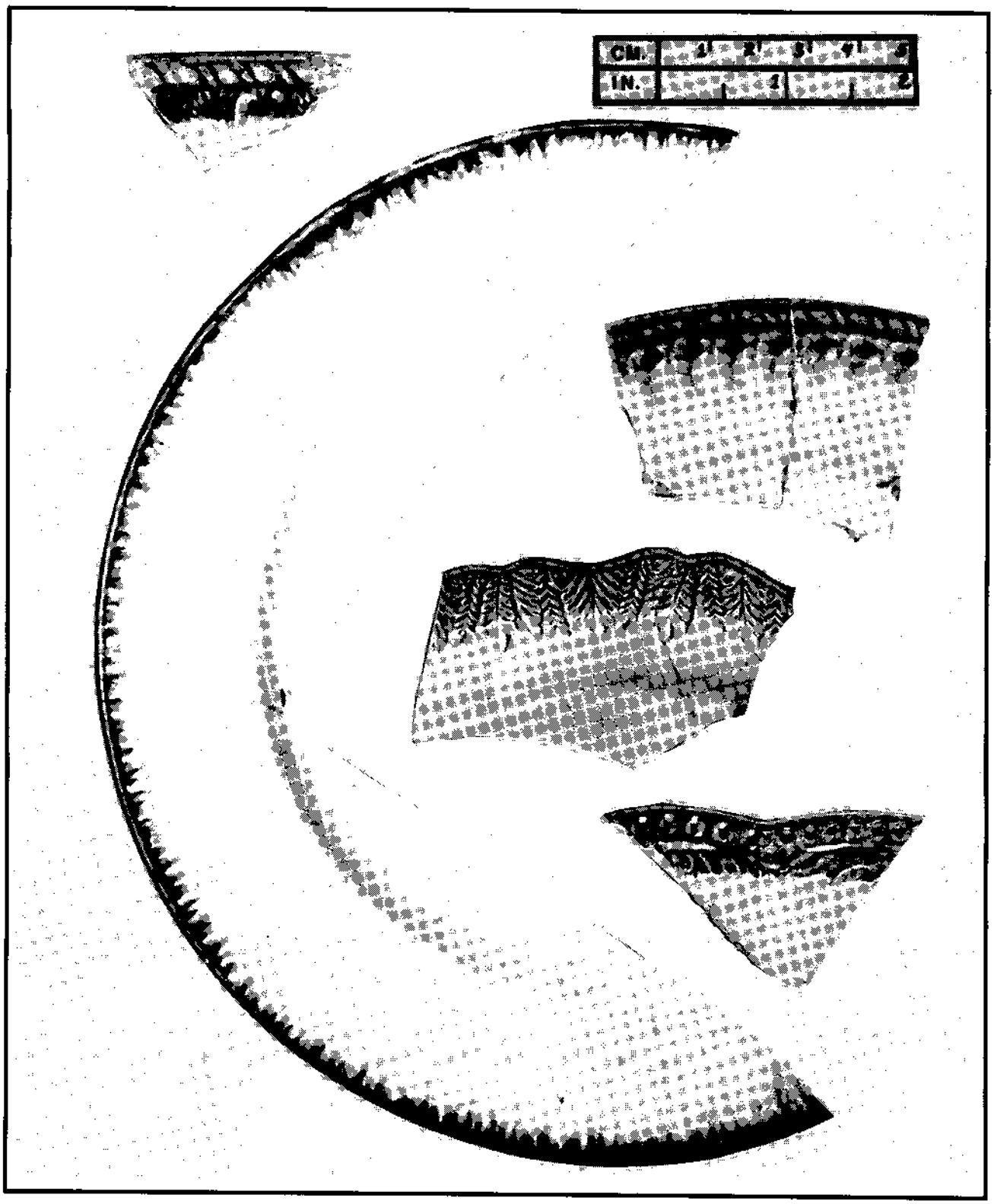

Figure 1. Examples of Shell Edge Wares. **A)** (34MS86) and **B)** (34WG16) - Smooth rim with a "cord" and leaf pattern; **C)** (34WG16) and **D)** (34PS212) - Undulating rim with a leaf pattern. Note the poorly controlled painting. **E)** (34PS212) - Typical plate with shell edge decoration formed only with paint.

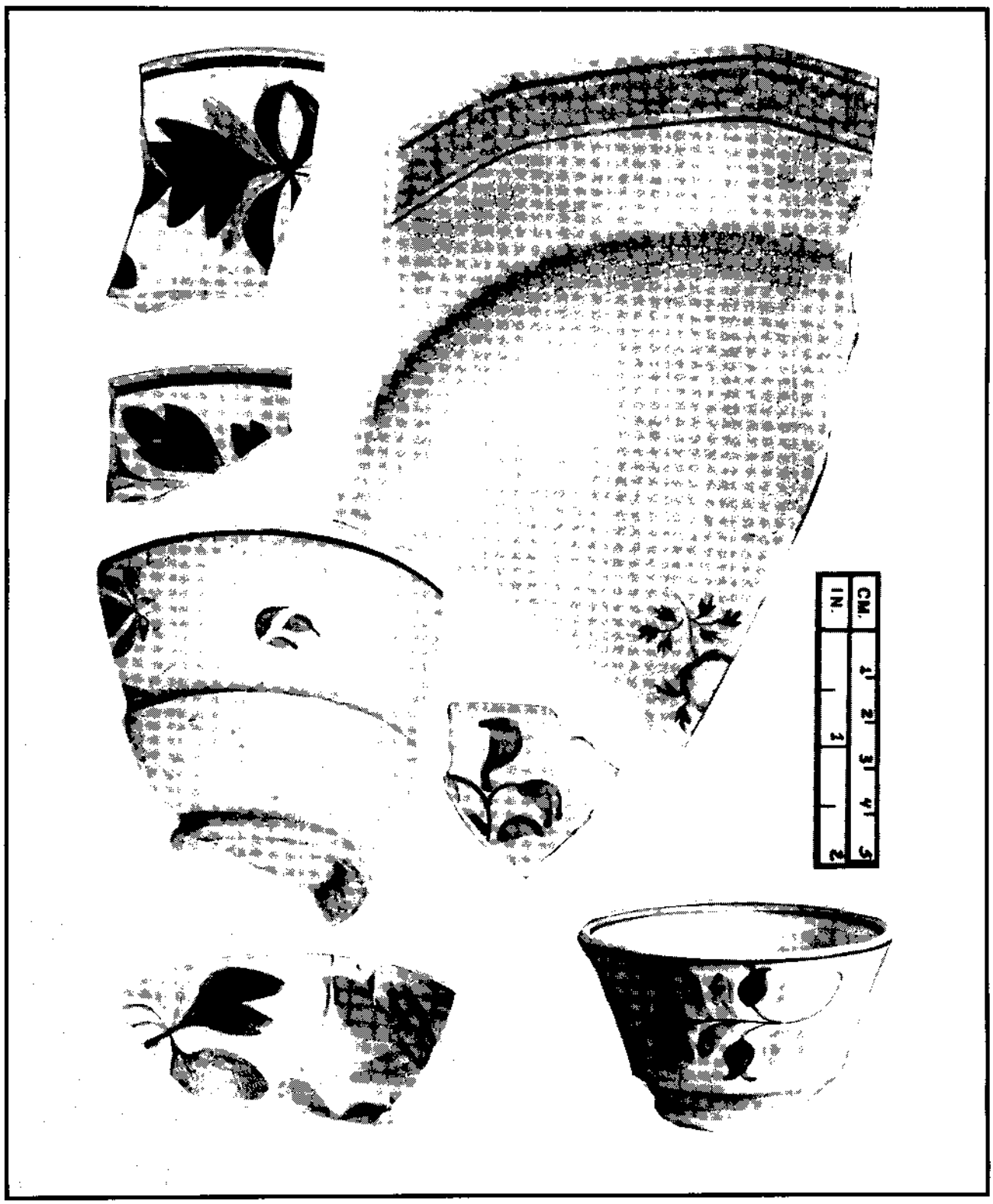

Figure 2. Examples of Hand Painted Wares. Common colors include blue, red, yellow, green and black. **A)** (34PS212), **B)** (34MS86) and **E)** (34PS212) - Bold painted cup fragments; **C)** (34PS212) - "Sprig" decorated plate with painted rim; **D)** (34PS212) - "Cup-in-Cup" form with painted design; **F)** (34PS212) - Saucer fragments; **G)** (private collection) - Handleless cup.

for $215.00. His intent was to present them to the Kiowa in an attempt to establish trade relations (Foreman 1926:119). It would seem logical that the Verdigris River trade compound was both large and profitable if Love felt comfortable making such an investment.

As with the other Three Forks trading posts, the material recovered provides a date range which matches the period postulated from the documentary sources. The recovered material includes shell edge ceramics, buttons (including military types), coins (dated 1827, 1839 and 1840), trade beads, and historic Indian pottery (Baugh 1970:70). The projected date range of 1830 to 1850 is also supported by two ceramic marks, including a "Henderson and Gaines" import mark on a Davenport manufactured item dated 1838 and a Ridgeway transfer ware item from the period 1830 to 1850 (Baugh 1970:31, 70). Other material recovered included a jew's harp, marbles, a wide variety of ceramic material, and smoking pipes (Baugh 1970:50-59).

While Baugh (1970) and Wyckoff and Barr (1968) are reluctant to assign the Vandever-Haworth and Posey sites to the trading posts of Colonel Hugh Love and A.P. Chouteau respectively, there seems little doubt that this is the case. Both of these sites have produced artifacts dating to the first quarter of the 19th century and both have artifact patterns related to commercial enterprises (Baugh 1970:70-71 and Wyckoff and Barr 1968:83). Add to this that the two sites face each other across the Verdigris, and there can be little doubt that the sites are indeed those of the Chouteau and Love trading posts.

MATHEWSON STORE

In Comanche County near Fort Sill, the home (formerly Tyree South, 34CM177) and trading post (formerly Tyree North, 34CM132) of Bill Mathewson have been the subject of several investigations. Bastian (1965:15-16) reported artifactual material from both Tyree South and Tyree North, but no structures. The possibility of an early occupation (ca. 1830) before the main occupation of the 1860s and 1870s was noted (Bastian 1965:16). The two sites were more intensively investigated in conjunction with the construction of the Waurika Pipeline Project in 1975 (Spivey et al. 1977:167-305).

The 1975 investigation of the Bill Mathewson House revealed the remains of a picket building, the only such structure to be excavated in Oklahoma. The structure was roughly 5 meters square, with an associated feature of undressed limestone believed to have been a workshop area that included a forge (Spivey et al. 1977:181-184).

Excavation at the Mathewson Store site failed to reveal any structures (Spivey et al. 1977:269), but a wide variety of artifacts was recovered. Material from the Mathewson House site, however, does not support the postulated occupation of the site in the 1830s.

THE RED STORE SITE

The Red Store site, or Agency Village, is a large site located on the Fort Sill Military Reservation. The civilian center for the area until the establishment of Lawton in 1901, the occupation included a doctor's office, two stores, and several residences (Bastian 1965:17).

At the time of the investigation some foundations were clearly visible, while several other foundations, basements and cisterns were less visible but still discernible (Bastian 1965:17). Artifacts from the site include a wide variety of glass fragments, ceramic sherds, and a sleigh bell. The glassware sample contained specimens dating to the last part of the 19th century until just before World War I (Bastian 1965:19), supporting the documentary dates of 1886,1911.

PRESENT PROBLEMS AND FUTURE DIRECTIONS

Most of the work at historic trading locations conducted in Oklahoma to date has concentrated on verifying that a specific historic site is indeed a specified documented trading location. Sometimes verifiable and sometimes not, this approach has overshadowed other, possibly more fruitful, avenues of research.

As with several of the military sites in Oklahoma, most of the historic trading posts are of such significance that little, if any, archaeological research would be necessary to nominate them under Criterion "A" as related to early trade or westward expansion, or Criterion "B" as proper-

ties associated with a well known and influential trading family. This by no means limits the archaeological potential of the sites. Indeed, some data relevant to problems that might be addressed under Criterion "D" have been collected through excavation, but the types of questions that might be applicable to Criterion "D" have not been the central focus of research at historic trading posts in Oklahoma.

The origins, distribution points, and transportation routes of goods that eventually became the merchandise of territorial traders and merchants form an entire cluster of research questions that might be addressed with materials from historic trading posts. Jobbers and transportation routes to these posts were limited in number. Research strategies addressing the origins of goods and their routes to Indian Territory merchants should provide insight into other less visible influences. These studies might also provide information on differences in trade patterns between the United States and nearby nations. Some work has already been done by Black and Brandimarte (1987) on the firm Henderson and Gaines, a name commonly encountered on ceramics dating from the first half of the 19th century.

The frontier frequently served as a dumping ground for goods that had fallen out of style or popularity in major population centers. Strategies to investigate this phenomenon in Oklahoma could be applied at almost any historic site. However, an investigation that integrated material from residential sites and trading posts, as well as documentary research might be of particular interest. While this type of study as been applied to different economic classes, in Oklahoma it might be applied to different ethnic groups trading at the same location.

EARLY OKLAHOMA INDIANS

Oklahoma was the home of several tribes prior to the arrival of the Euro-Americans. The Osage, Kiowa and Comanche included portions of Oklahoma in their traditional hunting territories. A portion of this territory was also used by the Arapaho who, in the early 19th century, were settled in nearby Kansas and Colorado and, by 1865, were resettled in Indian Territory. Still other tribes, like the Wichita, lived a more sedentary life in villages along the river valleys. For the purposes of this presentation, "Early Oklahoma Indians" are defined as those tribes who occupied and utilized the region prior to the arrival of the tribes subjected to forced resettlement by the federal government. Of the tribes in this group that have been addressed archaeologically, the Wichita are by far the best known.

THE WICHITA

The Wichita have received more attention in the archaeological literature than any other indigenous Oklahoma tribe. There are also Wichita manifestations in Texas (the Norteño Focus). These will not be addressed here, but are usually included in works that discuss the protohistoric Wichita (see Bell, Jelks and Newcomb 1967, and Hofman 1989).

Two early known Wichita occupations, dated between 1700 and 1750 AD, are the Deer Creek (34KA3) and Bryson-Paddock Sites (34KA5) in Kay County in north-central Oklahoma. These occupations may overlap with the occupation of the Lasley Vore site near Jenks, which could date to the 1719 visit by La Harpe (Odell 1989). It should be noted that the Hampton Site (34TU90), just to the northwest of Lasley Vore, has produced artifacts similar to the aboriginal material from Lasley Vore, including two white glass European trade beads (Odell et al. 1990:73-89).

While occupying these villages the Wichita traded with the French while maintaining hostile relations with the Osage. Under pressure from the Osage and to facilitate trade with the French, the Wichita moved south from the Arkansas River to the Red River. Here, at what is known as the Longest site (34JF1), they were attacked by the Spanish under Colonel Don Diego Ortiz Parrilla in October of 1759 (Bell and Bastian 1967:114 and Hofman 1989:95). For the first half of the 19th

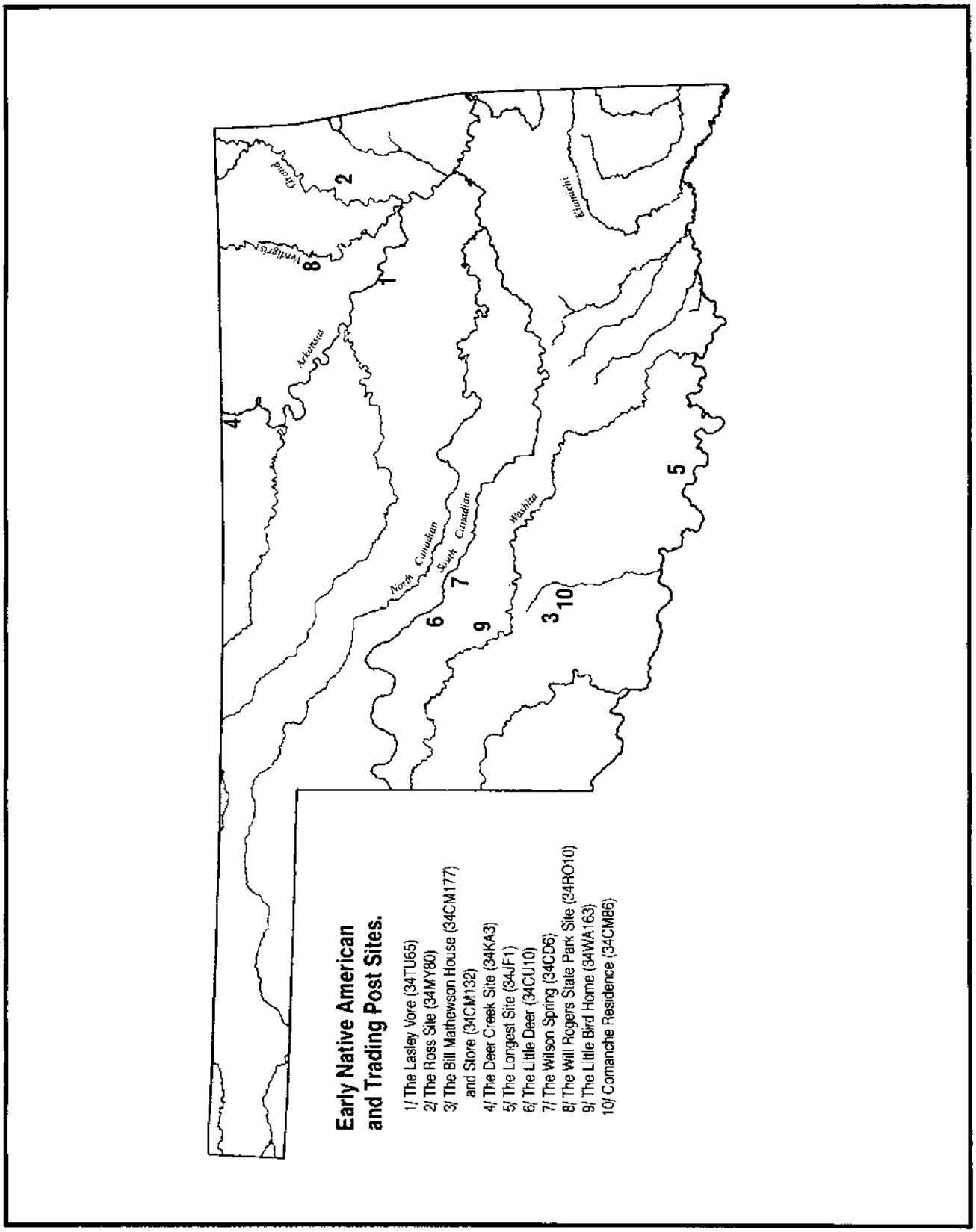

Figure 3. Location of Early Native American and Trading Post sites.

century the Wichita remained in southwestern and south-central Oklahoma, where they were visited by United States Army Dragoons in 1834, and were reported by Mollhausen in 1858. After spending the Civil War in Union-held Kansas, the Wichita returned to Indian Territory in 1867 and settled in the area of Anadarko (Newcomb and Field 1967: 292, 299, 301-303).

The Arkansas River Sites

Deer Creek and Bryson-Paddock are Wichita sites associated with the French fur trade. The abundance of domestic artifacts and features leaves little doubt that Deer Creek site was a village that also served as a trading center; however, there is no evidence indicating a "trading post" built or occupied by Europeans existed here (Figure 3). Abandoned by ca. AD 1760, researchers consider the two sites to have slightly different dates, Bryson-Paddock being somewhat earlier. The Deer Creek site will be discussed first, however, because it is considered to be the more significant of the two.

The Deer Creek Site is one of the few sites in Oklahoma to have been subjected to intensive ethnohistorical investigation. Mildred Wedel's (1981) study included sources from the United States, Europe and Mexico.

Located at the extreme upper end of Kaw Reservoir, the Deer Creek site adjoins, but is not within, the pool of the reservoir, and thus received little attention in the archaeological mitigation for Kaw Reservoir. Considered of special significance and designated a National Historic Landmark in 1966, separate funding was obtained and a unique mitigation program was developed for the site. Protected over the years by a landowner who refused to allow excavation, the Deer Creek site was purchased by the Corps of Engineers as part of Kaw Reservoir and is presently fenced and protected.

Situated on the south bank of the Arkansas River near the town of Newkirk, the site consists of a series of low mounds scattered over a point of land formed by the junction of Deer Creek and the Arkansas River. Other site features include a "horseshoe-shaped" feature and a ditch which roughly isolates the point from the surrounding countryside (Sudbury 1976:5 and Figure 1).

Excavation of the low mounds at the site are expected to reveal round house patterns with four center posts similar to those found at the Bryson-Paddock site (Hartley and Miller 1977:176-177). Although there have been no formal excavations at Deer Creek, it has been subjected to extensive non-destructive research. Magnetometer and sub-surface radar surveys in 1979 and 1980 (Weymouth and Huggins 1981) determined that, while some general conclusions concerning the construction of the ring feature may be drawn and general occupation areas detected, individual house dwellings could not be identified. They further noted that the two techniques both yielded good, but not necessarily compatible, results. A second season of work utilizing a more finely tuned research design and slightly different equipment (Bevan 1980) confirmed the findings of the first year.

Although the landowner forbade excavation, an extensive surface collection from the site was amassed by Byron Sudbury (1976:1,17) with the permission of the third-generation leaseholder, Mr. Clark Miller. Goods of European manufacture recovered include gunflints and gun parts, knives, tools, scrap metal, kettle fragments, wine bottle fragments, and a wide variety of trade beads. Lithic material including Arkansas novaculite, Edwards Plateau Chert from west Texas, and Knife River Flint from the Northern Plains indicate trade from all directions (Sudbury 1976:18-43, 109).

Sudbury's analysis relates Deer Creek to the Great Bend Aspect, in particular the Little River and Lower Walnut Foci, and concludes that Bryson-Paddock is earlier than Deer Creek, the principle French influence having been at Deer Creek. The more intensive utilization and the longevity of the Deer Creek site are attributed to an advantageous location near the river. Given the similarity of this archaeological material to the Norteño Focus of Texas and to the historical references of the 18th century explorers, Sudbury (1976:79) concludes that the site is affiliated with the Wichita proper (Ousita) rather than one of the other Wichita bands.

Two seasons of excavation at the Bryson-Paddock site (Hartley 1975; Hartley and Miller 1977) have produced a large volume of information relating to the early Wichita. These excavations exposed numerous features, including three

structures; and an assortment of smaller features, including five bell-shaped pits, five basin-shaped pits, three large "post holes" that contained an unusually large amount of artifactual material, an irregularly shaped basin feature, and a cache of scrapers. Because of its unusually large size (in excess of forty feet in diameter), Structure "A" was interpreted as a specialized structure, possibly a civic structure (Hartley and Miller 1977:164-217, 224).

Artifacts recovered from Bryson-Paddock were similar to those of Deer Creek and included projectile points, bevelled knives, ground stone, waste flakes, and pottery sherds from both vessels and smoking pipes. The amazing profusion of bifaces and scrapers recovered reflects hide processing for the French trade. Goods of European manufacture include gun parts, knives, a wedge, kettle bails, hawk bells, a button, beads, and mirrors (Hartley and Miller 1977:14-122).

Excavations at the Longest (north side)/Spanish Fort (south side) sites, which straddles the Red River, have revealed the most extensive group of features in Oklahoma assigned to the Wichita. Seven structures and 76 features were recorded during the excavations. Two circular houses were completely excavated and several others, including an oblong structure, were either tested or partially excavated. Also recorded was a portion of a fortification. Visible from the air, the oval- shaped ring was tested and found to be a ditch, and although no palisade was found, there can be no doubt that the ring was indeed a fortification. The discovery of this previously unsuspected ditch assumes particular significance when it is noted that the "feature coincides with the position of the fortification attacked by a Spanish army under Parrilla in 1759..." (Bell and Bastian 1967: 85).

Twenty-nine pits have been attributed to the aboriginal occupation of the Longest site. Of these, 23 were bell-shaped and six were basin-shaped. Most pits contained refuse with few having little or no refuse (Bell and Bastian 1967:70-81).

Artifacts of European manufacture recovered from the site include metal axes, hoes, knives, arrow points, horse trappings, kettle fragments, rivets, tinklers, beads, rings (possibly made from chain mail), hawk bells, wire, pins and pendants. Items of aboriginal manufacture include large and small projectile points, a multitude of scrapers, and a variety of ceramic material including vessels, pipes and figurines (Bell and Bastian 1967: 85-107). Documented sites related to subsequent occupations by the Wichita have been investigated; however, for the most part, these investigations (discussed below) have not been as productive as those at the earlier sites.

The Wheeler complex, a protohistoric Wichita manifestation, is represented at three sites in Oklahoma: the Little Deer site (34CU10), the Scott site (34CN2), and the Wilson Spring site (34CD6). This complex strongly resembles a documented historical presence, although exact dating is difficult. The occurrence of numerous large scrapers, which appear after the Great Bend Aspect (ca A.D. 1650), and the relative absence of European trade goods, which are abundant at the Deer Creek and Bryson Paddock sites of the middle 18th century would seem to date the complex to the first quarter of the 18th century (Bell and Bastian 1967:126, 166). These authors note that the absence of European artifacts may have been caused by their remote location, rather than their chronology.

The Devils Canyon site is a Wichita encampment visited in 1834 by U.S. Army Dragoons and sketched by Catlin. There are no descriptions of any surface features at the site, none were discovered, and very few artifacts are known for the location. This condition is a reflection of the 65-year history of cultivation and collection at the site. Some minor testing was done, indicating that, although few surface features have been preserved, subsurface features that would contribute to a productive excavation may exist (Bell and Bastian 1967:120-121).

Historic documents place the Wichita in the vicinity of Fort Sill during the 1840s. Although the location of one of the Fort Sill sites is known, investigations in the area found no traces of the village. East of Fort Sill, the Rush Springs locality was occupied by the Wichita during the 1850s. Although the time and place of occupation are known, the site could not be relocated (Bell and Bastian 1967:121-122).

THE OSAGE

The traditional Osage homeland was considerably larger than the area that eventually became the Oklahoma Osage reservation. Land was lost by the Osage as parcel after parcel of their vast territory was settled by other tribes forced into the area by Euro-American encroachment or by treaties with the Euro-Americans themselves.

One site in the three Forks locale became a popular semi-permanent camp of the Osages as they roamed their territory prior to 1800. In 1802 Gra-Mo'n (known to the French and Americans as Claremont, or Clarmore), an hereditary tribal leader, persuaded about half the tribe to move from Missouri to this site in order to trade with the Chouteaus who had been denied a trading license there (Mathews 1961:298-300). The Osage site in Will Rogers State Park (34RO10) is believed to be a satellite settlement of the Clermont Village, which is just five miles down the Verdigris River from there (Good 1971:99). All of the site material was recovered on the surface after exposure by erosion by the Verdigris River/Lake Oologah. Material recovered included metal arrow points and scrap from their manufacture, gun parts, trade axes, french and English gunflints (Figure 4) , blue shell edge ceramics, and a military button (Perino 1971:91-96).

An Osage burial (34OS104) at the Skiatook Reservoir is typical of Osage burials exposed during reservoir construction and later wave action. This burial consists of a female interred with a relatively small amount of grave goods: a strike-a-light, an iron knife, an iron and brass cuff link, and a Euro-American hand-painted ceramic bowl (Perino 1972:11-13).

Sites 34OS214 and 34OS232 are two Osage burial areas which show both Euro-American and traditional influences (Vehik et al. 1979:160, 172-173). The form of the burials -- one a group of above-ground vaults with east-west orientation and tombstones, the other a single subsurface interment with a tombstone -- show the Euro-American influences. The graves' positions on a hill overlooking a stream valley is a traditional Osage location.

THE ARAPAHO

Four divisions of the Arapaho tribe occupied the Great Plains and the eastern flanks of the Rocky Mountains. By the early 19th century only two of the divisions remained: the Northern division in Wyoming, and the Southern division in Colorado and Kansas. In 1851 the first Arapaho treaty provided the tribe with lands in Nebraska and Kansas. The invasion of gold seekers in 1861 forced another treaty, which sought to remove the Southern Arapaho to Indian Territory. And in a new treaty in 1865, the Arapahos ceded their lands in Kansas and Colorado and, at least in part, settled in Indian Territory. Eventually Arapaho warriors left the reservation, an act which led to the 1869 battle of the Washita, in which more than 100 peacefully encamped Cheyenne were killed by federal troops. In 1869, with the establishment of a nearly five million-acre reservation by executive order of President Grant, the Arapaho settled in what is today west-central Oklahoma (Baird et al. 1988:123-127).

In 1885 John Seger, accompanied by 120 Arapahos, established a settlement on Cobb Creek known as "Seger Colony," or later just "Colony." Site 34WA163 is the home of Little Bird, one of the headmen who accompanied Seger (Briscoe and Bussey 1988:6). Occupied only until 1900 when the Little Bird family moved into another house to the south, this house site had been badly disturbed by agricultural practices when documented in 1988.

Little Bird was a respected chief of some means. His wealth and influence are reflected in the taking of a fifth wife in 1888, and in his activities prior to 1900 with the Native American Church. He was also selected as a delegate to represent his people at a variety of National meetings and councils. The accomplishments noted here provide a context for the simple structure indicated by the limited remains of the site. A small structure with a dirt floor and simple fireplace similar to Euro-American residences constructed shortly after settlement, this structure was abandoned for a larger, more comfortable, home when economic circumstances permitted (Briscoe and Bussey 1988:7).

Two elements distinguish this site from a Euro-American settlement of similar circumstance. Adjacent to the structure was an open

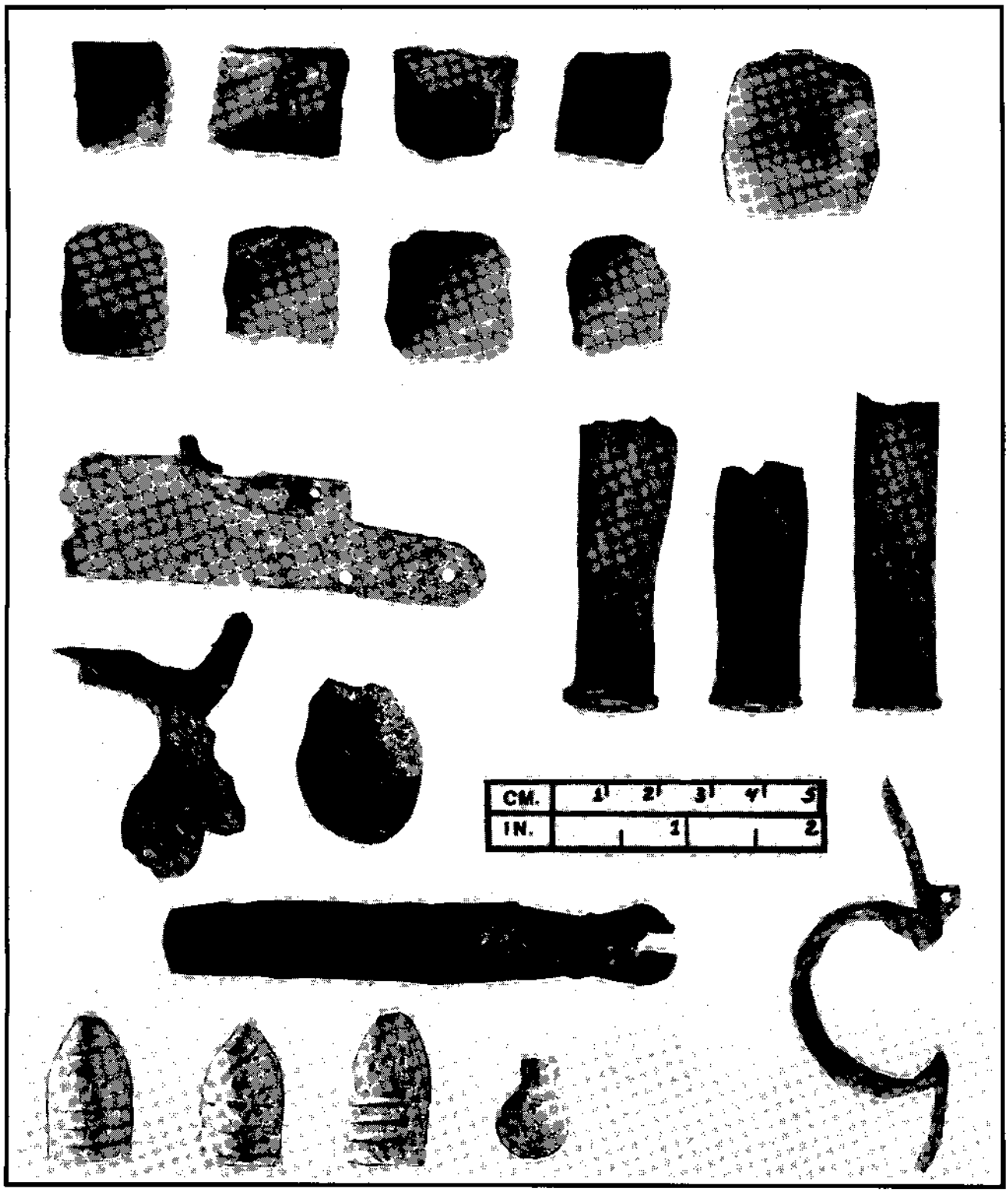

Figure 4. Firearms related materials. **A)** through **D)** (34WG16) - Medium (rifle) sized English grey to black gunflints; **E)** through **H)** (34WG16) - Medium (rifle) sized French honey colored gunflints; **I)** (34MS86) - Large (musket) sized French gunflint; **J)** (34PS212) - Lockplate; **K)** through **M)** (34MS86) - .45-70 caliber shells; **N)** (34MS86) - Hammer; **O)** (34MS86) - Top jaw; **P)** through **R)** (34MS86) - Minnie balls; **S)** (34MS86) - Rifle ball with sprue; **T)** (34PS212) - Nipple wrench; **U)** (34PS212) - Trigger guard.

shed or arbor which, being on the sheltered southern side of the structure, has been interpreted as an all-weather open space used for everyday household activities (Briscoe and Bussey 1988:17). Also noted during the excavation was the lack of artifacts when compared to similar Euro-American sites. Sparse artifact remains were also noted at Red Moon's encampment in Custer County (Briscoe and Bussey 1988:24, 28).

THE KIOWA

Like another great tribe of the Southern Plains, the Comanche, the Kiowa were relatively recent arrivals. An argument over a hunting prize was, according to Kiowa legend, the cause of a tribal split that saw part of the tribe migrate north and west, while the other faction moved east and south. The fate of the northern faction is unknown, but the southern faction moved onto the Plains and then southward to become the Kiowa. With the Kiowa were a group of Athapaskans known as the Kiowa-Apaches. They spoke a different language, but were a part of the Kiowa with a recognized role in Kiowa society (Mayhall 1971:8-12).

By the late 18th century the Kiowa/Kiowa Apache and the Comanche both occupied western Oklahoma, the Texas Panhandle, southwestern Kansas, and eastern New Mexico. Near the end of the 18th century these two groups formed an alliance that was both permanent and influential. The alliance dominated the area, pushing the Mescalero and Lipan Apaches west and southwest, the Wichita east, and the Tonkawa south, leaving only the allies as occupants of the vast Southern Plains (Mayhall 1971:12).

The Poafpybitty Site (34CM215) consists of two Kiowa burials -- one female and one male -- located in southwestern Oklahoma. It was excavated by the Museum of the Great Plains after having been vandalized by pothunters. Grave goods recovered include brass and German silver bracelets, more than 65 wire bracelets, a chain bracelet, a hair pipe bracelet, arm bands, an ax head, belts, two concha bracelets, a military helmet, a peace pipe, a parasol, mirrors, projectile points, pocket knives, vessels, pencil leads, a sewing kit, beads, buttons, a bottle, and a saddle (McWilliams and Jones 1976:17-25). The material and information obtained from the landowner dated the burial to the period between 1872 (the date of the issue of the helmet) and 1901 (the date the landowner's father acquired the land). The most likely date is prior to 1880, when metal ornaments like those found fell out of popularity with the Plains tribes (McWilliams and Jones 1976). An informant dated the site prior to the reservation period (1875), a date supported by the material found.

The hillside setting, as well as the discovery of a small circular "foundation" with no evidence of a superstructure and a light scattering of historic trash, has led to speculation that 34CM394 may have been the site of a Vision Quest Ceremony. Difficult to access and apparently occupied only briefly, the odd sizes of cans found at the site indicate that an alternate interpretation may relate to some sort of limited food issue by the Federal Government (Anderson and Bearden 1991a:22-24).

THE COMANCHE

After their arrival in the area sometime around 1750, the Comanches eventually occupied most of western Oklahoma, western Texas, the Texas Panhandle, and eastern New Mexico. Prior to their arrival, the Comanches and Shoshones occupied an area in what is today Wyoming, southern Idaho, northeastern Nevada, and portions of Montana and Kansas (Wallace and Hoebel 1952:6). In the early 18th century the Shoshones and Comanches split, the Shoshones moving north and west and the Comanches south and east. By the end of the 18th century, having acquired horses and firearms, the Comanche were well settled in their Southern Plains territory (Wallace and Hoebel 1952:8-11, 39). Until defeated in 1875 by disease, white encroachments, and finally, force of arms, the Comanche raided, traded and generally dominated the region.

Only a few Comanche sites in Oklahoma have been subjected to archaeological study. The Jared site (34CM221) is a Comanche burial exposed by erosion and excavated by the Fort Sill Museum. Artifacts found at the site include a rubber-coated tarpaulin, 53 wire bracelets, fragments of a beaded skin bag, the remains of a saddle, some metal fragment of unknown function, and a one-gallon galvanized pail. Ethnographic material was used to establish the burial

as that of a Comanche. In the Southern Plains the Cheyenne and Comanche buried their dead in ravines. Although there is a possibility that this burial is Cheyenne, historical research dates the site between 1869, when Fort Sill was established, and 1880 ,after which cemeteries were in common use among the Comanche (Jackson 1972:321-324).

A small, nondescript residential site (34CM86) on the east Bank of Cache Creek near the junction of Quanah Creek has been attributed to the Comanche. The site contained an 1881 coin, as well as materials similar to those recovered from a Fort Sill dump dated from 1880 to 1895. With nothing to distinguish it as Comanche, the attribution still seems logical, given the date of the material recovered and the site location. This site appears to have been associated with the Anadarko Agency, which was established 1886 and issued beef rations in the vicinity (Shaeffer 1966:28-29).

PRESENT PROBLEMS AND FUTURE DIRECTIONS

Aside from the Five Tribes who were eventually settled in the eastern portion of Indian Territory, there has been little focused research on Native American sites in the western portion of Indian Territory. The few large sites with features and artifacts that are obviously associated with early Native Americans do not require archaeological research to be declared eligible for the National Register of Historic Places. Indeed, both the Longest and the Deer Creek sites could easily have been placed on the National Register based on Criteria A or B, even though archaeological research has been conducted on each. Claremore Mound, associated with the Osage, has not been subjected to archaeological research. In addition, numerous village and battle sites are known and revered by Native Americans. These would be easily eligible with little or no archaeological research.

Unfortunately, with only a few exceptions, all reported sites of the Osage, Kiowa and Comanche relate to incidentally discovered burials. Without denying the importance of these sites to tribal members, these isolated burials, when considered within an historic archaeological context, are only marginally eligible for the National Register of Historic Places.

Structured surveys to identify and locate sites of these tribes are needed. Structured surveys of Choctaw settlements have provided valuable information on quantities and patterns of settlements, as well as information that can be used to distinguish settlements of the Choctaw from the larger group of Euro-American settlements. There is every reason to believe that a survey aimed at the settlements of early Indians in Oklahoma would yield similar results.

Surveys developed and completed with direct tribal input, like urban surveys developed in cooperation with planning departments, can fulfill specific tribal needs. Confirmation of the nature and location of poorly documented sites or sites known only by oral tradition will encourage more active participation by tribal governments in the Section 106 process. Historical resources whose significance has been defined by the tribes themselves are likely to be better managed than resources designated by others.

LATE HISTORIC INDIANS

Although the concept of a western territory set aside for Native Americans was not new, with the election of Andrew Jackson in 1828, removal of the tribes east of the Mississippi became a virtual certainty. As detailed below, treaties which ceded tribal lands and forced resettlement in Indian Territory were signed with several tribes. The first tribes resettled in "Indian Territory" were those who occupied the rich farmland of the American Southeast. The eastern portion of Indian Territory became the home of the Choctaw and Chickasaw from Mississippi and Tennessee, the Cherokee from Tennessee and North Carolina, the Creek from Georgia, and the Seminole from Georgia and Florida (Figure 5).

Throughout the remainder of the 19th century, other tribes from across the United States were pressured into giving up their traditional lands and settling in Indian Territory (Hudson 1976:427-477). As the stream of tribes arriving in the territory continued, the land promised to the first tribes to arrive was cut up and parceled out to those arriving later. In the western portion of the Choctaw Nation, the Chickasaw District of the Choctaw Nation became the Chickasaw Nation. In the central portion of Indian Territory, land promised to the Creeks and Seminole was given to several tribes, including the Shawnee from Ohio, the Kickapoo from Illinois, and the Iowa. And in the northeast corner of the Cherokee Nation, land was provided to the Modoc from northern California and the Wyandotte from Michigan, to name only a few.

Tribes forced here by the federal government experienced great difficulty surviving in the new environment. While struggling with a new environment, many tribes also suffered because a portion of the tribe elected to stay in the homeland or had settled elsewhere during the lengthy removal process, thus redefining the effective population and further weakening traditional tribal culture. In many cases removal to Indian Territory was the last of a long chain of forced moves, with a few tribal members electing to remain at each stop.

Most of the archaeological work focusing on late historic Indians has concentrated on the Five Tribes. This research has been conducted as environmental requirements were addressed in the wake of development of reservoirs in the historical Indian territories of eastern and southern Oklahoma. This section is divided into two parts: the first concentrates on the archaeology of the Five Tribes, while the second focuses on the archaeology of other removed tribes.

THE FIVE TRIBES

The term "Five Civilized Tribes" or, more recently, "Five Tribes" was applied by Euro-Americans to the five major tribes of the American Southeast which were seen as "civilized" because they practiced agriculture and lived in settled villages much like those in rural Europe. Forced to move to the west, members of the Five Tribes found themselves in a territory that was not always amenable to the preservation of their traditional social and political systems (Hudson 1976:469). Some, like the Cherokee, settled in territories much like their homeland, while others, like the Choctaw, were forced to settle on lands of low fertility and rugged topography very different from their homeland. Many elements of traditional society which survived the factionalism and strife generated by the signing of treaties and the massive number of deaths in the removal process finally fell victim to the settlement patterns dictated by the geography of the new land.

A common element of the resettlement was the breakdown of the traditional village settlement pattern and related political and social disintegration. However, the resettlement was not the only cause for the disintegration of traditional culture. Missionaries were active throughout the territory and there were, among all of the Five Tribes, bitter feelings among the various factions over the ceding of traditional lands in the east and the distribution of both individual and tribal benefits in the west.

While some of the social units continued to interact and carry the name of a "town" or similar settlement unit, individual households which had been part of a dispersed village pattern became even more isolated due to the local topography.

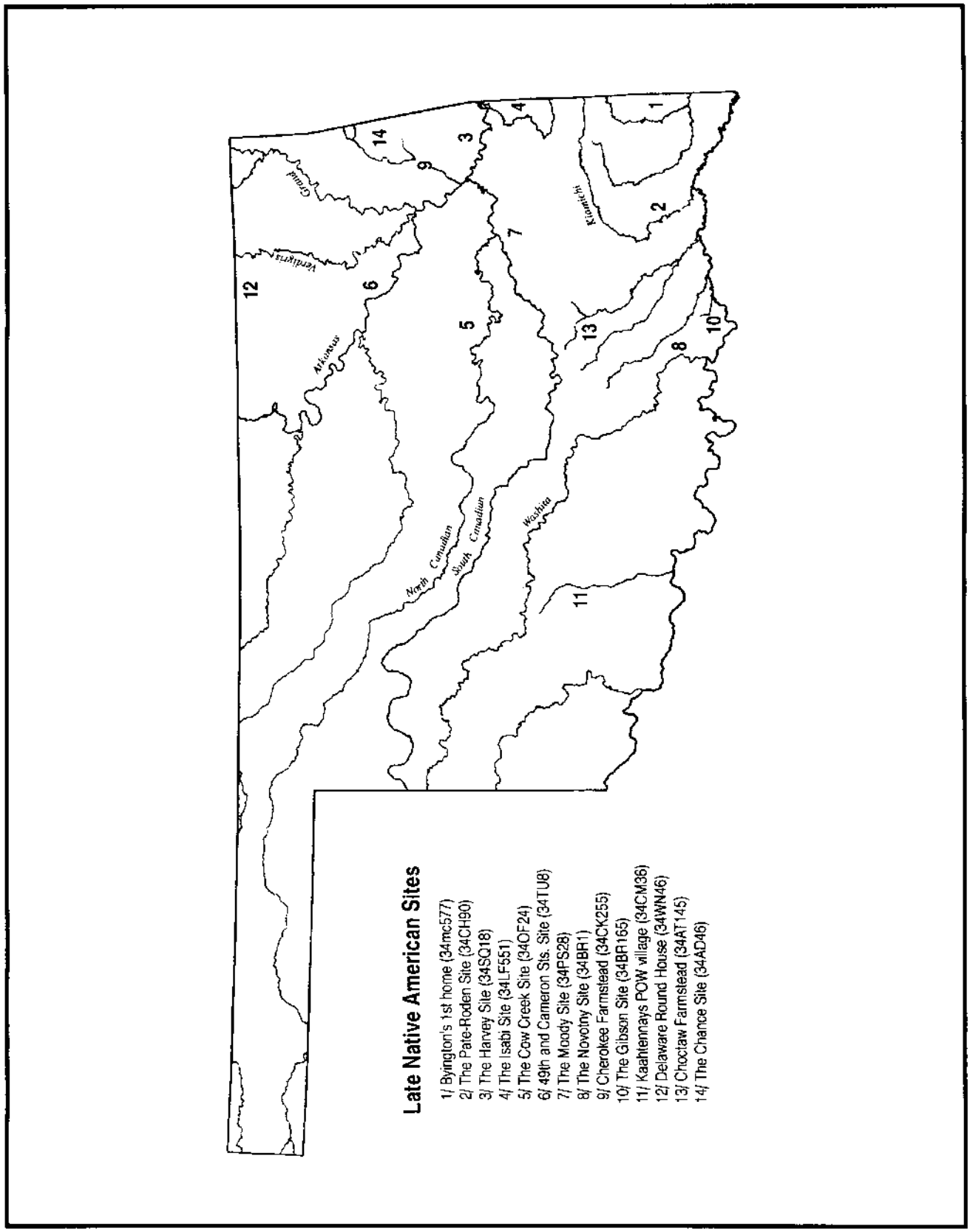

Figure 5. Location of selected Late Native American sites.

The impact of these circumstances on the archaeological resources is considerable. Subsistence patterns changed to match the quality and topography of the new land. Herding became more important, especially among the Choctaw and Chickasaw.

Because Native Americans were not the exclusive residents of Indian Territory, identifying the cultural affiliation of individual undocumented sites has proved a significant challenge. As noted by Rohrbaugh et al. (1971:136), many rural Choctaws were virtually identical to their Euro-American counterparts in subsistence-related traits. In addition, differences in racial background, language and, to a lesser extent, costume are difficult, if not impossible, to detect archaeologically. Problems of distinguishing early 19th century Choctaw sites from Euro-American sites and the sites of highly acculturated Choctaws from less acculturated Choctaws are long-standing ones (see Lees 1975:103-104). The presence of native-made ceramics remains the most reliable key to determining whether or not a site's occupants were associated with one of the Five Tribes. Although specifically referencing the Choctaw, Neal et al. (1991:50) summarized the importance of ceramics to the study of Five Tribes archaeology in Oklahoma:

> The primary material remains that distinguish Choctaw from the earlier and later occupants of the area are the native made ceramics in combination with Euro-American products. It is through the native made pottery that a continuity is maintained between the Mississippi homeland and Oklahoma.

The importance of traditional ceramics is indicated by the relative abundance of specialized studies focusing on this artifact class.

Tribal affiliation has been most commonly identified through a spectrum of artifacts of both Euro-American and Native American origin. Dating is provided by Euro-American materials, while the identifications are provided by Native American materials. Another common method of assigning tribal affiliation is by site location, that is, the tribal boundaries within which the site is located. In this review, sites are discussed under the tribal affiliation assigned the authors of the various site reports.

The Choctaw

Archaeologically, the two best known of the Five Tribes are the Choctaws and Creeks, largely because of their location in eastern Oklahoma where extensive archaeological research has been accomplished in conjunction with reservoir construction. The Choctaw homeland is north central Mississippi and small areas of adjacent Tennessee and Alabama, some of the richest farmland in the United States. The removal of the Choctaws, indeed of all of the Five Tribes, was first articulated as a policy by Secretary of War, John C. Calhoun, in 1818. He believed that, in order to prevent their own extinction, Indians would voluntarily move west of the Mississippi once tribal members had become educated and aware that such a move was the only way to preserve their culture in the face of Euro-American encroachment (DeRosier 1970:41-44). Calhoun thought that land should be set aside to relieve these peoples with a treaty that guaranteed that no more demands would be made once they were in the new land.

As the 1820s approached, political pressure increased across the south to relocate the remaining Native Americans west of the Mississippi. One of the most outspoken advocates of such a plan was Andrew Jackson, a veteran of the Creek Wars. In 1820 Calhoun grudgingly appointed the popular Jackson as a commissioner to negotiate with the Choctaw. Calhoun hoped to retain some control over the proceedings by controlling the funds. On October 18, 1820, the Treaty of Doaks Stand was signed. In this treaty the Choctaws ceded to the United States over 5 million acres in Mississippi in exchange for 13 million acres in Indian Territory (DeRosier 1970:53-57, 67).

In 1825, five years after the signing of the Treaty of Doaks Stand, another treaty was negotiated between the United States and the Choctaw. For a relatively small concession of land in southwestern Alabama and a small disputed area of Arkansas, the Choctaw obtained concessions regarding payment of annuities, the forgiving of debts owed by the Choctaw, and compensation for Choctaw veterans of the War of 1812 (DeRosier 1970:82). Although the Treaty of 1825 was regarded as advantageous to the Choctaw, the year also marked the death of the great Choctaw leader, Pushmataha, and the resignation of John

C. Calhoun as Secretary of War. Calhoun's policies persisted under the leadership of James Barbour as Secretary of War and Thomas L. McKennney as the head of the new Bureau of Indian Affairs, until the election of Andrew Jackson in 1828.

In July of 1829, word of a new Indian policy began to come from the War Department, and in December of the same year a new policy was presented to Congress. The policy was, in short, that Indians would move west of the Mississippi or be subject to the laws of the various states (DeRosier 1970:104). Before the election of Andrew Jackson and their forced removal, it is estimated that fewer than fifty Choctaws voluntarily moved west (DeRosier 1970:98). By the spring of 1830, the Choctaw leadership, in an effort to obtain either a better personal settlement or operating in the belief that a proposal originating from the Choctaw themselves would work to the advantage of the tribe, presented a treaty proposal to President Jackson. The proposal was so advantageous to the Choctaw that it was immediately rejected by President Jackson, who then proposed a September meeting to draft a new treaty. On September 18, 1830, the negotiations opened and by September 27 the Choctaw had been forced to sign a treaty submitting to removal and ceding all tribal lands east of the Mississippi River. The federal government, for its part, promised protection for the Choctaw in their new territory, provided goods and services, awarded leaders with special gifts, and provided lands for those who remained i Mississippi (DeRosier 1970:114-126).

Settlement Pattern Studies

Choctaw and Chickasaw site distribution has been discussed by Hackenberger (1975) and Lees (1975), who include historical and archaeological material in their respective papers on location analysis and historic Indian settlement. Hackenberger's (1975:153-154) essay notes that significant variables in prehistoric settlement patterns are less significant in historic populations and that shifts in historic settlement patterns can often be related to advances in technology. Lees' (1975:103-104) contribution presents the territorial and political history of both the Choctaw and the Chickasaw and concludes that it would be difficult for the archaeologist to discern the slightly from the highly acculturated population.

Recent research has yielded specific data on Choctaw settlement patterns. An analysis of sites recorded as part of a 1990 survey (Neal et al. 1991) defines a pattern of Choctaw site location. Choctaw sites with structural remains were located within 40 meters of surface water -- either springs, clear feeder creeks, or a similar water source. This pattern is in contrast to Euro-American settlement, which tended to be on higher ground and required wells or considerable travel to water. Cyrus Byington's homes exemplify this pattern. Byington's first home (34MC577), established and built by the Choctaw in 1836, was situated near a spring and pond, while his second home (34MC578), built in 1847 at a location he selected, was built on a ridge.

The argument that this settlement pattern is more reflective of economic conditions than ethnic affiliation does not appear valid. Calvin C. Howell (Euro-American) located his farm (34MC579) in the uplands, while George Hudson, a well-known Choctaw, located his farmstead near a spring on a high terrace overlooking the Mountain Fork River (Neal et al. 1991).

Ceramic Studies

Choctaw serving vessels are relatively small with finely polished and decorated finishes, while utility vessels are larger, unpolished and largely undecorated. The black smaller polished bowls have been the focus of most Choctaw ceramic research. Their distinctive finish and comb- incised decoration makes it unlikely that they will be mistaken for local Caddo material However, the larger shell-tempered Choctaw utility vessels may have been mistaken for local Caddo utility wares (Figure 6).

Schmitt and Bell (1954) reviewed the ceramics of the Five Tribes based on specimens contained in the collection of the Oklahoma Historical Society. Originally intended to be an extensive treatment including ethnographic and historic research, work on the project was cut short by Schmitt's death. With little else available in print, the completed detailed technical observations were published to facilitate future comparisons. Penman's (1983:285-294) treatment of Oklahoma and Mississippi Choctaw ceramics defines a series of varieties of Chickachae Combed, based on design elements. The var. Clarke is applied to materials with curvilinear designs, and var.

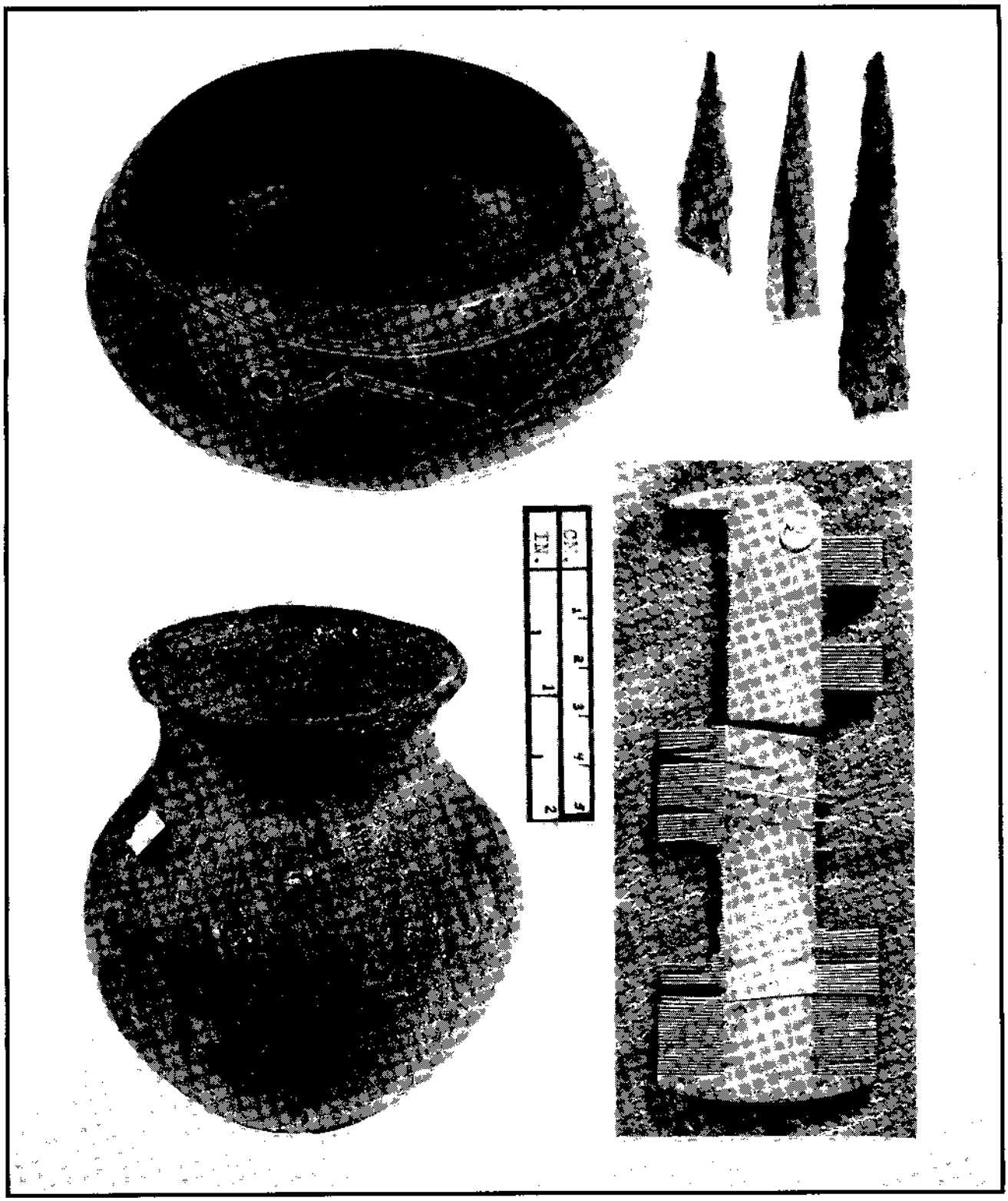

Figure 6. Examples of Native American Artifacts . **A)** (private collection) - Choctaw decorated bowl; **B)** (Oklahoma Historical Society) - Cooking vessel attributed to the Choctaw; **C)** through **E)** (34PS212) - Conical metal arrowheads (d = brass); **F)** (34MS86) - Comb with European and Cherokee letters scratched on the center shaft.

Chickachae is applied to materials with angular designs. Incised Choctaw ceramics, which in all other respects resemble Chickachae Combed , have been termed var. Jasper (Penman 1983:286).

Utilizing the Oklahoma Historical Society collections, Gettys (1990) has also addressed Choctaw pottery, stressing dating and design. Contrary to a tendency to assign pre-Civil War dates to Choctaw pottery, interviews in the 1930s clearly show that making and using traditional pottery continued well into the last quarter of the 19th century, and possibly into the early twentieth century (Gettys 1990:418). Included in the study are four complete, previously unreported vessels from private collections. All four are small decorated bowls similar in shape and design to examples at the Oklahoma Historical Society. All the historic vessels from both private and Oklahoma Historical Society collections are var. Clarke (Penman 1983:286, 292 ; Gettys 1991).

Choctaw Archaeology

Much Choctaw archaeology has been directed at confirming the ethnic origins of a particular site. More recent studies have gone beyond this and have illustrated that , when approached with a creative research design, even small excavations can yield significant results. At the Isabi site, discovered during the construction of a wastewater treatment plant, only four days could be devoted to the excavation of a large shallow trash pit exposed during construction. Brooks' (1992) analysis of the material from this pit provided fresh insights into the adaptations made by the Choctaw after removal. The analysis also compared Isabi site material with Creek and Chickasaw materials and discussed the manner in which geographical location and the degree of acculturation interact to produce the specific patterns of material culture found at each site.

Relying on traditional ceramics as the primary ethnic Choctaw diagnostic and a general pattern of early historic Euro-American ceramics as an alternate means, Neal (1992:62) assigned 16 of 33 early historic sites discovered in southeastern Oklahoma to the Choctaw. Of the 16 Choctaw sites recorded, 9 are the remains of farmsteads (Neal 1992:62). The remaining 7 sites produced diagnostic Choctaw materials, but failed to yield any indications of structures. Artifacts recovered from these sites are typical of the pre-Civil War ceramics recovered from sites in all of eastern Oklahoma. Blue and green shell edge ware, mocha ware (Figure 7), transfer wares in a variety of colors, and hand painted wares were all recovered.

The Pate-Roden site presented a wider spectrum of artifacts than are generally encountered at Choctaw sites. Euro-American ceramics included shell edge ware, Mocha ware (or banded wares), hand painted ware (in both polychrome or monochrome, but usually in floral patterns), printed transfer wares , kaolin pipes, and elbow pipes. Included in the ceramic collection are three Davenport maker's marks with dates of 1836, 1848 and 1848. Traditional pottery was similar to that described by Schmitt and Bell (1954) and Penman (1983:292-294). Other typical artifacts include cast white metal buttons, bone buttons, gun parts, horse trappings, and wagon material (Rohrbaugh et al. 1971:109-118, 122-127) (Figure 8). With the exception of later two cartridge cases, the artifacts from this site fall into the time range 1836 to 1850.

During the excavation of the prehistoric E. Johnson site, two mid-19th century burials were discovered. The grave goods, typical of the early 19th century, included a shell edge plate (Davenport), hand-painted bowls, and a hand-painted cup. These specimens and those from the Wealthy Indian site, a Creek burial, represent a large portion of the known complete specimens of these early Euro-American wares recorded in Oklahoma (Wyckoff 1967; Wilson 1968).

The historic component of the Harvey site is a typical Choctaw manifestation, with the usual shell edged, Mocha, hand-painted and transfer ware ceramics found in association with Native-made ceramics. Relatively little space in the report is devoted to the analysis of the historic component at the site; rather, emphasis is placed on the prehistoric component under the Choctaw occupation. The lack of analysis is unfortunate, because the single Alfred Meakin ceramic mark is relatively late (ca. 1881) (Burton 1971:71), indicating that material from this site might be useful in the study of change during the middle and late 1880s.

Although few artifacts were recovered from the Choctaw component at the Tucker's Knob Site, the total assemblage, including traditional pot-

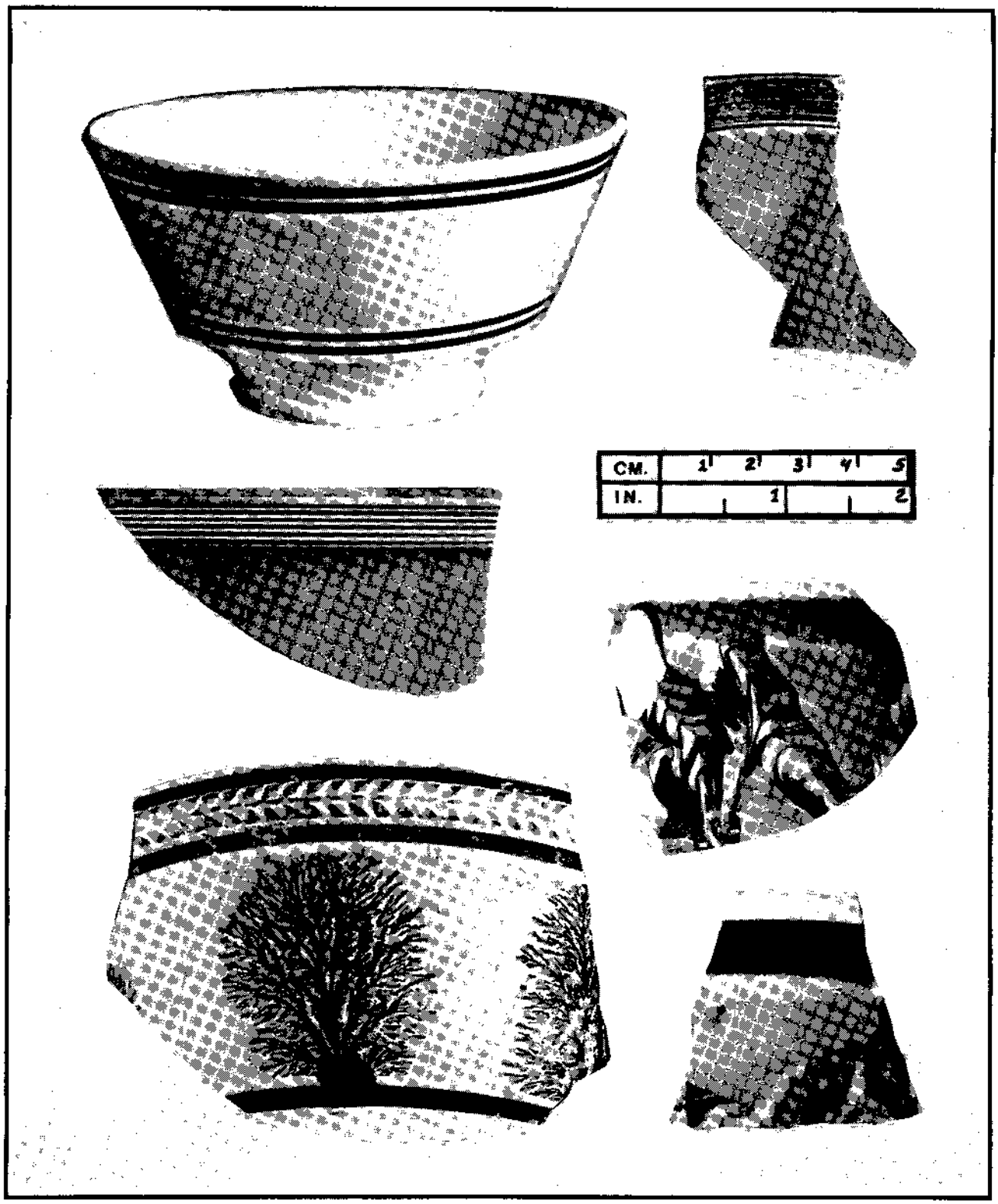

Figure 7. Examples of Mocha or Banded Ware. **A)** (private coll.) - Complete bowl, 6.5 cm in diameter; **B)** and **C)** (34WG16) - Bowl fragments with tooled rims; **D)** (34WG16) - Sherd with marbleized paint patterns; **E)** (34MS86) - Bowl fragment with Mocha dendritic design and tooled rim; **F)** (34Wg16) - Sherd with marbleized paint pattern.

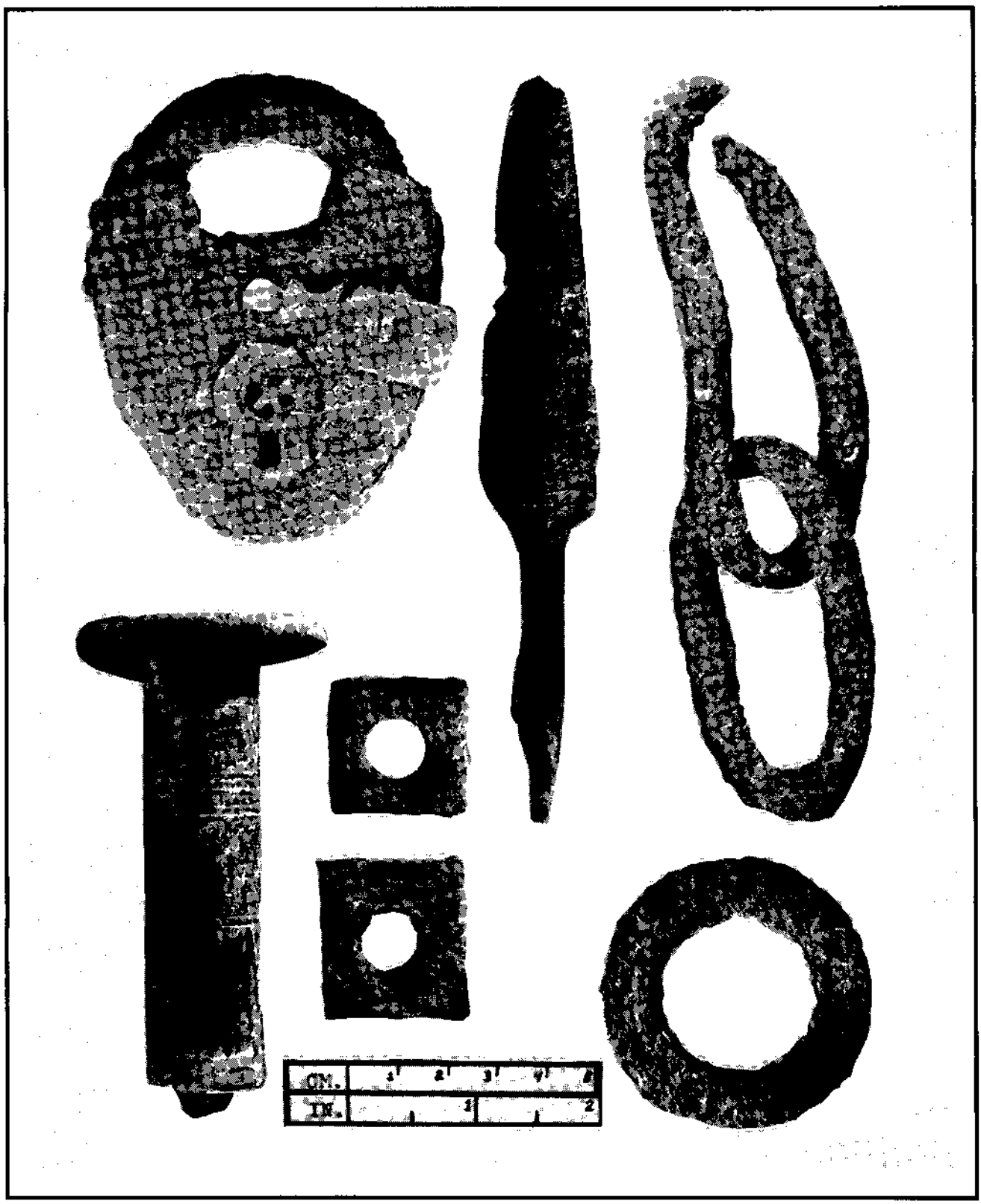

Figure 8. Miscellaneous Hardware. **A)** (34PS212) -British-made padlock; **B)** (34MS86) - Bung drill; **C)** (34PS212) Hand forged chain; **D)** (34MS86) - "Push Up" candlestick; **E)** and **F)** (34PS212)- Hand forged nuts; **G)** (34PS212) - Hand forged washer.

tery, reflects the range of material typical of the first quarter of the 19th century. Three gunflints, a mocha ware sherd, a hand-painted polychrome sherd, and a two-tined fork comprise most of the small assemblage (Hofman 1974:237-242).

The only Choctaw ceramic material at the Sallee G. site consisted of a few sherds of undecorated utility ware (Bobalik 1978:94). Although not as easily distinguished from Caddo ceramics as sherds of Choctaw fine line engraved wares, the occurrences of these utility wares with Euro-American goods dating to the first part of the 19th century allows the historic component of this site to be assigned a Choctaw origin. Unfortunately, the historic component of this site, as at Tucker's Knob and others reviewed here, were excavated only incidentally to a prehistoric occupation and the material recovered adds little to either the known types of material recovered from the Choctaw site or the distribution of material on such sites.

Several historic sites have been reported in a survey of the route for U.S. Highway 69. Of five sites with historic material from this project, only one (34AT145) was assigned a Choctaw origin (Lopez and Keith 1976:106-108). Three of the remaining four sites are from the mid-19th century, a period when the area in which the sites were located was occupied predominantly by the Choctaw. The fifth site is discussed elsewhere, as it is Euro-American.

Numerous small historic sites reported from the Choctaw Nation can, with some confidence, be assigned to the mid-19th century and are probably Choctaw. Because they lack the full spectrum of artifacts found at the more productive and better understood sites such as Pate-Rodan, they must be assigned to the general category of "early historic sites." Included in this class would be 34CH128 (Lopez and Keith 1976:2-3), 34AT172/6 (Wallis 1976a:15), 34MC145 (Gettys 1975:74), 34AT164, 34AT165 (Wallis 1976b), 34LF217 (Lopez 1973:5), and 34PU116 (Vehik 1982:195). These sites lack diagnostic Choctaw ceramics and have few of the typical Euro-American ceramic wares. Other sites, such as 34LF345, produced very little artifactual material, yet may tentatively be assigned an ethnic origin (in this case Choctaw) based on information provided by local informants or landowners (Albert 1987:102).

The only special function site assigned to the Choctaw is a school house. The few datable artifacts found there indicate a late 19th century date. The landowner testified that the structure was still standing in 1874 when his relatives homesteaded the area. However, the only remains present today are small pieces of rock (that may be a portion of a foundation) and a hand-dug well (Lopez 1973:4). No direct evidence supporting the functional assignment of the school was found.

The Creeks

The traditional Creek homeland is west-central Georgia and east-central Alabama, including portions of the Savannah, Ogeechee, Oconee, Ocmulgee, Apalachicola, Chattahoochee and Alabaman River systems. An alliance of the Muskogee peoples in this area appears to have formed prior to A.D. 1540. Through the absorption of conquered peoples and other refugees it grew until the 18th century, when growth was halted by the Euro-Americans (Green 1982:13-14).

Existing factionalism between the Upper Towns (generally full-blood/ traditionalists) and the Lower Towns (generally mixed-blood /progressives) was promoted by the British and other European powers as a way of controlling the region (Wright 1986:106-107). In 1812 this factionalism erupted as the Creek Civil War or Red Stick War. The Redstick War ended in 1814 with the Battle of Horseshoe Bend, where an army organized by Andrew Jackson and supported by the Lower Creeks defeated the fortified Red Stick army, killing some 500. As a result of this defeat and the subsequent Treaty of Fort Jackson signed in August of 1814, 22 million acres in Southern Alabama and Georgia were ceded to the federal government. Later, under the influence of President Jackson's 1830 Indian Removal Bill, other major concessions were made. Finally in 1832, with the signing of the Treaty of Payne's Landing, the remaining Creek lands in Alabama were ceded to the United States (Wright 1986:243-244). With Georgia and Alabama laws against them and as the target of unscrupulous land dealers, tribal members electing a treaty option that allowed them to remain in the homeland soon found themselves forced to emigrate. A single attempt at armed resistance to these abuses provided the federal government with an excuse to imprison and forcibly remove the remaining Creeks to

Indian Territory (Baird and Hebhard 1991:67).

Like Choctaw sites, Creek sites have been investigated as part of the environmental work associated with the reservoirs in eastern Oklahoma.

Ceramic Studies

In Oklahoma traditional Creek pottery has been termed "McIntosh" and is subdivided into two varieties, "McIntosh Plain" and "McIntosh Roughened". These are identical to the historic Alabama Creek types "Okmulgee Fields Plain" and Chattahoochee Brushed " (Wallis 1984:126). Interviews conducted with informants during the early part of the 20th century revealed that traditional Creek pottery continued to be made until the turn of the century. This surprisingly recent manufacture is confirmed by the occurrence of these wares at the Northern Area of the Cow Creek Site (34OF24), which dates after 1890 (Wallis 1984:126-127). Although the argument can be made that these wares are heavily influenced by West African wares introduced to the Creeks by slaves in the Southeast, there can be no doubt that the manufacture of pottery among the Creeks is continuous from their eastern homeland to their territory in Oklahoma.

McIntosh Plain and McIntosh Roughened were defined from sherds collected in a survey of Eufaula Reservoir. Schmitt and Bell (1954:19-27) further described the varieties in their discussion of historic Native American ceramics in the collections of the Oklahoma Historical Society. With over twenty complete Creek vessels, Schmitt and Bell were able to address shape, size, layout of surface treatments, and other attributes not readily defined from sherd collections.

Quimby and Spoehr have described a vessel collected among the Oklahoma Creeks in 1892 and exhibited at the World Columbian Exposition in 1893. They note that Walnut Roughened, a well established Creek type from Georgia, has a finish "...markedly similar to that of the Creek pot described in this paper" (Quimby and Spoehr 1950:250). That this vessel is shaped differently from other Creek vessels is not surprising, given the relatively small number of complete vessels known and the distance both spatially and temporally between the Oklahoma Creeks and Hitchiti, or the proto-historic Georgian Creeks.

Two vessels in the Oklahoma Museum of Natural History collection described by Karl Schmitt (1950:7) are round in shape and have a general resemblance to several Creek vessels described by Schmitt and Bell (1954). Although strongly resembling vessel 8B at the Oklahoma Historical Society (Schmitt and Bell 1954:23), these two brush-finished vessels differ from those described by Schmitt and Bell in that they have a more constricted opening.

At the Cow Creek Site (34OF24) Wallis described 44 sherds representing 22 vessels. Unfortunately, most of the sherds are relatively small and vessel shape and size cannot be addressed. However, detailed information on surface treatment, surface color, core and temper is reported (Wallis 1984:122-127).

Creek Archaeology

Two sites discovered during an archaeological survey of Eufaula Reservoir relate to the historic Creeks. The Longtown Creek Reservoir site (34PS49) yielded material that helped define a typical Oklahoma Creek occupation. The diagnostic McIntosh Roughened and McIntosh Smoothed types were present at the site in relative abundance. Other artifacts recovered included projectile points, ground stone, and two English gunflints. No features were discovered and the presence of Williams Plain and Woodward Plain ceramics, as well as a wide variety of chipped and ground stone artifacts, indicate a prehistoric Caddoan component at the site (Proctor 1953:48).

The Moody site (34PS28) consisted of two burials unearthed by the landowner, W. O. Moody, in January, 1951. The burials were interpreted as Creek males, one between the ages of 26 and 28 years and the other between 17 and 19 years. Recovered material included Creek pottery (McIntosh Roughened), hand-painted Euro-American ceramics, shell edged ceramics, an early wine bottle, and other Euro-American goods (Bareis 1952, 409-411). The site appears, on the basis of the technology reflected in the bottle, to date to the period 1850-1890. Subsequent excavations revealed two additional burials, both assigned a Creek origin, again based on sherds of McIntosh ceramics found in the graves. Associated Euro-American artifacts included a metal axe head, glass beads, a tin pail, and a brass thimble (Proctor 1953:50).

Although investigations were limited to controlled surface collecting and minor testing, the Cow Creek Site is one of the best documented historic Creek occupations in Oklahoma (Wallis 1984). Two areas at the site represent two separate occupations. The north area is the earlier (middle 19th century), while the south area is more recent (1900 - 1930). In the north area concentrations of surface material led to screening the plow zone to establish the presence of features. Several pits and a post hole were discovered.

Artifacts from the site include the entire range typical of small farmsteads. The late 19th century ceramics from Cow Creek display a variety of decorative techniques, including sponge printing (Figure 9) and hand painting in polychrome or monochrome. Although ceramics from the period 1820-1850 have been described at several sites, few assemblages from the late 19th century in Oklahoma have been described as well as the ceramics of the Cow Creek Site.

Several Creek sites have been recorded in Wagoner and Muskogee counties in conjunction with road construction projects. All of these sites have been attributed to the Creeks on the presence of McIntosh Roughened pottery , and most are dated to the early and middle 19th century by a general pattern of Euro-American ceramic types from this period. Sites 34MS119, 34WG96, 34MS121, and 34WG97 (Lopez and Keith 1979: 89 -90, 92,93, 98-100) all contained, in addition to Creek pottery, shell edge ware, hand painted and transfer wares (Figure 10), and/or sponge-decorated wares. Site 34MS22, dated by a 1853 ceramic mark, may represent a more up-scale economic status, indicated by the presence of flow blue sherds, as well as a larger variety and abundance other ceramics (Lopez and Keith 1979: plates 25,17). Numerous other sites recorded in Muskogee and Wagoner counties may also be Creek settlements, but they lack diagnostic McIntosh pottery. One site tentatively identified as Creek contained the remains of a log cabin known to have burned in 1945 (Lopez and Keith 1979:82). Other sites that contained typical 19th century material and are likely to be Creek households include 34MS112, 34MS116 34WG28, and 34WG95 (Lopez and Keith 1979: 85, 88, and 95).

Contemporary urbanization and reservoir development within the Creek Nation has led to the discovery of numerous Creek burials. Three of the four burials reported from Eufaula Reservoir are related to the Creeks, and were first exposed by natural forces. Translucent faceted blue beads and red globular forms, other jewelry, and traditional pottery were the dominant artifact classes associated with the female burials. Military -style pewter buttons, an elbow pipe and a planters hoe were associated with male burials (Barnes 1992:113-117).

One of two burials at the Wealthy Indian site was interred with 14 complete ceramic vessels (Wilson 1968:78-80; plate 1-1), the best single-site mid-19th century ceramic collections recovered in Oklahoma. The collection included three shell edge ware plates, four Mocha or banded ware (Figure 11), bowls (called cups by Wilson), two hand-painted cups, two hand-painted saucers, one transfer ware bowl, one hand painted tureen, and one plain wash basin. Two "Clews" and a "Davenport" maker's mark, as well as a "Henderson, Walton and Co." importer's mark, provide the basis for relatively accurate dating of the vessels from 1830 to 1840. The second burial contained numerous items roughly datable to the same period as the first; however, none could be directly dated by maker's marks as with the ceramics from burial one (Wilson 1968:82).

A cemetery (34TU8) exposed during the Keystone Expressway construction near Tulsa was excavated in February, 1971, by Gregory Perino and Frank Soday. The cemetery contained a total of 21 burials which, according Perino and Soday (1977), date the site to the "early historic period," apparently referring to the first half of the 19th century. A comparison with material from other dated Oklahoma sites supports this estimate, possibly restricting the range to pre-1840. The hand- painted vessels (in particular the saucer, plates and bowl) from the burials are similar to material found at the Wealthy Indian Site in shape and decoration.

Site 34CR69 is a small Creek cemetery that, when recorded, retained one of the structures built over the grave (McCormick 1977:14 -16). Site 34OF23, an historic cemetery with death dates of 1900 or before, has Creek language texts on the gravestones. The remains of a structure similar to that found at 34CR69 were also noted at 34OF23 (Wallis 1979:18-23).

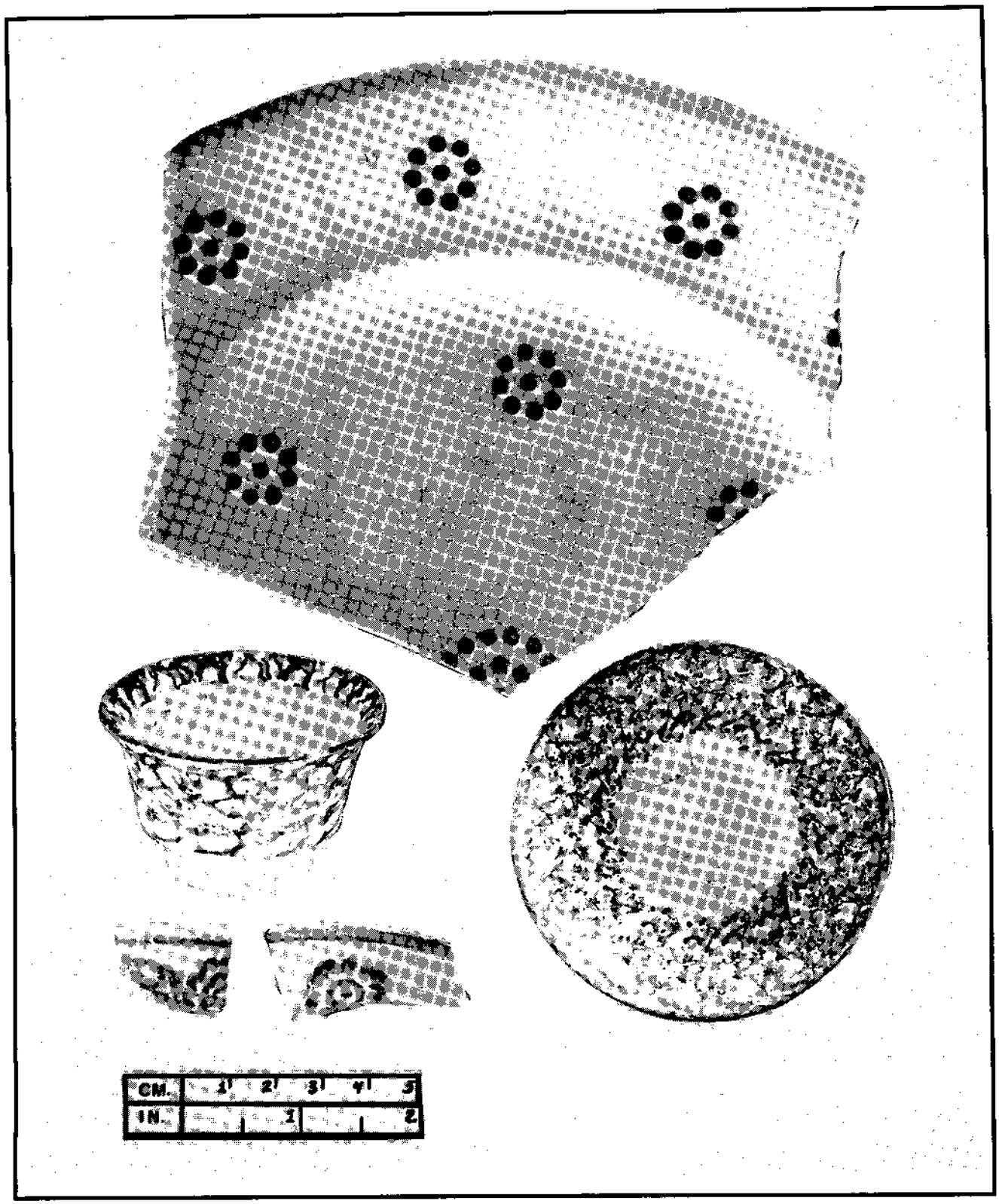

Figure 9. Examples of Tool printed and "Sponge" Printed Wares (all from site 34MS86). **A)** - Tool stamped decorated plate; **B)** and **C)** - Sponge printed cup and saucer set. Note the difference in the sponge texture between the cup and saucer; **D)** and **E)** - Sponge decoration with hand painted rim.

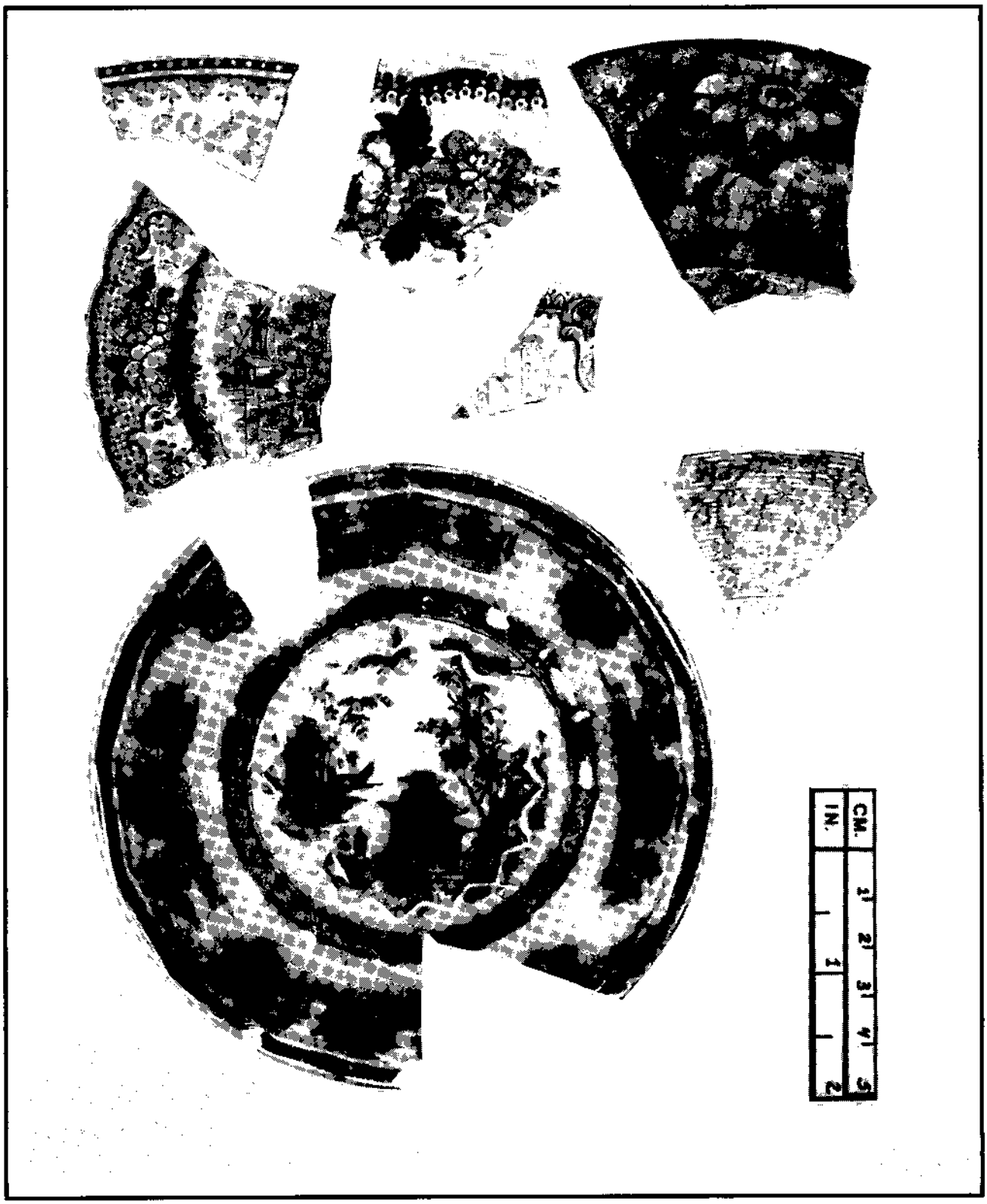

Figure 10. Examples of Transfer Wares. **A), B), C), E), and F)** (34MS86) - Plate fragments; **D)** (34WG16) - Plate fragment; **G)** (34PS212) - Unused flow blue "Blue Willow" pattern saucer, apparently broken in shipment.

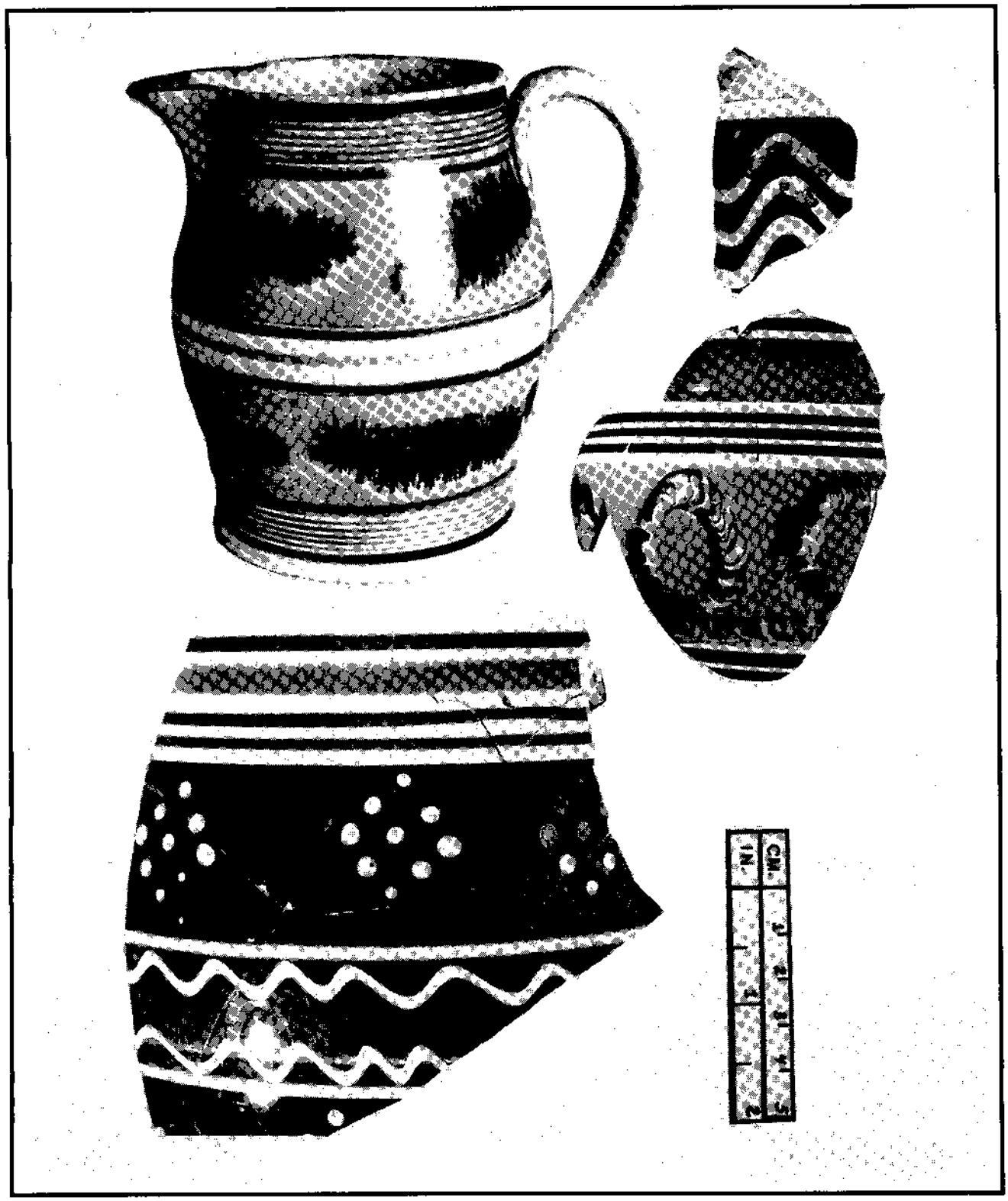

Figure 11. Examples of Mocha or Banded Wares. **A)** (Private coll.) - complete pitcher, 6 " tall with tooled rim and base; **B)** (34LT35) - Sherd with parallel wavy lines; **C)** (34WG16) - Pitcher fragment with dabbed paint in a "worm track" or rope pattern; **D)** (34WG16) - Large pitcher fragment with wavy lines and dot design. Note that both C and D have the same vessel shape as A.

Five Tribes sites are most commonly identified by ceramics. This technique, however, is not without pitfalls. Gettys (1980) describes material from a trash pit located on Gaines Creek, a southward jutting arm of Lake Eufaula. It is located within the Choctaw Nation, and without aboriginal ceramics, the site would have been attributed to the Choctaw. However, the aboriginal ceramics recovered were McIntosh types associated with the Creeks (Gettys 1980:284-285). Historical documents indicate that the area was settled by Chickasaws who were married to Creeks. Thus the presence of Creek ceramics in this portion of the Choctaw Nation reflects settlement by the Chickasaws (Gettys 1980:317).

The Chickasaws

North of the Choctaw homeland, the Chickasaw homeland was bounded by the Mississippi River on the west, the Ohio River on the north, the Tennessee River on the east, and a tributary of the Tombigbee River, Okitibbeha Creek, on the east. It covered roughly the northern quarter of Mississippi and adjacent areas in Alabama, Tennessee, and extreme southwestern Kentucky (Gibson 1971:5). Never a large tribe when compared to the more populous Choctaw, the Chickasaw enjoyed a reputation as warriors and hunters. The Chickasaw tribal government was dominated by mixed bloods who took advantage of traditional communal land use to establish large farms and plantations. They were an important factor in related agriculture business such as cotton gins, shipping and grain mills (Gibson 1971:129-130).

In the same period traditional full-bloods were forced to change their life style to accommodate the loss of game and territory. Dissatisfied with the prospect of increased subsistence farming, some Chickasaws moved across the Mississippi, where game was more abundant but where hunting rights were defended by the Osage (Gibson 1971:127-129). Dealing their own furs and those acquired from other tribes, Chickasaws soon dominated trans-Mississippi trade.

Pressure on the Chickasaws from Alabama and Mississippi state laws eventually precipitated the 1832 Treaty of Pontotoc Creek, in which the Chickasaw ceded all lands east of the Mississippi in return for suitable lands in the west. Tribal members were to occupy temporary allotments until lands acceptable to the tribe were found. The treaty stipulations provided for advance approval of the lands to be occupied by the Chickasaw and mandated allotments in the east until approval was granted. This provided the Chickasaw with an excellent negotiation tool. When the Treaty of Doaksvile was signed in 1837, the terms were considered far better than most of the other terms for the five tribes (Gibson 1971:160-162). The treaty of Doaksville established the Chickasaw District (later the Chickasaw Nation) of the Choctaw Nation, guaranteed citizenship rights to new Chickasaw arrivals, and provided for a $530,000.00 payment to the Choctaw (Baird et al. 1989:51; Gibson 1971:162). The forced removal of the Chickasaws began immediately and, although most Chickasaws were in the western territory within two years, a small but steady trickle of immigrants continued until 1850 (Gibson 1971:167-168, 170-172).

Ceramic Studies

Kassel's (1949) ceramic study was based on the material from four Chickasaw sites: Novotny (34BR1), Vaden (34BR2), White (34BR3), and Opel (34BR4). She defined five types or varieties of pottery: Rock Creek Brushed, Rock Creek Plain, White, White Plain and Vaden Plain. All are similar to other historic wares of the Five Tribes, i.e., they are predominantly clay tempered and light grey (sometimes shading to brown) in color. Kassel compared the ceramics of the Chickasaw sites to indigenous ceramics and noted that Chickasaw ceramics are more similar to those of the other Five Tribes than to the local prehistoric Caddoan ceramics. She noted, however, that there may have been some Choctaw/Chickasaw intermarriages which influenced the ceramics. The most notable aspect of Chickasaw ceramics is the presence of vessel forms copied from Euro-American forms, including ring-footed bowls and handled cups.

Don Carlos and Bell (1980) reexamined this material and determined that included in the collection and not noted by Kassel were a small number of painted sherds. Based on these sherds, a new type, Rock Creek Painted, was defined. The painting on this form is poorly executed, even on the single obvious Euro-American-inspired vessel. The authors speculated that perhaps the poor quality of the paint reflects the maker's attitude that these were only "replacement" vessels for broken Euro-American items.

Looking at the entire range of artifacts from the Novotny site, Brooks (1992) noted that the Chickasaw made more extensive use of native-made ceramics than the other Five Tribes did. Brooks attributed this more to necessity than desire. In addition to simple replacement of broken items, there would have been a difficulty in obtaining Euro-American goods in the Chickasaw territory.

Chickasaw Archaeology

In addition to the sites reported by Kassel (1949), four sites in the Kemp Bottoms area of Bryan County may relate to the Chickasaw. However, only one (34BR165) produced ceramics even tentatively identified as Chickasaw. This single sherd was illustrated but not described (Albert 1984:63, Figure 25). Very little material was recovered from these four sites and most of the material reported seems to be from the later portion of the 19th century, including a 1880 penny from 34BR170, a late style overall button from 34BR166, and ironstone ceramic fragments from 34BR165, 34BR166, 34BR169 and 34BR170 (Albert 1984:58, 96-100).

Cherokee

Like the other southeastern tribes, the Cherokee, in their extreme eastern Tennessee, western North and South Carolina and far northeastern Georgia homeland, were greatly impacted by the election of Andrew Jackson and the passage of the Indian Removal Bill. The year 1828 also marked the election of John Ross as Chief of the Cherokees. Well educated and with a command of the White man's legal system, Ross, with special powers granted by the tribal council, was able to delay removal for years after other tribes had ceded their land, not agreeing to removal until the early 1830s (Woodward 1963:161-162).

Despite Ross's best efforts, in December of 1835 a party of Cherokee leaders, in defiance of Cherokee law, signed the Treaty of New Echota. Ceding all of the Cherokee lands east of the Mississippi and agreeing to removal, this treaty was approved by the U.S. Senate by only one vote. Though considered illegal by most Cherokee, the treaty provided the basis for the 1836-37 removal (Woodward 1963:190-192).

Only a few sites have been ascribed a Cherokee origin. Although only shovel tested, site 34CK255 produced a variety of early 19th century Euro-American ceramics and fragments of shell-tempered Native American pottery. The site has been attributed to the Cherokee in part because the pottery was dissimilar to the locally produced traditional pottery. Attribution of the site to the Cherokee is further supported by the presence of pigs' teeth in one of the features. The distribution of the material in the post hole tests indicated that the site contained a midden, which was defined by an "ashy" stratum in two test pits. Features were noted by a test pit that attained unusual depth and contained unusual artifact concentration (Klinger and Cande 1986:76).

The Chance site (34AD46) in Adair County is one of the more fully excavated sites interpreted as the remains of a log structure. Badly disturbed prior to excavation, the site yielded information on two foundations. One of these, labeled Structure 1 was interpreted as a log cabin foundation. This conclusion is based on both documentary and physical evidence. There were no indications that the structure had been burned, and indeed it may have salvaged (Yates 1979:39). In addition, had the building been of masonry construction and salvaged, more mortar waste would have been encountered. The structure might have been frame construction but, if so, more nails would have been expected than were reported. Finally, documentary evidence indicated that the Cherokee and others in the area resided in log cabins in this region. (Figure 5)

The foundation pattern at 34WG112, which consisted of two separate rectangles of stone, has been interpreted as a dog-trot log cabin. Indicated on an 1896 map and containing an abundance of purple glass, the site has been dated to the very late 19th and early 20th centuries . In addition to the cabin foundation, the site also contained a second foundation and a well (Cheek and Cheek 1977:158; Hayes 1985:97). As with the Chance site, its location within the Cherokee Nation, the dog-trot pattern, and the pre-statehood date indicate that the site was occupied by a Cherokee family.

THE SMALLER REMOVED TRIBES

Delaware

In the 1600s, the Lenape, who occupied the area between New Jersey and Pennsylvania, became known as the "Delaware" after the river whose shores they had settled and thus after the third Lord de la War, for whom the river was named. By the late 1600s the Delaware were selling land to English settlers and, although they were unaware of it, their journey to Oklahoma had begun (Westlager 1972:31, 147-151). From the Delaware River and adjacent Susquehanna River drainage, the Delaware moved westward, different tribal units moving at different times to different destinations. Modern settlements of the Delaware reflect a trail beginning in the 1600s with movements to western Pennsylvania, eastern Ohio, central Indiana (ca. 1800), to southwest Missouri (ca. 1800), Arkansas and Texas (1807-1815), Kansas (ca 1830), and finally to Indian Territory in 1867 (Westlager 1972:333, 353, 371). Like other removed tribes, the Delawares' traditional culture was weakened by internal factionalism, loss of population, and interference and domination by non-Indians (Prewitt 1981:6-7).

A conservative faction of Delaware settled in and around Washington County, Oklahoma. Their remains were investigated from both an ethnographic and archaeological standpoint in advance of the construction of Copan Reservoir (Rohn and Smith 1972; Prewitt 1981). The Delaware Big House religion was a central focus of the traditional Delaware in Northern Washington County. The two Big House sites used by the Delaware from 1867 to 1924 were both recorded as part of the Copan Reservoir Survey. The first (34WN46) was used from 1867 until 1902, the second (34WN19) from 1902 until 1924 (Rohn and Smith 1972: 195).

Except for distinctive tribal structures such as the Big House, most of the sites recorded by archaeologists and assigned a particular tribal origin are attributed on the basis of site location within known removal territories. Such is the case with site 34WN57, a farmstead assigned a probable Delaware affiliation because of its location in the Copan Reservoir area (Rohn and Smith 1972:26).

Several cemeteries directly linked to the Delaware, were also recorded in the Copan Survey. These are easily assigned a tribal affiliation, but are of limited research potential. In some cases the graves are of well known individuals, such as that of Colonel Jackson, an early Head Chief of the Delaware; other cemeteries contain large numbers of individuals of lesser fame (Rohn and Smith 1972:17, 24).

Apache

On September 4, 1886, Geronimo, the most feared leader of the Apache, surrendered to U.S. Brigadier General Nelson A . Miles (Debo 1976:297). Shortly thereafter, he and almost 500 of his followers were sent to prison in Fort Pickens, Florida. In October, 1894, the 296 Apaches, who remained after subsequent imprisonment in Mount Vernon Barracks, Alabama, arrived at Fort Sill. The imprisonment of the Apaches lasted 26 years, and was ended only by an act of Congress passed on August 24, 1912 (Debo 1976:447). To accommodate the incoming Apache prisoners at Fort Sill, 27,000 acres were carved from the lands of the Kiowa and Comanche and added to the Fort Sill military reservation. The Apaches were settled in twelve villages of varying size, based on kinship or other social ties.

In 1991 an archaeological survey of Fort Sill located five of the Apache POW camps, as well as several other sites associated with the Apache prisoners. The five villages located are Kaahtennay's (34CM36), Loco's (34CM48), Chief Naiche's (34CM415), Chiricahau Tom's (34CM429), and Mangus' (34CM119) (Allday et al. 1992: VI-53-56, VI-66-69, VI-82-84, VI -99-104 and VI-107-110). In addition, the associated Dutch Reformed Mission (Allday et al. 1992: VI-53-56, and two homes (34CM401 and 34CM402) of George Wratten (Allday et al. 1992:VI-33-39), the interpreter that accompanied the Apache from their capture in Arizona, were recorded.

Identified primarily from historical documents, most of the sites associated with the imprisonment of the Apache have been badly disturbed. Only Loco's village is relatively undisturbed, with the potential to yield archaeological information. Destruction at the other sites ranges from road grading and related erosion at Kaahtennay's POW Village to the complete destruction from artillery on barb wire at Mangus' Village (Allday et al. 1992: VI-55, VI-110).

PRESENT PROBLEMS AND FUTURE DIRECTIONS

Although many Native American sites have been reported, few have been fully excavated. As part of the research for a National Register Nomination, Neal's excavations at 34MC485 and the subsequent analysis of the material and setting demonstrate that comparisons between Native American sites in Oklahoma and sites in the traditional homeland can yield significant results. The value of settlement pattern studies is clearly demonstrated by Neals's work on the Choctaw. Focused surveys may generate data and models for the area to which less structured surveys, such as those associated with Section 106 activities, may contribute. Also demonstrated by Neal is the value of comparing settlement patterns of Native Americans to those of Euro-Americans in the territorial period, as a way of assigning ethnic affiliation to sites.

Ethnohistoric research on Oklahoma tribes is badly needed, particularly for the period following the Civil War. Archaeology of Native American sites of this period is also badly needed. Because of the difficulty of identifying these sites solely from their remains this research must be integrated with ethnohistoric research.

There can be little doubt that, by the Civil War and its aftermath, many traditional crafts had suffered greatly or were lost altogether. However, Gettys (1990) has recently pushed forward the dates commonly associated with traditional Choctaw pottery, indicating that some aspects of traditional culture lasted longer than previously thought. This circumstance makes the identification of Native American sites in this period even more difficult. Considerable work is needed in establishing and verifying artifact patterns that distinguish late historic Native American sites from those of contemporaneous Euro-American sites.

As with the early Historic Tribes, cultural resources surveys and other activities affecting sites of the Late Historic Tribes should directly involve those tribes. Without a consolidated land base, most of these tribes have difficulty in managing historic resources that are widely spaced and subject to ownership changes. However, one group of tribes in Southwestern Oklahoma is working to overcome this problem. Coordinated through the Anadarko Agency of the Bureau of Indian Affairs, seven tribes in the region are attempting to document graves, cemeteries and other resources on lands that have passed from the control of tribal members. By working through tribal organizations, churches and community organizations, the survey hopes to discover and record sites of personal interest to tribal members (Watkins, personal communication, 1996). With significance defined by these tribal members, this resource base, when incorporated into State Historic Preservation Office programs, will bring into the SHPO programs perspectives and values that cannot be developed independently of Native Americas.

MILITARY AND BATTLEFIELD ARCHAEOLOGY

In addition to more recent military sites generally associated with the United States military, there are three sites which, although they have military ties, have been considered in the Chapter on Early Historic Indians. The Longest Site, associated with the Spanish, and the Lasley Vore and Deer Creek sites, both associated with French, are included with the discussion of the Wichita, the tribe that met the first Euro-Americans to visit Oklahoma.

The military occupations in Oklahoma range from camps of a few days to the ruins of large and substantial buildings. Only a portion of these occupations have been subjected to archaeological study, and fewer yet have been the subject of on-going research. Forts Towson (34CH114), Washita (34BR70), Gibson (34MS94), Sill and Supply (34WD80) have been subjected to multiple research efforts as part of the interpretative development or, as with Forts Sill and Supply, environmental regulations. Minor test excavations, surface collecting, and/or mapping have been conducted at Forts Arbuckle (34TU13), Holms (34HU44), Coffee (34LF67) and Cantonment (34BL44) (Figure 12).

Forts Gibson, Towson, and Washita, and select structures at Fort Supply, are properties of the Oklahoma Historical Society. All of these properties are listed on the National Register of Historic Places have been excavated in conjunction with site development. Forts Gibson and Towson were the first two forts established in Oklahoma. Fort Gibson was also occupied during the Civil War, during which time it was known to Union troops as Fort Blunt. Further to the west, Fort Washita was built as the need for an army presence moved in that direction. Fort Supply was the last of the four to be constructed and was established to supply the military during the Indian Wars of the late 19th century.

Two Civil War Battlefields, Honey Springs (34MI55) and Chusto-Talasah (34TU120), have been archaeologically investigated. Honey Springs, a site listed on the National Register of Historic Places, is owned by the Oklahoma Historical Society and archaeological investigations were a part of site development. The Chusto-Talasah (Caving Banks) battlefield, the site of the Second Civil War battle in Oklahoma, was recorded in a survey by Dickerson et al. (1991:172), but is today buried under the alluvium from Bird Creek and has been developed for housing.

Finally, conflicts involving Native Americans have occurred throughout Oklahoma. Conflicts between Native Americans and Euro-Americans have received the most attention by historians, although conflicts between Native American factions such as the "Crazy Snake Rebellion" among the Creeks played a significant role in both tribal and state history. Only one Native American battlefield has been examined archaeologically, the site of the Battle of the Washita (34RM13). Unfortunately, because historical resources are labeled by Euro-Americans, the very names of the engagements are tainted with "battle," if they refer to Euro-American victories, but "massacre," if they refer to Native American victories.

THE MILITARY AND THE REMOVAL OF THE FIVE TRIBES

The removal of Native Americans to the West during the 19th century was a principle factor in the decision to place troops and establish military forts in what is today Oklahoma. The tribes of the southeastern United States were among the first to be removed to Indian Territory. Forts Gibson and Towson (established 1824), (Old) Fort Arbuckle and Fort Coffee (1834), and Washita (1842) were all established in the territory of the Five Tribes as a direct result of Indian Removal. The control of liquor sales to the Indians, the protection of removed and newly settled tribes from raids by Prairie and Plains tribes, the supplying of goods and services promised in treaties, and general police activities were primary considerations for establishment of Indian Territory forts.

Fort Gibson

Named after General George Gibson, Fort

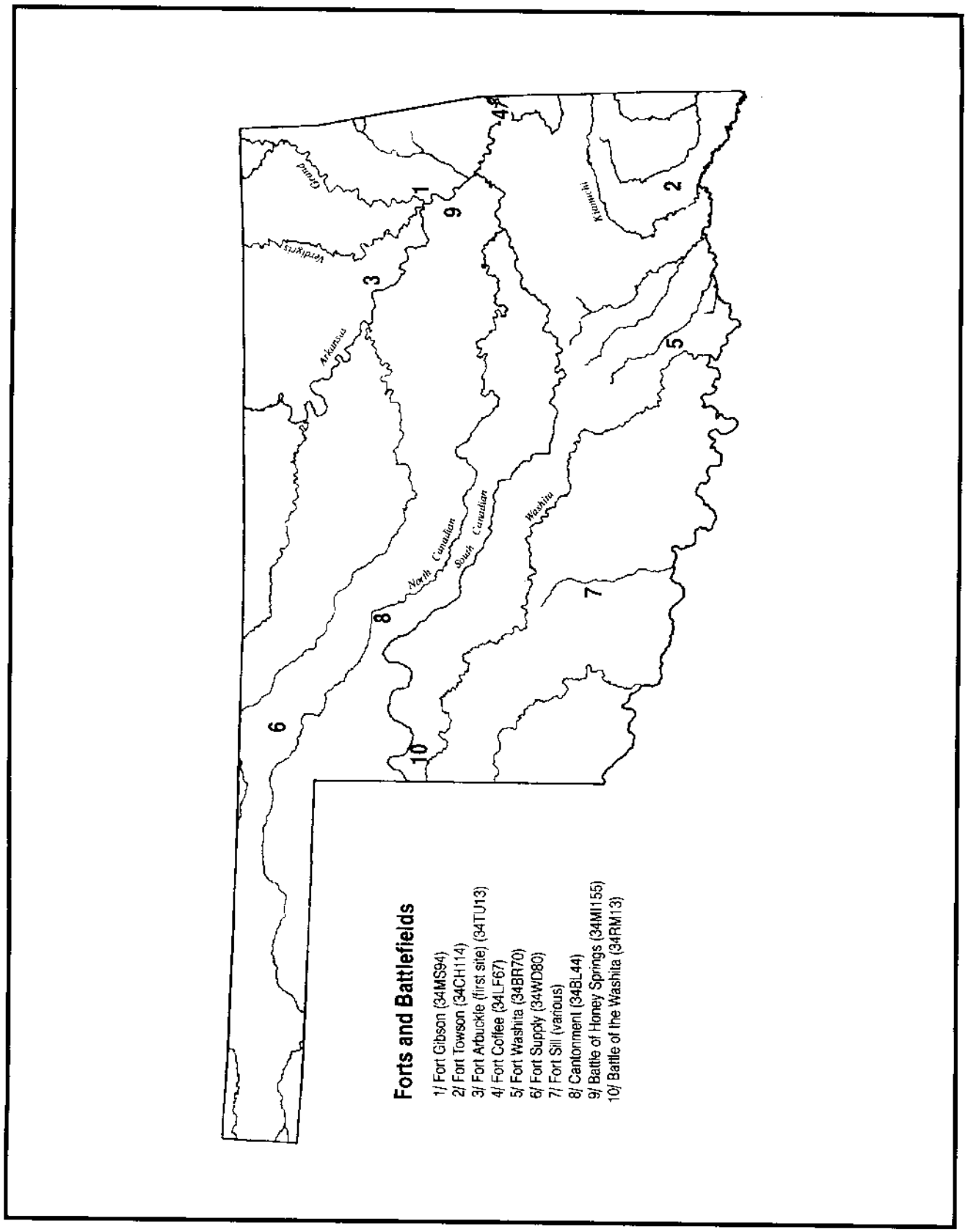

Figure 12. Location of Forts and Battlefield Sites.

Gibson was, by a month, the first fort established in what is today Oklahoma (Rohrs 1978:26). Fort Gibson was to provide a military presence in Indian Territory and to serve a variety of functions noted elsewhere. During the 1830s Fort Gibson was the distribution point for goods provided to arriving members of the Five Tribes (Rohrs 1978:29). It was occupied by both sides during the Civil War, and was named Fort Blunt by the Confederates.

Archaeological projects at Fort Gibson have focused on problems directly related to the interpretation and development of the site, as well as on projects related to the city of Fort Gibson. The relationship of the reconstructed stockade to the original fort is a problem that has attracted much attention. A study by Annetta Cheek et al. (1978) concluded that the well, presently located at one side of the reconstructed stockade, was in the center of the original stockade and that the original stockade extended into what is now a parking lot, road, and railroad bed. Appended to Cheek's 1978 study is a report by Wallis, which describes a large surface collection from the site.

Overlooking the stockade, the powder magazine has also attracted interest. The eastern magazine wall has a window that was sealed some time ago. Historic and archaeological research was directed at dating the sealing of the window and determining if the opening ever served another function, specifically as a coal loading chute. Research revealed that in-filling of the window pre-dated the work of the WPA and that no material, specifically window glass, was present under the opening that indicated any use other than as a ventilation opening (Gettys 1982).

Fort Gibson was well known for its poor health conditions; in 1834 and 1835 alone, 298 soldiers died at the post (Rohrs 1978:31). Acquisition of the post hospital by the Oklahoma Historical Society was preceded by an archaeological investigation of the area adjacent to the existing building. Even with historic plans for the entire structure, including the remaining central portion and the attached wings as a guide, no indications of the wings were located (Gettys 1982:2). The remains of a recent porch, probably from the 1930s or 1940s, was discovered, and it is postulated that construction of this porch and related landscaping destroyed any hospital wing remains.

Artifacts and features from Fort Blunt/Gibson that can be reasonably tied to the Civil War are relatively few, but include buttons and a cannonball (Cheek et al. 1978:129, 142) Briscoe and Burkhatter's (1991) testing prior to the excavation of a water line revealed a profile which, based on documentary evidence and a few associated artifacts, was interpreted as the cross-section of a Confederate gun emplacement. The excavation profile indicated earthworks with a trench/walkway about 8 feet wide just "inside" a raised embankment about 26 feet wide. This feature was, in turn, recently covered with a 4-8 inch layer of earth. Other suspected features associated with the Civil War were located outside the direct impact area of the water line and were not investigated.

Fort Towson

Fort Towson which has been under the control of the Oklahoma Historical Society for some time has included extensive on-site research as part of the interpretative development of the site. Excavated areas include the post well, powder magazine (Scott 1975), commanding officers' quarters, a barracks (Lewis 1972), blacksmith shop, carpenters shop, coopers shop, lime kiln, and early barracks (Gettys and Cheek 1984). More recently, the sutlers store was investigated in preparation for the reconstruction of that structure (Lees and Kimery-Lees 1984). The sutlers store was the subject of a 1983 Society of Historical Archaeology symposium. Two non-structural features have also been investigated: a major post dump and a secondary dump near the lime kiln. In addition, lead flint caps (small pieces of lead used to hold the flint in a flintlock) from the site have been reported (Gettys and Gettys 1977), as well as an interesting but simple carved limestone pipe (Gettys 1978).

Fort Towson consisted of a group of log structures around a roughly square parade ground. These buildings were razed in 1843, when the parade ground was enlarged and the 1824 buildings were replaced by structures with stone basements or foundations. The 1979 excavations aimed at assessing the research potential of the area once occupied by two of the 1824 barracks. This research revealed that, after the buildings were removed, the grounds were deliberately leveled to form the new parade ground. The remains of porches and front facade were removed com-

pletely, while the remains at the rear of the buildings were left in place and covered with dirt and rubble to create a gentle incline.

Similarly, a cobble/gravel walkway on the south side between the barracks was found to have been obscured where it entered the old parade ground, but was largely in place at the rear portions of the buildings. Gettys and Cheek (1984:94-95) concluded that considerable research potential exists along this line of barracks, especially in the rear and just behind the old barracks.

The remains of the stone walls from the first stories of the various buildings and the reconstructed sutlers store form the central focus of the site today. In addition, the powder magazine and the lime kiln have been stabilized.

Fort Towson artifacts are typical of the early 19th century, although most of the material is unreported. Included in the present collection are a wide variety of ceramics, horse trappings, military items (including buttons and insignia), building hardware, tools, and a wide variety of glass artifacts (Lewis 1972) (Figure 13). Unreported material from the commanding officers' quarters is most enlightening and contains, among other items, two full sets of dishes.

Fort Arbuckle

Two Fort Arbuckles were established in what is now Oklahoma. The first (34TU13) established in 1834, was located in what is now Tulsa County. The second was established in 1851 in Garvin County. The 1834 Fort Arbuckle is associated with the removal of the Five Tribes, while the 1851 Fort Arbuckle is associated with the Civil War. Only the first has been subjected to archaeological scrutiny (Cheek 1977).

The first Fort Arbuckle, as well as Fort Washita and Fort Holmes, were established by an order of General Henry Leavenworth. Established on a site near the mouth of the Red Fork recommended three years earlier by Lt. James Dawson, considerable effort was expended at Fort Arbuckle. Five log buildings were constructed using logs cut from a nearby stand of cedar. Foundations were constructed from an outcrop of hard sandstone located about a mile from the fort. Both building materials had been noted by Lt. Dawson in his 1831 recommendation (Cheek 1977:14-17).

Archaeological research at the first Fort Arbuckle was confined to a limited number of test squares and documentary research. The goal of the research was to confirm that the location traditionally held as the location of the fort was indeed correct. Excavation yielded very few artifacts, and those that were encountered were of no diagnostic value. Far more important were the sandstone rocks discovered at the site. Cheek interpreted the sandstone encountered in "Trench 2" as part of a floor. Because the sandstone is a portion of a man-made feature and the nearest possible source for such rock is a mile away, Cheek thought that the site was indeed that of Fort Arbuckle (Cheek 1977:9). Supporting this conclusion is the presence of possible early trade beads and Creek ceramics. Although this material cannot be firmly dated to the 1830s, a Creek presence following abandonment is known from historic documents.

Fort Coffee

Established in 1834, the role of Fort Coffee was similar to that of other pre-Civil War forts in Oklahoma, i.e., to protect the arriving Native Americans, especially from the evils of drink. Fort Coffee is less than two miles from the Spiro Mound Complex. This proximity to the mounds caused Fort Coffee to be included in a survey that addressed the resources in the area around Spiro Mound (Peterson et al. 1993:15-17).

Even though the location of Fort Coffee is well known, little attention has been focused on the historic period occupation. Stone foundations noted in 1984 were first thought to be the remains of a structure directly associated with Fort Coffee. Further investigation revealed them to be the remains of a residence constructed prior to 1870, although the stones had been collected from the Fort Coffee ruins (Peterson et al. 1993:51-52, 61). Fort Coffee has not been subjected to test excavations, and no structured artifact collections have been made at the site.

Fort Washita

Fort Washita was authorized for construction in 1841 to protect new Chickasaw arrivals. Construction was largely completed in the first five years of occupation, although some buildings

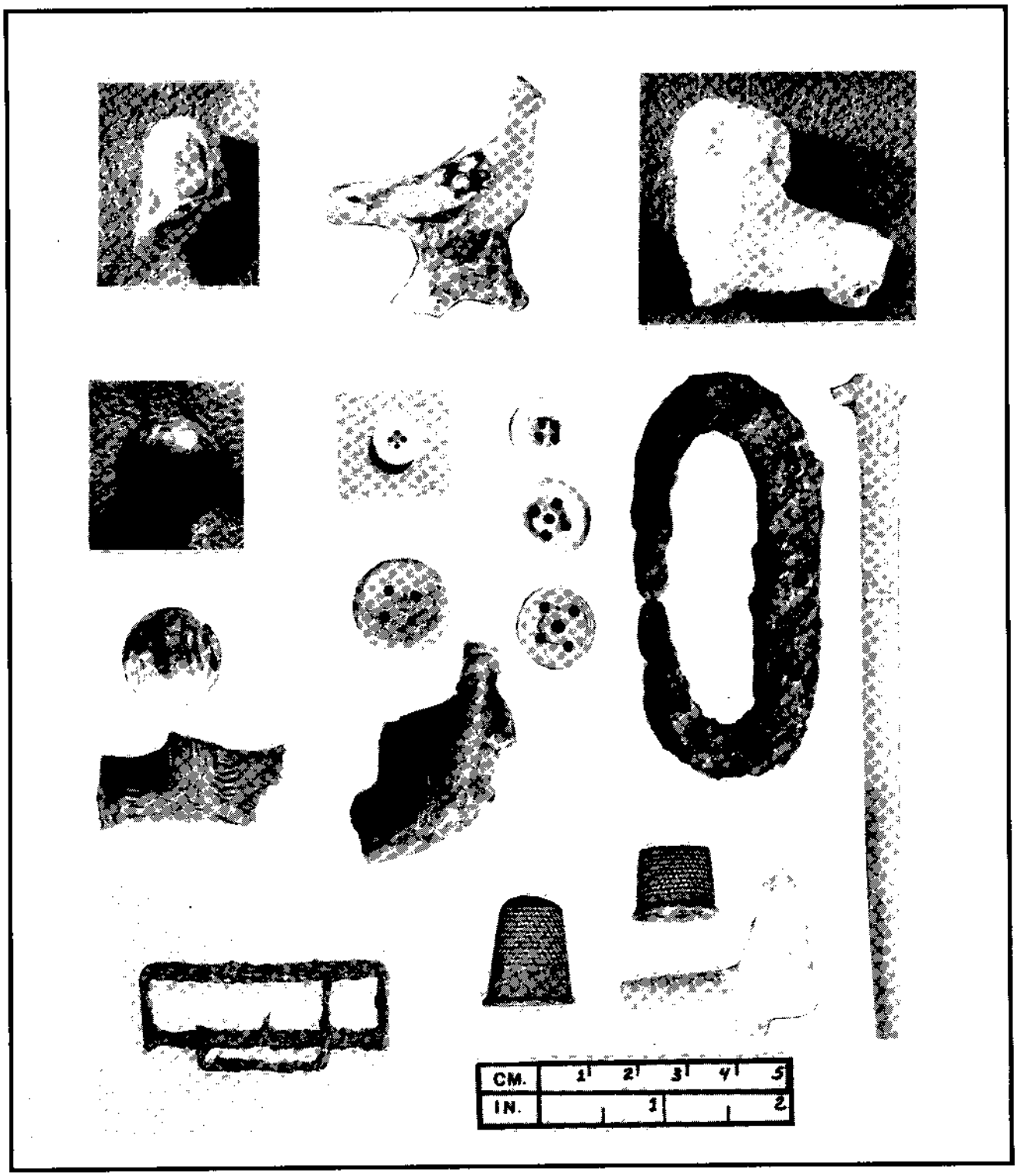

Figure 13. Examples of Personal Items. **A)** (34MS86) - Ceramic statuary (possibly a Madonna); **B)** (34MS86) - Ceramic bird whistle; **C)** (34MS86) - Ceramic statuary; **D)** and **E)** (34MS86) - Ceramic marbles; **F)** (34WG19) - Glass underwear button; **G)** (34WG19) - General purpose pewter button; **H), I),** and **J)** (34WG19) - Bone buttons. Note the center hole in I and J used in the manufacturing process; **K)** (34MI142) - Strike-a-light; **L)** and **M)** (34MS86) - Effigy elbow pipes; **N)** and **O)** (34MS86) - Kaolin pipe fragments; **P)** and **Q)** (34PS212) - Thimbles; **R)** (34PS212) - Suspender Buckle.

underwent modification and others were built after the primary building stage (Blaine 1975). Structures investigated include the "north parade ground structure," the "north parade ground rock concentration area" (Lewis 1975:35-73, 76-144), the hospital complex (Penman 1975:145-195), and the south barracks (Lopez 1975:199-269). Material from these structures reflects the entire period of occupation at the site.

Artifacts recovered include a wide variety of ceramic wares (Mocha Ware, shell edge ware and a variety of transfer wares), horse trappings (Figure 14) , military items (buttons and insignia), and the usual collection of bottles and metal artifacts. Possibly the most interesting artifact is an engraved brass plate that appears to be a practice piece, possibly from an apprentice jeweler (Lewis 1975:134).

THE INDIAN WARS

As Euro-American settlement pushed west, in the late 19th century, Native Americans occupying territory sought by incoming settlers became less and less willing to compromise their lands and lifestyles. Forced onto lands often very different from their homeland and manipulated into agreements with a government with a long track record of ignoring treaties, many tribes turned to open warfare.

Forts established in this period fulfilled three primary roles: 1) reception, processing and maintenance of prisoners; 2) protection of Euro-American institutions such as missions and schools; and 3) maintenance of Native American populations in place through the issuing of supplies and the enforcement of reservation space and movement restrictions. Almost all of the forts were involved to some degree in all of these activities.

Prisoners taken during late 19th century conflicts were sent to Indian Territory. The Northern Cheyenne were shipped to northwest Oklahoma, but rejected reservation life with their more settled Southern Cheyenne relatives. Apaches who surrendered in Arizona were deposited at Fort Sill after being imprisoned in the eastern United States. With respect to other federal goals, Fort Reno was established to provide some protection to the United States Darlington Agency. And Fort Supply was established to supply first the army during their campaign against the Indians, and later the Indians themselves.

Fort Supply

One of the last forts established in Indian Territory, Camp Supply was established as part of the supply effort in the Indian Wars. It later served to protect settlers and goods moving through the area, and it became a supply point for the Cheyenne and Arapaho, whose reservations were nearby. Just prior to abandonment by the military, troops from the post served as police in the opening of the Cherokee Outlet (Peterson 1978:78).

Fort Supply was abandoned by the military in 1894. Shortly afterwards, custody of the fort passed to the Territory of Oklahoma. In 1908 it was designated Western State Hospital, an insane asylum, a function it retains to the present day (Peterson 1978:89). In 1988 the Oklahoma Department of Corrections established the William S. Key Correctional Facility there. The increased correctional facility population and activity have precipitated recent archaeological work at the site. Most of the archaeological research has been conducted in conjunction with specific projects related to the hospital and/or correctional facility functions and is limited in scope.

The most detailed analysis of material from Fort Supply was provided by Briscoe (1992) in his analysis of materials from a dump site (34WD74) located south of the main fort area (34WD80). Work at the dump was undertaken in a effort to mitigate damage by relic hunters because, although less than one-half mile from the main fort area and a major highway, the site is not visible from either.

The dump contained a variety of material related to the very end of the military occupation of Fort Supply. Briscoe noted that, as the emphasis of the post changed from monitoring and supplying during the Indian Wars to a "police station," the material deposited at 34WD774 resembled remains of a small town. The greater variety of material recovered in this dump, when compared to analogous homestead communities, is credited to the purchasing power of a population with its regular pay and allowances (Briscoe 1992:52).

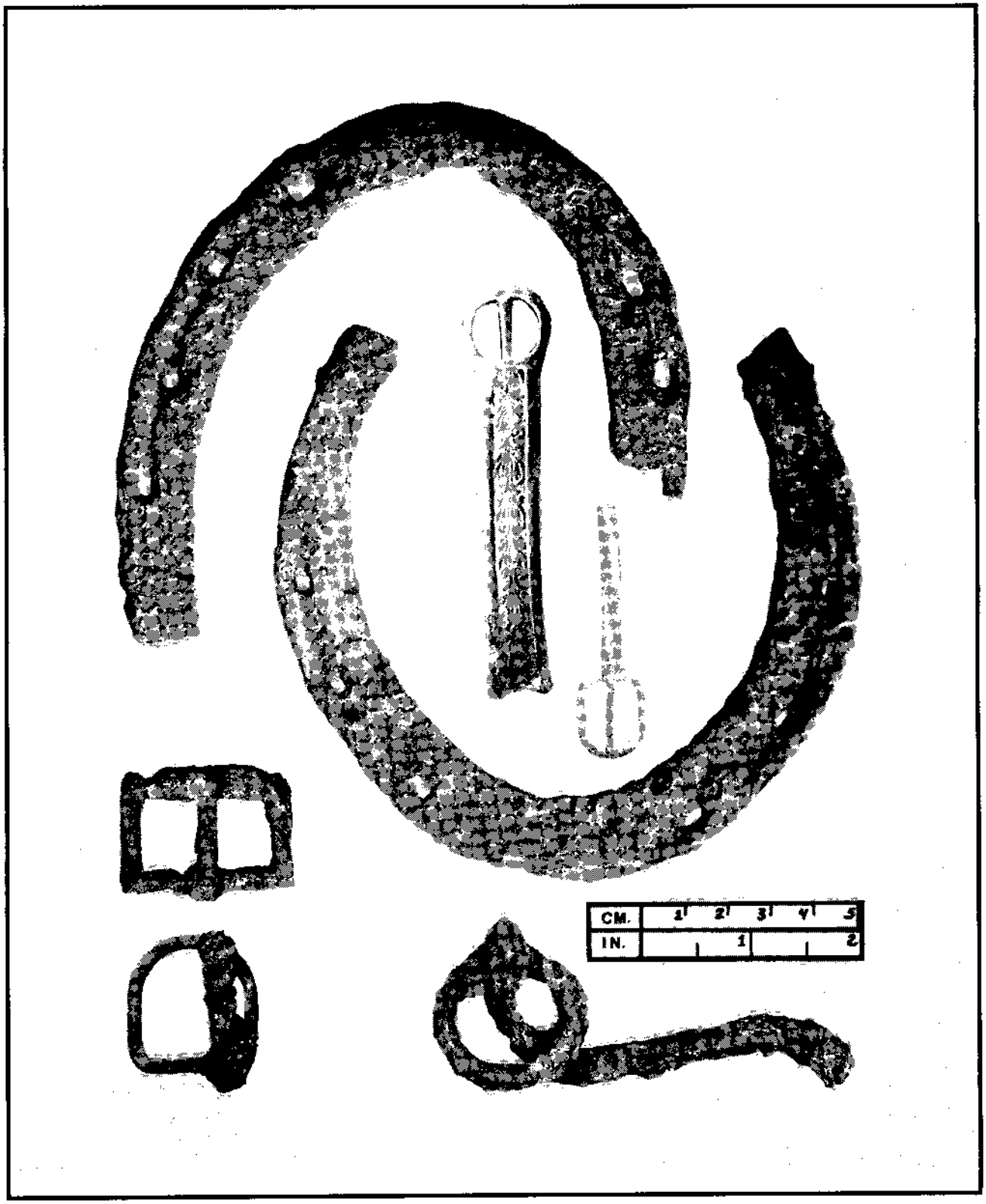

Figure 14. Horse Trappings and Horse Related Items. **A)** and **B)** (34PS212) - Hand forged horse shoes; **C)** (34MS86) and **D)** (34PS212) - Side pieces of spurs with strap eyes remaining; **E)** and **F)** (34PS212) - Harness Buckles; **G)** (34PS212) - Bit.

The dump area (34WD77) north of the main post was discovered in the course of limited investigation related to the installation of a new sewer system. This project also precipitated an investigation of nearby historic roads and a section drainage ditch. Presenting relatively little analysis, Briscoe's (1989a, 1989b) reports focus on the reorienting or relocation of projects away from historic features. In this case the project was moved just to the east of 34WD77, in an area containing no archaeological resources (Briscoe 1989c).

The Fort Supply planning document is an effort to assist the institutions represented at the site in their planning activities. This document (Briscoe et al. 1992) records the results of an intensive on-ground survey of the central area of the facility. In the course of the survey, 295 features were noted and mapped, and their locations were superimposed on a contemporary map of Fort Supply. In addition, a series of historic maps of Fort Supply, recreated to a common scale, were imposed on this base map and the locations of the features were noted. With the completion of this survey and map series, future construction at Fort Supply should be able to avoid nearly all of the known historic resources.

Fort Sill

Although the need for a military post in the vicinity of present-day Fort Sill was recognized as early as 1852, a post was not established there until January, 1869. The exact location for the post was selected by Colonel Benjamin H. Grierson after an 1868 scouting trip. The location was approved by General Philip Sheridan, who later renamed "Camp Wichita" or "Camp Medicine Bluff" to Fort Sill after Brigadier General Joshua W. Sill, a West Point classmate of Sheridan's killed in 1862 (Zwink 1978:104-105).

One of the penalties that was imposed on the Choctaw and Chickasaw for siding with the Confederacy during the Civil War was the loss of their lands in the western portion of their respective nations, commonly known as the Leased District. A portion of this territory became the reservations of the Kiowa, Comanche, Cheyenne and Arapaho. The Treaty of Medicine Lodge established these reservations and provided that an agent be appointed to these tribes.

An active military base, the constantly changing functions of specific areas at Fort Sill have provided the opportunity for occasional research in locales previously unavailable. Such is the case at the Comanche Indian Agency Commissaries (34MC232) investigated by Daniel Crouch (1978).

In an effort to break a tradition of inadequate and corrupt Indian agents, President Grant elected to follow an earlier tradition of indirect appointments by having agents appointed by the Quakers. The Quakers appointed Lawrie Tatum, an Iowa farmer.

Prior to Tatum's arrival in June, 1869, the need for commissary space had been anticipated, and three buildings were constructed. Completed between March and July of 1869, two large commissary buildings served the agency from 1869 until 1878, when the agency moved to Anadarko. The buildings continued to be noted in Fort Sill documents until 1881. The site has remained in use, and in 1942 was paved for a parking lot. It was uncovered in 1977 by archaeologists prior to the construction of a barracks there. Although the site was impacted by later activities and many of the artifacts are in poor condition, the excavation did reveal details of building construction, occupant lifestyles, exterior features, and late military occupants. For example, plastering was utilized extensively at the site, not only in the residence, but also in the walls of the well and on the stones of the interior fireplace (Crouch 1978:207-209).

After use as an agency, the site was used heavily by the military. Associated artifacts indicate that military usage peaked in World War I. A profusion of artillery-related materials reflects employment of the site as part of the artillery school during World War I and for a short time thereafter (Crouch 1978:208).

Because it is an active military post and one with a rich history, cultural resource work at Fort Sill has been almost constant in the recent past. The more comprehensive studies include a portion of the post investigated as part of a pipeline (Spivey et al. 1977), an intensive survey which resulted in a relatively comprehensive study of the post's archaeological resources (Ferring 1978), and the excavation of the Kiowa and Comanche agency commissaries (Crouch 1978). Other in-

vestigations have been conducted in conjunction with specific projects.

In an effort to avoid a portion of Fort Sill Subagency Village (34CM274) during the installation of a sewer line, the line was rerouted. Discoveries along the new route and subsequent excavations revealed a foundation possibly associated with the Subagency Village. With few construction-related artifacts and no evidence of a fire, it appears the original building was moved rather than destroyed in place (Anderson and Bearden 1991b:8).

Detailed documentary research revealed that most Village Agency buildings were probably west of the exposed foundation. The combination of a foundation morphology and artifact collection that appeared to be chronically later than the Agency Village and a location that was nor obviously associated with the Agency Village precipitated additional documentary research. This research indicated that the site may have been the location of the Parker I-See-O All American Indian Legion Post Number 12, which was active during the 1920s and 1930s. The dates provided by the artifacts, the nature of the second feature, a stone alignment that may have outlined a parking lot, driveway or sidewalk, and documentary evidence all support this contention (Anderson and Bearden 1991b:35-38).

Excavation in conjunction with construction of the Waurika Pipeline extensively sampled a major dump at Fort Sill (Spivey et al. 1977:25-166). The material recovered provides an excellent comparative sample for all military sites in Oklahoma, although the dump dates somewhat later (post- 1870) than most of the excavated forts in Oklahoma. The store of William Mathewson was also excavated as part of this project. Discussed in another section of this paper, this excavation provided insight into the activities of a significant personality in the history of Fort Sill.

Anderson and Bearden (1992c:50-53) have recorded a site related to Fort Sill, though not on the post. Located near the Fort Sill-to-Fort Worth Military Road and well south of Lawton, this site (34CT56) consisted of several carved inscriptions that informants attribute to soldiers of Fort Sill .

Cantonment

Cantonment, which is technically an unnamed fort, was investigated in conjunction with the development of a recreational vehicle park adjacent to Canton Reservoir. This site is on the National Places. As the last permanent fort established on the Southern Plains, Cantonment was used for only three years, from 1879 to 1882 (Harris 1978:125). The site was later used as an Indian Agency for the Cheyenne, and still later as a Mennonite school for the Arapaho (Lintz 1975:5-6).

Although no excavations were conducted, the intensive surface collection and mapping recovered material from the site. The extensive background research has provided data for a much more complete understanding of this site than was previously available. In addition to traditional archaeological data, Lintz interviewed previous occupants of the site. These interviews clarified the functional aspects of the buildings and the remaining foundation, all of which were mapped for the project (Lintz 1975:62-66). Photographs obtained from the informant allowed for very specific interpretative statements regarding the foundations.

Most of the material recovered from the site is very familiar, as it is of recent origin. Relatively little material was related to the military occupation, most coming from the more recent late Mennonite school occupation. In particular, the maker's marks on the ceramics appear to be relatively late, as are those on most of the glass containers (Lintz 1975:17, 19, 23-27).

The site has only one standing structure ,which has been restored and now serves as a museum and visitor center. Fortunately, this structure is from the military occupation, the most poorly represented in the artifact assemblage, yet an historically important one.

BATTLEFIELDS

Honey Springs

The Battle of Honey Springs occurred when the Union Army, at Fort Gibson under the command of Major General Blunt, learned of a Confederate troop buildup some 20 miles to the south-south-

west. Accustomed to engagements with Indian Troops led by Colonel Stand Watie, this concentration of 6000 Confederate troops under the command of Brigadier General Douglas Cooper represented a significant threat to the Union occupation of Fort Gibson. Anticipating the arrival of additional Confederate troops at any time, Blunt moved on the Confederates on July 17, 1863. The smaller but better equipped Union force defeated Cooper's troops and forced his retreat eastward. Ironically, in the process of retreat Cooper met the hoped-for reinforcements from Arkansas, who arrived too late to change the outcome of the battle (Yates et al. 1981:10). The battle prevented the Confederates from capturing Fort Gibson and thus controlling the Arkansas River.

Two separate investigations with two distinct goals have been conducted within the battlefield area. The thrust of Cheek's investigation was to determine if the powder magazine used by the Confederate forces was identifiable and, if so, whether or not the structure assigned this function by local oral tradition was the correct one. Cheek concluded that the structure traditionally considered to be the powder magazine is really a storehouse built in 1872. The remains of a second structure under the first was assigned to the pre-Civil War period, but positive identification of the origin and use of the building could not be made (Cheek 1976:30, 125-127).

Although most excavated material was not related to the Civil War powder magazine, the treatment of the artifacts in this report is noteworthy. Descriptive categories are established according to the type of analysis under consideration. While the results duplicate some descriptions, this organization offers insights that might otherwise be overlooked.

Unlike Cheek's study, which was focused on a single building, Yates et al. (1981) conducted a survey of the entire battlefield. Conducted as a first step to interpreting the park to the public, this survey focused on features related to the battle. These features included the Elk Creek toll bridge and associated toll house, the Newberry Place, the Texas Road and, perhaps the most important feature to visitors, the mass grave of the roughly 150 Confederate dead.

The Battle of the Washita

Not every engagement fought in Oklahoma was fought by or against Euro-Americans. No doubt the rich oral traditions of Oklahoma's Native Americans recall battles between tribes and small engagements with Euro-Americans that are beyond the scope of this review. One well documented engagement between the Cheyenne and Federal Troops occurred in a location that has remained almost untouched and is recognized by both Native Americans and Euro-Americans as a significant part of Oklahoma's history. This engagement was the Battle of the Washita.

On the morning of November 27, 1868, the 7th Cavalry, under the command of George A. Custer, attacked the sleeping Cheyenne village in the Washita River valley. Quietly surrounded prior to the attack and with their escape blocked, casualties among the Cheyenne were high in the village (34RM636) and in the course of the short running battle (34RM13). Official reports set the number of casualties at over 130 warriors killed and 53 women and children captured. The number and composition of prisoners in the official report is accurate, but there is considerable discrepancy in the different accounts of the number killed. A more likely figure is 41 casualties (Briscoe 1990b: 20), over half of them being women and children. The attack destroyed the village and slaughtered the pony herd.

Aside from the personal suffering and loss, this engagement devastated the morale of the Plains Indians. Prior to this engagement, the first of a major campaign by Federal Troops, Plains Tribes had assumed that the land and the elements, in particular the harsh winters of the Plains, would protect them from attack. The Battle of the Washita destroyed this assumption.

Section 106 requirements for several projects have resulted in research related the battle. A site number separate from the battlefield (34RM13) was assigned to Black Kettle's village (34RM636), based in part on research conducted in conjunction with seismic testing of the area (Briscoe 1990a:7, 1990b:23).

Most of the Cheyenne dead were removed and buried at a site southwest of the battlefield. Others were buried on the battlefield. In 1987 the remains of two individuals were discovered in the

basement of the Cheyenne Star newspaper office. Believed to have been acquired by John Cassidy, a previous owner of the Star, these remains were reburied on the battlefield at a site selected by the Cheyenne (Briscoe 1987:4). Like the battlefield, the location selected by relatives after the battle has also been subjected to development in the form of seismic testing. Prior to testing and with the participation of the Cheyenne tribe, graves and other sacred areas were noted and recommendations concerning the use of the area formulated with proper consideration of Cheyenne wishes (Briscoe 1990b:7-8).

TODAY'S PROBLEMS AND FUTURE DIRECTIONS

Most of the locations of military establishments in Oklahoma are well known. Aside from minor excavations with very specific goals such as the placement of sewer lines, investigations at sites which are not threatened, such as those owned by the Oklahoma Historical Society, should aim at providing information directly relevant to enhancing the interpretation of the sites. Excavations at these sites should attempt to add to the body of historic information, rather than merely to target verification of available information.

The domestic life of the army on the frontier is one theme in which archaeology can contribute new and valuable information. Records and documents provide only an outline, at best. Detailed analysis of privies and dumps can provide information on food consumption patterns which may reflect a varying dependence on hunted game, home grown crops, and foods obtained by trade or purchase outside of the normal military channels.

Military installations did not exist in isolation. The civilian encampments and towns that sprang up near military installations may prove to be another fruitful area of investigation. Research designs directed at dietary, economic, and social differences between miliary and civilian occupations should prove productive and significant to our understanding of life on the frontier. Doaksville, across Gates Creek from Fort Towson; Hatsboro and Rugglesville near Fort Washita; and the town of Fort Gibson, adjacent to Fort Gibson, could all provide data for such studies.

Perhaps nowhere in Oklahoma has research impacted Native Americans as it has with investigations conducted at the site of the Battle of the Washita. Archaeologists and Native Americans should look at this work as an example of how research results can be incorporated into the decision-making process to protect important sites.

EURO-AMERICAN DOMESTIC ARCHAEOLOGY

Few archaeological projects in Oklahoma have been devoted exclusively to Euro-American domestic site archaeology (Figure 15). However, like other historic archaeology in Oklahoma, there has been considerable research of these occupations as part of larger projects. Homesteads, farms and ranches have frequently impacted the remains of other, often prehistoric, occupations. As with most prehistoric occupations, the early historic site selection process was heavily influenced by natural factors.

Another reason Euro-American archaeology has received more attention today is a growing awareness that these sites are a rapidly disappearing resource, much like the prehistoric resource base. Vernacular architecture tends to be ignored until individual examples become so rare as to make studies focusing on trends or patterns difficult, if not impossible. A recent study by Dickerson et al. (1991) found that, in an area just to the north of Tulsa, only 6 percent of the structures indicated on the 1896 General Land Office Maps were still standing in 1990. Of the 8 structures recorded in the survey area, four were unoccupied and could be expected to disappear in the near future. The figures indicate a pattern similar to the pattern of loss for English vernacular architecture, especially "small houses" and "cottages" (Brunskill 1970:26-29). Sites such as 34CL142 (Steinacher 1986:47), an abandoned farm, serve to remind us that the loss of rural sites is on-going. This site, with no remaining structures, produced material indicating that it was occupied in the past two decades.

Even though numerous sites contribute some architectural evidence, historic archaeology does have a physical and scholarly equivalent of the prehistoric "lithic scatter," i.e., the historic artifact scatter. Like the prehistoric lithic scatter, this resource type is the most frequently encountered site type. Sometimes found with badly damaged features or with no features at all, these sites typically have their origins in farmstead complexes with demolished structures and features, or are the remains of trash dumps.

Historic artifact scatters may possess one element not available in prehistoric lithic scatters: knowledge of the site by local informants. These local informants may provide dates, information on destroyed or non-visible features, and details about the destruction of the site by agricultural practices or other activities. This information, when used in combination with documentary research, allows the accurate dating of artifacts, may provide data on the use and distribution of features, and may contribute to an understanding of the destructive processes that effect archaeological sites.

The artifacts that have been recovered from the sites in this section are the best known to us. Tools, ceramics, kitchenwares and many other items are the same as those used in and around the rural homes of our parents and grandparents (Figures 16, 17, and 18). Rather than focusing on the artifact content of these sites, this chapter is divided into four sections, each focusing on different material/construction techniques utilized in Euro-American domestic buildings. The sections are log, frame, dugout, and stone, the dominant materials utilized in vernacular residential construction in Oklahoma during the latter portion of the 19th and early 20th century. While at first glance it may seem inappropriate to divide archaeological information on the basis of architecture, this division does provide a logical organization for the unique environmental, cultural, political and temporal factors of Euro-American settlement. The distribution of material, styles and ethnic influences remain a popular topic among cultural geographers and others interested in vernacular architecture.

Log construction represents some of the first Euro-American residential construction in Oklahoma. They are confined to the eastern portion of the state, which contained trees of sufficient diameter and height. Log cabins also reflect occupation by the Five Tribes, who acquired the construction technology from Euro-Americans.

With few trees of sufficient size to permit their use in traditional horizontal log construction and

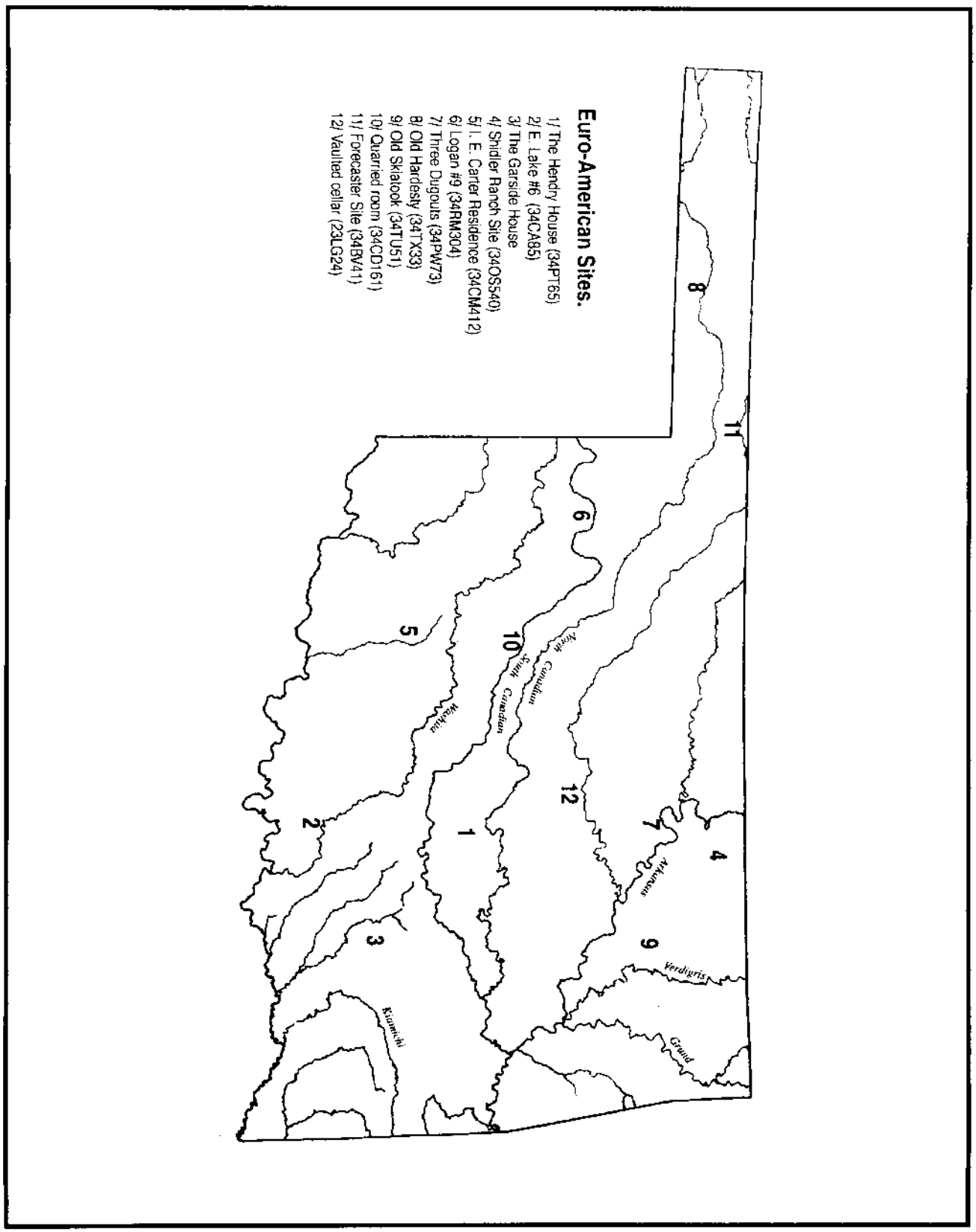

Figure 15. Location of selected Euro-American Sites

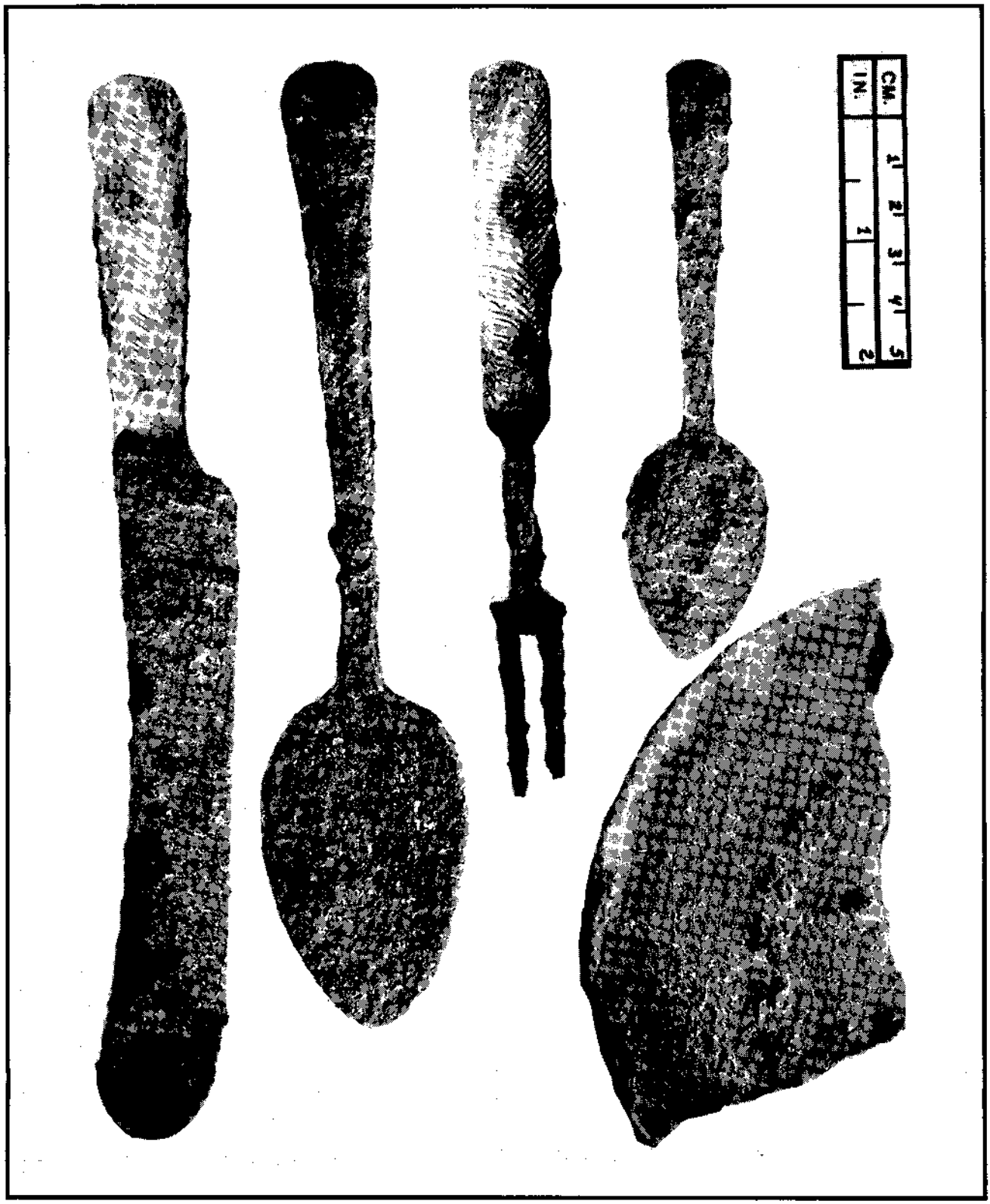

Figure 16. Kitchen and Table Wares all from site 34PS212). **A)** Bone handled table knife; **B)** Serving spoon; **C)** Two-tine forks with bone handle matching the knife; **D)** Small spoon; **E)** Cast iron lid (50% of original).

Figure 17. Stoneware. **A)** (34PT141) - Complete stoneware crock with Albany slip (50% of original size); **B)** and **C)** (34PS212) - Jug neck and partial finger loops; **D)** (34PT141) - Western stoneware mark from a three-gallon crock; **E)** (34PT141) - Ada pottery mark from a small crock.

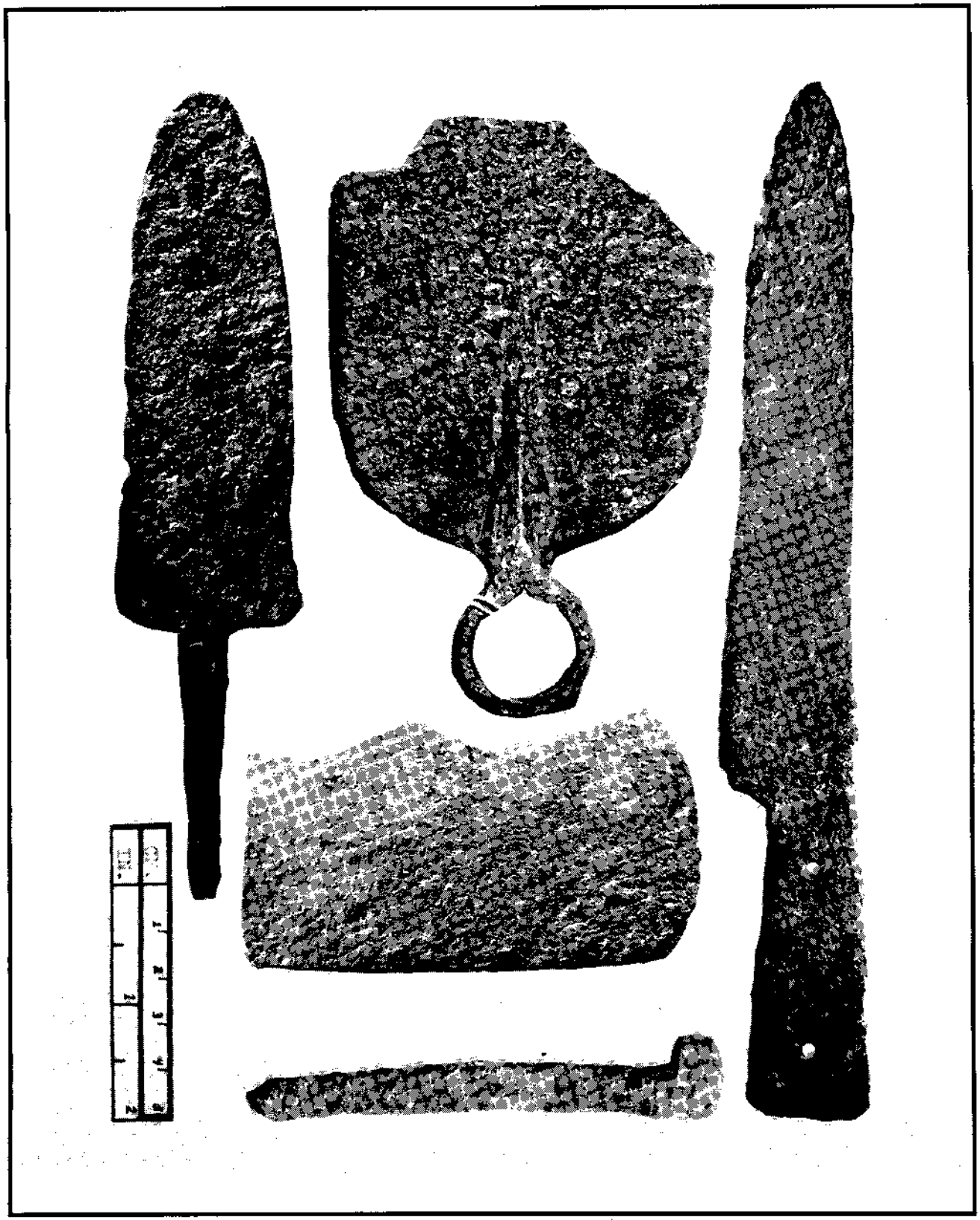

Figure 18. Tools. **A)** (34MS86) - Tang mounted utility knife; **B)** (34PS212) - hoe; **C)** (34PS212) - Butcher knife; **D)** (34PS212) - Ax (50% original size); **E)** (34PS212) -Hand forged spike.

without the skills and resources to utilize masonry, the most common form of dwelling constructed by western Oklahoma settlers was the dugout/half-dugout/soddie. The abundance of sod and little else in the way of building material, a climate with little damaging rainfall, and a pioneer population with little or no capital made western Oklahoma ideally suited for the labor intensive construction of soddies and dugouts.

Both log cabin and soddie were short-lived, although both were constructed intermittently for many years. Used mostly in the first few years of settlement, a strong desire to demonstrate social and economic advances beyond "newcomer" status limited these first residences. New homes of frame or masonry construction were erected as soon as individual circumstance permitted. Those who could not afford to construct new homes from more prestigious materials covered their existing log homes or soddies with wood siding to create the illusion of prosperity.

With the superstructure removed and only the foundation remaining, differentiating a log structure from a frame one is difficult. In the post-Civil War era log structures were still common in eastern Oklahoma, although by this time milled lumber and frame construction dominated residential construction. Encountered either as standing structures or archaeological remains, log structures covered with higher status siding are usually difficult to interpret. In spite of this problem, determining the primary construction technique at the site is usually possible. Both frame and log construction are commonly associated with a series of features that distinguish them from one another.

FEATURES

A variety of features has been recorded at domestic sites in Oklahoma. These can be divided into three broad types: 1) built features, (interior features such as fireplaces and foundations and exterior features such as outbuildings of various types); 2) dug features (privies, wells and cisterns); and 3) landscape features (fence lines, roads, plantings and selective plant retention). The full range of features is rarely encountered on a single site because of differences in site preservation and recycling.

Utilitarian fireplaces for both heating and cooking are rarely found in association with frame construction in Oklahoma. The presence of such a fireplace is a strong indicator of an early date and, most commonly indicates log construction. Unfortunately, the lack of a fireplace does not provide the same assurance that the superstructure was of frame construction. Most sites produce a small amount of brick, often the remains of brick flues for wood cook stoves or wood burning heat stoves. Cast iron free-standing cook stoves were mass produced and readily available in the period following the Civil War (Scheele 1976:493). Built up from floor level or even from a wall-mounted and braced bracket, brick flues have no foundations and usually disappear with the superstructure.

Foundation remains vary from a scatter of stones and mortar to a foundation wall with some superstructure in place. In the eastern portion of the state, the earliest cabins used no foundations. Construction elements were built up from a sill log which, like the log floor joists, rested directly on the earth.

Even in the absence of a fireplace, the configuration of the foundation may provide significant clues to the age and nature of the superstructure. Native stone is by far the most common foundation material. Continuous exterior foundations and piers are used in both log cabins and frame construction, often with the interior piers made from log sections, usually bois d'arc. Artificial stone, made from concrete and formed in molds available by mail order, has been noted in foundations associated with frame construction dating after 1900. Because log cabins are limited in dimension by the length of available logs, interior foundation walls are rare in log construction. Care must be taken not to confuse original foundation walls surrounded by the foundation walls of later additions with an interior foundation. Common in frame construction, interior foundations break up longer joist spans and permit a superstructure/floor plan of almost any dimension. Windows were less common in log cabins than in frame houses, and an abundance of window glass may indicate that the number of widows was probably greater than was common in log cabins.

Three excavated features -- cellars, dug wells and privies -- are common on domestic sites in

Oklahoma. Excavated into hill sides or back yards are features typically described as "root" or "storm" cellars. The former protect foodstuffs from winter temperatures, while the latter protect short-term occupants from a tornado. Because the use of a storm shelter is seasonal and its actual occupation short-lived, this subterranean feature often served both functions at once. The quality of cellars varies from a simple excavation covered with logs and dirt to arched masonry vaults constructed of local limestone. Discussed in detail below, some larger "cellars" are recycled dugouts which served as the first home of the site's occupants.

Dug wells and/or cisterns occur in all areas of the state. More common in the east and in the early periods, dug wells are usually lined with native stone. Brick-lined wells have been recorded in Oklahoma, but are uncommon. A late 19th or early 20th century McCurtain County farm complex (34MC261) contained a brick-lined well in association with a frame residence, a log shed and a storm shelter (New World Research, Inc.,1981, vol. II:A158).

Frequently on sites with long occupations, a new well is drilled after the original dug well runs dry. Often this new well is drilled into the bottom of the dug well. This new well is often capped with a concrete pad, which covers the old well and serves as the base for a pump. Although recorded on a variety of domestic sites in Oklahoma, few privies associated with domestic sites have been excavated.

Landscape features are also common on domestic sites. Fence lines may be marked by actual fence sections still in place or by a barely visible rise in a linear configuration. Large trees often mark the corner of lots, yards, houses, or the edges of paths or walkways. Although trees were frequently planted, selected trees were often left in place and the layout of the structure planned around them. Flower beds may also be detected, depending on the season in which the site is observed. Wild roses, upon whose root stock fancy varieties may have been grafted in the past, and bulb beds, in particular Iris and Daffodil, are common on later sites.

Out-buildings in a bewildering variety of shapes and functions are also common on farmstead sites. Barns, chicken coops, and vehicle shelters have all been recorded. As might be expected, these buildings change through time as circumstances mandate new and different functions and thus new configurations. Original homes, abandoned for more prestigious residences, were often modified to fulfill specific functions. Determining the nature of the first residence on a particular site is greatly complicated by reuse. Residential log structures as well as small frame, "four square" structures have been noted in a variety of storage functions. As noted previously, dugouts often continued to serve as cellars.

Artifacts, even relatively small quantities observed on the surface, can provide some information on the superstructure associated with the visible foundation. Both cut and wire nails may be distributed in a distinct pattern, which contrasts log and frame construction. Nails used in the construction of log cabins are largely restricted to those relatively small sizes used to attach wood shakes or shingles. Frame construction, on the other hand, utilizes a much larger variety of sizes of nails, most noticeably an abundance of those sizes large enough to hold framing members.

In the eastern part of the state, at sites with few foundation remains, distinguishing between log and early frame construction techniques is often very difficult. Wallis (1983a), in describing 40 featureless historic artifact scatters, utilized the presence of daub to assign a mode of construction to a single site, 34SQ234. In an area abandoned in part due to flooding and then subjected to intensive agriculture, even sites visible on aerial photographs from 1938 produced little artifact material.

As noted elsewhere, while most features are not limited to one time period, a general pattern has emerged that may be used as an aid in interpreting the construction material/age of a particular structure or site. In log construction, fireplaces were common in the early period. Foundations for log cabins, if indeed a foundation was used below the sill log, were most commonly made of native stone with foundation walls across the interior of the structure being rare. In addition, construction-related artifacts, in particular nails, are present in only a limited number of varieties.

Frame structures rarely have fireplaces, having been constructed when cast iron stoves were commonly available. The foundations of frame

structures were made from a wide range of materials, and interior foundations are not uncommon. Construction-related artifacts associated with frame construction display a greater variety than the same class of artifacts associated with log construction. A greater variety of nail sizes associated with a greater variety of finished wood sizes is typical, as well as hardware reflecting the wider availability of significant prefabricated building units such as windows (window locks, weights), ready-made doors, and cabinets (hinges, door knobs and small cabinet hardware).

LOG CONSTRUCTION

Log structures served as trading posts and other commercial structures, as well as the residences of Native Americans, on-post military personnel, and the civilian Euro-American population. Excluding Native American residential sites and some of the early commercial enterprises of log construction that have been discussed elsewhere, there remains an abundance of log structure sites associated with Euro-American residences. Although many sites in the Indian Nations territory have been labeled "Euro-American," the actual difference in material remains between rural Native American and rural Euro-American populations is negligible. Most of these sites have been assigned a Euro-American origin because they lack diagnostic Native American historic ceramic types. There are, however, Euro-American sites in the Indian Nations, and attribution to Euro-Americans is strengthened by materials datable to the period after Euro-American settlement was common in the territory. At a few sites, documentary evidence has established that the occupants were Euro-American.

Extant log structures from Latimer County (34LT91) (Rogers 1979:38-42) and other areas of eastern Oklahoma have been recorded as part of archaeological surveys. In nearby Haskell county a log cabin was recorded, along with associated features including an outbuilding foundation and a well. The cabin measured 3.5 by 4 meters and probably dates to the late 19th century, as it does not appear on a 1911 topographic map (Harden 1978:28).

Recent reports reflect a growing interest in the historic period by presenting more details of construction, setting and historical research. The Hendry House (34PT65), constructed in 1891 (Moore 1988a:118), is a large log home near Tecumseh. Built by Samuel Hendry, a Civil War veteran, this cabin is much larger than is typically encountered.

Close to the western edge of the area where log cabins occur is 34CA85, a log cabin site in southern Carter County. Marked only by a few large sandstone foundation stones, this site was identified as the remains of a log cabin by an informant. The informant dated the cabin to the late 19th century, a date supported but not absolutely confirmed, by the artifacts recovered (Northcutt 1980:23). The Castlebury site (34GV150) is another log cabin on the western edge of well-timbered eastern Oklahoma. When reported in 1985, the structure included a frame and sheet metal addition. The original portion of the cabin, reported by the landowner to pre-date statehood, was in good condition (Brooks et al. 1985:75).

Log cabins are rapidly disappearing. Site 34LN27, first recorded in 1974 (Cheek et al. 1974:73), contained a "...wooden house foundation..." and a "...dilapidated cabin...". By the time the site was revisited in 1980, the cabin had collapsed (Lintz 1982:187).

FRAME CONSTRUCTION

Vernacular houses built of milled lumber were subject to the same destructive forces as those built of other materials. In many ways frame construction was less durable than log or sod construction. Determining which sites to include in this section is as difficult as distinguishing in the field the materials and construction techniques of the largely obliterated foundations. In general, if the primary residential unit appears to be associated with a foundation and not with an excavated feature, the site has been included here (unless it was identified as a log cabin). If a site contains foundations that appear to be outbuildings and an excavated feature that has been determined to be the remains of the residence, the site has been reviewed in another section.

The features at 34LN45, a late 19th or early 20th century farmstead, included two cellars, a collapsed shed constructed of rough-cut lumber, and two driven wells. Landscape features included ceder trees and iris in the front yard, and

a driveway or section of rood. Despite the relative abundance of features, all that remained of the main house was a foundation of loose sandstone (Wallis 1977b:41).

Although foundations are often present, many later domestic sites assumed to have been of frame construction are indicated only by the presence of excavated features and an array of generic 20th century artifacts. Often, much of the site has been removed to accommodate modern agricultural practices, especially in the central and western portion of the state. Sites such as 34OF36, 34OF37, 34OF42, 34OF47 (Wallis 1984:31, 33, 45, 85) and 34LN56 (Wallis 1977b:68) were assessed as frame dwellings on the presence of wells, cellars and artifact scatters, even though they lacked foundations. Subject to fire, salvage and relocation more commonly than log or sod houses, the relative abundance of frame houses is as much a reflection of their recent date as it is their original numbers. All but one of the structures in the area north of Tulsa selected by Dickerson et al. (1991) were of frame construction. While destruction in the face of urbanization certainly accounts for the loss of many small vernacular frame houses, many isolated rural structures such as the one that occupied 34CL121 have been torn down and the area reclaimed for agricultural use, in this case pasture land (Steinacher 1986:43).

Lumber shipped into settled areas by rail often arrived at the same time as more formal architectural influences. Plan books and other publications provided inspiration for styles and designs that were far less restricted than designs executed in logs or sod. Fireplaces, common in the early periods (generally pre-Civil War) of Oklahoma Euro-American architecture, were no longer required, as cast iron wood stoves became available. In general, regardless of building material, Euro-American residential structures after the Civil War were built without fireplaces or with fireplaces designed primarily for heat alone.

Finally, the moving of frame houses (without the foundations) or the salvage of materials in a frame house (as opposed to the logs of a log house) is more easily accomplished than with houses of other construction techniques. While useful in some "industrial" applications such as the oilfield, logs are less easily transported and have fewer applications when salvaged than does milled lumber. House moving and salvage are a common practices in the western portion of Oklahoma, where local timber is not available. For instance, Wallis (1983b:128) speculated that a residence constructed at the turn of the century at site 34LN18 may have been moved some 600 feet east to site 34LN73.

Although little detailed archaeological work has been done on frame residential dwellings, numerous examples have been recorded in various surveys. This presentation will review the sites in this class by dividing the state into quarters roughly by Interstates 35 and 40.

The Southeast

Site 34OF44, a house dating to the 1920s, illustrates the salvage process in action. Originally a simple four-square house when encountered as part of an archeological survey associated with the construction of a reservoir, only the flooring and foundation remained. The remains clearly showed the salvage process: one room retained the original tongue-and-groove flooring, a second retained only the floor joists, and the presence of the remaining two rooms was indicated only by foundation stones. Other features at the site include two root cellars and another small structure of unknown function (Wallis 1984:71-72).

In the same areas site 34OF48, a homestead complex, consisted of a main house and two major outbuildings. The main house was defined by foundation stones, including a walkway and associated small foundation stone cluster interpreted as the outhouse. An oak tree, 70cm in diameter was noted in the yard area. Noting the occasional footing stone and the presence of chinking material in the area of the two outbuildings, both were interpreted as log structures. The conclusion that one of them may have served as a residence is supported by the presence of domestic artifacts and the historic pattern in which the primary residence is abandoned as economic conditions permit the construction of larger and more prestigious homes (Wallis 1984:89-90).

Standing structures are normally not the focus of archaeological reports. However, when an explicitly archaeological approach is taken during the investigation of such a site, the results are often enlightening. The Garside House property

in Atoka County is such an example. Constructed in 1915 by Joseph Garside and his sons, the Garside house replaced a two-room cabin that had housed his family of eleven. The site is near the Texas Road and was utilized by travelers beginning in the early part of the 19th century (Briscoe 1990d).

Briscoe's research at the home site not only documented the house proper, but recorded a variety of associated features. The two springs that provided water for Stringtown, known as Double Springs prior to the Civil War, a storm cellar, a cemetery, the site of the old house, a smokehouse, and a variety of unidentified outbuilding features were all recorded. Artifact scatters indicate that the site was also occupied in the prehistoric period.

Briscoe's approach illustrates that a property may be significant for a variety of reasons. This property is a significant example of the Prairie Box architectural style, it was occupied by an individual important to the local history of the area, and it possesses the ability to yield significant information about past. In short, this property meets three of the four criteria for inclusion in the National Register of Historic Places.

The Northeast

Two foundations associated with Euro-American frame construction in Lincoln County present an interesting array of associated features. Farmstead 34LN73, contained not only a foundation for the farmhouse and porch, but the foundation of a small barn, a spring, a cistern and a well. Live plants on the site, including catalpa and walnut trees and shrubs, indicated landscaping efforts on the part of the early 20th century occupant A porch was also indicated by the residential foundation at 34LN74. Dating between 1900 and 1920, the foundation and nearby cellar are adjacent to a large sand plum thicket (Wallis 1981c:18, 26).

Grander than most homes and somewhat atypical of houses investigated archaeologically in Oklahoma, the home of Major DeWitt Clinton Lipe (34RO34) was a rectangular two-story house constructed with lumber imported from Missouri in 1871. The house burned to the ground more than 100 years later. Major Lipe served in a variety of court clerk positions in the Cherokee Nation and was later elected to several offices, including a seat in the Cherokee Senate and the office of Cherokee Nation Treasurer. In addition, he owned a general store, served as postmaster, and was active in the establishment of one of the first phone systems in the region (Henry and Gaston 1987:2-4, 23).

Even though the house burned, the remains of the house and farmstead still clearly reflect the importance of the builder. The foundation of the original house was made of dry laid local limestone with sockets cut to receive wooden structural supports. The chimneys at either end of the building served both floors, and the exposed portions of all four fireplaces displayed decorative chisel work. The house's construction history is clearly reflected in the remains. Additions before 1900 have foundations similar to the original, while more recent additions have brick foundations (Henry and Gaston 1987:5).

Documentary sources reveal that site 34OS540 was on land first allotted by the Osage to John Bigheart (Wah-she-wah-hah) in 1907. The site served as pasture until 1927, when a house was erected on it by William Shidler, along with a barn and other necessary features of a small ranching operation. The house was moved to nearby Burbank, Oklahoma, around 1937, probably following the destruction of a number of residences in Shidler by a tornado (O'Neill 1990:36). Site 34OS540 consists of the foundations of the structures associated with the Shidler Ranch. Investigated as part of the construction of a pipeline, only the house foundation in the direct right-of-way of the pipeline was tested. Surface material and material from several small test excavations confirm the historic resources (O'Neill 1990:52). The house remains standing, and while detailed mapping of the house foundation and the testing program provided confirmation of the documentary history, direct comparison of the "archaeological" foundation with the extant house might have proved very interesting.

Dickerson et al.'s (1991) study of the area north and east of Tulsa served notice that even relatively recent historic resources are rapidly disappearing around metropolitan areas. It also showed that a wide variety of domestic site types can be recorded and considered in a regional analysis when the survey is sufficiently focused. Sites recorded in this study relate to a variety of

domestic activities. In addition to residential units ranging from artifact scatters to standing structures, recorded archaeological properties included way stations, schools, cemeteries, and a battlefield . None of the standing structures are of log construction, and even though many of the structures have been demolished or moved, the research potential of the sites was judged to be good-to-excellent, largely because most of them remained relatively undisturbed.

The Southwest

A far less dramatic example of a burned structure is 34CT53, a Cotton County farmstead. The main farmhouse burned in 1945 whereas most of the other features were apparently salvaged. From interviews with one of the original occupants who built many of the original structures, the function of individual features were able to be assigned very accurately (Anderson and Bearden 1992a:109-110).

Three sites in Comanche county (34CM412, 34CM426 and 34CM434) are well preserved homesteads considered eligible for the National Register of Historic Places (Weston et al. 1992:VII-32). All three are on the Fort Sill Military reservation and, though they have come to the attention of bottle hunters and have been subjected to military activities, they have remained essentially undisturbed since their purchase by the military in the late 1930s and early 1940s.

These sites also include two types of excavated features, cisterns and storm shelters. Site 34CM412 also had a dug well and remnants of landscaping. These remnants included two low rock walls outlining the driveway, a flower bed adjacent to the house foundation, and a line of spruce trees at the edge of the driveway . Sites 34CM434 and 34CM426 also contained some landscaping features including fences, flower beds and trees (Allday et al 1992a) (Figure 6).

Although both 34CM434 and 34CM426 are smaller and possess a lesser variety of residential features than 34CM412, they exhibit a variety of other features that indicate that they were more directly involved with agricultural pursuits. Both sites include the remains of livestock-related structures not found at 34CM412. Features at 34CM434 and 34CM426 include barn foundations, fences, stone-walled stock pens, and water troughs. Maps of these two sites reveal the relationship of these features to the residential units and, in the case of 34CM426, the relationship of the site to nearby cultivated fields (Allday et al. 1992a:VI-192).

Recorded in the process of an archaeological survey of Fort Sill, the dating of these sites is well controlled through documentary research. Documentary research further hints at an interesting correlation between the features of these sites and the economic pursuits of the site's occupants. 34CM412, with an apparent emphasis on residential features, was occupied by I.E. Carter, the owner of I. E. Carter's General Store and Grocery from 1920 to 1929 (Allday et al. 1992a:VI-150). This is in contrast to 34CM434 and 34CM426, where the principle economic pursuit was related to agriculture.

The Northwest

Like the Southwest area, homesites in the Northwest which contain frame residences (Figure 19) often exhibit a variety of features that reflect the residential history of the place. Sites 34RM329 and 34RM346 both contain concrete foundations, as well as several depressions that may have been storm cellars and/or original family dugouts . Two other sites (34RM309 and 34RM349) also contain concrete foundations, cellar depressions, and other features, but identification of these structures as wood frame buildings was more obvious from the demolished remains on one foundation and the presence of milled lumber on the other.

Given the lack of building materials in western Oklahoma, it is not surprising that even a small old frame house such as the one at 34RM304 would serve as hay storage. In a state of disrepair, the four-room house was dated to the early 1920s by a newspaper that had been used as wallpaper (Moore 1988b:121-144).

SODDIES AND DUGOUTS

In the northern and western portions of the state the material of choice was sod. Although some sod houses were built on the level, more common was a dugout excavated into the side of a hill (Figure 20). Interior walls and low walls on the exterior were then constructed and the roof

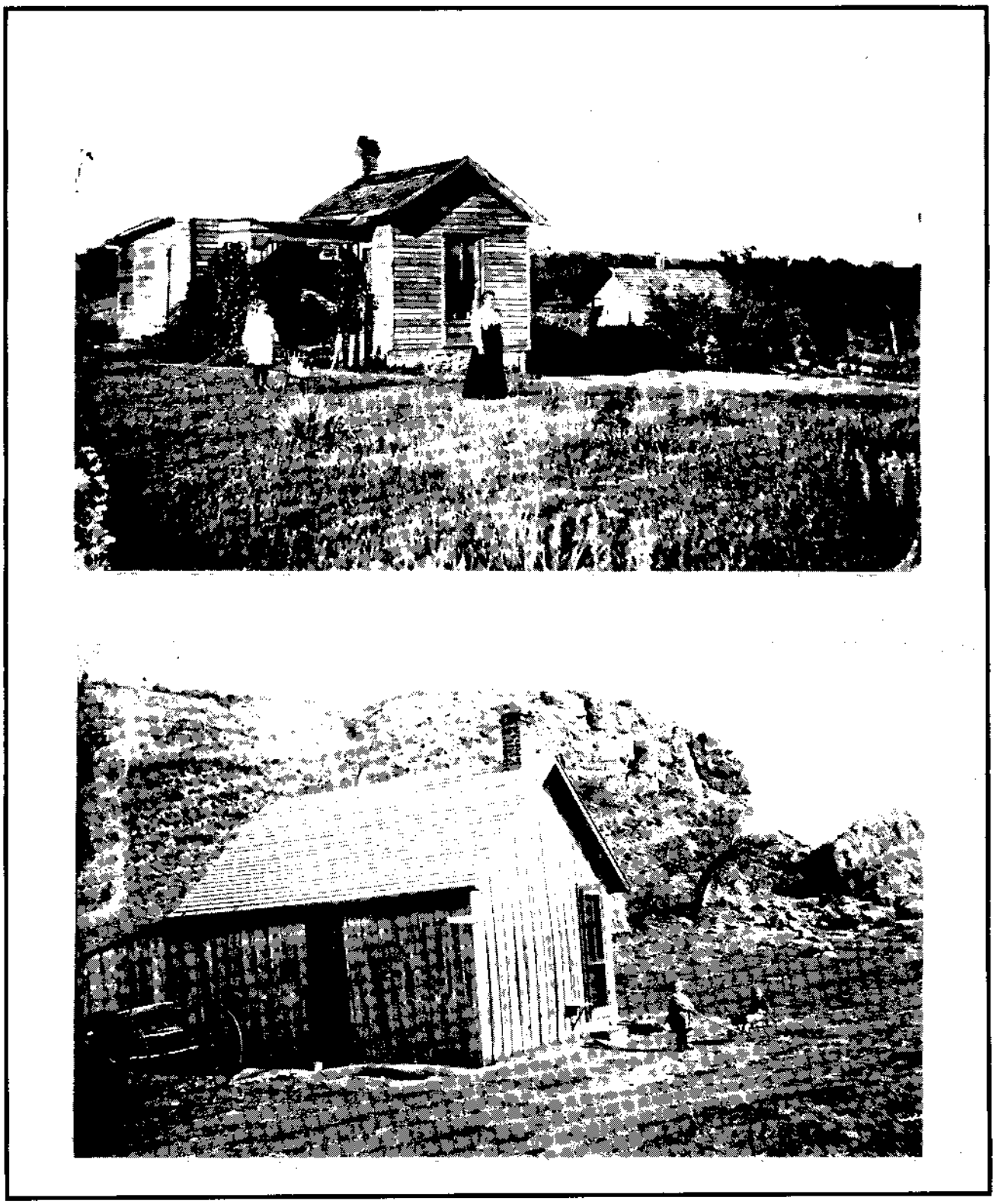

Figure 19. Typical frame farmsteads from western Oklahoma, ca 1900. **A)** Small frame farmhouse with outbuilding. Note planting at the corner of the porch and trash near the outbuilding; **B)** Board and bat farmhouse. Note the shedroof portion on the rear and general lack of trash. (Both photographs from the Archives and Manuscripts Division of the Oklahoma Historical Society).

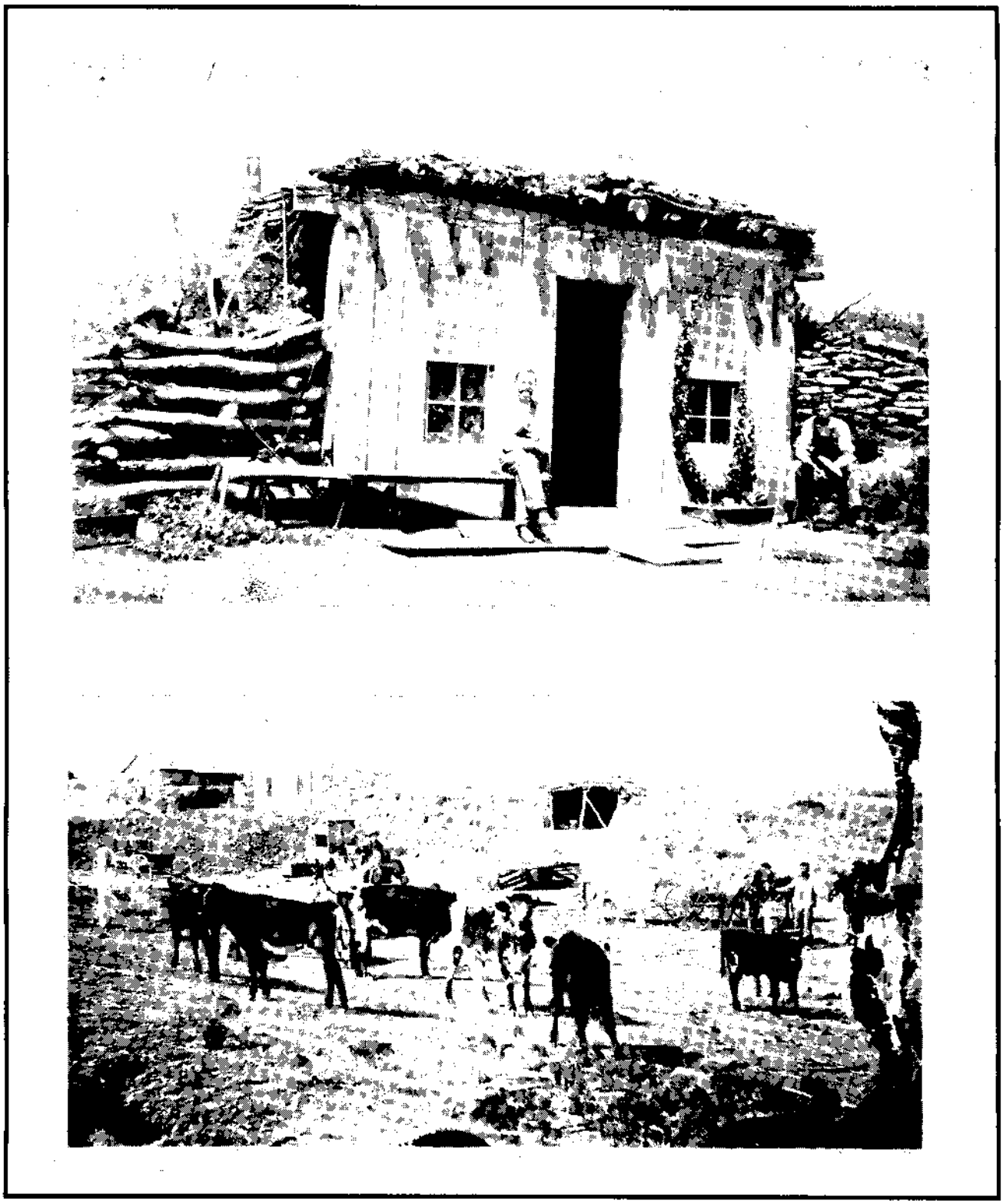

Figure 20. Typical dugout farmsteads from western Oklahoma, ca 1900. **A)** Fancy hillside dugout with two glass windows and flower box. Note roof construction; **B)** Dugout and half dugouts used by cattle to the right may have preceded the frame house at the left as the family residence. (Both photographs from the Archives and Manuscripts Division of the Oklahoma Historical Society, J.O. Walker Collection).

was put in place. Many of the "first generation" dugouts used available logs for roof beams. These were usually made of cedar, unless the settler was near one of the major rivers or streams where cottonwood and other trees were available. Beams were placed to span the low exterior walls. Across the beams were placed smaller logs, flat boards, brush and/or other material, and finally a layer of soil, often the very soil removed from the initial excavations.

Dugouts continued to be preserved far beyond their life as a residence by assigning them the function of storm shelter. These dugouts survive not only violent tornados, but also the subsequent activities of man. For example, the only remaining feature at site 34LN18 is the cellar, although the location and artifact inventory indicate an intense occupation. The site produced an abundance of material dating from statehood to 1927, and is situated near both an early wagon road and the Fort Smith and Western Railroad. The mixing of site material and the nature of the cellar fill indicate a deliberate effort to remove the house and fill the cellar (Wallis 1983b:129,172). Because dugouts tend to survive and be reused, determining their original function is one of the major problems of "dugout" archaeology.

The vast majority of dugouts documented in the archaeological record are simply noted as depressions containing a minimum of associated features. Recorded in regional surveys, typical dugout sites include 34CL123 in Cleveland County (Steinacher 1986:44) and 34CA84 in Carter County (Northcutt 1980:21), both of which are simple depressions with few associated features. Site 34GR94, a 21 by 15 foot dugout overlooking the Elm Fork of the Red River, contained an abundance of artifacts that provided good dating to the period 1891-1915. In spite of this abundance of artifacts, no other features were recorded at the site (Northcutt 1978:53-61).

Of the twelve dugouts recorded in the Hay and Cyclone Creek Surveys 10 were described only as oval or rectangular depressions. Two others were similarly described, but included some details of construction. Both 34RM387 and 34RM376 (Moore 1988b:164, 171) were constructed of local sandstone covered with a thin layer of cement. Site 34RN376 may have been two stories high with a thin cement veneer on both the exterior and interior surfaces, while 34RM387 was partially excavated into a ridge and was coated only on the interior. The waste blocks from the construction of 34RM387 appear to mark a fence row on the downslope side of the residence. A cistern and livestock pen were associated with an excavated structure.

Like the log cabin in the east, the soddie/dugout was considered a symbol of poverty and lower class. And like the log cabin, as soon as the occupant was able, he moved out.

Although not completely excavated, extensive test trenching of two dugout sites in Payne and Pawnee counties has provided the best interior information on dugouts. Excavations at 34PY19 revealed a 5 x 6 meter structure excavated into an east-sloping hill. The interior features consisted of a circular stone hearth near the front of the structure and a low bench constructed of sandstone slabs at the back wall. The north side wall was topped with sandstone slabs, while on the south side, slabs were set on end to provide a lining. Perhaps the most interesting feature was the floor. Although there are no indications that any of the stones incorporated in the structure were burned, the floor appears to be fire-hardened clay, indicating a technique of fire hardening the floor prior to wall construction (Young 1978:20-23).

A short distance from 34PY19 is 34PW73, a site with three adjacent dugouts also excavated by Young (1978). The three dugouts, set side-by-side in a south-sloping hill, were interpreted as a residence (Structure A), a food storage area (Structure B), and a livestock holding area (Structure C). Structure A, the largest and deepest, and Structure B were both well defined with associated features, including a slab-paved floor or porch in Structure A and a hearth and slab bench in Structure B (Young 1978:38, 63). Although interpreted as three separate units, each with a different function, it is equally likely that all began as residential dugouts and that the relative sizes, condition and presence or absence of domestic artifacts reflect the construction of new residential units as needed and gradual abandonment and reuse of old units. Artifacts at the site date from the 1890s, as indicted by the head stamp on a Remington .22 cal. shell, to the 1920s as indicated by the presence of glass canning jar lids and the a lack of later canning lid types (Young 1978:76).

The presence of 1920-1930 car parts, a post-1900 trademark, and the absence of artifacts commonly associated with the pre-1914 period dates a dugout (34LV80) reported by Northcutt somewhat later than is typical. Found beside the 3 x 5 meter depression in the east-facing slope were the fragments of four large beams, probably the remains of roof beams (Northcutt 1980:17).

Although largely confined to the northern and western parts of the state, dugouts do occur in the eastern half of Oklahoma. The presence of dugouts in the east is more likely related to tornados than the lack of other building materials. For example, 34WG112 is a typical site with a combination of surface foundations and a partially filled dugout. Material found at the site dates the occupation from the late 19th century (ca 1990) to ca 1930 (Hayes 1985:98).

The remains of above-ground sod houses can easily be overlooked or misidentified during the course of regular survey work. Some of these sites have undoubtedly been reported as some variety of landscape feature. At 34BV30, in far western and arid Beaver County, the remains of a sod house and several outbuildings have been identified. Photo illustrations and maps of the site indicate that spaced stones and earth slump mark the locations of these badly eroded structures (Duncan and Fricks 1979:86).

STONE AND MASONRY

Masonry construction is most commonly associated with commercial structures. Very often governmental and financial institutions deliberately occupy massive structures which reflect stability and create a sense of confidence. Masonry residences were often constructed by individuals to create the same effect. Well established citizens solidified their family's position in the community by constructing a home that clearly reflected their position

Not every stone house, however, was a monument to wealth. In northern and western Oklahoma, timber was nearly non-existent and transportation poorly developed; thus stone became a material that was often used in lieu of the less permanent sod.

As with dugouts, one type of masonry construction has tended to be preserved, the storm shelter. Where material and craftsmanship were available, these specialized structures are often the best built structures in the rural residential complex. In the Sewart Area of central Oklahoma, several such structures are worthy of attention. Sites 34LG24, 34LG26 and 34LG37 are all homesites with keystone-vaulted cellars. Additional sites of this type include 34LG20, a farmstead with one of the few extant early barns in the region; 34LG40, a masonry habitation structure that was more solidly constructed than is common for houses of the period; and 34LG36, a small house and outbuilding which appear to be associated with a nearby railroad (Stewart and Hackenberger 1977:51, 56-75)

Anderson and Bearden (1992b:73) have recorded a structure in Caddo County that can be termed masonry. In this case the feature, 34CD161, assigned a residential function, is a room cut into the sandstone bluff top with a passage opening into the canyon. The room is 3 meters square with a ceiling height of 2 meters. The workmanship of the interior is excellent. Several artifacts were noted in the room's interior, including a log bench and an ironing board. Graffiti and county courthouse documents were investigated in an attempt to date the site. Although exact dating is impossible, the authors think that the room was carved in the very early part of the 20th century, possibly when the land was homesteaded in 1904.

A site similar to 34CD161, 34PY18, was recorded by Wallis during a survey of Lower Black Bear Creek in Payne County. As at 34CD161, this "dugout" had been carved into a sandstone formation to create a room. The L-shaped room at 34PY18 was 7.3 meters along the long axis. More sophisticated than the similar Caddo County structure, the absence of waste material, including blocks cut from the edge, and the presence of a carved ledge with ornamental pillars may indicate that the structure was carved by a stone mason (Wallis 1977a:44).

Utilizing the bluff as one wall of the structure, the Abbot farm residence (34BV41) is a masonry structure with an interior fireplace and storm cellar. Built of local stone, it featured an attached chicken coop. Although not well dated by materials, the presence of purple glass indicates a pre-1915 occupation (Duncan and Fricke 1979:101).

Perhaps more typical of masonry construction is 34WA149, the remains of a limestone-walled residence. Apparently constructed some time after 1915, the house was documented on a 1935 soils map but failed to appear on a 1961 USGS map that was cross-checked to 1958 aerial photographs (Wallis 1983c:3).

EURO-AMERICAN TOWNSITE ARCHAEOLOGY

Not every site associated with domestic archaeology in Oklahoma is a single-family unit or residential complex. Changing economic and other conditions have forced the periodic abandonment of towns. The boom cycle associated with the extraction of minerals, the impact of changing transportation and communication technology, and environmental factors have all played a role in the abandonment of towns in the west.

Texmo (34RM256) in Roger Mills County was established in 1898. Supporting two hotels, two blacksmiths, a cafe, post-office and a variety of retail stores, the town was deserted within a year after being bypassed by the railroad in 1911. Today the townsite is only a plowed field with no trace of buildings or other remains (Moore 1988b:116).

A concentration of historic ceramic fragments marks the location of a restaurant dump in Whizbang (34OS221) in Osage County (Vehik et al. 1979:166). Located in the greater Burbank field, this short-lived town named after "Captain Billy's Whizbang Magazine" is typical of the overnight construction and rowdy ways associated with the boomtowns of Oklahoma's oil industry. According to J.W. Stoker, a supervisor for the Sinclair Oil Co. and leading citizen of Whizbang, two companies, Sinclair and Shell, split the town with their property, each dominating one side of Whizbang's central street (Gaither: 1982).

The town of Lowe, formerly known as Speer, has been investigated as part of the archaeological research program associated with the environmental work at Bellcow Reservoir. The "Lowe" post office was established in 1892, changed names in 1902 to "Speer," and was officially closed in 1904. Minimally impacted by Bellcow Reservoir, the site was tested in the belief that a short occupation, as indicated in the historical documents, would provide a temporally limited artifact sample. Excavation revealed that the midden sample was associated with a nearby single-family residence and was not the general town dump, as had been hoped (Wallis 1991:294).

The town of Old Skiatook (34TU51) was established by W.C. Rogers around 1880 and abandoned prior to statehood in 1904. In 1984 the townsite, two miles north of the present town of Skiatook, consisted only of a few log structures and foundations, but Drass (1985:141) has assessed the research potential of the site to be good.

William Lees' investigation of the town of Old Hardesty (34TX33) demonstrates the value of detailed investigations of historic townsites. Established at the confluence of Coldwater Creek and the Beaver River in 1886, Hardesty was abandoned within 20 years when a new town site was selected further south (Lees 1983:83). Utilizing artifact categories and category patterns developed by Stanley South, Lees developed the Hardesty Artifact Pattern based on materials excavated from two domestic structures at the old Hardesty location. The Hardesty Artifact Pattern is similar to the Carolina Artifact Pattern and the Slave Artifact Pattern, but is easily distinguished by only minor representation in the "kitchen" artifact group (Lees 1983:91). The Hardesty Artifact Pattern reflects the isolation of Hardesty, particularly with respect to limited trade and purchasing power.

Several significant historic towns have disappeared without becoming objects of archaeological scrutiny. Often springing up overnight with the development of a specific industry or with the sudden opening of a new territory, many of the small towns of Oklahoma that have disappeared under the waters of various reservoirs constitute a significant resource that, for the most part, has not been adequately investigated. Mannford, now under the waters of Keystone Reservoir, and Kaw City, now under Kaw Reservoir, are examples of opportunities of research lost. Hochatown was an even greater loss. Research into this small town associated with the pre-statehood timber industry might have yielded valuable information on town formation, early small town economics, and other topics.

In addition to these "general" townsites, com-

pany towns associated with the timber, oil and mining industries also occurred in Oklahoma. These are discussed in another section.

MISCELLANEOUS DOMESTIC SITES

Government buildings

The sites in this category relate to a single function - education - and to its most common manifestation in Oklahoma, the small rural school. In western Oklahoma, two schools, the Banner School (34RM315), a three room brick building, and the Old School Site (34RM240), a foundation indicating a two-room school, have been recorded but have not been tested or collected (Moore 1988b:125, 109).

Dumps and Trash Deposits

Artifact rich and usually related to another specific site, these commonly provide a more complete picture of the range of artifacts than is encountered in the excavation of structural features. In addition to a full range of artifacts, dumps provide excellent data on food consumption.

Projects such as pipelines and roadways, which are not defined by historic values, often cross-cut dumps or trash deposits in such a manner that investigation of the dump's immediate origins may not be possible. The fact that many individual artifacts can be accurately tied to specific manufacturing or processing points and dates allows for some analysis directed at defining patterns of trade and consumption. Typical examples include 34Pt-0/2c and 34Pt-0/2d, two dumps associated with a farm road impacted by the construction of Salt Creek Watershed Impoundment 34 (Wallis 1981c); and 34GV-0/11a and 34GV-0/11aa, two dump areas dating to the 1920s and 1930s that were impacted by channelization of Beef Creek (Wallis 1981b:9-14).

PRESENT PROBLEMS AND FUTURE DIRECTIONS

The problems of Oklahoma's Euro-American domestic archaeology are directly related to the nature of the research accomplished to date. There has been little excavation of the relatively common Euro-American domestic sites, and most of the research that has been accomplished has been more oriented to fulfilling the obligations of Section 106 than to providing basic research. As most of these Euro-American domestic sites have been discovered in conjunction with Section 106-related surveys, it is unlikely that many of them will be excavated in the future. Sites discovered in conjunction with the Section 106 process are rarely related to a stated research design, and dating is typically of inconsistent quality; therefore, they are of limited research potential.

As noted above, several dozen dugouts have been recorded, their surface features mapped, and even the occasional test pit excavated, but none have been completely excavated. Photographic documentation of dugout exteriors is as common as photographic documentation of dugout interior is rare. Activities such as food preparation, storage, and a host of other interior activities cannot be addressed without excavation. In addition to clearly defining the interior manifestations of these activities, excavations of the yard associated with dugouts is necessary to define use areas related to outdoor seasonal activities.

Likewise, sites of Euro-American domestic origin with foundations have been recorded but not excavated. Often, the apparent goal of recording such sites is only to verify the accuracy of the map that was used as a source to determine if a site should be present. Aside from being somewhat circular, this produces little, if any, new information. A more detailed mapping of these sites would be desirable. Acknowledging that even minimal excavation is unlikely, detailed mapping would provide the basis for addressing space utilization at different time periods and, if available from documentary research, different ethnic and national groups.

The basic floor plan of many forms of vernacular housing has often been found to be tied to specific temporal, spacial and ethnic categories. Once patterns have been firmly identified and associated with particular ethnic groups or locales, the floor plan can form the basis of comparison across regions .

Information on settlement patterns is an aspect of pioneer life that can be easily obtained from land records and correlated with goods recovered in controlled archaeological excava-

tions. A variety of problems related to the occupants' economic status, long distance trade, and local markets can also be addressed. In many cases information on national origin may be available from documentary sources and may be coordinated with excavated material to address research problems related to national origins.

Spacial limitations imposed by agencies, as well as other administrative problems directly associated with federally mandated archaeology, are of particular relevance to townsite archaeology. Unable to conduct research outside the reservoir or right-of-way, agency archaeologists are greatly hampered in dealing with total sites.

Oklahoma was settled in a period when the printed media reached virtually every part of the country. Always a populist state, the extent to which Oklahoma farmsteads reflected a national norm, (or for that matter *which* national norm) might serve as a research question. The extent to which the layout of the farmsteads, the selection of cash crops, and the spread of technological advancement were influenced by national trends should provide insights into the degree to which "frontier farming" was integrated into the national scene.

Yet another factor is the presence of towns and their impact on settlement patterns. While "natural" factors played an important role in the selection of prehistoric sites, cultural factors played a larger role in the selection of historic site locations. Towns like Texmo may have been very short-lived, but the settlement pattern they influenced may have persisted much longer.

INDUSTRIAL ARCHAEOLOGY

Although Oklahoma lacks the water powered mill complexes of the east coast and the equally impressive sites of the western mining industry, industries of national significance have still left lasting and significant impressions on Oklahoma. Most of Oklahoma's industrial archaeological sites (Figure 21) are associated with extractive industries. Mineral extraction, especially the coal and oil industries, is responsible for a bewildering variety of sites in almost every county in state. Northeast Oklahoma contains sites associated with lead and zinc mining, while southeastern Oklahoma contains sites associated with the timber industry. Industrial sites in Oklahoma are the same as those associated with extractive industries around the world and include sites at the point of extraction, specialized processing locales, waste and spoils piles, towns, and transportation-related sites. To date, very few of these have been examined archaeologically.

In Oklahoma many industrial sites have been recorded as part of the development of historic contexts for the State Historic Preservation Office. Although stressing standing structures and not exactly "archaeological" in approach, these studies address the resource base more in the manner of archaeology than of traditional history. The intent of these studies is to provide a context within which to judge the significance of newly discovered individual sites. For example, George Carny's (1981) study of the Cushing Oil Field included not only sites and objects directly associated with the oil industry, but also structures related to the growth that accompanied the oil boom. From shotgun houses of the common oil field worker to the mansions of industry leaders, this study presented through the careful selection of sites, a complete picture of the oil industry. Studies like that by Dr. Carny permit relatively rapid evaluation of sites discovered during the Section 106 process.

EXTRACTIVE INDUSTRIES

Oil

Oil industry sites are now considered as resources in their own right, and not just disturbed areas to be worked around. Early oil field photos reveal a landscape crammed with derricks, tanks,

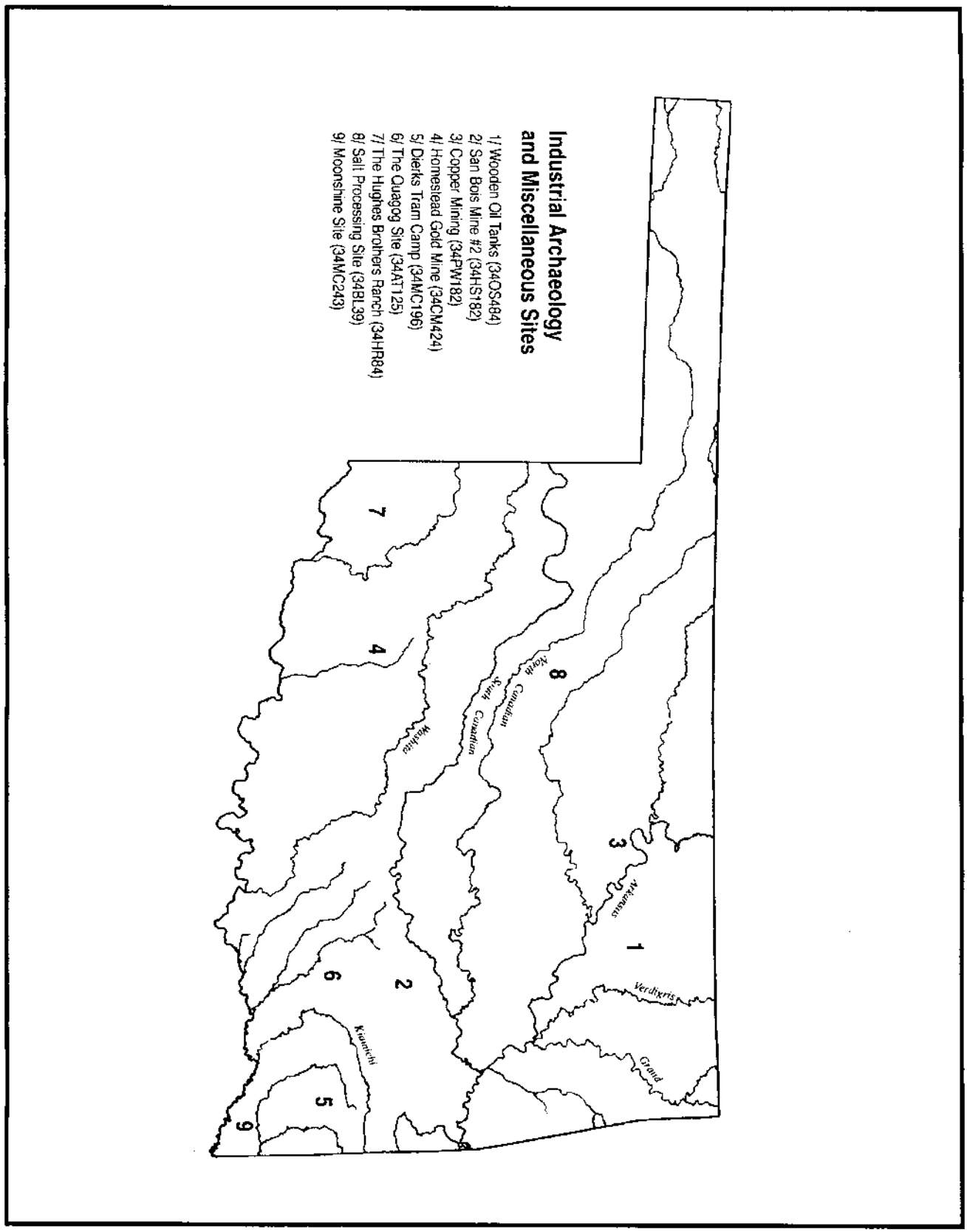

Figure 21. Location of Industrial Archaeology and Miscellaneous Sites.

holding ponds, pumps, central powers, and a variety of other features. When encountered in the field today, the remains of an early oil field are most commonly manifested by a distressed landscape dotted with concrete foundations and the occasional cluster of relatively complete components. Typical oil field resources include a variety of tanks, both wood and metal, pump and bull wheels, concrete foundations, and holding ponds. The entire spectrum of oil field resources has been addressed in the context documents noted above. Context documents tend to treat a broad spectrum of resources, and include property types not commonly considered by archaeologists as part of an industrial complex, such as corporate headquarters and similar urban resources.

A survey sponsored by the State Historic Preservation Office recorded an oil field site in Osage county (Parks # 3 - 34OS484) that included an intact wooden oil tank, the debris for a second wooden tank, and other features associated with an early pump station. The site is indicated on a 1912 topographic map and was probably developed as part of the Avant Oil Field, first discovered in 1904 (Drass 1985:144).

In addition to State Historic Preservation Office-sponsored surveys, individual sites have been recorded as part of cultural resource management activities. For instance, a cultural resource survey in Tulsa noted two oil industry sites. Both are associated with the development of the oil industry: the Glenn Pool oil field area as a whole, and the discovery well for the Glenn Pool field, the Ida Glenn #1 (Duncan 1977:38, 42).

Discovered during the redevelopment of an older oil field, 34PY60 consisted of abandoned pumping machinery and other material scattered about the area. With most of the material dating to the 1930s or later (Briscoe 1984:4), this site does not appear to be associated with the earliest development of the Cushing Oil Field that occurred prior to 1920. An historic oil field was also discovered in conjunction with the development of new wells in the old Healdton Oil Field. 34CA120 consisted of a trash scatter with items dating to the 1930s and 1940s as well as the remains of camp buildings and tent/shack features (Briscoe 1990c:4). As with 34PY68, the remains do not appear to have been associated with the primary development of the field.

In eastern Oklahoma early oil development often occurred on land that also contained coal deposits. With modern technology permitting deeper and more extensive surface mining, the remains of the era of early oil field development are being impacted. Accordingly, as these areas are permitted for mining, the historic oil field resources are recorded. In such an effort, Lintz (1983:8-11) recorded five localities, each comprised of combinations of these features and objects.

Coal

Coal was the first fossil fuel industry developed in Oklahoma, mining having begun in 1872. McCurtain, in southeast Oklahoma's Haskell County, was a company town for the San Bois Coal Company which also operated a nearby coking plant. The miners in McCurtain worked in the Sans Bois Mine #2, a mine best known for an explosion on March 20, 1912, that killed 73 men (Cojeen and Milam 1992:6). Although archaeological testing of the McCurtain townsite revealed that the oil drilling activities which precipitated the investigation would have little impact on the site, the investigation did provide some insight into the research potential of industry towns.

Coal mining in the Choctaw Nation was very much an ethnic affair. The Choctaw refused to work in the mines. Labor for the mines was supplied by importing miners from around the world. Among the 73 men killed in the Sans Bois Mine #2 disaster, 44 represented 9 different immigrant national/ethnic groups (Cojeen and Milam 1992:7).

Mining towns like McCurtain have the potential to provide excellent archaeological data on ethnic diversity. Historical records and present settlement patterns indicate that individual national/ethnic groups tended to settle in enclaves within the mining towns. While some groups are almost certainly too small to be visible in the archaeological record, others such as the Italians, Austrians, Welsh and (although not documented in the Sans Bois disaster) Mexicans should be definable by material remains.

Mining also occurred in the southwestern portion of the state. Two old mines have been recorded on the Fort Sill Military Reservation and, although these sites are small and have produced

few artifacts, they do indicate that the area was actively explored by prospectors. These sites (34CM431 and 34CM424) contained simple, shallow pits which are now filled with water. Documentary research revealed that the 1904 lease for the smaller of the two (34CM431) focused on energy-related resources (Allday et al. 1992a: VI-195). Interest in gold is indicated by the 1906 transfer of the mineral rights to site 34CM424 to the Homestead Mining and Milling Co. (Allday et al. 1992a: VI-109), a company which mined and processed gold.

Minerals

Other minerals mined in Oklahoma included gold, copper and asphalt. 34PW182, a site related to copper mining, originally consisted of eight prospecting holes and two shafts excavated sometime prior to 1936 (Mayo 1983:11). When recorded as an archaeological resource in 1983, only five pits and a scattering of copper-related minerals were noted.

Copper was mined in Pawnee County during the 1940s, possibly in response to the shortages of World War II. A copper mill in Pawnee county was associated with the Pawnee Copper Mining and Milling Company. The mine was undeveloped when the area was visited by the Oklahoma Geological Survey in 1940. Correspondence between geologists and the company ended in 1946 with a letter and attached report indicating that samples submitted by the company were of little commercial value (Mayo 1983:9)..

The Jumbo Asphalt Mine opened in 1903. It had operated only 10 years when it closed after an explosion caused by a buildup of natural gas that killed thirteen miners. Named after the "jumbo" asphalt nodules that stimulated mining in the area, the site has been almost completely destroyed by erosion (Briscoe 1991:3).

OTHER INDUSTRIES

Timber

The timber industry has a long history in Oklahoma. Each of the 77 counties in Oklahoma has had timber operations within its borders, but the industry has had its greatest impact in the southeast portion of the state, in particular the area of the Choctaw Nation. Although timber was cut along major rivers at an early date, it was not until the railroad arrived there, that the industry began to have an impact on the region. Not only did the railroad provide the means for transporting produce to the outside market, but the railroads themselves were consumers of cross ties and posts (Curran 1977:83-90).

One site in southeastern Oklahoma related to this industry (34MC196) is a logging tram camp reported by Gettys (1975:61-63). Discovered during a survey of the proposed Lukfata Reservoir, this site had no extant buildings, but did contain a portion of the old tram roadbed and a linear arrangement of trash that may have been associated with a row of temporary buildings. For the most part, the artifacts are representative of the post-1910 period, an assignment which fits with the local estimations of the age of the camp.

One item recovered from the site, a padlock with the letters "DLC co." molded onto the back, merits additional comment. The lock appears to be the type commonly associated with track switches, and the letters almost certainly stand for "Dierks Lumber and Coal Co.," a relatively large company and the founders of the camp.

The Dierks Lumber and Coal Company tram camp, and the large corporate operation it reflects, contrasts sharply with the remains of small independent mill operators from the McGee Creek area. The trend to smaller mills is related to the exhaustion of timber lands in eastern Oklahoma and the nature of the local topography (McGuff, Moore and Kemp 1993:23, 27-28). A local milling industry was firmly established in the McGee Creek region by the last quarter of the 19th century. Small independent operators, typically with crews of less than ten, moved into these more rugged areas and harvested timber within easy working distance, often with little regard for the regulations and permits required by the Choctaw Nation.

The small mill operator typically selected a tract of land to cut, set up his mill, and began cutting. While the arrangement of the sawmill site components varied with the local setting and the knowledge and experience of the mill operators, the basic elements remained the constant. As McGuff, Moore and Kemp (1993) note

> The components of a steam mill consisted of a boiler, engine and circular sawmill complete with shafts, pulleys, clutch and sawblade. The sawlogs were mounted on a carriage that offered the log to the rotating sawblade. The log was secured by "dogs" and its position set by adjusting the head blocks. Sawdust was removed by a chain or dust blower that transferred it from a pit under the blade to a pile away from the mill.

Most of the known sites that relate to the timber industry have documented both industrial and domestic activities. Included here are the Insane site (34AT313), the Swamp Chill site (34AT377), Bill's Mill (34AT383), the Shire site (34AT385), the Spider site (34AT489), and Sharons site (34AT499), (McGuff et al. 1993:175-188). Two of this type of site possess special features. The Quagog site (34AT125) was the only mill situated to allow the operator to farm the surrounding land, while the Satan's Well site (34AT213) was the only one in the area which utilized a tramline (McGuff et al. 1993:155-175).

Although many of the sites reflect domestic activities, many do not. The Wiedner site (34AT186) was a mill with indications of periodic domestic activity, probably the leftovers of a watchman. The Knee of the Cow site (34AT487) and the Dam Complex site (34AT130) are both mills mixed with modern occupations. The Gandalf site (34AT384) was a steam-driven mill in a unique upland setting, at which a cistern had been constructed to supply water for the steam boiler. And the Brick site (34AT189) was noted for an unusually large boiler, while the Historic Sawmill site (34AT309) was the only one in which the remains of kilns for drying lumber were found (McGuff et al. 1993:159-185).

Ranching

It is difficult to separate properties classified here as Euro-American domestic sites from the complexes associated with the ranching industry. One study in southwestern Oklahoma was directed specifically at the ranching industry. Parcels were selected for survey based on their potential to contain ranches as indicated by historic research. The results of the survey, though limited in scope, were promising. Of the 47 archaeological sites recorded, 13 were related to historic ranching complexes. These represented a wide range of entities from small family operations like the Perryman Ranch (34JK130) and Fraley Ranch (34GR161) to larger operations like the Hughes Brothers Ranch (34HR84) (Anderson and Bearden 1994:138).

Research questions addressed by the survey concerned the archaeological visibility of specialized ranch structures and relationships to water. The study concluded that, even though many of these sites were not established until the late 19th century, the same factors that impacted the visibility of prehistoric sites have also impacted these sites. Relic hunting, material salvaging, and subsequent use have all impacted the sites. At the Fraley Ranch, for instance, the stone corrals were salvaged and utilized in the construction of a house 11 kilometers to the south (Anderson and Bearden 1994: 98, 138-139).

In spite of these problems, much could be learned from the general morphology of the sites. Despite biases in the artifact samples created by relic hunters, the size and complexity of the sites was a direct reflection of the original operation, illustrating that significant statements could be generated without excavation. Further, there appears to be little difference, other than the size of the ranches themselves, in the features and structures found on ranch sites across the study area.

Transportation

Railroad construction and maintenance is not as well represented in the archaeological record as might be expected. Wallis has described the sparse remains of a small railroad work camp. The interpretation of the site was based on the camp's location adjacent to a railroad bed and artifacts from the site, which included a stoneware jug marked "Ro(ck) Is(land)." Dating is based on the artifacts and corporate history from which we learn that the Rock Island Railroad constructed this particular line in 1902 (Wallis 1992a:13).

Two other forms of transportation have been reported. One (Wyckoff and Wallis 1972b:3) is believed to be a portion of the Muskogee-Fort Gibson trolley car route. The small portion of raised earthen embankment was noted during the course of a survey of the OG&E generating station in Muskogee County. A stage stop (the Searless # 2 Site, 34LF351) on the Fort Towson

Road was noted by Albert (1987:111-112). Only two small ceramic fragments were collected from this site, which today is in forest.

Salt Processing

Utilized as both a condiment and preservative, salt, because of its bulk, was an expensive and important product. Local salt processing typically produced far less salt for the labor invested than those few favored locations around the county where salt was mined. Still, production was often profitable when transportation expense was included in the final cost. Two salt processing plants (34BL39 and 34BL40) are located in the salt plains of northwestern Oklahoma. The sites are representative of an industry that once was widespread in Oklahoma. Relatively little remains of these two processing plants; however, in both cases portions of the tank and pip systems remained. Very few artifacts have been recorded at either site, probably because they have been picked up by surface collectors and hunters during the annual Okeene Rattlesnake Hunt (Ferring et al. 1976:96-101).

Miscellaneous Industries

An "unofficial" industry in Oklahoma is reflected in the remains of a still reported by Wallis (1976b:7). Discovered in a spring area, a location convenient for obtaining water for malt and cooling, site 34MC243 consisted of 55 gallon drums, a wooden barrel, and numerous (and unfortunately empty) Mason jars. The drums, with their bullet holes and ax cuts, leave little to the imagination as to the fate of this McCurtain county "industrial site."

PRESENT PROBLEMS AND FUTURE DIRECTIONS

While abundant information on the history of the oil industry in Oklahoma is available, it concentrates on the technology, corporate history, personalities, or specific areas or oil fields. Surprisingly little material is available on the social and economic impact of the oil industry on the common man.

The significant amount of disturbance in some areas mandates a better understanding on the part of archaeologists of the impact of this industry on the landscape. Some early oil fields, such as the Greater Seminole, and Greater Healdton Fields, have had such concentrated development that there is little possibility that undisturbed archaeological sites will be found. Likewise, the deep plowing associated with the re-seeding of clear-cut timber harvesting assures that virtually every archaeological site in the area will be disturbed.

Documentation associated with Oklahoma's industries is second in volume only to the documentation associated with the state's military sites. When the information available from the industry's participants is incorporated into the resource base, industrial sites become one of the best documented categories of sites in the state. The extractive industries of Oklahoma have evolved along with their counterparts around the world. Industrial sites in Oklahoma have not been subjected to structured research, and there is much to be learned. All three of the major extractive industries in Oklahoma were active in the early years of statehood. Many elements of these industries associated with frontier settings should be visible in both the documentary and archaeological records of Oklahoma.

McGuff's study of the timber industry in Southeast Oklahoma is an excellent example of one such study. Incorporating both archaeological data and oral history, this study presents a very complete picture of a unique aspect of a larger industry. Detailing the exploitation of marginal resources by small timber operators, the report presents information and analysis applicable to similar situations in other parts of the United States.

The remains of the early industries of Oklahoma reflect the distinctive social and economic patterns of the late 19th and early 20th centuries. Company towns abounded in the oil, coal and timber industries. Few have been reported in Oklahoma, and fewer still have been examined archaeologically.

MISCELLANEOUS STUDIES

In addition to the site-specific body of data on historic archaeology in Oklahoma, there is a small but important body of literature that cross-cuts site reports and local and regional surveys. This section has been divided into three classes of studies: Informant Archaeology, Ethnographic Archeology, and finally material culture and technology studies. This section is not concerned with relationships to the National Register of Historic Places. Rather, the studies presented here focus on techniques that contribute to the usefulness of discovery and interpretation incorporated into the elements of the Criterion "D" discussions.

INFORMANT ARCHAEOLOGY

In this chapter Informant Archaeology refers to the use of informants, oral history, and other data acquired from living citizens. Although there is overlap between "Informant Archaeology" and "Ethnographic Archaeology," "Informant Archaeology" is specifically site-oriented while, "Ethnographic Archaeology" is oriented toward a specific cluster of sites. Because a substantial number of historical sites in Oklahoma date after 1880, it is often possible to locate individuals whose lifetimes overlap the significant period of occupation of a particular site. In a state with such rich ethnic diversity, "Informant Archaeology" has come to play an ever-increasing role in the interpretation of archaeological data and in the management of Oklahoma's cultural resources. Informant Archaeology provides information which commonly falls into one of two categories: information related to the original occupation of the site, and information related to its present condition.

"Informant Archaeology" often heightens awareness of the potential of a site. Knowing the ethnic affiliation of a site may alert the archaeologist to potential diagnostic artifact patterning. This, in turn, may alter the plan of excavation or the techniques utilized.

The life style of Native Americans forced to settle in Oklahoma was often radically different from their traditional lifestyle, and was frequently similar to that of other removed tribes and Euro-Americans settled in the region. An awareness of the ethnic origins of the site prior to excavation fosters attention to details that might otherwise go unnoticed. For example, Buehler (1982) reported a site occupied by a Pottawatomie Indian. And Wallis (1979:24-25) obtained confirmation of a Creek occupation at site 34OF24 from Phillip Deer, a Creek whose relatives occupied the site in the late 19th and early 20th centuries. Based on informant information, the Hambrick site #1 (34LF345) is attributed to the Choctaw, even though no traditional Choctaw pottery was recovered from the site. A Euro-American ceramic mark utilized by the Mayer Pottery Company from 1891 dated the Hambrick site to that period (Albert 1987:102 & 193).

A growing awareness of American cultural diversity has heightened the desire on the part of many researchers to specifically address the ethnic origins of the people who occupied the sites they investigate. Few reports have presented the national origins of Euro-American settlers, though Wallis (1977b) reported a site in the Quapaw Creek drainage that was occupied by an Afro-American homesteader.

In addition, informant archaeology can provide information on the life styles and folkways of specific regions or occupational groups. The oral history collected as part of the McGee Creek Project (Langley 1993) included information on mill sets which applied directly to sites in the project area. This information included not only the traditional information of date, location, function, and size, but information on events associated with the sites. Similar interview information focusing on the ranching industry has concerned the construction and staffing of a one-room school, information on crops, and stories relating the details of cattle drives (Anderson and Bearden (1994:173, 203-204).

ETHNOGRAPHIC ARCHAEOLOGY

The incorporation of ethnographic research as part of an archaeological project aimed directly at the interpretation of physical remains has been termed "Ethnographic Archaeology". As utilized

in this study, Ethnographic Archaeology differs from Ethnohistory primarily in that the former focuses on physical resources, the latter on narrative history.

Ethnographic Archaeology is a growing area of interest in Oklahoma. Oklahoma archaeologists are very aware that the tribes which reside in Oklahoma often have members with an active interest in archaeological research that focuses on their history or culture. Several archaeologists have made special efforts to contact tribal leaders, because they feel that other environmentalists with natural history backgrounds may not recognize the significance of these areas when encountered during field work. For instance, the dance ground described by Bussey and Hughes (1984:22) contained a central fire area, a surround of benches, and other typical features. Recognition and recording helps prevent accidental disturbance or destruction of these important traditional ceremonial Native American sites.

Another example of "ethnographic archaeology, is Prewitt's study of the Delaware, an outgrowth of the construction of Copan Reservoir. Information on housing and farmstead layout, domesticated and wildfood stuffs, and construction of the traditional Delaware house (Prewitt 1981:23048) is presented in a manner useful to archaeologists.

SUPPLEMENTAL INTERPRETATIVE STUDIES

The growing body of data on Historical archaeology has also precipitated material culture studies that crosscut specific sites. Studies in experimental lithic technology and environmental reconstruction are common supplements to field data in the interpretation of the prehistoric sites, and similar studies also play a significant role in historic archaeology. Noted elsewhere are studies of the ceramics of the Five Tribes that have enhanced the interpretation of similar ceramics recovered in an archaeological context. And Black and Brandimarte's (1987) study of Henderson and Gaines, the New Orleans ceramic dealers, has provided some unique insights into the distribution and dating of early 19th century imported ceramics found across the southern Plains.

While not utilizing specific site information, articles (Gettys 1981, Gettys and Hughes-Jones 1981a, 1981b; Hughes-Jones and Gettys 1981) and conference papers (Gettys 1983 and Hughes-Jones 1981) have discussed log cabin construction and life-style from extant log cabins and those recorded in historic photographs. Of particular interest is the work of Townsend (1993), who focused on extant Cherokee log cabins in Northeast Oklahoma. Providing a wealth of information, this survey is a clear example of the difficulties in separating the sites of highly acculturated members of the Five Tribes and those of Euro-Americans. Townsend concluded that log cabin gross morphology does not distinguish Native American from Euro-American sites. The utilization of space within the site may be the key to identifying the ethnic origins of the occupants. Although these studies are not based on archaeological data, they provide information relevant to the interpretation of many Oklahoma sites believed to have been log structures.

Cemeteries are not normally considered part of the National Register program. Nevertheless, historic cemeteries are an important part of regional historical and archaeological research. They provide useful information on a variety of topics, including the ethnic composition of populations, age and sex statistics, and burial practices.

Small family cemeteries that have remained untended are usually marked by fallen stones and/or vegetation that is all but impossible to detect until actually standing there. Site 34SQ226 contained the remains of two stone grave houses but no gravestones. In the same area site 34SQ265, known as the Old Dora Cemetery, had two piles of gravestones that had been displaced by plowing. Fresh plow marks on the piled stones indicated that the cemetery once extended into the plowed fields. Because of agricultural encroachment, a common problem with small rural cemeteries, the size of both of these cemeteries is now impossible to estimate (Wallis 1983a:19, 101-103).

While important to archeology, the types of studies described here rarely produce nominations to the National Register of Historic Places. Those studies that do produce nominations generally highlight properties with significance unrelated to archaeology.

SUMMARY

The interaction between the National Register criteria and a specific group of properties and/or property types is the most important influence on the development and final form of the independent context statement. This statement provides the background for the nomination of specific properties to the National Register, and is the yardstick utilized in judging the relative merits of individual properties and/or groups of properties structured by theme or location. Most historic contexts in Oklahoma are the basis for nominations under Criterion A and Criterion C .

Criterion B, which relates to properties associated with the lives of persons significant in our past, is more narrowly focused than either Criterion A or C. With an individual as the focus of the nomination, there are usually few unknown properties, and the significance of virtually every property is defined in the context. In the context statements related to Criteria A, B and C, the parameters are clearly defined, even when the more broadly defined Criteria A and C are the basis of the context. The particular events (Criterion A), the properties associated with a particular life (Criterion B), or the physical attributes of the properties (Criterion C) are all defined by the statement's background and property type analysis.

Criterion D, generally known as the "information" criterion, is the most common one used in the nomination of archaeological sites. Other criteria have been applied to archaeological sites, especially historic ones; however, the vast majority of archaeological sites considered eligible for the National Register are considered under Criterion D. Context statements formulated with Criterion D as a prime consideration differ from other contexts. This is apparent when sites are sequentially considered under Criterion D, so that the results of the examination of each site modify the context of the next site to be encountered.

The same sequential consideration may also modify the impact of previously listed or newly encountered sites. A site may have been determined eligible on the basis of its ability to generate answers to research questions now considered common knowledge. Or research questions currently used to focus eligibility decisions may be able to be addressed at sites already determined eligible, and thus may lessen the significance of sites being considered.

The application of new technology relevant to archaeological research may also play a meaningful role in opinions regarding National Register eligibility. A site containing material necessary for specialized analysis may be considered eligible, while another site without this material may not. Previously considered sites which retain integrity may or may not contain materials pertinent to the new technology which would further complicate the issue. These older sites might or might not be considered when judgements are made regarding the new sites. These circumstances arise only when the properties under consideration are very similar. Such similarity typically occurs only when large numbers of sites of a similar type have been recorded and utilized as the basis of an analytical framework.

New or unique information should not be considered the only value of a particular site. Repetitive information leads to the recognition of patterns related to a variety of topics. The influence of micro-environments, localized subsistence/economic activities, and ethnic background may all be revealed by repetitive information.

The more a judgement regarding National Register quality is based on a context linked to Criterion D, the greater the impact previously examined properties will have on newly encountered sites. Conversely, the more this judgement is based on a context linked to Criteria A, B and C, the smaller the impact of previously examined properties.

In short, traditional historic properties considered for the National Register under Criteria A, B, or C rarely have their eligibility reexamined. In contrast, archaeological properties (including historic sites), usually considered under Criterion D, are reexamined, at least conceptually, with the National Register determination of each newly discovered site.

In Oklahoma's historic archaeology context, the interaction described above does not impact the different sections equally. Some classes of sites are so few in number that each site is of great importance. Sites related to early exploration, early historic Indians, and some late historic tribes, including the Cherokee and Delaware are so few in number that, barring a complete loss of integrity, their significance under Criterion D (their archaeological potential) may be assumed without even modest archaeological investigation. Other sites, such as historic forts, battlefields, Apache POW camps, and the home of Dewitt Clinton, have been investigated by archaeologists but are clearly significant and eligible for the National Register exclusive of any archaeological input. Finally there are classes of sites, such as Euro-American farmsteads and historic Choctaw and Creek occupations, that derive most of their significance from archaeology. It is this difference that accounts for the different weights given to sites in the discussion of future work that follows.

Historic context statements usually conclude with a property type analysis that summarizes the types of properties associated with a particular theme and describes and/or tabulates the known examples. It is this property type analysis that provides the yardstick for measuring the quality of historic sites that are to be judged within the framework of a particular context statement. In this statement the property type analysis and the presence or absence of data sets are combined with some proposed analytical approaches to provide a framework similar to that supplied by the more standard property type analysis.

Since each historic archaeological site is evaluated with a different set of research questions, it stands to reason that there is similar flexibility in the definitions of property types. For new sites the relative significance varies with site size, the number of features, other types of data sets present, and the location and setting of the site. An archaeological site will be described only after it is set into a category slot somewhere along a sliding scale: house site to extended family settlement, to hamlet, to village, to village, to ceremonial center.

Residential property types associated with the more intensively examined Choctaw and Creek settlements and Euro-Americans farmsteads are largely defined by previously archaeological research. Investigations at these sites, usually because of a lack of information, possess a property type yardstick for evaluating newly discovered sites.

Previously examined sites have predominately been encountered as part of environmental work. Not selected for examination through the application of an analytical framework, these sites usually lack features and/or preservation required to provide important information. As a result, a definition of significance that includes site preservation has evolved. Sites which provide information on activities such as subsistence, diet, ethnic patterning, and trade are more valued than those that cannot. A diversity of well-preserved features, high quality organic preservation, and historic documentation are likely , under these conditions to define a significant property.

Previous investigations at Native American and Euro-American farmsteads have focused on the primary residential unit. Few detailed excavations have been conducted at the associated shops, equipment buildings, and livestock barns and sheds. Research questions that incorporate these outbuildings should move away from the relatively narrow focus of "residential" life to a focus on "economic" life. Further from the residential core of the homestead/farm are specialized features related to the handling of livestock and crops, such corrals, dip tanks, loading ramps, tanks, ponds and other watering facilities; and landscape modifications such as terracing. These have received almost no archaeological attention. However, these features reflect changes in the growing or processing of crops, and thus provide important information on changing agricultural practices.

Few of the specialized activities of historic Native Americans have been addressed archaeologically. One of the few activities that we know about is the Native American religious experience commonly known as the Spirit Quest. Sites thought to relate to this activity may have been located on promontories in central Oklahoma. The use of these sites illustrates some significant points. First, even a site with minimal physical remains may yield important data sets and be eligible for the National Register of Historic

Places. And second, unique settings often retain significant cultural values for a long time.

Native American and Euro-American communal activities are poorly represented in the archaeological record. While documentary information on the activities engaged in at specific communal sites may be more complete than for most residential sites, there is still important information that cannot be retrieved solely with historical research. The everyday life of important personalities at places of governance (i.e., the capitols of the various Indian Nations), the impact of their activities on nearby residents and the factors which precipitated changing the locations of the capitols from time to time are all questions that can be addressed, at least in part, with archaeological research. Remains relevant to these types of problems might include structures reflecting economic status and indicating the settlement pattern surrounding the capitol. Information on the dates of occupation, differences in the diet of local residents, individual and local community involvement in exchange networks, and differences in local conditions during regular periods of activity at the capitol might be all be available in the artifact record.

One important communal activity associated with both Native Americans and Euro-Americans is education. The school systems of Native Americans included those that they themselves organized, those that they solicited and contracted for, systems imposed on them by the federal government and the public school system of Oklahoma. For Euro-Americans in the period after statehood, the public school system was the principal educational force in the community. Prior to statehood, enclaves of ethnic Europeans were incorporated into the school systems of the Native American nations. For Euro-Americans, the one-room school is a cultural icon of the 19th and early 20th centuries. Although numerous Native American mission/school/agency sites have been placed on the National Register, fewer than five one-room schools have been nominated from Oklahoma, and fewer than five of all of the historic educational sites have been investigated archaeologically. Like other classes of sites, the background and general functions of educational sites are well known, while the particulars of the individual sites are not. With so little known, data on site layout, the quality of the facility, and the integration of the school into the general settlement pattern would be of value.

Battlefields and military forts are the best documented class of sites in the historical record, and more archaeological research has been accomplished at these sites than for any other class of historic sites in the state. Many of these Oklahoma battlefields and military sites have been nominated to the National Register of Historic Places. Because of these unique circumstances, the manner in which the "historic archaeology context" is addressed is different for military sites than for the other classes of sites in this volume.

Most of the research at Oklahoma's military sites has been directed at on-site interpretation and reconstruction, and it is unlikely that this will change in the near future. Without National Register nomination and related issues of integrity as the primary concern, future research will be directed by other goals. Research questions will probably likely derive from factors associated with interpretative programs, and will most likely relate to the specifics of everyday camp life and the utilization of facilities at the site as much as to the relatively infrequent periods of actual combat. At military sites that have received no attention archaeologically, the first efforts will be directed toward assessing preservation and obtaining or verifying basic information such as the dates of occupation, site layout, and data from documentary sources.

Although it is the primary focus of this paper, considerations for National Register nominations are not the only reasons for doing archaeological research. Particularly among the military sites, on-going research is providing information to expand and refine the interpretative messages to the public. There is no reason why the results of a single excavation cannot provide both scholarly/technical analysis and information oriented to the public. Popularized treatments of the technical reports, exhibits, and living history programs reach a portion of the public rarely exposed to the more technical side of historical archaeology and thus encourage public support of all manner of archaeological research.

While not denying the value of archaeological research at military sites, this class of site is the least dependent on field research. The class stands at one end of a sliding scale that defines the relative values of historical/documentary research

and archaeology/field research in establishing historical context.

Historical archaeology is no more isolated than any other historic context. As noted elsewhere, some classes of sites and some individual sites are obviously eligible for the National Register prior to on-site archaeological research. These contexts cannot be isolated from the historic contexts currently available at the State Historic Preservation Office. That the results of archaeological research were overlooked in the development of these contexts is more a matter of a lack of awareness of archaeological resources than any lack of value of these resources. Hopefully, in the future "historical archaeology," as separate context, will cease to be of use. Like traditional documentary research and, more recently, oral history, historical archaeology will simply be considered another essential element in interpreting the past.

-REFERENCES-

Albert, Lois E.

1984 ***An Archeological Survey Along the Red River: the Kemp Bottoms Area, Bryan County, Oklahoma.*** Oklahoma Archeological Survey, Archeological Resource Survey Report, Number 19.

1987 ***An Archeological Survey in the James Fork Watershed, LeFlore County, Oklahoma.*** Oklahoma Archeological Survey, Archeological Resource Survey Report, Number 28.

Allday, Sharlene, Stephen P. Austin, Duane E. Peter and Gathel M. Weston

1992a ***1990-1991 Archeological Survey of Selected Parcels of Fort Sill,*** pp. VI-1 to VI-249. Oklahoma, Geo-Marine, Inc., Plano, Texas.

1992b Research Results In: ***1990-1991 Archeological Survey of Selected Parcels of Fort Sill, Oklahoma,*** edited by D. Peter, and Weston. Geo-Marine, Inc., Plano, Texas.

Anderson, Joseph K., and Susan E. Bearden

1991a ***An Archaeological Survey of Approximately 960 Acres on the Wichita Mountains Wildlife Refuge and Adjacent Fort Sill Military Reservation, Comanche County, Oklahoma,*** for GEI Consultants, Inc. Museum of the Great Plains Report 91:08, Lawton.

1991b ***Documentation and Analysis of Materials Recovered From Site 34CM274, Lawton Sewer Line Project, Comanche County, Oklahoma.*** Institute of the Great Plains Report 91:3, Lawton.

1992a ***An Archaeological Survey of Selected Areas in Cotton County along the I-44 Corridor, for the Oklahoma Historical Society.*** Museum of the Great Plains 91:05, Lawton.

1992b ***An Archaeological Survey of Selected Canyons in Caddo County, Oklahoma for the Oklahoma Historical Society.*** Museum of the Great Plains Report 91:06, Lawton.

1994 ***Cows, Pigs, Wars, and Sheep: an Archaeological Study of Early Ranching Complexes in Southwestern Oklahoma.*** Museum of the Great Plains Report 93:10, Lawton.

Baird, W. David, Clyde Ellis, Donald N. Brown and Jeffrey K. Williams

1988 ***Historic Context for the Native American Theme, Management Region #7, 1803-1938.*** State Historic Preservation Office, Oklahoma Historical Society.

Baird, W. David, and David Gebhard

1991 ***Historic Context for the Native American Theme, Management Region #3, 1830-1941.*** State Historic Preservation Office, Oklahoma Historical Society.

Baird, W. David, Doris Holly Love and David Gebhard

1989 ***Historic Context for the Native American Theme, Management Regions #4 and #5, 1830-1939.*** State Historic Preservation Office, Oklahoma Historical Society.

Bareis, Charles

1952 Two Historic Indian Burials from Pittsburg County. ***The Chronicles of Oklahoma,*** 24: 408-414.

Barnes, Ethne

1992 ***Bioarchaeological Analysis of Human Skeletal Remains for Lake Eufaula.*** U.S. Army Corps of Engineers, Tulsa District, Contract No. DACW56-90-M-0692.

Bastian, Tyler

1965 ***An Archaeological Survey of the East CacheCreek Local Flood Protection Project, Comanche County, Oklahoma.*** Museum of the Great Plains, Lawton.

Baugh, Timothy G.
1970 ***The Vandever-Haworth Site, Wg16, Wagoner County, Oklahoma.*** Oklahoma River Basin Survey, Archaeological Site Report, No. 17.

Bell, Robert E., and Tyler Bastian
1967 Preliminary Report Upon Excavations at the Longest Site, Oklahoma. In ***A Pilot Study of Wichita Indian Archeology and Ethnohistory***, assembled by R. E. Bell, E. B. Jelks and W. W. Newcomb, pp. 54-118. Report submitted to National Science Foundation, Washington, D.C.

Bell, Robert E. (editor)
1984a ***Prehistory of Oklahoma.*** Academic Press, New York.

Bell, Robert E.
1984b Protohistoric Wichita. In ***Prehistory of Oklahoma***, edited by R. E. Bell, pp 363-378. Academic Press, New York.

Bell, Robert E., Edward B. Jelks and W.W. Newcomb
1967 ***A Pilot Study of the Wichita Indian Archaeology and Ethnohistory.*** National Science Foundation, Washington, D.C.

Bevan, Bruce
1980 ***A Second Season at Deer Creek: Radar and Electromagnetic Surveys.*** Final Report, Contract DACW56-79-M-1088, U.S. Corps of Engineers, Tulsa, Oklahoma.

Black, Art, and Cynthia Brandimarte
1987 Henderson and Gaines, New Orleans Ceramics Importers. ***Research Notes, Historic Sites and Materials***, Ms, number not assigned. Texas Parks and Wildlife Department, Austin, Texas.

Blaine, Martha Royce
1975 The Establishment of Fort Washita and the Years Before: an Historical Background. In ***Fort Washita from Past to Present***, edited by K. E. Lewis, p. 6-33. Oklahoma Historical Society, Series in Anthropology, No. 1.

Bobalik, Sheila J
1978 ***Archaeological Investigations at the Sallee G. Site, (34Pu99), Pushmataha County, Oklahoma.*** Oklahoma Archeological Survey, Studies in Oklahoma's Past, Number 3.

Briscoe, James
1984 ***An Archeological Survey Report of the 1-A Lester Pratt Well Pad in Payne County.*** Briscoe Consulting Services, Butler, Oklahoma.
1987 ***Archeological Reconnaissance of the Cheyenne Tribe Reburial Project on the Black Kettle National Grasslands, Roger Mills County, Oklahoma.*** Briscoe Consulting Services, Butler, Oklahoma.
1989a ***Archeological Survey Report on the William S. Keyes Correctional Center Sanitary Sewer System Improvements, Woodward County, Oklahoma.*** Briscoe Consulting Services, Butler, Oklahoma.
1989b ***Status Report on Archeological Investigations at the William S. Keyes Correctional Facility Sanitary Sewage Treatment Project.*** Briscoe Consulting Services, Butler, Oklahoma.
1989c ***Status Report on the William S. Keyes Correctional Facility Sewage Lagoons Project, Woodward County, Oklahoma.*** Briscoe Consulting Services, Butler Oklahoma.
1990a ***Archeological Survey on Segments of Western Geophysical Seismic Lines 12, 13, and 14, Black Kettle National Grasslands, Roger Mills County, Oklahoma.*** . Briscoe Consulting Services, Butler, Oklahoma.
1990b ***Archeological Survey Report on the Shell Western Seismic Line 6114 on the Black Kettle National Grasslands, Roger Mills County, Oklahoma.*** Briscoe Consulting Services, Butler, Oklahoma.
1990c ***Archeological Survey Report on the Union Oil Company Healdton V Unit 16-57 Project, Carter County, Oklahoma.*** Briscoe Consulting Services, Butler Oklahoma.
1990d ***Historical Investigations at the Joseph Garside Estate, Stringtown, Atoka County, Oklahoma.*** Briscoe Consulting Services, Butler Oklahoma.
1991 ***Archeological Survey Report on the Asphalt Fuel Corporation Jumbo Lease, Pushmataha County, Oklahoma.*** Briscoe Consulting Services, Butler, Oklahoma.
1992 ***Artifact Analyses for an Area (34Wd74, Area A) of Historic Fort Supply, Woodward County, Oklahoma.*** Oklahoma Archeological Survey, Studies in Oklahoma's Past No. 18.

Briscoe, James, and Roger Burkhalter
1991 ***Historical Archeological Investigation along the Fort Gibson 12 Inch Waterline Project, Fort Gibson National Historic Site, Muskogee County, Oklahoma.*** Briscoe Consulting Services, Norman.

Briscoe, James, Roger Burkhalter and Stan Bussey
1992 ***Archeological Survey Report, Oklahoma Historical Society, Fort Supply Historic District, Woodward County, Oklahoma.*** Roberts/Schornick and Associates, Norman.

Briscoe, James M., and Stanley D. Bussey
1988 ***Archeological Survey and Testing at the Little Bird Homestead (34Wa163) in Washita County, Oklahoma.*** The Benham Group and Briscoe Consulting Services, Oklahoma City.

Brooks, Robert L.
1992 Southern Tribes on the Western Frontier: Chickasaw Removal. Paper presented at the 54th Annual Meeting of the Southeastern

Archaeological Conference, Little Rock, Arkansas.

Brooks, Robert L., Richard R. Drass, and Fern E. Swenson
1985 ***Prehistoric Farmers of the Washita River Valley: Settlement and Subsistence Patterns during the Plains Village Period.*** Oklahoma Archeological Survey, Archeological Resource Survey Report, no. 23.

Buehler, Kent J.
1982 Survey of Selected Archeological Sites. In ***Pottawatomie and Pontotoc Counties: An Update.*** Unpublished Manuscript on file at the Oklahoma Archeological Survey, Norman.

Burton, Robert J.
1971 ***The Archaeological View from the Harvey Site, Sq18.*** Oklahoma River Basin Survey, Archaeological Site Report, No 21.

Brunskill, R. W.
1970 ***Illustrated Handbook of Vernacular Architecture.*** Universe Books, New York.

Bussey, Stanley D., and David T. Hughes
1984 ***An Archeological Survey of a Coal Lease in Latimer County, Oklahoma.*** The Benham Group, Oklahoma City.

Carney, George O.
1981 ***Cushing Oil Field: Historic Preservation Survey.*** Department of Geography, Oklahoma State University.

Cheek, Annetta L.
1977 ***Old Fort Arbuckle.*** Oklahoma State University, Cultural Resources Analysis Series, No. 1.

Cheek, Annetta L., Charles D. Cheek and Kelley C. Duncan
1974 ***An Archeological Assessment of Proposed Kickapoo Nations and Robinson Creek Watersheds, Lincoln and Oklahoma Counties, Oklahoma.*** Report Submitted to the Soil Conservation Commission, Stillwater.

Cheek, Annetta, William B. Lees, Richard Rohrs, Robert Schaefer and Charles Wallis, Jr.
1978 ***Fort Gibson: Present Status and Recommendations for the Future.*** Report submitted to Oklahoma Historical Society and Oklahoma State University.

Cheek, Charles D.
1976 ***Honey Springs, Indian Territory: Search for a Confederate Powder House, an Ethnohistorical and Archeological Report.*** Oklahoma Historical Society, Series in Anthropology, No. 2.

Cheek, Charles D., and Annetta L. Cheek
1977 ***A Cultural Assessment of the Archeological Resources of the Fort Gibson Lake Area, Eastern Oklahoma.*** Archeological Research Associates, Research Report Number 15, Tulsa, Oklahoma.

Cojeen, Christopher, and Astrea Milam
1992 ***Report of the Limited Testing of Archaeological Site Hs182 within the Proposed Impact area of Enron Oil and Gas Co.'s Joann #21-1 Well Pad Located in Haskell County.*** Cojeen Archaeological Services, Norman.

Crouch, Daniel J.
1978 ***Archaeological Investigations of the Kiowa and Comanche Indian Agency Commissaries, 34Cm232.*** Contributions of the Museum of the Great Plains, Number 7, Lawton.

Curran, Claude W.
1977 Forests and Forest Industries in Oklahoma. In ***Geography of Oklahoma***, edited by John W. Morris, Oklahoma Historical Society, The Oklahoma Series, Volume VI.

Debo, Angie
1976 ***Geronimo: the Man, His Time, His Place.*** University of Oklahoma Press, Norman.

DeRosier, Arthur H.
1970 ***The Removal of the Choctaw Indians.*** University of Tennessee Press, Knoxville.

Dickerson, Kent E., Kenneth L. Shingleton, Jr., Kerstin Muller and Donald O. Henry
1991 ***Tulsa/North Triangle: an Archaeological Survey of Northern Tulsa and Western Rogers Counties, Oklahoma.*** Department of Anthropology, University of Tulsa, Contributions in Archaeology No. 18.

Don Carlos, Lydia L., and Robert E. Bell
1980 Post-Removal Chickasaw Pottery: Four Sites in Southern Oklahoma. In ***Bulletin of the Oklahoma Anthropological Society,*** 29: 67-82.

Drass, Richard R.
1985 ***Archeological Resources in the Bird Creek Basin, Rogers, Tulsa and Osage Counties, Oklahoma.*** Oklahoma Archeological Survey, Archeological Resource Survey Report No. 21.

Duncan, Kelley C.
1977 ***Cultural Resources in the Tulsa Urban Study area.*** Archaeological Research Associates, Research Report, No. 14, Tulsa.

Duncan, Kelley C., and Mary Lou Fricke
1979 ***An Assessment of the Cultural Resources of the Englewood Lake Project Area.*** Archaeological Research Associates, Research Report, No. 20, Tulsa.

Ferring, C. Reid (assembler)
1978 ***An Archaeological Reconnaissance of Fort Sill, Oklahoma.*** Contributions of the Museum of the Great Plains, No. 6, Lawton

Ferring, C. Reid, Daniel J. Crouch and Towana D. Spivey
1976 ***An Archaeological Reconnaissance of the Salt Plains Areas of Northwestern Oklahoma.*** Contributions of the Museum of the Great Plains, No. 4, Lawton.

Foreman, Grant
1926 ***Pioneer Days in the Early Southwest.*** The Arthur H. Company, Cleveland, Ohio.

Gaither, Virgil
1982 "Whizbang in the 1920s: Wild and Rowdy". ***Tulsa Tribune***, p. 5B, Jan 20, 1982.

Gettys, Marshall
1975 Ps212, An Historic Trash Pit and Cemetery on Eufaula Lake. In ***The Eufaula Lake Project, A Cultural Resource Survey and Assessment***, by Gregory Perino and Jerry Caffey, Museum of the Red River, Idabel.
1978 A Stone Pipe from Fort Towson. ***Oklahoma Anthropological Society Newsletter***, vol. 26, No. 3.
1980 ***Preliminary Report on Archaeological Investigations at Lukfata Reservoir, Southeastern Oklahoma.*** Oklahoma River Basin Survey, General Survey Report, No. 14.
1981 The Dogtrot Cabin in Oklahoma. ***Outlook in Historic Conservation***, State Historic Preservation Office, Oklahoma Historical Society.
1982 Archaeological Testing at Fort Gibson. ***Outlook in Historic Conservation***, July-August 1982, State Historic Preservation Office.
1983a Log Structures. Paper presented at the Vernacular Heritage Conference, Oklahoma City.
1983b The Red Store with the Yellow Doors: The Fort Towson Sutlers Store in Documents. Paper presented at the Anual Meeting of the Society for Historical Archaeology, Williamsburg, Virginia.
1990 Historic Pottery in the State Museum of History. ***Chronicles of Oklahoma*** 67: 414-425.
1991 Historic Choctaw Pottery in Oklahoma. Paper presented at Annual Meeting, Society for Historical Archaeology, Richmond, Virginia.

Gettys, Marshall and Annetta Cheek
1984 Excavation of the 1824 Barracks at Fort Towson, ***Bulletin of the Oklahoma Anthropological Society*** 33: 75-95.

Gettys, Marshall and A. F. Gettys
1977 Lead Flint Patches from Fort Towson, ***Bulletin of the Oklahoma Anthropological Society***, 26.

Gettys, Marshall, and Alicia Hughes-Jones
1981a Log Pen and Lifestyles: the Aylesworth Photographic Collection. ***Bulletin of the Oklahoma Anthropological Society***, 30:51-66
1981b Vertical Log Construction in Oklahoma. ***Outlook in Historic Conservation,*** State Historic Preservation Office, Oklahoma Historical Society.

Gibson, Arrell
1971 ***The Chickasaws***. University of Oklahoma Press, Norman

Good, Mary Elizabeth
1971 Appendix A, Osage. In Oklahoma: 1802-1840. ***Bulletin of the Oklahoma Anthropological Society*** 20:99-100.

Gregory, Jack, and Rennard Strickland
1967 ***Sam Houston with the Cherokees, 1829-1833***. University of Texas Press, Austin.

Green, Michael D.
1982 ***The Politics of Indian Removal***. University of Nebraska Press, Lincoln.

Hackenberger, Steve
1975 Locational Analysis. In ***A Preliminary Archaeological Assessment of the Central Oklahoma Project Area,*** edited by A. Cheek and C.Cheek, pp. 129-154. Archaeological Research Associates, Research Report No. 1, Tulsa.

Harden, Patrick
1978 **A Survey in the Sans Bois Creek Watershed.** Environmental Assessments Inc., Pauls Valley, Oklahoma.

Harris, Mac R.
1978 Early Military Forts, Posts and Camps in Oklahoma. In ***Early Military Forts and Posts in Oklahoma,*** edited by O. B. Faulk, K. A. Franks and P. F. Lambert, Oklahoma Historical Society, Oklahoma Series, Vol. IX, Oklahoma City.

Hartley, John D.
1975 ***Kaw Reservoir - The Northern Section.*** Oklahoma River Basin Survey, Archaeological Site Report, No. 30.

Hartley, John D., and A. F. Miller
1977 ***Archaeological Investigation at the Bryson-Paddock Site, an Early Contact Period Site on the Southern Plains.*** Oklahoma River Basin Survey, Archaeological Report No. 32.

Hayes, Daniel R.
1985 ***Archeological Investigations at Fort Gibson Lake, Mayes, Cherokee and Wagoner Counties, Oklahoma.*** Gilbert/Commonwealth Inc., Jackson, Michigan.

Hays, Joe S.
1989 Appendix I: Historic Tribal Groups in the Southern Great Plains. In ***From Clovis to Comanchero: Archeological Overview of the Southern Great Plains***, pp. 247-262. Arkansas Archeological Survey, Research Series, No. 35.

Hays, Joe S., Robert L. Brooks and Jack L. Hofman
1989 Historical Archeology in the Southern Great Plains. In ***From Clovis to Comanchero: Archeological Overview of the Southern Great Plains*** edited by by Jack L. Hofman et al. , pp 101-110. Arkansas Archeological Survey, Research Series No. 35.

Henry, Donald O. and Dorothy J. Gaston
1987 ***Archaeological and Historical Survey of Transwestern Mining Company Property.*** Report submitted to Transwestern Mining Company, Tulsa.

Hofman, Jack L.
1974 Native Made Ceramics and Historic Artifacts From Tuckers' Knob. In ***Reports of the Arkla Salvage Project*** edited by Jack L. Hofman,

Larry Neal, John T. Penman, Terry Prewitt, Roger S. Saunders, Charles S. Wallis and Don G. Wyckoff. Oklahoma Archeological Survey, Contract Archeology Series, No.1.

1989 Protohistoric Culture History on the Southern Plains. In ***From Clovis to Comanchero: Archeological Overview of the Southern Great Plains***, edited by Jack Hofman et al., pp. 90-100, Arkansas Archeological Survey, Research Series, No. 35.

Hudson, Charles

1976 ***The Southeastern Indians***, University of Tennessee Press, Knoxville.

Hughes-Jones, Alicia

1981 Native American Influence on Log Cabin Construction. Paper presented at Fall Meeting of the Oklahoma Anthropological Society, McAlester,Oklahoma.

Hughes-Jones, Alicia, and Marshall Gettys

1981 Single Pen Log Cabins in Oklahoma. ***Outlook in Historic Preservation***, State Office of Historic Preservation, Oklahoma Historical Society.

Jackson, J. Brautley

1972 The Jared Site: a Comanche Burial at Fort Sill, Oklahoma. In ***Plains Anthropologist***, 17:316-325.

Kassel, B. Marilyn

1949 ***An Analysis of Archaeological Material Attributed to the Chickasaws***. M.A. Thesis, Department of Anthropology, University of Oklahoma.

Klinger, Timothy C., and Robert F. Cande

1986 ***Cultural Resources Evaluation at Tenkiller Ferry Lake, Cherokee and Sequoyah Counties, Oklahoma***. Historic Preservation Associates Reports 86-89, Fayetteville, Arkansas.

Langley, Vance O.

1993 An Oral History of Lumbering at McGee Creek. In ***Felling, Skidding and Dogging: a Study of Sawmills in the Western Ouachita Mountains***. Volume III of the McGee Creek Archaeological Reports, edited by by P. R. McGuff, S. M. Moore and E. L. Kemp, pp. Institute of Applied Sciences, University of North Texas, Denton.

Lees, William B.

1975 Historic Settlement in Oklahoma: Indian Settlement. In ***A Preliminary Archaeological Assessment of the Central Oklahoma Project Area,*** edited by A. Cheek and C. Cheek, pp. 80-104. Archaeological Research Associates, Research Report No. 1, Tulsa.

1983 Hardesty, Oklahoma Territory: Archaeological Perpectives on the late 19th Century Frontier in No Man's Land. Historic settlement in Oklahoma: Indian settlement. ***Bulletin of the Oklahoma Anthropological Society***, 32:83-97

Lees, William B., and Kathryn M. Kimery-Lees

1984 Regional Perspectives on the Fort Towson Sutlers Store and Residence, a Frontier Site in Antebellum Eastern Oklahoma, ***Plains Anthropologist***, 29:13-24.

Lewis, Kenneth E.

1972 ***1971 Archaeological Investigations at Fort Towson, Choctaw County, Oklahoma***. Oklahoma Archaeological Survey, Studies in Oklahoma's Past, No. 2.

Lewis, Kenneth E. (editor)

1975 ***Fort Washita from Past to Present: An Archaeological Report***. Oklahoma Historical Society, Series in Anthropology, No. 1.

Lintz, Christopher R.

1975 ***A Cultural Resource Assessment of Cantonment Recreation Vehicle Park, Blaine County, Oklahoma***. Report submitted to McCaleb, Nusbaum and Thomas, Architectural and Engineering Firm, Edmond.

1982 ***Archaeological Testing within the Kickapoo Nations Watershed, Lincoln County, Oklahoma***, Oklahoma Conservation Commission, Archaeological Research Report, No. 8.

1983 ***Cultural Resource Inventory of the Proposed Pollyanna I Stripmine Locality, Okmulgee County, Oklahoma***, Mintech, Inc., Tulsa.

Lopez, David R.

1973 Report on Archaeological Field Investigations, State Highway Project F84, LeFlore County, Oklahoma. Letter report, Oklahoma State Highway Department.

1975 South Barracks. In ***Fort Washita from Past to Present: an Archaeological Report,*** edited by K.E. Lewis, pp. 199-269, Oklahoma Historical Society, Series in Anthropology, No. 1.

Lopez, David R., and Kenneth D. Keith

1976 ***An Archaeological Survey of U.S. 69, Pittsburg, Atoka and Bryan Counties, Oklahoma***. Papers in Highway Archeology No. II, Oklahoma Highway Archaeological Survey.

Lopez, David R. and Kenneth D. Keith (editors).

1979 ***Oklahoma Archaeological Survey Highway Reconnaissance Program, 1972-1978***, Papers in Highway Archaeology, No.6.

Mathews, John Joseph

1961 ***The Osages, Children of the Middle Waters***. University of Oklahoma Press, Norman.

Mayhall, Mildred P.

1971 ***The Kiowas***. University of Oklahoma Press, Norman.

Mayo, Michael B.

1983 ***A Cultural Resource Survey of Impoundments #10, #18 east-west and #76 in the Upper and Lower Black Bear Creek Watershed of Pawnee and Noble Counties, Okla-***

homa. Oklahoma Conservation Commission, General Survey Report (1983:2).

McCormick, Olin F.

1977 ***Archaeological Survey of Selected Portions of Salt-Camp and Cane Creek Watesheds, Lincoln, Creek, Okmulgee and Muskogee Counties, Oklahoma.*** Institute of Applied Sciences, North Texas State University.

McGuff, Paul R., Sue M. Moore and Emory L. Kemp

1993 ***Felling, Skidding and Dogging: a Study of Sawmills in the Western Ouachita Mountains.*** Volume III of the McGee Creek Archaeological Reports, Institute of Applied Sciences, University of North Texas, Denton.

McWilliams, Richard K., and William K. Jones

1976 The Poafpybitty Site: a Late Nineteenth Century Burial from Southwest Oklahoma. ***Plains Anthropologist*** 21:13-28.

Moore, Michael C.

1988a ***Archeological Investigations within the Central Little River Drainage Basin, Cleveland and Pottawatomie Counties, Oklahoma.*** Oklahoma Archeological Survey, Archeological Survey Report, No. 31.

1988b ***Archeology of the Mixed Grass Prairie, Phases II and III: Hay and Cyclone Creeks Surveys and Predictive Modeling in the Quartermaster Watershed.*** Oklahoma Archeological Survey, Archeological Resource Survey Report, No. 33.

Neal, Larry, Aubra Lee and Marjory Duncan

1991 ***An Archeological Survey for Pre-allotment Choctaw Farmsteads in Southeast Oklahoma.*** Project Completion Report, Historic Preservation Grant 40-90-50119.001, State Historic Preservation Office, Oklahoma City.

Newcomb, W.W., and W.T Field

1967 An Ethnohistoric Investigation of the Wichita Indians in the Southern Plains. In ***A Pilot Study of Wichita Indian Archeology and Ethnohistory***, assembled by R. Bell et al., pp. 240-354. Report submitted to the National Science Foundation, Washington, D.C.

New World Research, Inc.

1981 ***A Cultural Survey of the Proposed Trans Anadarko Pipeline System, Texas, Oklahoma, Arkansas, Louisiana.*** New World Research, Inc.,Report of Investigation, No. 37.

Northcutt, John D.

1978 ***An Archeological Survey in the Gypsum Breaks on the Elm Fork of the Red River,*** Contribution of the Museum of the Great Plains Number 8, Lawton.

1980 ***A Cultural Resource Survey on Lower Bayou in Love County, and Big Beaver Creek in Comanche, Cotton and Stephens Counties, Oklahoma.*** Museum of Great Plains, Lawton, Anthropological Series No. 1.

Odell, George H.

1989 ***Final Report on Archaeological Excavations Conducted Between May and July, 1988, at the Lasley Vore Site (34TU65), Jenks, Oklahoma.*** Submitted to Kimberly-Clark Corporation, Oklahoma State Archeologist, and State Historic Preservation Office.

Odell, George H., John C. Dixon, Kent E. Dickerson, and Kenneth L. Shingleton, Jr.

1990 ***An Archaeological Investigation of the Arkansas River Bluffline between Jenks and Bixby, Eastern Oklahoma.*** Department of Anthropology, University of Tulsa, Contributions in Archaeology, No. 17.

O'Neill, Patrick L.

1990 ***Class III Archaeological Survey and Testing of the Kansok Pipeline, Osage and Pawnee Counties, Oklahoma.*** Mariah and Associates, Inc. Austin, Texas.

Penman, John T.

1975 Hospital Complex. In ***Fort Washita from Past to Present: An Archaeological Report***, edited by K. E. Lewis, pp. 145-198. Oklahoma Historical Society, Series in Anthropology No. 1.

1983 Archaeology and Choctaw Removal. In ***Southeastern Natives and Their Pasts: A Collection of Papers Honoring Dr. Robert E. Bell***, edited by D. G. Wyckoff and J. L. Hofman, pp. 283-299. Oklahoma Archeological Survey, Studies in Oklahoma's Past, No. 11.

Perino, Gregory

1971 The Will Rogers State Park Site: 34RO10, Rogers County, Oklahoma. ***Bulletin of the Oklahoma Anthropological Society*** 20:91-99.

1972 ***An Historical-Cultural Assessment of the Skiatook Reservoir, Osage County, Oklahoma.*** Corps of Engineers, Tulsa District, Tulsa.

Perino, Gregory, and Frank Soday

1977 The 49th and Cameron Streets Site, Tulsa Oklahoma. ***Central States Archaeological Journal*** 24:106-115.

Peterson, Susan

1978 Fort Supply, Isolated Outpost. In ***Early Military Forts and Post in Oklahoma,*** edited by O. B. Faulk, K. A. Franks and P. F. Lambert, pp. Oklahoma Historical Society, The Oklahoma Series, Volume IX.

Peterson, Dennis A., J. Daniel Rogers, Don G. Wyckoff and Karen Dohm

1993 ***An Archeological Survey of the Spiro Vicinity, Le Flore County, Oklahoma.*** Oklahoma Archeological Survey, Archeological Resource Survey Report No. 37, Norman.

Prewitt, Terry J.

1981 ***Tradition and Culture Change in the Oklahoma Delaware Big House Community:***

1867-1924. Laboratory of Archaeology, University of Tulsa, Contributions in Archaeology No. 9.

Proctor, Charles
1953 Report of Excavations in the Eufaula Reservoir. ***Bulletin of the Oklahoma Anthropological Society*** 1:43-60.

Quimby, George I., and Alexander Spoehr
1950 Historic Creek Pottery from Oklahoma. ***American Antiquity*** 15:249-250.

Rogers, Daniel J.
1979 ***An Archeological Survey of the Fourche Maline Valley South of Red Oak, Oklahoma.*** Oklahoma Archeological Survey, Archeological Resources Survey Report No. 8.

Rohn, Arthur H., and Miriam R. Smith
1972 ***Assessment of the Archaeological Resources and an Evaluation of the Impact of Construction of the Copan Dam and Lake.*** Department of Anthropology, Wichita State University.

Rohrbaugh, Charles L., Robert J. Burton, Susan Sasse Burton, and L. J. Rosewitz
1971 ***Hugo Reservoir I.*** Oklahoma River Basin Survey, Archaeological Site Report , No. 22.

Rohrs, Richard C.
1978 Fort Gibson: Forgotten Glory. In ***Early Military Forts and Posts in Oklahoma*** edited by O. B. Faulk, K. A. Franks and P. F. Lambert, Oklahoma Historical Society, Oklahoma Series, Volume IX.

Scheele, Carl H.
1976 The American Dream. In ***A Nation of Nations***, edited by Peter C. Marzio, pp. 478-504. Harper and Row, New York.

Schmitt, Karl
1950 Two Creek Pottery Vessels from Oklahoma. ***Florida Anthropologist*** 3: 3-8.

Schmitt, Karl, and Robert E. Bell
1954 Historic Indian Pottery from Oklahoma. ***Bulletin of the Oklahoma Anthropological Society*** 2:19-34.

Scott, Douglas D.
1975 Fort Towson Powder Magazine. ***The Chronicles of Oklahoma,*** 53: 516-527.

Shaeffer, James B.
1963 Salvage Archaeology in Oklahoma, Volume II. Papers of the Oklahoma Archaeological Salvage Project, Number 18 to 21. ***Bulletin of the Oklahoma Anthropological Society***, 14:1-86.

Spivey, Towana, C. Reid Ferring, Daniel J. Crouch and Kathy Franklin
1977 ***Archaeological Investigations along the Waurika Pipeline, Comanche, Cotton, Jefferson and Stephens Counties, Oklahoma.*** Contributions of the Museum of the Great Plains, Number 5, Lawton.

Steinacher, Terry L.
1986 ***An Archeological Reconnaissance of the Upper Little River Basin in Cleveland County, Oklahoma, 1984***. Oklahoma Archeological Survey, Archeological Resource Survey Report, No. 25.

Steward, Caro-Beth, and Steven Hackenberger
1977 ***A Cultural Assessment of the Proposed Seward Project, Logan and Oklahoma Counties, Oklahoma.*** Archaeological Research Associates, Research Report No. 13, Tulsa.

Sudbury, Byron
1976 Ka3, The Deer Creek Site - An Eighteenth Century French Contact Site in Kay County, Oklahoma. ***Bulletin of the Oklahoma Anthropological Society***, 24:1-136

Townsend, Jan, John H. Sprinkle Jr., and John Knoerl
1993 ***Guidelines for Evaluating and Registering Historical Archaeological Site and Districts.*** National Register Bulletin 36, U.S. Department of the Interior, National Park Service, Washington D.C.

Townsend, Russell Gregory
1993 ***The Study of Cherokee Log Houses in Eastern Oklahoma.*** Masters Thesis, Department of Anthropology, University of Tulsa.

Vehik, Susan C., Kent J. Buehler and Alan J. Wormser
1978 ***A Cultural Resource Survey of the Salt Creek Valley, Osage County, Oklahoma.*** Oklahoma Archeological Survey, Archeological Resources Survey Report, No. 9

Vehik, Rain
1986 ***The Archaeology of the Bug Hill Site (34 Pu116): Pushmataha County, Oklahoma.*** Archaeological Research and Management Center, Research Series No. 7.

Wallace, Ernest, and E. Adamson Hoebel
1952 ***The Comanches, Lords of the South Plains.*** University of Oklahoma Press, Norman.

Wallis, Charles S., Jr.
1976a ***An Archaeological Assessment on the Effects of Construction of Impoundments #6 and 8 and a Portion of Impoundment #21, Lower Clear Boggy Creek Watershed Project, Atoka County, Oklahoma.*** Oklahoma Conservation Commission.
1976b ***Survey Report, Archaeological Resources Within the Proposed Waterfall-Gilford Creek Watershed Project, McCurtain County, Impoundments #9 ,10, 11.*** Oklahoma Conservation Commission.
1977a ***Archaeological and Historical Resources to be Affected by the Construction of Multi-Purpose Structure M-19, Lower Black Bear Creek Watershed, Payne and Pawnee Counties, Oklahoma.*** Oklahoma Conservation Commission, General Survey Report.
1977b ***Report on the Status of Archaeological Survey Work, Guapaw Creek Watershed Project, Lincoln and Pottawatomie Coun-***

ties, Oklahoma. Oklahoma Conservation Commission, General Survey Report.

1979 ***Report on the Status of Archaeological Survey Work, Okfuskee County Tributaries Watershed Project, Okfuskee County Portion.*** Oklahoma Conservation Commission, General Survey Report 1.

1981a ***Archaeological and Historical Review of Multi-Purpose Impoundment 4M, Robinson Creek Watershed, Lincoln County, Oklahoma.*** Oklahoma Conservation Commission, General Survey Report 5.

1981b ***Archaeological Survey of Beef Creek Channelization Project, Maysville Laterals Watershed, Garvin County,*** Oklahoma. Oklahoma Conservation Commission, General Survey Report 8.

1981c ***Cultural Resource Survey of Proposed Impoundment 34, Salt Creek Watershed, Pottawatomie County, Oklahoma. Oklahoma.*** Conservation Commission, General Survey Report 4.

1983a ***An Archaeological\Historical Review of the Garrison Creek Watershed and the Effect of Channel Construction on Culture Resources.*** Oklahoma Conservation Commission, General Survey Report 5.

1983b ***Archaeological Testing Work, Multi-purpose Impoundment 4M, Robinson Creek Watershed, Lincoln County.*** Oklahoma Conservation Commission, Archeological Research Report No. 9.

1983c ***1983 Survey of Critical Area Treatment Projects, Upper Elk Creek Watershed, Beckham, Kiowa and Washita Counties.*** Oklahoma Conservation Commission, General Survey Report 7.

1984 ***Report of Archeological Work Conducted in Okfuskee County Tributaries Watershed between 1979 and 1984; and Analysis of Historic Components at the Cow Creek Site, 34Of-24.*** Oklahoma Conservation Commission, General Survey Report 3.

1991 ***Preliminary Report: Survey of Archeological Resources with Recommendations, Bellcow Reservoir (Impd. 1M), Kickapoo Nations Watershed, Lincoln County, Oklahoma.*** Oklahoma Conservation Commission, Misc. Report Series, no. 21.

1992 ***Survey of Proposed Structures 26 and 29, Brushy-Peaceable Creek Watershed, Pittsburg County, Oklahoma.*** Oklahoma Conservation Commission, General Survey Report 5.

Wedel, Mildred M.

1981 ***The Deer Creek Site, Oklahoma: a Wichita Village Sometimes Called Ferdinandina, an Ethnohistorian's View.*** Oklahoma Historical Society, Series in Anthropology, No. 5.

Weslager, C. A.

1972 ***The Delaware Indians, a History.*** Rutgers University Press, New Brunswick, New Jersey.

Weston, Gathel M., Duane E. Peter, Stephen P. Austin and Joseph K. Anderson

1992 ***Summary of Results and Recommendations (Chapter VII) in the 1990-1991 Archeological Survey of Selected Parcels of Fort Sill, Oklahoma.*** edited by D. E. Peter,and G. M. Weston,, pp VII:1 - VII:34. Geo-Marine, Inc., Plano, Texas.

Weymouth, John, and Rob Huggins

1981 The Deer Creek Site 34KA3: A Magnetometer Survey Archaeological Resources. Paper presented at the Meetings of the Society for Historical Archaeology.

Williams, R. L.

1947 Founding of the First Chouteau Trading Post in Oklahoma at Salina, Mayes County. ***Chronicles of Oklahoma***, 24:483-491.

Wilson, Mike L.

1968 Two Historic Burials in the Three Forks Locale. ***Bulletin of the Oklahoma Anthropological Society*** 17:75-86.

Woodward, Grace Steele

1963 ***The Cherokees.*** University of Oklahoma Press, Norman.

Wright, J. Leitch. Jr.

1986 ***Creeks and Seminoles: the Destruction and Regeneration of the Muscogulge People.*** University of Nebraska Press, Lincoln.

Wyckoff, Don G.

1967 ***The E. Johnson Site and Prehistory in Southeast Oklahoma.*** Oklahoma River Basin Survey, Archeological Site Report, No.6.

Wyckoff, Don G. and Thomas P.Barr

1964 ***1963 Archaeological Activity in the Markham Ferry Reservoir Area, Mayes County, Oklahoma.*** Oklahoma River Basin Survey, General Survey Report No. 4.

1968 ***The Posey Site (Wg19): A Historic Site in the Three Forks Locale, Eastern Oklahoma.*** Oklahoma River Basin Survey, Archeological Site Report No. 10.

Wyckoff, Don G., and Robert L. Brooks (editors)

1983 ***Oklahoma Archeology: a 1981 Perspective of the State's Archeological Resources. Their Significance, Their Problems and Some Proposed Solutions.*** Oklahoma Archeological Survey, Archeological Resource Survey Report, No. 16.

Yates, Catherine H., Don G. Wyckoff, Timothy G. Baugh and John A. Harrington, Jr.

1981 ***A Survey of Prehistoric and Historic Sites in the Honey Springs Area, McIntosh and Muskogee Counties, Oklahoma.*** Oklahoma Archeological Survey, Archeological Resource Survey Report, No. 11.

Yates, Catherine H.
1979 ***The Chance Site (Ad 46): a Nineteenth Century Historic Site in Adair County, Oklahoma.*** Oklahoma Archeological Survey, University of Oklahoma, Norman

Young, Wayne C.
1978 ***Archaeological Testing in the Camp Creek Locale, Payne and Pawnee Counties, Oklahoma.*** Archaeological Research and Management Center, Project Report Series No. 1, Norman.

Zwink, Timothy A.
1978 Fort Sill: The Formative Years. In ***Early Military Forts and Post in Oklahoma*** edited by O. B. Faulk, K. A. Franks and P. F. Lambert. Oklahoma Historical Society, The Oklahoma Series, Vol. IX.

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