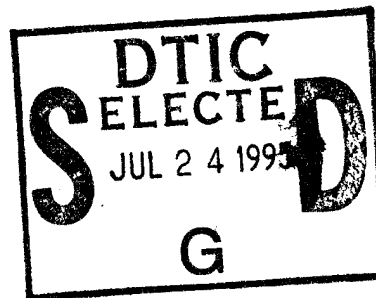


ARCHEOLOGICAL TESTING OF 14 HISTORIC SITES
FORT CHAFFEE MILITARY GARRISON
SEBASTIAN COUNTY, ARKANSAS

by

Steven M. Imhoff
Michael C. Sierzchula
Robert H. Lafferty III
Lawrence G. Santeford
and
Holly Wagner



Mid-Continental Research Associates, Inc.
P. O. Box 728
Springdale, Arkansas 72765

MCRA Report Number 95-1

19950720 072

J6K

DTIC QUALITY INSPECTED 8

DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited

**ARCHEOLOGICAL TESTING OF 14 HISTORIC SITES
FORT CHAFFEE MILITARY GARRISON
SEBASTIAN COUNTY, ARKANSAS**

by

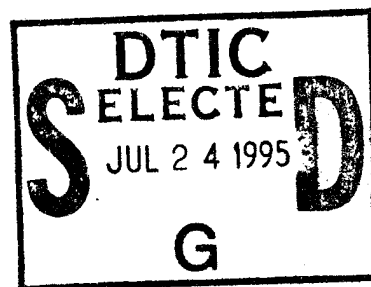
**Steven M. Imhoff
Michael C. Sierzchula
Robert H. Lafferty III
Lawrence G. Santeford
and
Holly Wagner**

Statement a per telecon John Riggs
US Army Engineer
District, Little Rock
ATTN: CESWL-PL-A
Little Rock, AR 72203

NWW 7/24/95

Accession For	
NTIS CRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

**Mid-Continental Research Associates, Inc.
P. O. Box 728
Springdale, Arkansas 72765**



MCRA Report Number 95-1

DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited

ACKNOWLEDGEMENTS

Numerous persons contributed time and effort towards the completion of this project. Mr. Robert Dunn, of the COE Little Rock District, administered the project and visited a number of the sites over the course of the fieldwork. Mr. Jerry Sturdy, of the Environmental Branch at Fort Chaffee, coordinated the project at Fort Chaffee and served as a contact for MCRA in the event problems arose.

The fieldwork was directed by Steve M. Imhoff and Michael Sierzchula. The field crew consisted of Martin Duff, Karl Sandroock, and Debra Cook.

ABSTRACT

Between May and November 1994, Mid-Continental Research Associates of Lowell, Arkansas conducted archeological testing at 14 (13 historic and one prehistoric) archeological sites at Fort Chaffee, Sebastian County, Arkansas. The work was performed for the United States Army Corps of Engineers, Little Rock District and the Fort Chaffee Garrison. The work was designed to determine the eligibility status of the sites for nomination to the National Register of Historic Places.

Sites determined to be eligible for nomination to the National Register of Historic Places included 3SB542, 3SB566, and 3SB601. Archeological clearance is recommended for 3SB508, 3SB533, 3SB537, 3SB543, 3SB544, 3SB550, 3SB560, 3SB562, 3SB567, 3SB569, and 3SB570.

TABLE OF CONTENTS

List of Figures	vi
List of Tables	vii
CHAPTER 1 INTRODUCTION by Robert H. Lafferty and Lawrence G. Santeford	
Introduction	1
Project Background	1
Regulating Authority	2
Project History	2
Constraints	2
Data Recovery Tasks	3
Field Methods	4
Laboratory Tasks	5
Documentary Research	5
CHAPTER 2 ENVIRONMENTAL SETTING by Lawrence G. Santeford and Robert H. Lafferty	
Geology	7
Topography	7
Inorganic Materials	8
Hydrologic Resources	9
Soils	9
Climate	10
Vegetation	11
Fauna	13
Cultural Environment	14
Paleo-Indian (Pre 10,500 BP)	14
Archaic Period (9500 - 1800 BP)	14
Dalton Period	14
Early Archaic	15
Middle Archaic	16
Late Archaic	17
Woodland Period (2800 - 1050 BP)	18
Middle Woodland	18
Late Woodland	18
Caddoan Cultures (1050 - 500 BP)	19
Early American Settlement	20
Civil War and Reconstruction	21
Post Reconstruction and the New South	22
Historic Patterns and Study Area Sites	23
Fort Chaffee	24
Previous Investigations	25
CHAPTER 3 TESTED SITES by Michael Sierzchula, and Steven M. Imhoff	
3SB508	27
Previous Investigations	27
MCRA Archival Investigations	30
MCRA Field Investigations	34
Results of the MCRA Work	37
Significance Assessment	38

TABLE OF CONTENTS

3SB533	40
Previous Investigations	42
MCRA Archival Investigations	42
MCRA Field Investigations	44
Results of the MCRA Work	45
Significance Assessment	47
3SB537	49
Previous Investigations	49
MCRA Archival Investigations	50
MCRA Field Investigations	51
Results of the MCRA Work	53
Site Significance	57
3SB542	59
Previous Investigations	59
MCRA Archival Investigations	61
MCRA Field Investigations	64
Results of the MCRA Work	66
Significance Assessment	68
3SB543	73
Previous Investigations	73
MCRA Archival Investigations	75
MCRA Field Investigations	79
Results of the MCRA Work	83
Significance Assessment	84
3SB544	85
Previous Investigations	85
MCRA Archival Investigations	86
MCRA Field Investigations	90
Results of the MCRA Work	91
Site Significance	96
3SB550	99
Previous Investigations	99
MCRA Archival Investigations	100
MCRA Field Investigations	100
Results of the MCRA Work	101
Site Significance	104
3SB560	106
Previous Investigations	106
MCRA Archival Investigations	106
MCRA Field Investigations	113
Results of the MCRA Work	114
Significance Assessment	115
3SB562	117
Previous Investigations	117
MCRA Archival Investigations	118
MCRA Field Investigations	121
Results of the MCRA Work	123
Site Significance	124

TABLE OF CONTENTS

3SB566	126
Previous Investigations	126
MCRA Archival Investigations	128
MCRA Field Investigations	131
Results of the MCRA Work	132
Site Significance	135
3SB567	137
Previous Investigations	137
MCRA Archival Investigations	137
MCRA Field Investigations	141
Results of the MCRA Work	145
Significance Assessment	146
3SB569	147
Previous Investigations	147
MCRA Archival Investigations	151
MCRA Field Investigations	153
Results of the MCRA Work	155
Significance Assessment	158
3SB570	159
Previous Investigations	159
MCRA Archival Investigations	161
MCRA Field Investigations	161
Results of the MCRA Work	166
Significance Assessment	166
3SB601	168
Previous Investigations	170
MCRA Archival Investigations	170
MCRA Field Investigations	172
Results of the MCRA Work	179
Significance Assessment	180
CHAPTER 4. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS by Michael Sierzchula	
Summary, Conclusions and Recommendations	181
References Cited	186
Appendix 1. Shovel Test Descriptions	192
Appendix 2. Scope of Work	232
Appendix 3. Artifact Density Maps	235

LIST OF FIGURES

1.	Project Area Location	3
SB508-1.	3SB257 site map	28
SB508-2.	Profile drawing of the west wall of Test Unit 1 at 3SB508	35
SB508-3.	Profile drawing of the west wall of Test Unit 2 at 3SB508	36
SB533-1.	3SB533 Site Map	41
SB533-2.	Test Unit 1 Profile	45
SB537-1.	3SB537 site map	52
SB537-2.	Test Unit 1 profile	53
SB537-3.	Test Unit 2 profile	54
SB537-4.	House Planview	56
SB537-5.	Outbuilding Planview	57
SB542-1.	3SB542 Site Map	65
SB542-2.	Test Unit 1 profile	67
SB542-3.	Test Unit 1 Plan view at 30 cmbs	67
SB542-4.	Test Unit 1 Plan View at 40 cmbs	71
SB542-5.	Test Unit 2 Profile	71
SB542-6.	House Plan View	72
SB543-1.	Site Map Showing Surface Feature Locations and the MCRA work	74
SB543-2.	Profile drawing of the west wall of Test Unit 1 at 3SB543	82
SB543-3.	Profile drawing of the west wall of Test Unit 2 at 3SB543	82
SB543-4.	Profile drawing of the west wall of Test Unit 3 at 3SB543	83
SB544-1.	3SB544 Site Map	87
SB544-2.	Test Unit 1 profile	94
SB544-3.	Test Unit 2 profile	95
SB544-4.	House Planview	95
SB544-5.	Barn(?) Planview	96
SB544-6.	Planview of Small Structure	97
SB544-7.	Planview of Disturbed (?) Structure	98
SB550-1.	3SB550 Site Map	102
SB550-2.	Test Unit 1 Profile	103
SB550-3.	Structure 2	104
SB550-4.	Structure 1	105
SB560-1.	Map of 3SB560 showing the location of the MCRA work	107
SB560-2.	Profile drawing of the west wall of Test Unit 1 at 3SB560	115
SB562-1.	3SB562 Site Map	122
SB562-2.	Test Unit 1 Profile	123
SB566-1.	3SB566 Site Map	127
SB566-2.	Test Unit Profile	132
SB567-1.	Map of 3SB567 showing surface features and the location of the MCRA work	138
SB567-2.	Profile drawing of the west wall of Test Unit 1 at 3SB567	142
SB567-3.	Profile drawing of the west wall of Test Unit 2 at 3SB567	143
SB567-4.	East wall of structure at 3SB567	144
SB569-1.	Map of 3SB569 and 3SB570 showing surface features and the location of the MCRA work	148
SB569-2.	Planview of structural remains at 3SB569	149
SB569-2.	Profile drawing of the west wall of Test Unit 1 at 3SB569	156
SB569-3.	Profile drawing of the west wall of Test Unit 2 at 3SB569	156
SB570-1.	Planview of structure remains at 3SB570	160
SB570-2.	Profile drawing of the west wall of Test Unit 1 at 3SB570	162
SB570-3.	Profile drawing of the east wall of Test Unit 2 at 3SB570	164
SB570-4.	Profile and planview of cellar entrance exposed in Test Unit 3	165

LIST OF FIGURES

SB601-1.	Map of 3SB601 showing surface features and the location of the MCRA work	169
SB601-2.	Profile drawing of the west wall of Test Unit 1 at 3SB601	176
SB601-3.	Profile drawing of the west wall of Test Unit 2 at 3SB601	177
SB601-4.	Planview drawing of Feature 1.	177
SB601-5.	Profile drawing of the west wall of Test Unit 3 at 3SB601	178

LIST OF TABLES

SB508-1.	The George J. Shelby farm on the Agricultural Census of 1870	32
SB508-2.	The George J. Shelby farm on the Agricultural Census of 1880	33
SB508-3.	Shovel Test Artifacts	35
SB508-4.	Test Units 1 & 2 Artifacts	37
SB533-1.	The farm of W. S. Coleman on the Agricultural Census of 1880	43
SB533-2.	Shovel Test, General Surface, and Test Unit Artifacts	46
SB537-1.	Shovel Test and Test Unit Artifacts	55
SB542-1.	Artifacts Collected by AAI, 1988	60
SB542-2.	The F. J. Crockett farm on the Agricultural Census of 1870	63
SB542-3.	The F. J. Crockett farm on the Agricultural Census of 1880	64
SB542-4.	Shovel Test and Test Unit Artifacts	69
SB543-1.	The McAllister and Brother farm on the Agricultural Census of 1870	76
SB543-2.	The McAllister and Brother farm on the Agricultural Census of 1880	77
SB543-3.	The George Rogers farm on the Agricultural Census of 1880	77
SB543-4.	Shovel Tests Artifacts	79
SB543-5.	Test Units 1, 2, & 3 Artifacts	81
SB544-1.	The Lydia Morley farm on the Agricultural Census of 1880	89
SB544-2.	Shovel Test and Test Unit Artifacts	93
SB560-1.	The L. B. Howard farm on the Agricultural Census of 1870	108
SB560-2.	The John B. Howard farm on the Agricultural Census of 1870	109
SB560-3.	The John B. Howard farm on the Agricultural Census of 1880	110
SB560-4.	The L. B. Howard farm on the Agricultural Census of 1880	111
SB560-5.	Shovel Tests Artifacts	114
SB560-6.	Test Unit 1 Artifacts	116
SB562-1.	The Wilmuth and Son farm on the Agricultural Census of 1870	119
SB562-2.	The John McAlister farm on the Agricultural Census of 1880	120
SB562-3.	Shovel Test and Test Unit Artifacts	125
SB566-1.	Shovel Test and Test Unit Artifacts	134
SB567-1.	The John Maxwell farm on the Agricultural Census of 1880	140
SB567-2.	Shovel Tests Artifacts	142
SB567-3.	Test Units 1 & 2 Artifacts	145
SB569-1.	Cultural materials recovered from 3SB569 by AAI investigators	150
SB569-2.	The John Prickett farm on the Agricultural Census of 1880	152
SB569-3.	Shovel Tests Artifacts	154
SB569-4.	Test Units 1 & 2 Artifacts	157
SB570-1.	Shovel tests and General Surface Artifacts	162
SB570-2.	Test Unit 1, 2 and 3 Artifacts	163
SB601-1.	Shovel Tests Artifacts	174
SB601-2.	Test Unit 1 Artifacts	175
SB601-3.	Test Unit 2 Artifacts	175
SB601-4.	Test Unit 3 artifacts	178
4-1.	Land Transactions and Site Significance	183

CHAPTER 1 INTRODUCTION

The Fort Chaffee Military Garrison is located in Sebastian County, Arkansas immediately southeast of the city of Fort Smith (Figure 1). It occupies an irregularly configured area approximately 19.5 miles (31.4 km) east-west by a maximum of 8 miles (12.9 km) north-south and encompasses about 72,000 acres (29,138 hectares). It is situated within the Arkansas River Hill and Valley Belt of the Ouachita Mountain physiographic province immediately south of the Arkansas River. The terrain is hilly but not mountainous and the predominant vegetation is mixed hardwoods. Construction began in September 1941 as a training facility during World War II. Since 1946, activity at the fort has waxed and waned with the vagaries of international events and Defense Department budgets. Its current mission is to support the training of U.S. Army Reserves (U. S. Army Corps of Engineers n.d.:1, 6).

During 1994, 13 historic sites were tested by Mid-Continental Research Associates, Inc. (MCRA) for the United States Army Corps of Engineer, Little Rock District (USACOE, LR). A fourteenth site (3SB601), possessing a prehistoric and historic component, was included as part of this project due to anticipated impact from waterline construction to Barling, Arkansas. In a number of instances, prehistoric components were identified during the investigations directed towards the historic component.

The primary purpose of the project was to conduct investigations that would determine as accurately as possible: (1) the horizontal limits of each site; (2) the depth of cultural materials at each site; (3) the integrity of the cultural deposits; and (4) the periods when each site was occupied. The ultimate aim was to collect and process enough data to assess the sites in terms of their eligibility for inclusion in the National Register of Historic Places (NRHP). This report summarizes the nature of the archeological testing, the assessments of significance, and presents recommendations for each site tested by MCRA.

PROJECT BACKGROUND

Archeological investigations at Fort Chaffee provide a unique opportunity to gain insights into prehistoric lifeways in an area that has received relatively little intensive study - the Arkansas River Valley. Nearly 29,137.4 ha (72,000 acres) are included in the boundaries of the military reservation. With intensified modification of the land by agriculture, land leveling, urban spread, flooding of areas to form lakes, and more, the river valley is in the process of being transformed, and the prehistoric and historic sites preserving the heritage of Arkansas are being lost. The establishment of Fort Chaffee effectively removed a large block of land from such modification. To date, very little of this information has been tapped.

Since 1986 there have been systematic CRM projects at Fort Chaffee. This work has been performed by Archeological Assessments, Inc. (AAI). The Little Rock District supervised the work in consultation with the Environmental Affairs Office at Fort Chaffee. A summary of the work carried out during the first three years is presented in an Executive Summary: Fort Chaffee Cultural Resource Studies: 1986-1989 (Bennett n.d.).

During 1987, a nine percent sample was designed to provide basic data for model construction and an 11 percent sample was used to test the model. Three hundred six sites were recorded in approximately 5,827.5 ha (14,400 acres). The 20 percent survey showed that the area around Vache Grasse Creek contained a great number of prehistoric Native American sites. During 1987 and 1988, a 12 percent survey (8,640 acres or 3,496.5 ha) was developed for the area. One hundred seventy-six sites were found during survey, with 70 of these thought to be potentially significant. During 1988 and 1989

three activities were undertaken: (1) the development of a formal Historic Preservation Plan (HPP); (2) a study of the documentary resources available for use in reconstructing the lifeways associated with the late 19th and 20th century farmsteads; and, (3) a program of site evaluation in the Vache Grasse Valley. The last concentrated on portions of the better preserved historic sites (Bennett et al. 1993).

REGULATING AUTHORITY

The Scope of Work (Appendix 2) for testing of 14 archeological sites requires that each site be evaluated for its National Register eligibility as called for by AR 420-40 and the Historic Preservation Plan (HPP) for the Fort Chaffee Military Garrison (U.S. Army Corps of Engineers n.d.). Army Regulation 420-40 (AR 420-40) describes Army policy, procedures, and responsibilities in carrying out the National Historic Preservation Act of 1966, as amended and other directives related to the management of Historic Properties located on lands directly under Army management. As part of the management program, military installations are required to prepare a Historic Preservation Plan. The HPP was prepared for Fort Chaffee by AAI under contract DACW03-89-D-0068, Order Number 22 from the USACOE, LR and was supported by funds from the Fort Chaffee Military Garrison. The HPP is complete as a working document, subject to change as new data develop. A Programmatic Agreement has been signed by the President's Advisory Council on Historic Preservation, the Arkansas State Historic Preservation Officer and the Fort Chaffee Garrison commander. MCRA is, therefore, operating to meet the needs of the Army as outlined in the Programmatic Agreement and the HPP.

PROJECT HISTORY

The sites to be tested were listed in Table 14 of the HPP (U.S. Army Corps of Engineers n.d.:29-30). Of 597 sites exhibiting historic components, eight were considered eligible for nomination to the National Register (3SB149/184, 386, 433, 425, 596, 960 and the Maness School). Recommendations called for further work at 42 sites to determine more exactly the nature of the archeological record.

MCRA, under Service Contract DACW03-92-D-0013 with the Little Rock District, was to conduct the testing of sites recommended by AAI. The first phase of testing was conducted over a two day period by Michael Sierzchula and Steve Imhoff. On 31 May 1994 and 1 June 1994 all the sites were revisited to establish the location, determine site conditions, and identify any constraints which might impede the investigations. Fieldwork began immediately after the initial visit and was conducted intermittently until finished the first part of November 1994. Steven M. Imhoff or Michael Sierzchula directed the site investigations. The field crew included Debra Cook, Duff Martin and Karl Sandrock. A summary of investigation of the first seven sites tested by Steve M. Imhoff was sent to Bob Dunn (USACOE, LR) and Jerry Sturdy (Environmental Section, Fort Chaffee) during July. While artifacts had not been processed or analyzed, an attempt was made to extract information from field notes on site sizes, periods of occupations, and potential for significance. Information was also provided on the number of sites relocated by AAI and constraints encountered to that time. A meeting was held between Bob Dunn, Jerry Sturdy, and Michael Sierzchula (MCRA) at Fort Chaffee to discuss the findings on the remainder of the sites and determine the status of the overall project. The archival research was conducted Dr. Lawrence G. Santeford.

CONSTRAINTS

Since the project was initiated in June, dense vegetation proved to be a major constraint. Military activities keep the vegetation at the fort in a perpetual state of second growth. In addition, the historic sites tend to be overgrown with honeysuckle, greenbriar,

wisteria, and a variety of domestic plants gone wild. Thus, our ability to lay out shovel test transects, identify surface features and conduct mapping was impaired.

Fort Chaffee is divided into seven public use compartments. These are open to the public during certain times of the year for hunting, but hunters are required to check in with the Range Control Office to determine which public use compartments have unrestricted access for the day. When firing ranges are in use the compartment is off-limits. The reason for this is apparent considering the significant quantity of bullets recovered from 3SB543 during our work.

DATA RECOVERY TASKS

As noted earlier in this chapter, the primary objectives of testing were to determine the sizes of prehistoric sites, both horizontally and vertically, and to attempt to identify when the sites were occupied. With these objectives in mind, field and laboratory tasks were organized to efficiently collect and process information. MCRA personnel always attempt to go beyond mere cataloging of artifacts and site recording so that information derived from sites is maximized to gain new insights into the heritage of our land.

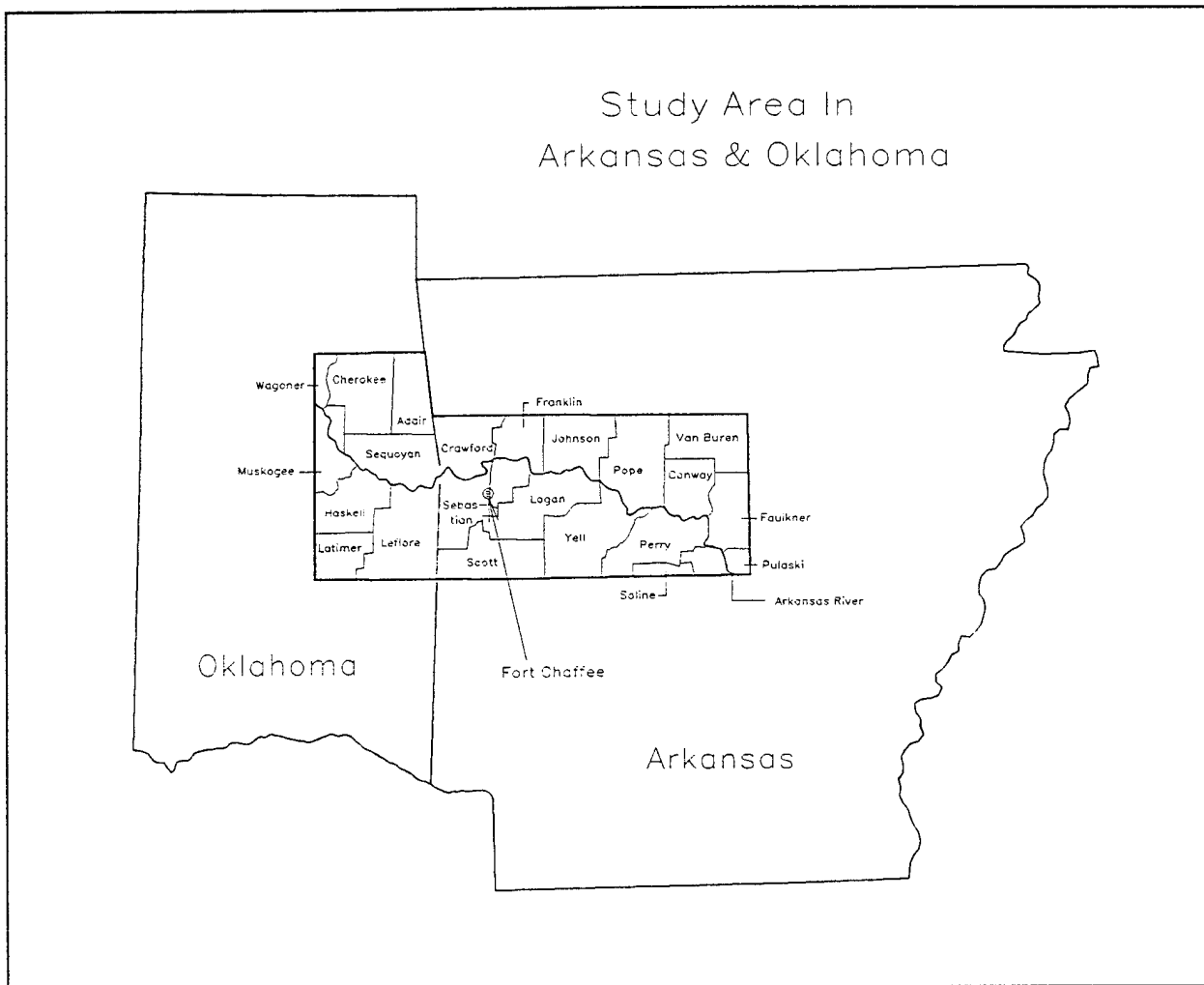


Figure 1. Project Area Location.

Field Methods

The first task carried out at each site was a complete surface inspection of the site. At this time surface features and areas of interest were flagged for future mapping or investigation, conditions were recorded, and orientation for shovel testing determined. A baseline, oriented with the cardinal directions or major topographic or cultural features, was established at each site and shovel test transects established at points along it that had been randomly selected prior to beginning field work. The manner in which the initial phase of the fieldwork was conducted varied slightly between Steve M. Imhoff and Michael Sierzchula. The excavation of the test unit(s) was the same.

Steve M. Imhoff conducted testing in the following manner. He used the same transects for each site. From the point of origin (0/0), transects were established at distances 8, 16, 21, 32, 49, 54, 65, 75, 89, 93, 101, 115, 122, 135, 149, 153, 168, 175, 188 and 194 meters. When it became apparent that the dense vegetation would make excavating a large number of shovel tests difficult, we decided to lay out only every other transect. The distance between individual shovel tests was normally 10 m, but was increased to 20 meters on some sites where the size of the area to be tested was large. The depth of shovel tests varied considerably, depending in most instances on obstructions (e.g., dense rock, extremely compacted clays). Each was excavated in 10 cm levels and the soil screened through 1/4 inch hardware cloth. Artifacts were bagged by level and notes were maintained on artifact content, soil characteristics and other information deemed pertinent. Considering the density of ground cover, controlled surface collecting generally was impractical as a means of determining site size. Disturbed areas were limited to some military trails and eroded slopes where a few artifacts were present.

Investigations directed by Michael Sierzchula were conducted in the following manner. A thorough surface inspection was conducted at each site before any subsurface investigations were initiated. The features identified by AAI on their site sketch map and in their notes were identified first. From this point a systematic inspection of the site was conducted flagging surface features and determining the conditions at the site. A baseline oriented with the direction of the site, or with the primary topographic feature was established. A series of random points within each 10 meter block (i.e. 0-9, 10-19, 20-29, etc) was selected from a table of random numbers for each site. The transects were then oriented in a direction compatible with that of the site and shovel tests were excavated every 10 meters. Information recorded from each shovel test was maintained by the grid coordinates for each. This information included depth reached, Munsell value, and soil texture. All soil was passed through 1/4 screen and recovered artifacts bagged and assigned an FSN particular to that shovel test and depth.

State site forms prepared by AAI personnel were reviewed to maximize information and help to identify locations where test units should be excavated. The primary factors affecting unit placement included the density of cultural materials in shovel tests, the nature of the landforms, the presence of surface features and indications that certain parts of sites were relatively undisturbed by natural or cultural impacts.

At least one test unit was excavated at each site. Each was 2 m long by 50 cm wide to provide a longer profile than a one meter square unit but without excavating more soil. Levels were normally 10 cm deep. Excavation was by shovel skimming and troweling. All soil was screened through 1/4 inch hardware cloth, and cultural materials were bagged. A level form was completed providing soil characteristics, artifacts recovered, and other information. Each test unit was excavated until at least two sterile levels were encountered, or until bedrock (or, in a few instances, the water table) was encountered. In some instances, particularly if the soil was extremely compact or stony and the artifact density

suggested the base of the deposits was near, units were stepped down to 0.5 x 1 m or even 50 x 50 cm. Once excavation was complete, at least one wall was drawn in profile and both black-and-white and color photographs were taken. The unit was then backfilled.

The site was mapped, noting the location of the shovel tests, test unit(s), surface features, and any other information believed to be pertinent that could be placed on a map.

Laboratory Tasks

Artifacts were taken to the MCRA laboratory for processing and initial analysis. Field records and photographic film were also processed through the laboratory. Curation was arranged with the University of Arkansas Museum and all of the artifacts prepared according to its requirements.

Durable artifacts were washed with soft brushes and water, while less durable ones were carefully hand rinsed to avoid damage. Artifacts were dried on open screens, then numbered using permanent India ink. Those too small to be numbered were bagged with a card stock tag with information written in permanent ink.

Artifacts were analyzed using methods based on the DELOS artifact sorting system used at Toltec State Park, Arkansas (Rolingson and Kaczor 1986). Diagnostic artifacts were separated for further evaluation by the project archeologist.

Documentary Research

The Scope of Work states that each prehistoric site would be evaluated for its National Register eligibility as "called for by AR 420-40 and the draft Historic Preservation Plan for the Fort Chaffee Military Garrison." While the testing was guided by the documents cited above, the integrity of the sites was assessed according to the National Park Service Guidelines (1982). The eligibility of each site for the National Register of Historic Places would be determined using Criterion d (Archeological Research Potential) and b (Significant Individuals).

Federal Regulation 36CFR60.4 outlines the qualities that make cultural properties significant and eligible for nomination to the National Register of Historic Places (NRHP). These regulations state:

National Register criteria for evaluation

The quality of significance in American history, architecture, archeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

(a) That are associated with events that have made a significant contribution to the broad patterns of our history; or

(b) That are associated with the lives of persons significant in our past; or

(c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(d) That have yielded, or may be likely to yield, information important in prehistory or history. (Federal Register 1976:1595).

Sites significant and eligible for inclusion in the National Register must have intact deposits and a high degree of integrity of location, setting, feeling and association. While these are not criteria for significance, they comprise a general precondition defined in the regulations. In some instances, they can be waived if intact deposits of a particular study unit (cf. Davis 1982 and Raab et al. 1982, for example) are not known or are known to be almost nonexistent. In the Ozarks, for example, Sabo et al. (1982) explicitly included disturbed assemblages from the Archaic, Mississippi, and Woodland periods and virtually any Paleo-Indian/Dalton site as potentially significant, which suggests just how rare these undisturbed sites are in that region. Other highly disturbed sites known to be representative of well-known classes of sites are not likely to be significant, but specific arguments might also waive this. The temporal cut off for significance of historic sites is legally set at more than 50 years old. Again, this requirement can be waived if the resource is associated with someone of note or importance is otherwise eligible under Criterion a, b, or c.

The archival research was conducted using records at the Historical Commission in Little Rock, COE real estate office in Little Rock, Sebastian County courthouse in Greenwood, and the special collections at Mullins Library, University of Arkansas. Specific records used during this phase of the project included the real estate records, personal property tax records, agricultural census, federal population census records, the Sebastian County Atlas of 1887 and 1903, deed abstracts, and the General Highway and Transportation Map of Sebastian County (1936, revised 1941).

CHAPTER 2.

ENVIRONMENTAL SETTING

The Natural Environment

This chapter focuses on what we know of the natural environment. While we can look around us and gain some general perspectives on the environment as it now exists, in dealing with prehistoric sites we must be able to reconstruct the area as it was thousands of years ago. Data collected through the study of pollen and other organic and fauna remains from other regions have been used to construct initial models of paleo-environment.

Six major environmental parameters affect the ways humans can live within any region (Evans 1978:2). These are: climate, geology, soil, vegetation, fauna, and disease. The last factor is not addressed in this study. Although we will discuss the other parameters as separate entities, they are highly inter-related and function in a systemic way so that changes in one affect all the others.

GEOLOGY

Three major aspects are included in this description of geology: landforms or topography, inorganic materials (rocks and minerals), and hydrologic resources.

Topography

The study area is situated within the Ouachita Mountains division which is separated into four subdivisions although only the Arkansas River Valley and Fourche Mountains are described in this report. Differences are based on topography and physiography. The Arkansas River Valley is the northernmost subdivision. Foti (1974:18) observed that the Arkansas River Valley is not only a transitional subdivision between two mountain systems but also a unique region in itself. Stroud et al. (1969:24) state:

The area consists of rolling lowlands 400 to 600 feet in elevation; cuestas, hogbacks, and mesas 600 to 1000 feet in elevation; and mountains 1500 to 2800 feet in elevation. The ridges of the Arkansas Valley are the most outstanding physiographic features of the region. These ridges are upheld by resistant sandstones of the Pennsylvanian formations generally forming east-west trending cuestas and occasional hogbacks and mesas. The ridges include some of the highest elevations in Arkansas - Poteau, Sugarloaf, Magazine, Huckleberry, Nebo, and Petit Jean Mountains.

The Fourche Mountain subdivision lies south of the Arkansas River Valley, and is bounded on the south by the novaculite uplift of the Central Ouachita Mountains. The Fourche Mountains are generally "parallel ridges with maximum elevations and maximum local topographic relief toward their western end. The ridges have sharp, narrow crests and tend to be very rugged" (Foti 1974:18). Ridges have maximum elevations of 762 to 792.5 m (2,500 to 2,600 ft.) near the Arkansas-Oklahoma border and decline to a minimum elevation of 152.4 m (500 ft.) near Little Rock. Valley levels range from an elevation of about 335.3 m (1,100 ft.) in Polk County to less than 91.4 m (300 ft.) near the Gulf Coastal Plain (Stroud et al. 1974:25).

Inorganic Materials (Rocks and Minerals).

The identification of the types of minerals present and/or used by prehistoric and historic peoples is emphasized because often these are the only evidence of human activity. Although it is known that other materials (wood, wild fibers, and animal products) were used, these materials are seldom preserved in archeological sites. Acidic soils, decay, and other natural processes destroy evidence that could tell us much about how people lived in the past. Historic Anglo-Americans seldom used minerals in their local culture, other than sandstone to construct fireplaces, chimneys, and house piers. They did, however, exploit minerals that could be processed in outside markets and used in larger industrial activities. For example, localized mining of manganese in north central Arkansas provided a valuable material needed in glass and steel processing.

Prehistoric peoples were more dependent on minerals in daily life and raw resources were mined or collected and processed, usually by users. Chert, an impure variety of chalcedony (Crabtree 1972:51) composed almost entirely of silica or a form of quartz, is found as isolated nodules or as continuous layers associated with limestone. It is easily worked with stone, bone, antler, or wood tools to create sharp-edged tools of diverse shapes and functions. Sandstone was also important for use as grinding basins, hand-held grinders, and other tools to process foods, pigments, and other materials. Some minerals, such as galena and iron oxides, were ground and used as paints for the body. Salt was an extremely important part of the human diet (Brown 1980).

Finding minerals in archeological context where such minerals are not present naturally suggests that prehistoric peoples exploited distant resources directly or exchanged the raw resources and/or finished artifacts for other goods. Using physical properties alone when identifying source areas for lithic materials can generate erroneous conclusions. This is especially apparent in the Fort Chaffee project area where archeological evidence indicates extensive exploitation of Arkansas River gravels. As will be noted, these gravels consist of a variety of lithic materials, so that artifacts lacking cortex may appear to have been made from material derived from a source area at a great distance from the site.

Within the valley the main surface rocks are sandstone and shale. The Savanna sandstone, Paris shale, Spadra shale, and Hartshorne sandstone, of Pennsylvania age (ca. 310 million years before present), are all significant. The primary source of chert in this subdivision is the Arkansas River. Tertiary deposits are composed of sand, gravel, and chert pebbles (Stroud et al. 1969:26) and are widely distributed in areas adjacent to floodplains of major streams. Before water control projects stabilized the water level in the Arkansas River, it was almost dry during parts of the season. Gravels could readily be exploited and are still dredged in the Fort Smith area for use as decorative stone. The gravels tend to be small, with the largest observed about the size of a medium orange. Banks (1984:73, 75, 87) confirmed the absence of other chert resources in the Arkansas River Valley.

Another lithic resource available in the Arkansas River Valley is siltstone. It is commonly identified as Webbers Falls siltstone after outcrops about 64 km (40 miles) northwest of Spiro near Webbers Falls and Okay, Oklahoma. It is a black, dense lithic material used for producing bifacially flaked "hoes". Banks (1984:79) indicates the stone is of unknown distribution.

The Fourche Mountains subdivision is surfaced primarily by rocks of the Mississippian period (ca. 345 million years before present). Jackfork sandstone is significant in the major mountain ridges, while Stanley shale is widespread (Foti 1974:28). Rocks are similar to

those of the Arkansas River Valley. On this side of the Arkansas River the best lithic resource is novaculite. It is widely exposed in Polk, Montgomery, Garland, Saline, and Pulaski counties in Arkansas and in McCurtain and Atoka counties, Oklahoma in more or less parallel and east-trending belts (Banks 1984:87; Ferguson 1920:34). The most convenient source to prehistoric groups in the Fort Chaffee area would have been approximately 80.5 km (50 mi) to the south in Polk County. Big Fork chert is found south of the novaculite deposits between Polk and Pulaski counties in Arkansas and extends into McCurtain County, Oklahoma (Banks 1984:87; Ferguson 1922:26).

Hydrologic Resources.

The Arkansas River flows east through the two major mountain systems in the study area. The largest tributaries of the Arkansas River are the Canadian, Cimarron, and Grand (or Neosho) rivers, which empty into it in Oklahoma. Within the boundaries of Arkansas, the major rivers flowing into the Arkansas River from the south slopes of the Boston Mountains, north of the river, are Frog Bayou, Mulberry River, Piney River, Illinois Bayou and Cadron River. The north slopes of the Ouachitas, south of the river, are drained by Petit Jean Creek and the Fourche La Fave River.

During the Pleistocene glaciation the Arkansas River was wider and deeper than today. Increased precipitation eroded the flanks of the Ozarks and tributary streams carried rock debris, including chert, downstream.

From the elevation of remnant Quaternary terrace deposits (slightly below 153 m - 500 feet - to more than 164 m - 600 feet), we know that the Arkansas River once reached a height of more than 63 m (200 ft.) above its present level [slightly under 122 m (400 ft.)](Albert 1987:8).

If this is true for the Fort Chaffee area, almost the entire military reservation would have been underwater at that time. Albert (1987:11) observed that the channel of the Arkansas River certainly reached into the James Fork area (more than 16.1 km, or 10 mi, south of the Fort Chaffee project area) at some time since Boone chert is present in local gravels.

Within Fort Chaffee the primary drainage is Vache Grasse Creek. This stream meanders considerably as it flows north to meet the Arkansas River and drains an area of 29,525.9 ha (114 sq. mi) (Sullivan and Terry 1970:20). Other larger creeks include Flat Rock, Big, and Little Vache Grasse. All of these are fed by minor intermittent tributaries that drain the ridges south of the Arkansas River.

Soil

Understanding the soils present is important when addressing both the evidence to be found in archeological sites and the nature of culture process. The dominant order of soils in the study area are Ultisols. They have undergone the ultimate in weathering and leaching. Ultisols occur where the mean annual soil temperature is 47° F. or more and where there is a period when rainfall exceeds evaporation. Minerals associated with advanced weathering stages are kaolinite, gibbsite, hematite (also goethite and limonite) and anatase (also rutile and zircon). Ultisol soils are of short-term productivity and agriculture can be maintained only by shifting cultivation or by the use of fertilizers. Few weatherable minerals exist in the soils to release bases.

In terms of settlement, this means that initial clearing of the land can result in productive agriculture only for a brief time, since the soil is exhausted rapidly. Early settlers discovered this and were forced to abandon lands, shift economies, or begin

intensive fertilization. In prehistoric times, lands beyond the Arkansas River floodplain and some tributaries were probably settled less intensively because they would have required an excessive amount of labor to clear the forest for a brief period of productivity. The soils of the floodplains, particularly those of the Arkansas River, were replenished annually.

The overall level of pH in soils significantly affects the plants that can be grown most productively and the organisms that inhabit the soils. The availability of nitrogen is related mainly to the effect of pH on decomposition of organic matter. Corn, one of the basics of prehistoric agriculture, requires extensive use of nitrogen. Even though some Native American groups intercropped by spacing corn hills 1.2 m (4 ft.) or more apart and then interplanting beans or other crops, the quantity of nitrogen introduced by legumes was probably insufficient to counter the low natural nitrogen levels. Soil pH also affects the degree to which perishable artifacts, organic remains and faunal remains are preserved in sites. The result is that archeologists often are left with incomplete views of how some prehistoric peoples lived. The subsistence systems developed by groups through time, which focused upon differing parts of the environment, also affect what we can learn of their subsistence activities. For example, there is a slightly greater chance that organic remains will be recovered from sites in areas where soils are productive for agriculture than from upland sites occupied by hunters and foragers.

CLIMATE

Sebastian County receives an average of 42 inches of precipitation annually, which is distributed evenly throughout the year. May is the wettest month (5.48 in) and January the driest (2.38 in). The lowest recorded annual precipitation is 19.8 inches and the highest in 71.81 inches. Most of the precipitation falls in the form of rain, but an average of 5 inches of snow falls each year. The maximum 24 hour snowfall was 17.5 inches in February 1921. The average daily maximum temperature is 72.9 degrees F and ranges from an average January high of 49.7 degrees to an average July high of 93.6 degrees. A temperature of 90 degrees or more is achieved, on average, 72 days per year with a record high of 113 degrees recorded in August 1936. The average daily minimum temperature is 50.1 degrees F and ranges from an average of 28.6 degrees in January to 71.0 degrees in July. A minimum temperature of 32 degrees or less is achieved an average of 81 days per year with a record low of -15 degrees recorded in February 1899. The average growing season is 223 days per year and generally lasts from the first part of April until the end of October or early November. The mean date of the last Spring freeze is March 26 and the mean date of the first Fall freeze is November 4. Droughts are uncommon and occur only every 10 to 15 years (Skiles n.d.).

Climate affects humans directly and indirectly through its influence on vegetation, fauna, and soil (Evans 1978). Temperature and precipitation are closely linked. A rise in temperature leads to increased evaporation and to drier conditions without associated rainfall change. The distribution of some species of plants and animals is determined by a single climatic parameter, so that the absence or presence of such species in the prehistoric record reflects changes in local conditions. Climatic change also occurs throughout the year, resulting in seasonality. Factors, such as wind, exposure, and length of growing season, are relevant to the growth and maturation of plant resources upon which prehistoric peoples were dependent. The latter factors will affect the precise positioning of settlements and camps.

There is no specific evidence for the nature of the climate and plants present in the Fort Chaffee area during the thousands of years that landforms and soils were evolving. Climatic conditions have varied through time as colder and wetter periods alternated with warmer and drier ones. Because these changes had profound effects on the vegetation communities present, they are discussed in the following section.

VEGETATION

This section focuses attention on past vegetation and is based on two major types of evidence. The first draws on studies of pollen remains and other organic remains recovered from locations in the region. Such studies can provide insights on environmental changes as they occurred thousands of years ago. The second approach focuses on trees and understory plants identified in the General Land Office (GLO) field notes written during the first systematic surveys of the area. While these were conducted in the 1820s and 1830s, much of the land had not been cleared and the vegetation listed reflects the nature of the undisturbed environment for perhaps the last thousand years.

Changes in climate affected the plants and animals present, and therefore the lifeways of the people. Albert (1987:17-20) examined the results of pollen studies in Texas, Oklahoma, Missouri, and Kansas to investigate vegetational and climatic changes in the James Ford Watershed of LeFlore County, Oklahoma. Studies in the Fourche Maline Valley, at Sardis Lake, and from Natural Lake appear to be nearest to the Fort Chaffee project area. These areas are in LeFlore County approximately 80.5 km (50 mi) southwest of the project area.

During an interstadial episode (ca. 34,000 and 25,000 years ago) of Wisconsin times (ca. 70,000-10,500 years ago), cooler and moister conditions gave rise to an open pine forest or parkland with small amounts of birch, oak, and willow in the western Missouri Ozarks (King 1974:558). Sedges, cattails, grasses, and other plants grew in or near Ozark springs. In northeast Kansas, pine-dominated forests existed.

About 25,000 years ago temperatures fell, and glaciers once more spread across the northern part of the continent. By 17,000 years ago, a spruce forest became established in the Ozarks (King 1973:561). In central Texas, an open deciduous woodland with some pine and spruce developed. A predominance of pine at the base of undated cores from Caddo and McCurtain counties, Oklahoma suggest pine forests and/or parklands existed over the southeastern and west-central part of the state. It is likely the upland areas along the Arkansas River displayed mixed pines and spruce. Springs in southwest Missouri have yielded 16,000 year-old remains of spruce, mastodon, ground sloth, giant beaver, tapir, horse, and deer.

About 16,000-11,500 years ago, the climate warmed and glaciers receded. Ozark spruce forests became mixed with pines and deciduous trees such as ash, alder, willow, oak, elm, ironwood, and hazelnut. In northeast Kansas, deciduous trees were mixed with prairie grasses by 11,300 years ago. Spruce were gone in central Texas, leaving an open oak and pine forest. As conditions continued to warm, oak-ash-hickory parkland flourished, followed by savanna with grasses.

While the Holocene is characterized by the distribution of plants and animals as we know them, the last 10,000-14,000 years have been marked by environmental changes. Pollen records from Jenkins Reilly Slough and Ferndale Bog (Albert 1981:79-99) in southeast Oklahoma indicate that before about 4000 years ago the margins of the Ouachita Mountains were covered with grasslands and oak savanna. This suggests a warm, dry climate that lasted from about 7000 (or somewhat earlier) to 4000 years ago. King (1980:41-51) observes that about 6700 B.C. (8650 years ago) the effective precipitation and ground water levels apparently declined. Streams and rivers apparently carried less water as well. The Mississippi River, for example, changed from a braided to a meandering stream. This Hypsithermal Interval brought increased warmth and dryness, in fact, the warmest temperatures of the last 75,000 years (King 1974). The American Midwest became a vast prairie and may have supported bison and other prairie animals in areas that are now forested.

By 4000 to 5000 years ago conditions moderated, becoming more like those of today. There was a renewed development of the bottomland forests and increased water levels (King 1980:41-51). Between 1600 and 4000 years ago the oak, hickory, and pine forest of today was established (Albert and Wyckoff 1984:38).

During the Archaic and much of the Woodland periods the climatic conditions and vegetation changed, but the plant and animal resources available to prehistoric groups remained diverse. Prairies may have been more pronounced features on the landscape at times, but upland forests and oak barrens also persisted. More attention is given to the nature of these resources in subsequent discussion. As Burnett (1989:64) stressed, osteological remains suggest that the exploitation of hickory nuts actually increased during the Woodland period. There was a decrease in tools associated with hunting and the working of animal products.

Pollen samples have been obtained from Natural Lake on the Jackfork Creek floodplain. Deposition occurred between 600 and 2400 years ago. Increased tree pollen suggests that around A. D. 600 or 700 there was locally greater, effective moisture. This was followed by increasing dryness during the A. D. 900 to 1300 erosional episode. King (1974) observes that the mean annual temperature gradually warmed between A. D. 900 and 1200, remained steady for about a century, then fell sharply in the 1300s. In parts of Oklahoma destructive floods occurred several times between A. D. 1300 and 1600. King (1974) notes:

The low temperature period between approximately 1500 and 1860 is known as the "little ice age." During this period montane glaciers expanded worldwide and in Europe many small mountain villages were overridden and buried by the advancing ice. Winter temperatures dipped to lows that have not been attained since. Starting in the late 1800s, the temperature warmed until shortly after 1940, when it began cooling again.

Climatic fluctuations during the post A. D. 700 period would have affected prehistoric peoples of the Woodland, Mississippian, and Historic periods. While there was some focus on agriculture, foraging for plant resources and hunting animals continued. Because evidence of past climatic change is lacking at Fort Chaffee, it is unknown how changing conditions affected the immediate environment and how prehistoric peoples reacted to these changes. Considering the nature of the local soils, it is unlikely that such evidence has been preserved.

Vegetation of the Historic Period. Although Anglo-Americans were already settling in areas surveyed by the General Land Office (GLO), many areas still remained undisturbed and the vegetation noted by surveyors was that which existed prior to settlement. These surveyors visited the project area during the "little ice age." It had been in progress for approximately 300 years and would have affected the distribution of plants and animals. Conditions were perhaps more comparable to the Paleo-Indian and earlier Archaic periods.

The lowland forest is a rich zone providing a wide variety of plants that could be used as food and the raw material for tools and construction. Oak barrens are called open woodlands or prairie woods. They are grass-covered, with interspersed trees and brush, and are subject to annual fires. In Lewis's study (1974:19) of the environs in southeast Missouri, oak barrens were apparently included in his oak-hickory upland forest. Major trees were the post oak and blackjack, with some black oak and black hickory. The undergrowth included hazel, sumac, black locust, winged elm, grapes, blazing star, ironweed, common milkweed, and wild strawberries. Lewis would add dogwood, sassafras, and wild black cherry, among others. Although some plant resources became available during April and June, it wasn't until fall that plant resources became important.

Acorns of post and black oak matured and the nut of the hazel became available (Miller 1972:24). The fruit of the smooth sumac and seeds of the black locust were also harvestable. Jordan (1964) observed, in a study of the settlement patterns of Anglo-Americans in Illinois and contiguous areas, that the oak barrens were a preferred zone. This land, sharing the attributes of both the forest and the prairie, presented advantages to early settlers (and possibly prehistoric peoples as well). These included: availability of timber, environment conducive to good health, good drainage, woods available for hunting, and open but protected areas for settlement.

Examination of GLO maps indicates many areas of prairie, primarily west of Vache Grasse Creek and east of Big Creek. Brief examination of the maps showing where AAI found sites on the military reservation demonstrates that sites are present within areas marked as prairies. Miller (1972:37-42) described the upland prairies, noting that early surveyors did not provide adequate insights on the plants present. He suggested the primary grasses were big bluestem, little bluestem, Indian grass, switchgrass, and Indian hemp. Forbs included lead plant, rosinweed, prairie coneflower, ground plum, prairie turnip, and blazing star. In some instances black locust, smooth sumac, and briars were observed. The prairie contained few potential food sources. It should be kept in mind that although prairies were marked on area maps drawn in 1820-1840s, their distributions should not be assumed to correlate directly with paleo-environment patterns. Considering the sparseness of resources within prairies, it is likely that prehistoric populations that did not settle in the lowland forests established their camps in oak barrens. Considering that we are dealing with environmental change over thousands of years, it is possible that prairies became larger or smaller depending on conditions of temperature and precipitation.

FAUNA

Animals do not live just anywhere. Unlike humans, who can control their living conditions somewhat, animals are more at the mercy of the environment. The distribution of fauna varies through time as the climate changes. At any one time within a region, distribution reflects adaptation to the various micro-environments. In ideal conditions the skeletal remains of animals exploited by prehistoric Native Americans are recovered from archeological sites. Such conditions are rare, however, and we generally must use whatever evidence is available. Thus, since prehistoric peoples were dependent on the resources around them and the animals present have been here since humans first entered the continent, some of what we have observed in historic contexts or at the few ideal archeological sites reflects practices that extend far into the past.

Miller (1972:33) observed that animals found in the lowland forest include the opossum, gray squirrel, black bear, raccoon, muskrat, beaver, and the mink. Animals occasionally found in the zone are woodchuck, deer, and striped skunk. Lewis (1974:23) adds wild turkey, ruffed grouse, prairie chicken, and passenger pigeon. Smith (1975) studied the Middle Mississippi period exploitation of animal populations but many of his points likely apply to earlier periods. The raccoon was exploited more intensively than rabbits, squirrels, and opossums by people of this period (Smith 1975:137). It depends on acorns as a primary fall-winter food source, feeding primarily in upland hardwood forests. Denning trees, however, are located within 152.4 m (500 ft.) of streams or lakes. While black bear was hunted, it constituted an insignificant part of the diet, at least during the Mississippi period.

The oak barrens are a rich area during the fall. Animals preferring this zone include: deer, striped skunk, cottontail rabbit, bobcat, common box turtle, and possibly elk. It was a secondary habitat for the gray fox, woodchuck, opossum, prairie chicken, and bison. Identification of skeletal remains from prehistoric sites in Illinois and other regions, shows that white-tail deer was most intensively exploited by the early peoples (Smith 1975:137).

The deer is a browsing ruminant with a diet of tender shoots, twigs, and leaves, a wide assortment of herbaceous foodstuffs, acorns, and certain fruits. Acorns are its single most important food source. As August comes to a close, deer shift their attention to acorns which make up almost their entire diet until early March when the first green grasses appear. During September through November, they feed in the upland hardwoods (including oak barrens) and during March through April in the lowland forests. Their average seasonal range is generally little more than one square mile (Smith 1975:20-21).

Primary inhabitants of the prairie include coyote, ornate box turtle, bison, spotted skunk, and prairie chicken. Prairie was a secondary habitat for elk, bob cat, and long-tailed weasel (Miller 1972:42). While it is likely this zone was visited by prehistoric peoples, other zones offered a better variety of vegetation. The bison was exploited by prehistoric peoples (e.g., Wheat 1976) but it is unknown to what extent it was exploited by the prehistoric peoples of this region.

CULTURAL ENVIRONMENT

Paleo-Indian (Pre 10,500 BP)

The Paleo-Indian period has been traditionally characterized as one in which nomadic hunters pursued giant Pleistocene fauna, dispatching them with spears tipped with characteristic fluted projectile points. The extent to which this is true is open to question, since little is known about the true complexity of Paleo-Indian culture. Well-preserved sites of this period are extremely rare and only the most durable artifacts are preserved at such ancient sites. Recorded sites in Arkansas are generally in uplands where early, distinctive projectile points are found on the surface instead of within well-defined stratigraphic levels. Even bluff shelters, which sometimes yield undisturbed cultural levels, have failed to provide well-defined Paleo-Indian assemblages.

Archeological investigations in Oklahoma and Arkansas have failed to provide much information on the nature of Paleo-Indian occupations in the Arkansas River Valley or adjacent areas. Gettys (1984) presents a summary of investigations to about 10 years ago, observing that most of the excavated sites are in western Oklahoma. He goes on to say that projectile points of this period have been found in the eastern part of the state, primarily as surface finds. Only Morse and Morse (1983) have synthesized and interpreted sites where Paleo-Indian projectile points have been found in Arkansas. Their work focuses on the Central Mississippi Valley, so the information is not necessarily applicable to western Arkansas. There is no report summarizing the evidence for a Paleo-Indian occupation of the Arkansas River Valley. No sites of this period have been recorded on the Fort Chaffee Military Reservation (U. S. Army Corps of Engineers n.d.:5)

Archaic Period (9500 - 1800 BP)

The Archaic period is traditionally divided into Early, Middle, and Late sub-periods. In addition, the Dalton period, a transitional time that some archeologists include with the Early Archaic and others as terminal Paleo-Indian, is included as Early Archaic. Dalton culture is identified on the basis of a unique biface, the Dalton point.

Dalton period Information on the nature of Dalton subsistence patterns, the existence of structures, and the internal organization of sites, is lacking for Arkansas and Oklahoma. The meager information that is available is generally based on the recovery of diagnostic projectile points from surface contexts. The Dalton point is lanceolate in outline with a concave base. Dickson (Klinger et al. 1993:45) notes that these points functioned as knives, based on microscopic use-wear analysis and an almost uniform absence of impact fractures resulting from use as projectiles.

Only three sites with Dalton components have been excavated in eastern Arkansas. Evidence of Dalton culture was observed at Rodgers shelter in Missouri, and it is primarily from these sites that archeologists have attempted to reconstruct the nature of the culture throughout Arkansas. There are no dates for Dalton sites recorded in Arkansas. As in the western Arkansas area, Dalton points have generally been found on the surface at sites in northeast Arkansas. Based on archeological investigations in the San Bois Creek watershed in Oklahoma, Wallis (1980:Table 1) placed Dalton in the Early Archaic. Dickson (1991:264) presents a brief discussion of Dalton, and finally includes it in the Early Archaic period. Based on radiocarbon dates from southwest Missouri and northeast Oklahoma (Sabo et al. 1982:56), it is currently proposed that Dalton cultures in the region date from about 10,500 to 9500 years ago.

During this time, the climate continued to become more moderate. Deciduous trees, including oaks, elms, and hickories, expanded their range. The spruce-dominant forests of the earlier Paleo-Indian period were displaced. As the climate warmed, prairies expanded their ranges.

During archeological survey by AAI at Fort Chaffee, a number of Dalton points were recovered. A classic one was found in a shovel test at 3SB471; another was found on the surface of 3SB540. Possible Dalton points were found at 3SB508 and 3SB454 (Bennett 1988:5-1). Dalton point fragments were found at 3SB184 at 20-30 cmbs (Bennett 1987:3-33, 3-43). Testing at sites 3SB471, 3SB508 and 3SB540 by MCRA did not reveal additional diagnostic Dalton artifacts. A Dalton projectile point was recovered by MCRA at 3SB255 at 30-40 cm. Flakes were found at this level, but no features or artifacts were obviously associated with the point.

The Early Archaic period in the Arkansas River Valley is poorly defined. Sabo et al. (1982:57) combine the Early and Middle Archaic periods, stating that there is a lack of evidence of any significant change from an ongoing adaptive pattern. Wallis (1980:Table 1) indicates that Early Archaic sites in eastern Oklahoma are identified on the basis of large unstemmed and slightly stemmed point forms. He includes the Plainview, Meserve, Agate Basin, San Patrice, and Holland types. Sabo et al. (1982:57) state that Early and Middle Archaic period sites can be identified on the basis of corner-notched projectile points, such as Rice Lobed; side-notched points, including Big Sandy or White River Archaic; contracting stemmed Hidden Valley points; and other stemmed varieties such as Searcy, Rice Lanceolate, Jackie Stemmed, and Johnson.

Artifacts of the time have been identified as the result of excavations in bluff shelters. Major sites in which projectile points have been found in stratigraphic context include Calf Creek Cave, Albertson (3BE174), Breckenridge, and Tom's Brook in the Arkansas Ozarks, and Rodgers and Jackie Shelter in southwest Missouri.

Radiocarbon dates have been derived from sites in northwest Arkansas, northeast Oklahoma, and some other areas (Dickson 1991:265; Sabo et al. 1982:58). This information suggests that the Early Archaic period lasted from about 9500 to 8000 years ago. By this time climatic conditions appear to have moderated, so the landscape was probably one of oak barrens. Clusters of oaks and other trees were distributed across open grasslands. Lowland forests were probably found along creeks and rivers.

Based on the limited information available on Early Archaic sites, it is possible the people did not differ significantly from preceding cultures in their subsistence and settlement patterns. Dickson (1991: 265) states:

Early Archaic peoples probably had a band level of social integration, with the band dividing into several family units for hunting and foraging activities. Permanent base camps apparently were located along such major streams as

the Illinois and Grand rivers. Site 34AD7 on the Illinois River in Oklahoma apparently had a deeply buried Early Archaic component before most of the site was destroyed by erosion and commercial development. The small hearths at Albertson associated with limited tool kits and separated by alluvial deposits suggest male hunting groups used the site frequently. Only the Rice occupation was intense enough to indicate use as a temporary hunting-foraging camp for a family unit. Site size precluded the probability that a band could have used it.

The only tested site at Fort Chaffee to yield a projectile point suggesting possible Early Archaic occupation is 3SB363. The artifact was found in the 0 - 15 cm level of a shovel test excavated by AAI. Cultural materials found by MCRA indicate a Late Archaic occupation. This site is on a terrace of an unnamed intermittent stream flowing east into Big Creek. Since the site may be multi-component, and subsurface examination was so limited, no information was derived on Early Archaic assemblages.

Middle Archaic Based on radiocarbon dates from a number of sites, this period lasted from about 8000 to 5000 years ago. The Tom's Brook complex, first observed in northwest Arkansas, has been applied to Middle Archaic sites in eastern Oklahoma. There appears to be a fairly complete assemblage at Albertson (Dickson 1991), but application of data derived from the excavation of a bluff shelter in northwest Arkansas is not necessarily applicable to open-field sites in the Arkansas River Valley.

Wyckoff (1984:136) states that artifacts most diagnostic of the Middle Archaic in eastern Oklahoma are Johnson, Jakie Stemmed, Fairland, Big Sandy, Ensor, Uvalde, Rice Lobed, Frio, Duncan, Hanna, McKean, Williams, Castroville, and Marcos points. Dickson (1991:267-269) provides a more thorough description of when various projectile point types appear to have been introduced. Other artifacts assigned to this period are graters, burins, perforators, pick-like digging tools, bifacial knives, choppers, scrapers, cores, grinding stones, and nutting stones.

This is the period when the Hypsithermal occurred. While dryer and warmer conditions existed, we should not conclude that human groups were drastically displaced or animal and plant populations changed significantly. Dickson (1991:266) notes that Purdue found environmental changes not severe enough to cause the total disappearance of animals or plants. Specific habitats contracted or expanded with climatic fluctuations, which probably influenced where people settled or exploited resources.

Numerous questions can be asked about the exploitation of resources by Middle Archaic period peoples that are applicable to the Early and Late Archaic. Wyckoff (1984:139) states that the sites appeared to be occupied by hunting and gathering groups. He concludes that they were not occupied during seasonal movements. Considering the distributions of plants, animals, and other resources in the region, there appears to be no factor that would have induced groups to move seasonally. Even the lithic resources are predominantly locally available stone. Sites at Fort Chaffee exhibit mostly Arkansas River gravels and siltstones that could be easily obtained.

Late Archaic sites are probably more common than any other in the area. In general, the Late Archaic period in the region seems to have lasted from approximately 5000 to 1800 years ago. Late Archaic period sites in eastern Oklahoma are represented by the Wister phase. This phase lasted from about 4000 to 2000 years ago, based on radiocarbon dates (Sabo et al. 1982:61; Wyckoff 1984:151). Sites in western Arkansas are probably contemporaneous in a broad sense. In contrast to the previous Archaic periods, significant data is available for the Wister phase in eastern Oklahoma. Despite the leached

and acidic soils in eastern Oklahoma, sites include so much ash, charcoal, and organic remains that much of this has been preserved and can be analyzed.

Based on research in Oklahoma, projectile points appear to have changed during this period. Older cultural deposits include corner notched points; Summerfield, Williams, Marcos, Lange, Palmillas, and rarely parallel-stemmed varieties such as Yarbrough and Bulverde-Carrollton types. Through time, contracting stem forms such as Gary and Langtry displaced the earlier forms. Wyckoff (1984:163) proposes that these points were hafted on foreshafts inserted into longer shafts and propelled with a spear thrower.

In the rich middens of eastern Oklahoma considerable animal bone has been recovered. Wyckoff (1984:152) states that the main prey was white-tail deer but turkey, raccoon, rabbit, opossum, squirrel, beaver, otter, prairie chicken, and waterfowl were also taken. Aquatic resources included eight varieties of mussels, various turtles and fish.

In the Ozarks, animal exploitation appears to have changed during the terminal part of the Late Archaic (Dickson 1991:272). Deer were hunted infrequently (compared to small game) during the Middle Archaic period, but toward the end of the Late Archaic period, became a major part of the diet. Artifacts associated with the processing of bone, antler, and hides include perforators, awls, drills, bifacial knives, and flake scrapers and knives.

Some tools were made from bone or antler, but lithic resources were also important. Among the Oklahoma sites, locally derived cherts and quartzitic sandstone were predominant. Siltstone, novaculite, and some nonlocal cherts were also used. The main resource for stone in the area is the Arkansas River gravels, followed by significantly less quantities of siltstone, novaculite, Boone chert, and other materials.

In eastern Oklahoma, hickory nuts were exploited more than walnuts and acorns. At the same time, in a study of Wister phase skeletal material from the Bug Hill site (34PU116), Burnett (1989:36-38) discovered that the people were not using collected plant materials very extensively. There appears to have been a significant focus on hunting. Hackberries and black haw have been found in some Wister phase sites in Oklahoma. These plant resources could be found in upland and lowland forests, the same zones inhabited by the animals that were exploited. Artifacts associated with plant food processing include grinding basins, nutting stones, and mullers.

No information is available on burial practices among the Late Archaic peoples in western Arkansas. Burials have been recovered in eastern Oklahoma which shed the only light on this aspect of social behavior. Galm (1978:59) observed that in the Arkansas Basin, flexed burials appear to have been the pattern during this period. This contrasts with the extended interments along the Red River and adjacent areas in Arkansas.

Wyckoff (1984:155) observes that habitation features found at Wister phase sites excavated in Oklahoma included rock-lined hearths, ash beds, burned-rock concentrations, numerous human burials, and infrequent dog burials. Scattered postmolds suggested that perhaps pole-frame dwellings were erected at some sites. It is probable that similar features are present at some of the sites in western Arkansas.

WOODLAND PERIOD (2800 - 1050 BP)

In the Southeastern United States, the Woodland period is separated into the Early, Middle, and Late subperiods. The Early Woodland tends to be poorly defined and is difficult to separate from the Terminal Archaic (thus, the overlap in the date assigned to the Archaic and Woodland periods here). Dickson (1991:272) notes the almost complete

absence of Early Woodland evidence in northwest Arkansas. However, Sabo et al. (1990:218) identified an Early Woodland occupation at the Dirst site (3MR80) based on the association of a square-stemmed point, an Afton point, four grog-tempered and two shell-tempered sherds.

Middle Woodland The most elaborate manifestation of the Middle Woodland is found among the Hopewell cultures of Ohio, Illinois, and surrounding areas. There, classic Hopewell sites are characterized by the presence of earthworks, burial mounds, elaborately decorated pottery and wide spread trade. Although the spread of at least some aspects of Hopewell into eastern Arkansas is evident in eastern Arkansas at the Helena Crossing site, such evidence is scarce in eastern Oklahoma and western Arkansas. Only a few sites in eastern Oklahoma and western Arkansas have yielded Middle Woodland zoned dentate stamped pottery. No sites at Fort Chaffee have yielded Middle Woodland assemblages.

Late Woodland The peoples of eastern Oklahoma retained aspects of the Late Archaic Wister phase as they added pottery to their assemblage. The dominant artifacts found in components of this phase include Williams Plain pottery, contracting-stemmed (Gary) projectile points, and chipped-stone implements to include double-bitted axes. Bell (1953:314) defines the Fourche Maline as follows:

The sites are located along stream banks and consist of large accumulations of village debris representing midden deposits. The middens are characterized by a black earth which contains considerable amounts of mussel shells, animal bones, fire cracked stones, various artifacts, burials, occasional occupational surfaces and other miscellaneous objects. No evidence of house patterns has been uncovered although scattered post holes are found at most sites. Burials are the most common feature encountered within the sites; these are usually in a fully flexed position, and the burials contain one or several individuals with grave offerings being rather rare. Dog skeletons are reported and do not appear to be an unusual feature at these sites. The artifacts are of many types and, for the most part, are found scattered throughout the midden deposit. The pottery is represented by a thick, sherd or clay tempered, brown ware. The vessel form is a deep cylindrical jar having a round flat disc base, frequently marked by basketry or matting impressions. The rims are occasionally designed with bold incising which forms simple chevron, diamond, or ladder patterns. Chipped objects include an abundance of projectile points and the most common type has a tapered stem with poorly defined shoulders. Other items are flint knives, spearheads, corner-tanged knives, notched scrapers or bunts, drills, chipped hoes and chipped double-bitted axes. Objects of ground stone include flat pendants and gorgets, atlatl weights and boatstones, celts, grinding stones, mullers, hammerstones and paintstones of hematite. Bone articles are represented by various types of bone awls, long bone bodkins, fish hooks, atlatl hooks, bone tubes and beads. Shell objects are rare but include beads of various kinds.

Galm (1984:214) observes that the subsistence-settlement strategies appear little changed from the Wister phase. What becomes apparent in eastern Oklahoma is the fewer number of sites during the Fourche Maline phase than during the earlier Late Archaic. Galm (1984:215) indicates that the settlement patterns established during the Wister phase continued into the Fourche Maline.

In their analysis of skeletal material from the McCutchan-McLaughlin site (34LT11), Powell and Rogers (1980) state that five individuals in one burial exhibited evidence of violent deaths. They observe that a preliminary check of Fourche Maline sites in eastern

Oklahoma showed the occurrence of single and multiple burials with direct evidence of traumatic death.

Studies by Burnett (1989) of skeletal remains from Fourche Maline sites in eastern Oklahoma demonstrate some differences in diet in the region that could reflect social differences. She states:

The macroscopic and microscopic dental data and stable carbon isotope ratios for the Fourche Maline skeletal collections of the northern Ouachita Mountains are in accordance. It is postulated that these populations were not eating maize, however, they were consuming more plant foods, which were prepared with stone grinding utensils, and fewer animal products than the Late Archaic people. The greater use of stone grinding utensils, suggested by both the archeological record and the bioarcheological evidence, had a detrimental effect on their teeth, both in terms of abscesses and tooth loss. The compression fractures observed in the Bug Hill and McCutchan-McLaughlin series along with the paleobotanical data from Bug Hill indicate an increasing reliance on nuts [Burnett 1989:65-66].

It was apparent that the carbohydrate intake of peoples in the Arkansas River Valley was much lower. The people used a divergent subsistence strategy not followed by people in the northern Ouachitas. Infection rates also suggested distinct adaptations between the Arkansas River Valley and the northern Ouachitas. Spiro had a greater biocultural similarity to other river valley sites than to the Fourche Maline of the northern Ouachita Mountains (Burnett 1989:79-80).

CADDOAN CULTURES (1050 - 500 BP)

Considerable attention has been given to the nature of sites in eastern Oklahoma during this period, particularly the Spiro Mound site. Brooks (1982:69) identified sites tied to a mound center during an investigation in LeFlore County. Two of the sites recorded were occupied during the early phase of the Caddoan. All ceramics were LeFlore Plain and most of the projectile points were Scallorn. Brooks observes that the sites suggested short-term occupation as farmsteads or locations of specialized activity. It is possible that they were occupied seasonally, with the group returning to a larger village during part of the year. The nearest mound center was 26 km northeast of the site, and there was no evidence of contact between the sites. It was proposed that such small farmsteads far from such socio-political centers may have been autonomous with very little or no external influence.

In eastern Oklahoma, centered in the Arkansas River Valley, sites have yielded artifacts dating to the 1400-1500s. Many of these are along the Arkansas River or tributary creeks (Cartledge 1970:Figure 1). No comparable sites have been excavated in western Arkansas.

The Robinson-Solesbee site, in Haskell County, has not been radiocarbon dated, but it appears to have been occupied about 1450-1530 or even 1500-1530. The projectile points found at this site include Fresno, Washita, Nodena-like, Young-like, and Catan-like (Bell et al. 1969:9, 12). Gary and Bulverde points are also present, suggesting that the site is multicomponent. Some of the artifacts, such as bison scapula hoes, demonstrate a definite emphasis on prairie-plains exploitation of natural resources. Other artifacts include milling basins, pitted cobbles, clay and stone pipes, scrapers, and celts, among many others. Ceramics include Woodward Plain, Neosho Punctate-Incised, and Woodward Engraved.

At the Robinson-Solesbee site, there was evidence of three structures with refuse pits. Two were roughly rectangular, measuring 13 x 20 ft. and 10 x 16 ft. (Bell et al. 1969:6). At the Cat Smith site, in Muskogee County, there was evidence of a house, 20 x 15 ft., with a central hearth and two center posts. Pits were also observed. At the Harvey site in Sequoyah County, two structures were excavated measuring 11 x 16 ft. and 17 x 17 ft. The Sheffield site, on the north side of the Arkansas River in Sequoyah County presents some variation in that evidence of a circular house was present. It was identified as having been an early site in the Fort Coffee phase (ca. 1400-1450?).

Information derived from sites of this time is particularly important in gaining a better understanding of the nature of prehistoric occupations throughout the Arkansas River Valley during the 1500s. During 1541-1543, De Soto and his army moved throughout the southeastern part of the continent. There have been numerous attempts to identify his routes. A recent series of papers addresses the problem using archeological, archival, and linguistic data (Young and Hoffman 1993).

EARLY EURO-AMERICAN SETTLEMENT

The establishment of the Fort Smith Military Post in 1817 brought the first major Euro-American settlement to what would later become Sebastian County. In 1888, Goodspeed surmised that settlers were in the area prior to the establishment of the Fort, but noted that with the exception of Captain John Rogers, who settled in Fort Smith after the War of 1812, the identities of early residents are unknown (Goodspeed 1889:688). It was only after the General Land Office (GLO) had conducted a survey of the land contained in the Louisiana Purchase that Arkansas lands were available on a wide scale to homesteaders, and this is what drew large numbers of settlers to the area.

The GLO patented lands to those who applied for them at the regional office in Little Rock. The earliest patent dates for sites in the study are the patents for SB481, patented to William Guinn and Samuel Davis in 1839, and for SB482, patented to Robert S. Gibson in 1839. Other patents for land contained in the study area are from the 1840's and 1850's, pointing to the fact that Sebastian County was very sparsely settled until that time.

Despite the problems in the state banking system, Sebastian County continued to attract settlers. Until 1851, Sebastian and Crawford Counties were one, and were known as Crawford County. During that year, the southern portion of Crawford County became Sebastian County. The boundaries of Sebastian County were readjusted again in 1861, giving land to Scott and Polk Counties. These two changes study result in some confusing interpretations of Census data on population and farming, both of which are important in understanding settlement patterns in Sebastian County.

By the time of the 1860 Census, there were 25,707 improved acres in farms, and 20,407 unimproved acres. The total value of farms in the county was \$956,068; the total value of livestock was \$339,008, suggesting significant investment in farms and livestock since widespread settlement had begun in the 1840's. Population figures are unavailable for this time, but Goodspeed points out that in 1852, there were only 400 to 500 residents of Fort Smith, even though it was a major city and a major center of trade. Goodspeed (1889:755-756) also notes that during the 1860's growth began to increase in Fort Smith. However slow growth was in the 1850's, by 1860 there were 121 slave holders in the county,

The largest group of which owned only one slave. Six slave holders owned 15-20 slaves, while only one owned 50-70 slaves. This suggests that most farms were worked by families alone or with a minimum amount of slave labor, a pattern that was common

throughout the South at that time.

CIVIL WAR AND RECONSTRUCTION

With the Civil War, there is a serious disruption in the records concerning population and farming until the Census of 1870. By that time, there were 1700 whites in the study area, 24 of whom were foreign-born, 86 blacks, and nine Indians. The area surrounding Fort Smith, including most, if not all, of Sebastian County was seriously affected by the Civil War. Business in First Smith came to a near standstill, and the few goods that were available demanded exorbitant prices (Goodspeed 1889:756). In April of 1861, the Confederate troops from Arkansas seized the military post at Fort Smith after it had been evacuated by United States troops (Goodspeed 1889:739-740). Later that day, citizens convened at Greenwood and declared their allegiance to the Confederate cause (Goodspeed 1889:740). Several companies were formed in Sebastian County, among them the Fort Smith Rifles, and a German regiment, the Belle Point Guards. Fort Smith consistently attracted a large number of European immigrants due to its position as a trading post, and presumably some of these answered the Confederate call for troops. The Yankees only managed to raise forty volunteers, who also assembled at Greenwood (Goodspeed 1889:745). There were several skirmishes in and around Sebastian County, including one on Mazzard Prairie in which ten Union and twelve confederate troops were killed. Far more serious than the loss of life were the effects of occupation upon Sebastian County. Greenwood was occupied throughout the Civil War by Confederates until 1863, when it fell into Union hands. Both sides were responsible for burning buildings, and by the end of the war, only eighteen houses were left in Greenwood (Goodspeed 1889:769). By 1888, Goodspeed maintained that Greenwood had been rebuilt, although the effects of such destruction, scarcity of food and other goods had to be far-reaching.

These shortages of necessary foodstuffs began even before the war started, and only worsened during the course of the conflict. In 1861, the grain crops of Northwest Arkansas failed completely, and again in 1862, the wheat, oats, and corn failed. By 1863, crops had improved, but by that time, too few men were left for the harvest, and the grain was left to rot in the fields. In 1864, the Union army occupied much of Northwest Arkansas, and the ensuing chaos again caused the harvest to be neglected (Dougan 1972:16-17).

Meat was also in short supply due to a shortage of salt, used to cure pork, and the interruption of supplies of bacon from the North. In 1862, even fresh pork was relatively rare because there was an epidemic of hog cholera statewide (Dougan 1972:16-17).

Other resources were also destroyed during the Civil War. The cotton plant at Van Buren burned, leaving only one other processing plant in operation, in Pike County, and that factory only accepted Confederate money at a discount (Dougan 1972:18).

In addition, social institutions suffered. By 1862, almost all education north of the Arkansas River ceased, and only private schools in the southeastern part of the state continued holding classes on a regular basis (Dougan 1972:28). Martial law was declared in Fort Smith at intervals throughout the war. As a part of the general lawlessness in the city, prostitution became a thriving industry and embezzlement became quite common (Dougan 1972:26). Rural residents did not fare any better; once Union troops occupied the region, bushwhackers began waging their own private wars, subjecting the local residents to more violence and deprivation (Dougan 1972:28). Five thousand people in and around Van Buren finally took the oath of allegiance to the Union due to the failure of the Confederates to provide them with food and security.

POST-RECONSTRUCTION AND THE NEW SOUTH

After the Civil War ended, the farming economy of Northwest Arkansas changed drastically, and with these changes came widespread discontent among farmers. In large part, these changes were a continuation of the crop failures and discontent that had begun during and before the Civil War.

Before the war, there were only a few true plantations in Northwest Arkansas, but after Reconstruction, farmers in the region became tied to furnishing merchants who demanded cultivation of cotton, a cash crop. In the 1870's and 1880's, farmers became indebted and began to mortgage farms in order to survive crises brought on by declining market prices. Thus, many farmers owed crops and money to a local merchant and somehow had to repay a loan from a bank, yet the yearly crop bought less and less revenue. Their discomfort was made worse by a steady rise in taxes and in fees charged for shipping by rail. Furthermore, cotton depleted thin upland soils at a relatively fast rate, a problem not yet faced by farmers in the southern part of the state.

By the 1880's, farmers in Northwest Arkansas, primarily along the Arkansas River Valley, saw the need to organize in order to combat high rates of taxation, interest, and shipping. They also sought to end widespread political corruption and to draw attention to the problems farmers encountered. In the 1870's, the Grangers and the Greenbacks had attempted to battle the same evils, but were largely unsuccessful, and, ten years later, had become largely ineffectual. Unlike previous attempts at agrarian reform, this attempt arose from Northwest Arkansas and concentrated on very specific local issues. This new organization was called the Brothers of Freedom, and originated in Johnson County in 1882. The Brothers of Freedom allowed all white male farmers to join, and accepted members from other professions, but barred lawyers, bankers, and merchants from the organization (Henningson 1975:313).

The Brothers were highly successful in recruiting new members. In large part, this was probably due to the self-help nature of the Brothers of Freedom's philosophy. During the latter part of the nineteenth century, self-help organizations were common among members of certain professions. Commonly, in the industrial North, self-help organizations had funds for burial expenses, payments for disability, and other services. The Brothers of Freedom had no such cash collections, but did use their influence to persuade merchants to reduce prices. They also organized cooperative supply stores which made some goods available to members at lower prices than those charged by merchants. In addition, the Brothers encouraged farmers to pay cash for purchases whenever possible in order to loosen the grip of the furnishing merchants. Furthermore, the Brothers tried to persuade farmers to avoid mortgaging property if at all possible. They also realized that the cash-crop system was one reason why farmers faced economic ruin, and the Brothers encouraged diversity (Henningson 1975:316-317).

While all these aims seem reasonable to a modern reader, the reforms, if implemented, would change the way in which goods were acquired, property secured, credit extended and interest charged. The Democratic party was alarmed by the popularity of the Brothers of Freedom and sought to mollify farmers with its own platform, but without success. Increasingly, the Brothers became the target of political discussions and began to respond to the arguments put forth by politicians who wanted to discredit their organization. Finally, in 1884, the Brothers of Freedom put candidates on the ballot in most Northern Arkansas counties, sweeping the ballot in four, and winning partial victories in another three. In Sebastian, Faulkner, Logan, and Yell counties, the Brothers lost all races because the Republicans had endorsed the Brothers of Freedom tickets (Henningson 1975:209).

Despite these attempts by the Brothers of Freedom and by individual property owners, farmers in Sebastian County began to lose their lands. Beginning in 1892, William Edenborn, a wealthy capitalist, was able to begin buying farms in Sebastian County. Many of these farms had been mortgaged several times, suggesting that farmers had trouble obtaining cash. Other pieces of property show few or even no mortgages. What is known, however, is that by 1940, when the Department of the Army purchased land for the creation of Fort Chaffee, Edenborn and his heirs owned 8,000 acres in the area where Fort Chaffee now stands.

William Edenborn immigrated to America from Prussia in 1867, first working in the wire mills of Pittsburgh and Cincinnati. Edenborn took advantage of courses offered in business by small colleges; he completed courses in drafting and general business before starting his own company. In 1870, Edenborn founded the St. Louis Wire Mill, the first factory west of the Mississippi to produce wire.

Edenborn had another important advantage over other wire manufacturers -- he held several patents for wire-making machinery, the most important being a machine which made a type of barbed wire that was not dangerous to livestock. In addition, his wire mill was one of the first to produce wire nails. Edenborn also owned factories in two other states, which he consolidated in 1898, selling these plants and the New Jersey Wire Company to U.S. Steel in 1901 for \$100 million. Edenborn then sat on the advisory board to U.S. Steel for three years. During this time the wire division of U.S. Steel was the most profitable division of the company. Among his accomplishments as an industrialist was the creation of the Employees Benefit and Insurance Organization which was open and free to all his employees.

After selling his wire mills, Edenborn moved to Louisiana and became active in a railroad venture, a lumber company, and numerous other interests. No definite record of his reasons for buying land in Sebastian County have been found. Whatever the reason, he joined the numbers of absentee landowners common in the early part of the century. These investors bought cheap land and farms, then rented property to tenant farmers. Edenborn hired an agent to collect rents and look after land, buildings, and lumber. Probate records demonstrate that Edenborn did not invest much in movable property such as implements and machinery; he had just over \$300 in personal property in Arkansas when he died.

HISTORIC PATTERNS AND STUDY AREA SITES

These general historic patterns affected the sites in the study area. While it is true that Arkansas was not very extensively inhabited before the Civil War, Fort Smith and Van Buren were two of the most important cities in the state, and settlement began in the study area at an earlier date than was initially expected.

Before the Civil War, in 1857, the Federal Government had granted the state of Arkansas 979,200 acres so that a railroad could be constructed. This railroad, the Little Rock and Fort Smith, was never constructed, although the Little Rock and Fort Smith Railroad Company took out a \$5 million bond issue to collect capital. Many sites in the Fort Chaffee area were located on lands granted for the construction of this railroad. The issue of whether these sites were vacated after the railroad received the deed to the lands is cloudy. In most of the property abstracts, there are gaps in the records beginning with the Civil War, when the local economy was decimated. So, for all but one of these sites, there are no recorded transactions from the time the Little Rock and Fort Smith gained ownership of the property until 1874, when the railroad went bankrupt and was forced to auction its lands.

The Little Rock and Fort Smith Railroad went bankrupt when it failed to make payment on its \$5 million bond issue, and as a result, had to sell its land in a series of auctions, the first of which took place in 1871. These sales continue to be recorded in study area abstracts throughout the 1880's and as late as 1891. These auctions seem to have fueled a rash of land speculation.

Other sites were purchased and sold to William Edenborn. Whether local landowners gained or lost money when they sold land to Edenborn is not clear. Often, Edenborn purchased more land than concerns specific sites, or he purchased more land than was included in the railroad land auction. Local bankers also purchased railroad lands. George O. Shatruck, Francis M. Weld, and George Ripley bought the West 1/2 of Section 7 in 1874, and paid \$50,000 for it. Not all of the land Edenborn purchased was railroad land. After buying up nearly 8,000 acres of land that would be located on the site of Fort Chaffee, Edenborn hired a local man, J. M.. Maxwell, to act as agent and to care for timber on lands in Sebastian county. One of Maxwell's duties was to collect rent from tenant farmers, thus placing Edenborn in a group of nonresident landowners who owned large numbers of acres worked by tenant farmers and sharecroppers. Edenborn died in 1921, leaving all his property to his family. His widow, Sarah Drain Edenborn, still owned the land and still employed Maxwell when the War Department began to buy land to construct Fort Chaffee.

FORT CHAFFEE

In 1940, the War Department condemned all the land in the study area to make the construction of Fort Chaffee possible. The Federal Government purchased land from landowners and helped resettle residents of towns whose limits fell within the boundaries of the new installation. Fort Chaffee became operational during World War II, and during that time, it fueled both the war effort and the economy of Fort Smith and surrounding towns.

During this time, Fort Chaffee's population reached 47,000 soldiers plus an undisclosed number of German prisoners of war. American soldiers generated demand for a wide range of services that area businesses were ready to accommodate. During the 1940's, Fort Smith's downtown was crowded with soldiers who were ready to spend money at theaters, Coney Island hot dog stands, funhouses, and other such businesses. The housing industry also received a boost, and streets with patriotic names such as Roosevelt, Bradley Drive, and Victory Circle were constructed during this period.

Fort Chaffee, like most military installations, also supported a number of brothels. Officially, these were designated "off limits" by the Army, and one entire town, Moffett, was declared off limits due to its reputation as a center of prostitution. In fact, Moffett was off limits to soldiers until 1970, earning it the distinction of having been off limits longer than any other place in U.S. military history (Watson 1978:18F).

During the Second world war, Fort Chaffee's more reputable citizens were happy to take part in the war effort in more wholesome ways. Frequently, local families invited soldiers to Sunday dinner, and Fort Smith's school children collected scrap metal to help manufacture planes. The residents of the Fort rewarded the children with and special showing of "Gone With the Wind," perhaps an odd choice to show to children, but, an expression of gratitude nonetheless.

After World War II, the Army closed Fort Chaffee, bringing about a slump in Fort Smith's economy. Then, during the Korean war, the Fort reopened and, once again, trained soldiers. The most famous trainee of this period was Elvis Presley, who received his standard haircut at Fort Chaffee. Even though Fort Smith residents remained patriotic, relations between them and the soldiers were not as close as they had been during the

1940's. Families rarely invited the men home for dinner and rarely included Fort residents in their activities.

After the Korean War, Fort Chaffee closed and reopened several times. Each time the Fort reopened, the local economy revived, then, upon closure, local business plunged once again. Finally, in 1962, the city of Fort Smith asked Robert S. McNamara to either permanently open or permanently close Fort Chaffee; he closed it. Fort Chaffee remained closed until 1975, when it became a temporary home to 50,000 Vietnamese refugees who had escaped the fall of Saigon. Although many Vietnamese families settled in the area, local residents did not welcome them, and their presence drew some protests near the Fort (Watson 1978:18F). Presently, Fort Chaffee serves as a training facility for the military, and has been used for other tasks, such as housing Cuban refugees.

PREVIOUS INVESTIGATIONS

A detailed and thorough outline of past archeological investigations in western Arkansas and eastern Oklahoma along the Arkansas River has recently been developed by MCRA (Santeford et al. 1994). In this review MCRA details the level of work conducted in the counties surrounding the project area and by whom it was conducted. It goes on to identify particular sites and the nature of the information present at each.

Since the work associated with that report was completed, two projects have been conducted at Fort Chaffee. The first addressed the testing of 13 historic sites (Sierzchula et al. 1994). Of the 13 sites tested five were determined to meet the eligibility requirements for nomination to the National Register of Historic Places. The second project is the one being reported on here.

CHAPTER 3

TESTED SITES

3SB508

3SB508 is an historic and prehistoric site situated in an area of gently rolling topography on the south side of an all-weather gravel road and about 400 m (1/4 mile) east of White and Shelby Cemetery. Surface features include a poured concrete structure (identified on the AAI site form as an Army latrine), a pile of rubble and a stone-lined well. Other more recent features include a second gravel road running north-south along the eastern edge of the site, a gravel driveway, a large tent used for medical training and a small sediment pond that stores gray-water generated during training (Figure SB508-1). There is also a large gravel parking lot about 200 m southeast of the site that serves as a staging area. With the exception of part of the historic component, much of the area has been bush hogged.

The site lies in an inter-ridge valley geomorphic zone. Smith describes this zone as follows:

Between the ridges lie broad to narrow valleys formed by either structural deformation or erosional processes. These inter-ridge valleys, as they are identified in this report, are often but not always occupied by local creeks that have developed narrow thin floodplains of their own. The inter-ridge valleys are the loci or (sic) deposition, especially when adjacent to steep ridges (erosional). However, rates of sediment deposition in the inter-ridge valleys are probably low throughout Fort Chaffee for the most part due to the low propensity of local geologic formations to provide readily available sediment for erosion and transportation to the valley floor [Smith 1986:14].

Elevations range from 450 - 460 ft. with slopes of 1 - 5%. The soil is classified as Mountainburg sandy loam, 3 - 12 % slopes (Cox et al. 1975:18, Sheet 13), and presently supports second growth species, most notably dense stands of black berries, roses, greenbriar and sumac. Several large deciduous trees remain along the road bordering the north edge of the site. The portion of the site that was not bush hogged previously was similarly overgrown with the addition of six to ten foot-high saplings, honeysuckle and wisteria.

Previous Investigations

The site was recorded on February 19, 1988 during a survey conducted by Archeological Assessments, Inc. They describe the site as follows (AAS Site Files):

This site, which had recently been burned off, exhibited a moderate scatter of historic materials and a small amount of prehistoric artifacts. Also observed on the site were two possible in situ footing stones and a stone-lined well. Other stones and mortared bricks were scattered about. Soils at the site have apparently been disturbed by earth-moving. Historic artifacts collected included whitewares, glass, and metal tools. A chert flake and a Dalton point were also collected. Site extent was measured at 40 x 30m.

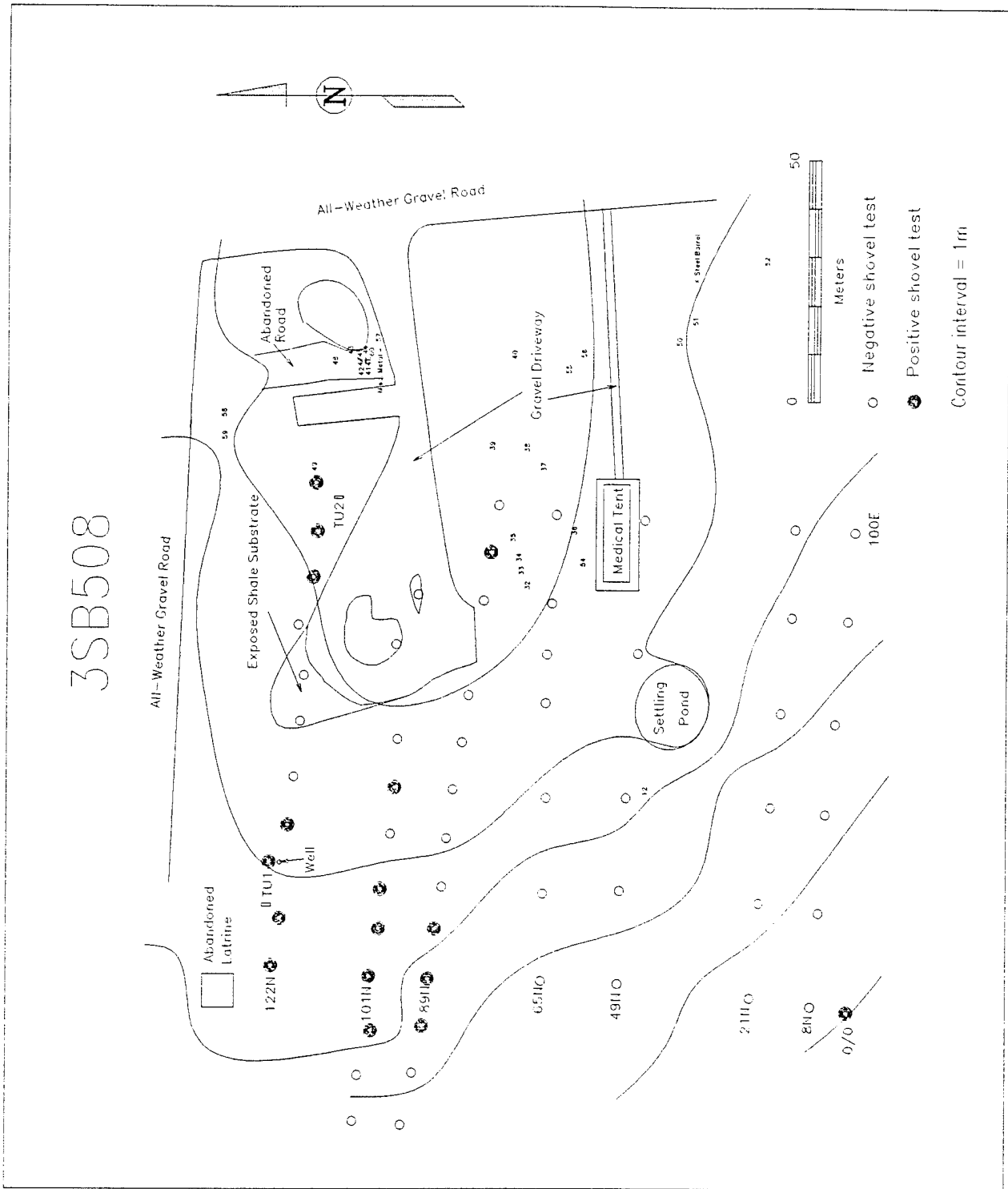


Figure SB508-1. Map of 3SB508 showing surface features and the location of the MCRA work.

Key to point plotted artifacts in Figure SB508-1.

Item	Grid Location		Artifact	Count
	N-S	E-W		
POINT PLOT 12	42.30	46.10	CORE ARG	1
POINT PLOT 31	57.70	69.30	FLAKE RUM	1
POINT PLOT 32	67.70	89.10	FLAKE ARG	1
POINT PLOT 33	68.80	92.00	FLAKE NOVACULITE	1
POINT PLOT 34	69.60	94.60	FLAKE ARG	1
POINT PLOT 35	70.50	98.70	UTILITY SLIP STONEWARE	1
POINT PLOT 36	58.10	100.20	BIFACE BOONE	1
POINT PLOT 37	64.40	113.30	FLAKE QUARTZITE	1
POINT PLOT 38	67.70	117.40	UTILITY SLIP STONEWARE	1
POINT PLOT 39	75.00	118.10	NAIL SQUARE	1
POINT PLOT 40	70.80	136.60	UTILITY SLIP STONEWARE	1
POINT PLOT 41	102.10	133.10	TABLEWARE RIMLINE WHITEWARE	1
POINT PLOT 42	102.20	133.00	TABLEWARE POLYCHROME WHITEWARE	1
POINT PLOT 43	101.60	134.70	TABLEWARE WHITEWARE	1
POINT PLOT 44	101.50	135.60	TABLEWARE RIMLINE WHITEWARE	1
POINT PLOT 45	102.30	136.60	GLASS SHARDS AQUA	1
POINT PLOT 46	102.10	134.90	TAB;WARE SPONGE WHITEWARE	1
POINT PLOT 47	102.30	135.00	MISC. METAL	1
POINT PLOT 48	108.10	135.20	TABLEWARE WHITEWARE	1
POINT PLOT 49	111.60	113.50	SHATTER ARG	1
POINT PLOT 49	111.60	113.50	FLAKE DECORT ARG	1
POINT PLOT 50	36.50	139.10	FLAKE ARG	1
POINT PLOT 51	32.30	143.60	GLASS SHARDS AQUA	1
POINT PLOT 52	17.70	156.00	FLAKE RUM NOVACULITE	1
POINT PLOT 54	55.90	93.50	FLAKE CHERT	1
POINT PLOT 55	55.02	133.59	UTILITY SALE STONEWARE	1
POINT PLOT 56	56.37	136.91	UTILITY GLAZE STONEWARE	1
POINT PLOT 57	98.30	139.80	TABLEWARE FLOW WHITEWARE	1
POINT PLOT 58	130.90	125.30	TABLEWARE HPAINT WHITEWARE	1
POINT PLOT 59	131.02	120.62	PPK ARG	1
POINT PLOT 60	100.22	136.64	TABLEWARE WHITEWARE	1

The site was revisited on 3 November 1992 to obtain a Magellan GPS location reading, to tag the site with aluminum tree tags, and to draw a new sketch map of the area. The site is covered by thick honeysuckle and does not appear to have been disturbed since it was originally recorded [AAS site files].

Archeological Assessments investigators recovered 63 artifacts, primarily from general surface contexts (AAS site files). Prehistoric materials included 2 flakes and a tested cobble from the surface, as well as a Dalton point from Shovel Test 1. Historic materials all were from surface contexts. Building materials included 1 fragment of concrete or mortar, in addition to a number of bricks, which were not collected. Ceramic shards included 1 orange salt-glazed(?) earthenware, 1 hand-painted porcelain, 1 plain porcelain, 1 dark brown stoneware, 2 gray salt-glazed stoneware, 2 tan salt-glazed stoneware, 1 possible whiteware, 1 hand-painted whiteware and 11 plain whiteware. Glass shards included 4 blue-green, 1 brown, 6 clear, 1 clear molded, 1 green whole bottle with a threaded rim, 1 green tinted, 4 light green, 1 light green with a molded letter (thought to be early), 1 light green with a threaded rim, 6 plain milk glass, 1 hand-painted milk glass, 2 purple tinted, 2 blue-green window glass, 1 clear window glass and 1 light green window glass. Metal items included 1 cast iron cultivator tip, 1 unidentified cast iron fragment, 1 iron or steel washer and 1 cast iron wrench.

Bennett noted that the site has suffered major disturbance from an unidentified source and recommended that test excavations be undertaken to assess the site's significance relative to National Register of Historic Places criteria.

MCRA Archival Investigations

The earliest record of land transfer was the acquisition of the land by Mitchell Sparks from the government in 1850. Sparks also owned the land where 3SB566 and 3SB601 are located. He was a merchant and very influential person in Fort Smith, and never occupied the land. Sparks was born in Elfin, County Roscommon, Ireland on February 4, 1811 (Cravens 1978:64). He emigrated to the United States in 1836. A brief description in the Goodspeed Publishing Company history of Sebastian County (Lucas 1978:1365) states that Sparks:

. . . was a native of Dublin, and was educated in Trinity College, Dublin Institute. He graduated in medicine, but never practiced his profession. He immigrated to America when a young man, locating at Fort Smith, where he engaged in merchandising up and down the river, and entered business with a man by the name of Miller, who was one of the leading merchants of Fort Smith for many years. Mr. Sparks was married in New York, in 1847, to Miss Hannah Bennett, a native of Massachusetts. After marriage they moved to Fort Smith, and here Mitchell Sparks died in 1864. Mrs. Sparks is still alive (1889), and is now residing in Fort Smith.

Patton (1936:53) presents somewhat more detail on the early settlement of Sparks in Fort Smith, although it is unknown how accurate his interpretation is, since it lacks references. It is apparently based on the oral tradition of that period. He indicates that Sparks came up the river with a keelboat full of merchandise. He sold the stock and contracted for the building of a two-story house on the river front. This was finished in 1842, and was occupied by Joseph Miller, his partner. The firm was known as Miller and Sparks.

Cravens (1978:64) states that Mitchell and Thomas, his brother, formed a mercantile firm under the name of M. & T. Sparks in Fort Smith. Sparks was also actively engaged in other ventures in early Fort Smith. During the Gold Rush period, he outfitted a caravan to head out west (McArthur 1986:235). His brother, James Henry was in charge. It was known as the Sparks Company.

In 1849, Mitchell Sparks had served on a committee which eventually resulted in the formation of the Fort Smith and California Emigrating Company (Weaver 1978:56).

On the 23rd of September (1848) a public meeting was held at the old Presbyterian Church, corner of Washington and Mulberry streets, for the purpose of securing action by the next legislature in reference, to the contemplated road to the west, the government not yet having ordered a survey made. Captain John Rogers presided at the meeting, and John F. Wheeler was secretary. A committee consisting of Solomon F. Clark, W. W. Fleming, Mitchell Sparks, Samuel L. Griffith, and General. W. L. Jones drafted a resolution calling attention to the practicability of the Arkansas or 35th parallel route to Santa Fe and urging the legislature to bring the subject before the members of congress at the session that was then approaching. The program was actively carried out by both the legislature and the solons at the National capitol.

Mitchell Sparks served as mayor of Fort Smith in 1852. In 1856, he bought a two-story brick mansion erected in 1851 by William T. Polk in Fort Smith (Faulk and MacJones 1983:35). Patton (1936:80) states that this house was at the southwest corner of Third and B streets in Fort Smith. It served as the headquarters of General Blunt, commander of the Union forces, in the Civil War.

According to the Federal Population Census of 1860 (Scott 1977:89), Sparks' household consisted of nine people. Mitchell was listed as a merchant from Ireland, and was 48 years old. His wife, Hannah, was 32 years old. They had five children, all born in Arkansas, and included: George (age 12 years), David (age 10 years), Eliza (age 6 years), James (age 3 years), and Charles (age 1 year). Cravens (1978) lists other children born to the couple. In addition, Mitchell had two laborers. One of these was John S. Tylor. He was from New Hampshire, and was 27 years old. The other, William Shea, was listed as a clerk. Shea was 27 years old and a native of Ireland.

In 1860, Alfred and Helen Byrum got the land 3SB508 is on. No listing was found in the Federal Population Census of 1860 for Alfred Byrum, but he is listed in the census of 1870 in Marion Township located in western Sebastian County, just below Fort Smith (Jackson 1987).

Byrum sold the property to George J. Shelby in 1867. It was mortgaged a number of times by Shelfy, and apparently he lost the land since a mortgage company sold the land in 1895.

Shelby was born on November 23, 1847 in Arkansas and dies on June 26, 1898 (McGhee 1992:115). He is buried in White Cemetery (SE¼ Section 2, T7N, R31W) on Fort Chaffee. This cemetery was in existence in 1887 and is visible on the property of G. W. Riggs at the time and also in 1903. Shelby's wife, Alice J., was born on October 11, 1850 and died on December 10, 1928. They had children. It is probable that his father was George W. Shelby, born on January 23, 1816 and died on September 27, 1855 (Frontier Research 1990:38). He is also buried in a cemetery on Fort Chaffee.

George J. Shelby was listed in the Federal Population Census of 1870 for Big Creek and Sulphur townships (Jackson 1987). Big Creek Township was just east of Sulphur, and along the Arkansas River. George Shelby was listed in the Agriculture Census of 1870 and

1880. The 1870 census presents good information on the farm production (Table 3SB508-1). The Agricultural Census of 1880 presents a more thorough description of his farm productivity (Table 3SB508-2).

The Sebastian County Atlas of 1887 does not show a structure where 3SB508 is located. Shelby was listed as a farmer occupying Section 11. When Thomas owned the land in 1903, there was still no structure located at 3SB508. Since the Agriculture Census of 1870 and 1880 indicate that Shelby had farm laborers, it is probable that a structure existed at 3SB508 where the laborers lived during the 1870-1880s. It could have been removed by 1887 when the atlas was published.

In 1895, E. A. Thomas bought the land from the mortgage company. No Thomas was found listed in the Federal Population Census of 1870 (Jackson 1987), or the Agricultural Census of 1870 for Sulphur Township. Thomas was not listed in the Federal Population Census of 1890 for Sebastian County (Frontier Researchers 1982). He must have moved into the region shortly before he bought the property.

Table 3SB508-1. The George J. Shelby farm on the Agricultural Census of 1870

Improved land	25 acres
Woodland	15 acres
Value of farm	\$300
Value of farm implements	\$15
Total value of wages paid including board	\$15
Horses	1
Mules/Asses	2
Swine	25
Value of livestock	\$150
Indian corn (bushels)	400
Cotton (bales)	2
Butter (lbs)	25
Value of animals slaughtered	\$60
Value of total farm production	\$500

Table 3SB508-2. The George J. Shelby farm on the Agricultural Census of 1880

Improved land	90 acres
Woodland	70 acres
Value of farm	\$1,200
Value of farm implements	\$100
Value of Livestock	\$300
Labor	
Amount paid for wages of farm labor (1879), includes value of board	\$125
Weeks labor hired	
White	12
Colored	10
Value of total farm production	\$1,000
Horses and mules	1
Milch cows	4
Other cattle	4
Calves dropped	3
Cattle purchased	2
Cattle sold living	6
Butter produced (lbs, 1879)	150
Swine	75
Poultry	20
Eggs produced (1879)	125
Indian corn (acres/bushels)	12/200
Wheat (acres/bushels)	10/50
Cotton (acres/bales)	23/15
Sorghum (1879)	
2 acres in crop; 75 gallons of molasses produced	
No orchards	
Cords of wood cut	40
Value of forest production	\$20

The Sebastian County Atlas of 1903 lists Thomas as owner of the land. The Real Estate Tax record of 1896 and 1903 at the Sebastian County Courthouse in Greenwood indicate that Thomas owned 80 acres (value \$320) in the W $\frac{1}{2}$, NW $\frac{1}{4}$. There was no entry in the Personal Property Tax record of 1896 or 1903 for Thomas. This suggests that he bought the land but was not occupying it. As noted above, there was no structure shown at 3SB508 on the Sebastian County Atlas of 1903. If Thomas did farm the land, he probably had laborers occupy Shelby's old house since he was not living there.

Thomas sold the land to William E. Swentzel in 1904. In 1907 it was purchased by Aldolphus and Ida Burke. In 1919, A. L. Lacy bought the land, but no record was found of Lacey in the Personal Property Tax record at the Sebastian County Courthouse in Greenwood. John Kirkendall bought the land in 1939, and it was still owned by Kirkendall in 1940. No record was found of Kirkendall in the Personal Property Tax record of 1940.

The General Highway and Transportation Map of Sebastian County, Arkansas (1936, revised 1941) does not show any structure where 3SB508 is located. By this time, the area was identified as Camp Chaffee Maneuver Area. No structures are shown along roads on Camp Chaffee at this time, so it is possible that structures present when the military acquired ownership were destroyed or removed.

MCRA Field Investigations

A preliminary visit was made on May 31, 1994 but military training exercises prevented an inspection of the site. MCRA field investigations took place on June 13 -15, 17 and July 14, 1994. These included the excavation of 57 shovel tests, two 0.5 x 2 m test units, the piece plotting of visible surface artifacts and topographic mapping. In addition, the heavily vegetated part of the site was bush hogged on June 14.

The shovel tests were laid out with a compass and tape along east-west transects established at randomly selected origins along a north-south baseline. The transects began 8, 21, 49, 65, 89 101 and 122 m north of the datum and extended a distance of 100 m to the east. The 89 and 101 transects were both extended 30 m west as well. Shovel tests were excavated along them at 20 m intervals where no cultural materials were recovered. The interval was closed to 10 m when positive results were obtained. Each test was excavated in 10 cm levels until at least two consecutive culturally sterile levels were encountered, and the soil was screened through ¼ inch mesh hardware cloth. The recovered artifacts were bagged by level and notes were maintained on soil color and texture, as well as other comments deemed pertinent by the excavators. Only 16 of 57 tests (28%) yielded cultural material (Table SB508-3) and only four of those produced prehistoric artifacts. No cultural materials were recovered in shovel tests below a depth of 20 cm. The shovel testing was supplemented by piece plotting artifacts visible on the surface (Figure SB508-1).

Two test units were excavated at the site. Test Unit 1 was placed between the well and latrine in an area where the shovel tests had produced relatively large numbers of historic artifacts. Test Unit 2 was placed north of the gravel driveway between it and Shovel Test 122N/100E, which had produced a large number of flakes (3) relative to the other tests.

Test Unit 1 (located 120.67 m north and 22.36 m east of the site datum) was excavated in 10 cm levels to a maximum depth of 50 cmbs and a posthole test was excavated an additional 70 cm to 1.2 m. Level 5 (40 - 50 cm) was stepped down to 0.5 x 1 m due to the heavy clay soil and an absence of cultural materials below a depth of 40 cmbs. All soil was screened through ¼ inch mesh hardware cloth and notes were maintained on soil color and texture, artifact content, the presence or absence of features, disturbances and other information deemed pertinent by the excavator. Three strata were identified during excavation (Figure SB508-2). Stratum 1 was roughly 20 cm thick and consisted of a dark yellowish brown (10YR4/4) silt loam containing nearly all of the cultural material recovered from the unit. At least one, and probably two, disturbances were noted in Stratum 1. The most obvious was a trench dug for a probable gas line and the second was a concentration of shale that suggests disturbance from an unknown source, possibly related to the gas line trench. Below this, Stratum 2 consisted of about 60 cm of red (2.5YR4/6) clay that yielded only a few artifacts in its upper level. The gas line trench penetrated Stratum 2 to an unknown depth since excavation was halted before reaching the bottom of it. Stratum 3 was a culturally sterile red (2.5YR4/6) clay with pale olive (5YR6/4) mottling to the base of the posthole test. Forty-six artifacts weighing 304.1g (Table SB508-4) were recovered to a depth of 40 cm but most (87%) were no deeper than 20 cm.

3SB508

Test Unit 1 – West Wall Profile

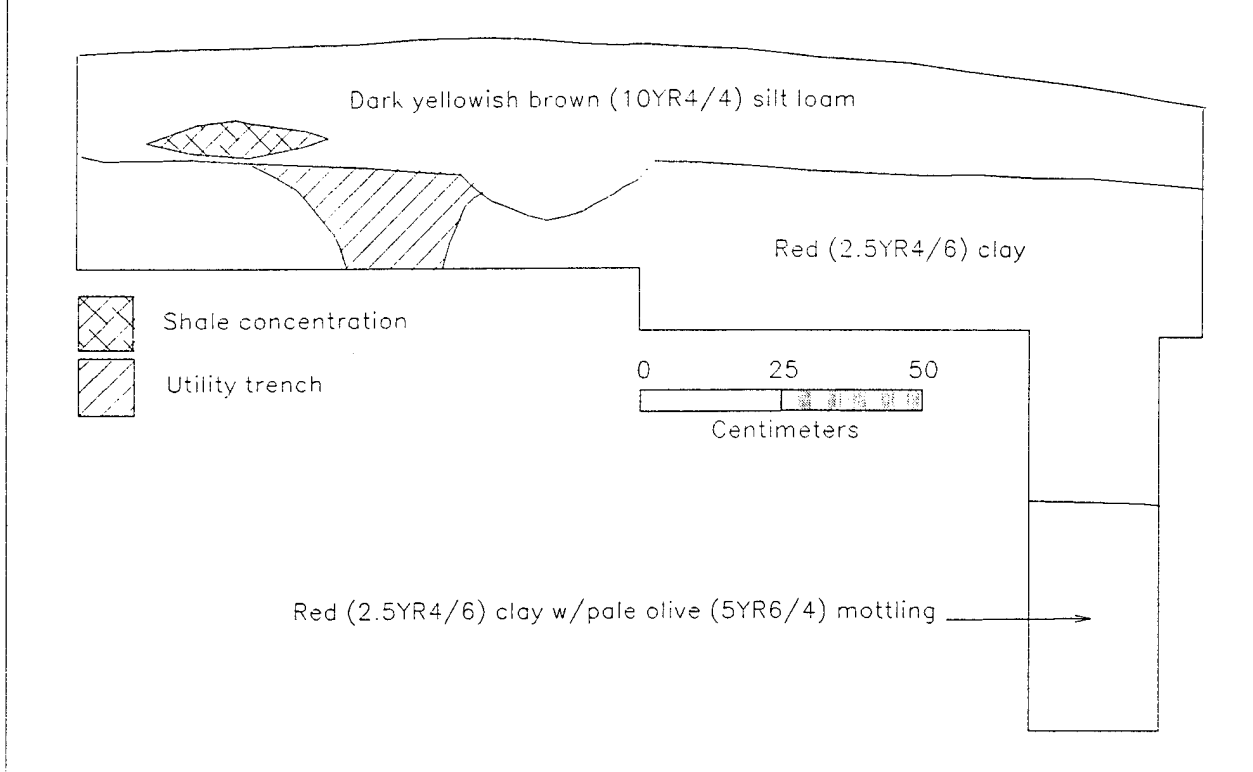


Figure SB508-2. Profile drawing of the west wall of Test Unit 1 at 3SB508

Table 3SB508-3. Shovel Tests Artifacts.

DEPTH (CM)	0-10		10-20		TOTAL	
	CT.	WT.	CT.	WT.	Ct.	Wt.
Lithic flakes	4	3.9	1	0.8	5	4.7
Retouched/utilized	1	2.1			1	2.1
Bottle--clear	1	8.6			1	8.6
Lampglass--clear	1	0.5			1	0.5
Glass shards						
Amethyst	1	1.0	1	4.8	2	5.8
Aqua	1	2.0	1	1.3	2	3.3
Clear	12	22.7	7	22.3	19	45.0
Modern color			1	1	1	1.0
Windowpane--clear	3	2.9			3	2.9
Mortar		6.3			0	6.3
TOTAL	24	50.0	11	30.2	35	80.2
ARTIFACT DENSITY per cubic meter	167	347	175	479	169	387

Test Unit 2 (located 106.78 m north and 107.29 m east of the site datum) was excavated to a depth of 60 cmbs where a posthole test was excavated an additional 40 cm to 1.0 m. The unit was stepped down to 0.5 m x 1 m in Level 5 because of the dense clay soil and an absence of artifacts below 40 cmbs. All soil was screened through ¼ inch mesh hardware cloth and notes were maintained on soil color and texture, artifact content, the presence or absence of features, disturbances and other information deemed pertinent by the excavator. Stratum 1 (Figure SB508-3) was roughly 4 cm thick and consisted of a dark grayish brown (10YR4/2) humus zone with abundant roots. Stratum 2 was a dark yellowish brown (10YR4/4) silt loam containing nearly all of the cultural material recovered from the unit. Below this, Stratum 3 consisted of about 60 cm of red (2.5YR4/6) silt loam that yielded only a few artifacts in its upper level and became more compact and clayey with increasing depth. Stratum 4 was a culturally sterile red (2.5YR4/6) clay with pale olive (5YR6/4) mottling to the base of the posthole test. No disturbances were noted, but the presence of materials associated with military activities suggests disturbance of at least the upper 10 to 15 cm of deposits. Eleven artifacts weighing 1,351.7g (Table SB508-4) were recovered to a depth of 40 cm. The materials were distributed evenly through the excavation, with the exception of the burned sandstone, which was concentrated in Levels 2 and 3.

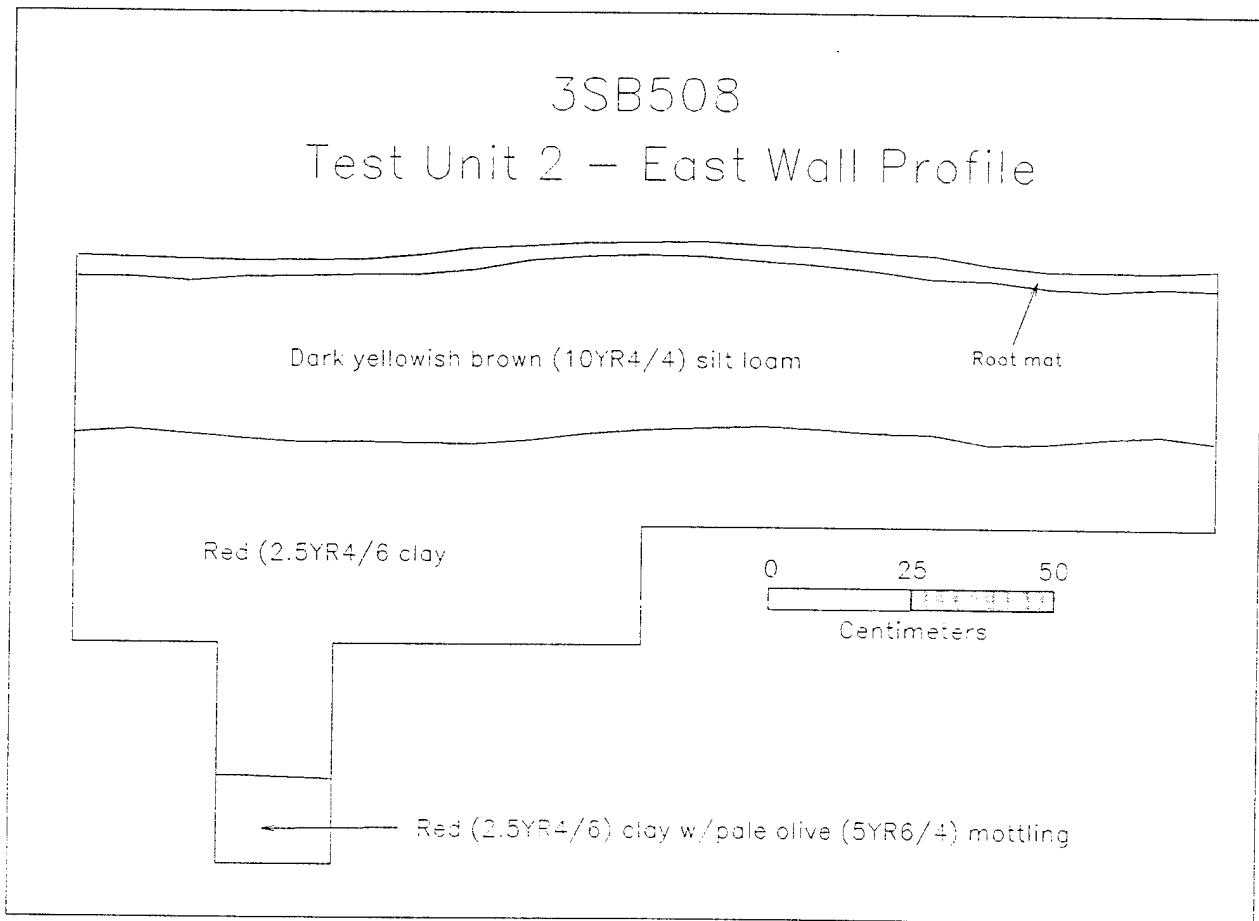


Figure SB508-3. Profile drawing of the west wall of Test Unit 2 at 3SB508

Table 3SB508-4. Test Units 1 & 2 Artifacts.

UNIT DEPTH (CM)	TU 1 0-10		TU 1 10-20		TU 1 20-30		TU 1 30-40		TU 2 0-10		TU 2 10-20		TU 2 20-30		TU 2 30-40		TEST UNITS TOTAL		
	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	Ct.	Wt.	
PREHISTORIC																			
Perforator/graver biface														1	25.4			1	25.4
Flakes	1	0.1			1	0.2	1	2	1	2.2				1	0.6	3	1.8	8	6.9
Retouched/utilized					1	3.5												1	3.5
Decortication					1	0.7												1	0.7
Shatter											1	3.1						1	3.1
HISTORIC																			
Tableware--whiteware	3	20																3	20.0
Button--milk glass	1	0.4																1	0.4
Lampglass--clear			3	0.3														3	0.3
Jar--amethyst			1	1.8														1	1.8
Glass shards																			
Amethyst	1	4.3	7	46.2														8	50.5
Aqua			5	22														5	22.0
Clear					1	0.2												1	0.2
Modern color	1	0.9																1	0.9
Nylon strap												2.4						0	2.4
Windowpane--clear	10	16.6	2	0.8														12	17.4
Nails	2	5.9	1	4.3														3	10.2
Wire							1	1.3										1	1.3
Staple	1	2.6																1	2.6
Battery core		10		19														0	29.0
Bullets/shells									1	13.3	2	29						3	42.3
Unmodified sandstone				92		68												0	160.0
TOTAL	20	60.8	19	186.4	4	72.6	2	3.3	2	15.5	3	34.5	2	26.0	3	1.8		55	400.9
ARTIFACT DENSITY per cubic meter	200	608	190	1864	40	726	20	33	20	155	30	345	20	260	30	18		69	501

Results of the MCRA Work

Horizontal and Vertical Extent. The maximum dispersion of artifacts and surface features is about 100 m north-south x 150 m east-west. The site is bounded on the north by an existing road. The western and southern edges are defined by surface artifacts and positive shovel tests. The eastern edge is problematic due to the presence of another site, 3SB502. We decided to use the old road as a logical boundary between the two historic sites, since the respective artifact scatters have probably been blended to an unknown extent by military activities. The core area of the historic component is much smaller, however, and is marked by positive shovel tests. It is roughly 50 m north-south x 40 m east-west and centers around Shovel Test 101N/10E (Appendix 3). It probably encompasses the former location of a house, given the artifact assemblage and the presence of the well. The normal depth to which historic artifacts were recovered was 10 - 20 cm but Test Unit 1 yielded materials as deep as 40 cm. Prehistoric materials are concentrated at the east end of the site, centering at 100N/120E (Appendix 3).

Defining the limits of the prehistoric component is much more difficult, due to the sparse artifact density and obvious post-depositional disturbances. Most of the visible surface materials are probably out of place and shovel testing was found to be largely ineffective because of the low artifact density. Simply put, negative shovel tests indicate an artifact density of less than 27 per cubic meter. In addition, the dense vegetation over much of the area made work nearly impossible. The normal depth to which prehistoric materials were recovered was also 10 - 20 cm but both test units yielded materials to a depth of 40 cm.

Cultural Components Identified. Information gathered during documentary research suggests that George J. Shelby resided at the site during the 1870s, 1880s, and 1890s. Artifacts associated with the historic component are consistent with such an assignment, but also suggest a slightly longer occupation, possibly into the early twentieth century. Shards of amethyst glass (1880 - ca. 1917-18; Munsey 1970:55) comprise 21% of the container glass recovered while clear (1916 - present) and other modern types comprise 51%. At least four shards of a modern soda bottle are probably intrusive. All of the window glass recovered is clear. Half of the tableware recovered is composed of plain whiteware (1820 - present) but the remainder are of types (hand painted, polychrome, flow blue and sponge decorated) that have terminal dates between 1860 and 1875.

Although the lone prehistoric diagnostic, a Dalton point recovered by AAI, argues for an early date for the prehistoric component, the remaining artifacts are composed of nondescript lithics that provide no additional corroborating information. Other artifacts associated with the Dalton period, such as thumbnail scrapers, Dalton adzes and peices esquillees are absent. We prefer an indeterminate prehistoric assignment, although a Dalton affiliation cannot be completely discounted.

Site Function. The historic component is an obvious domicile, probably dating to the turn of the century. The artifact assemblage is dominated by domestic artifacts but direct evidence of farming is absent. The agricultural census data discussed earlier documents that at least one occupant was engaged in farming, but no physical evidence of such activities was recovered. The function of the prehistoric component is not known. The artifacts recovered at the site do not provide a basis upon which to base a firm conclusion.

Significance Assessment

3SB508 is not significant and is not eligible for inclusion in the National Register of Historic Places. Although the property was owned by Mitchell Sparks, an important individual in the Fort Smith area, there is no evidence that he ever resided at the site. Both the historic and prehistoric components are so badly disturbed and thoroughly mixed that they offer little or no research potential. Although a Dalton point was recovered at the site by AAI investigators, our testing produced no additional evidence of a Dalton occupation.

Moreover, the integrity of the deposits at 3SB508 is poor. The historic component has been severely damaged by military training activities. The surface of the site is characterized by many undulations, ruts (several of which penetrate below the maximum depth of the deposits) and other disturbances that have thoroughly damaged the shallow deposits. More serious disturbances include bulldozing for the concrete pad on which the medical training tent is erected and the excavation of the settlement pond. No evidence of structures associated with the historic occupation remains and the lone historic features include the stone-lined well and a short section of an old road marked by large white oaks at the east end of the site. The best preserved feature, the latrine, post-dates the historic component. It is not possible to delineate the locations of structures nor is there evidence of a yardscape. The portions of the site where surface artifacts are visible exhibit no A horizon soils and have obviously been damaged by recent construction activities and

subsequent erosion. Because of this, we believe that the materials found on the surface are badly out of context.

The prehistoric component has also suffered serious damage, both from the historic occupants of the site (including agricultural terraces on the south-facing slope) and the same military activities that have all but destroyed the historic component. In addition, the prehistoric deposits are sparse and shallow, making them easily damaged. We believe the wide dispersion of prehistoric materials to be at least partially the result of post-depositional disturbance, particularly the materials found on the surface of the south-facing slope where AAI investigators recovered their prehistoric materials. The historic and prehistoric components appear to be thoroughly mixed throughout the site.

3SB533

3SB533 is an historic site on the south side of an east/west trending ridge. It is situated at the base of the slope. A cleared area paralleling the ridge is immediately south of the site. The cleared area is noted as a fire lane on the AAI site form and is used by military vehicles moving between locations. Surface features were identified during the investigations at 3SB533 included those associated with structures, transportation routes, and possible farm related activities (Figure 3SB533-1). Concrete items included steps (3 steps) that, based on orientation, appeared to have been moved and a low U-shaped structure covering a large area. The U-shaped structure was under a pile of bulldozed dirt and rubble. A oval depression measuring 3.7 m east/west by 2.7 m north/south and a possible well pipe were recorded by AAI and MCRA. Iris were growing along the west side of the site near the old northeast/southwest road. Jonquil bulbs were recovered in Test Unit 1. Two intersecting old roads were identified along the edges of the site. The first is along the north side of the site and follows a northwest/southeast orientation. It is sunken and has deep erosional gullies, especially at the northwest end. The second road is along the west side and follows a northeast/southwest path. It intersects the first at the northwest corner of the site. The second road parallels the modern gravel road for a short distance and is at a lower elevation. A concentration of large pieces of sandstone is at the northwest corner of the site in the area the roads intersect. Historic artifacts are scattered among the rocks and mirror the timeframe represented by an artifact concentration recorded at the southeast corner. Although no discernible pattern could be identified, similar sized rocks were not recorded elsewhere on or outside the site on the ridge slope. The rock concentration measured 25 m north/south by 25 m east/west at the widest points.

Any fields associated with this site would probably have been south of the fire lane in areas now occupied by a firing range.

The site lies in an inter-ridge valley geomorphic zone (AAS site form). Smith (1986: 14 {working draft}) describes this zone in the following manner:

Between the ridges lie broad to narrow valleys formed by either structural deformation or erosional processes. These inter-ridge valleys, as they are identified in this report, are often but not always occupied by local creeks that have developed narrow thin floodplains of their own. The inter-ridge valleys are the loci or (sic) deposition, especially when adjacent to steep ridges (erosional). However, rates of sediment deposition in the inter-ridge valleys are probably low throughout Fort Chaffee for the most part due to the low propensity of local geologic formations to provide readily available sediment for erosion and transportation to the valley floor.

3SB533 is on soils belonging to the Enders-Mountainburg association (rolling) (Cox et al. 1975: sheet 13). Due to the configuration of the soils within this association, specific soil types are not separated out. Enders silt loam comprise 50-65% of the association. Mountainburg gravelly sandy loam constitute 25-40% of the two. This association is generally found on hillsides with slopes ranging from 8-20% and is generally suited woodland or wildlife habitat.

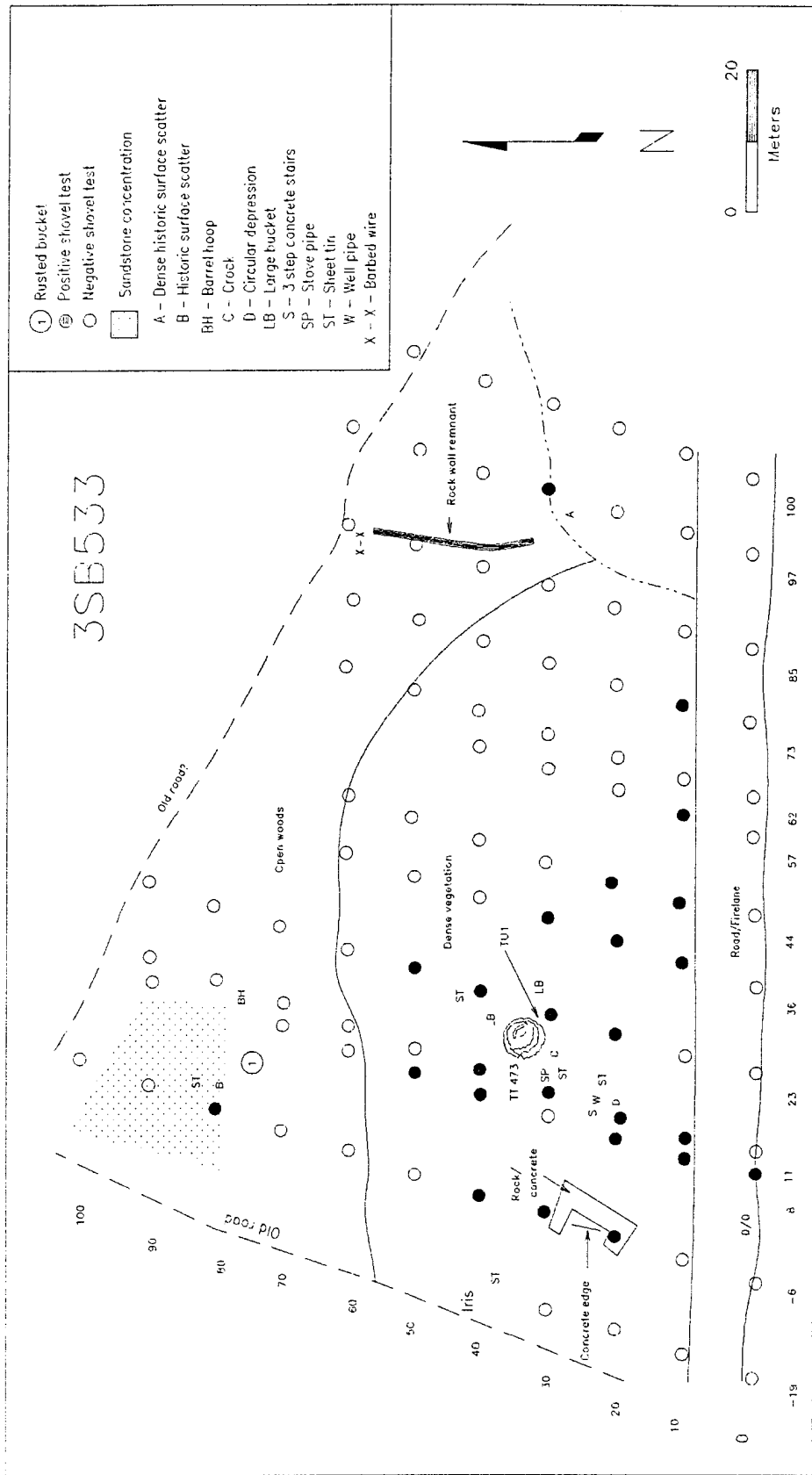


Figure 3SB533-1. 3SB533 Site Map.

Previous Investigations

3SB533 was first recorded by AAI on 23 February 1988. They (AAS Site File) describe the site as follows:

This site is a scatter of historic artifacts found in a firelane, as well as two foundations in nearby woods to the north -- one of which may have been constructed by the military. The site is on a terrace below a ridge and above a smaller ridge leading down to a rifle range. Soil from shovel tests was noted to be very disturbed, and the area was littered with military trash. Two shovel tests out of six conducted to a depth of 20 cm were positive. Artifacts collected included stoneware, whiteware, bottle glass, and metal. Site limits were determined to be 45X40m.

In addition, they note the site has been severely impacted by clear cutting and land leveling, especially at the south end. Conditions at the site were poor with the surface visibility ranging from 0-25%. Grass at the south end and woods and leaf cover were listed as the constraints on the surface visibility. A number of flower beds were noted on the site map.

Cultural material recovered from the shovel tests included one piece of whiteware and two wire nails from Shovel Test 1. A single piece of clear glass and two wire nails were collected from Shovel Test 2. Ceramics collected from the surface included 10 pieces of whiteware, one piece whiteware with parallel ridges/grooves, one piece whiteware with handpainted gold band(s), one piece late pearlware with a floral motif, and 15 pieces of stoneware with a variety of finishes. Glass artifacts collected from the surface included three pieces of clear glass, two pieces milk glass, three pieces blue-green tinted glass, one piece blue glass with mold marks, two pieces amethyst glass, one piece light green glass, and a light green octagonal bottle with molded letters/number (base PAT. 83892, neck 2 FL.OZ.) and molded thread-like ridges.

Metal artifacts from the surface consisted of a half of a horse shoe.

Based on the information collected by AAI, 3SB533 was recommended for testing to determine if it was eligible for nomination to the National Register of Historic Places. During a second visit to the site AAI described the site in the following manner (AAS Site File):

The site was revisited on 6 October 1992 to obtain a Magellan GPS location reading, to tag the site with aluminum tree tags, and to draw a new sketch map of the area. The site does not appear to have been disturbed since it was originally recorded. This site is located on the north side of the road, but it is mapped as being on the south side of the road on the AAS Barling quadrangle map.

MCRA Archival Investigations

This site is along the south side of a secondary road that ran into the road connecting Central and Randolph (later renamed Jenny Lind). None of the other sites tested during this project are immediately by 3SB533. The structure is visible on the Sebastian County Atlas of 1887 and 1903.

The first names associated with the land were those of William M. Gwin and Samuel Davis for 1839. These records are in Little Rock. A copy of the original land records on file at Special Collections, Mullins Library gives the date August 10, 1836. They received this as a land patent under President Van Buren. There is also an indenture dated 1841. It gives the names of John Slidell, of New Orleans; William Byrd Page of Philadelphia; Samuel and Maria Davis of Philadelphia; William and Mary M. Gwin (or McGwin) , of Vicksburg; and William Mylne, of Liverpool. Gwin and Davis probably never saw the land they owned.

In 1852, the land was sold to William and Margaret Wood. They owned land in 11 Arkansas counties. Apparently they lost the land as a result of nonpayment of taxes, since the State of Arkansas sold the land to Roscoe Jennings in 1866. There was another indenture in 1868 to William Fleming.

There is an absence of information on transfers, since M. L. Lamkin sells the land to W. S. Coleman in 1881. The earliest Real Estate Tax record available at the Sebastian County Courthouse in Greenwood is dated 1881. This record shows that John Maxwell owned the E1/2SE1/4 of the section. He had 80 acres, valued at \$340. Maxwell also owned 3SB567, a structure at the south end of the property. There is an agricultural census for W. S. Coleman in 1880 (Table 3SB533-1).

There were many legal problems with the land, but B. M. Coleman sold it to Charles A. and Elizabeth A Selig in 1933. They held the land until it was acquired by Fort Chaffee.

Table 3SB533-1. The farm of W. S. Coleman on the Agricultural Census of 1880

Improved land	40 acres
Woodland and forest	40 acres
Value of farm	\$500
Value of implements	\$70
Value of livestock	\$125
Cost of fence building and repair (1879)	\$50
Value of total farm production	\$500
Horses	3
Milch cows	2
Other cattle	1
Calves dropped	1
Cattle sold living	2
Cattle slaughtered	1
Swine	16
Poultry (barnyard)	12
Eggs produced	80
Butter (pounds, 1879)	50
Indian corn (acres/bushels)	20/400
Cotton (acres/bales)	16/9
Sorghum	
2 acres in crop, 60 gallons of molasses produced	
Irish potatoes (acres/bushels)	.25/15
Tobacco (acres/pounds)	.50/40
Cords of wood cut (1879)	16
Value of forest production	\$20

MCRA Field Investigations

A preliminary visit was made to 3SB533 by MCRA on 31 May 1994 to establish the location of the site, locate surface features noted by AAI, and identify any constraints which may hamper the field investigations.

Field investigations were conducted by MCRA on 3-4 October 1994. Conditions encountered at the site varied little from those documented during the preliminary visit. The southern part of the site (main portion) was heavily overgrown with small cedar, honeysuckle vines, and small trees. The edge between the northern and southern parts of the site was easily established with an immediate cessation of the dense understory present at the south end. The northern portion is open woodlands with little to no undergrowth. The ground surface was covered with leaves. Surface visibility was limited to areas on the firelane/road, the two old road beads, and portions of a drainage along the east side of the site.

Investigations were initiated with a complete inspection of the site area. Surface artifacts and areas that exhibited evidence of historic activity were flagged for mapping and/or further inspection. Based on the information generated the size and orientation of the shovel test transects was established.

Thirteen shovel test transects, oriented northeast/southwest were established with the point of origin along the firelane/road (Figure 3SB533-1). The two old roads marked the north and west boundaries investigated. The east boundary was immediately east of a drainage coming off the hillslope. Most of the easterly transect were well outside the main site area. However, a concentration of historic material, dating to the 1880's-1916, was recorded in the drainage and along the edges. Transects established for 3SB533 included -19, -6, 8, 11, 23, 36, 44, 57, 62, 75, 83, 97, and 108. All shovel tests within each transect were spaced 10 meters apart. The number of shovel tests within each transect varied from eleven to three. The longer transects were at the west end of the site. Ninety-seven shovel tests were excavated with 25 (25.7%) being positive (Appendix 1).

A single test unit was excavated. The location was selected based on the location of the surface features and artifacts, shovel test results, and large trees. The unit was excavated in 10 cm levels to 30 cmbs. Two strata were identified (Figure 3SB533-2). The depth of the first stratum, ranging from 19 to 22 cmbs. It was silt with a Munsell value of 10YR5/6 (yellowish brown) with 7.5YR5/6 (strong brown) mottling and concretions at the base. Jonquils were recovered the full length of the test unit in the first 10 cm of this stratum. The second stratum extended from the base of the first to the base of the test unit. Loam with a Munsell value of 7.5YR6/6 (reddish yellow) was recorded. Concretions increased in density with depth.

3SB533 Test Unit 1 Profile

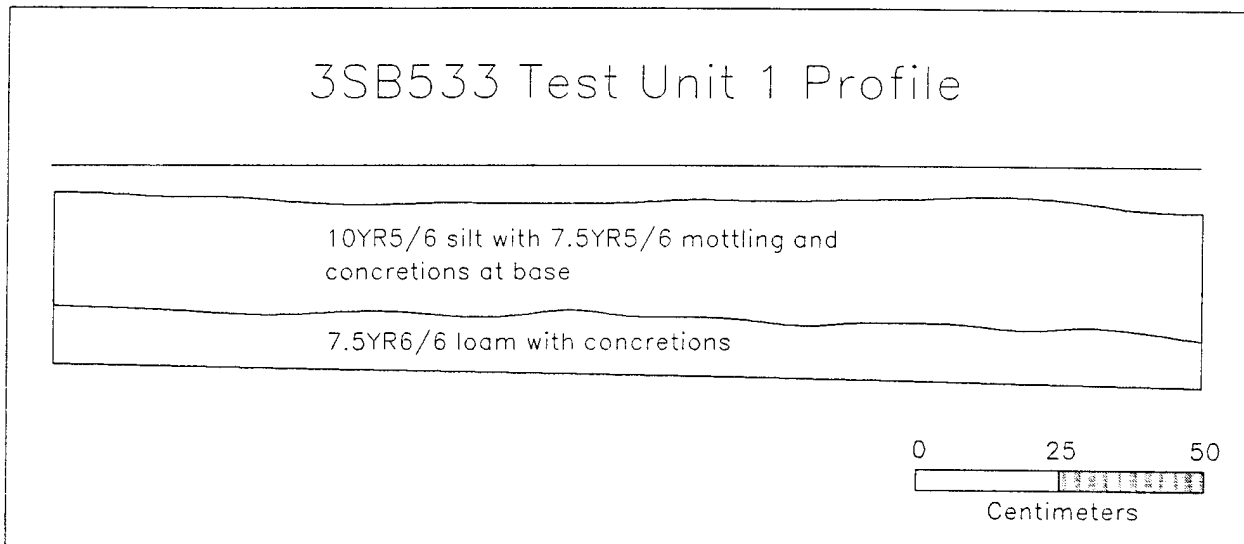


Figure 3SB533-2. Test Unit 1 Profile.

Results of the MCRA Work

Horizontal and Vertical Extent The eastern and western horizontal extent of 3SB533 was based largely on surface indicators. The house area (central area) was based upon shovel test results. These indicators, however, present a distorted view of the site since they occur as individual manifestations. The eastern-most area (A on Figure 3SB533-1 site map) is a concentration of historic glass and ceramics along the edge of and in a shallow drainage (Table 3SB533-1). The artifacts are scattered over an area measuring 6 m by 9 m. A single positive shovel test was excavated in this area. The central area is represented by the house (Figure 3SB533-1). All but five (8/0, 75/10, 57/10, 97/30, and -6/80) of the 25 positive shovel tests were in the central area. The northwest corner of site (B on Figure 3SB533-1) is marked by a scatter of artifacts dating to the same timeframe as those in at the east end of the site and a scatter of large pieces of sandstone particular to that area (Table 3SB533-2). The hillslope of the surrounding area was checked and a similar occurrence of sandstone was not recorded. The sandstone did not exhibit any identifiable pattern, but may have represented foundation or pen remains. A single positive shovel test was excavated in this area. The sandstone covered an area measuring 20 m north/south by 25 m east/west. When the three areas are viewed as a single component they cover an area measuring 105 m east/west by 105 m north/south at the west end and 30 m north/south at the east end (Appendix 3).

Surface artifacts on the road/firelane were recorded between 8/0 and 97/0. Of the 97 shovel tests excavated 25 (25.7%) were positive (Figure 3SB533-1, Appendix 1, Table 3SB533-2).

The vertical extent of the site was based on the excavation of Test Unit 1. The test unit was excavated to 30 cmbs with cultural material in the 10-20 cm level. The final level was sterile.

Cultural Components Identified Archival research indicates the landowner was in the area in the 1870's but did not live at 3SB533 but instead at 3SB567. The Sebastian County Atlas documents a structure at this location in 1887 and indicates it is gone by 1903. However, the archeological evidence indicates continued use of this area by other families or the structure was rebuilt.

Archeological materials recovered from the on-site investigation indicate 3SB533 was a probable occupation from 1880 to post 1916. The earliest identified cultural material is transferware, dating from 1840's to the present. Other artifact classes rule out an occupation dating to the initial introduction of transferware. These classes include amethyst glass (1880-1916), square (pre-1900) and wire (post-1900) nails, and clear glass (post-1916). Three broken clear glass containers indicate a post 1900 occupation or use of the site area. Two of the glass container fragments have dates. One reads 1911-192? (last number missing) and the other reads since 192? (last number missing). A French's Mustard jar (introduced 1903) was found among the surface artifacts in the northwest corner of the site.

Table 3SB533-2. Shovel Test, General Surface, and Test Unit Artifacts.

UNIT Depth (cm)	SHOVEL TEST 0-20		TEST UNIT 1 0-10		TEST UNIT 1 10-20		AREA A SURFACE		AREA B SURFACE		SITE TOTAL	
	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.
LITHICS												
Flake	1	1.1	1	1.0	1	0.8					3	2.9
Shatter	1	1.7									1	1.7
HISTORIC												
Lamp glass--clear	2	0.7									2	0.7
Amethyst							1	157.4			1	157.4
Bottles--clear	2	105.3			1	23.7	1	97.0			4	226.0
Aqua							1	189.6			1	189.6
Hand-finished	1	22.5									1	22.5
Amethyst												
Seam to lip, applied							1	73.2			1	73.2
Jars--aqua			1	2.3	1	2.0					2	4.3
Clear, threaded			1	10.7					2	299.6	3	310.3
Amethyst, threaded	1	109.3									1	109.3
Lid liner, milk					1	3.9					1	3.9
Glass shards												
Amethyst	5	18.4	3	10.4	3	3.2			1	29.6	12	61.6
Aqua	8	6.7	11	22.8	8	24.7					27	54.2
Clear	13	16.2	8	58.5	12	11.6					33	86.3
Modern color	6	6.1			6	7.0					12	13.1
Tableware												
Whiteware	2	1.3	4	7.2	4	12.1			1	114.8	11	135.4
Decalcamania					1	1.0					1	1.0
Gild rimline									1	40.2	1	40.2
Transfer print					2	3.6					2	3.6
Beaded	1	4.4									1	4.4
Molded	1	7.7									1	7.7
Porcelain					1	1.4					1	1.4
Decalcamania, gild rimline							1	26.0			1	26.0

Table 3SB533-2 continued. Shovel Test, General Surface, and Test Unit Artifacts.

UNIT Depth (cm)	SHOVEL TEST 0-20		TEST UNIT 1 0-10		TEST UNIT 1 10-20		AREA A SURFACE		AREA B SURFACE		SITE TOTAL	
	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.
Stoneware--slip					8	38.0					8	38.0
Banded							1	151.8			1	151.8
Crock							1	131.5			1	131.5
Jar lid, metal	1	0.2									1	0.2
Cap, threaded metal	1	9.6									1	9.6
Structural												
Windowpane--clear	68	100.4									68	100.4
Aqua	3	4.3	11	13.0	4	6.8					18	24.1
Nails	7	45.1			58	280.0					65	325.1
Square	2	3.1	31	71.3	7	12.2					40	86.6
Nail/brace	2	9.2	15	38.0							17	47.2
Ceramic pipe	1	5.3									1	5.3
Hardware												
Staple			2	9.4							2	9.4
Wire	1	1.6		15.7		20.5					1	37.8
Chisel			1	27.7							1	27.7
Hooks					2	76.3					2	76.3
Rivet			1	11.2							1	11.2
Washer			1	16.2							1	16.2
Miscellaneous												
Coal		0.3									0	0.3
Metal		11.3		12.5		33.5					0	57.3
Slate						0.2					0	0.2
Total	130	491.8	91	327.9	120	562.5	7	826.5	5	484.2	353	2692.9
Artifacts/cubic meter			910	3279	1200	5625						

Site Function Archival research indicates a variety of crops were being raised. Cattle were present but hogs were the dominant livestock at the site (Table 3SB533-1). The cream recovered from milk from the milk cows was being used to make butter. Cultural material recovered from 3SB533 indicates it functioned as a house site with minimal evidence to suggest farming as a means of making a living. Staples and a short section of barbed wire along the northeast side of the site suggests the presence of livestock. In addition, the sandstone in the northwest corner may also be an indicator. Shovel tests in the area failed to recover any square or wire nails yet clear and aqua windowpane was recovered. The absence of nails and the presence of windowpane indicates the use of this area as a dump. The absence of nails indicates dimensional lumber was not used in any structures that may have been present.

The concentrated and selective nature of the artifacts in the southeast corner of the sites indicates a dump.

Significance Assessment

Archival research on 3SB533 did not document any individual of local, regional, or national prominence living at the site.

Archeological investigations entailed the excavation of 92 shovel tests, one test unit, and the mapping of the site. Some elements of site structure were identified at that time. The two removed artifact and/or sandstone concentrations and the house area. However, these investigations failed to identify the presence or potential presence of information that could be used enhance our understanding of life in the 1880 to post-1916 period.

It is recommended archeological clearance be extended to 3SB533. It is MCRA's opinion the site is not significant and not eligible for nomination to the National Register of Historic Places.

3SB537

3SB537 is an historic site in an area that is flat to gently rolling with no abrupt relief in the immediate vicinity. An east/west gravel road is immediately south of the site and serves as the boundary along this side. Possible old fields associated with 3SB537 are immediately north and east of the area shovel tested (Figure 3SB537-1). Surface features include two structures marked by sandstone foundation (house and outbuilding), iris, and wisteria. The site has been severely disturbed by earth moving activities. Numerous linear mounds accompanied by wide shallow areas were identified on the site.

The site lies in an inter-ridge valley geomorphic zone (AAS site form). Smith (1986: 14 {working draft}) describes this zone in the following manner:

Between the ridges lie broad to narrow valleys formed by either structural deformation or erosional processes. These inter-ridge valleys, as they are identified in this report, are often but not always occupied by local creeks that have developed narrow thin floodplains of their own. The inter-ridge valleys are the loci or (sic) deposition, especially when adjacent to steep ridges (erosional). However, rates of sediment deposition in the inter-ridge valleys are probably low throughout Fort Chaffee for the most part due to the low propensity of local geologic formations to provide readily available sediment for erosion and transportation to the valley floor.

Smith (n.d.: 20) notes the interridge valley features comprises 32.11% of the Fort Chaffee. 3SB537 is on Taft silt loam (Cox et al. 1975: sheet 12, 23-24). This soil is found on old stream terraces in broad valleys and has a slope of <1%. It is somewhat poorly drained and supports mixed hardwoods and pine.

Previous Investigations

3SB537 was recorded by AAI on 23 February 1988. At that time conditions at the site were poor with surface visibility being described as poor (0-25%) Site disturbance was described as moderate with land leveling and the military being identified as the source (AAS Site File). A large area of jonquils was noted south of the L-shaped structure. Wild onions were to the north. AAI describes 3SB537 in the following manner (AAS Site File).

This site, probably an early 20th century home site, appears to be partially intact. The south side of a 12X20m L-shaped structure appears to be a collapsed tin porch roof. Footing stones were observed to be in place, some stacked. Remains of a cellar (with a trash pile containing jar fragments with screw tops) and a 4X5m structure north of the main structure retain (sic) some integrity. Intact subsurface deposits are likely near or within the structures. Five shovel tests were preformed to a depth of 20cm, two of which were positive, yielding wire nail and rusted can fragments. No collections were made from the shovel tests. Extent of the site was measured at 90X60m.

Ceramic artifacts collected from the surface included a single piece of porcelain. Glass artifacts from the surface included one piece of milk glass, a piece of milk glass with mold marks and relief decorated fish scales, and a rose tinted glass fragment with molded parallel ridges/grooves and band(s) (AAS Site File).

Based on the information collected from 3SB537 during this stage of the project, AAI recommended it be tested, thereby determining its eligibility for nomination to the National Register of Historic Places (AAS Site File)

3SB537 was visited a second time by AAI (AAS Site File).

The site was revisited on 6 October 1992 to obtain a Magellan GPS location reading, to tag the site with aluminum tree tags, and to draw a new sketch map of the area. The site has been recently impacted by the digging of army foxholes.

MCRA Archival Investigations

Legal records in Little Rock indicate that Henry Rymal owned the land. There was no listing of Rymal on the Federal Population Census of 1860 or the Federal Population Census of 1870 (Jackson 1987). It appears that Rymal was a speculator who never lived in the area.

In 1880 legal records in Little Rock indicate that J. A. McAlister owned the land. The earliest real estate and personal property tax records available at the Sebastian County Courthouse in Greenwood date to 1881, so earlier transfers could not be identified. The Real Estate Tax record of 1881 indicated that J. A. McAlister owned the W1/2SW1/4 (80 acres) and the SE1/4SW1/4 (40 acres) of Section 15. John McAlister also had connections with sites 3SB544 and 3SB562. The Real Estate Tax record of 1886 indicated that he still owned that land, but he had added the SE1/4SW1/4 (40 acres) and the NW1/4NW1/4 (40 acres) in the same section. He still owned the NW1/4NW1/4 of Section 22 where 3SB562 is located.

Legal records in Little Rock indicate that W. F. Byrum owned the land in Section 15 ca. 1886-1887. This record was not examined at the Sebastian County Courthouse, but Byrum is listed as owner in the Real Estate Tax record of 1896. McAlister still owned the land where 3SB562 is located. Byrum owned the SE1/4NW1/4SW1/4 (10 acres) and the SW1/4SW1/4 (40 acres) of Section 15. Byrum still owned this land in 1903 according to the Real Estate Tax record of that year. The Sebastian County Atlas does not show a structure in this location during 1887 or 1903.

The Federal Population Census of 1900 reveals that the Byrum family included William F. Byrum, 43 years old, who was a farmer. He was a native of Arkansas, as were both of his parents. His wife was Nannie, who was also 43 years old. She had been born in Colorado, but her parents were natives of Alabama. They had two children at the time. These were Harvey L. (age 14 years, Arkansas), who was a farm laborer, and Nancy M. (age 3 years, Arkansas).

The Personal Property Tax record of 1896 indicated that W. F. Byrum owned: 2 horses (value \$50); 3 cows (value \$20); 1 mule (value \$30); 8 hogs (value \$10); 1 carriage (value \$25); and 1 watch (value \$5). The total worth of his personal property in that year was \$160. In the Personal Property Tax record of 1903, he increased his holdings to: 2 horses (value \$100); 7 cows (value \$55); 7 hogs (value \$15); and 1 carriage (value \$30). He had increased the total worth of his personal property to \$240. Byrum continued to increase his overall worth in personal property. The Personal Property Tax record of 1910 lists him as owning: 3 horses (value \$120); 4 cows (value \$50); 1 mule (value \$40); 4 hogs (value \$10); 1 carriage (value \$15); and 1 piano (value \$20). His total worth in personal property in that year was \$305.

The General Highway and Transportation Map of Sebastian County (1936, revised 1941) was examined at Special Collections, Mullins Library. A photocopy was made and sites were plotted. No structure was shown at 3SB537 at this time, but the entire area was identified as the Camp Chaffee Maneuver Area. No structures were shown within the boundaries of the camp, although structures were shown along roads outside the camp area. Since the structure was not visible on the 1903 or 1930-1940s map, this house could have pre-dated this time.

MCRA Field Investigations

A preliminary field visit was made by MCRA to 3SB537. The purpose of this visit was twofold. First, it allowed MCRA to accurately locate the site on the ground and assess its condition. Second, it provided MCRA an opportunity to identify potential constraints and develop a means to address them.

Field investigations were conducted over a two day period from 10-11 October 1994. Conditions at the site were poor. Evidence of substantial earth moving was documented across the entire site. Linear and oval mounds of dirt with associated wide shallow depressions were recorded. Small trees aligned with the long axis of the mounds were present in a large number of these piles. The trees were not rotten indicating the disturbance was recent. A low area 3-5 meters wide had been bulldozed along the south side of the site, apparently to facilitate run-off to the ditch paralleling the gravel road. The collapsed porch roof noted by AAI had been bulldozed into a pile and was no longer attached to the foundation. In addition, the symmetrical nature of the footing stones noted on the AAI site map was not documented by MCRA. Two identifiable foxholes were located by MCRA. The cellar noted on the AAI form was not located during the investigations conducted by MCRA.

The L-shaped structure is on an elevated area. It is unclear the degree to which this elevation has been accentuated by the bulldozing that has occurred around it. The same situation exists for the small structure to the north. It is pedestaled with a major bulldozed area immediately to the north. The foundation stones were no longer aligned.

The site area is wooded with a moderately thick understory present. Wisteria literally covers the site. Surface visibility was 0%.

Investigation of 3SB537 began with a complete surface inspection of the site. During this time all foundation remnants and surface artifacts were flagged for future mapping and/or investigation. This was critical given the dense wisteria on the site. It would have been extremely difficult to relocate specific items with any degree of certainty had this not been done.

A north/south baseline line was established for controlling the excavation of shovel tests. Eight transects were fixed on the baseline, including 9, 19, 28, 34, 42, 55, 65, and 77. The number of shovel tests on each transect varied, however spacing was maintained at 10 meters in all instances. Sixty-one shovel tests ranging in depth from 20 to 30 cmbs were excavated (Appendix 1). Of this total 22 (36%) were positive (Figure 3SB537-1).

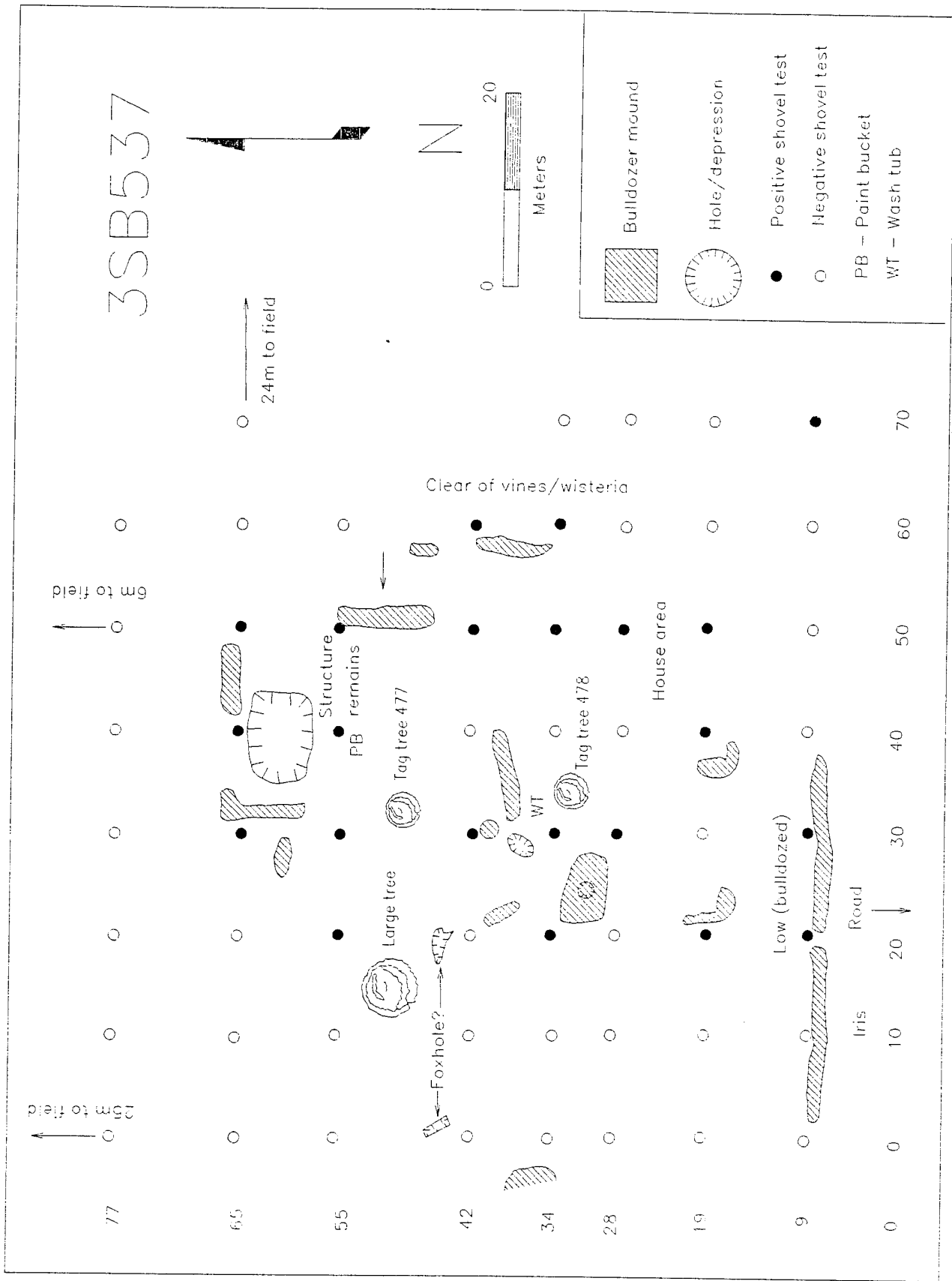


Figure 3SB537-1. 3SB537 Site Map.

Two test units were excavated as part of the investigations conducted at 3SB537. Test Unit 1 was positioned west of the house foundation on the elevated area. It was excavated to 30 cmbs with three strata identified (Figure 3SB537-2). Stratum 1 extended from the surface to 8 cmbs. It was silt with a Munsell value of 10YR5/4 (yellowish brown). This stratum contained a dense root mass. Stratum 2 extended from 8 to 28 cmbs. It was silt loam with a Munsell value of 7.5YR6/8 (reddish yellow). The final stratum extended to the base of the unit (30 cmbs). It was silt with a Munsell value of 7.5YR7/6 (reddish yellow). Test Unit 2 was positioned within the scattered foundation stones of the small outbuilding at the north end of the site. It was excavated to 30 cmbs with three strata recorded (Figure 3SB537-3). Stratum 1 extended from the surface to 18 cmbs. It was silt with a Munsell value of 10YR4/4 (dark yellowish brown). Stratum two ranged from 18 to 24 cmbs. It was silt with a Munsell value of 10YR6/8 (brownish yellow). The third stratum extended to the base of the test unit. It was a very compact silt with a Munsell value of 10YR8/6 (yellow).

Results of the MCRA Work

Horizontal and Vertical Extent Site boundaries were based solely upon the results obtained from the shovel tests. Sixty-one shovel test were excavated with 22 (36%) being positive (Appendices 1 and 3, Figure 3SB537-1). All but one was clustered in the center of the area tested which is also the area of maximum disturbance by earth moving equipment. The isolated positive shovel test is at the southeast corner along an area that had been impacted by bulldozing (Figure 3SB537-1). The positive shovel tests cover an area measuring 40 m east/west by 54 m north/south. If a small patch of iris in the southwest corner is added to the site the dimensions are 60 m north/south by 40 m east/west. Two site dimensions are on the AAS site records. One notes the site as being 40 by 60 and the other 90 m north/south by 60 m east/west. It is unclear how the larger dimension was obtained since no surface remains cover that extensive of an area and no shovel tests were excavated outside the house area.

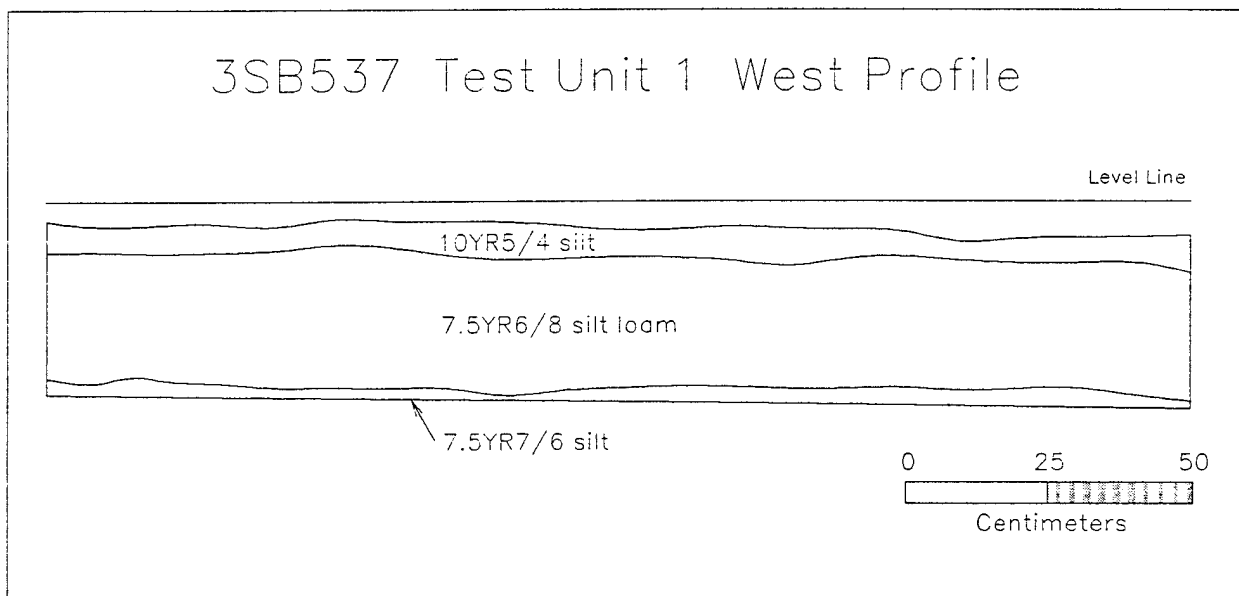


Figure 3SB537-2. Test Unit 1 Profile.

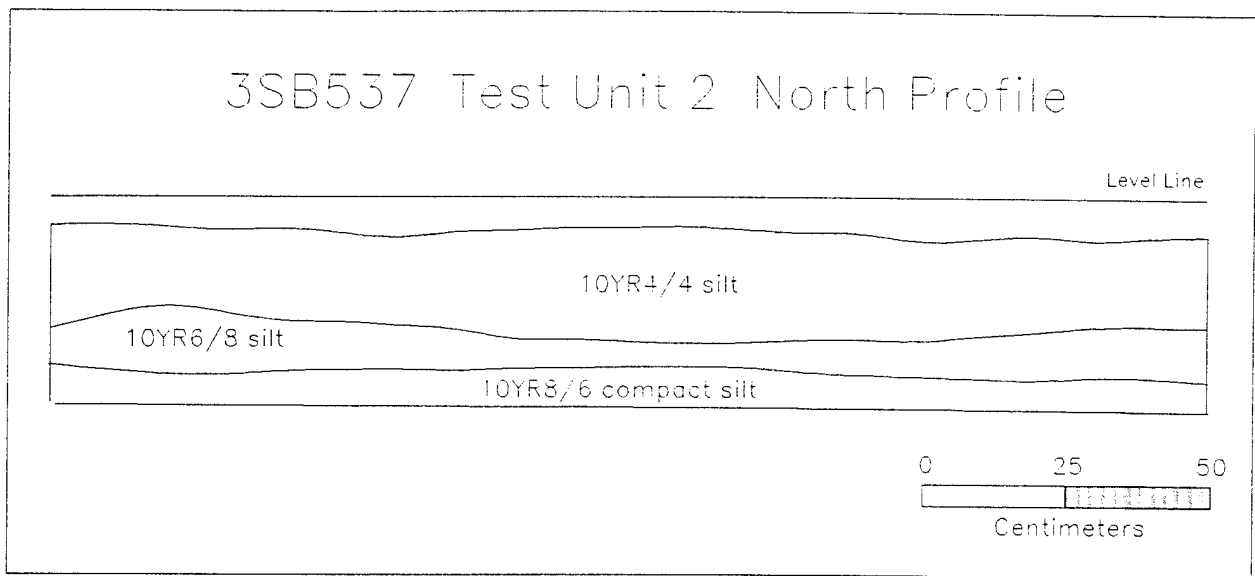


Figure 3SB537-3. Test Unit 2 Profile.

Vertical limits of the cultural deposits were established by the excavation of two test units (Table 3SB537-1). Test Unit 1 was positioned near the house and excavated to 30 cmbs. Cultural material, consisting of two wire nails, was recovered in the 10-20 cm level. Test Unit 2 was positioned with the foundation stones of the northern structure and excavated to 30 cmbs. Material was recovered in the upper part of the 10-20 cm which coincided with the stratum contact.

Cultural Components Identified The Sebastian County Atlas indicated no structure was present in 1887 or 1903. The 1936 (revised 1941) General Highway and Transportation Map of Sebastian County also indicates there was no structure present.

Cultural material recovered during the investigations conducted by MCRA indicates an initial occupation or use of this area dating to the late 1800's, terminating sometime after 1916. Decalcamania (1890-present), square nails (pre-1900), amethyst and aqua glass and windowpane (1880-1916), nonstandard screw threads on an aqua jar (1903-1916), embossed whiteware (introduced 1845), clear glass, and glass with modern colorization indicate occupation during the 1880-post 1916 period (Table 3SB537-1).

The structure identified as the house by AAI is at the south end of the site facing the present all weather gravel road (Figure 3SB537-4). AAI noted an intact L-shaped foundation with a probable collapsed front porch. Their sketch map indicated a structure measuring 20 m east/west by 12 m north/south. At the time MCRA investigated the site the structure had been impacted. The symmetrical structure noted by AAI was not evident. Pieces of sheet tin were noted in bulldozed dirt piles and the foundation had been impacted (Figure 3SB537-1). Cultural material recovered from the excavation of Test Unit 1 (near the house) was minimally representative of that from the remainder of the site. Temporally sensitive material included the aqua and clear window glass and wire and square nails. Surprisingly no domestic artifacts were recovered (Table 3SB537-1).

Table 3S8537-1. Shovel Test and Test Unit Artifacts.

UNIT Depth (cm)	SHOVEL TESTS 0-20		TEST UNIT 1 0-10		TEST UNIT 1 10-20		TEST UNIT 2 0-10		TEST UNIT 2 10-20		SITE TOTAL	
	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.
LITHIC: Flakes	1	0.6	1	0.4							2	1.0
HISTORIC												
Button, milk	1	0.6									1	0.6
Jars												
Aqua	1	3.3									1	3.3
Threaded							2	30.6			2	30.6
Seam-to-lip							1	6.9			1	6.9
Modern color	2	93.0									2	93.0
Lamp glass--clear	3	0.9					5	188.5			8	189.4
Amethyst							1	16.4			1	16.4
Glass shards												
Amethyst	2	6.5									2	6.5
Aqua	10	13.0	36	92.3			8	17.1	3	7.0	57	129.4
clear	19	29.8					45	287.0	6	20.1	70	336.9
Milk	1	25.5							1	1.4	2	26.9
Modern color	3	2.1									3	2.1
Tableware--whiteware	1	0.6					9	25.6			10	26.2
Gilded rimline							2	4.0			2	4.0
Molded rim	1	5.1					1	3.8			2	8.9
Decalcamania							1	3.0			1	3.0
Molded, rimline							1	6.0			1	6.0
Porcelain												
Tableware									2	3.4	2	3.4
Molded utilitarian bowl							3	187.6			3	187.6
Stoneware, slip	1	35.2	1	1.0							2	36.2
Jug	18	381.4									18	381.4
Measuring spoon--metal							1	3.0			1	3.0
Tools												
Screw	1	1.7									1	1.7
Clip	1	1.0									1	1.0
Wire	5	6.6									5	6.6
Structural												
Windowpane--clear	7	10.7	3	3.8			4	8.6			14	23.1
Aqua	9	21.2	2	3.2			7	14.0			18	38.4
Mortar		45.0		6.2							0	51.2
Nails	22	48.4	68	104.0	2	1.8	32	108.1	15	51.8	139	314.1
Square	3	9.9	5	14.7					1	3.5	9	28.1
Tin								300.0			0	300.0
Bullet--.22 Long							1	0.7			1	0.7
Miscellaneous												
Metal		144.4		6.5				9.7		1.8	0	162.4
Coal		2.2									0	2.2
Ceramic pipe				45.5							0	45.5
Total	112	888.7	116	277.6	2	1.8	124	1220.6	28	89.0	382	2477.7
Artifacts/cubic meter	296	2351	1160	2776	20	18	1240	12206	280	890	298	1933

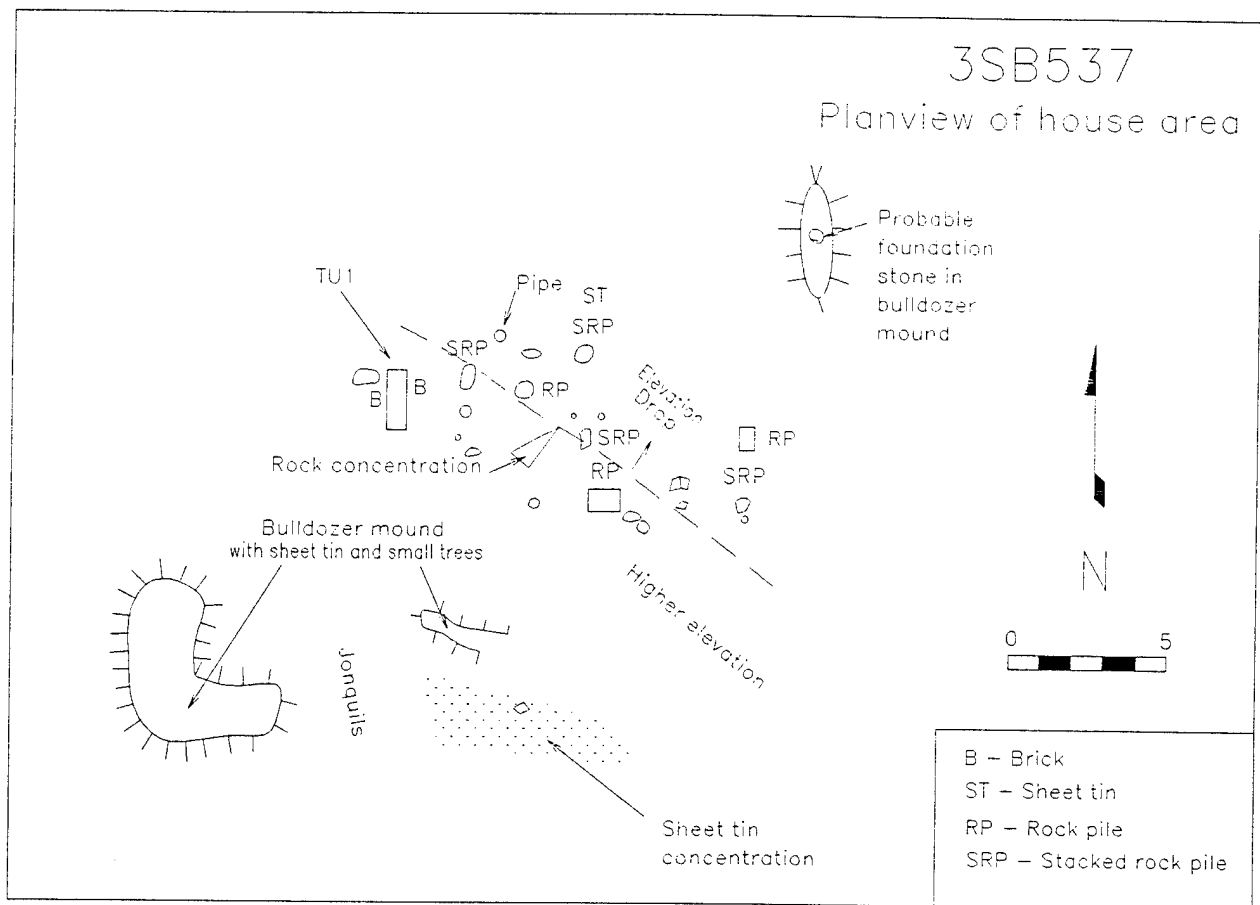


Figure 3SB537-4. House Planview.

The second structure is at the north end of the site and probably represents a storage shed (Figure 3SB537-5). The AAI sketch map indicates a structure measuring approximately 3 m north/south by 3.5 m east/west. This area had been disturbed when investigated by MCRA. MCRA found foundation material covering an area measuring 5 m north/south by 7 m east/west. The excavation of Test Unit 2 at this location documented a much wider range of cultural material than around the house. Tableware, hardware, furnishings, structural, and utility artifacts spanning the period of occupation were recovered at this location.

Site Function Archival research indicated livestock was being raised at 3SB537. No row crops were being raised.

Cultural material recovered at 3SB537 is typical of that from most other historic sites, dating to this period at Fort Chaffee. Evidence of a primary structure and outbuilding was documented and the artifacts recovered are ubiquitous in nature. Indications that this was an active farm were not recorded. No tack equipment was recovered and no evidence of barb wire was noted in the trees or on the ground.

Evidence indicates this was a typical house place for the time period.

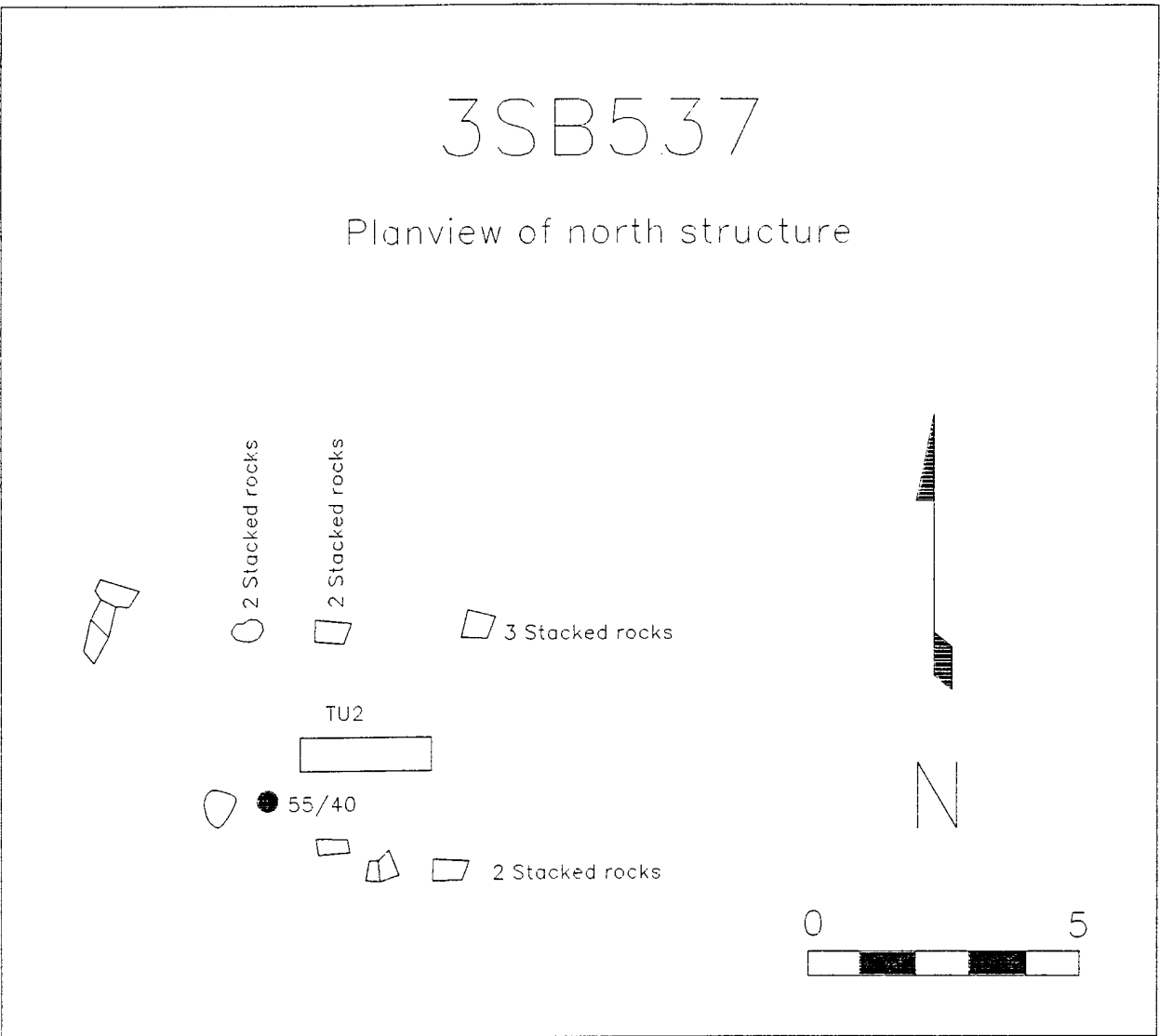


Figure 3SB537-5. Outbuilding Planview.

Site Significance

MCRA recommends 3SB537 receive archeological clearance. It is the opinion of MCRA 3SB537 is not significant and not eligible for nomination to the National Register of Historic Places. Investigations entailed archival research, the excavation of 61 shovel tests, two test units, and the mapping of the site. Archival research did not document any individual of local, regional, or national prominence associated with 3SB537.

On-site investigations documented a high level of earth moving disturbance across the site. Dirt mounds with associated low areas were recorded. In a number of instances small trees and sheet tin were in the dirt mounds. Evidence of this level of disturbance was recorded across the full breadth of the site. Basic concepts such as "a swept front yard", characteristic of historic sites during this period would not be testable. This stems from the bulldozed area across the front of the house disturbing these deposits as well as the collapsed front porch. As such, the basic site structure has been seriously compromised.

Excavations at 3SB537 failed to document the presence or potential presence of information that would further our understanding of life beginning in the 1880's.

3SB542

3SB542 is a prehistoric and historic site on top of an east/west trending ridge. While no modern roads are in the area, evidence of two old roads was noted during the investigation. A north/south sunken road is approximately 60 west of the site. The banks of the road are eroded and heavily overgrown. An unsuccessful attempt was made to follow it down the hill slope. An east/west road following the top of the ridge stops short west of the sunken road bed. Surface features at 3SB542 include a stone-lined well, cellar, foundation of an outbuilding, and foundation of a house (Figure 3SB542-1). The site is overgrown with vines and small trees.

AAI determined 3SB542 was on the geomorphic feature referred to as Ridge slope, erosional (AAS Site File). Smith (1986: 13 {working copy}) describes this feature in the following manner.

Except in the Arkansas River and the major tributary floodplains, the major landforms of the Fort Chaffee area are ridge slopes and inter-ridge valleys. In terms of active geomorphic processes, the ridge slopes can be divided into two general classes: erosional and minimally erosional (primarily stable). Erosional ridge slopes are steep, and have a thin or nonexistent residual soil developed on them. As previously mentioned, the erosional ridge slopes are usually underlain by shale or shaley sandstones which are less resistant to erosion than local sandstones. Narrow aprons of colluvium, material washed down from up-slope, usually occur at the base of the erosional slopes but were too small to be mapped at the scale of 1:24,000.

This geomorphic feature comprises 37.84% of the lands on Fort Chaffee (Smith n.d.: 20). The soil on which 3SB542 is located has been identified as belonging to the Enders-Mountainburg association (Cox et al. 1975: sheet 12, 11, 13). This association is found on hill and mountain sides in areas with slopes ranging from 8-20%. The association is comprised of Enders silt loam (50-65%) and Mountain stoney sandy loam (25-40%). The soils are well drained and support a mixture of hardwoods and pine.

Previous Investigations

3SB542 was recorded by AAI on 23 February 1988. At that time conditions were poor with the surface visibility ranging from 0-25%. Site disturbance is noted as being moderate though only natural causes are listed as being possible causes. AAI described the site in the following manner (AAS Site File).

This site consists of nearly intact foundation stones on top of a ridge, apparently the remains of several buildings -- possibly a house and outbuildings. Also observed was an undisturbed stone-lined well. According to plat maps, the site may be a farmstead. Few surface artifacts were found besides army debris. Some of the site was noted as being disturbed. The site appears to have the potential for intact deposits. Seventeen shovel tests were conducted, nine of them positive. Collected items included whitewares, stoneware, glass and metal. Site limits were defined at 50x70m.

A considerable quantity of material was recovered by AAI (Table 3SB542-1) (AAS Site File).

Table 3SB542-1. Artifacts Collected by AAI, 1988.

Location	Number	Description
ST 03	1	stoneware fragment, dark brown salt glaze int./ dark gray glaze ext., green dots, heat altered, kiln misfire?
ST 04	1	whiteware, soft paste fragment, marked/embossed with green underglaze transfer mark of unicorn with "...NE CHINA"
ST 05	1	plain whiteware, soft paste fragment
ST 06	1	plain whiteware, hard paste fragment
ST 06	1	whiteware, hard paste insulator fragment, molded letters/numbers "T" with circle around it
ST 08	1	plain whiteware, hard paste fragment
Surface	1	plain whiteware, soft paste fragment
Surface	1	plain whiteware, hard paste fragment
ST 01	1	clear glass fragment
ST 01	1	milk glass fragment
ST 02	1	clear glass fragment
ST 02	1	clear glass fragment, molded line designs
ST 02	1	faint light green tinted whole square bottle, with mold marks
ST 02	2	faint yellow tinted fragments, molded band(s), molded geometric motif, pieces mend
ST 06	1	clear glass fragment, mold marks
ST 06	1	brown glass fragment
ST 06	2	faint blue-green tinted fragments
ST 06	1	faint blue-green tinted fragment, molded letters/ numbers with "KER...", from KERR Mfg. Co.?
ST 08	1	clear glass fragment, molded letters/numbers with part of script letter?
ST 08	1	clear glass fragment, mold marks
ST 08	1	whole clear glass bottle, with mold marks
ST 08	1	blue-green-tinted glass fragment
st 09	1	clear glass fragment, molded letters/numbers with part of script letter
Surface	1	clear glass fragment, citrus-peel-like exterior, molded threads (slanted)
Surface	1	faint blue-green tinted fragment

Table 3SB542-1 continued. Artifacts Collected by AAI, 1988.

Location	Number	Description
Surface	1	faint blue-green tinted nearly whole round bottle, molded parallel ridges/grooves
Surface	1	faint light green tinted fragment, mold marks
ST 05	1	horseshoe nail, 4.6cm long
ST 05	5	zinc canning jar lids
ST 06	3	unidentified iron/steel sheet metal
ST 06	1	tin-plate oval can, 10.8x8x2cm
ST 07	1	unidentified iron/steel sheet metal
Surface	1	iron/steel wire
Surface	1	iron/steel canning jar lid
ST 06	2	unidentified bone fragments
ST 06	1	slate fragment, 3.5x2.8x.2cm

The site was revisited by AAI in 1992. AAI offers the following assessment of the site (AAS Site File)

The site was revisited on 7 October 1992 to obtain a Magellan GPS location reading, to tag the site with aluminum tree tags, and to draw a new sketch map of the area. The site has recently been moderately disturbed by general army activity.

MCRA Archival Investigations

This site is on the west side of a road running between Central and Randolph on the Atlas Map of Sebastian County of 1887. On the Sebastian County Atlas of 1903 map of T7N, R31W, Central and Randolph are still shown. By the 1930s, Randolph was renamed Jenny Lind, and the original Jenny Lind was listed as "Old Jenny Lind." Just west of this site are sites 3SB543 and 3SB544. These latter dwellings were on property of other landowners.

The earliest legal record found identifying the owners of the site is the 1881 Real Estate Tax record at the Sebastian County Courthouse at Greenwood, Arkansas, but the Agricultural Census of 1870 indicates that F. J. (or J. F.) Crockett was already farming in Sulphur Township. The production of his farm is shown in Table 3SB542-2.

The Agriculture Census of 1870 lists the Crockett family, but the Population Census of 1870 also identifies the Joseph Crockett as residents of Sulphur Township. At that time, Crockett was listed as 45 years old, with real estate worth \$2000 and personal property worth \$300. His wife, Elizabeth, was listed as 44 years old. They had two children at home.

Susan was 14 years, and Andrew was 12 years. Both children had been born in Missouri. With the family resided Joseph Faull (?), a 22 year old farm hand from England, and Ann Crockett, J. Crockett's 78 year old mother. There could have been at least two structures occupied at that time. The nuclear family, including Crockett's mother, may have lived in one dwelling, while the farm hand occupied a second.

The 1881 Real Estate Tax record identified above shows that Crockett and Clyma owned the 40 acres (E1/2E1/2NW) where 3SB542 is located and the 160 acres in the NE1/4 of the same section. The Personal Property Tax record for this year records Crockett and Clyma together. They had 2 horses (value \$105); 10 cows (value \$10); 2 mules (value \$180); 10 hogs (value \$10); and 1 pleasure carriage (value \$50). Their total worth of personal property was \$520. A year earlier, the Agricultural Census of 1880 listed just Crockett. This document provides a thorough summary of the productivity of his farm during 1879-1880 (Table 3SB542-3).

The relationship between Clyma and Crockett becomes clear in the Population Census of 1880 for Sulphur Township. Joseph Crockett was listed as a 50 year old farmer. He had been born in Tennessee, as were his father and mother. His wife was Elizabeth. She was listed as 49 years old, and keeping house. Elizabeth was a native of Virginia, but both of her parents came from North Carolina. The Crocketts had a 26 year old daughter, Susan, who was also keeping house. The census indicates that she was born in Missouri, so the family was residing in that state during the 1850s. Susan was married to Wallace Clyma, a 36 year old farmer. Clyma was from Wisconsin, as were his parents. The Clyma family had two children. These were Crockett Clyma (age 1 year) and Frank Clyma (age 1 month). Both of these children were born in Arkansas. In addition to this nuclear family residing on the single farmstead, there were two male farm laborers. These were John Holman (age 20 years, Arkansas native) and George Riggs (age 20 years, Missouri native).

This information strongly suggests there were multiple dwellings on the farmstead. Joseph and Elizabeth Crockett may have occupied one house; Wallace and Susan Clyma and their family occupied a second; and the two farm hands probably occupied a third structure.

The presence of multiple groups of persons that probably occupied different structures on the farm results in difficulty for identifying the actual occupants of 3SB542. By 1887, the structure was no longer shown on the atlas map. Two structures were shown along the road in the NE1/4. By 1887 this land was owned by Frank Parke. It is possible that the structure at 3SB542 was the first Crockett house, possibly built during the 1870s (or earlier). When Susan Crockett and W. W. Clyma married, they may have built a house in the NE1/4, with another house built for Crockett and his wife before or after the Clyma house was erected. The structure at 3SB542 may have become a dwelling for the farmhands.

The Real Estate Tax record of 1886 records William W. (Wallace?) Clyma as the owner of the 40 acres, valued at \$200. The Personal Property Tax record for that year indicates that he had no horses. He did have 8 cattle (value \$56); 1 mule (value \$60); 10 hogs (value \$10); and 1 carriage (value \$30). His total worth in personal property was \$216. W. W. Clyma is shown as the sole owner of the property where 3SB542 is located in the Sebastian County Atlas of 1887, but no structure was shown on the property at that time.

A photograph of Clyma on a hayrake is included in the Sebastian County Atlas of 1903. Clark (1982:5) states that he was in Section 24, T6N, R29W. The caption under the photograph identified him as a resident of Washburn Township. Washburn Township was created in east Sebastian County by 1887. The 1890 Census indicated that Clyma was still paying taxes in Sulphur Township. It is probable that he continued to farm the land, or that he leased the land to a tenant and that by 1887 he was living in Washburn Township. Since he paid taxes on the land, Clyma's name would appear in the Real Estate Tax records and the presence of a tenant would not necessarily be visible.

Table 3SB542-2. The F. J. Crockett farm on the Agricultural Census of 1870

Improved Land	25 acres	
Woodland and Forest		130 acres
Value of Farm		\$1600
Value of Farm Implements	\$80	
Value of Livestock		\$400
Value of Livestock Slaughtered	\$80	
Value of Total Farm Production	\$850	
Horses		2
Mules/Asses	1	
Milch Cows	4	
Other Cattle	5	
Swine	25	
Butter Produced (lbs. 1869)		100
Spring Wheat (bushels)	10	
Winter Wheat (bushels)	25	
Rye (bushels)		20
Indian Corn (bushels)		300
Cotton (bales)		1
Irish Potatoes (bushels)	15	
Sweet Potatoes	15	
Value of Orchard Products	\$50	

By 1896, William Edenborn had acquired this land and considerable other land in the vicinity. The Sebastian County Atlas of 1903 identifies Edenborn as the property owner. It remained in the family, since Sarah Edenborn owned it when acquired by the U.S. government for Fort Chaffee. No record was found of Edenborn in the Personal Property Tax record. William and Sarah Edenborn were never residents of any property in this area.

The General Highway and Transportation Map of Sebastian County, Arkansas (1936, revised 1941) was obtained from the Special Collections, Mullins Library. Sites were plotted on a photocopy. This site would have been located on the west side of a road connecting Central City and Jenny Lind. This is the road visible on the 1887 and 1903 atlas maps of the county. By this time, the area was identified as the Camp Chaffee Maneuver Area. No houses were shown along any of these roadways on Camp Chaffee, although they were plotted along roads outside the camp.

Table 3SB542-3. The F. J. Crockett farm on the Agricultural Census of 1880

Improved Land	20 acres	
Meadow		15 acres
Woodland and Forest		70 acres
Value of Farm		\$1000
Value of Farm Implements	\$100	
Value of Livestock		\$350
Value of Total Farm Production	\$500	
Cost of Fence Building and Repair (1879)	\$25	
Total Wages Paid		\$20
Weeks Hired Laborers Worked	8	
Horses		4
Mules/Asses	1	
Milch Cows	5	
Other Cattle	8	
Calves Dropped	4	
Cattle Sold Living		2
Butter Produced (lbs. 1879)		125
Swine	1	
Poultry		12
Eggs Produced (1879)	70	
Indian Corns (acres/bushels)		10/200
Cotton (acres/bales)		8/5
Sorghum (1879)		
1 acre in crop, 60 gallons of molasses produced		
Cords of Wood Cut		10
Value of Forest Production	\$35	

MCRA Field Investigations

MCRA initiated the investigation of 3SB542 with preliminary visit to the site on 31 May 1994. The purpose was to accurately determine its location and assess the condition. The site was found to be essentially as AAI had described it.

Field investigations were initiated on 2 November 1994 and concluded on 3 November 1994. Investigations commenced with a complete surface inspection of the site. Surface artifacts and areas of historic activity were flagged for future mapping and/or investigation. The site area is marked by a moderately dense patch of small trees, greenbriars, and honeysuckle. This condition changes quickly to open woodlands once one gets off the site. The open woodlands are on the areas that begin to show a marked slope while the dense growth is on the flatter areas. Surface visibility was 0% in all areas with only the largest historic artifacts visible on the surface. The only obvious evidence of ground disturbance were two foxholes. Foundation stones on the lone outbuilding identified by MCRA were scattered.

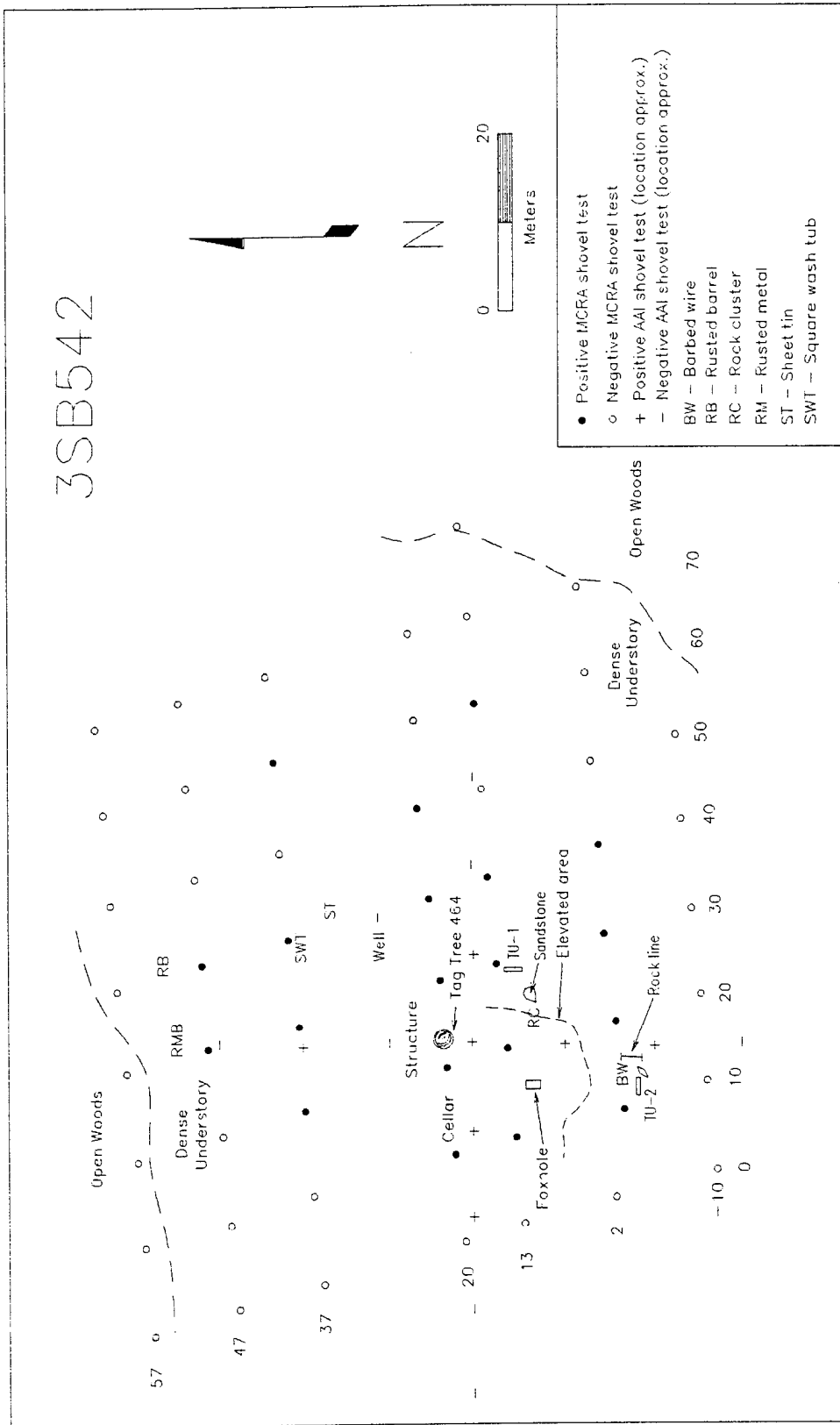


Figure 3SB542-1. 3SB542 Site Map.

Surface features identified by MCRA during this period included a stone-lined well, a house foundation, a north/south oriented road approximately 60 m west of the site, and the remnants of a single outbuilding foundation. The reported foundation remnant at the south end of the site was not located (AAS Site Files).

A baseline with seven randomly selected points for transects was established on a north/south axis along the west side of the site. These points included -10, 2, 13, 20, 37, 47, and 57. Fifty-five shovel tests ranging from nine to 30 cmbs were excavated (Appendix 1). Of the 55 shovel tests excavated 20 were positive (36%).

Two test units were excavated with Test Unit 1 positioned near shovel test 13/30 (Figure 3SB542-1). This shovel test had a dark soil not encountered elsewhere on the site. In addition, the layout of the house foundation and the low artifact density north of the house indicated this area represented the backyard. Test Unit 1 was excavated to 40 cmbs with three strata identified in the profile (Figure 3SB542-2). The first stratum extended to 25 cmbs. It was silt loam with a Munsell value of 10YR3/2 (very dark grayish brown) grading to a 10YR4/3 (dark brown). Stratum 2 was 5 cm thick ranging in depth from 25 to 30 cmbs. It was silt loam with a Munsell value of 10YR4/3 (dark brown) mottled with 5YR5/8 (yellowish red). Further excavation was not conducted in the eastern half of the unit. A dense concentration of large pieces unburned sandstone, many of which extended into the unit wall, was encountered (Figure 3SB542-3). The final stratum extended to the base of the test unit. It was silt loam with a Munsell value of 5YR5/8 (yellowish red). Large pieces of sandstone were exposed across the full extent of the unit at 40 cmbs (Figure 3SB542-4).

Test Unit 2 was placed on an elevated area near the foundation remnant of the outbuilding (Figure 3SB542-1). Excavation was terminated during the removal of the 20-30 cm level due to the dense sandstone being encountered. Three strata were documented in the unit profile (Figure 3SB542-5). The first extended to 8 cmbs. It was a silt with a Munsell value of 10YR4/3 (dark brown). The second stratum extended to 20 cmbs. It was silt with a Munsell value of 10YR4/4 (dark yellowish brown) mottled with 5YR5/8 (yellowish red). Small pieces of sandstone littered the stratum. Large pieces of sandstone became evident at the base of this stratum. Stratum 3 extended from 20 to 24 cmbs. It was silt with a Munsell value of 5YR5/8 (yellowish red). Large pieces of sandstone in this stratum kept the level (20-30 cm) from being completed.

Results of the MCRA Work

Horizontal and Vertical Extent The horizontal extent of 3SB542 was established using surface cultural material and shovel test results (Appendices 1 and 3, Figure 3SB542-1, Table 3SB542-4). This information indicated the site covered an area measuring 49 m north/south by 52 m east/west. The south end of the site was defined by four positive shovel tests in the 2 m transect, a short rock wall, and barbed wire. The north boundary was defined based on rusted buckets. This the front yard and a low density of artifacts was expected. The west end of the site was defined by a root cellar and positive shovel tests. The east side was based solely on shovel tests results.

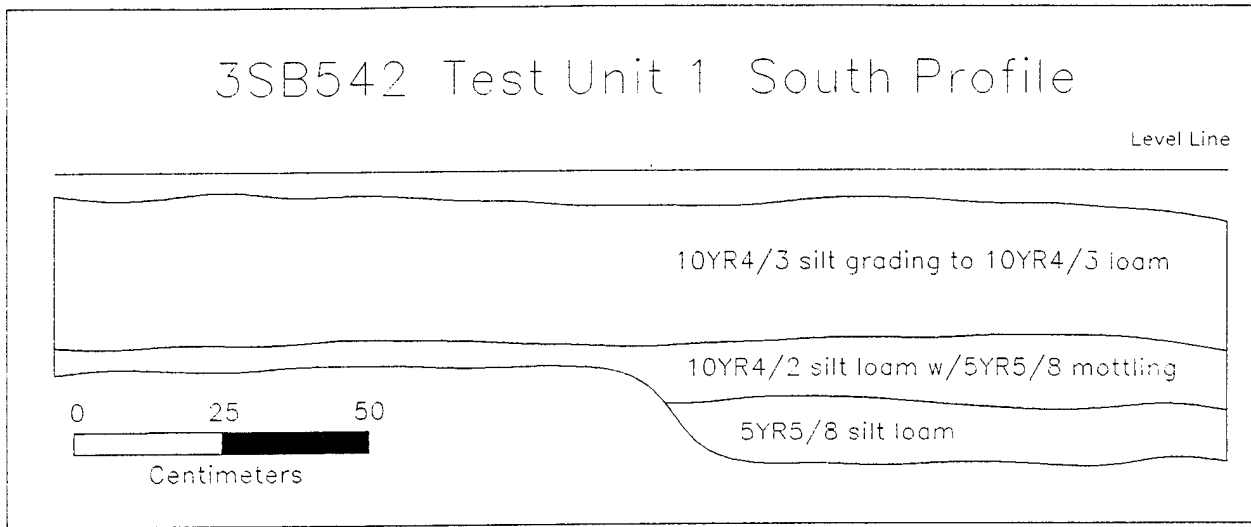


Figure 3SB542-2. Test Unit 1 Profile.

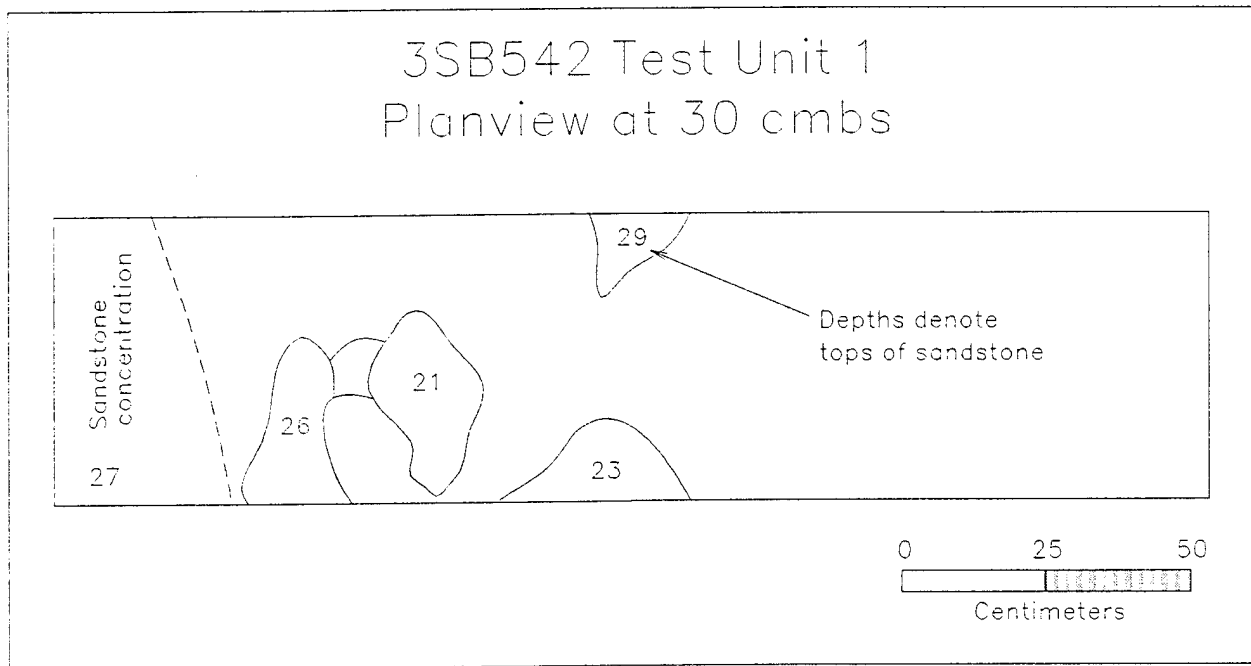


Figure 3SB542-3. Test Unit 1 Plan view at 30 cmbs.

The vertical extent of this site was determined by excavating two test units. Test Unit 1 was placed in the back yard in an area potentially defined as a midden area by shovel test 13/30. The unit was excavated to 40 cmbs where large pieces of sandstone were uncovered. Cultural material was recovered in the 10-20 cm level. A single piece of bone came from the 20-30 cm level (Table 3SB542-4). Test Unit 2 was at the south end of the site and excavated to 20 cmbs. At that depth dense sandstone was encountered and excavation was terminated. Material was recovered to 20 cmbs (Table 3SB542-4)

Two structures were identified at 3SB542. The southern-most possible structure on the AAI sketch map was not identified in the field, despite a concentration of effort in that area of the site. The foundation of the house is still relatively intact (Figure 3SB542-6). The front door is probably to the north, based on the presence of steps. In addition, a noticeable decrease in the artifact density was noted to the north, which generally indicates the front yard. The chimney is along the east wall. A possible porch at the north end is indicated by foundation rock inside the main foundation outline. The house measures 8 m east/west by 10 m north/south.

The second structure is south of the house and is marked by a few scattered pieces of sandstone and a sandstone concentration. Orientation and size were not determined for this structure.

Cultural Components Identified The excavation of the two test units identified the presence of a prehistoric component. Three flakes and a single biface fragment were recovered but temporal assignment is not possible based on this assemblage.

Archival research indicated the structure at 3SB542 was possibly built during the 1870s or earlier by Joseph Crockett and Wallace Clyma. In addition to the two families residing at the site, two male farm hands were present. This suggests possibly three living structures. The land passed to the Edenborns by 1896. While they never resided in this area, it is possible a tenant occupied any structure that may have been present. The recovery of clear glass by AAI and MCRA indicates this probably occurred.

Cultural material straddles the turn of the century era with quantities amethyst and aqua glass (1880-1916), zinc canning jar lids (1850's-1920), square nails (pre-1900), decalcumania (1890-present), transferware (1840-present), and molded whiteware (introduced 1845) recovered. Modern-era artifacts include clear glass (post 1916), yellow tinted glass (post 1915), wire nails (post 1900), and a plastic comb (military?) (Table 3SB542-4).

Site Function Archival research and artifacts recovered by MCRA and AAI indicate a working farmstead supporting a range of activities. Material associated with recreational activities, including a doll fragment and pipe bowl, were recovered. Tack equipment, faunal remains (bone), and farm related items (staples, wire) recovered by MCRA and AAI indicate the raising of crops and butchering of livestock, as does the archival information.

Site Significance

MCRA's investigations indicate that 3SB542 contains information that would further our understanding of the life in the late 1800's/early 1900's. The importance of this site rests on the wide range of artifacts identified and the associated activities.

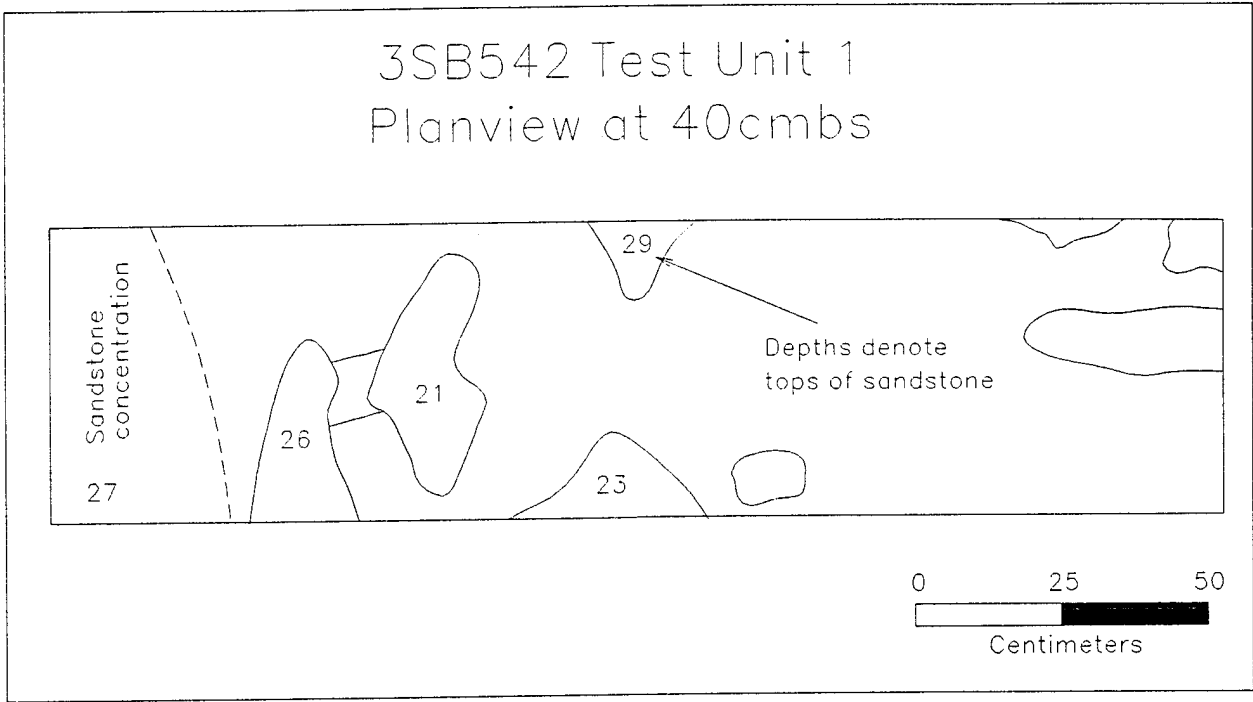


Figure 3SB542-4. Test Unit 1 Plan View at 40 cmts.

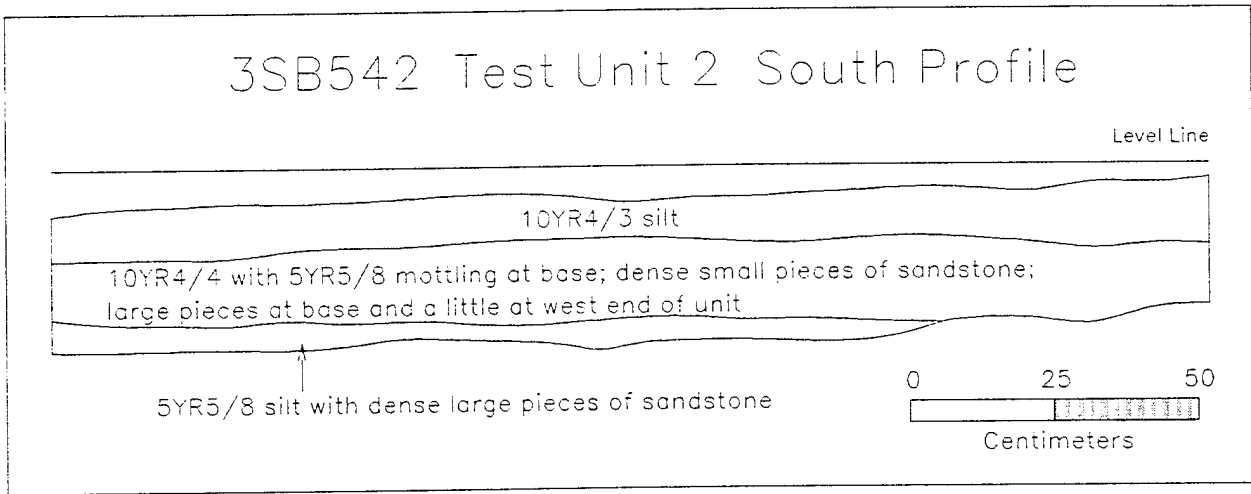


Figure 3SB542-5. Test Unit 2 Profile.

Table 3SB542-4. Shovel Test and Test Unit Artifacts.

UNIT Depth (cm)	SHOVEL TESTS		TEST UNIT 1		TEST UNIT 1		TEST UNIT 1		TEST UNIT 2		TEST UNIT 2		SITE	
	0-20		0-10		10-20		20-30		0-10		10-20		TOTAL	
Number/Grams	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.
LITHICS														
Biface									1	8.4			1	8.4
Flakes	1	1.0			1	0.2			1	13.4	1	0.7	4	15.3
Shatter	1	1.4											1	1.4
Unmodified sandstone				47.2									0	47.2
FAUNAL														
Bone			2	1.7	2	15.7	1	3.1			1	1.9	6	22.4
Tooth					1	0.8							1	0.8
FLORAL--Charcoal				0.6									0	0.6
HISTORIC														
Clay pipe bowl											1	2.8	1	2.8
Comb, plastic			1	3.4									1	3.4
Record, plastic			1	0.8									1	0.8
Buttons, metal	1	1.8							1	0.8			2	2.6
Eyelet			1	0.1									1	0.1
Bottle cap			1	1.3									1	1.3
Lamp glass, clear			2	0.2									2	0.2
Jar lid/lid clamp			11	13.2					1	8.0			12	21.2
Jar liner, milk	1	1.4	3	11.1									4	12.5
Bottles														
Aqua, applied collar									2	4.5			2	4.5
Aqua, panel									1	32.2			1	32.2
Clear, kick									1	12.0			1	12.0
Jar, clear			2	20.0									2	20.0
Glass shards														
Amber	1	1.5			1	12.3			1	2.3	3	3.8	6	19.9
Amethyst	7	21.4	16	77.5	11	17.5			7	7.2	3	3.1	44	126.7
Aqua	17	46.2	15	24.0	1	1.2			19	25.0	6	16.7	58	113.1
Clear	13	22.8	13	20.3	6	11.6			1	0.8			33	55.5
Milk			2	4.6	1	2.9							3	7.5
Modern color	1	0.4	9	11.5	4	7.1							14	19.0
Figurines--milk														
Porcelain	1	4.6											1	4.6
Tableware														
Porcelain			2	2.7	2	2.2							4	4.9
Whiteware	10	21.2	14	34.2	8	36.5			12	32.2	5	23.2	49	147.3
Transfer print			1	0.1									1	0.1
Molded rim			1	1.1	2	11.0							3	12.1
Decalcamania			3	23.8									3	23.8
Flow blue			1	0.9									1	0.9

Table 3SB542-4 continued. Shovel Test and Test Unit Artifacts.

UNIT	SHOVEL TESTS		TEST UNIT 1		TEST UNIT 1		TEST UNIT 1		TEST UNIT 2		TEST UNIT 2		SITE	
	0-20		0-10		10-20		20-30		0-10		10-20		TOTAL	
Number/Grams	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.
Stoneware									1	13.1	1	4.0	2	17.1
Glaze					1	0.5					1	7.1	2	7.6
Salt	2	17.2	2	16.2					1	20.3			5	53.7
Slip			7	14.3	6	88.6					2	19.7	15	122.6
Structural														
Windowpane--clear	6	5.6	9	9.4									15	15.0
Aqua			7	16.1	4	7.1							11	23.2
Brick												7.2	0	7.2
Nails	16	35.6	13	37.2	7	36.0			1	1.2			37	110.0
Square	5	10.5	15	51.5	11	34.6			14	37.6	6	14.7	51	148.9
Pipe, metal												198.0	0	198.0
Can									1	29.5			1	29.5
Drawer handle, metal			1	18.0									1	18.0
Scissor					1	20.5							1	20.5
Chain			1	76.5									1	76.5
Tack			1	90.3									1	90.3
Wire		0.6		3.2								3.6	0	7.4
Staple			2	7.6	1	5.5							3	13.1
Bullet/shells			2	5.5	1	1.3							3	6.8
Miscellaneous													0	0.0
Metal		19.5		81.5		55.8						9.2	0	166.0
Glass						2.1							0	2.1
Coal		0.4		18.7		4.7							0	23.8
Total	83	213.1	162	750.5	72	375.7	1	3.1	66	248.5	30	315.7	414	1906.6
Artifacts/cubic meter	242	621	1620	7505	720	3757	10	31	660	2485	300	3157	491	2262

First, 3SB542 represents one of two sites tested during this project that yielded faunal remains. The tax records indicate that hogs and cattle were raised by the occupants of this site (Table 3SB542-2 and -3). Although other sites show similar tax records, the presence of faunal remains indicates that some of the animals were being processed for personal consumption. These remains may enable investigators to study consumption patterns of the occupants and to determine the percentage of their diet that was comprised of native animals.

Domestic artifacts from this site indicate the family was not isolated but rather connected to a large trading network. MCRA recovered three ceramic artifacts with makers marks, one being from England. Such data may allow us to determine trading networks, as well as the economic status of the individuals residing at the site.

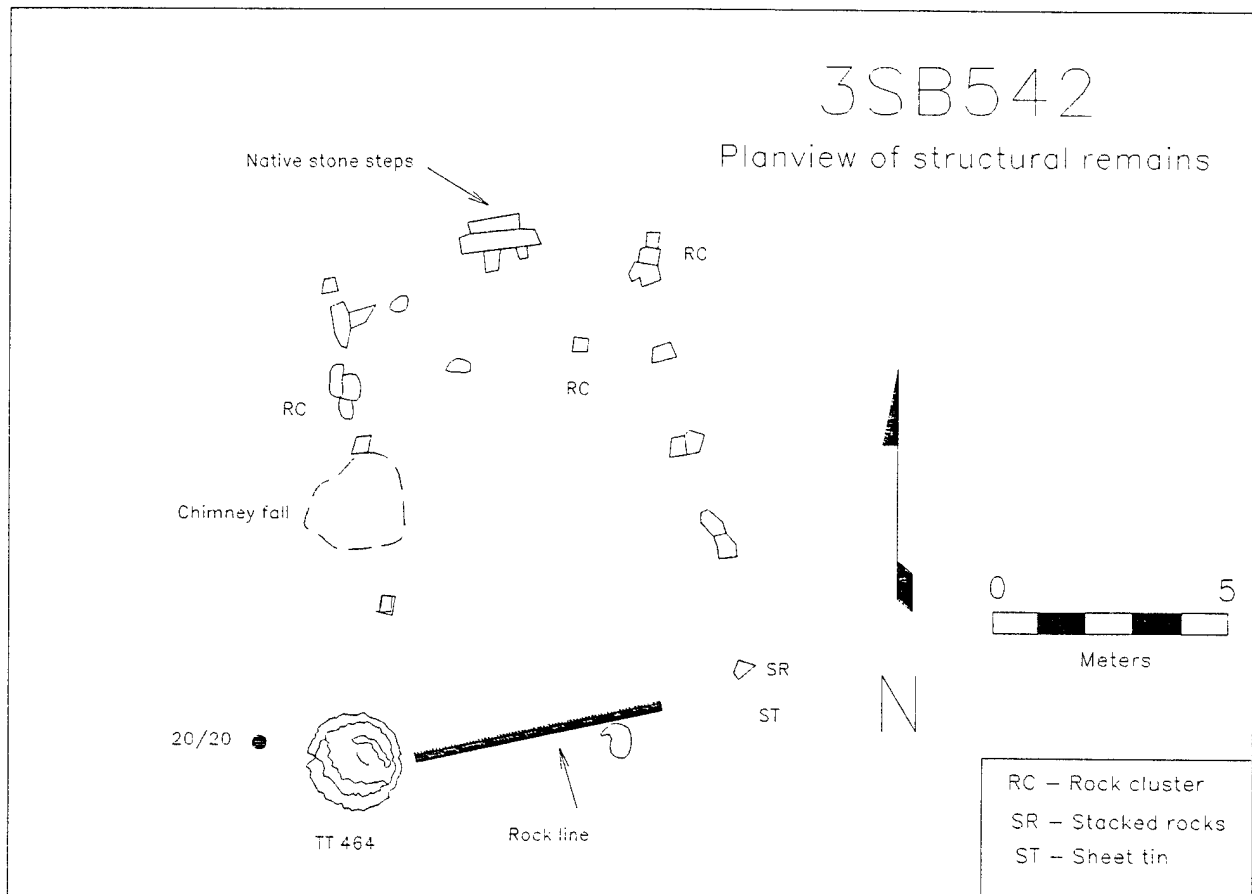


Figure 3SB542-6. House Plan View.

Less common artifacts include recreational items (doll fragment and clay pipe bowl), clothing remains (embossed metal button and eyelet), scissors, and tack equipment.

Quantities of domestic and structural items were recovered in the shovel tests. Patterning is evident at this site. A localized midden area and lower artifact density/fewer positive shovel tests (6 of 20) in the front yard support this. The midden area was identified by the Munsell value of the soil and artifact concentration and is a unique occurrence on a historic site.

It is the opinion of MCRA that the historic component at 3SB542 is significant and eligible for nomination to the National Register of Historic Places. Based on the data recovered on the prehistoric component, it is the opinion of MCRA that it is not significant within the limits of the historic site.

3SB543

3SB543 is an historic and prehistoric site situated on the crest of Spreading Ridge about 250 meters west of a fire break that crosses the east end of the ridge. Surface features include foundation stones for a house, at least two outbuildings, a livestock pen and a stone retaining wall (Figure SB543-1).

The site lies in a ridge slope, erosional geomorphic zone. Smith describes the zone as follows:

Except in the Arkansas River and the major tributary floodplains, the major landforms of the Fort Chaffee area are ridge slopes and inter-ridge valleys. In terms of active geomorphic processes, the ridge slopes can be divided into two general classes: erosional or minimally erosional (primarily stable). Erosional ridge slopes are steep, and have a thin or non-existent residual soil developed on them. As previously mentioned, the erosional ridge slopes are usually underlain by shale or shaley sandstones which are less resistant to erosion than local sandstones. Narrow aprons of colluvium, material washed down from up-slope, usually occur at the base of the erosional ridge slopes but were too small to be mapped at the scale of 1:24,000. (Smith 1986:13 {working copy}).

The site is at an elevation of 520 ft. The ridge crest slopes to the east at a rate of less than 1% but the south slope is as steep as 30%. The north slope is more gradual, sloping at a rate of about 6%. The soil is classified as Enders-Mountainburg association, rolling (Cox et al. 1975:13, Sheet 12). Vegetation in the immediate vicinity is composed primarily of second growth species most notably dense stands of wisteria, honeysuckle, and sumac. The site proper has numerous large hardwoods growing on it, but east and west of it are large open areas covered mostly in grasses and sumac.

Previous Investigations

The site was recorded on February 24, 1988 during a survey conducted by Archeological Assessments, Inc. They describe the site as follows (AAS Site File):

This historic site contains foundation stones from four structures on the top of a ridge. There is also a line of stones, possibly an erosion-retaining dry laid wall, at the southeast edge of the ridge top. The wall is 250m long and poorly built. Stones on two of the structures are intact; the other two have been disturbed. The entire area is littered with surface metal and glass debris, including milk can tops, sheet roofing, auto body parts, bed frames, bottles, canning jars, etc. Brick on the primary structure is marked "Coffeeville" on the end. The site does not appear on the 1887 or 1903 plat maps, and materials appear to be recent. One subsurface test was conducted for a soil profile. The collection included all ceramics, as well as some glass. No metal items were collected. Extent of the site is 150 x 130m.

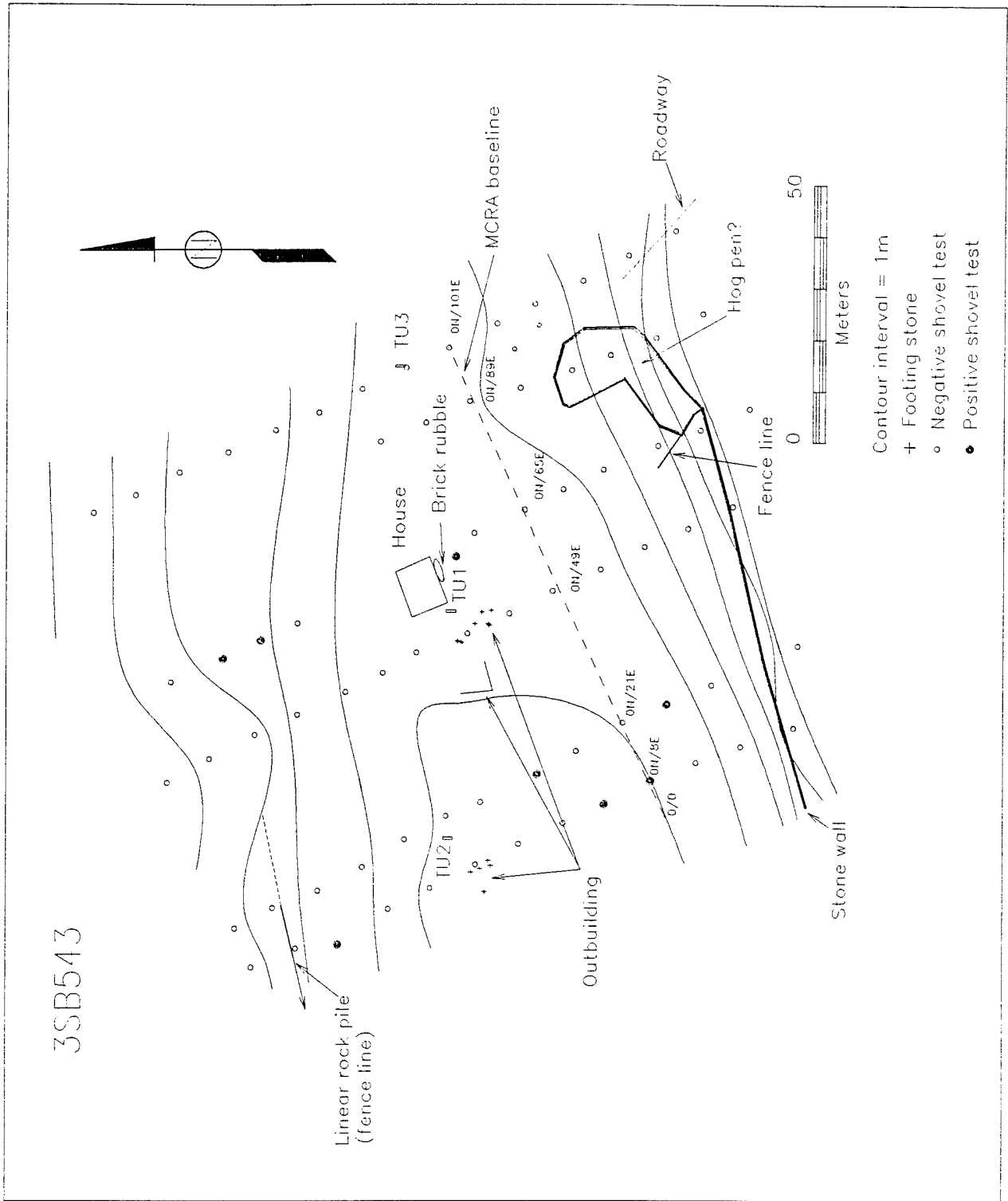


Figure SB543-1. Site Map Showing Surface Feature Locations and the MCRA work.

The site was revisited on 7 October 1992 to obtain a Magellan GPS location reading to tag the site with aluminum tree tags, and to draw a new sketch map of the area. The site has been moderately disturbed by general army activity. (AAS site files).

Archeological Assessments investigators recovered 25 historic artifacts from general surface contexts (AAS site files). Ceramic shards included 1 plain whiteware, 1 transfer printed whiteware and 7 stoneware. Glass shards included 4 clear, 1 whole clear bottle, 2 blue-green tinted and 7 yellow-tinted. Other items included an horseshoe and a leather shoe part.

Bennett noted that the site has suffered moderate disturbance from an unidentified source and recommended that test excavations be undertaken to assess the site's significance relative to National Register of Historic Places criteria.

MCRA Archival Investigations

The record of original land entries on file at Little Rock indicate that William M. Gwin and Samuel Davis bought the NW $\frac{1}{4}$ of section 14, T7N, R31W from the government in 1839. An original copy of the record at Special Collections, Mullins Library gives the date as August 10, 1836.

Around 1852, the land was acquired by William and Margaret Wood, who owned land in 11 counties. No record was found on Wood in the Federal Censuses of 1850 (Jackson et al. 1976), 1860 or 1870 (Jackson 1987), suggesting that the Woods did not reside on the property.

The Woods sold the land to William Fleming in 1868. The population Census of 1840 lists Fleming as a resident of Sugar Loaf Township in Crawford County. There is little information, but the family consisted of two males (one under 5 years and one 30-39 years) and three females (two under 5 years, and one 20-29 years). W. W. Fleming, along with Solomon F. Clark, Mitchell Sparks, Samuel L. Griffith and General W. L. Jones was a member of a committee in 1848 that eventually resulted in the formation of the Fort Smith and California Emigrating Company. They drafted a resolution urging the congress to consider the Arkansas, or 35th parallel, route to Santa Fe (Weaver 1978:56).

He is listed again in the Population Census of 1850 for the City of Fort Smith (Jackson et al. 1976). This indicates that the family was residing in the boundaries of the city and not in a rural area. At that time, Fleming was a 49 year old farmer who had come from Kentucky. His wife was Nancy, 38 years old. Their worth at the time was \$10,000. The household consisted of six persons in addition the William and his wife. Their children were: Anabella (age 10 years), William W. (age 8 years), Edward H. (age 6 years), James C. (age 3 years), and Charles (age 1 year). In addition, Nancy I. Featherston was living with the family. She was from Virginia. Fleming was not listed in the Federal Census of 1860 or the Federal Census or Agricultural Census of 1870.

The records in Little Rock indicate that Immanuel and Arrenia Bittle had some connection with the land. No listing was found for Immanuel Bittle in the census records for Sulphur Township, although a George Bittle was found in the Federal Census and Agricultural Census of 1870. It is unknown if Immanuel and George were related, or were the same person. Bittle sold the W $\frac{1}{2}$ of the E $\frac{1}{2}$ of the NW $\frac{1}{4}$ to James McAlister in 1869. No James McAlister was listed in the Federal Census of 1860 or the Federal Census of 1870 (Jackson 1987). The Agricultural Census of 1870 listed McAllister and Brother (Table SB453-1) by J. Crockett and G. Shelby. This indicates all of these persons were residing in the same general area. It is possible that this was James McAlister.

Table SB543-1. The McAllister and Brother farm on the Agricultural Census of 1870

Improved Land	40 acres
Woodland and Forest	50 acres
Value of Farm	\$1,100
Value of Farm Implements	\$60
Value of Livestock	\$425
Value of Livestock Slaughtered	\$115
Value of Total Farm Production	\$550
Horses	4
Milch Cows	3
Other Cattle	2
Swine	30
Butter Produced (lbs. 1869)	150
Indian Corn (bushels)	300
Cotton (bales)	1.5
Irish Potatoes (bushels)	25
Sweet Potatoes (bushels)	55
Hay (tons)	0.5

The Population Census of 1880 lists James McAlister as a 35 year old farmer. He was a native of Arkansas, but both of his parents were from Alabama. His wife, Mary, was 25 years old. She was also a native of Arkansas, but her parents were natives of Mississippi. The McAlisters had two children. These were Hannah (age 6 years) and John (age 1 year). Both had been born in Arkansas. This James McAlister was the same one listed in the Federal Census of 1900 for Rogers Township. He was born July 1844 in Arkansas. During the time of the census, he was 55 years old. James was still listed as a farmer. According to the later census, his father was from South Carolina, and his mother was from Alabama. At that time, James had been married for 7 years to Laura B. McAlister, who was 38 years old. She had been born in Missouri, but her father was from Ohio and her mother was from Indiana. They had four children at the house. These were Vina (age 11 years), James Ira (age 7 years), Guy Wesley (age 4 years), and Lizabeth O. (age 2 years). According to Fort Smith death records, James McAlister died March 1904.

The Agricultural Census of 1880 indicates that James McAlister was residing in Sulphur Township. Information on his farmstead is presented in Table SB453-2.

The records in Little Rock indicate that Daniel and Nancy Davis acquired the land, but no other record was found of that ownership. This could have been a mortgage or a lease for mineral rights. The Real Estate Tax record of 1881 shows that G. H. (or W.) Rogers owned the 40 acres. According to the Personal Property Tax record of 1811, Rogers had 2 horses (value \$30), 2 cows (value \$26), 2 mules (value \$140) and 6 hogs (value \$6). His personal property was worth \$322). The Rogers family was listed in the Population Census of 1880 for Sulphur Township. George Rogers was a 30 year old farmer. He was a native of Virginia. His father had come from Pennsylvania, and his mother was a native of Virginia. His wife, Margaret, was 26 years old. She was a native of Tennessee, as were both of her parents. They had one child, Ross (age 1 year), who

Table SB543-2. The James McAlister farm on the Agricultural Census of 1880

Improved Land	14 acres	
Woodland and Forest		26 acres
Value of Farm		\$300
Value of Farm Implements		\$10
Value of Livestock		\$75
Value of Total Farm Production		\$125
Horses		2
Milch cows		2
Calves Dropped		2
Cattle Sold Living		1
Butter Produced (lbs, 1879)		65
Swine		15
Poultry		12
Eggs Produced (1879)		100
Indian Corn (acres/bushels)		6/60
Cotton (acres/bales)		4/2
Sorghum	0.5 acres in crop, 52 gallons of molasses produced	
Cords of Wood Cut		12
Value of Forest Production		\$35

had been born in Arkansas. The census also showed that an orphan, Benjamin Tanner (age 10 years) was living with them. He had been born in Arkansas. The agricultural Census of 1880 gives an indication of the productivity of the Rogers farm for 1870-1880 although he did not own the land where 3SB543 is located until 1881 (Table SB543-3).

James S. Yarborough acquired this land about 1882. It appears that his family was living in Sulphur County since the 1870s or earlier. The Federal Population Census of 1870 lists William (age 48 years) and Sarah (age 26 years) Yarbrough (sic) and their children. One of the children was James (age 8 years). William was a native of North Carolina; Sarah was born in Tennessee; and James was also born in Tennessee. This is probably the James Yarborough that later occupied 3SB543.

The Personal Property Tax record of 1886 shows that Yarborough had no horses. He have 5 cows (value \$35), 1 mule (value \$35) and 11 hogs (value \$11). His total personal property was worth \$116. No entry was found on the Agricultural Census of 1880 for Yarborough. The 1890 Census (Frontier Researchers 1982) identified J. S. Yarborough in Sulphur Township. The Sebastian County Atlas of 1887 and that of 1903 show that Yarborough still owned the property. A structure is shown on the Sebastian County Atlas of 1887 map of T7N, R31W approximately where 3SB543 is located. The Real Estate Tax records of 1896 and 1903 list J. S. Yarborough as a landowner, but the Personal Property taxes do not include him for either year. The Sebastian County Atlas of 1903 continues to show a structure, but this is southeast of its 1887 location. It is probable that the locations of dwellings were approximated on maps with the primary objective being to indicate presence or absence instead of the exact location.

Table SB543-3. The George Rogers farm on the Agricultural Census of 1880

Improved Land	35 acres
Meadows	5 acres
Woodland and Forest	30 acres
Old Fields	50 acres
Value of Farm	\$750
Value of Implements	\$200
Value of Livestock	\$150
Value of Total Farm Production	\$250
Cost of Fence Building and repair (1879)	\$50
Total Wages Paid	\$50
Weeks Hired Laborers Worked	12
Grassland Mown	3 acres
Hay	6 acres
Horses	2
Mules/Asses	2
Milch Cows	3
Calves Dropped	2
Butter Produced (lbs 1879)	125
Swine	12
Poultry	30
Eggs Produced (1879)	100
Indian Corn (acres/bushels)	30/400
Cotton (acres/bales)	4/3
Sorghum (1879)	
1 acre in crop, 140 gallons of molasses produced	
Bees (lbs of honey)	20
Cords of Wood Cut	75
Value of Forest Production	\$135

James Yarborough sold to Fred McCord about 1909. The Personal Property Tax record of 1910 was examined for McCord, but he was not listed and probably did not reside at the site.

Fred McCord lost the property as the result of non-payment of taxes. It was acquired by R. S. Smith in 1929. The Personal Property Tax record of 1929 lists Smith as a resident of Barling, Rogers Township. At that time, he owned 2 horses (value \$30), 9 cows (value \$110), 2 mules (value \$50) and 1 automobile (value \$75). His total value of personal property was \$335. In 1942, the property was still owned by Robert S. Smith.

The General Highway and Transportation Map of Sebastian County, Arkansas (1936, revised 1941) was obtained from the Special Collections, Mullins Library and sites were plotted on a photocopy. This site was west of a road connecting Central City and Jenny Lind. This road is visible on the 1887 and 1903 atlas maps of the county. By this time, the area was identified as the Camp Chaffee Maneuver Area. No houses were shown

along any of the roadways on Camp Chaffee, although they were plotted along roads outside the camp. It was common to plot dwellings immediately along roads but to ignore those set back from roads. The dwelling at 3SB543 was probably too far from the main road to be plotted, but it had probably been removed by this time anyway.

MCRA Field Investigations

A preliminary visit was made on May 31, 1994 to relocate the site and assess the effort required to conduct an NRHP assessment. MCRA field investigations took place on July 11 -14, 1994. These included the excavation of 74 shovel tests, three 0.5 x 2 m test units and topographic mapping.

The shovel tests were laid out with a compass and tape along transects established at randomly selected origins along a baseline oriented at 70x magnetic. The transects began 8, 21, 49, 65, 89 and 101 meters east of the datum and extended a distance of 90 m to the north and 30 to 50 meters south. Shovel tests were excavated along them at 10 m in 10 cm levels until at least two consecutive culturally sterile levels were encountered. The soil was screened through ¼ inch mesh hardware cloth and the artifacts bagged by level. Notes were maintained on soil color and texture, as well as other comments deemed pertinent by the excavators. Only 11 of 74 tests yielded cultural material (Table SB543-4) arguably associated with the prehistoric or historic occupation of 3SB543. No cultural materials were recovered below a depth of 30 cm.

Three test units were excavated at the site. Test Unit 1 was placed between shovel tests 30N/8E and 30N/21E near one of the outbuildings. Test Unit 2 was placed immediately west of the house and Test Unit 3 was placed at the east end of the site in the vicinity of shovel test 20N/101E in an area where shovel testing had produced negative results.

Table 3SB543-4. Shovel Tests Artifacts.

DEPTH (CM)	0-10		0-14		0-20		10-20		SHOVEL TESTS	
	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	Ct.	Wt.
PREHISTORIC										
Flakes	3	1.6			1	0.3	3	1.9	7	3.8
HISTORIC										
Glass shards										
Aqua	2	2.9							2	2.9
Clear	1	4.3							1	4.3
Windowpane--clear	4	6.4					12	26.9	16	33.3
Nails	3	19.7							3	19.7
Staple	1	4.1							1	4.1
Battery core		51.6							0	51.6
Bullets	14	151.6	1	9.4			4	42.8	19	203.8
TOTAL	28	242.2	1	9.4	1	0.3	19	71.6	49	323.5
ARTIFACT DENSITY per cubic meter	156	1346	79	746	56	17	235	884	168	1109

Test Unit 1 (located 43.28 m north and 42.11 m east of the site datum) was excavated in 10 cm levels to a maximum depth of 40 cm and a posthole test was excavated an additional 36 cm to 76 cm. All soil was screened through ¼ inch mesh hardware cloth and notes were maintained on soil color and texture, artifact content, the presence or absence of features, disturbances and other information deemed pertinent by the excavator. Three strata were identified during excavation (Figure SB543-2). Stratum 1 was roughly 10 cm thick and consisted of a dark brown (10YR3/3) silt containing 17 (74%) of the 23 artifacts recovered from the unit. Below this, Stratum 2 consisted of about 20 cm of dark yellowish brown (7.5YR4/4) silt that yielded the remaining 6 artifacts. Stratum 3 was a culturally sterile red (2.5YR4/6) silty clay. Stratum 4 was a strong brown (7.5YR5/6) clayey silt with reddish yellow (7.5YR6/8) and red (10R4/6) mottling to the base of the posthole test. Cultural materials (Table SB543-5) were recovered to a depth of 20 cm.

Test Unit 2 (located 43.82 m north and 4.84 m west of the site datum) was excavated in the same manner as Test Unit 1 to a depth of 50 cm. The unit was stepped down to 0.5 m x 1 m in Level 5 because of the stony soil and an absence of artifacts below 30 cm. All soil was screened through ¼ inch mesh hardware cloth and notes maintained on soil color and texture, artifact content, the presence or absence of features, disturbances and other information deemed pertinent by the excavator. Three strata were identified during excavation (Figure SB543-3). Stratum 1 was 10 - 14 cm thick and consisted of a dark yellowish brown (10YR3/4) silt containing 10 (48%) of the 21 artifacts recovered. Stratum 2 was a 6 - 12 cm thick strong brown (7.5YR5/6) silt containing 6 (28%) artifacts. Below this, Stratum 3 consisted of about 20 - 30 cm of yellowish red (5YR5/8) stony silt containing the remaining 5 artifacts. No cultural features or post-depositional disturbances were noted. Cultural materials (Table SB543-5) were recovered to a depth of 30 cm and, excluding bullets, 76% were no deeper than 20 cm.

Test Unit 3 (located 54.13 m north and 91.81 m east of the site datum) was excavated in the same manner as Test Units 1 and 2 to a depth of 58 cm. The unit was stepped down to 0.5 m x 1 m in Level 4 because of an absence of artifacts below 30 cm. All soil was screened through ¼ inch mesh hardware cloth and notes maintained on soil color and texture, artifact content, the presence or absence of features, disturbances and other information deemed pertinent by the excavator. Four strata were identified during excavation (Figure SB543-4). Stratum 1 was 6 - 9 cm thick and consisted of a yellowish brown (10YR5/4) silt containing 8 (44%) of 18 artifacts recovered from the unit. Stratum 2 was a 19 - 24 cm thick dark yellowish brown (10YR4/4) silt with yellowish brown (10YR5/6) mottling that exhibited a slight change in texture in the bottom 10 - 15 cm. It contained 10 (56%) of the 18 artifacts recovered from the unit. Below this, Stratum 3 consisted of about 8 - 13 cm of culturally sterile yellowish brown (10YR5/6) silt. Stratum 4 consisted of a culturally sterile strong brown (7.5YR5/8) silt. No cultural features or post-depositional disturbances were noted. Cultural materials (Table SB543-5) were recovered to a depth of 30 cm.

Table 3S8543-5. Test Units 1, 2, & 3 Artifacts.

UNIT DEPTH (CM)	TU 1 0-10		TU 1 10-20		TU 2 0-10		TU 2 10-20		TU 2 20-30		TU 3 0-10		TU 3 10-20		TU 3 20-30		TEST UNITS TOTAL	
	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.
PREHISTORIC																		
Biface							1	122.6									1	122.6
Projectile points-darts	1	2.4									1	1.3					2	3.7
Flakes	3	4.4	1	1.1	1	2.0	2	2.2	5	18.2	4	2.1	2	8.5	6	6.1	24	44.6
Retouched/utilized											1	7.5					1	7.5
Decortication					1	5.1											1	5.1
Decortication	1	2.0	1	1.9										1	0.9		3	4.8
Soft hammer lip			1	0.5													1	0.5
Unmodified rock																		
Hematite												7.7					0	7.7
Sandstone								3.5							8.0		0	11.5
HISTORIC																		
Stoneware											1	0.3					1	0.3
Glass shards																		
Clear	1	0.4			5	4.4	2	2.0			1	0.4					9	7.2
Modern color	1	0.8															1	0.8
Insulator--modern color							1	15.1									1	15.1
Windowpane--aqua			2	1.1													2	1.1
Nails	6	19.0	2	5.3	2	11.5											10	35.8
Bolt					1	50.9											1	50.9
Staple													1	4.2			1	4.2
Bullets	20	150.5	4	36.7	11	79.5					14	100.0	2	12.5			51	379.2
Miscellaneous																		
Metal		1.1															0	1.1
Clay tile		5.6															0	5.6
FAUNAL--Rodent																		
Bone	1	1.1															1	1.1
Tooth	1	0.1															1	0.1
TOTAL	35	187.4	11	46.6	21	153.4	6	145.4	5	18.2	22	119.3	5	25.2	7	15.0	112	710.5
ARTIFACT DENSITY per cubic meter	350	1874	110	466	210	1534	60	1454	50	182	220	1193	50	252	70	150	140	888

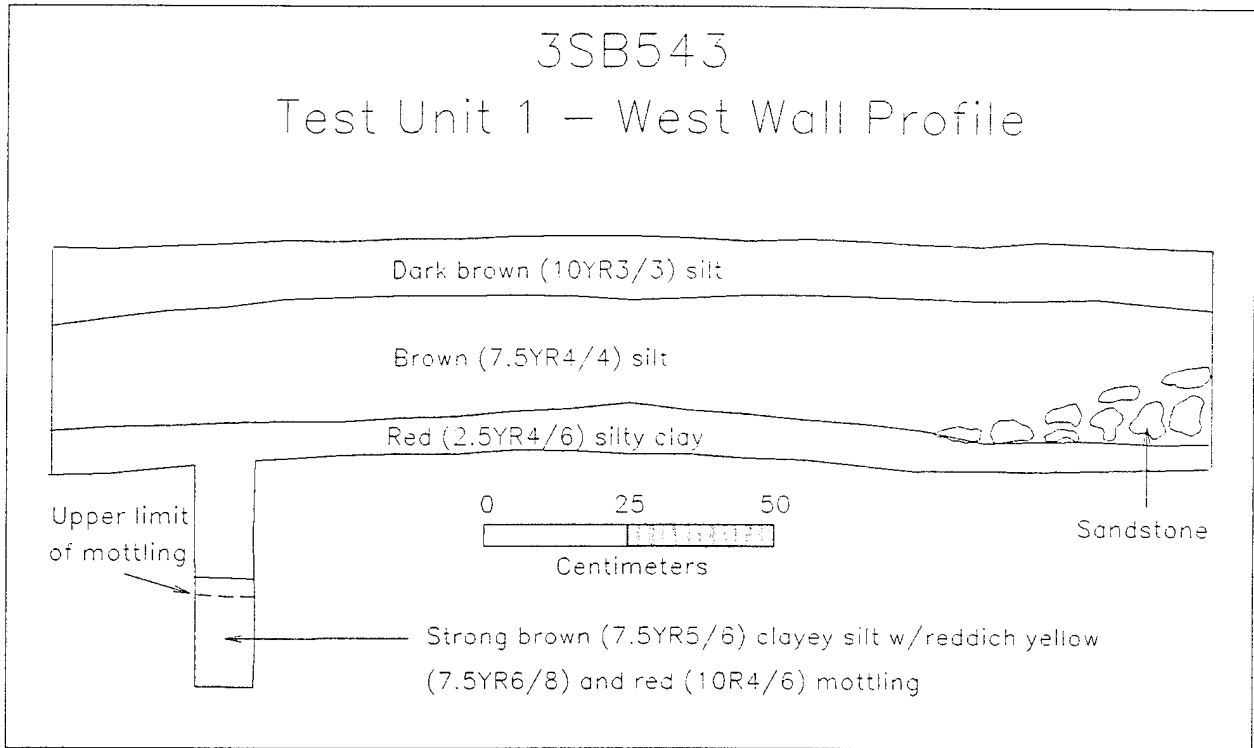


Figure SB543-2. Profile drawing of the west wall of Test Unit 1 at 3SB543.

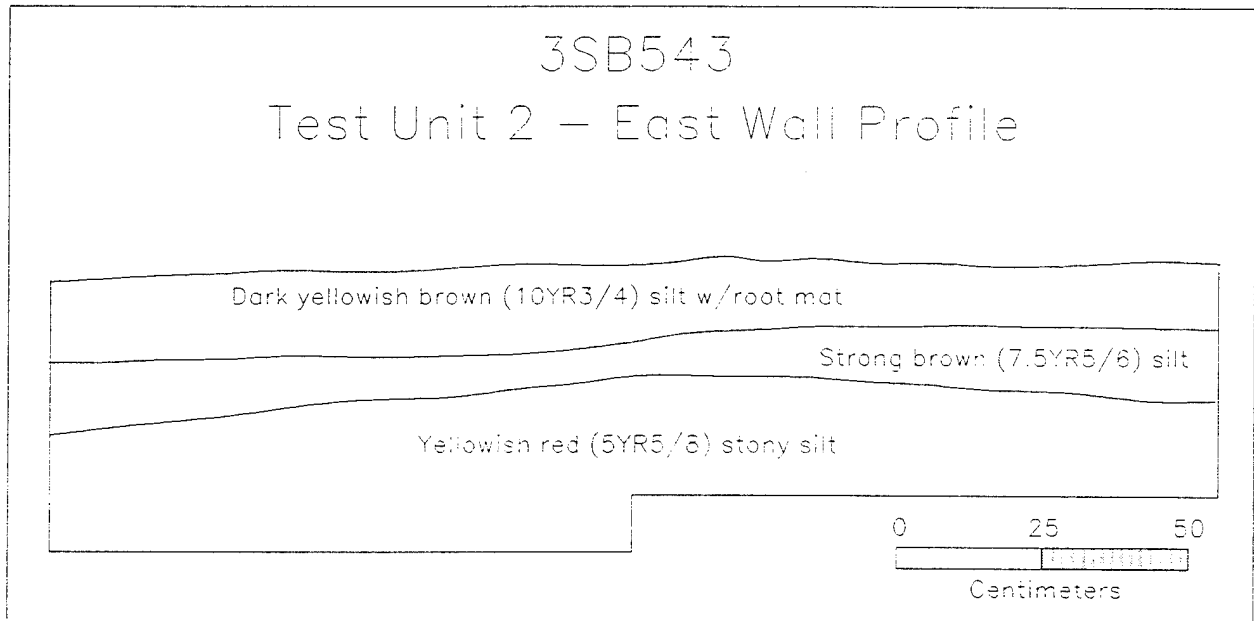


Figure SB543-3. Profile drawing of the west wall of Test Unit 2 at 3SB543.

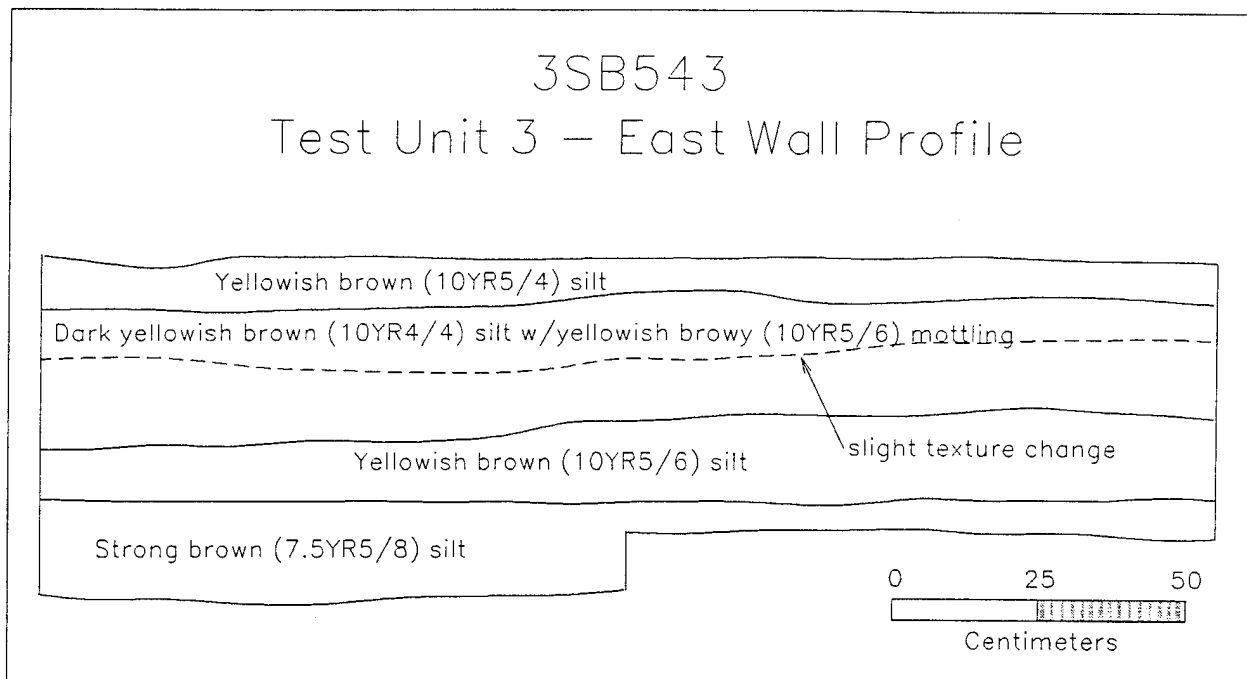


Figure SB543-4. Profile drawing of the west wall of Test Unit 3 at 3SB543

Results of the MCRA Work

Horizontal and Vertical Extent. Shovel testing was notably unsuccessful in defining the limits of the site, since only four near the location of the house produced historic materials (Appendices 1 and 3, Figure SB543-5). The maximum site dimensions, as defined by visible surface features, are about 90 m north-south x 100 m east-west, excluding the rock wall on the south slope of the ridge and a rock alignment on the north slope. Both of these probably represent old fence lines. While these are undeniably associated with the house and out buildings, we have not included them within the site boundaries because this has not been done with any of the other sites and would impose a misleading size on the site. The northern limit is marked by Test Unit 2 and the remains of the house foundation. The western limit is marked by footing stones for an outbuilding. The southern limit is defined by the stone wall and enclosure. The eastern limit is marked by Test Unit 3, which produced only three historic artifacts and suggests that the site does not extend much further east. Historic materials were not recovered below a depth of 20 cm.

Defining the limits of the prehistoric component is much more difficult, due to the sparse artifact density and poor surface visibility. Seven shovel tests and all three test units yielded prehistoric cultural materials and encompass an area 80 m north-south by 100 m east-west. Prehistoric materials were recovered to only 20 cm in the shovel tests and Test Unit 1. Test units 2 and 3 yielded prehistoric materials to 30 cm.

Cultural Components Identified. Documentary research suggests a period of occupation between about 1869, when James McAlister acquired the land, and 1909 when Fred McCord bought it. It is possible that the house was occupied by people other than the owner after that date but the records do not contain such information. The last Owner, Robert Smith, lived in Barling but may have farmed the land and rented the house

to tenant farmers. Artifacts associated with the historic component are of little help, since only 52 (of 176) are arguably associated with the site. These are dominated by relatively recent materials such as shards of clear bottle glass, clear window glass (post 1916) and wire nails (post 1900). These materials, however, are not inconsistent with a late nineteenth to early twentieth century occupation.

The prehistoric artifacts are composed of primarily nondescript lithics that provide no information useful in assessing the approximate time of occupation. An indeterminate prehistoric assignment is all that the existing data will support.

Site Function. The historic component is an obvious farmstead, probably dating to the twentieth century. The artifact assemblage, along with its placement in a long-time rural setting support such an assessment. Historic surface features include the remains of a house and at least three outbuildings, a section of roadway, several low linear alignments of sandstone that probably mark the locations of fences and an enclosure that appears to represent a pigpen, judging by the presence of 6" mesh hogwire that was reinforced at its base with large field stones.

The function of the prehistoric component is not known. The data available at the site do not provide a basis upon which to draw a firm conclusion.

Significance Assessment

3SB543 is not significant and is not eligible for inclusion in the National Register of Historic Places. The documentary research shows that no individuals important in local history resided at the site and no important historic events occurred there. A structure is shown in the vicinity of the site on the 1887 and 1903 county maps and the cultural remains recovered are consistent with an occupation of that date. All evidence collected to date argues that 3SB543 is one of many turn-of-the-century farmsteads in the area. The prehistoric component yielded only sparse non-diagnostic remains and does not appear to exhibit research potential that would make it eligible for inclusion in the National Register.

The integrity of the deposits at 3SB543 is only fair. The historic component exhibits several features that exhibit varying degrees of disturbance. It is still possible to delineate the locations of structures and to reconstruct at least parts of a yardscape but the deposits do not hold the potential to add to our knowledge of turn-of-the-century lifeways (Davis 1982:OP54).

The prehistoric component does not exhibit obvious evidence of disturbance, but the deposits are sparse and shallow, making them easily damaged. No direct evidence of in situ artifacts or intact deposits was recovered during our work. In addition, the preservation of organic remains is poor.

3SB544

3SB544 is an historic site situated at the base and on the south side of an east/west trending ridge. The site is divided by a firelane/road that parallels the base of the slope. Surface features identified by MCRA include three definite structures and one possible badly damage structure south of the road/firelane. Iris, a stone-lined well, and an old north/south road are also on this side of the firelane. The north side is dominated by a dispersed scatter of large historic artifacts, such as buckets and pans. Yucca and five large trees were noted on the north side (Figure 3SB544-1).

AAI places 3SB544 at the contact of two geomorphic features, interr ridge valley and ridge slope, erosional (AAS Site File). Smith (1986: 14 {working copy}) describes the interr ridge valley in the following manner:

Between the ridges lie broad to narrow valleys formed by either structural deformation or erosional processes. These inter-ridge valleys, as they are identified in this report, are often but not always occupied by local creeks that have developed narrow thin floodplains of their own. The inter-ridge valleys are the loci or (sic) deposition, especially when adjacent to steep ridges (erosional). However, rates of sediment deposition in the inter-ridge valleys are probably low throughout Fort Chaffee for the most part due to the low propensity of local geologic formations to provide readily available sediment for erosion and transportation to the valley floor.

Smith (1986: 13 [working draft]) describes the ridge slope, erosional in the following manner.

Except in the Arkansas River and the major tributary floodplains, the major landforms of the Fort Chaffee area are ridge slopes and inter-ridge valleys. In terms of active geomorphic processes, the ridge slopes can be divided into two general classes: erosional and minimally erosional (primarily stable). Erosional slopes are steep and have a thin or non-existent residual soil developed on them. As previously mentioned, the erosional ridge slopes are usually underlain by shale or shaley sandstones which are less resistant to erosion than local sandstones. Narrow aprons of colluvium, material washed down from up-slope, usually occur at the base of the erosional ridge slopes but were too (sic) small to be mapped at the scale of 1:24,000.

Smith (n.d.: 20) states ridge slope, erosional and interr ridge valleys comprise 37.84% and 32.11% of Fort Chaffee.

3SB544 is on Leadvale silt loam (Cox et al. 1975: sheet 13, 14-15). This soil is found on the toe slopes of hills and old stream terraces. It traditionally has a slope of 3-8% and is moderately well drained. Leadvale silt loam supports mixed hardwoods and pine.

Previous Investigations

3SB544 was first documented by AAI on 24 February 1989. At that time conditions were poor, with surface visibility being between 0-25% due to leaf cover and grass. The site had been moderately impacted by natural causes, land leveling, and military activities (AAS Site File). AAI (AAS Site File) describes 3SB544 in the following manner.

This site contains the intact footing stones of two structures, one with an intact fireplace base. The other structure appears to be a barn. There is also an intact stone-lined well on the site. Firelane construction and contour

terracing have damaged the structures, but the area in between them could have intact deposits. Nine shovel tests were excavated to a depth of 20cm, one of them positive. Artifacts collected on the site were whitewares and glass, as well as a chert flake. Extent of the site was defined at 70X50m.

The initial map drawn by AAI investigators notes the presence of jonquils on both sides of the firelane/road along the west side of the site. The lone positive shovel test is on the north side of the firelane/road and represents the only shovel test excavated in this area. The remaining shovel tests are around the structures south of the firelane/road. Two old roads are noted on the initial sketch map drawn by AAI. The first is along the west side of the site. The second is immediately south of the firelane/road and north of the structures. MCRA believes the second road represents bulldozer or land moving activity (See MCRA Field Investigations).

Historic ceramics collected by AAI during this phase of the project included four pieces of whiteware with a floral motif, three pieces of whiteware, two pieces of whiteware with a scalloped rim, a single piece of stoneware, and a piece of porcelain believed to part of an electrical insulator. Glass artifacts recovered included four pieces of clear glass, two pieces of light green glass with mold marks, one piece of milk glass, amethyst, and blue-green glass. Metal artifacts recovered included a piece of sheet metal, two wire nails, and a modern bullet.

Based on the information collected during this phase of the project AAI recommended additional investigations to evaluate the eligibility of 3SB544 for nomination to the National Register of Historic Places (AAS Site File).

3SB544 was revisited by AAI personnel. During this visit a road not corresponding to any noted during the initial visit was placed on the sketch map. This road is south of the structure. During this revisit they stated the following (AAS Site File).

The site was revisited on 6 October 1992 to obtain a Magellan GPS location reading, to tag the site with aluminum tree tags, and to draw a new sketch map of the area. At the time of the revisit, the site did not appear to have been disturbed since it was originally recorded.

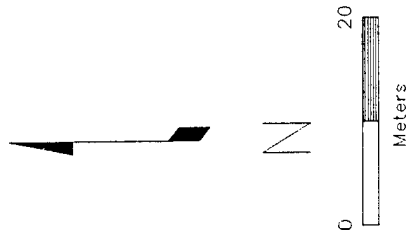
MCRA Archival Investigations

The site is west of 3SB543, and on property owned by a different family. During 1887, this site was in Sulphur Township. This dwelling was back from the main road between Randolph and Central, but the map in the Sebastian County Atlas of 1887 and 1903 show a road running to the west of the property which ran south giving access to Randolph. By the 1930s, Randolph was renamed Jenny Lind. This local road was not shown on the General Highway and Transportation Map of Sebastian County, Arkansas (1936, revised 1941), but it is apparent that no local roads were drafted on this map.

The original record of Arkansas land patents on file at Special Collections, Mullins Library shows that William M. Gwin and Samuel Davis acquired this property on August 10, 1836. They never occupied the land, but speculated on it.

In 1852, the property was deeded to William and Margaret Wood. They owned land in 11 counties. No record of Wood was found in the Federal census of 1850 (Jackson et al. 1976), 1860, or 1870 (Jackson 1987) for Crawford or Sebastian County. It is probable that they, like Gwin and Davis, speculated from a distance.

3SB544



- Positive shovel test
- Negative shovel test
- ◐ Unexcavated shovel test
- B - Bucket
- JB - Jonquil bulbs
- R - Rose
- RC - Rusted can
- RP - Rock pile
- ST - Sheet tin
- WT - Wash tub
- Y - Yucca
- ▨ Bulldozed dirt piles
- ⊙ Large tree

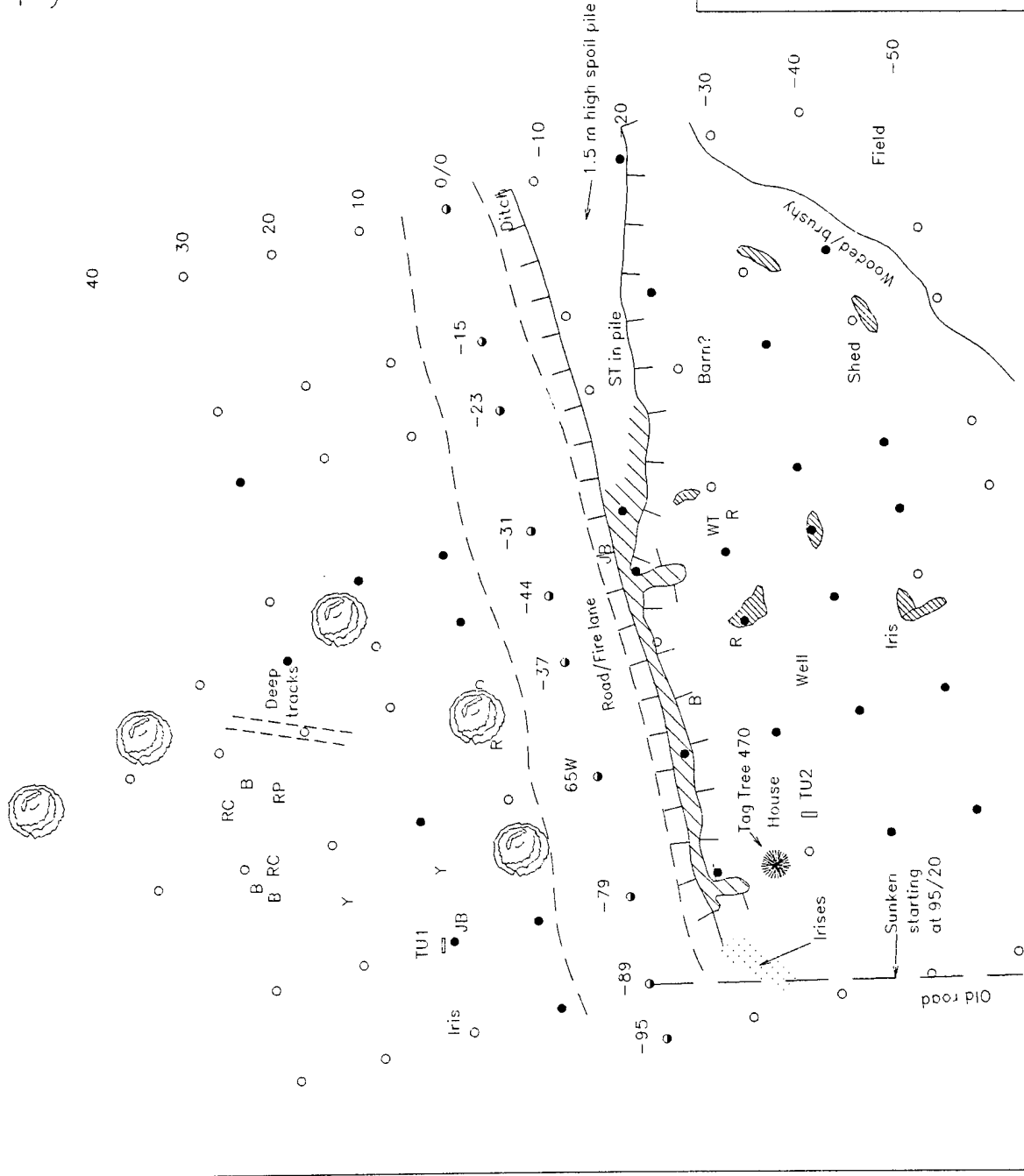


Figure 3SB544-1. 3SB544 Site Map.

In 1868, the property was deeded by Wood to William Fleming. According to the Federal Census of 1850, there was a William W. Fleming living in Fort Smith in Crawford County (Jackson et al. 1976). He was not present in the Federal Population Census of 1860 or the one of 1870 (Jackson 1987). Fleming was not included on the Agricultural Census of 1870 for Sulphur Township. There was a record of a W. W. Fleming as a member of a committee formed in 1848 regarding the Gold Rush. (See site 3SB566.) The available evidence points to the probability that Fleming never occupied the land. He bought it for speculation.

Fleming deeded the land to Immanuel Brittle. There was no record of Brittle in the Federal Population Census of 1850 (Jackson et al. 1976), 1860, or 1870 (Jackson 1987). George Bittle was found listed in the Agricultural Census of 1870 and on the Federal Population Census of 1870 for Sulphur Township. There was no record of an Immanuel Bittle. Brittle had this land only shortly, since he sold the land to John McAlister in 1869. No record was found of John McAlister in the Federal Population Census of 1850 (Jackson et al. 1976) or the one of 1860. He was found on the Federal Population Census of 1870 for Sulphur Township. John McAlister was a 35 year old farmer from Alabama. His real estate was worth \$800, and his personal property was worth \$250. His wife was Evaline, who was 34 years, and also a native of Alabama. They had six children. Their names, ages, and places of birth follow. They are: Mary (age 13 years, Arkansas); Nancy (age 8 years, Colorado); William (age 6 years, Colorado); James (age 5 years, Colorado); Joseph (age 4 years, Missouri); and Alonzo (age 7 months, Arkansas). This record shows that the McAlisters were in Arkansas ca. 1857, but then headed west to Colorado. They may have gone with the Gold Rush. During ca. 1862-1865 they were in Colorado, but following the Civil War they headed to Missouri. It is unknown how long the family stayed there, but ca. 1869 (or a couple of years earlier) the McAlisters returned to Arkansas.

No listing was found in the Agricultural Census of 1870 for John McAlister. Listings included Issac McAlister and McAlister and Brother. It was proposed in the discussion of site 3SB543 that James McAlister was one of the brothers in the McAlister and Brother entry. It is probable that John was the other brother. These lands are adjoining. The productivity of their farm as shown on the Agricultural Census of 1870 is included as Table 3SB543-1.

McAlister sold the land to Mrs. L. B. Morley in 1875. No entry was observed for Morley in the Federal Population Census of 1870 or the Agricultural Census of 1870 for Sulphur Township. A listing was found for Lydia Morley in the Agricultural Census of 1880 (Table 544-1). Mrs. Lydia Morley occupied the land, probably living in the John McAlister house that was built ca. 1869-1870. A record was also found of Morley in the Federal Population Census of 1880 for Sulphur Township. Lydia Morley was 41 years old, and a native of Tennessee. Her father was from South Carolina, and her mother was a native of Tennessee. Lydia was shown as "Keeping House" in the census record. She had four children at home. These children, with their ages and places of birth, were Ruth (age 16 years, Arkansas); Mary (age 14 years, Texas); Samuel (age 12 years, Texas); and Catherine (age 6 years, Arkansas). Their father was from England. The household also included Narcissa James (age 52 years), Lydia's sister, and William Tyler (age 22 years). Tyler was listed as a boarder and farmer from Georgia, as were his parents. Management of the farm was probably a joint effort of Lydia, Narcissa, and William, in addition to the older children.

The earliest tax records available at the Sebastian County Courthouse in Greenwood, Arkansas date to 1881. The Real Estate Tax record of 1881 shows that Morley owned 80 acres, valued at \$400. The Personal Property Tax record of that year indicated that she owned 1 horse (value \$40); 7 cows (value \$80); and 7 hogs (value \$7). She had other

personal property valued at \$50. Her name also appears in the Personal Property Tax record of 1886. She owned 4 horses (value \$150) and 6 cows (value \$48), but no hogs were listed. By 1896, there was no listing in the Personal Property Tax record for Lydia Morley, but she was still listed in the Real Estate Tax record. In 1903, Mary N. Morley was listed as landowner. She does not appear in the Personal Property Tax records of 1903 or 1910.

It is probable that the structure shown on the maps in the Sebastian County Atlas of 1887 and 1903 is actually the John McAlister and Lydia Morley house. Although it is shown in slightly different locations on the property on the maps of 1887 and 1903, the objective of the cartographer was to approximate the location and indicate presence or absence of structures. It is probable that this structure was still standing until sometime after 1903.

Table 3SB544-1. The Lydia Morley farm on the Agricultural Census of 1880.

Improved Land	40 acres	
Unimproved Land	40 acres	
Value of Farm		\$1000
Value of Farm Implements	\$50	
Value of Livestock		\$100
Cost of Repairs and Building (1879)	\$18	
Value of Total Farm Production	\$200	
Horses		2
Milch Cows	4	
Other Cattle	5	
Calves Dropped	4	
Butter Produced (lbs, 1879)		85
Swine		15
Poultry		30
Eggs Produced	130	
Indian corn (acres/bushels)		11/300
Oats (acres/bushels)		10/85
Cotton (acres/bales)		6/4
Apples (acres/trees/bushels)		1/75/12
Peaches		.5/50/100
Total Value of Orchard Production	\$50	
Cords of Wood Cut		6
Value of Forest Production	\$12	

The General Highway and Transportation Map of Sebastian County, Arkansas (1936, revised 1941) was obtained from Special Collections, Mullins Library. Sites were plotted on a photocopy. As noted in the introduction to this section, this dwelling was along a secondary road that entered a better road giving access to Randolph (later Jenny Lind). By the 1940s, this area was identified as the Camp Chaffee Maneuver Area. No houses were shown along any of the roadways on Camp Chaffee, although they were plotted along roads outside of the camp. It was common to plot houses immediately along roads but to

ignore those set back from roadways. The dwelling at 3SB544 was probably too far from a primary road to be plotted, but the structure had probably been removed by this time anyway.

MCRA Field Investigations

A preliminary visit was made to 3SB544 by MCRA on 31 May 1994. At that time the site's condition was recorded and the surface features identified by AAI were recorded.

Field investigations were conducted by MCRA over a two day period, from 24-25 October 1994. Field conditions varied across the site depending on which side of the firelane/road one was on. The site area on the south side of the firelane/road was overgrown with honeysuckle, briars, small cedar, and small trees. The ground surface was uneven and, at first, it was difficult to determine the full extent of the disturbance due to the ground cover. Reasons for the bulldozing were not evident. A linear mound of dirt had been bulldozed along the north side of the southern half of the site. This process had impacted the structure in this area with pieces of twisted tin roofing from a structure(s), as well as small trees mixed in the dirt. The low area caused by this work was marked as a road on the initial AAI site map. Numerous piles of dirt were mapped across the site (3SB544-1). Surface visibility was 0% on the southern portion of the site.

The northern portion of the site is in open woodlands with little to no understory present. The by-product of this condition was 0% surface visibility. Only large historic artifacts were visible on the surface.

MCRA's investigations began with a complete surface inspection of the site and surrounding area. All instances of historic activity were flagged. Surface visibility was limited to the firelane/road which served as a guide when delineating the full extent of the site limits on an east/west axis.

A number of surface features were identified. Three definite structures were identified on the southern portion of the site. Two of these represent the house and barn recorded by AAI. The third is a small structure identified by patterned sandstone. A potential fourth structure was recorded. A scatter of sandstone rock was recorded in an area removed from the other structures and appeared to have been bulldozed. The perceived bulldozing may have disturbed the structure or the sandstone may represent foundation remnants from one of the identified structures. Iris, roses, and jonquils bulbs were eroding from the ditch bank. A single north/south old road was identified along the southwest quadrant of the site. It is sunken beginning at shovel test 95/20. The iris patch marks its intersection with the firelane/road. A stone-lined well represents the final surface feature identified by MCRA on the southern portion of the site.

The northern portion of the site was essentially void of any surface features. Given the scatter of buckets and cans in the northwest quadrant MCRA initially believed some evidence of a structure would be found. Five large trees, oriented north/south through the central portion of this area are present. Yucca plants were recorded in two areas.

The east/west baseline for the planned shovel tests was aligned with the firelane/road. Shovel tests were excavated in both a northerly and southerly direction. In most instances, the shovel tests on the baseline were not excavated. The distance between the shovel tests on the transect was maintained at 10 meters. Transect positions included 0, 15, 23, 37, 44, 52, 65, 79, 89, and 95. The number of shovel tests in each transect varied, depending on what was recovered and the presence of historic activity or artifacts in the vicinity. Seventy-four shovel tests ranging in depth from nine to 30 cmbs were excavated. Of this total 21 (39%) were positive.

Two test units were excavated as part of MCRA's investigations. Test Unit 1 is on the north side of the firelane/road. It was positioned near a surface scatter of historic artifacts and yucca plants. Test Unit 1 was excavated to 30 cmbs with four strata identified in the unit profile (Figure 3SB544-2). Stratum 1 extended to 12 cmbs. It was silt with a Munsell value of 10YR4/3 (dark brown). Jonquil bulbs were recovered from this level. Stratum 2 ranged from 12 to 18 cmbs. It had a Munsell value of 10YR5/4 (yellowish brown) and was silt. Stratum 3 ranged from 18 to 24 cmbs. It was silt with a Munsell value of 10YR6/8 (brownish yellow). Small concretions were present in this stratum. Stratum 4 extended from 24 cm to the base of the test Unit. It was silt with a Munsell value of 7.5YR6/8 (reddish yellow). Again, concretions were recorded.

Test Unit 2 was excavated south of the firelane/road near the house. This unit was excavated to 30 cmbs with three strata identified in the profile (Figure 3SB544-3). Stratum 1 extended to 5 cm bs. It was essentially the humus/root layer and had a Munsell value of 10YR3/2 (dark grayish brown). The second stratum ranged from 5 to 24 cmbs. It was silt with a Munsell value of 10YR4/6 (dark yellowish brown). The final stratum ranged from 24 to 30 cmbs. It was silt with a Munsell value of 7.5YR6/8 (reddish yellow) mottled with 7.5YR4/6 (strong brown).

Results of the MCRA Work

Horizontal and Vertical Extent The horizontal extent of 3SB544 was established using a combination of surface indicators and shovel test results. Surface artifacts and flowers were used to identify the north and west boundaries. Iris were identified along the sunken road where it intersects with the modern firelane/modern access. The north line was based on a scatter of rusted buckets, cans, and a rock pile uncharacteristic of the area. The east and south sides of the site were based on shovel test results.

The site size was established at 85 m east/west by 85 m north/south. If the single positive shovel test (0/20) in the eastern most transect is dropped, the east/west dimension drops to 70 m (Figure 3SB544-1)

The vertical limits were established during the excavation of two test units. Test Unit 1 was on the north side of the firelane/road amongst a surface concentration of artifacts. The unit was excavated to 30 cmbs with material recovered in the 10-20 cm level. Test Unit 2 was on the south side of the firelane/road in the back or side yard. Again, the unit was excavated to 30 cmbs with material stopping in the 10-20 cm level (Tables 3SB544-2).

Three structures and a probable fourth were identified during the investigations conducted by MCRA. All were on the south side of the firelane/road and had varying degrees of integrity.

The house is in the western portion of the site within 15 meters of the sunken road. Surface material around the house included sheet tin and sections of stove pipe. The long axis of the house is oriented east/west with the chimney at the west end. Identification of which side the front door was on was not possible. Two possible interior foundation lines were identified. The house remains measured 11.75 m east/west by 5 m north/south (Figure 3SB544-4).

The second structure is in the eastern portion of the site near shovel test 23/20 and was identified as a possible barn by AAI. A linear east/west area immediately north of the structure had been bulldozed. The east/west disturbance was identified as a possible old road on the AAI sketch map. Pieces of sheet tin (from the second structure?) were in the

bulldozed dirt pile. Surface artifacts around this structure included sheet tin and a wash tub. The foundation consists of four north/south lines of stacked rock and rock concentrations. Those foundation stones at the north end are detached from the main foundation and may represent supports for an overhang. The main part of the structure measures 5 m north/south by 8.15 m east/west. Including the area identified as a possible overhang the dimensions increase to 8 m north/south by 8.15 m east/west (Figure 3SB544-5).

The third structure is in the southeast corner of the site near shovel test 23/40. It is situated on an elevated area with an immediate drop in elevation level along the east and south sides. Higher ground surface is to the north. Sheet tin is on the ground on the north side. Foundation stones along the east and west sides and part of the north side are on edge. Rocks at the southwest and southeast corners are flat. The foundation measured 3.5 m north/south by 4 m east/west (Figure 3SB544-6).

A fourth probable structure is between the house and barn at shovel test 44/20. High level of bulldozer activity is evident in the immediate area. Sheet tin is in the dirt piles created by this disturbance. The scattered sandstone is believed to have represented a small structure on the order of the third structure. Orientation and size could not be determined due to past disturbance (Figure 3SB544-7).

Cultural Components Identified Archival research on this site indicates the associated land was involved in speculation until at least the late 1860's. The house is believed to have been built in 1869-1870 and is present on the 1887 and 1903 Sebastian County Atlas map. The 1880 agricultural census for 3SB544 (Table 3SB544-1) indicates a working orchard was present with 12 bushels of apples and 100 bushels of peaches harvested.

Cultural material recovered during the archeological investigations generally support the timeframe identified during the archival research. Domestic artifacts that have their origin prior to the 1890's are restricted to whiteware and stoneware. These artifacts, however, extend into the twentieth century with some dating to the present. Artifacts recovered from the site point to a primary occupation around the turn of century. These include amethyst/aqua glass and windowpane (1880-1916), nonstandard threads on an aqua jar (1903-1916), square (pre-1900) and wire (post-1900) nails, clear and modern colored glass (post 1916), decalcamania (introduced 1890-present), rubber (military?), and a plastic comb (military?) (Tables 3SB544-2).

Table 3SB544-2. Shovel Test and Test Unit Artifacts.

UNIT Depth (cm)	SHOVEL TESTS 0-20		TEST UNIT 1 Surface		TEST UNIT 1 0-10		TEST UNIT 1 10-20		TEST UNIT 2 0-10		TEST UNIT 2 10-20		SITE TOTAL	
	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.
FAUNAL--Bone	1	0.1											1	0.1
LITHICS														
Flakes	3	0.3									1	1.3	4	1.6
Retouched/utilized									1	3.6	1	4.1	2	7.7
Shatter	2	0.6											2	0.6
Unmodified								3.1					0	3.1
Limestone								24.8					0	24.8
HISTORIC														
Button, metal							2	3.4					2	3.4
Comb, plastic					1	0.6							1	0.6
Medicine bottle/vial, clear					1	30.3	1	0.7					2	31.0
Jars, aqua	2	103.1	1	24.5									3	127.6
Bottles--clear			3	98.5									3	98.5
Amber, tooled										1	9.1		1	9.1
Modern color			1	207.6									1	207.6
Liner--milk	1	44.9											1	44.9
Metal					1	1.0							1	1.0
Lamp glass--clear					4	2.9							4	2.9
Amethyst					1	14.7							1	14.7
Glass shards														
Amber					2	8.9							2	8.9
Amethyst	6	20.0			4	27.8	1	3.4					11	51.2
Aqua	7	24.0								4	10.0		11	34.0
Black	1	3.3											1	3.3
Clear	9	25.0	1	0.6	14	11.5	10	40.3	2	3.9	7	18.2	43	99.5
Milk					1	1.8							1	1.8
Modern color	11	30.4			14	22.6	1	0.9					26	53.9
Tableware--whiteware	3	26.7			3	10.0	1	4.0	1	3.2	2	9.7	10	53.6
Porcelain							1	0.9					1	0.9
Decalcamania							1	1.6	1	3.3			2	4.9
Stoneware, slip	3	8.7											3	8.7
Crock	1	154.8											1	154.8
Annular							1	6.5					1	6.5
Structural														
Windowpane--clear	2	2.9					3	22.1	1	0.9			6	25.9
Aqua	8	11.9									1	3.1	9	15.0
Modern color					9	29.0	6	7.1					15	36.1
Nails	12	37.7			7	20.5	14	2.3	1	1.8			34	62.3
Square	6	9.6											6	9.6
Nail/brace	3	91.6											3	91.6
Tin		19.3											0	19.3
Concrete		136.0											0	136.0

Table 3SB544-2 continued. Shovel Test and Test Unit Artifacts.

UNIT Depth (cm)	SHOVEL TESTS 0-20		TEST UNIT 1 Surface		TEST UNIT 1 0-10		TEST UNIT 1 10-20		TEST UNIT 2 0-10		TEST UNIT 2 10-20		SITE TOTAL	
	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.
Hardware														
Caster	1	57.7											1	57.7
Cap					2	6.4							2	6.4
Rivet					2	8.8							2	8.8
Keywrench									1	14.4			1	14.4
Gear			1	2.0									1	2.0
Rubber					1	18.0							1	18.0
Farm														
Staple					1	1.7							1	1.7
Barbed wire	8	40.0											8	40.0
Wire		0.8			4	5.5			2	2.3			6	8.6
Bullets/shells	1	10.0			2	9.7	2	0.8					5	20.5
Miscellaneous														
Coal		0.3				1.7							0	2.0
Metal		66.4				38.7		3.9		125.0		14.5	0	248.5
Rubber						1.9							0	1.9
Leather								1.2					0	1.2
Total	91	926.1	7	333.2	74	274.0	44	127.0	10	158.4	17	70.0	243	1888.7
Artifacts/cubic meter					810	6072	440	1270	100	1584	170	700		

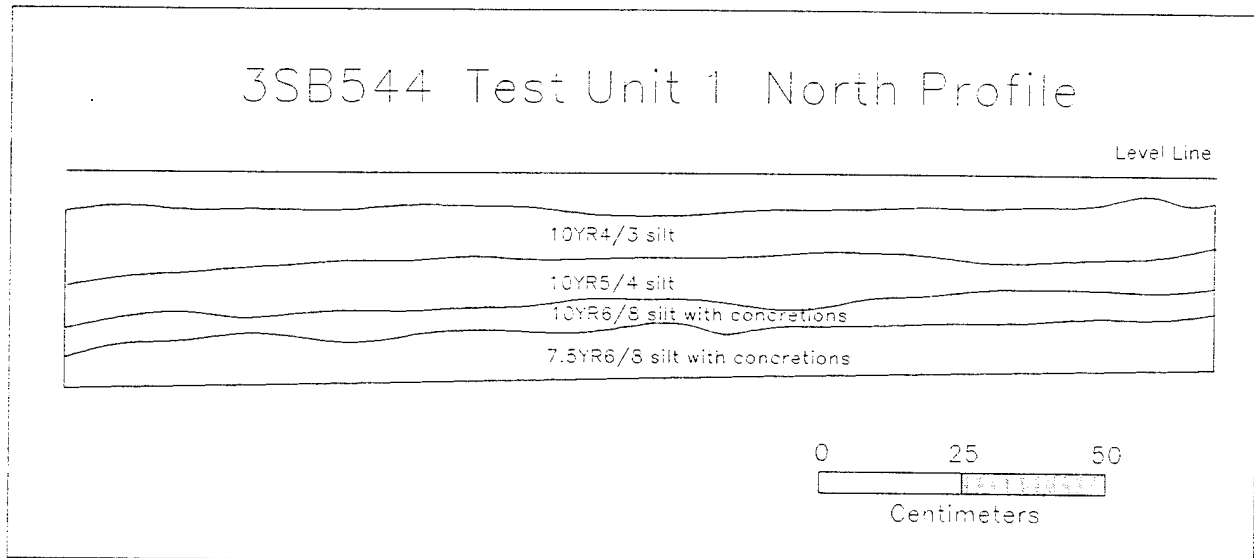


Figure 3SB544-2. Test Unit 1 Profile.

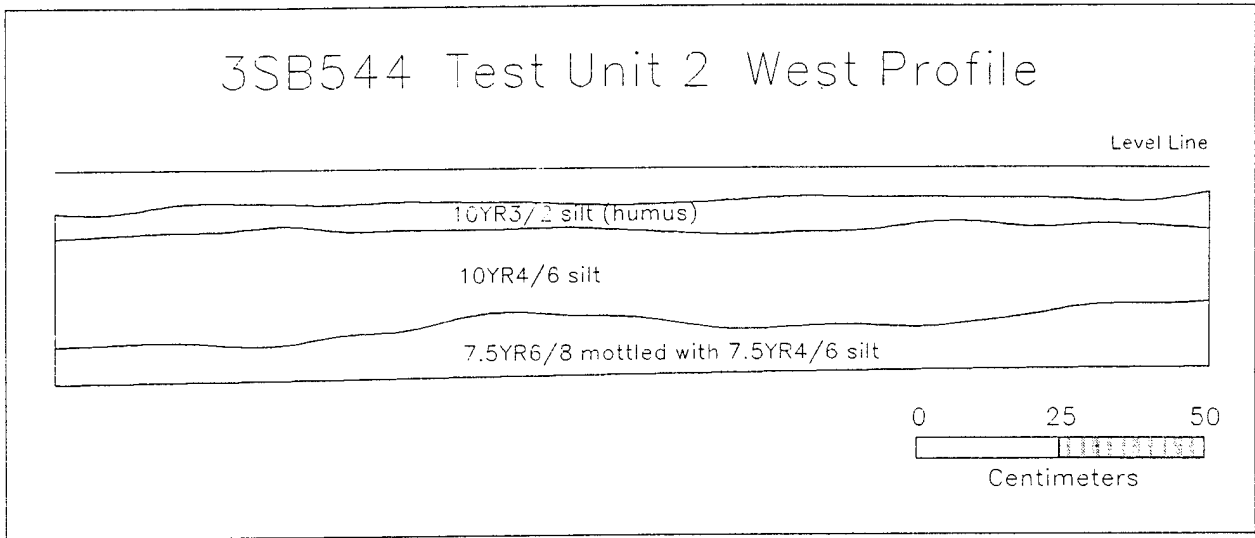


Figure 3SB544-3. Test Unit 2 Profile.

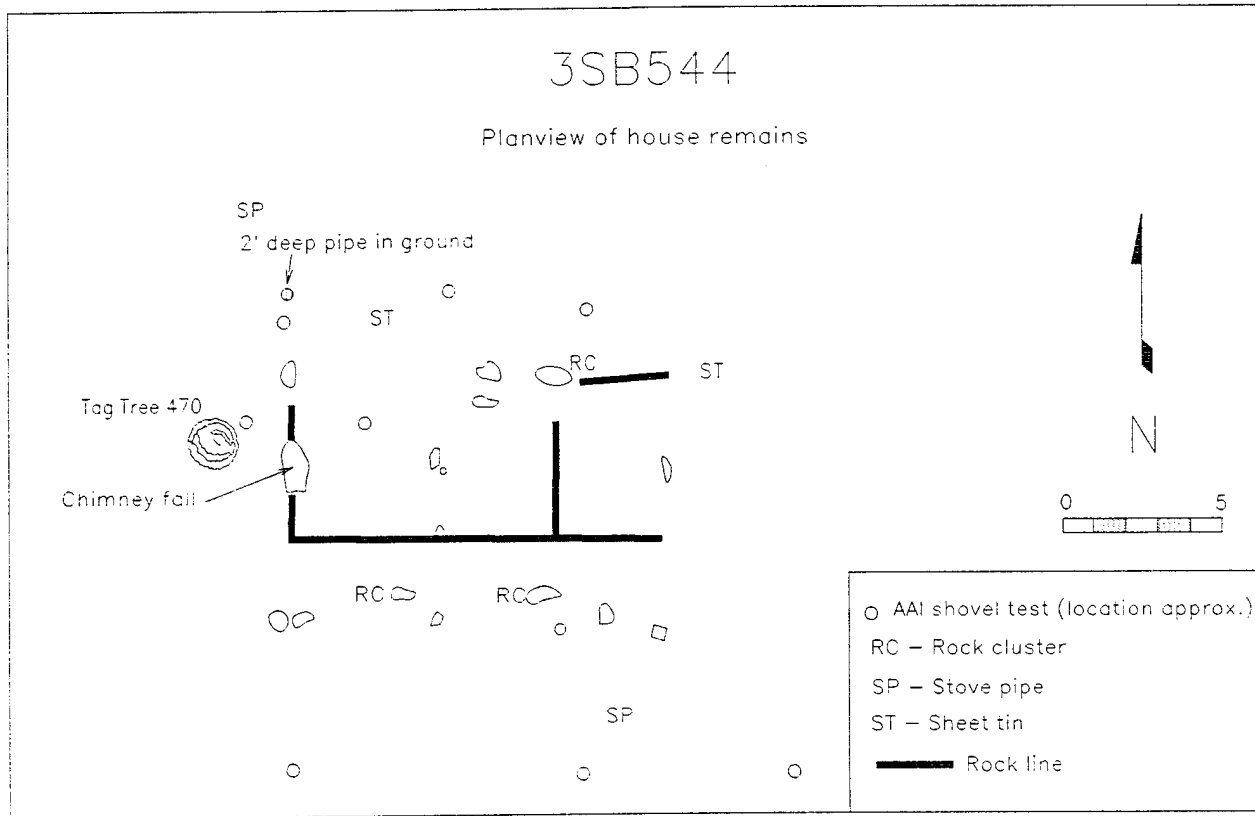


Figure 3SB544-4. House Planview.

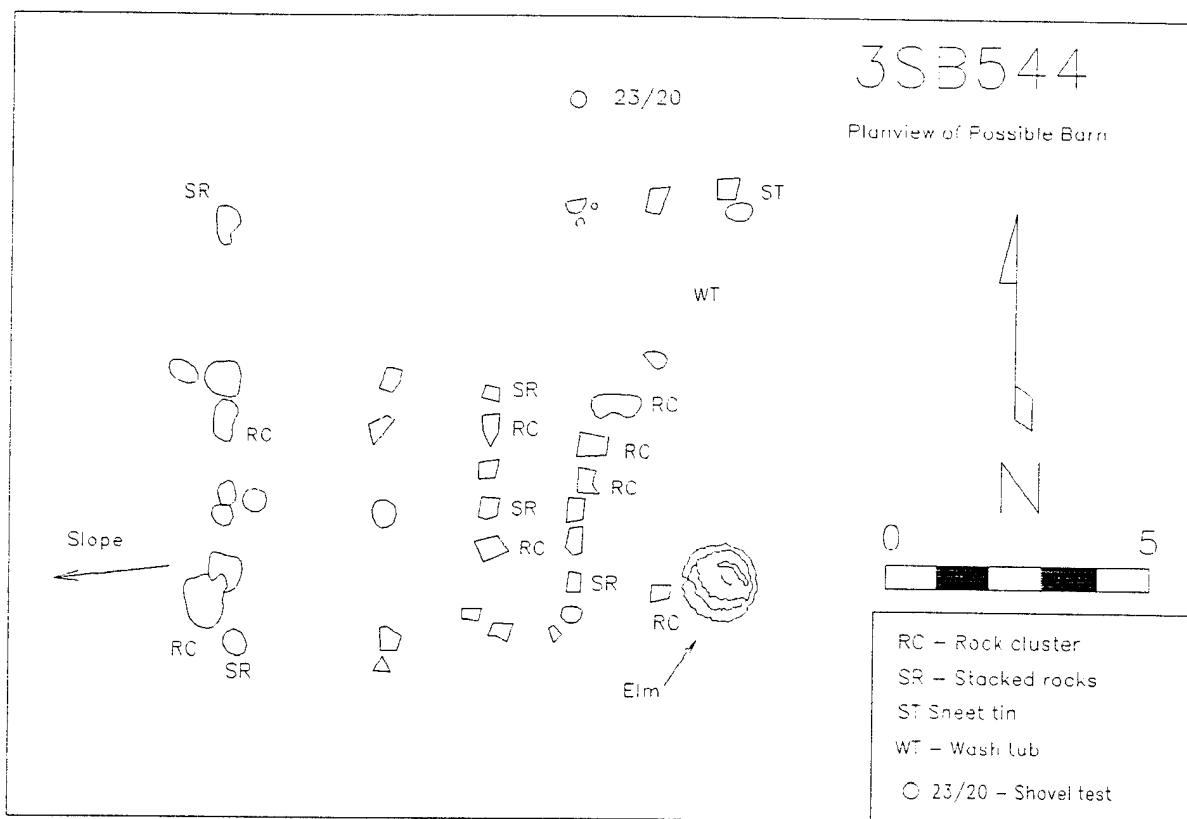


Figure 3SB544-5. Barn(?) Planview.

Site Function Archival research suggested this site was a working farmstead. The 1880 agricultural census shows oats and row crops, including Indian corn and cotton, were being planted, a working orchard was established, and livestock was being raised. Of the 40 acres listed as improved land 27 were used for crops and 1.5 for the orchard. The remainder, in part or entirety, was probably used to pasture the horses and cattle.

Archeological investigations did not recover much information relating to the activities conducted at the site. Artifacts indicative of an active farm were minimal and consisted of the quantity of wire recovered in the shovel tests and pieces of unidentified metal. No barb wire was observed in the trees or on the ground and no tack equipment was recovered. The number of outbuildings on the site indicates activities not associated with a simple house site were taking place.

Site Significance

Archival research failed to identify any individual of local, regional or national prominence that resided at 3SB544.

Cultural material recovered during the investigations conducted by MCRA was by far oriented toward a turn of the century occupation. Cultural material indicative of a pre-1880 occupation was generally lacking in those artifacts that would be specific to that time period. For example while whiteware (introduced 1820) was recovered; it is still produced and is considered in the same category as a flake on a prehistoric site. No transferware or bottles with a seam indicative of a pre-1860 or 1860-1880 occupation were recovered. While archival information indicates a pre-1880 occupation, the cultural material particular to that occupation and the activities conducted were not documented during the archeological investigations.

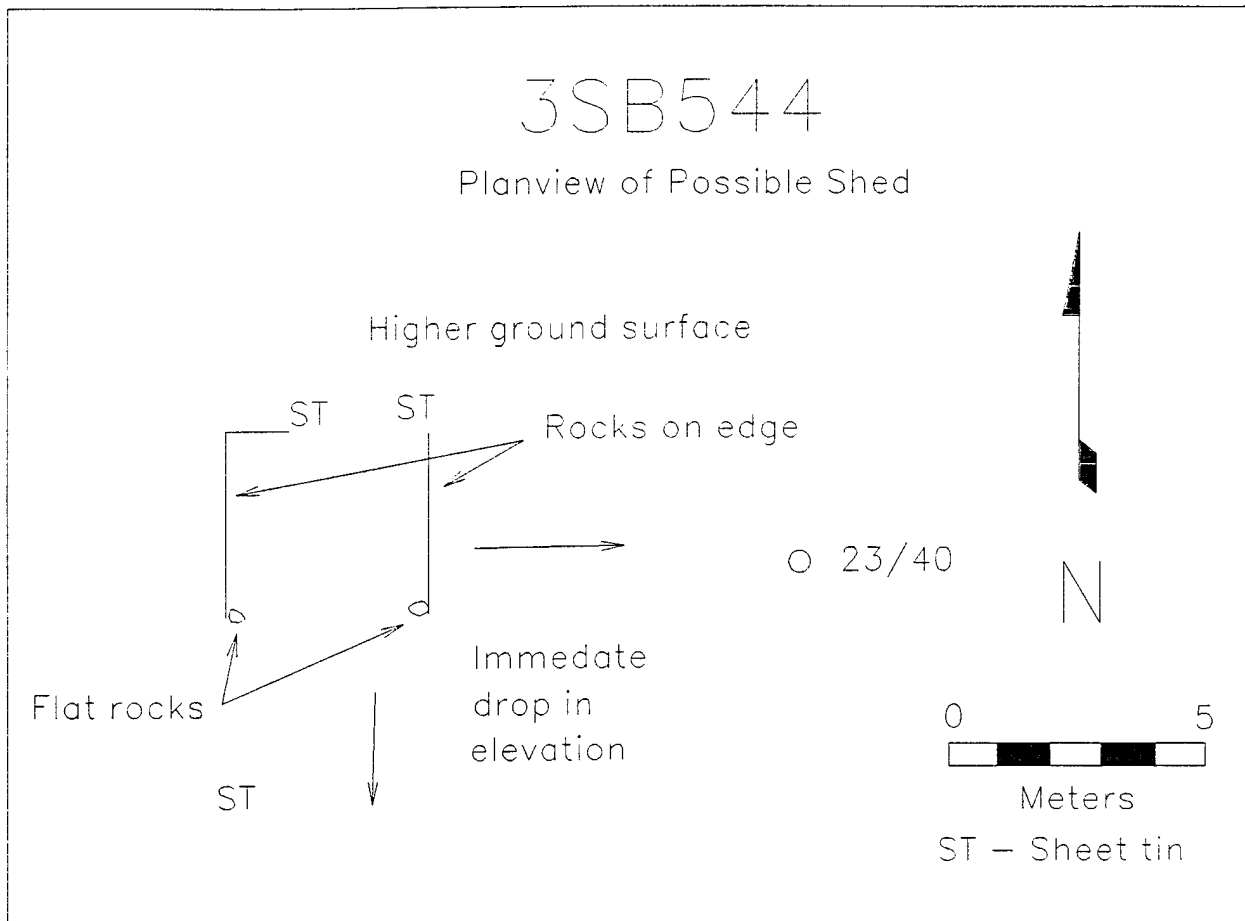


Figure 3SB544-6. Planview of Small Structure.

The investigations identified several classes of artifacts typically not found on historic sites. These included artifacts associated with weapons, clothing, and bone. Spent ammunition associated with modern firearms was recovered, including the brass section of a 12 gauge shell that had a paper casing. A fragmentary thin shell casing (shotgun?) was recovered. Clothing related artifacts consisted of a single metal button. A single small (.1 g) piece of bone was recovered from a shovel test.

Despite the minimal presence of these artifacts, it is the opinion of MCRA that 3SB544 is not significant and and not eligible for nomination to the National Register of Historic Places. The recommendation is based on the following points. First, archeological evidence outside an initial 1880's occupation continuing until post-1916 was not identified during the testing phase. Investigations failed to identify the presence or potential presence of information that could address questions or expand our understanding of this period. Artifacts that could be used to establish trading networks or economic status were not identified. The only two artifacts with makers marks were clear bottles (post-1916).

Second, 3SB544 has been impacted by earth moving, disrupting any spatial patterning present. The entire central portion of the site, between the house and firelane/road has been impacted. All shovel tests, except 79/10 and 95/10, on the 10 meter line (east/west) were excavated in a linear dirt pile created by bulldozing activity. Twisted sheet tin, partially covered by dirt, was recorded in this area. A corresponding low area is immediately south of this feature. It was identified as an old road on the AAI sketch map of the site. Numerous smaller dirt piles were recorded across the site with only the larger ones mapped.

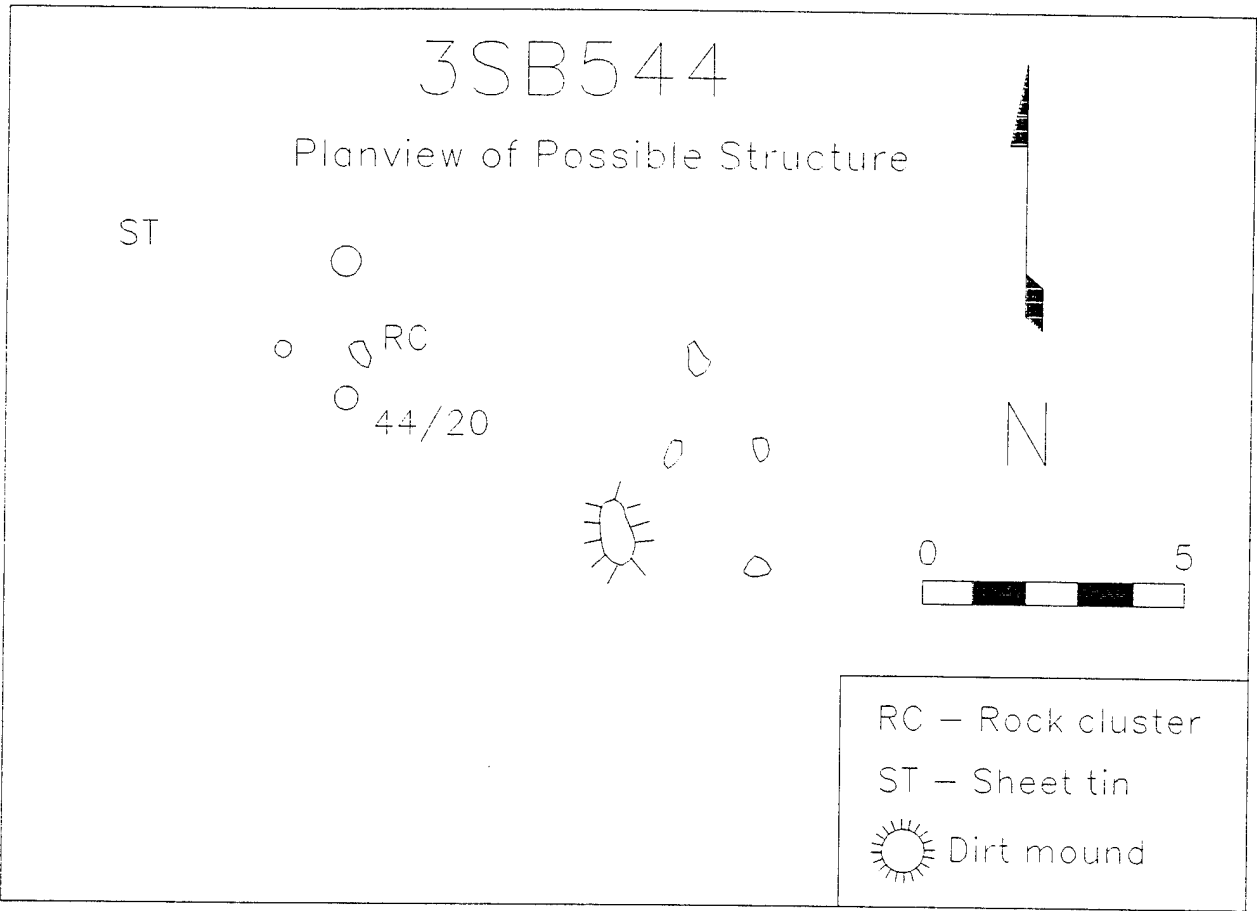


Figure 3SB544-7. Planview of Disturbed (?) Structure.

MCRA recommends 3SB544 receive archeological clearance.

3SB550

3SB550 is an historic site southeast of Vache Grasse Creek at the base of an upland terrace. A natural gas well is southeast of the site on the terrace. The surrounding area is flat and cross-cut by small creeks. A small drainage separates the conical mound-like feature on the site from the linear mound-like feature. Extensive beaver activity is evident in the area; evidenced by numerous dams, tree damage, and backed up water.

It is not a habitation site, but consists of two intersecting northeast/southwest and southeast/northwest oriented linear mounds of shale and dirt. A large oval mound of shale and dirt is immediately southeast of the southeast/northwest oriented mound. Additional surface features include two concrete structures, ditches paralleling the linear mounds, two sections of pipe sticking out of the ground, sheet tin, and a stove made from a 55 gallon drum (Figure 3SB550-1).

The site lies in an area defined by AAI as undifferentiated tributary floodplain (TU). Smith (n.d.: 20) describes this geomorphic feature in the following manner.

The areas mapped as undifferentiated Tributary Floodplains are geomorphic features probably 80 to 90 percent point bar subdued or buried by relatively thick vertical accretion deposits of silt and clay. The remaining 10 to 20 percent of undifferentiated floodplain is most likely backswamp, comprised totally of vertical accretion deposits of clay with silt deposited behind the meander belt of the active stream during floods. The TU comprises 8.85% of the installation.

3SB550 is on soil identified as Taft silt Loam (Cox et al. 1975: sheet 16, 23-24). This soil is commonly found on old stream terraces in broad valleys and exhibits a slope of < 1%. Run off is slow and excess water is a problem. The native vegetation consists of hardwoods and pine.

Previous Investigations

3SB550 was recorded by AAI on 2 February 1988. Conditions at that time were good with surface visibility estimated at between 51-75%. Ground cover consisted of brush, leaves and grasses. AAI described the site in the following manner (AAS Site Files).

This site contains two separate historic concrete structures. The first is a remnant of one side of a bridge ramp crossing a small drainage behind the landform, which contains site 3SB549. The second object is a square, hollow concrete formed structure measuring roughly 8x6 feet. Its purpose could not be determined. No shovel tests were conducted, and no collection was made. Extent of the site is 100x10m.

AAI visited the site a second time and offered the following observation (AAS Site File).

The site was revisited on 28 October 1992 to obtain a Magellan GPS location reading, to tag the site with aluminum tree tags, and to draw a new sketch map of the area. At the time of the revisit, the site did not appear to have been disturbed since it was originally recorded.

MCRA Archival Investigations

An original copy of the land entries is available at Special Collections, Mullins Library. This record showed that Needom Crawford acquired the W1/2SE1/4 (80 acres) in this section on January 21, 1855. Clark (1982:6) also recorded that Crawford owned the land. No entry was found of Crawford in the Federal Population Census of 1850 (Jackson et al. 1976) or the Federal Population Census of 1860. It appears that he was a speculator.

The earliest Real Estate Tax record available at the Sebastian County Courthouse in Greenwood is dated 1881. According to this record, J. K. Mershan or Mershow owned the NW1/4SE1/4 (40 acres), S1/2SE1/4 (80 acres), and E1/2SW1/4 (80 acres) of Section 22. The value of his real estate was \$775. There was no record of this individual in the Personal Property Tax record of that year. This strongly suggests that Mershan or Mershow was not living there, but had bought the land as a speculator. He also owned this land during 1886 based on information in the Real Estate Tax record. The Personal Property Tax record for 1886 fails to indicate his presence.

According to the Sebastian County Atlas of 1887, B. W. Green was trustee of this land. The Real Estate Tax record of 1887 at the Sebastian County Courthouse in Greenwood already had the Western Coal & Mining Company listed as owner. The land they owned was valued at \$200. Green must have been representing the mining company.

The Real Estate Tax record of 1896 at the Sebastian County Courthouse in Greenwood showed that the Western Coal & Mining Company owned the NW1/4SE1/4 (40 acres) of this land, plus adjoining property. This ownership was also noted on the Real Estate Tax record of 1903.

The General Highway and Transportation Map of Sebastian County (1936, revised 1941) was examined at Special Collections, Mullins Library. A photocopy was made and sites were plotted. This map showed no structure in the location of 3SB550. During this time, the area was identified as Camp Chaffee Maneuver Area. No structures were shown along roads within the boundaries of the camp, so it is possible that all structures had been removed by that time.

Legal records in Little Rock named Sarah Edenborn as owner. Apparently William Edenborn acquired the land sometime after 1903, since the Real Estate Tax record and the Sebastian County Atlas of 1903 both list the mining company as owner. Edenborn was a land speculator, so the only occupant of the land would have been a tenant or squatter.

MCRA Field Investigations

MCRA made a preliminary visit to 3SB550 on 31 May 1994 to assess its condition and determine any factors which would impede the planned testing. MCRA personnel spent a considerable amount of time inspecting not only the site, but the surrounding area as well. Several approaches to testing the site were discussed given the unique nature of this site. In addition, MCRA wanted to insure the site could be relocated.

Field investigations were conducted on 3-4 November 1994. A return visit was necessary to complete the drawing of the concrete structures. Conditions encountered at the site were very poor for locating small artifacts on the surface. While the site is in an open woodland environment with minimal understory the surface visibility was basically 0%. Small erosional areas on the slopes and top of the linear mounds had visibility approaching 50%. However, when viewed in the context of the entire site, these areas

were not significant. Land modification, possibly indicating borrow areas were evident at the southeast end of the southeast/northwest linear mound.

Surface features and artifacts observed during this investigation included a concrete ramp-like feature at the southeast end of the southeast/northwest oriented mound and a rectangular concrete shaft at the intersection of the two mounds. Each of the two mounds is paralleled on the outside edge by a ditch that varied in width. Two water filled pipes in the linear mounds were located. A narrow open area with shale at the surface is between the linear mounds

Cultural material observed on the surface included a barrel stove made from a 55 gallon drum, steel cable, various length pieces of pipe, sheet tin, rusted metal, a metal cylinder with three grooves, and what used to be a concrete filled metal container (all but the rims has rusted away). All the surface artifacts were associated with the northwest/southeast mound.

Investigation of the site began with the flagging of all surface artifacts. It was decided to establish a single shovel test transect paralleling each side of the linear mounds (Figure 3SB550-1). The shovel tests were placed 10 m apart. Once the shovel test locations had been established a severe thunder storm occurred and MCRA personnel vacated the site area. The next day found a few of the shovel tests under water. Thirty-nine shovel tests had been established but five were not excavated due to being covered by water. The depth of the shovel tests ranged from 11 to 22 cmbs (Appendix 1). No cultural material was recovered from the shovel tests.

A single test unit was excavated at the southeast corner of the site. This area was selected due to the level ground (possible structure location), dryness, and belief that anyone approaching the site would have probably come this way, increasing the likelihood of finding cultural material. The test unit was excavated to 20 cmbs with two strata identified in the profile (Figure 3SB550-2). The first stratum extended to 6 cmbs. It was silt loam with a Munsell value of 10YR4/3 (dark brown). The second stratum extended to the base of the test unit. It was silt loam with a Munsell value of 10YR5/4 (yellowish brown). No cultural material was recovered in the test unit

Results of the MCRA Work

Horizontal and Vertical Extent The horizontal extent of 3SB550 was basely solely on surface artifacts and the intersecting linear mounds of shale and dirt. The site is shaped like an inverted V, pointed in a northerly direction (Figure 3SB550-1). No surface artifacts were noted along either side of the northeast/southwest oriented linear mound. This was followed for a considerable distance and appeared to be spoil from a drainage ditch. The width of the linear mound and the associated ditch was approximately 8 m. The width of the mound varied but averages 2.5 m at the base and .8 m at the top.

The northwest/southeast oriented linear mound had surface visibility at the southeast end. Material was observed on the slope of the mound and up to 33 meters from the base. The width of this mound varied depending on the location. At the southeast end it was approximately 16.5 m wide at the base and ranged from five to 10 m wide at the top. At the northwest end it was approximately 4 m wide at the base and approximately one meter wide at the top. A separated shale mound off the end of the southeast corner measured approximately 9.75 m northeast/southwest by 12.2 m northwest/southeast.

3SB550

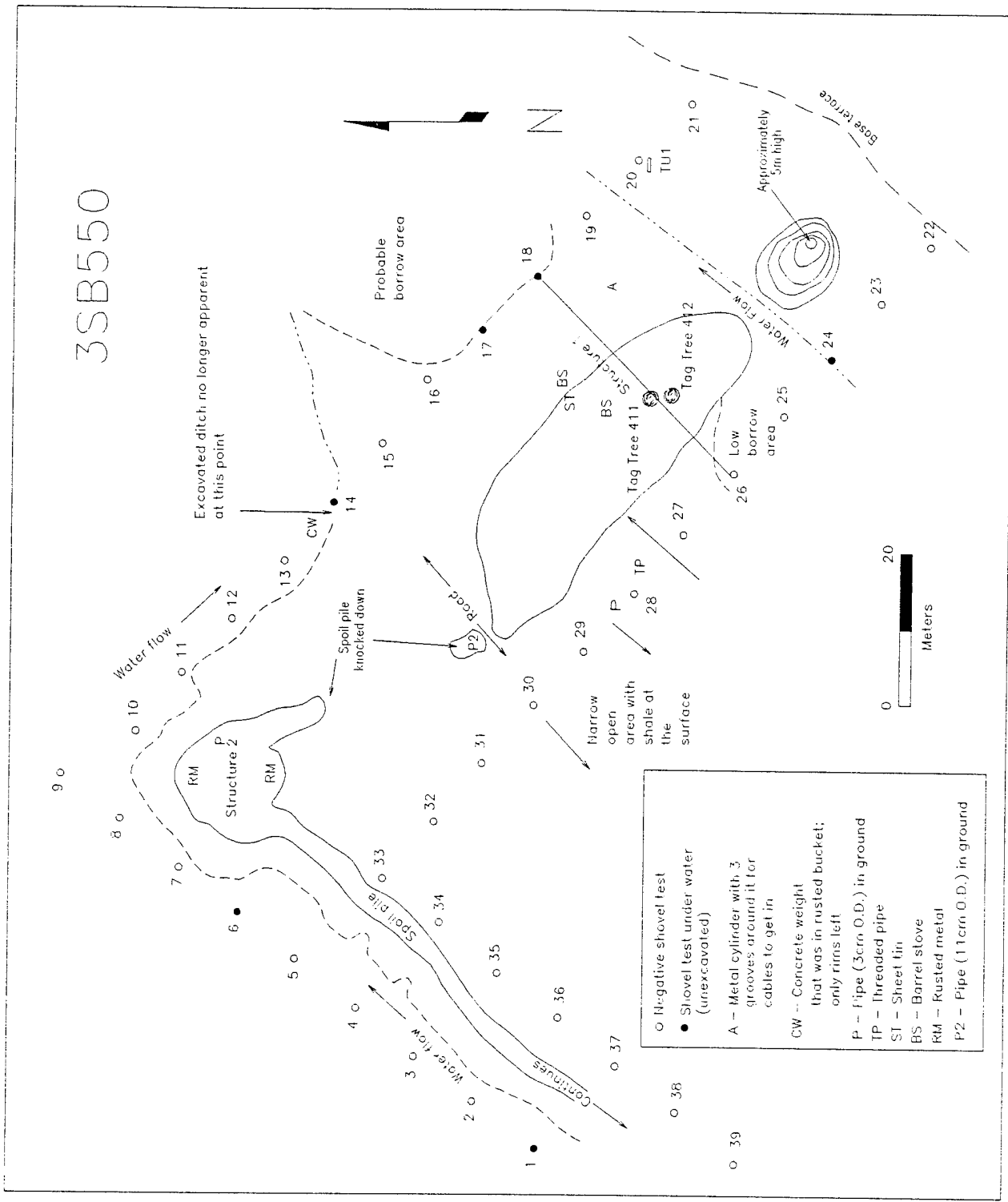


Figure 3SB550-1. 3SB550 Site Map.

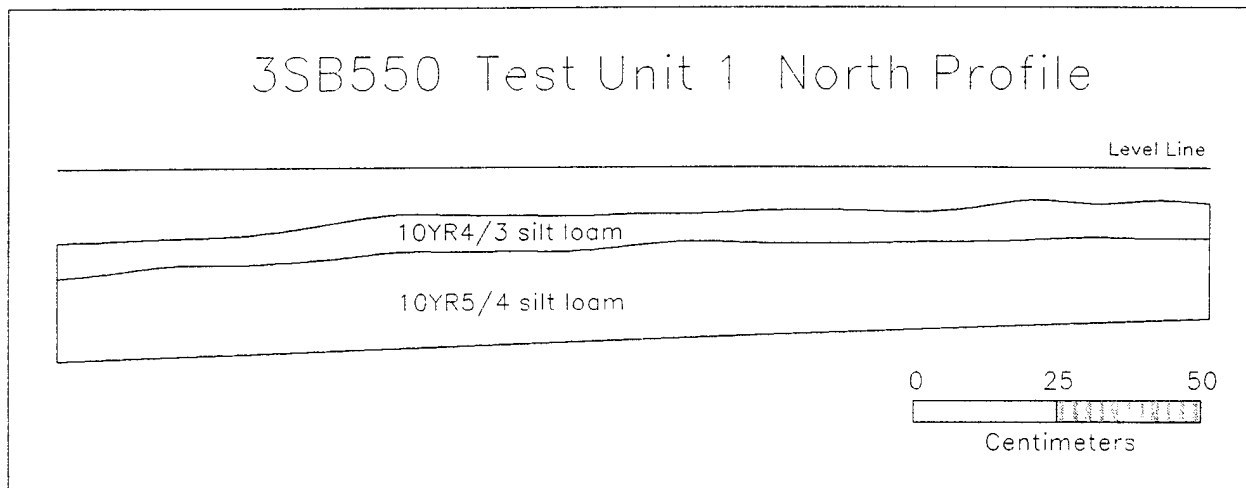


Figure 3SB550-2. Test Unit 1 Profile.

The excavation of 33 shovel tests and a single test unit indicates no subsurface deposits are present at this site. No cultural material was recovered.

Cultural Components Identified Archival research failed to identify any information that would assist in determining the nature or extent of the activities conducted at this site. The only landowners associated with this site were Edenborn, J.K. Mershan, and the Western Coal and Mining Company.

Archeological investigations mirrored those of the archival research. Information indicating the temporal placement or activities conducted at this site was absent. The only temporal indicator observed was wire nails (post 1900) embedded in structure 2.

Two concrete structures were identified on the site. Structure 2 is at the intersection of the northwest/southeast and northeast/southwest linear mounds of dirt (Figure 3SB550-1). It is a rectangular concrete structure with a concrete cap. A separate (though attached) long rectangular concrete section forms the north side of the larger structure. The cap is 10 cm thick and broken in the southeast corner. It revealed a shaft with concrete walls. A single 1 x ? board was attached to the wall. Water fills the shaft. The shaft was 6.65 m deep. The structure (not including the north section) measures 2.5 m north/south by 1.7 m east/west by .60-.63 m high. The north section of the structure measures .5 m north/south by 3.62 m east west by .35-.41 m high. Eight bolts, embedded in the concrete, with varying lengths exposed were recorded in the north part of the structure. Wire nails were observed embedded in the concrete. These may represent part of the form used during the construction of this structure (Figure 3SB550-3).

Structure 1 is at the southeast end of the southeast/northwest oriented mound. It is a ramp-like structure facing a terrace. It can best be described as one end of a bridge with the highest end on a concrete foundation. The exposed end of the structure is closed off with a concrete face, though a small opening indicates it is hollow. Thirty-eight 7 cm long

bolts are embedded around the three edges. The front of the structure measures 1.9 m high, 2.4 m across the top, and 2.7 m across the bottom. The structure was 7.8 m long (Figure 3SB550-4). Cultural material observed on the surface around tee second structure included a barrel stove made from a 55 gallon drum, sheet tin, and a metal cylinder with three grooves to guide cable or rope.

Site Function The site function could not be determined based on the field investigations conducted by MCRA. Archival research indicates the surface features and structures at 3SB550 may be associated with mining activities conducted by Western Coal and Mining Company. This result is the product of there not being cultural material at the site to aid in the determination.

Site Significance

Archival research failed to identify any individual of local, regional, or national prominence living at this site. Edenborn was a major land speculator in the area and was the catalyst behind many industrial inventions. However, no evidence exists to suggest he ever visited or lived on the land on which 3SB550 is located.

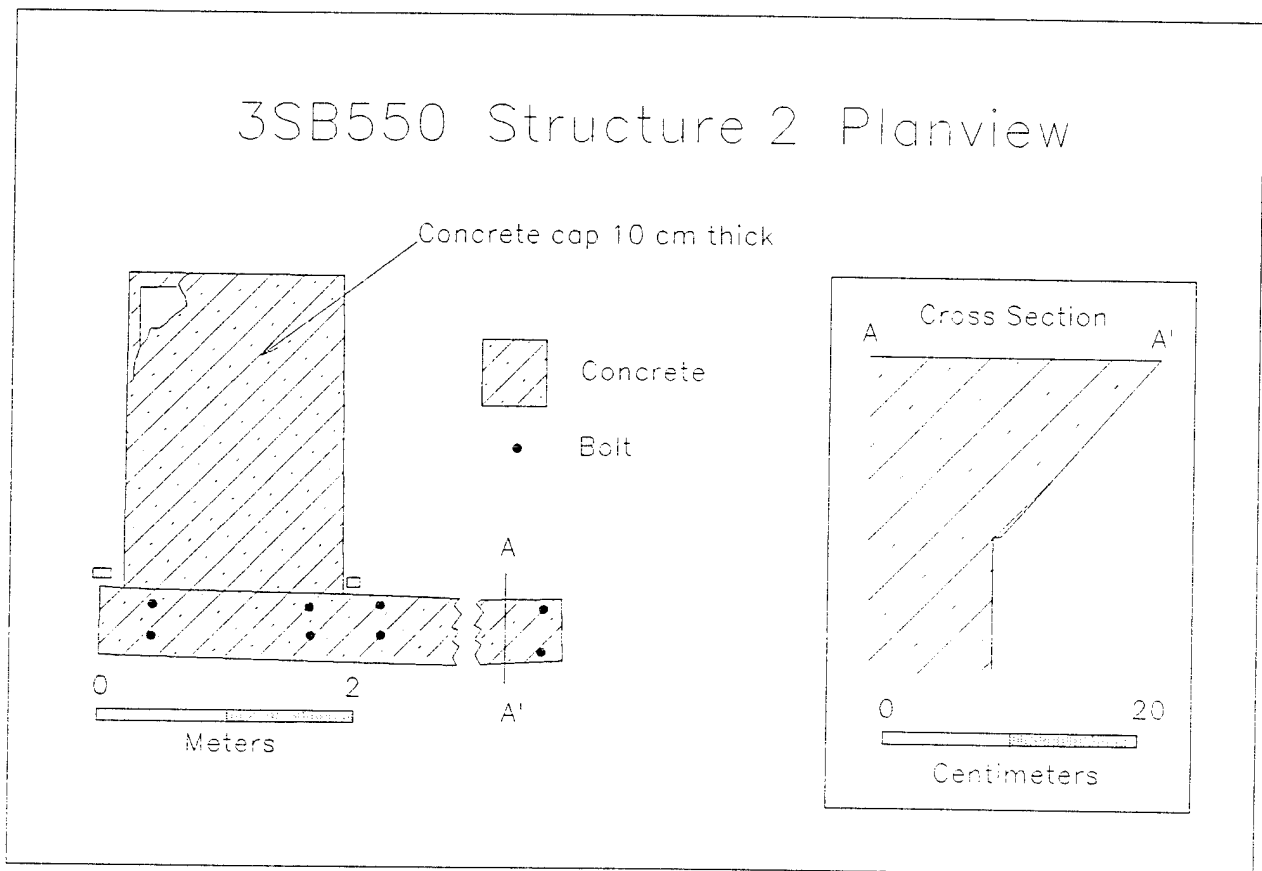


Figure 3SB550-3. Structure 2.

3SB550 Front and Side Elevations of Structure 1

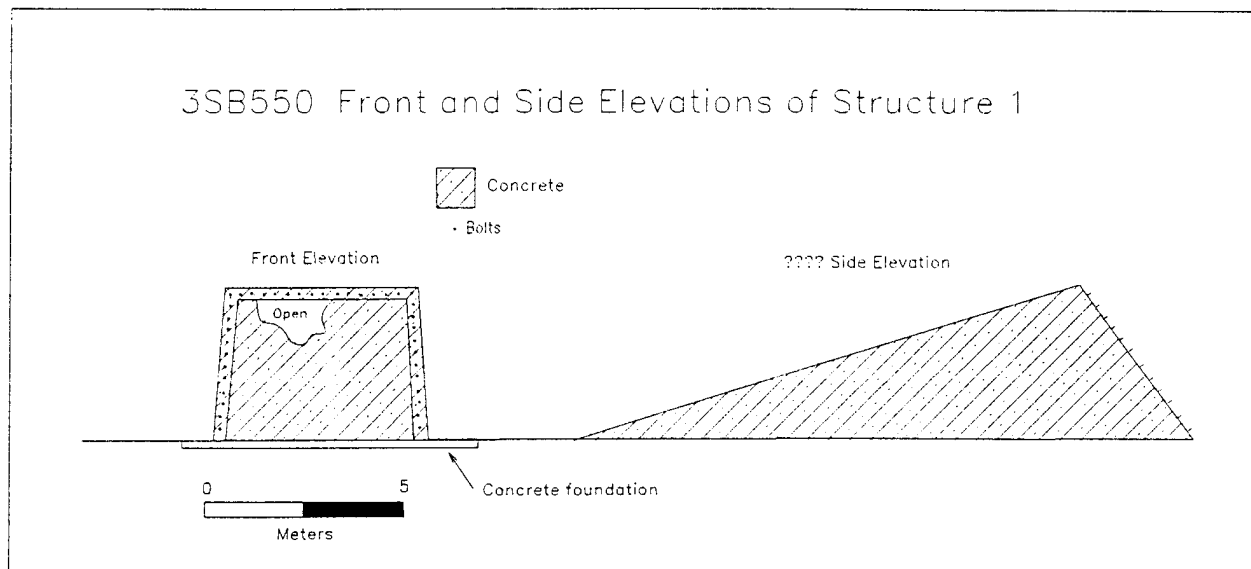


Figure 3SB550-4. Structure 1.

Archeological investigation failed to identify any temporally or functionally specific artifact concentrations at the site. Those artifacts observed on the surface included such ubiquitous items as sheet tin, threaded pipe, pipe, rusted metal, steel cable, and a barrel stove. A cylindrical piece of concrete that had been in a metal container was observed on the surface. The only sections of the container left were the rims.

It is the opinion of MCRA that further archeological investigations at this site would not provide the information necessary to determine the activities conducted at 3SB550. Such information would only be found after an exhaustive search of archival records not encountered during that conducted by MCRA.

It is the opinion of MCRA that 3SB550 is not significant and not eligible for nomination to the National Register of Historic Places. It is recommended 3SB550 receive archeological clearance.

3SB560

3SB560 is an historic site situated on a low knoll on the east side of First Avenue and west of an unnamed perennial tributary of Vache Grasse Creek. Surface features include only some domestic flowers (Figure SB560-1). Beavers have dammed the creek, forming a large shallow pond that bounds the knoll on the north and east sides.

The site lies at the extreme eastern tip of an area of the ridge slope, erosional geomorphic zone that is surrounded on three sides by inter-ridge valley deposits. It is at an elevation of 480 ft. with negligible slope. The soil is mapped as Mountainburg sandy loam, 3 - 12% slopes (Cox et al. 1975:18, Sheet 16). Vegetation in the immediate vicinity is composed primarily of second growth species, most notably dense stands of black berries, rose bushes, greenbriar and sumac. The stream is vegetated with mixed bottomland hardwoods. The site was bush hogged prior to beginning work.

Previous Investigations

The site was recorded on February 25, 1988 during a survey conducted by Archeological Assessments, Inc. They describe it as follows (AAS Site File):

Located in an inter-ridge valley, this site consists of a few historic artifacts found in shovel tests. Daffodils or jonquils were noted on the site, along a small ridge on the east edge of First Avenue in the northwest corner of Survey Unit 105, approximately half a mile south of an ammunition dump. Two shovel tests excavated to a depth of 20cm were positive. Collected were rusted iron fragments, wire nails, and clear glass. The site extent was set at 30 x 10m.

The site was revisited on 28 October 1992 to obtain a Magellan GPS location reading, to tag the site with aluminum tree tags, and to draw a new sketch map of the area. At the time of the visit the site did not appear to have been disturbed since it was originally recorded

Archeological Assessments investigators recovered four artifacts from two shovel tests (AAS site files). Shovel Test 1 yielded a faint light green tinted window glass fragment, while Shovel Test 2 yielded 2 steel can fragments and a wire nail.

The extent of disturbance could not be determined and test excavations were recommended to assess the site's significance relative to National Register of Historic Places criteria due to the potential for intact deposits.

MCRA Archival Investigations

The earliest land entry at Little Rock was a patent to William M. Gwin and Samuel Davis in 1839. An original copy of land grants in Special Collections, Mullins Library indicates the date was August 10, 1836.

There is a listing for John Howard in the Federal Population Census of 1860 for Marion Township in Sebastian County. The Federal Population Census of 1870 had John Howard listed in Washburn Township and L. B. Howard was a resident of Sulphur Township (Jackson 1987: 185, 239). The Agricultural census of 1870 shows the nature of production on the farms (Tables SB560-1 and SB560-2). John Howard must have subsequently moved nearer his son, since the Agricultural Census of 1880 lists both in Sulphur Township (Tables SB560-3 and SB560-4).

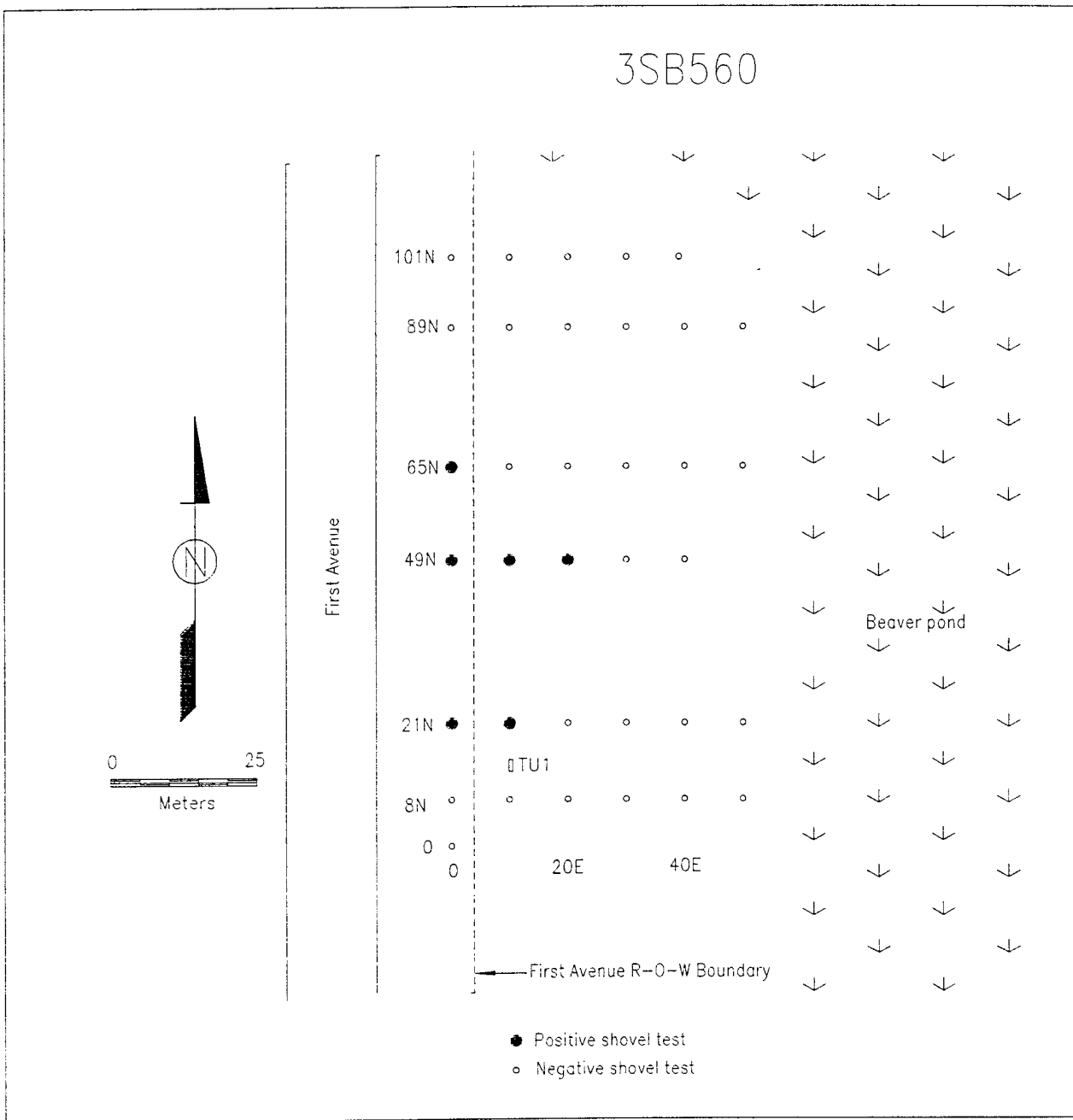


Figure SB560-1. Map of 3SB560 showing the location of the MCRA work.

Table SB560-1. The L. B. Howard farm on the Agricultural Census of 1870.

Improved land	60 acres
Woodland and forest	140 acres
Other unimproved	80 acres
Value of farm	\$2,000
Value of farm implements	\$20
Total value of wages paid including board	\$100
Mules/asses	2
Milch cows	3
Working oxen	2
Sheep	12
Swine	30
Value of livestock	\$450
Indian corn (bushels)	300
Winter wheat (bushels)	50
Wool (lbs)	30
Irish potatoes (bushels)	20
Sweet potatoes (bushels)	50
Butter (pounds)	150
Molasses (gallons)	200
Bees wax (pounds)	10
Value of animals slaughtered	\$50
Value of farm production	\$850

Table SB560-2. The John B. Howard farm on the Agricultural Census of 1870

Improved land	60 acres
Woodland and forest	140 acres
Value of farm	\$1,400
Value of farm implements	\$200
Total value of wages paid including board	\$100
Horses	2
Milch cows	5
Working oxen	6
Other cattle	16
Sheep	6
Swine	40
Value of livestock	\$500
Indian corn (bushels)	500
Winter wheat (bushels)	40
Cotton (bales)	1
Sweet potatoes (bushels)	100
Value of orchard products	\$500
Butter (pounds)	250
Hay (tons)	1
Molasses (gallons)	300
Bees wax (pounds)	5
Honey (pounds)	50
Value of home manufactures	\$50
Value of animals slaughtered	\$120
Value of total farm production	\$1,350

Table SB560-3. The John B. Howard farm on the Agricultural Census of 1880

Improved land	35 acres
Permanent meadows	5 acres
Woodland and forest	30 acres
Value of farm	\$800
Value of farm implements	\$200
Value of livestock	\$500
Value of total farm production	\$600
Horses	6
Mules/asses	3
Milch cows	8
Other cattle	6
Cattle sold living	2
Butter produced (pounds, 1879)	100
Sheep	65
Lambs dropped	25
Sheep slaughtered	10
Fleeces (number/pounds)	40/80
Swine	50
Poultry	25
Eggs produced (1879)	125
Indian corn (acres/bushels)	15/400
Oats (acres/bushels)	10/200
Cotton (acres/bales)	10/5
Apples (acres/trees/bushels)	5/50/35
Peaches (acres/trees/bushels)	5/65/80
Total value of orchard production	\$40
Bees was (pounds)	5
Honey (pounds)	200
Cords of wood cut (1879)	40
Value of forest products	\$85

Table SB560-4. The L. B. Howard farm on the Agricultural Census of 1880

Improved land	45 acres
Permanent meadows	70 acres
Woodland and forest	100 acres
Value of farm	\$2,400
Value of implements	\$150
Value of livestock	\$500
Fences, cost of building and repair	\$50
Labor	
Amount of wages paid for labor (1879)	
includes value of board	\$20
Weeks labor hired	
White	7
Value of total farm products	\$500
Horses	3
Mules/asses	4
Milch cows	13
Other cattle	22
Calves dropped	8
Cattle sold living	6
Cattle slaughtered	1
Butter (pounds, 1879)	200
Swine	30
Poultry (barnyard)	18
Eggs produced	75
Indian corn (acres/bushels)	15/240
Oats (acres/bushels)	12/50
Wheat (acres/bushels)	5/36
Cotton (acres/bales)	10/6
Sorghum (1879)	
3 acres in crop, 200 gallons of molasses produced	
Apples (acres/trees/bushels)	1/15/30
Peaches (acres/trees/bushels)	3/200/250
Total value of orchard production	\$125
Cords of wood cut	10
Value of forest production	\$25

The earliest tax records available at the Sebastian County Courthouse in Greenwood date to 1881. The Real Estate Tax record of 1881 shows that John and L. B. Howard owned this land reinforcing the proposal that they bought it during the 1870s. John Howard owned 80 acres (value \$400) in the E $\frac{1}{2}$ of the SW $\frac{1}{4}$. The Personal Property Tax record indicates that John Howard owned: 4 horses (value \$120), 8 cows (value \$106), 4 mules (value \$160), 50 sheep (value \$50), 20 hogs (value \$20) and 1 pleasure carriage

(value \$50). The total value of his personal property was \$606. L. B. Howard owned: 3 horses (value \$100), 77 cows (value \$102), 5 mules (value \$225), 20 hogs (value \$20) and 1 pleasure carriage (value \$30). His total worth in personal property was \$577.

The Real Estate Tax record of 1886 showed that John Howard added the w1/2 of the NW1/4 (80 acres) to his landholdings, so his total real estate worth was \$700. The Personal Property Tax record of the same year shows that, by this time, John Howard owned: 4 horses (value \$120), 14 cows (value \$98), 3 mules (value \$120), 11 sheep (value \$11), 20 hogs (value \$20), and 1 carriage (value \$30). The total worth of his personal property was \$499.

The history of the Howard family is presented in the Goodspeed Publishing Company (1889:1327-1328):

John Howard, ex-county judge and farmer, of Sebastian County, is the son of John and Ellen (Claypool) Howard. The Howard family originally came from England. Two brothers came to America about the breaking out of the Revolutionary War. One entered the army and the other the navy. The one who enlisted in the army is the great-grandfather of John Howard, subject of this sketch. The latter's grandfather moved from Virginia to Kentucky at a very early date, being among the earliest settlers of that State. John Howard, St., was born in Virginia, and when his father moved across the mountains to Kentucky he and his sister were carried across a horse, one in each end of a sack. Ellen (Claypool) Howard was born in North Carolina, and when a child her parents also moved to Kentucky. In this State she met Mr. Howard, and they were married in Warren County in 1835. They afterward moved to Warren County, Ill., where the mother died in 1845 and the father in 1853. He was a farmer all his life, a Democrat in politics, and both were members of the Cumberland Presbyterian Church. Their family consisted of ten children, five sons and five daughters. John Howard, Jr., the eldest child living, and the eighth in order of birth, was born December 9, 1817. He attained his growth of a farm, and being obliged to work hard while young, as a consequence his education was neglected. At the age of twenty he began business for himself as a farmer, and March 15, 1838, he married Miss Phoebe J. Coy, who was born near Elizabethtown, Ky., April 17, 1820, and when a little girl her parents moved to Sangamon County, Ill., and later to Knox County where she married Mr. Howard. They afterward located in Warren County, Ill., where they lived until 1847, when they moved to the "Lone Star State." They remained here but a short time, and then came to Arkansas, located in Sebastian County, and here they have since made their home. Mr. Howard was a Whig until after the war, and since then he has affiliated with the republican party. Toward the close of the war he was appointed county judge by Gov. Murphy, which position he held for about six years. For many years he has been justice of the peace; has lived in this county for forty years, and is a highly respected citizen. Mr. and Mrs. Howard are the parents of two children, Nancy A., wife of James Blaylock, and Lemuel B., a farmer of the neighborhood. Mrs. Howard is a member of the Methodist Episcopal Church.

The Real Estate Tax record of 1896 in Greenwood no longer listed John Howard. L. B. Howard owned the NE1/4 of the SW1/4 (40 acres), and the W1/2 of the SW1/4 (80 acres). This land was valued at \$1,000. The Personal Property Tax record of the same year showed that he owned: 2 horses (value \$60), 14 cows (value \$70), 2 mules (value \$80), 21 hogs (value \$20), 2 carriages (value \$30), and 1 watch (value \$10). The worth of his personal property was \$345.

The Federal Population Census of 1900 listed L. B. Howard as a 58 year old resident of Rogers Township. He was born in Illinois, but his father was from Kentucky and his mother was a native of Illinois. Howard was listed as a farmer, and it appears he was also postmaster. His wife, Susan D., was 56 years. She was a native of Missouri. Her father was from Tennessee and her mother was from Virginia. They had one child still living with them. This was George W., 25 years old, identified as a farmer. He had been born in Arkansas. Susan C. Davis (age 67 years, Virginia), his mother-in-law, was also living with the family. Loss Snider, a boarder, also lived with them. He was 19 years, and a day laborer in the coal mines. Snider was a native of Arkansas.

The Real Estate Tax record of 1903 showed that Howard had added the SE $\frac{1}{4}$ of the SW $\frac{1}{4}$ (40 acres) to his landholdings listed above. His personal property for that year included: 1 horse (value \$50), 10 cows (value \$75), 7 mules (value \$100), 5 hogs (value \$10), 2 carriages (value \$45), 1 watch (value \$5) and 1 piano (value \$25). The total worth of his personal property was \$385. The Personal Property Tax record of 1910 indicates that he owned: 1 horse (value \$50), 15 cows (value \$80), 2 mules (value \$50), 3 hogs (value \$15) and 1 carriage (value \$35). His personal property was worth \$380.

The General Highway and Transportation Map of Sebastian County, Arkansas (1936, revised 1941) was obtained from Special Collections, Mullins Library. Sites were plotted on a photocopy. Although the structures on the Howard property were along roads, by this time the area was part of the Camp Chaffee Maneuver Area. No structures were shown within the boundaries of the camp. It is probable that the house had been removed or bulldozed during the mid-1930s or slightly later.

MCRA Field Investigations

A preliminary visit was made on June 1, 1994 but dense vegetation prevented an adequate inspection of the site. MCRA field investigations took place on June 16, 1994. These included the excavation of 33 shovel tests and one 0.5 x 2 m test unit.

The shovel tests were laid out with a compass and tape along east-west transects placed at randomly selected origins along a north-south baseline established along the east right-of-way of First Avenue. The transects began 8, 21, 49, 65, 89 and 101 meters north of the datum and extended a maximum distance of 50 m to the east. Shovel tests were excavated along them at 10 m intervals in 10 cm levels until at least two consecutive culturally sterile levels were encountered, and the soil screened through $\frac{1}{4}$ inch mesh hardware cloth. The recovered artifacts were bagged by level and notes were maintained on soil color and texture, as well as other comments deemed pertinent by the excavators. Only six of 33 tests yielded cultural material (Table SB560-5) and only four of those produced prehistoric artifacts. No cultural materials were recovered from the shovel tests below a depth of 30 cm.

One test unit was excavated at the site. Test Unit 1 was placed on the highest point of the knoll approximately 5 meters east of the road right-of-way between shovel test transects 8N and 21N.

Test Unit 1 was excavated in 10 cm levels to a maximum depth of 60 cmbs and a posthole test excavated an additional 50 cm to 1.1 m. Level 6 (50 - 60 cm) was stepped down to 0.5 x 1 m due to an absence of cultural materials below a depth of 40 cmbs. All soil was screened through $\frac{1}{4}$ inch mesh hardware cloth and notes maintained on soil color and texture, artifact content, the presence or absence of features, disturbances and other information deemed pertinent by the excavator. Three strata were identified during excavation (Figure SB560-2). Stratum 1 was roughly 20 cm thick and consisted of a dark brown (7.5YR3/2) loosely compacted silt containing 39 (58%) of the 67 artifacts recov-

ered from the unit. Below this, Stratum 2 consisted of about 60 cm of reddish brown (5YR4/4) sandy silt with dark reddish brown (5YR3/3) mottling that became wet with increasing depth. It yielded cultural materials (28 or 42%) to a depth of 40 cm. Stratum 3 was a culturally sterile yellowish red (5YR4/6) sandy silt with reddish yellow (5YR6/8) mottling to the base of the posthole test. The recovered cultural materials are presented in Table SB560-6.

Table 3SB560-5. Shovel Tests Artifacts.

DEPTH (CM)	0-10		10-20		20-30		SHOVEL TESTS TOTAL	
	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.
Tableware--whiteware			2	10.1	1	2.3	3	12.4
Molded rim			1	1.8			1	1.8
Jar--modern color			1	3			1	3.0
Glass shards								
Clear	3	3.1			2	3.7	5	6.8
Modern color	2	11.1	2	2.3	1	2.6	5	16.0
Lampglass--clear					1	0.3	1	0.3
Coal				3.5			0	3.5
TOTAL	5	14.2	6	20.7	5	8.9	16	43.8
ARTIFACT DENSITY per cubic meter	19	53	22	77	56	99	25	70

Results of the MCRA Work

Horizontal and Vertical Extent. The shovel testing revealed that cultural materials are restricted to the knoll and occupy an area approximately 60 m north-south x 35 m east-west (Appendices 1 and 3, Figure SB560-3). The deposits extend to a maximum depth of 40 cmbs, as revealed in the test unit.

Cultural Components Identified. No structure is shown for the location on either the 1887 or 1903 maps, although one is shown on the west side of First Avenue. Taken collectively, the cultural materials are dominated by recent items, such as modern colored and clear glass (post 1916) (80% of container glass), clear window glass, plain whiteware (1820 - 1900+) (76% of tableware) and decalcamania whiteware (post 1890).

Site Function. Our investigations failed to produce any evidence of former structures. No foundation stones, even ones badly out of place, were observed and no water source, such as a well or cistern, was found. No evidence of a yardscape, in the form of fence lines or domestic vegetation was observed, although the latter could have been obscured by the bush hogging. The sole evidence of domestic activities, the flowers observed by AAI investigators, is not corroborated by our testing. We believe the evidence is consistent with an interpretation as a dump, or, at best, a heavily disturbed structure, possibly an outbuilding associated with the probable house on the west side of the road.

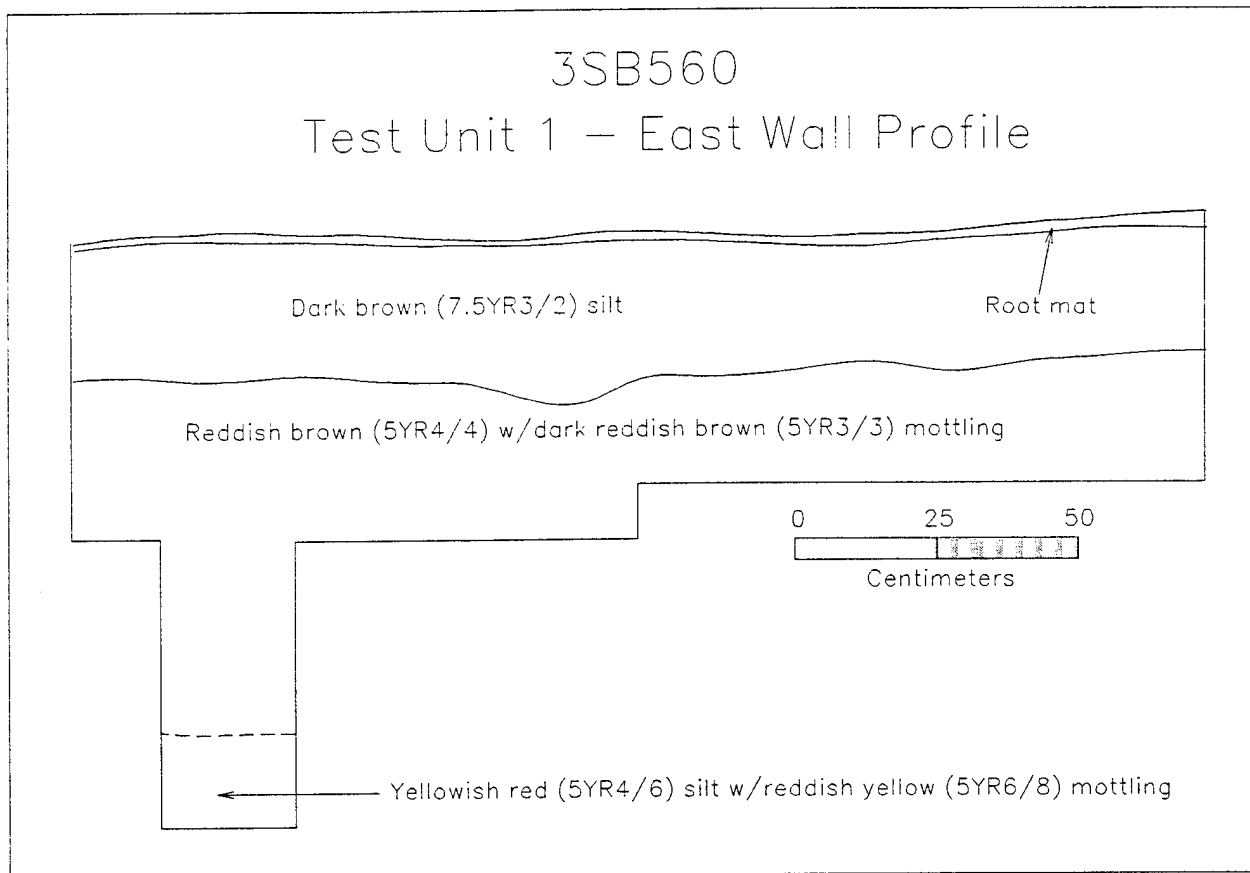


Figure SB560-2. Profile drawing of the west wall of Test Unit 1 at 3SB560.

Significance Assessment

3SB560 is not significant and not eligible for inclusion in the National Register of Historic Places. It is not associated with important events or persons. The artifact assemblage is dominated by such things as clear glass, plain whiteware and wire nails that suggest a relatively recent date; probably post 1900 since no structure is shown at the location on the 1887 or 1903 plats. Sites of this period are ubiquitous at Fort Chaffee. Moreover, the integrity of the deposits is poor. No features remain to suggest the presence or placement of structures or of a yardscape and the test unit produced no evidence of vertical stratification or obviously intact subsurface deposits.

Table 3SB560-6. Test Unit 1 Artifacts.

DEPTH (CM)	0-10		10-20		20-30		30-40		TOTAL	
	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	Ct.	Wt.
Faunal--bone					1	4			1	4
Stoneware--slip					1	1.2			1	1.2
Tableware--whiteware	1	4.1	4	11.1	4	6.8	1	2.9	10	24.9
Decalcmania bowl					1	35.6			1	35.6
Beaded rim	1	7.2	1	7					2	14.2
Milk glass jar lid liner			1	3.7					1	3.7
Glass shards										
Amethyst			5	10.5	1	2.5			6	13
Milk							2	1.5	2	1.5
Clear	9	29.8	3	2.7	2	4			14	36.5
Modern color	3	3.7	3	3.4	3	7.1			9	14.2
Lampglass--clear					2	1.6			2	1.6
Structural									0	0
Nails--wire			5	11.7	7	42.2			12	53.9
Windowpane--aqua			1	2	3	5.3			4	7.3
Rebar			1	71					1	71
Flagstone		62		73.799		47.7			0	183.5
Buckle			1	18.3					1	18.3
Miscellaneous										
Metal		25		187.4		164.1		18.6	0	395.1
Coal		12.8		13.5		9.5		1.3	0	37.1
TOTAL	14	144.6	25	416.1	25	331.6	3	24.3	67	916.6
ARTIFACT DENSITY per cubic meter	140	1446	250	4161	250	3316	30	243	168	2292

3SB562

3SB562 is an historic site situated on top of a hill with an all north/south weather gravel road immediately to the west. An northeast/southwest oriented secondary road bisects the site across the southern portion. The intersection of these two roads is marked by a large post (?) oak. Surface features include a probable large sandstone foundation stone, a partially filled stone-lined well, two extremely large oaks at the north end of the site at the edge of an abrupt elevation drop, and three patches of iris, one of which is on a bulldozed dirt pile (Figure 3SB562-1).

AAI identified the geomorphic feature on which 3SB562 is located as ridge slope, minimally erosional. Smith (1986: 13 {working draft}) describes this feature in the following manner.

Broad upland slopes with moderate to gentle gradients were mapped as minimally erosional ridge slopes. Under natural (non-agricultural) vegetation, these low slopes would be in dynamic equilibrium with surficial geomorphic processes of weathering and erosion. Consequently, the minimally erosional slopes would have well developed residual soils on them, with little surface disturbance from erosion. However, even the naturally stable slopes have experienced substantial erosion from agricultural practices, with much of the residual soil eroded or badly gullied.

Smith (n.d.: 20) notes that this geomorphic feature comprises 15.71% of Fort Chaffee. The soil in the site area is identified as Mountainburg sandy loam (Cox et al. 1975: sheet 16, 18). This soil is generally on hilltops, mountaintops, and ridges with slopes ranging from 3-12%. It is generally well drained with run-off being moderate to rapid. It supports mixed hardwoods and pine with an understory of tall grasses.

Previous Investigations

3SB562 was recorded by AAI on 25 February 1988. At that time conditions were poor with surface visibility between 0-5%. Construction, land leveling, and military activities had impacted the site and disturbance was described as major (AAS Site File). AAI offered the following description of the site (AAS Site File).

Located on a ridge slope/interridge valley junction, this is a historic house site with a well, concrete cellar, and outbuilding. The house area proper has been destroyed by bulldozing and only flowers remain to indicate its location. The cellar area has collapsed. The outbuilding and well are situated down-slope from the cellar. Two shovel tests were excavated to a depth of 12cm. One, at the entrance to the cellar, was positive; the other, near the outbuilding, was negative. Collected items included ceramic and stoneware fragments, a bottle and bottle fragments, zinc canning jar lids with porcelain liners, and an old cartridge. Foundation stones and galvanized tubs and buckets were also noted on the site. Site limits were set at 130x100m.

Ceramics collected during this phase of the project included two pieces of whiteware and a single piece of stoneware. Glass artifacts from the surface of the site included two clear glass fragments with mold marks (HA 6205, 10 on one), a milk glass fragment, light green window glass fragment, and a light green square bottle with mold marks (2 FL. OZ.) Metal artifacts collected from the single positive shovel test and surface included unidentified lead (2) and copper/brass (1) fragments, a zinc canning jar lid, and a cartridge.

Based on the results of these investigations AAI recommended test excavations be conducted to determine 3SB562 eligibility for nomination to the National Register of Historic Places (AAS Site File).

AAI returned to 3SB562 a second time and documented the visit in the following manner (AAS Site File).

The site was revisited on 11 January 1993 to obtain a Magellan GPS location reading, to tag the site with aluminum tree tags, and to draw a new sketch map of the area. The site has been severely disturbed by dozer clearing, digging of army foxholes, and general army activity. The cellar and well indicated on the original sketch map were not located, and it is assumed that they were filled in. A stone lined well was located at the site, but it is not in the same location that the well was mapped on the original sketch map.

MCRA Archival Investigations

This site is located west of 3SB569 and on the north side of the road connecting Central and Randolph (later renamed Jenny Lind). During 1887, this site was in Rogers Township. The post office was Randolph, and the school was Howard.

The earliest entry for this land in the land records in Little Rock shows that William M. Gwin and Samuel Davis got the land by patent in 1839. An original copy of land records at Special Collections, Mullins Library gives the date August 10, 1836.

Apparently Gwin and Davis sold the land to William and Margaret Wood in 1852. They owned land in 11 counties. No record was found on Wood in the Federal Population Census of 1850 (Jackson et al. 1976), Federal Population Census of 1860, or the Federal Population Census of 1870 (Jackson 1987). It is probable that Wood, like Gwin and Davis, speculated on the land from a distance. They may have lost the land as the result of non-payment of taxes.

Henry S. Rymal bought the NW1/4NW1/4 from the State of Arkansas in 1866.

George W. Wilmuth may have purchased the land as early as 1869. He was listed in the Federal Population Census of 1870 as a resident of Sulphur Township. At that time, he was a 59 year old farmer, who was a native of North Carolina. His real estate was worth \$200, and his personal property was valued at \$100. George may have been a widower, and was living with his son's family. Other members of the household were Albert B. Wilmuth, 32 years old, also a farmer. He was born in Alabama. His wife was Mary (age 26 years, Tennessee). They had one child, Mary E. (age 2 years, Arkansas). Wilmuth and his son are listed in the Agricultural Census of 1870 (Table 3SB562-1). There was no record of Wilmuth in the Agricultural Census of 1880.

This property was bought by John A. McAlister sometime after 1870. This was John McAlister, who was listed in the Federal Population Census of 1870 and 1880 as a resident of Sulphur Township. In the 1870 Census, McAlister was listed as a 35 year old farmer from Alabama. His real estate was worth \$800, and his personal property was valued at \$250. His wife, Evaline, was 34 years old. She was also a native of Alabama, and was keeping house. They had six children. These were: Mary (age 13 years, Arkansas); Nancy (age 8 years, Colorado); William (age 6 years, Colorado); James (age 5 years, Colorado); Joseph (age 4 years, Missouri); and Alonzo (age 7 months, Arkansas).

Table 3SB562-1. The Wilmoth and Son farm on the Agricultural Census of 1870

Improved Land		25 acres
Woodland and forest		15 acres
Value of farm		\$300
Value of farm implements	\$50	
Value of livestock		\$300
Value of livestock slaughtered	\$65	
Value of total farm production	\$355	
Horses		1
Milch cows		3
Working oxen		4
Other cattle		2
Swine		50
Butter produced (lbs. 1869)		150
Indian corn (bushels)		140
Sweet potatoes	20	

It was stated in the discussion of site 3SB544 that John McAlister owned that site ca. 1869, probably owning it with his brother James. The Agricultural Census of 1870 listed McAllister and Brother.

By 1880, John McAlister owned the land where 3SB562 is located. He was 46 years old and a farmer. The census indicated that he was a native of Alabama, but his father was from South Carolina and his mother was from Alabama. His wife, Evaline, was 45 years old. Her father was from North Carolina, and her mother was from Tennessee. They had seven children at home. Mary (see above) was gone. In addition to the other children listed above, they had Wesley (age 7 years, Arkansas) and John (age 2 years, Arkansas). The productivity of the John McAlister farm is shown in the Agricultural Census of 1880 (Table 3SB562-2).

The earliest tax records at the Sebastian County Courthouse at Greenwood are those of 1881. The Real Estate Tax record of 1881 shows that J. A. McAlister owned 40 acres (value \$260) where 3SB652 is located. He was listed in the Personal Property Tax record of the same year as owning no horses, 8 cows (value \$75); 3 mules (value \$200); and 25 hogs (value \$40). His total worth of personal property was \$375.

The Real Estate Property Tax record of 1886 at the Sebastian County Courthouse in Greenwood listed J. A. McAlister as the owner of 40 acres (value \$250) in the NW1/4NW1/4. He still owned no horses. The Personal Property Tax record of the year shows he did own: 15 cows (value \$90); 2 mules (value \$200); 10 hogs (value \$10); and 2 carriages (value \$100). The total worth of his personal property was \$450. The Real Estate Property Tax record of 1896 at Greenwood listed the above land, along with 40 acres in the SW1/4NW1/4. The total value was \$550. The Personal Property Tax record of that year showed that he owned: 3 horses (value \$100); 5 cows (value \$25); 10 hogs (value \$10); 3 carriages (value \$75); and 1 watch (value \$5). The total worth of his personal property was \$290.

The Federal Population Census of 1900 still listed John A. McAlister. He was entered as a 65 year old farmer. In this listing, both of his parents were shown as natives of Alabama. His wife was listed as Margaret, age 64 years. She was listed as a native of Alabama, but her parents were from Tennessee. It is possible that John had remarried, but it seems that a different name was given for his wife to the census taker than the one used in earlier years. The only child at home was John G. (age 21 years). He was a farm laborer.

Table 3S8562-2. The John McAlister farm on the Agricultural Census of 1880

Improved Land	46 acres	
Meadows		10 acres
Woodlands		20 acres
Acres Mown		3
Value of Farm		\$1000
Value of Farm Implements	\$50	
Value of Livestock		\$300
Cost of Repair and Building of Fences (1879)	\$30	
Wages Paid		\$30
Total Weeks Laborers Worked	12	
Value of Total Farm Production	\$700	
Horses		0
Mules		2
Working Oxen		2
Milch Cows		3
Other Cattle		5
Calves Dropped	3	
Cattle Purchased		3
Cattle Sold Living		6
Butter Produced (lbs., 1879)		100
Swine		12
Poultry		30
Eggs Produced	160	
Indian Corn (acres/bushels)		20/500
Oats (acres/bushels)		4/75
Wheat (acres/bushels)		10/65
Cotton (acres/bales)		12/7
Irish Potatoes (acres/bushels)		.5/40
Hay (tons)		7
Apples (acres/trees/bushels)		1/40/30
Peaches (acres/trees/bushels)		1/100/150
Total Value of Orchard Production	\$75	
Bees (lbs, honey/wax)		50/6
Cords of Wood Cut		35
Value of Forest Production	\$100	

The General Highway and Transportation Map of Sebastian County, Arkansas (1936, revised 1941) was obtained from Special Collections, Mullins Library. Sites were plotted on a photocopy. This dwelling, on the north side of the road between Central and Jenny Lind, was no longer present. By this time, the entire area was identified as the Camp Chaffee Maneuver Area. No houses were shown along roads within the camp area.

The Real Estate Tax record of 1903 at the Sebastian County Courthouse in Greenwood shows that J. A. McAlister had 40 acres in the NW1/4NW1/4 and 38 acres in the SW1/4NW1/4. The Real Property Tax record for the same year listed him as owning: 1 horse (value \$50); 6 milch cows (value \$60); 5 hogs (value \$10); 1 pleasure carriage (value \$55); and 1 watch (value \$5). The total worth of his personal property was \$210.

G. W. Johnson owned the land in 1910.

P. J. and Laura Mae Weir had the property in 1926. The mineral rights were held by R. A. Young & Son Coal Company. Weir owned the land when it was acquired by the U. S. Government.

MCRA Field Investigations

MCRA initiated the investigation of 3SB562 with a preliminary visit to the site on 31 May 1994. The purpose of the visit was to determine the condition of the site and develop a preliminary idea of the effort necessary to adequately assess its significance. At the time of the visit chest high weeds were found covering the site and the extent of the dozer activity noted by AAI could not be determined.

MCRA field investigations were conducted over a two day span on 26 October 1994 and 2 November 1994. Field conditions had changed drastically since the preliminary visit. Except for a few small areas, the site and surrounding area had been completely burned off; this resulted in surface visibility ranging from 50-95%. Evidence of large scale disturbance over the western half of the site was obvious. Red soil was evident at the surface in areas that had tracks of tracked vehicles. Living trees north of the secondary road through the site had been pedestaled. The entire area surrounding the well, south of the secondary road, had been pedestaled.

The burned over area allowed MCRA to determine the location of surface features with a higher degree of certainty than AAI. These included three areas of iris along the edge of the secondary road. A dispersed scatter of concrete and stone was identified in the northwest quadrant of the site. It is believed this represents the cellar identified when the site was recorded. Evidence of the well was not found. The partially filled stone lined well identified during the second visit by AAI was still evident. A large oak is at the intersection of the secondary and all weather gravel roads. A second large oak, with iris around the base, is at the 5 m transect. Two extremely large oaks are at the north end of the site on the 49 and 62 meter transects.

The baseline for the planned shovel test transects was aligned with the secondary road on an east/west axis. Transects fell along the 5, 18, 25, 34, 49, 55, 62, 71, 83, 95, 109, and 118 meter marks. This distance contained the extent of the surface artifacts in the secondary road. Transects 25, 34, and 46 had shovel tests excavated south of the secondary road to include the pedestaled area on which the well was located. No shovel tests were excavated in the secondary road. Seventy-one shovel tests, ranging in depth from four to 30 cmbs, were excavated (Appendix 1). Of this total 17 (23.9%) were positive.

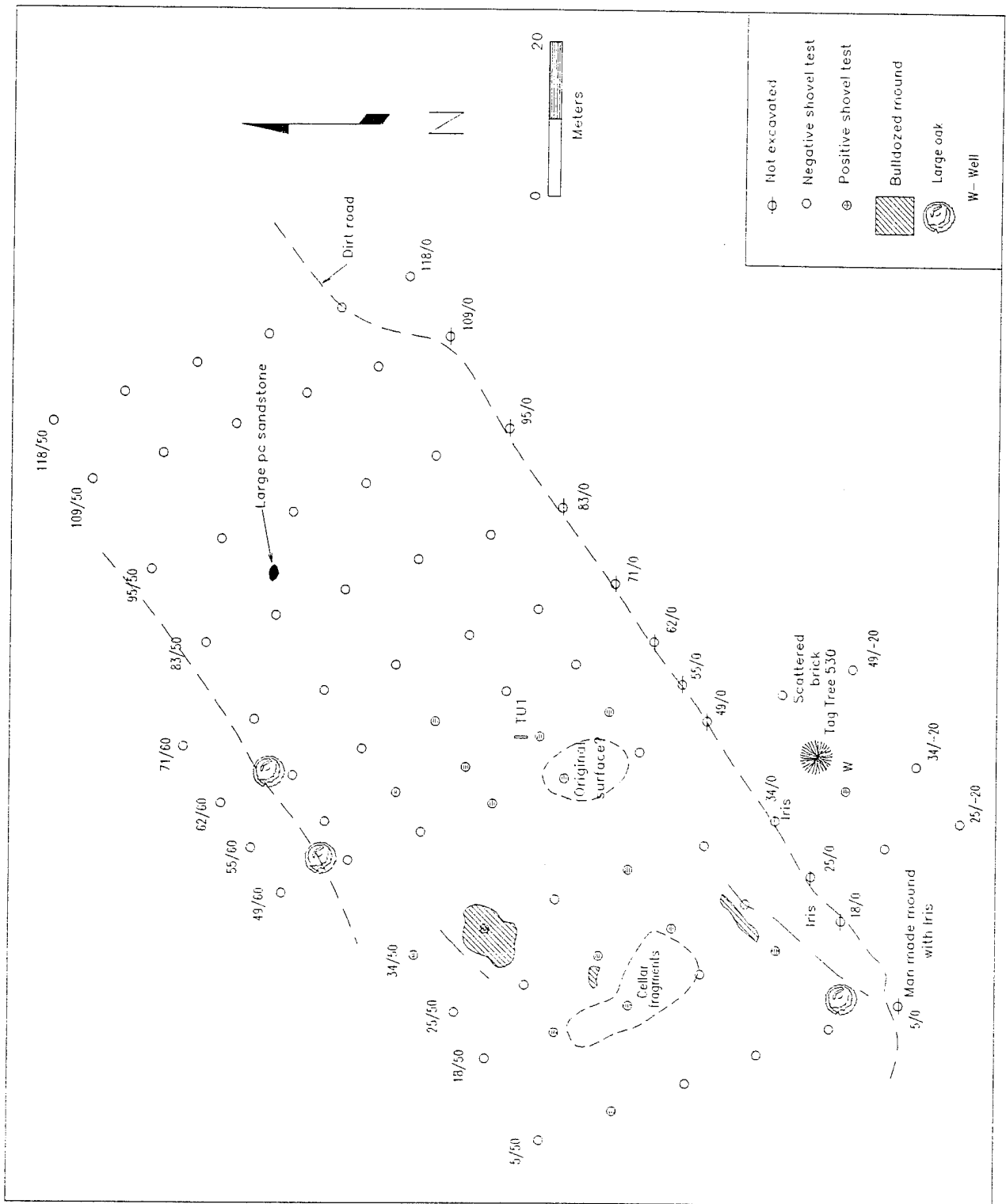


Figure 3SB562-1. 3SB562 Site Map.

A single test unit was excavated. It was positioned in the only area that had positive shovel tests and had not been disturbed (shovel test 55/20). The test unit is on a pedestaled area amongst a clump of small trees. Most shovel tests west of this point were positive, yet showed a high level of disturbance. The disturbance was identified by clumps of A and B horizon soils mixed together that would separate along the Munsell value/texture contact when placed in the screen. Shovel tests east of this point did not show any evidence of disturbance but were negative (Figure 3SB562-1).

Test Unit 1 was excavated to 30 cmbs with two strata recorded in the profile (3SB562-2). The first stratum extended from the surface to 18 cmbs. It was silt with a Munsell value of 10YR4/3 (dark brown). Rock density and size increased with depth in this stratum. Stratum 2 extended from 18 to 30 cmbs. It was loam with a Munsell value of 7.5YR5/6 (strong brown) mottled with 7.5YR7/8 (reddish yellow). Rocks became very dense in this stratum, reaching a point near the base of the unit where rock volume exceeded that of soil. Only the south 1.1 meters of the test unit was excavated to 30 cm due to the rock density.

Results of the MCRA Work

Horizontal and Vertical Extent The horizontal extent of 3SB562 was based on surface indicators and shovel test results (Appendices 1 and 3, Figure 3SB562-1). In both instances results should be viewed with caution given the high level of disturbance recorded at this site. Surface evidence in the northeast/southwest road through the site documented material from transect 18/0 to 109/0. Yet from 71/0 east, all shovel tests on the north side of the road were negative and no surface material was observed on the south side. Positive shovel tests indicate a site size of 60 m north/south by 52 m east/west. With the inclusion of surface indicators the north south dimensions increase slightly. From the road to the two large oaks a distance of 66 m was recorded. The north end of the site is marked by the two large oaks, characteristic of typical yard trees. The west side of the site is marked by a large oak associated with a recently made dirt mound with iris growing. The south boundary is marked by the well and scattered brick. The east side is marked by positive shovel tests, and a decrease in the disturbance level.

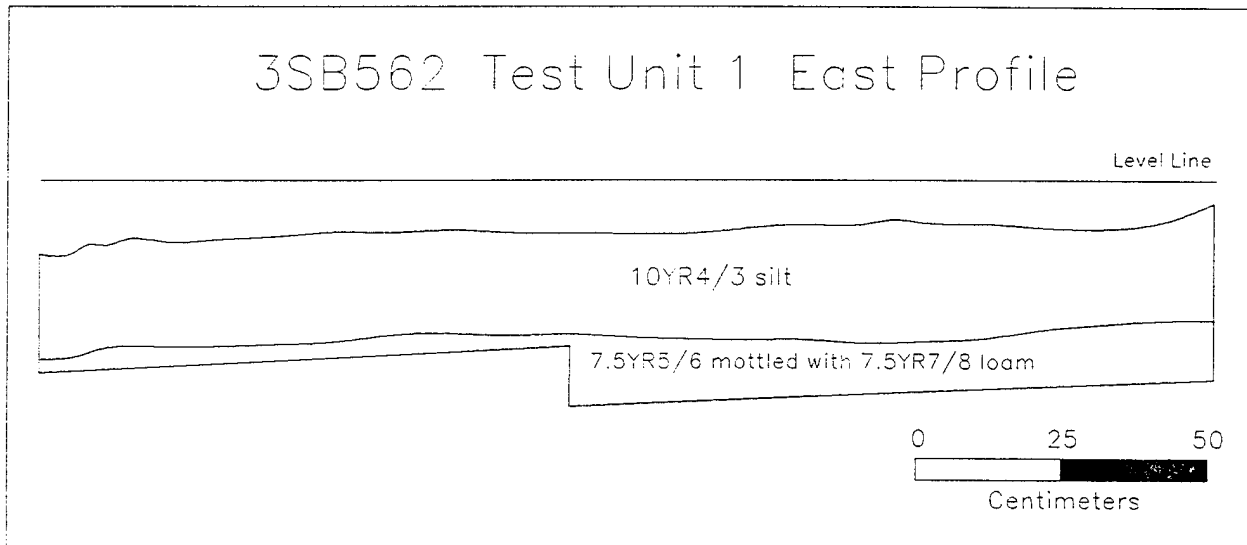


Figure 3SB562-2. Test Unit 1 Profile.

The vertical extent of 3SB562 was based on the excavation of a single test unit. This unit was placed in one of the few areas that had not been disturbed or experienced only minimal disturbance. The unit was excavated to 30 cmbs with no cultural material recovered below the 10-20 cm level. The range of artifacts decreased from glass, nails, wire, staples, metal, and coal in the 0-10 cm level to nails and a spent Winchester cartridge.

Cultural Components Identified Archival research was much more effective in defining the temporal framework of the site and activities conducted. After ownership by a series of land speculators George Wilmuth is identified as the first individual to be working the land. The 1870 agricultural census indicated he was producing crops and raising livestock (Table 3SB562-1). The land was acquired by John A McAlister (1880) who increased the agricultural output of the land (Table 3SB562-2).

The cultural material recovered during the investigations conducted at this site did little to enhance the complete identification of the cultural components present. Those artifacts recovered indicate a turn of the century occupation (3SB562-3). Other than whiteware no tableware was recovered. This is peculiar given the early occupation of the site. One possible explanation for this situation concerns the level of disturbance documented on the site. Over much of the area with positive shovel tests subsoil was at the surface or had been thoroughly mixed with the A horizon. The A horizon may have been used as fill elsewhere or used to fill in areas on or around the site since no obvious mounds of topsoil were observed.

Site Function The activities conducted at 3SB562 were determined from the records inspected during the archival research. The high level of disturbance at this site has effectively removed any possibility of identifying activities that occurred that were not connected to the farming operation.

The 1870 agricultural census indicated corn and sweet potatoes were grown. Livestock included horses, milk cows, cattle, oxen, and hogs. The property was acquired by John A. McAlister. The 1880 agricultural census indicated an increased output on the farm. Crops were increased to include Indian corn, oats, wheat, cotton, Irish potatoes, and hay. A working orchard (apples and peaches) was established and products from the surrounding woods were being exploited. Interestingly, bees were added.

Cultural material recovered does not even remotely suggest the extent of the basic activities conducted at the site that were documented by the archival research.

Site Significance

During the investigations conducted by AAI a well and cellar were recorded under less than ideal conditions. Further work by AAI failed to locate the cellar and identified the well in a totally different area than was initially recorded. MCRA investigated this site under almost ideal conditions. Their investigations documented the cellar had been filled in with associated concrete, and rocks were scattered over a wide area. The well had been partially filled in. More destructive however, were the earth moving activities at the site. Subsoil was recorded at the surface and shovel tests documented a mixture of A horizon and subsoil over a wide area. The degree of earth moving was apparent when the investigators realized the areas around single tree and small groupings were pedestaled.

Shovel test transects 5, 18, 25, and 34 were excavated across areas that had been thoroughly disturbed. A reduced level of disturbance was recorded on transects 49, 55, and 62. All the positive shovel tests were in these areas. In areas with no documented disturbance all the shovel tests were negative and no surface artifacts were recorded.

MCRA recommends 3SB562 receive archeological clearance. Disturbance has effectively destroyed the cultural deposits. In the opinion of MCRA, 3SB562 is not significant and not eligible for nomination to the National Register of Historic Places.

Table 3SB562-3. Shovel Test and Test Unit Artifacts.

UNIT Depth (cm)	SHOVEL TESTS 0-20		TEST UNIT 1 0-10		TEST UNIT 1 10-20		SITE TOTAL	
	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.
HISTORIC								
Jar, aqua	2	6.7					2	6.7
Lid liner, milk	2	1.0					2	1.0
Lamp glass, clear	1	0.3					1	0.3
Glass shards								
Amethyst	1	2.1					1	2.1
Aqua	5	7.0	1	3.1			6	10.1
Clear	10	17.5	1	1.2			11	18.7
Modern color	1	2.8	2	4.0			3	6.8
Tableware--whiteware	6	37.9					6	37.9
Stoneware--slip	1	3.9					1	3.9
Salt-glazed	1	8.4					1	8.4
Structural								
Windowpane--clear	1	0.6					1	0.6
Aqua	1	3.3					1	3.3
Nails	1	4.2	6	22.3	2	14.7	9	41.2
Square	3	8.2	2	3.2	2	4.7	7	16.1
Tin				30.0			0	30.0
Bullet cartridge					1	7.0	1	7.0
Farm hardware								
Barbed wire		2.0		124.5			0	126.5
Wire	1	1.8					1	1.8
Rivet	1	4.9					1	4.9
Staple			2	7.7			2	7.7
Band	1	86.2					1	86.2
Miscellaneous								
Coal		35.0		3.6			0	38.6
Metal		6.1		3.2			0	9.3
Plastic		0.5					0	0.5
Total	39	240.4	14	202.8	5	26.4	58	469.6
Artifacts/cubic meter			140	2028	50	264		

3SB566

3SB566 is an historic and prehistoric site on a ridgetoe off a southeast facing ridge overlooking the floodplain of the Vache Grasse Creek. The ridgetop is flat to gently rolling. A tributary of the Vache Grasse bisects the ridge west of the site and is at the base of the ridgetoe. Surface features at this site include a single pile of shale with a pair of deeply entrenched wheel tracks (drilling rig), scattered sandstone foundation remnants, and a faint remnant of an old road from a field to the site and down the face of the terrace. A small overgrown field, possibly associated with the site, is immediately to the east (Figure 3SB566-1).

The site is on a topographic feature identified as a tributary terrace (AAS site form). Smith (1986: 12 {working draft}) describes terraces in the following manner.

Terraces in alluvial valleys are former floodplain surfaces which have been abandoned when the local channel goes through a cycle of bed erosion and subsequent creation of a new floodplain at a lower level. Terraces may form as a result of the local stream responding to a major external factor (i.e. drop in local base level) or they may be the product of the natural geomorphic evolution of a stream in the absence of major changes in external variables effecting stream behavior. Terraces are common in most alluvial valleys of several thousand years age or older.

Many terrace levels have been observed in tributary valleys. As many as three terrace levels may exist in some of the larger tributary valleys. The higher (greater than 12 feet above the modern floodplain) terraces are most likely at least as old as late Pleistocene (late Wisconsin). Numerous low terraces also exist in areas mapped as undifferentiated tributary floodplain (TU), as observed in the field, but, due to their small extent, are not identified on geomorphic maps. These low tributary terraces, ranging in elevation from 2 to 12 feet above the modern floodplain, were formed during the Holocene (last 12,000 years). As a general rule, the higher the terrace is above the modern floodplain, the greater its age.

Smith (n.d.:19) notes that tributary terraces comprise .62% of Fort Chaffee.

3SB566 is at the contact between Leadvale silt loam and Taft silt loam (Cox et al. 1975 sheet 16, 14-15, 25). Leadvale silt loam occurs on the toe slopes of hills and old stream terraces and has a slope ranging from 3-8%. The soil is moderately well drained and has native vegetation consisting of mixed hardwoods and some pine. Taft silt loam is found on old stream terraces in broad valleys and has a slope of <1%. The soil is somewhat poorly drained and supports mixed hardwoods and some pine.

Previous Investigations

3SB566 was recorded by AAI on 24 February 1986 (AAS Site Form). At the time it was first recorded conditions were described as poor. The site area was completely wooded resulting in the ground surface being covered by leaves. The artifact density was described as moderate. MCRA was unsure if this determination was based on shovel tests results or surface artifacts, since all cultural material was recovered from shovel tests. The amount of disturbance on the site is noted as being major, though the degree of site destruction is listed as unknown. Agriculture and natural causes are identified as the mechanisms impacting the site. AAI (AAS Site Form) describes the site in the following manner.

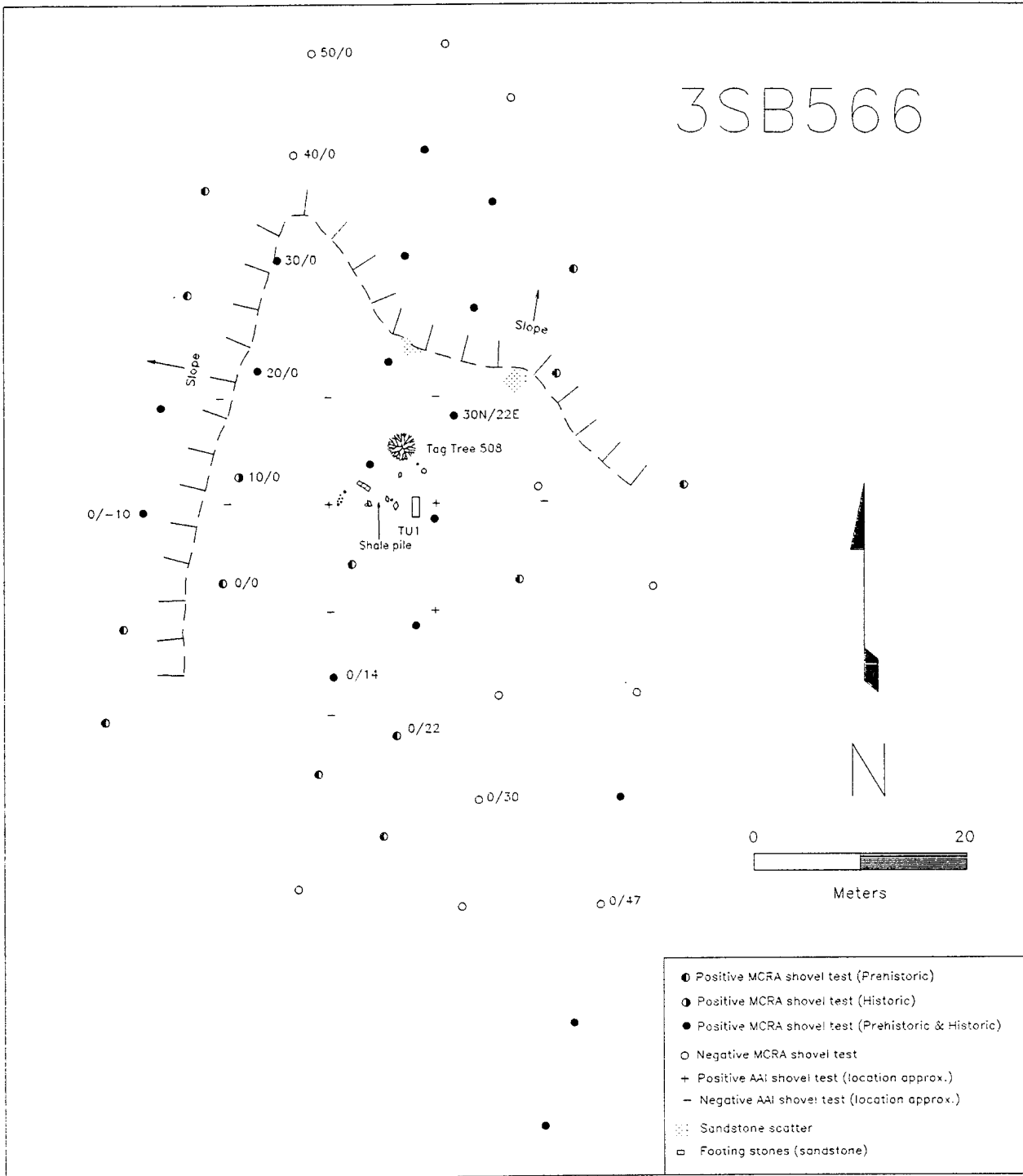


Figure 3SB566-1. 3SB566 Site Map.

This is a small historic site on a terrace ridge east of Vache Grasse Creek. Some possible foundation stones were noted on the site, but have been disturbed. Rock piles were also observed. Ten shovel tests were excavated to a depth of 20cm, three of which were positive. Collected items included ceramics, glass, an iron hinge, and brick fragments. A cast iron plow point was observed but not collected. Extent of the site was defined at 20X25m.

All cultural material recovered from 3SB566 by AAI originated from shovel tests. It included a single whiteware shard, one piece olive-green glass, one piece of milk glass, a cast iron (?) hinge, and two pieces of brick that fit together.

Based on the information collected during this phase of the project AAI recommended 3SB566 be tested to determine the eligibility status for nomination to the National Register of Historic Places.

3SB566 was revisited a second time by AAI. During this visit AAI made the following observations (AAS Site File).

The site was revisited on 28 December 1992 to obtain a Magellan GPS location reading, to tag the site with aluminum tree tags, and to draw a new sketch map of the area. At the time of the revisit, the site did not appear to have been disturbed since it was originally recorded.

MCRA Archival Investigations

This site is on the south side of a road connecting Central and Randolph. There are no other historic sites immediately by it that are being testing during this project. The dwelling was set back from the primary road, so it would have been necessary to use a local farm road to get to the house. During 1887, this site was in Sulphur Township. No structure is shown on the maps in the Sebastian County Atlas of 1887 or 1903. Since the land was acquired by the military in 1942, this structure would have had to predate 1887, or probably date between 1903 and ca. 1942.

The earliest named entry on part of this land was Abraham S. Wilty. The legal description of this property was the SE 1/4 SW 1/4. The date April 1837 was obtained in Little Rock from a review of the abstract records, but an original land patent book at Special Collections, Mullins Library indicated that Wilty got 40 acres on August 23, 1836. No record was found of Wilty in the Federal Census of 1850 (Jackson et al. 1976), 1860, or 1870 (Jackson 1987). In August 1836, Mitchell and Annie D. Sparks received the S 1/2 SW 1/4 by patent.

Mitchell Sparks definitely never lived on the land that he owned. He was a person of considerable reknown and influence in 19th century Fort Smith. Sparks was born in Elfin, County Roscommon, Ireland, on February 4, 1811 (Cravens 1978:64). He emigrated to the United States in 1836. A brief description in the Goodspeed Publishing Company history of Sebastian County (Lucas 1978:1365) states that Sparks:

...was a native of Dublin, and was educated in Trinity College, Dublin Institute. He graduated in medicine, but never practiced his profession. He immigrated to America when a young man, locating at Fort Smith, where he engaged in merchandising up and down the river, and entered business with a man by the name of Miller, who was one of the leading merchants of Fort Smith for many years. Mr. Sparks was married in New York, in 1847, to Miss Hannah Bennett, a native of Massachusetts. After marriage they

moved to Fort Smith, and here Mitchell Sparks died in 1864. Mrs. Sparks is still alive (1889), and is now residing in Fort Smith.

Patton (1936:53) presents somewhat more detail on the early settlement of Sparks in Fort Smith, although it is unknown how accurate his interpretation is since it lacks references. It is apparently based on the oral tradition of that period. He indicates that Sparks came up the river with a keelboat full of merchandise. He sold the stock and contracted for the building of a two-story house on the river front. This was finished in 1842, and was occupied by Joseph Miller, his partner. The farm was known as Miller and Sparks.

Cravens (1978:64) states that Mitchell and Thomas, his brother, formed a mercantile firm under the name of M. & T. Sparks in Fort Smith. Sparks was also actively engaged in other ventures in early Fort Smith. During the Gold Rush period, he outfitted a caravan to head out west (McArthur 1986:235). His brother, James Henry was in charge. It was known as the Sparks Company.

In 1849, Mitchell Sparks had served on a committee which eventually resulted in the formation of the Fort Smith and California Emigrating Company (Weaver 1978:56).

On the 23rd of September (1848) a public meeting was held at the old Presbyterian Church, corner of Washington and Mulberry streets, for the purpose of securing action by the next legislature in reference, to the contemplated road to the west, the government not yet having ordered a survey made. Captain John Rogers presided at the meeting, and John F. Wheeler was secretary. A committee consisting of Solomon F. Clark, W. W. Fleming, Mitchell Sparks, Samuel L. Griffith and Gen. W. L. Jones drafted a resolution calling attention to the practicability of the Arkansas or 35th parallel route to Santa Fe and urging the legislature to bring the subject before our members of congress at the session that was then approaching. The program was actively carried out by both the legislature and the solons at the national capitol.

Mitchell Sparks served as mayor of Fort Smith in 1852. In 1856, he bought a two-story brick mansion erected in 1851 by William T. Polk in Fort Smith (Faulk and MacJones 1983:35). Patton (1936:80) states that this house was at the southwest corner of Third and B Streets in Fort Smith. It served as the headquarters of General Blunt, commander of the Union forces, in the Civil War.

According to the Federal Population Census of 1860 (Scott 1977:89), Sparks' household consisted of nine people. Mitchell was listed as a merchant from Ireland, and was 48 years old. His wife, Hannah, was 32 years old. They had five children. They were all born in Arkansas and included: George (age 12 years), David (age 10 years), Eliza (age 6 years), James (age 3 years), and Charles (age 1 year). Cravens (1978) lists other children born to the couple. In addition, Mitchell had two laborers. One of these was John S. Tylor. He was from New Hampshire, and was 27 years old. The other, William Whea, was listed as a clerk. Whea was 27 years old and a native of Ireland.

On the Wilty document, the names of Matthew Moore and J. W. Seaman appear. This is dated March 1844. Matthew Moore was found listed in the Federal Population Census of 1850 (Jackson et al. 1976) living in Crawford County, Sugar Loaf Township. Sebastian County was not created until 1851. On the Hayes (1887) map of the late 19th century, Sugar Loaf was in extreme south Sebastian County. The Federal Population Census of 1860 indicates that Moore was living in Cole Township of Sebastian County. This is in the west-central part of the county. The Federal Population Census of 1870 listed only one

Matthew Moore. This Moore was living in Randolph County in Hurricane Township. There was no record of Moore in the Agricultural Census of 1870 for Sulphur Township. Patton (1936:20) cites W. J. Weaver who noted that among early settlers of the Fort Smith vicinity was a Matthew Moore. He (Patton 1936:59) states further:

Fort Smith was incorporated as a town on December 24, 1842. Matthew Moore and Charles Hudspeth were justices, and Frank Redmond was constable. Moore moved to Sugar Loaf, and was succeeded by John Baird.

During April 1849, Seaman sold the land in the SE 1/4 SW 1/4 to Mitchell Sparks. If the Matthew Moore identified above is the same one listed for the property discussed, it could be that he sold out any share that he had to Seaman. J. W. Seaman knew Mitchell Sparks, but it may have been because of business dealings and Sparks' position on the committee during the Gold Rush. Seaman was probably trying to obtain cash or goods to head west so he sold or bartered his land to Sparks. McArthur (1986:56) cites part of a letter from J. W. Seaman to Mitchell Sparks that was printed in the Fort Smith Herald of June 6, 1849. Seaman was a member of the Fort Smith and California Emigrating Company headed west of the Gold Rush.

I am here as sound as a Spanish dollar. All of my friends are well and have not met with any accident. But there have been at least one hundred breakdowns since (we) left Fort Smith; and it has rained almost every day, and the ground is so rotten that it has been impossible to travel. We are within fifteen miles of the troops; and if it doesn't rain tonight, we will be up with them day after tomorrow, as Captain Marcy is moving very slow so that we may overtake him.

Seaman must have never returned to Fort Smith, since he is not included in the Federal Population Census of 1850 (Jackson et al. 1976), 1860, or 1870 (Jackson 1987) for Sebastian or Crawford counties.

The Real Estate and Personal Property Tax records were examined at the Sebastian County Courthouse in Greenwood, Arkansas. Personnel in the County Clerk's office indicated the only records they had were 1881 and later. The Real Estate Tax for 1881 showed that G. T. Sparks owned 80 acres in the S1/2SW1/4, valued at \$200. This could have been Mitchell Sparks' son, George, mentioned above.

This land was sold to John Maxwell during February 1883. The Real Estate Tax record shows that in 1881 Maxwell owned 80 acres (value \$340) of the E1/2SE1/4 of the adjoining Section 15, so he was residing in this area. See the description of 3SB567 for the productivity and nature of his farm in this section.

Of the multiple parties that owned this property, the only owners that were not land speculators was the Maxwell family. It is also possible that John Maxwell had farm laborers living on the land. Maxwell could have bought the land at 3SB567 when the family arrived and increased his acreage to the adjoining section when the land was available in 1883.

In the Federal Population Census of 1890 (Frontier Researchers 1982), John Maxwell was listed in Rogers Township. Available information does not suggest that John Maxwell ventured into other occupations or activities. The Sebastian County Atlas of 1887 listed him as a farmer in Section 15. This entry suggests that he remained living on his land in Section 15, even after the purchase of Sparks' land in Section 14.

Maxwell sold the property to William Edenborn in 1895. By this time, John Maxwell was 63 years. The Real Estate Tax records of 1896 and 1903 indicate that Maxwell owned 80 acres valued at \$320 in the E1/2SE1/4 of Section 15. He was no longer associated with the land where 3SB566 is located once he sold to Edenborn. The Western Coal Mining Company apparently bought only the mineral rights in Section 14, since Sarah Edenborn still owned the land in 1942.

None of the documents available suggest that John Maxwell occupied the dwelling at 3SB566. John Maxwell bought the land in Section 15 before he bought that in Section 14 where 3SB566 is located. Even after Maxwell sold the property to Edenborn in 1895, the family continued to live in the adjoining Section 15. It seems probable that the Maxwells were the only family that could have occupied the land. Other owners were speculators. It is possible that Maxwell had a house at 3SB566 for a farm laborer, but he bought the land in 1883 and there was no dwelling shown on the Sebastian County Atlas of 1887. It could have been used ca. 1888 to 1895 when he sold the land. It is unlikely that Edenborn had anyone living on the land, and the Sebastian County Atlas of 1903 does not show a structure.

The General Highway and Transportation Map of Sebastian County, Arkansas (1936, revised 1941) was obtained from Special Collections, Mullins Library. Sites were plotted on a photocopy. As noted at the beginning of this site description, 3SB566 was on the south side of a road connecting Central and Randolph. Randolph was later renamed Jenny Lind. By this time, the area was identified as the Camp Chaffee Maneuver Area. No houses were shown along any of the roads, although the dwelling at 3SB566 was apparently gone years earlier.

MCRA Field Investigations

On 31 May 1994 a preliminary visit was made to 3SB566 by MCRA. The purpose was to determine the condition and location of the site and gather information that would augment that already in the possession of MCRA.

The site was tested over a two day span from 5-6 October 1994. Conditions documented at this time essentially reflected those recorded by AAI and MCRA during its earlier visit. The site area was completely wooded and the surface visibility was 0% due to the leaf cover. The understory was minimal. The initial step taken by MCRA personnel was a complete surface inspection of the area, flagging any surface artifacts or area of historic activity. Surface features identified by MCRA included several sandstone rocks, two "piles" of small sandstone rocks, a single pile of shale associated with a set of deeply entrenched tracks, and a faint remnant of an old road leading from the site to a field and down the face of the terrace (Figure 3SB566-1). The plow point noted by AAI was not relocated, though its plotted location was in the area of the perceived road.

A northwest/southeast baseline for shovel test transects was established on the site. The location of the transects on the baseline included -10, 0, 14, 22, 30, and 47. The number of shovel tests within each transect varied depending on whether it was positive or negative and its topographic position. In each instance a 10 meter spacing was maintained between each shovel test. Forty-three shovel tests were excavated, ranging in depth from 11 to 40 cmbs (Appendix 1). Of this total 31 were positive (72%).

A single test unit was excavated. Its location was determined based on the shovel test results, topography, and surface features (Figure 3SB566-1). The test unit was excavated to 40 cmbs with two strata identified in the profile (Figure 3SB566-2). The first stratum extended to 32 cmbs. It was silt with a Munsell value of 10YR5/6 (yellowish brown). A 7.5YR5/6 (strong brown) mottling and concretions were documented at the base of stratum 1. From 32-40 cmbs silt with a Munsell value of 7.5YR5/6 (strong brown) was recorded. Concretions were also present at this depth.

Results of the MCRA Work

Horizontal and Vertical Extent The horizontal extent of 3SB566 was based entirely on shovel test results. The only surface indicators on the site were in the central part. Two components, prehistoric and historic, were identified during the investigations with each displaying different dimensions. The full extent of the prehistoric component was not identified as part of this project. It covers most of the shovel tested area and is expected to continue along the terrace overlooking Vache Grasse Creek. Of the 43 shovel tests excavated, 26 (60%) had prehistoric material in them. It minimally occupies an area covering 70 m north/south by 50 m east/west.

The historic component was identified in 16 (37%) of the excavated shovel tests. It measures 28 m east/west by 50 m north/south. The western 5 m. of the historic component are on the terrace face with an abrupt drop in elevation. The northern 15 m are also on a slope though less marked than that to the west.

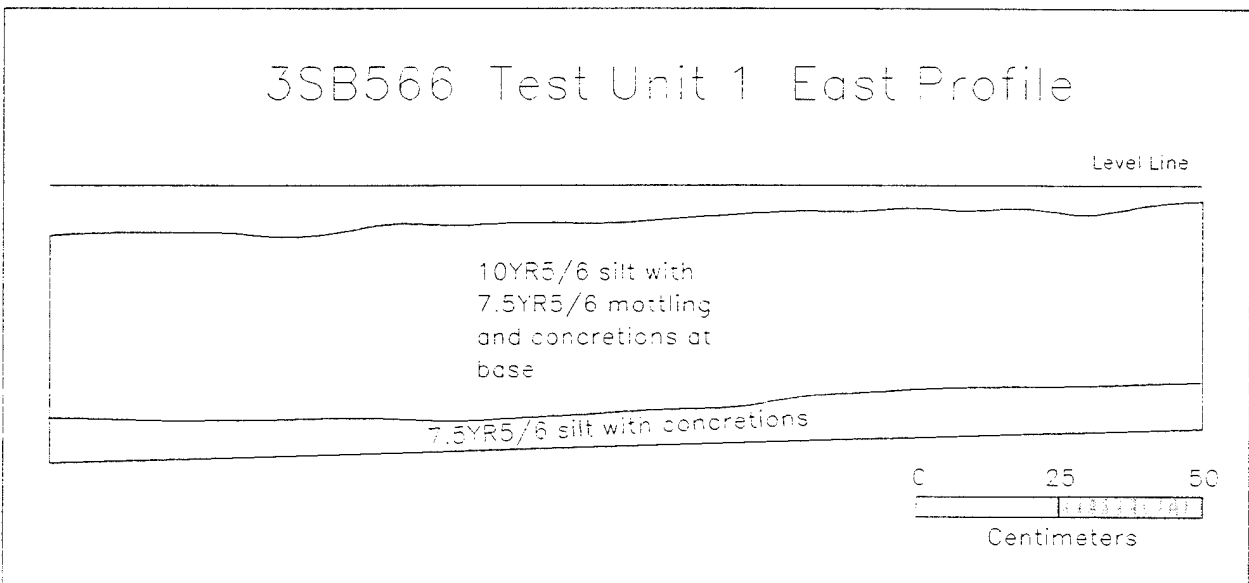


Figure 3SB566-2. Test Unit Profile.

Prehistoric and historic artifacts were recovered in 13 (30%) shovel tests.

The vertical extent of the prehistoric component was not firmly established during the excavation of Test Unit 1. This excavation determined the minimum depth of the prehistoric component to be 40 cmbs (Table 3SB566-1). Shovel tests approaching the 40 cm depth and having prehistoric material in them are indicative of the density of cultural material from this period (Table 3SB566-1). The historic material was recorded to 30 cmbs with an artifact density of 290 artifacts per cubic meter present at that depth (Table 3SB566-1).

A single disturbed structure foundation occupies the central part of the site. It is believed to have been disturbed during the drilling that occurred at that location. Sandstone covers an area measuring 6 m east/west by 3 m north/south.

Cultural Components Identified A surprising number of projectile point fragments (6) were recovered given the level of investigations conducted. Three specimens too fragmentary to obtain measurement data were recovered. These included the distal half, a lateral margin, and a basal corner. The proximal half of a Gary point (93-77-27-6) was recovered in shovel test 22/20 in the 20-40 cm level. Small areas of river worn cortex are present on one surface. The point is planoconvex and has straight lateral margins. The shoulders are weak and tapered. The stem is contracting and the base is rounded. Measurements included: the haft width (16.8 mm), haft length (16 mm), width (25.3 mm), and basal width (10 mm).

The second specimen (93-77-34-1) is a fragment of the proximal half. Impact fractures essentially removed one lateral margin and damaged a shoulder. The point appears to have been weakly barbed and is planoconvex. The stem is short and contracting. The base is straight. Measurements included: haft width (15.4 mm), base width (15 mm), and haft length (8.8 mm).

The third specimen (93-77-35-2) is a stemmed point made from a dark quartzite. The immediate distal tip and one basal corner is missing and a lateral margin has been extensively damaged. An impact fracture is evident on one lateral margin (damaged one) and possibly the stem. It is planoconvex with weakly tapered shoulders. The lateral margins are straight. Measurements obtained from this specimen included: haft width (14 mm), haft length (7.1 mm), and width (23 mm).

Archival research indicates some confusion over the ownership of the original land patent on which 3SB566 is located. Among those involved were Mitchell and Annie D. Sparks. Born in Ireland, Mitchell Sparks possessed considerable influence in 19th century Fort Smith. However, he never lived on the land. This land was eventually purchased by John Maxwell in 1883. Maxwell was the only owner not involved in land speculation. The land was sold to William Edenborn in 1895.

The 1887 and 1903 Sebastian County Atlas fails to show a structure at the site location. Archival information suggests any structure would have to predate 1887 or between 1903 and about 1940. A second possibility is the use of a structure by a hired farm laborer between 1888 and 1895.

Table 3SB566-1. Shovel Test and Test Unit Artifacts.

UNIT Depth (cm)	SHOVEL TESTS 0-20		SHOVEL TESTS 20-40		TEST UNIT 1 0-10		TEST UNIT 1 10-20		TEST UNIT 1 20-30		TEST UNIT 1 30-40		SITE TOTAL	
	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.
FAUNAL--Bone			1	0.6			3	2.1	1	7.1			5	9.8
Tooth					1	0.3							1	0.3
LITHICS														
Biface	2	4.4									1	1.7	3	6.1
Darts	1	4.8	2	20.8									3	25.6
Flakes	42	26.4	10	3.0	12	6.6	17	7.9	26	10.5	24	9.1	131	63.5
Perforator/graver					1	1.7							1	1.7
Spokeshave							2	9.6					2	9.6
Decortication	5	10.8	1	0.4	4	7.3			4	10.1	1	0.1	15	28.7
Polish	1	1.5											1	1.5
Retouched/utilized	5	11.6	1	0.5	3	4.2	4	4.4	2	2.9	2	3.9	17	27.5
Soft hammer lip	3	1.1	1	0.2	2	1.0	2	0.6	1	0.9	1	0.1	10	3.9
Shatter	6	8.0	8	3.2	3	1.1	5	4.4	6	3.5	6	5.6	34	25.8
Retouched/utilized	1	0.5			1	0.2			1	2.3			3	3.0
Unmodified		2.5				2.3		0.9					0	5.7
Sandstone				2.1				2.8		15.5	3	3.9	3	24.3
Hematite	1	3.0			1	3.9							2	6.9
HISTORIC														
Bottle--aqua, applied									1	1.7			1	1.7
Glass shards														
Amber	1	0.4											1	0.4
Aqua	3	4.5			2	4.8	3	0.8	5	7.3			13	17.4
Olive	3	2.5	1	5.3	1	0.2	1	1.0	1	6.0			7	15.0
Clear	3	1.0					1	1.7					4	2.7
Modern color	1	1.5					1	1.6					2	3.1
Tableware														
Whiteware	11	12.3	1	0.3	7	10.4	12	9.9	4	17.4			35	50.3
Spongeware	2	3.4			1	0.1							3	3.5
Transfer print	2	2.4			5	2.7			1	0.5			8	5.6
Shell-edge									1	0.2			1	0.2
Decalcamania							1	1.6					1	1.6
Molded rim	1	1.6					1	0.3					2	1.9
Slip	1	0.3											1	0.3
Porcelain									1	2.0			1	2.0
Stoneware--slip	2	0.4					1	17.4					3	17.8
Salt-glazed					1	8.7							1	8.7
Glazed					1	2.8							1	2.8
Structural														
Windowpane--aqua			1	0.2			1	0.1	1	0.2			3	0.5
Nails--square	15	33.9	1	2.5	14	31.7	6	13.9	4	15.6			40	97.6
Brick		0.5		1.6		0.4				8.1			0	10.6
Horseshoe							1	76.9					1	76.9
Clip							1	19.9					1	19.9
Armament--rear sight	1	6.7											1	6.7
Miscellaneous metal						93.3							0	93.3
Total	113	146.0	28	40.7	60	183.7	63	177.8	60	111.8	38	24.4	362	684.4

The archeological artifact assemblage supports the 1888 to 1895 occupation and possibly indicates one prior to 1887. Four pieces of clear glass and two with a modern coloring agent were recovered at this site. Three pieces of clear glass were recovered in shovel test 22/10. A single piece of glass with a modern coloring agent was from shovel test 22/30. One piece each of clear glass and modern colored glass was from the 10-20 cm level of Test Unit 1. This compares to the recovery of 22 pieces of amethyst, aqua or olive glass all of which could indicate a pre-1900 date. The case for a limited short term occupation predating 1900 is enhanced when one considers the temporal placement of additional artifacts recovered. All recovered nails were square (pre-1900). Temporally sensitive ceramics included: decalcomania (1890-present), transferware (1840-present), spongeware (1830-1865), and molded whiteware (introduced 1845). No clear windowpane was recovered; all was aqua colored. A single spent 44/40 cartridge was recovered from Test Unit 1. This cartridge was made for Winchester rifles between 1873 to 1937. Colt continued to make pistols chambered for this round until 1942.

The ceramics, aqua windowpane, and spent cartridge suggest a structure was briefly present between 1888 and 1895.

Site Function Data gathered from the prehistoric component suggest refurbishment of weapons. Of the three obvious projectile points recovered on the site, two had impact fractures. The recovery of a spokeshave indicates woodworking, possibly associated with weapons production.

Activities associated with the historic component are extremely diverse given the small size of the site and the lack of identifiable surface features. Two artifacts indicating farming were identified by MCRA or AAI. AAI noted a plow point on the terrace face. Part of a horseshoe was recovered by MCRA with the small size indicating it was used on a mule. Faunal remains, including bone and a tooth, indicate butchering was occurring. A surprisingly diverse assemblage of domestic artifacts were recovered, indicating a well stocked household. Something one would not expect for a single farm hand.

Site Significance

The historic component at 3SB566 represents a short term occupation probably dating between 1888 and 1895 with no archival or archeological evidence to suggest use after 1900. The recovery of a small number of clear and modern colored glass is interpreted as minor contamination of an otherwise single component site. Information that would indicate otherwise was not documented. The archival research indicated a very narrow window during which a structure could be present and not be recorded in the Sebastian County Atlas. Artifacts that would indicate occupation post-dating this period were not recovered. No wire nails or clear windowpane were recovered.

In addition to the diverse domestic artifacts documented at the site several avenues of research are evident at 3SB566. First is the presence of weapons and shells on the site. As noted earlier, a spent 44/40 cartridge was recovered. The rusted rear sight of a rifle was collected in shovel test 14/40. Bone preservation was excellent with faunal remains being recovered in a shovel test and all three levels of the test unit. This will allow a partial identification of the diet and whether game animals were being exploited at this time or if the individual was relying solely on farm-raised animals. Transportation and/or farm related activities are evident at 3SB566.

3SB566 offers archeologists a rare opportunity to collect a data base seldom encountered on historic sites. Evidence suggests it was occupied for a short period of time, then abandoned, with minimal post-1916 contamination occurring. If this site was occupied by a hired farm hand it will allow archeologists to compare the economics of the land owner and hired hand in an environment where everyone worked.

The full extent of the prehistoric component was not determined as part of this project. However, the test unit and shovel test excavations indicated a high density of projectile points and cultural material to a minimum depth of 40 cmbs. Excavations conducted by MCRA on sites occupying a similar topographic setting have documented material to almost a meter deep on Fort Chaffee. In these instances the sites have been determined significant and eligible for nomination to the National Register of Historic Places (Santeford et al. 1994).

It is the opinion of MCRA the 3SB566 is significant and eligible for nomination to the National Register of Historic Places. It should be preserved in place or mitigated by data recovery if impacts are planned.

3SB567

3SB567 is an historic site situated on the north slope of an unnamed ridge on the north side of a road that now serves as a fire break. Surface features include a structure foundation, a flower bed, a large depression, scattered foundation stones and a linear mound of rocks (Figure SB567-1). There are also numerous junk cars and several pre-WWII Stewart Tanks that have been used for live fire practice. Numerous small depressions are present and appear to represent shell holes from artillery or mortar practice.

The site lies in a ridge slope, eroded geomorphic zone on which Enders-Mountainburg association, steep (Cox et al. 1975:13, Sheet 12) soils have formed. Elevations range from 470 - 490 ft. with a slope of 7.5%. Vegetation is composed primarily of small hardwoods with an understory of black berries, rose bushes, greenbriar, honeysuckle, and sumac.

Previous Investigations

The site was recorded on February 25, 1988 during a survey conducted by Archeological Assessments, Inc. They describe the site as follows (AAS Site File):

This site consists of the ruins of an historic site shown on the county atlas. The structural remains seem to be confined to a possible cellar. One shovel test of seven conducted was positive, showing the presence anthropic soils. Surface historic materials were observed only in the road and firelane. Collected items included ceramics, and also observed were light blue and clear glass. The site has evidently been damaged by earth-moving. Extent was determined to be 30 x 40m.

The site was revisited on 27 October 1992 to obtain a Magellan GPS location reading, to tag the site with aluminum tree tags, and to draw a new sketch map of the area. The site is covered by thick honeysuckle and does not appear to have been disturbed since it was originally recorded

Archeological Assessments investigators recovered one shard of plain porcelain from Shovel Test 3 and one shard of plain whiteware from the surface (AAS site files).

Bennett noted that the site has suffered major disturbance from an unidentified source and recommended that test excavations be undertaken to assess the site's significance relative to National Register of Historic Places criteria, presumably because of its possible association with a structure shown on an early map.

MCRA Archival Investigations

Sites 3SB533 and 3SB567 are situated on the same property. 3SB567 is on the north side of the road connecting Central and Randolph. A structure is shown at the location of the site on the Sebastian County Atlases of 1887 and 1903.

The land records in Little Rock indicate the earliest owners were William M. Gwin and Samuel Davis in 1839. An original copy of the land records in Special Collections, Mullins Library gives the date August 10, 1836. The part of the section was the E $\frac{1}{2}$ of the SE $\frac{1}{4}$ of the SE $\frac{1}{4}$.

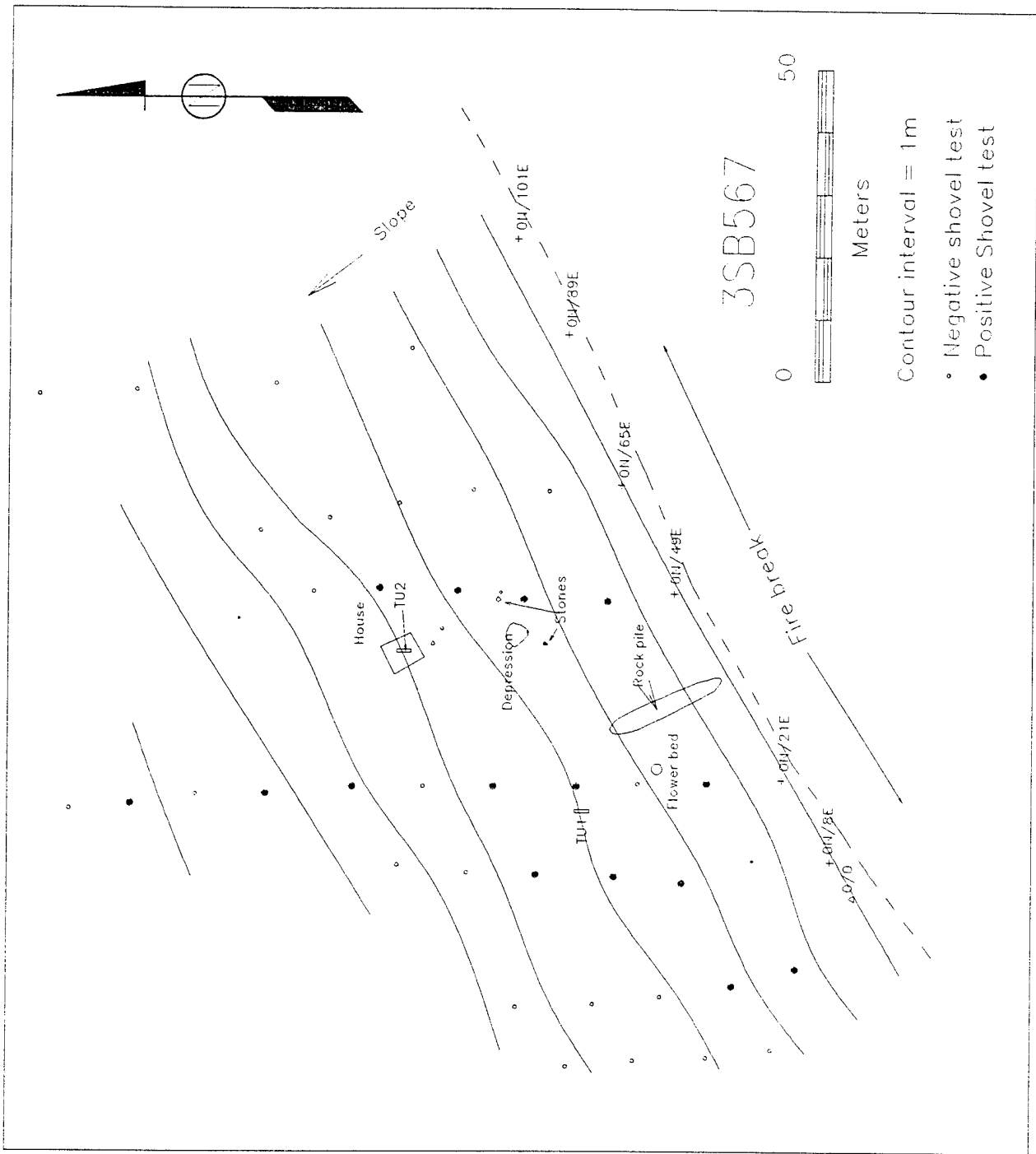


Figure SB567-1. Map of 3SB567 showing surface features and the location of the MCRA work.

The land was sold to William and Margaret Wood in 1852. No record was found of a William Wood on the Federal Population Census of 1850 (Jackson et al. 1976), 1860, or 1870 (Jackson 1987). There was no Wood shown in this township on the Agricultural Census of 1870. Wood owned land in 11 counties. It is likely that Wood, like Gwin and Davis, speculated on land from a distance.

In 1869, Wood sold the land to Jesse S. Haymaker. There is no record of Haymaker in the Federal Population Census of 1860, but the census of 1870 (Jackson 1987:200) lists a J. Haymaker in Upper Township of Sebastian County. The Agricultural Census of 1870 for Sulphur Township was examined for Haymaker. There was no entry for him during that year. It is possible that he owned the land, and perhaps did some limited farming there. There is no evidence though that he was living on the land.

Sometime before 1881, W. N. Ayers acquired the land. He would not have lived on the land. This was W. N. Ayers who was a hardware merchant in the City of Fort Smith. The Federal Population Census of 1880 indicates that he was 54 years old, and was a native of Ohio. His full name was William Norton Ayers, and he lived 1825-1914. Ayers' wife, Sarah Ann, was 51 years in 1880. She was a native of New Hampshire, and was "keeping house." They had six children. It is apparent that Ayers bought the land for investment purposes.

The oldest Real Estate Tax and Personal Property Tax records on file at the Sebastian County Courthouse at Greenwood date to 1881. The Real Estate Tax record of 1881 shows that John Maxwell owned 80 acres (worth \$340) in the E $\frac{1}{2}$ of the SE $\frac{1}{4}$. W. N. Ayres still owned the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of the section.

It is possible that Maxwell acquired this land during the 1870s. The Agricultural Census of 1880 shows that he already had 80 acres, and none of the records suggest that he owned other land (Table SB567-1)

John Maxwell was born July 17, 1840 and died October 17, 1913 (McGehee 1992:114). His wife, Elizabeth, was born March 1, 1843 and died July 9, 1925. They are buried in the White Cemetery (SE $\frac{1}{4}$, Section 2, T7N, R31W) within the boundaries of Fort Chaffee (McGehee 1992:114). A graveyard is shown there on the J. W. Riggs property on the 1887 and 1903 plat maps. In both of these years, Maxwell owned the land where 3SB567 is located. House sites 3SB533 and 3SB566 were also on the same land. It is probable that the house at 3SB567 is where the Maxwell family lived. There was no John Maxwell listed in the Federal Population Census of 1860. In the census of 1870, the only Maxwell listed in this area was a Joseph Maxwell in Center Township of Sebastian County (Jackson 1987) in the Greenwood area. The Federal population Census of 1880 lists John Maxwell as a 39 year old farmer. He was a native of Tennessee, and his parents were natives of North Carolina. John's wife was Elizabeth (36 years), who was keeping house. She was a native of Tennessee, but her parents were from South Carolina. They had five children: William (age 18 years, Tennessee), and Hezekiah (age 5 years, Arkansas). This record shows that the Maxwell family came to Arkansas between 1870 and 1875.

Although the Personal Property Tax records list only livestock, carriages, watches, and value of personal property, without regard to crops and other aspects of the farm, the records present additional information because taxes were paid yearly. The personal property of John Maxwell was recorded for a number of years. In 1881, Maxwell owned 1 horse (value \$60), 5 cattle (value \$75) and two mules (value \$125). The total worth of his personal property was \$410. During 1886, Maxwell owned 1 horse (value \$75), 20 cows (value \$140), 1 mule (value \$75), 8 hogs (value \$8), 1 carriage (value \$30), 1 gold or silver watch (value \$14). The total valuation of his other articles of personal property was \$150, and his total personal property was \$492.

Table SB567-1. The John Maxwell farm on the Agricultural Census of 1880

Improved Land	40 acres
Permanent Meadows	5 acres
Woodland and Forest	35 acres
Value of Farm	\$600
Value of Farm Implements	\$100
Value of Livestock	\$275
Cost of Repairs and Building (1879)	\$15
Value of Total Farm Production	\$500
Horses	3
Milch Cows	5
Other Cattle	1
Calves Dropped	5
Cattle Sold Living	4
Butter Produced (lbs, 1879)	85
Swine	10
Poultry	25
Eggs Produced (1879)	150
Indian Corn (acres/bushels)	14/275
Oats (acres/bushels)	3/30
Cotton (acres/bales)	15/8
Sweet Potatoes (acres/bushels)	0.25/25
Cords of Wood cut	40
Value of Forest Production	\$20

The 1896 Personal Property Tax record shows that he owned 2 horses (value \$70), 8 cows (value \$50), 7 hogs (value \$5), 2 carriages (value \$40) and 1 watch (value \$15). The total value of his other items of personal property was \$50, and his total worth was \$220.

The Federal Population Census of 1900 listed John (age 59 years, farmer), Lizabeth (age 57 years), and William Price. Price was 26 years old, He had worked 4 months as a farm hand, and was a native of Arkansas. The Personal Property Tax record of 1903 shows that John Maxwell still owned 2 horses (value \$150), 8 cows (value \$80), 3 hogs (value \$5), 2 carriages (value \$80) and 1 watch (value \$10). His total worth in terms of personal property was listed as \$960, but it is more likely that it was around \$400. Even in 1910, three years before he died, Maxwell had 1 horse (value \$50), 5 cows (value \$35), 2 hogs (value \$10), 2 carriages (value \$50) and 1 watch (value \$10). His total worth in terms of personal property was \$455.

Legal documents in Little Rock indicate that W. W. and Temple I. Williams had some connection with the land in 1920. In 1922, E. M. Wingfield also had some connection with the land.

In 1932, John and Anna Maxwell sold the land to Tennie Maxwell. This John Maxwell was John and Elizabeth Maxwell's son. The Federal Population Census of 1900

identifies John Maxwell who was 24 years old. He was a coal miner living in Sulphur Township. John was born in Arkansas, but his parents were from Tennessee. His wife, Anna, was 22 years old. She was born in Kansas, but her father was from Ohio and her mother from Kansas. They had one child, Nellie G. (age 1 year, Arkansas). This indicates that the Maxwell family maintained ownership of the land. In 1938, Maxwell sold the land to E. M. Wingfield, although Young Company held the mineral rights.

The General Highway and Transportation Map of Sebastian County, Arkansas (1936, revised 1941) was obtained from Special Collections, Mullins Library. Sites were plotted on a photocopy. There is no structure shown along the road between Central and Randolph. By this time, the area was identified as Camp Chaffee Maneuver Area. It is probable that the house had been removed, perhaps ca. 1939-1940.

MCRA Field Investigations

A preliminary visit was made to the site on May 31, 1994 to relocate it and gain initial information on its condition. MCRA field investigations took place on June 27 -29, 1994. These included the excavation of 40 shovel tests, two 0.5 x 2 m test units, one trench to expose the footing of a structure wall and topographic mapping.

The shovel tests were laid out with a compass and tape along north-south transects established at randomly selected origins along a baseline placed along the north edge of the fire break. The transects began 8, 21, 49, 65 and 89 meters east of the site datum and extended a distance of 100 m. Shovel tests were excavated along each at 10 meter intervals until two consecutive culturally sterile tests were encountered. At that point, the transect was terminated. Each test was excavated in 10 cm levels until at least two consecutive culturally sterile levels were encountered, and the soil screened through ¼ inch mesh hardware cloth. The recovered artifacts were bagged by level and notes maintained on soil color and texture, as well as other comments deemed pertinent by the excavators. Only 14 of 40 shovel tests yielded cultural material (Table SB567-2). No cultural materials were recovered below a depth of 30 cm.

Two test units were excavated at the site. Test Unit 1 was placed between shovel tests 30N/8E and 30N/21E, while Test Unit 2 was placed within the lone structure foundation.

Test Unit 1 (located 36.73 meters north and 11.64 meters east of the site datum) was excavated in 10 cm levels to a maximum depth of 30 cmbs where excavation was halted due to the presence of unconsolidated bedrock. Levels were excavated parallel to the ground surface, due to the slope. All soil was screened through ¼ inch mesh hardware cloth and notes were maintained on soil color and texture, artifact content, the presence or absence of features and disturbances and other information deemed pertinent by the excavator. Two strata were identified during excavation (Figure SB567-2). Stratum 1 was roughly 20 cm thick and consisted of a dark yellowish brown silt (10YR3/4) silt containing the majority of cultural materials recovered from the unit. Below this, Stratum 2 consisted of about 10 cm of brown (7.5YR4/4) clayey silt that yielded only a few artifacts in the upper portion. Cultural materials (Table SB567-3) were recovered to a depth of just over 20 cm and most (90%) were no deeper than 20 cm. Excavation was terminated when unconsolidated bedrock was encountered. No features or post-depositional disturbances were noted.

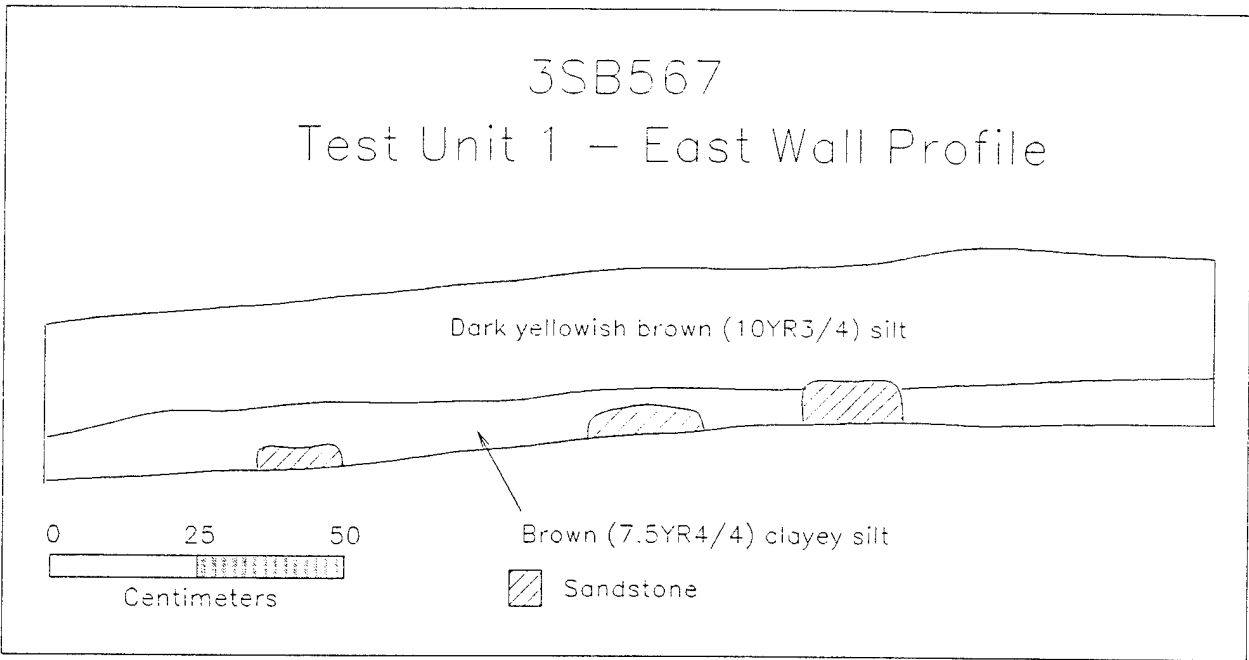


Figure SB567-2. Profile drawing of the west wall of Test Unit 1 at 3SB567.

Table 3SB567-2. Shovel Tests Artifacts.

DEPTH (CM)	0-10		10-20		20-30		SHOVEL TESTS TOTAL	
	CT.	WT.	CT.	WT.	CT.	WT.	Ct.	Wt.
Number/Grams								
Stoneware--salt-glazed	1	5.8					1	5.8
Tableware--whiteware	32	56.2	3	4.6	3	11.2	38	72.0
Transfer print					1	1.9	1	1.9
Molded rim	6	11.4					6	11.4
Bottle--aqua, embossed			1	2.0			1	2.0
Jar--amethyst					1	6.9	1	6.9
Milk glass jar lid liner	1	3.2					1	3.2
Lampglass--clear			1	0.2			1	0.2
Glass shards								
Aqua					4	10.7	4	10.7
Amethyst					1	3.8	1	3.8
Amber	1	2.5					1	2.5
Clear	4	16.3	2	2.4	1	1.1	7	19.8
Modern color	1	3.5			1	2.4	2	5.9
Nails--wire			1	4.6			1	4.6
Square	1	4.6					1	4.6
Bullets/shells	3	23.6					3	23.6
Miscellaneous metal		43.5		23.0		5.8	0	72.3
TOTAL	50	170.6	8	36.8	12	43.8	70	251.2
ARTIFACT DENSITY per cubic meter	397	1354	296	1363	267	974	354	1269

Test Unit 2 (located 61.64 meters north and 33.78 meters east of the site datum) was excavated in 10 cm levels to a maximum depth of 40 cmbs where excavation was halted due to an absence of cultural material and the presence of unconsolidated bedrock. Because it was placed at the edge of a depression, levels were excavated parallel to the ground surface. All soil was screened through ¼ inch mesh hardware cloth and notes were maintained on soil color and texture, artifact content, the presence or absence of features and disturbances and other information deemed pertinent by the excavator. Three strata were identified during excavation (Figure SB567-3). Stratum 1 was roughly 14 cm thick and consisted of a dark yellowish brown (10YR4/6). Below this, Stratum 2 consisted of about 10 cm of dark yellowish brown (10YR4/6) stony silt. Stratum 3 was 15 - 40 cm thick and consisted of strong brown (7.5YR4/6) very stony silt. Cultural materials (Table SB567-3) were recovered to a depth of 30 cmbs. Excavation revealed that the depression is probably a disturbance that post-dates the occupation of the site. It is too small and shallow to represent a cellar depression and has not been filled in by slope wash or other means, judging by the stratigraphy.

In addition to the two test units, a small trench was excavated at the east wall of the structure foundation to document the method of construction (Figure SB567-4).

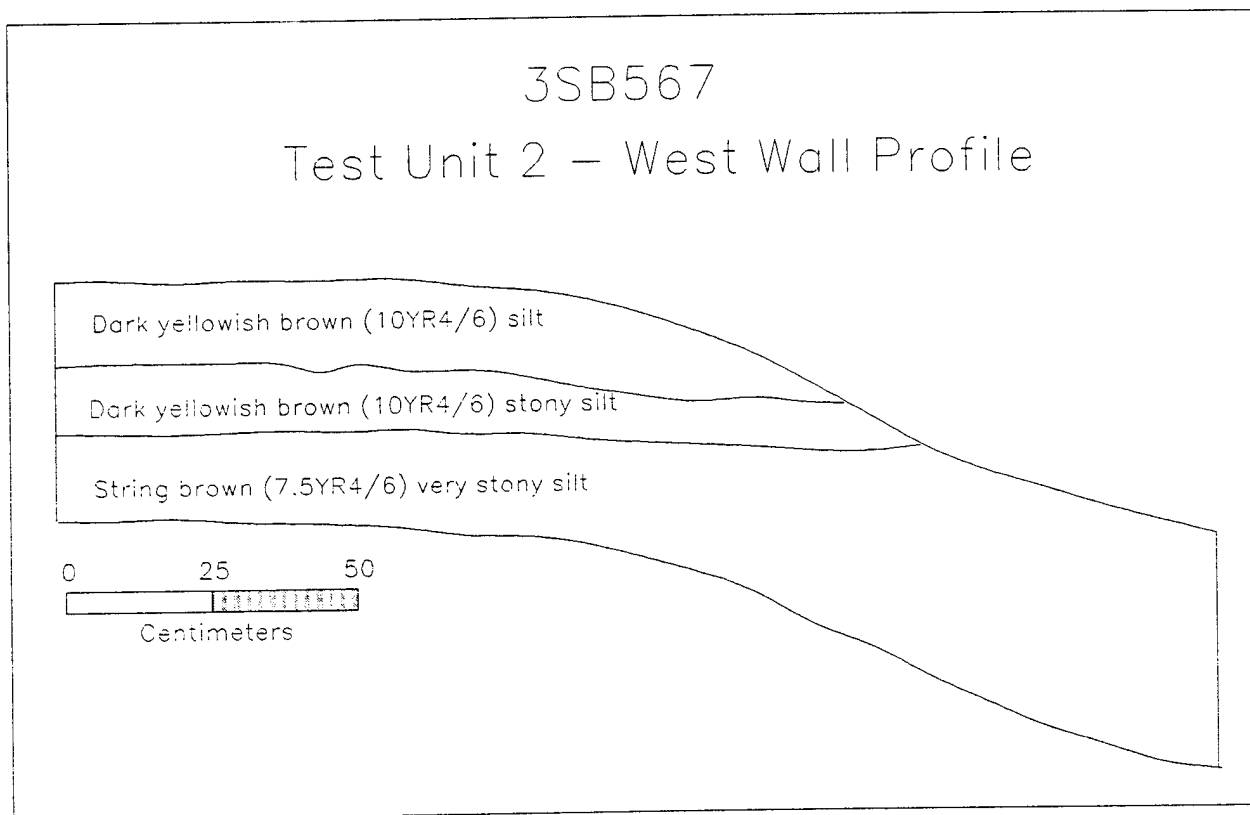


Figure SB567-3. Profile drawing of the west wall of Test Unit 2 at 3SB567.

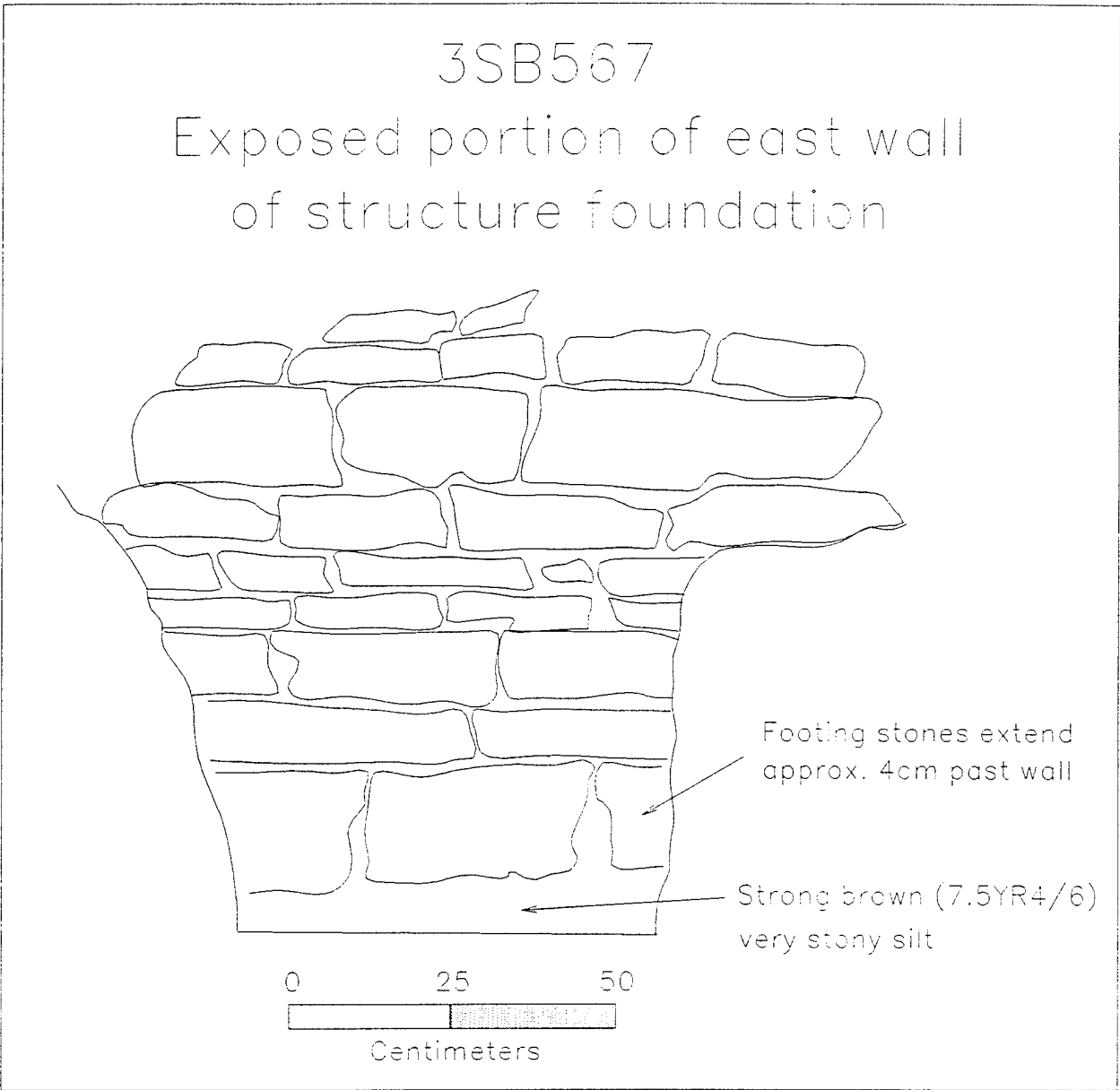


Figure SB567-4. East wall of structure at 3SB567.

Table 3SB567-3. Test Units 1 & 2 Artifacts.

UNIT DEPTH (CM)	TU 1 0-10		TU 1 10-20		TU 1 20-30		TU 2 0-10		TU 2 10-20		TU 2 20-30		Backdirt TU 2 0-30	TEST UNITS TOTAL		
	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.		CT.	WT.	
Stoneware--slipped			1	9.8										1	9.8	
Salt-glazed	2	2.7					1	1.0						3	3.7	
Tableware																
Porcelain			1	9.0										1	9.0	
Decalcamania	1	1.4												1	1.4	
Whiteware	3	6.7	5	70.4										8	77.1	
Electric fixture--porcelain			1	5.3										1	5.3	
Lampglass--amethyst	1	0.6												1	0.6	
Clear	1	0.5					1	0.3						2	0.8	
Medicine bottle--aqua													1	141.6	1	141.6
Clear									1	0.7				1	0.7	
Jar fragments--clear									1	8.5				1	8.5	
Modern color					1	3.0								1	3.0	
Glass shards																
Aqua	4	22.6	12	28.0	5	4.6								21	55.2	
Amethyst	3	6.6	6	57.9										9	64.5	
Clear	4	16.4	3	1.2			2	1.5	6	3.3				15	22.4	
Modern color	6	95.2	10	28.8										16	124.0	
Windowpane--aqua			4	14.4										4	14.4	
Nails--wire			2	10.3	1	9.5								3	19.8	
Square							1	8.0						1	8.0	
Wood stove							2	267.7			1	92.6		3	360.3	
Staple					1	4.2								1	4.2	
Shoe--leather/rubber													20	271.6	20	271.6
Bullets/shrapnel									15.1					0	15.1	
Miscellaneous																
Metal				46.2		3.1								0	49.3	
Leather			1	0.4										1	0.4	
TOTAL	25	152.7	46	281.7	8	24.4	7	278.5	8	27.6	1	92.6	21	413.2	116	1270.7
ARTIFACT DENSITY per cubic meter	250	1527	460	2817	80	244	70	2785	80	276	10	926	70	1377	193	2118

Results of the MCRA Work

Horizontal and Vertical Extent. The shovel testing and surface features at the site reveal maximum dimensions of about 55 meters north-south by 65 meters east-west. Most of the cultural materials are concentrated on the north-facing slope in a narrow band paralleling the road (Appendices 1 and 3, Figure SB567-1). The single-most productive shovel test (41 whiteware shards) was at 90N/21E, but this either represents an isolated occurrence or is arguably associated with a different site. The shovel tests and test units demonstrate that the deposits are shallow, seldom exceeding 20 cm in depth. Shovel tests 30N and 40N/8E and 30N/21E in the vicinity of Test Unit 1 produced artifacts to a depth of 30 cm. Shovel Test 60N/21E yielded a single shard of modern colored glass in the 20 - 30 cm level. While both test units yielded materials to 30 cm, the origin of those

recovered in Test Unit 2 is questionable because the depression that occupied the north half of the unit was found to post date the site. Moreover, only 1 item, a fragment of a cast iron stove, was recovered from Level 3. The remaining 21 items were of dubious origin and were logged as 0 - 30 cm in depth.

Cultural Components Identified. The lone cultural component identified appears to be turn-of-the-century historic and probably corresponds to the Maxwell occupation. A structure is shown at the location on the 1887 and 1903 township plats and the cultural materials recovered are consistent with such an assignment. The 1903 plat shows a structure as well but its location does not correspond as well to the location of 3SB567. The recovered cultural materials are consistent with an occupation spanning the turn of the century. Glasswares are dominated by clear and modern colored types (49%; post 1916) while tablewares are dominated by plain (1820 - 1900+) and molded (1845 - 1885) whiteware (95%). Eleven shards (13%) of amethyst glass (1880s - 1916), one shard of decalcamania porcelain (1890 - present), and one shard of transfer printed whiteware (1825 - 1875) were also recovered. Four nails recovered were wire (post 1900) and 2 were square (pre 1900). A fragment of a porcelain electrical fixture suggests that the site was occupied late enough to have electrical power.

Site Function. The recovered cultural materials and features at the site argue strongly that it functioned as a domicile. The recovery of significant amounts of domestic artifacts (154 weighing 897.8g) and the presence of at least one flower bed make arguing otherwise difficult. If the site was occupied by the John Maxwell family, subsistence farming was the main occupation, but no direct archeological evidence of such activity was recovered.

Integrity of the Deposits. The integrity of 3SB567 is poor. Military activities have seriously damaged the deposits and undoubtedly destroyed evidence of an unknown number of features. Small circular depressions, numerous chunks of twisted light armor and several pre WW-II Stewart tanks damaged by armor-piercing and explosive rounds demonstrate use of the area for live-fire exercises that may have included mortars and/or anti-tank weapons. We did not observe good evidence of the earth-moving referred to by Bennett, although a linear rock pile located near the road could be the result of such activities. It could just as well be the result of activities associated with the site, since such features commonly mark the location of fences. No evidence of outbuildings associated with the house was found and little of the former yardscape remains.

Significance Assessment

3SB567 is not significant and not eligible for inclusion in the National Register of Historic Places. It is not associated with persons or events of historical importance and does not retain structural or landscape features that would add to our knowledge of turn-of-the-century lifeways. It is also a poor candidate on research grounds. The depositional integrity is sufficiently poor that only remnants of the yardscape remain and the number of structures once present at the site no longer can be determined. The area has obviously been used for mortar or artillery practice, which has left numerous shell holes and disturbed the subsurface deposits. The depression within the remaining foundation, thought by AAI investigators to represent a cellar, is more likely the result of military activities. It is too small and shallow to be a cellar and there are no indications that its former size has been reduced by infilling.

MCRA recommends 3SB567 receive archeological clearance.

3SB569

3SB569 is an historic and prehistoric site situated at the base of the north slope of a northeast-trending ridge. Surface features include a native stone structure foundation, a large depression (possibly a caved-in well), flower beds and numerous potential foundation stones (Figures SB569-1, SB569-2). There is also a large (ca 4 ft. DBH) dead sycamore a short distance north of the house that probably shaded the yard.

The site lies in a ridge or upland slope, minimally eroded geomorphic zone. Smith describes this zone as follows:

Broad upland slopes with moderate to gentle gradients were mapped as minimally erosional ridge slopes. Under natural (non-agricultural) vegetation, these low slopes would be in dynamic equilibrium with surficial geomorphic processes of weathering and erosion. However, even the naturally stable slopes have experienced substantial erosion from agricultural practices, with much of the residual soil eroded or badly gullied (Smith 1986:13).

The site is situated at an elevation of 480 ft. with slopes ranging from 1 % on the site proper to 14 % between the site and the fire break. The soils are classified as Enders-Mountainburg complex, steep (Cox et al. 1975:13, Sheet 12) on the ridge slope and Leadvale silt loam, 3 - 8% slopes on the more level ground at the base of the ridge. These soils presently support second growth species, most notably dense stands of black berries, rose bushes, green briar and sumac. Several large deciduous trees remain along the fire break bordering the south edge of the site

Previous Investigations

The site was recorded on February 26, 1988 during a survey conducted by Archeological Assessments, Inc. They describe it as follows (AAS Site File):

This historic site consists of the foundations of several buildings, some intact, and a stone-lined well. In addition to a house, one of the buildings was probably a blacksmith shop. Judging from coke and coal slag observed there. Artifacts collected included whitewares, stonewares, glass, and metal.

The site was revisited on 26 October 1992 to obtain a Magellan GPS location reading, to tag the site with aluminum tree tags, and to draw a new sketch map of the area. The site is covered by thick honeysuckle and does not appear to have been disturbed since it was originally recorded.

Archeological Assessments, Inc. investigators recovered 93 artifacts from shovel test and general surface contexts (Table SB569-1; AAS site files). Bennett noted that the site has suffered major disturbance from an unidentified source and recommended that test excavations be undertaken to assess the site's significance relative to National Register of Historic Places criteria.

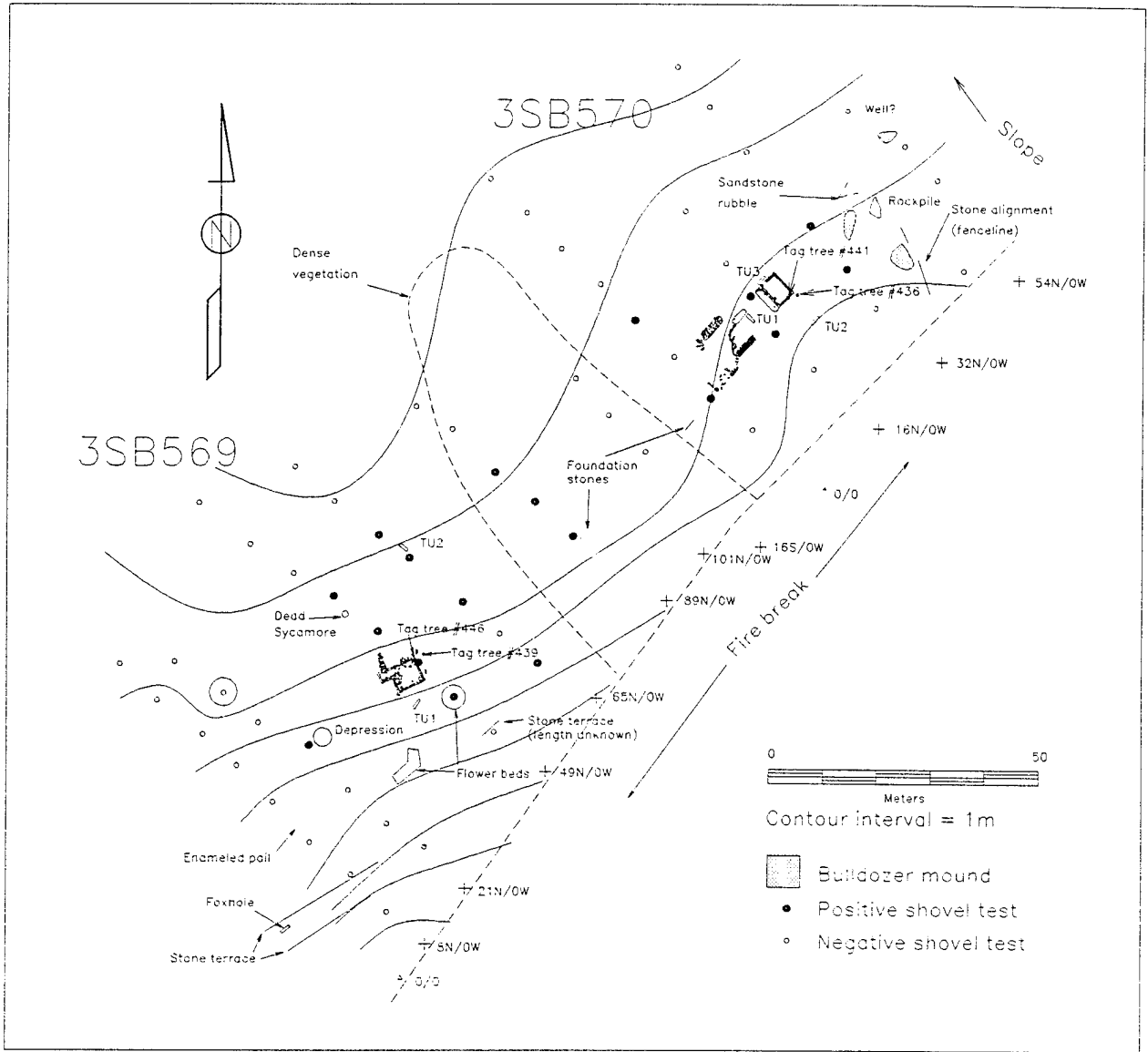


Figure SB569-1. Map of 3SB569 and 3SB570 showing surface features and the location of the MCRA work.

3SB569
Sketch plan of cellar
(not to scale)

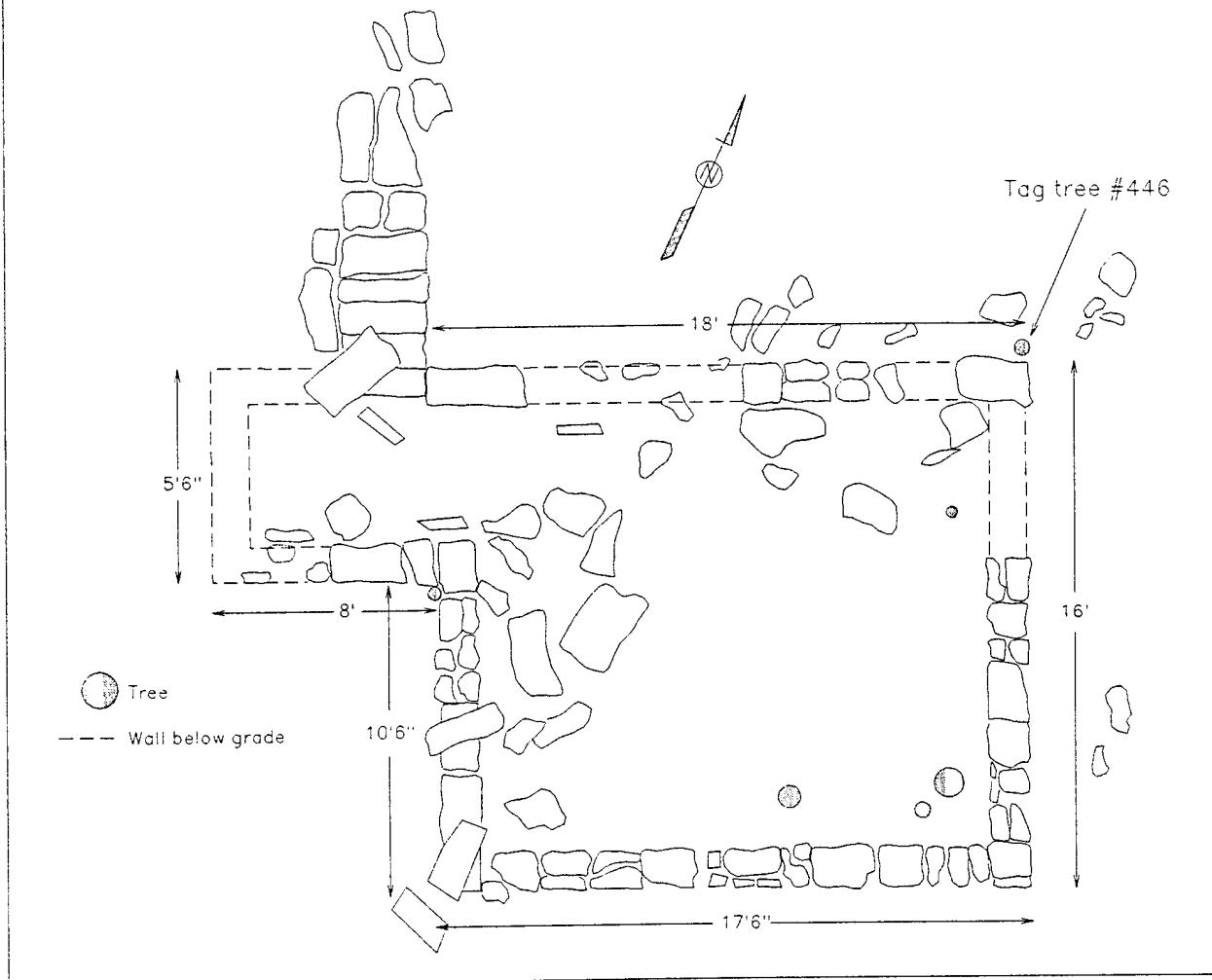


Figure SB569-2. Planview of structural remains at 3SB569.

Table SB569-1. Cultural materials recovered from 3SB569 by AAI investigators

Provenience	Class	Artifact	Count	Comments
ST 01	Ceramics	Stoneware, black slip	1	
ST 01	Glass	Blue-green tint	1	
ST 01	Glass	Clear, molded design	1	
ST 01	Glass	Light green tint	1	
ST 01	Glass	Window, blue-green tint	1	
ST 02	Glass	Blue-green tint	1	
ST 02	Glass	Clear	1	
ST 03	Glass	Milk	1	
ST 03	Metal	Nail, wire	2	
ST 03	Other	Coke	2	
ST 04	Ceramics	Stoneware, gray salt glaze	1	
ST 04	Ceramics	Whiteware, plain	1	
ST 04	Glass	Blue-green tint	2	
ST 04	Metal	Nail, wire	3	
ST 05	Ceramics	Stoneware, gray slip	1	
ST 06	Glass	Blue-green tint	1	
ST 06	Glass	Clear	1	
ST 06	Glass	Milk	1	
ST 06	Metal	Nail wire	1	
ST 06	Metal	Unidentified	1	
ST 06	Other	Leather harness buckle	1	
ST 07	Ceramics	Stoneware, gray salt glaze	1	
ST 07	Ceramics	Stoneware, gray slip	1	
ST 07	Ceramics	Whiteware, plain	4	
ST 07	Ceramics	Whiteware, transfer print	1	
ST 07	Glass	Blue-green tint	1	
ST 07	Glass	Brown	1	
ST 07	Glass	Clear	3	
ST 07	Glass	Window, blue-green tint	2	
ST 07	Metal	Chain	2	
ST 07	Metal	Nail, wire	2	
ST 07	Other	Bone, unid	1	
ST 08	Ceramics	Stoneware, dk brn slip	1	
ST 08	Ceramics	Whiteware, plain	2	
ST 08	Glass	Clear	8	
ST 08	Glass	Clear, molded design	1	
ST 08	Glass	Yellow tint	4	
ST 08	Metal	Harness buckle	1	
ST 08	Metal	Nail, cut	1	
ST 08	Metal	Nail, wire	1	
ST 08	Metal	Nail, wire	1	
ST 09	Other	Coke	1	
Surface	Ceramics	Porcelain, transfer print	1	Made in Japan
Surface	Ceramics	Stoneware, dk brn/lt tan	1	
Surface	Ceramics	Stoneware, gray salt glaze	6	
Surface	Ceramics	Whiteware, plain	1	
Surface	Glass	Clear	4	Incl. one whole bottle
Surface	Glass	Green tint	1	
Surface	Glass	Milk	2	

Table SB569-1 continued. Cultural materials recovered from 3SB569 by AAI investigators

Provenience	Class	Artifact	Count	Comments
Surface	Glass	Purple tint	1	Hand blown lip
Surface	Glass	Yellow tint	5	Incl. 2 whole bottles
Surface	Metal	Bottle cap	1	
Surface	Metal	Canning jar lid, zinc	1	
Surface	Other	Coal slag	1	
Surface	Other	Shoe part	2	Machine made
	TOTAL		93	

MCRA Archival Investigations

Our field investigations place 3SB569 and 3SB570 on the same property, so this discussion is applicable to both. During 1887, this area was in Rogers Township. The Post Office was Randolph, and the school was Howard. Both sites are on the west side of the road connecting Central and Randolph (later renamed Jenny Lind).

The earliest entry in the Arkansas land records in Little Rock was for William M. Guin and Samuel Davis. They acquired the land in 1839, but an original copy of the land records at Special Collections, Mullins Library indicates that they got the land on August 10, 1836.

They sold the land to William and Margaret Wood in 1852. No record was found of a William Wood on the Federal Population Census of 1850 (Jackson et al. 1976), 1860 or 1870 (Jackson 1987). There is no Wood shown in this township on the Agricultural Census of 1870. Wood owned land in 11 counties. It is probable that Wood, like Guin and Davis, speculated on land from a distance.

Wood sold the E $\frac{1}{2}$ of the NW $\frac{1}{4}$ to Edward Fleming (or Flemming) in 1869. On the Federal Population Census of 1850 (Jackson et al. 1976), a William W. Flemming is listed for the City of Fort Smith in Crawford County. This is probably the father of Edward Fleming. The Federal Population Census of 1850 indicates that William W. was a farmer who had come from Kentucky. He was 49 years old. The worth of his farm was \$10,000, which was high for that time. His wife was Nancy (age 38 years). They had five children. These were: Anabella (age 10 years), William W. (age 8 years), Edward H (age 6 years), James C. (age 3 years), and Charles (age 1 year). Nancy I Featherston (age 10 or 70 years), a native of Virginia, was living with them. The family was also present in the Federal Population Census of 1840 for Sugar Loaf Township. The probability that this was the Edward Fleming that subsequently owned the land on which 3SB569 and 3SB570 are located is supported further by the Federal Population Census of 1860 (Scott 1977:91). Edward Fleming was listed as a 15 year old resident of the City of Fort Smith. The Federal Population Census of 1870 lists Edward Fleming as a resident of the First Ward of the City of Fort Smith (Jackson 1987). There is no evidence that Fleming farmed the land that he owned.

Fleming sold the land to James Reese in 1870. There is no record of James Reese in the Federal Population Census of 1860. The census of 1870 lists him as a resident of Sulphur Township (Jackson 1987:185). He was a blacksmith, aged 40 years. Reese was born in Kentucky. In 1870, he had real estate valued at \$300, and personal property worth \$125. The entry indicates that he had a wife named Caroline, a native of Alabama, who was 41 years old. She was keeping house. He is not listed in the Agricultural Census of 1870, but this could be the result of the time when he bought his farm.

The Federal Population Census of 1880 lists him as a 41 year old (sic) farmer, and a native of Kentucky. He was also working in a furniture factory in the City of Fort Smith. His wife Caroline, was 40 years old (sic). She was a native of Alabama, and was "keeping house." Mary Finch (age 35, Alabama) was living with them and assisting in keeping house.

Reese sold his land to J. W. Prickett. There is no listing for a Prickett in the Federal Population Census of 1860 or 1870 (Jackson 1987). The earliest Real Estate Tax record at the Sebastian County Courthouse in Greenwood is dated 1881. This shows that J. W. Prickett owned 80 acres (value \$310) in the E $\frac{1}{2}$ of the NW $\frac{1}{4}$ in 1881. The Personal Property Tax record of 1881 at Greenwood shows that Prickett owned: 1 horse (value \$75), 3 milch cows (value \$37), 1 mule (value \$75), 27 hogs (value \$27), and 1 pleasure carriage (value \$40). His total worth of personal property was \$288.

John Prickett is included in the Agricultural Census of 1880 for Sulphur Township (Table SB569-2). This would have been previous to his acquisition of the land where 3SB569 and 3SB570 are located, but the listing of livestock and crops probably accurately reflects the productivity of his farm.

Table 3SB569-2. The John Prickett farm on the Agricultural Census of 1880

Improved land	35 acres
Permanent meadows	5 acres
Woodland and forest	80 acres
Value of farm	\$1,000
Value of farm implements	\$150
Value of livestock	\$200
Value of total farm production	\$350
Mules/asses	2
Milch cows	2
Calves dropped	2
Calves purchased	6
Cattle sold living	4
Butter produced (lbs, 1879)	70
Swine	18
Poultry	25
Eggs produced (1879)	150
Indian corn (acres/bushels)	15/200
Oats (acres/bushels)	2/75
Cotton (acres/bales)	13/8
Sweet potatoes (acres/bushels)	0.25/15
Tobacco (acres/bushels)	0.25/25
Cords of wood cut (1879)	8
Value of forest production	\$16

Prickett sold the land to G. L. Johnson in 1886. The Real Estate Tax record at the Sebastian county Courthouse in Greenwood for 1886 indicates that Johnson had the E $\frac{1}{2}$ of the NW $\frac{1}{4}$ (80 acres) and the SW $\frac{1}{4}$ of the NW $\frac{1}{4}$ (40 acres), valued at \$528. There is

no listing for Johnson in the Personal Property Tax record of 1886. It is likely that he occupied the structure shown on the Sebastian County Atlas of 1887 where 3SB569 is located. No structure is shown at the location of 3SB570. A listing was found for G. L. Johnson in the Federal Population Census of 1890. He was living in Rogers Township.

The Real Estate Tax record of 1896 at the Sebastian County Courthouse in Greenwood lists Johnson as the owner of 50 acres (value \$250) in the E $\frac{1}{2}$ of the NW $\frac{1}{4}$. The Personal Property Tax record for the same year shows that Johnson owned: 2 horses (value \$50), 7 milch cows (value \$40), 1 mule (value \$25), 18 hogs (value \$20), and 2 pleasure carriages (value \$50). The total value of his personal property was \$285. This record indicates that Johnson was living on the land and farming.

The Sebastian County Atlas of 1903 shows structures at the locations of both 3SB569 and 3SB570 on land owned by M. H. Johnson (sic). This is probably a son or daughter of G. L. Johnson. It is possible that the structure at 3SB570 was built around this time, either because the one at 3SB569 had become so decrepit that it had to be replaced or that the elder Johnsons lived in one house and the younger in the other. The Real Estate Tax record of 1903 at the Sebastian County Courthouse at Greenwood lists H. M. Johnson as the owner of the 50 acres (value \$250) in the E $\frac{1}{2}$ of the NW $\frac{1}{4}$. H. Johnson could not be identified in the Personal Property Tax record of 1903, since there was a Hugh, Harry, and other Johnsons in the same township, and the Real Estate Tax record gives no legal provenience.

H. M. Johnson still owned the property in 1910. The Personal Property Tax record of 1910 on file at the Sebastian County Courthouse at Greenwood shows that Johnson had 1 horse (value \$50) and 1 cow (value \$20). His total value of personal property was \$95. This indicates that Johnson was probably living on the land, but it was apparently not an active farmstead.

The Johnson family (T. J. Bell, H. M. Frances, and Sarah Coppic and S. H. Coppic, her husband) sold the land to W. A. Neighbors in 1929. The land was forfeited in 1930 because of non-payment of taxes. It passed between Neighbors and Weirs, with Young having mineral rights.

The General Highway and Transportation Map of Sebastian County, Arkansas (1936, revised 1941) was obtained from Special Collections, Mullins Library. Sites were plotted on a photocopy. The site was on the north side of a road connecting Central and Jenny Lind. No structures were shown along any roads, but by this time the area was the Camp Chaffee Maneuver Area. There were no structures shown along any roads in Camp Chaffee.

MCRA Field Investigations

A preliminary visit was made on June 1, 1994 to relocate the site and assess its condition. MCRA field investigations took place on July 6 - 8, 1994. These included the excavation of 33 shovel tests, two 0.5 x 2 m test units and topographic mapping.

The shovel tests were laid out with a compass and tape along transects established at randomly selected origins along a baseline oriented with the fire break (about 35 degrees magnetic). The transects were oriented at about 305 degrees and began 8, 21, 49, 65 and 89 meters north (grid north) of the datum and extended a distance of 100 m. The 89N transect could be only partially excavated and the 101N transects could not be established due to extremely dense vegetation. Shovel tests were excavated along them at 10 m intervals until two consecutive culturally sterile tests were encountered. Each was excavated in 10 cm levels until at least two consecutive culturally sterile levels were

encountered, and the soil screened through ¼ inch mesh hardware cloth. The recovered artifacts were bagged by level and notes were maintained on soil color and texture, as well as other comments deemed pertinent by the excavators. Only 12 of 33 tests yielded cultural material (Table SB569-3) and none yielded materials below a depth of 30 cm.

Table 3SB569-3. Shovel Tests Artifacts.

DEPTH (CM)	0-10		0-15		0-20		10-20		20-30		SHOVEL TESTS	
	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	Ct.	Wt.
Tableware												
Porcelain	1	8.0					2	1.6	1	3.0	4	12.6
Whiteware	4	2.7					1	6.1	2	3.8	7	12.6
Beaded rim	1	1.3									1	1.3
Molded serving bowl							1	30.7			1	30.7
Bottle fragments												
Modern color--crown	1	16.5									1	16.5
Clear	1	7.1					1	4.3			2	11.4
Double bead	1	3.5									1	3.5
Bead									1	4.9	1	4.9
Jar fragment--aqua							1	3.9			1	3.9
Jar lid liners--milk	2	2.7									2	2.7
Milk/metal	1	50.2									1	50.2
Glass shards												
Aqua	9	26.5	1	2.2			3	6.2			13	34.9
Amethyst	1	9.6									1	9.6
Milk	1	8.4	1	10.7							2	19.1
Clear	11	36.5					6	11.7	1	0.4	18	48.6
Modern color	1	0.5					2	1.5			3	2.0
Bone handle	1	3.4									1	3.4
Marble furnishing							1	65.3			1	65.3
Structural												
Windowpane--aqua			2	3.9			1	1.5			3	5.4
Clear							4	4.0			4	4.0
Brick				9.7				5.0			0	14.7
Nails--wire	2	4.2	3	12.1			1	5.6			6	21.9
Square			2	6.0							2	6.0
Washer	1	1.9									1	1.9
Faucet gasket							1	12.4			1	12.4
Buckle							1	35.3			1	35.3
Staple							1	7.2			1	7.2
Plow	1	462.0									1	462.0
Bullet	1	36.0									1	36.0
Miscellaneous												
Metal		9.5						3.0			0	12.5
Coal		0.3				4.5		4.6			0	9.4
Lithic flake							1	1.0			1	1.0
PPK stem							1	4.5			1	4.5
TOTAL	41	690.8	9	44.6	0	4.5	29	215.4	5	12.1	84	967.4
Artifacts/cubic meter	569	9594	667	3304	0	250	460	3357	556	1344	479	5512

Two test units were excavated at the site. Test Unit 1 was placed at the base of the slope immediately south of the house foundation, while Test Unit 2 was placed between shovel tests 65N/30W and 65N/40W which had yielded abundant cultural materials.

Test Unit 1 (located 53.83 meters north and 3.42 meters east of the site datum) was excavated in 10 cm levels to a maximum depth of about 40 cmbs where unconsolidated bedrock and saturated soil prevented further excavation. All soil was screened through ¼ inch mesh hardware cloth and notes maintained on soil color and texture, artifact content, the presence or absence of features or disturbances and other information deemed pertinent by the excavator. Two strata were identified during excavation (Figure SB569-2). Stratum 1 was roughly 12 cm thick and consisted of a brown (10YR4/3) sandy silt. Below this, Stratum 2 consisted of about 26 - 32 cm of strong brown (7.5YR4/6) sandy silt. Cultural materials (Table SB569-4) were recovered to a depth of 30 cm and included 35 items weighing 136.7 g.

Test Unit 2 (located 82.67 meters north and 0.97 meters east of the site datum) was excavated in the same manner as Test Unit 1 to a depth of 40 cmbs where saturated soil prevented further excavation. All soil was screened through ¼ inch mesh hardware cloth and notes maintained on soil color and texture, artifact content, the presence or absence of features, disturbances and other information deemed pertinent by the excavator. Two strata were identified during excavation (Figure SB569-3). Stratum 1 was 15 - 20 cm thick and consisted of a very dark grayish brown (10YR3/2) silt with abundant roots. Stratum 2 was a 15 - 22 cm thick dark brown (7.5YR3/4) clayey silt with strong brown (7.5YR5/6) and reddish yellow (7.5YR6/8) mottling. Cultural materials (Table SB569-5) were recovered to a depth of 30 cm.

Results of the MCRA Work

Horizontal and Vertical Extent. The maximum dispersion of artifacts and surface features is about 45 m northwest-southeast x 70 m northeast-southwest (Appendices 1 and 3, Figure SB569-1). The site is bounded on the south by an existing road. The western and southern edges are defined by surface artifacts and positive shovel tests. The eastern edge is problematic due to the presence of 3SB570. There does appear to be a gap in the distribution of artifacts between the two sites, but the area is heavily vegetated and nearly impossible to work in. The normal depth to which historic artifacts were recovered was 20 cm with a maximum of 30 cm in Shovel Test 49N/50W and both test units.

Cultural Components Identified. The documentary research indicates that the site dates to the late nineteenth and early twentieth century. Artifacts recovered during the testing support such an assessment. The glass is dominated (72%) by clear and modern colored shards while tablewares are dominated by plain whiteware (76%). The nails are predominantly wire (71%), although 6 (29%) cut nails were also recovered. Other materials include amethyst glass (1880 - 1916), aqua glass (pre 1916), glass marbles (1905 - present; Randall 1971), molded whiteware (1845 - 1885), decalcamania whiteware (1890 - present) and opal glass canning jar lid fragments (1910 - 1940). The earliest documentable occupation of the site is 1881 when J. W. Prickett acquired the land, but it is possible that Edward Fleming occupied it as early as 1870. The site was occupied until at least 1903 and possibly as late as 1929 when the property was sold to W. A. Neighbors. It is possible that a new house was built at the location of 3SB570 some time prior to 1903 but it is not known if both sites were occupied by the extended Johnson family or if the house at 3SB569 was abandoned around that time. Whether it was occupied after Neighbors forfeited it for non-payment of taxes in 1930 is not known.

The prehistoric component failed to yield culturally diagnostic materials.

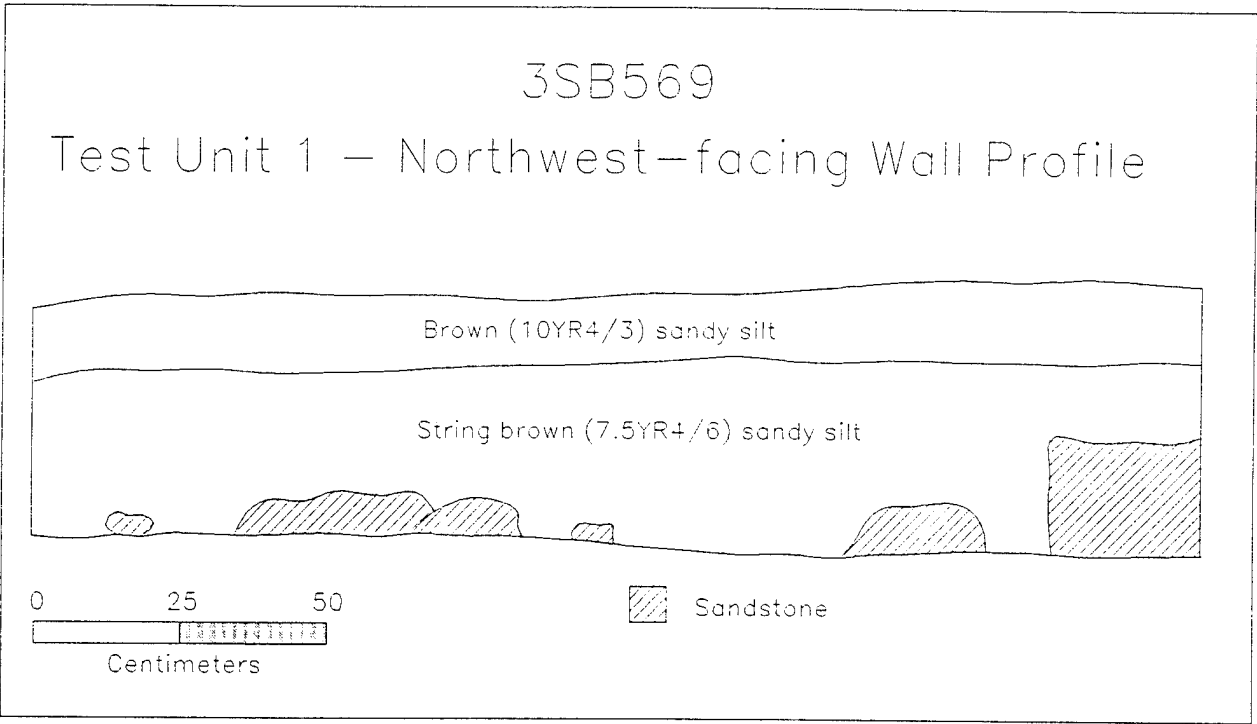


Figure 3SB569-2. Profile drawing of the west wall of Test Unit 1 at 3SB569.

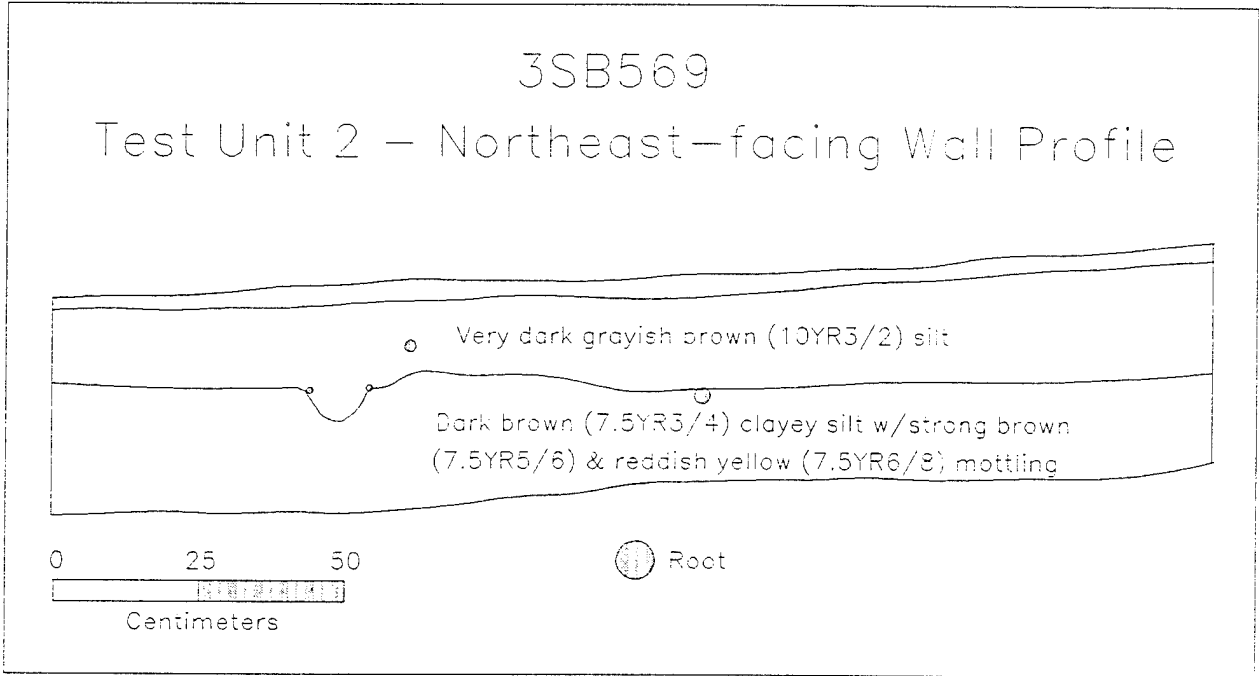


Figure SB569-3. Profile drawing of the west wall of Test Unit 2 at 3SB569.

Table 3SB569-4. Test Units 1 & 2 Artifacts.

UNIT DEPTH (CM)	TEST UNIT 1 0-10		TU 1 10-20		TU 1 20-30		TEST UNIT 2 0-10		TU 2 10-20		TU 2 20-30		TEST UNITS TOTAL		
	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	
Faunal--bone							5	13.2					5	13.2	
Tooth							1	1.5	1	0.7			2	2.2	
Stoneware--slipped							3	9.1	9	51.7	1	5.7	13	66.5	
Salt-glazed									2	18.3			2	18.3	
Tableware--porcelain							4	7.8					4	7.8	
Whiteware					1	0.8	10	22.3	15	31.9	1	2.5	27	57.5	
Decalcamania							1	3.0					1	3.0	
Toy--porcelain	3	4.5											3	4.5	
Marbles--glass	1	0.5			3	18.4							4	18.9	
Button--milk					1	0.7							1	0.7	
Jar fragments--clear							1	4.0					1	4.0	
Modern color							1	2.0					1	2.0	
Bottle fragment															
Aqua--Blob, applied									1	4.2			1	4.2	
Lampglass--clear											1	0.2	1	0.2	
Milk glass jar lid liner									5	4.6			5	4.6	
Glass shards															
Aqua							8	16.9	20	56.8	1	1.7	29	75.4	
Amethyst							1	1.8	3	4.7			4	6.5	
Carnival									1	0.8			1	0.8	
Milk	1	0.9											1	0.9	
Clear	8	7.9	1	29.6	1	1.3	63	361.0	59	89.2	4	4.2	136	493.2	
Modern color							9	11.1	6	9.6			15	20.7	
Structural															
Windowpane--aqua	2	1.3	1	2.5			3	1.9	4	1.8			10	7.5	
Clear	4	3.0									2	5.3	6	8.3	
Brick		3.0											0	3.0	
Mortar										2.3			0	2.3	
Nails--wire	2	6.5					4	29.5	2	17.5	1	4.0	9	57.5	
Square									4	14.5			4	14.5	
Tin								9.1					0	9.1	
Clothing rivet							1	1.3					1	1.3	
Bolts	1	25.9								1	73.8	1	97.0	3	196.7
Farm hardware															
Tack rivet					2	5.3							2	5.3	
Barbed wire									4	14.6			4	14.6	
Staples									3	26.5			3	26.5	
Bullet shells	1	2.6							1	0.7			2	3.3	
Miscellaneous--metal		14.6						4.6		60.0			0	79.2	
Porcelain									2	8.4			2	8.4	
Coal							11.5			3.2			0	14.7	
Unmodified sandstone		7.3											0	7.3	
Lithic flake	1	0.5											1	0.5	
TOTAL	24	78.5	2	32.1	8	26.5	115	511.6	143	495.8	12	120.6	304	1265.1	
Artifacts/cubic meter	240	785	20	321	80	265	1150	5116	1430	4958	120	1206	507	2109	

Site Function. The artifacts document that the historic component is a domicile, probably dating to the late nineteenth through early twentieth centuries. Although little direct evidence of farming activity was recovered during the testing (part of a moldboard plow, 4 pieces of barbed wire and a fencing staple and a possible metal harness buckle), the agricultural census for 1880 indicates that at least one owner (J. Prickett) was engaged in farming. He was obviously more than just a subsistence farmer since his livestock production was more than necessary for sustaining a family and crops such as cotton and tobacco were probably grown for cash. Our archival and field research failed to recover evidence that any of the occupants of 3SB569 were engaged in blacksmithing as a livelihood.

The function of the prehistoric component is unknown. Only 2 flakes and a square PPK stem were recovered and provide no basis upon which to draw any conclusions.

Significance Assessment

3SB569 is not significant and not eligible for inclusion in the National Register of Historic Places. The historic component is one of many turn-of-the-century farmsteads in the area and is not associated with important events or persons. Moreover, the integrity of the deposits is only fair. There are some remaining structural features but the yardscape is only partially reconstructable, and the locations of outbuildings are uncertain because footing stones for them are scattered over the site and appear to be out of place. Post depositional disturbance to the subsurface deposits does not appear to be substantial but the movement of footing stones suggest that the extent of disturbances may be greater than is apparent.

The prehistoric component is composed of a sparse scatter of lithics. No evidence of subsurface features, intact deposits or preserved organic remains were recovered during our testing.

MCRA recommends 3SB569 receive archeological clearance.

3SB570

3SB570 is an historic and prehistoric site situated on the north slope of a ridge adjacent to an existing fire break and only 20 - 30 meters northeast of 3SB569. Surface features include the foundation of a house, a well (now filled in) part of a fence line, a rock pile and at least four bulldozer mounds. There are also numerous large field stones scattered about that probably represent the remains of disturbed outbuildings (Figures SB569-1 and SB570-1). A light scatter of historic glass and ceramics, as well as prehistoric lithics, is visible in the fire break.

The site lies in a ridge or upland slope, minimally eroded geomorphic zone at an elevation of 480 ft. on relatively level topography (4% slope). The soil is classified as Enders-Mountainburg association, steep (Cox et al. 1975:13, Sheet 12) and presently supports several large hardwoods with an understory of green briar and sumac. The site is lightly vegetated, relative to most of the other sites worked at during this project, with the exception of the area between it and 3SB569. There, the vegetation is impenetrable and made defining a boundary between the two sites difficult.

Previous Investigations

The site was recorded on February 26, 1988 during a survey conducted by Archeological Assessments, Inc. They describe the site as follows (AAS Site File):

An intact cellar and foundation were observed at this site, as well as damaged foundations of other buildings. The buildings are apparently part of the M. H. Johnson property shown on the 1903 and 1887 county atlases. Twelve shovel tests were performed to a depth of 15 cm, three of which were positive. Collected historic items were whitewares, a metal wick holder, and glass fragments. Also collected was a chert flake, found on the surface about 30m north of the intact foundation. Extent of the site was set at 30 x 30m.

The site was revisited on 26 October 1992 to obtain a Magellan GPS location reading, to tag the site with aluminum tree tags, and to draw a new sketch map of the area. The site is covered by thick honeysuckle and does not appear to have been disturbed since it was originally recorded.

Archeological Assessments investigators recovered 19 artifacts from shovel test and general surface contexts (AAS site files). Prehistoric materials included a flake recovered from the surface. Historic materials were recovered from both shovel tests and the surface. Shovel Test 1 yielded 2 pieces of window glass. Shovel Test 2 yielded 1 piece of window glass and 1 piece of bottle glass. Shovel Test 3 yielded 1 piece of window glass. The remaining 11 artifacts were recovered from the surface and included 1 fragment of concrete or mortar and a metal wick holder. Ceramic shards included 2 plain whiteware and 1 salt-glazed stoneware. Glass shards included 5 faint blue-green tinted, 1 with molded letters or numbers and another with a citrus peel-like exterior.

Bennett noted that the site has suffered moderate disturbance, citing evidence of bulldozing. He recommended that test excavations be undertaken to assess the site's significance relative to National Register of Historic Places criteria, presumably due to the possible association with a structure shown on the 1887 and 1903 plat maps.

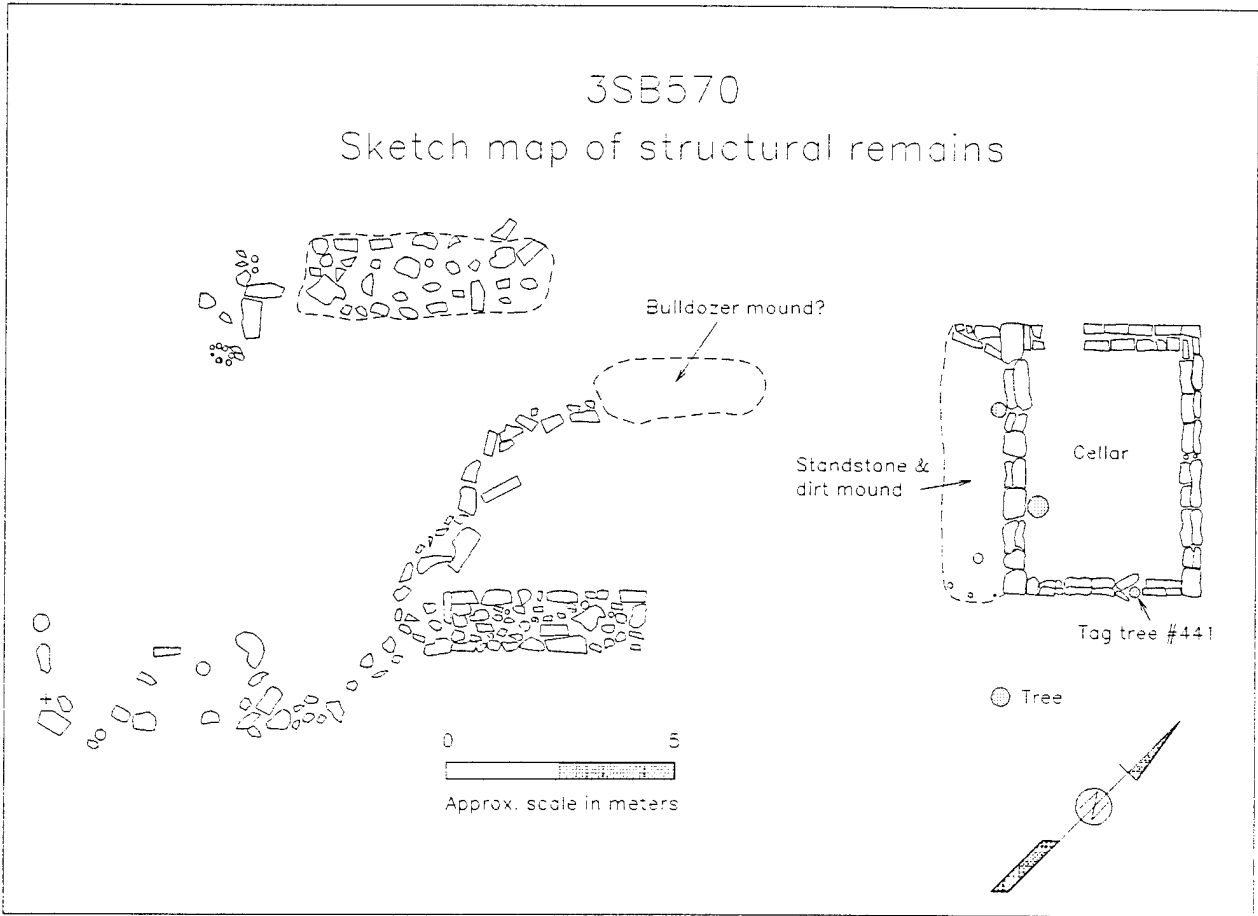


Figure SB570-1. Planview of structure remains at 3SB570.

MCRA Archival Investigations

Documentary research and its location on the same land parcel as 3SB569 indicates that 3SB570 is probably related to 3SB569 and may represent a structure that replaced the one at 3SB569 when it became uninhabitable or too small for the extended family occupying the land between 1886 and 1929. See the discussion of archival investigations for 3SB569 for more detailed information.

MCRA Field Investigations

A preliminary visit was made on June 1, 1994 to relocate the site and assess its condition. MCRA field investigations took place on June 29 - July 1 and July 6, 1994. These included the excavation of 25 shovel tests, three 0.5 x 2 m test units, and topographic mapping.

The shovel tests were laid out with a compass and tape along transects established at randomly selected origins along a baseline oriented parallel to the fire-break (about 45 degrees magnetic). The transects began 0, 16, 32 and 54 meters north (grid north) of the datum and extended a distance of 100 m. Shovel tests were excavated along them at 10 m intervals until two consecutive culturally sterile tests were encountered. Each test was excavated in 10 cm levels until at least two consecutive culturally sterile levels were encountered, and the soil screened through ¼ inch mesh hardware cloth. The recovered artifacts were bagged by level and notes were maintained on soil color and texture, as well as other comments deemed pertinent by the excavators. Only 6 of 25 tests yielded cultural material (Table SB570-1) and four of those produced prehistoric artifacts. No cultural materials were recovered below a depth of 20 cm.

Three test units were excavated at the site. Test Unit 1 was placed adjacent to the cellar in an area that would have been under the house, when it was standing. Test Unit 2 was placed near the cellar, between it and the fire break, and Test Unit 3 was placed just outside the cellar entrance.

Test Unit 1 (located 31.51 meters north and 15.56 meters west of the site datum) was excavated in 10 cm levels to a maximum depth of 20 cmbs where unconsolidated bedrock prevented further excavation. All soil was screened through ¼ inch mesh hardware cloth and notes maintained on soil color and texture, artifact content, the presence or absence of features, disturbances and other information deemed pertinent by the excavator. Two strata were identified during excavation (Figure SB570-2). Stratum 1 was a roughly 4 cm thick honeysuckle root mat and consisted of a very dark grayish brown (10YR3/2) silt. Below this, Stratum 2 consisted of dark grayish brown (10YR4/2) stony silt that extended to the base of the excavation. Cultural materials (Table SB570-2) included 138 items weighing 1,096.0 g. Excavation was terminated at 20 cm due to the presence of sandstone bedrock. No cultural features or post-depositional disturbances were noted.

Test Unit 2 (located 31.59 meters north and 3.16 meters west of the site datum) was excavated in the same manner as Test Unit 1 to a depth of 20 cmbs where unconsolidated bedrock prevented further excavation. All soil was screened through ¼ inch mesh hardware cloth and notes were maintained on soil color and texture, artifact content, the presence or absence of features, disturbances and other information deemed pertinent by the excavator. Stratum 1 was roughly 4 cm thick and consisted of a very dark grayish brown (10YR3/2) silt. Stratum 2 was a dark grayish brown (10YR4/2) stony silt (Figure SB570-3). Cultural materials (Table SB570-2) included 153 items weighing 201.8 g. Excavation was halted at a depth of 20 cm due to the presence of unconsolidated bedrock. No cultural features or post-depositional disturbances were noted.

Table 3SB570. Shovel Tests and General Surface Artifacts.

UNIT DEPTH (CM)	GENERAL SURFACE		SHOVEL TESTS 0-10		SHOVEL TESTS 10-20		SHOVEL TESTS TOTAL	
	CT.	WT.	CT.	WT.	CT.	WT.	Ct.	Wt.
HISTORIC								
Stoneware--slipped, stencil	1	7.1					1	7.1
Tableware--whiteware			2	4.1			2	4.1
Beaded rim			2	2.0			2	2.0
Marble--clay					1	2.1	1	2.1
Glass shards--aqua			1	0.5			1	0.5
Clear			2	30.5			2	30.5
Windowpane--aqua			2	5.3			2	5.3
Bullet/shrapnel			2	1293.8			2	1293.8
PREHISTORIC LITHICS								
Flake					1	0.5	1	0.5
Hammerstone	1	225.6					1	225.6
TOTAL	2	232.7	11	1336.2	2	2.6	15	1571.5
ARTIFACT DENSITY per cubic meter			244	29693	111	144	238	24944

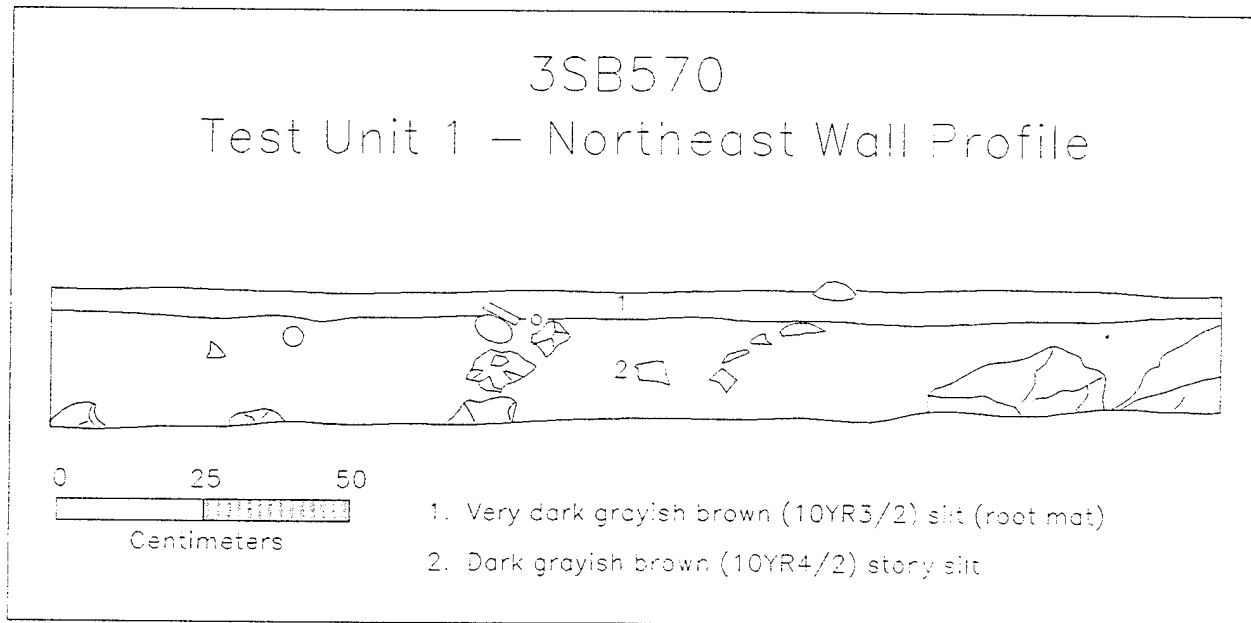


Figure SB570-2. Profile drawing of the west wall of Test Unit 1 at 3SB570

Table 3SB570. Test Units 1, 2, & 3 Artifacts.

UNIT DEPTH (CM)	TEST UNIT 1		TU 1		TEST UNIT 2		TU 2		TEST UNIT 3		TU 3		TU 3		TEST UNITS	
	0-10		10-20		0-10		10-20		0-10		10-20		20-43		TOTAL	
Number/Grams	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.
Faunal--bone									1	0.5					1	0.5
HISTORIC																
Marble--clay	1	3.3													1	3.3
Stoneware--slipped			1	2.0											1	2.0
Tableware--whiteware	8	21.9	2	1.8	5	14.9			1	8.6	5	25.1			21	72.3
Transfer			1	3.5											1	3.5
Decalcamania	2	9.6										1	0.5	3	10.1	
Lampglass--clear	3	0.9	1	0.3	3	0.8								7	2.0	
Base--amethyst	2	66.1												2	66.1	
Jar--aqua, thread	1	5.9												1	5.9	
Lid--metal, thread					9	1.0								9	1.0	
Milk glass jar lid liner	1	1.0	1	2.6	9	13.8								11	17.4	
Glass shards																
Amber												1	1.0	1	1.0	
Aqua	5	11.2	3	4.0					4	6.3				12	21.5	
Amethyst	6	174.5	3	18.9					1	11.2				10	204.6	
Milk			1	2.5										1	2.5	
Clear	33	72.5	7	3.1	6	9.4	1	0.3			1	1.2		48	86.5	
Modern color	2	1.7	3	5.4	1	1.0					2	1.9	1	1.8	9	11.8
Structural																
Windowpane--aqua	36	42.2	8	10.9	111	107.1	4	2.3	1	1.3	1	1.3	3	4.3	164	169.4
Nails	2	4.2			1	2.0					1	3.9		4	10.1	
Concrete										44.0				0	44.0	
Snap	1	1.0												1	1.0	
PLOW									1	722.0				1	722.0	
Washer	1	5.6												1	5.6	
Screw					1	15.8								1	15.8	
File					1	24.6								1	24.6	
Electric wire	1	2.2												1	2.2	
Bullets/shells	1	9.1			1	8.8			5	31.7				7	49.6	
Miscellaneous																
Metal		8.0		13.1										0	21.1	
Tile--clay		301.5		229.0										0	530.5	
Concrete		56.2												0	56.2	
PREHISTORIC LITHICS																
Retouched/utilized flake													1	7.2	1	7.2
Projectile point--arrow	1	0.3												1	0.3	
TOTAL	107	798.9	31	297.1	148	199.2	5	2.6	14	825.6	10	33.4	7	14.8	322	2171.6
ARTIFACT DENSITY per cubic meter	1070	7989	310	2971	1480	1992	25	13	140	8256	100	334	54	114	346	2335

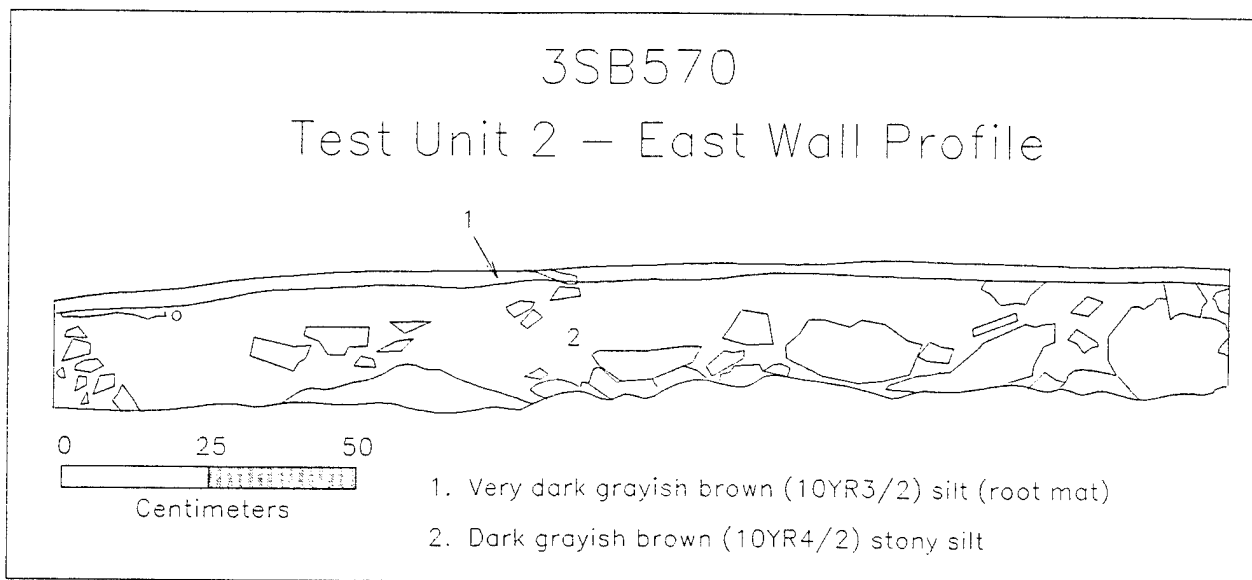


Figure SB570-3. Profile drawing of the east wall of Test Unit 2 at 3SB570

Test Unit 3 (located adjacent to the cellar door on the north side of the house) was excavated in the same manner as Test Units 1 and 2 to a depth of 30 cmbs where stone steps leading to the basement (Figure SB570-4) prevented further excavation. All soil was screened through ¼ inch mesh hardware cloth and notes were maintained on soil color and texture, artifact content, the presence or absence of features, disturbances and other information deemed pertinent by the excavator. Only one stratum, yellowish brown (10YR5/4) silt, was identified during excavation. Artifacts recovered included 31 items weighing 873.8 g (Table SB570-2).

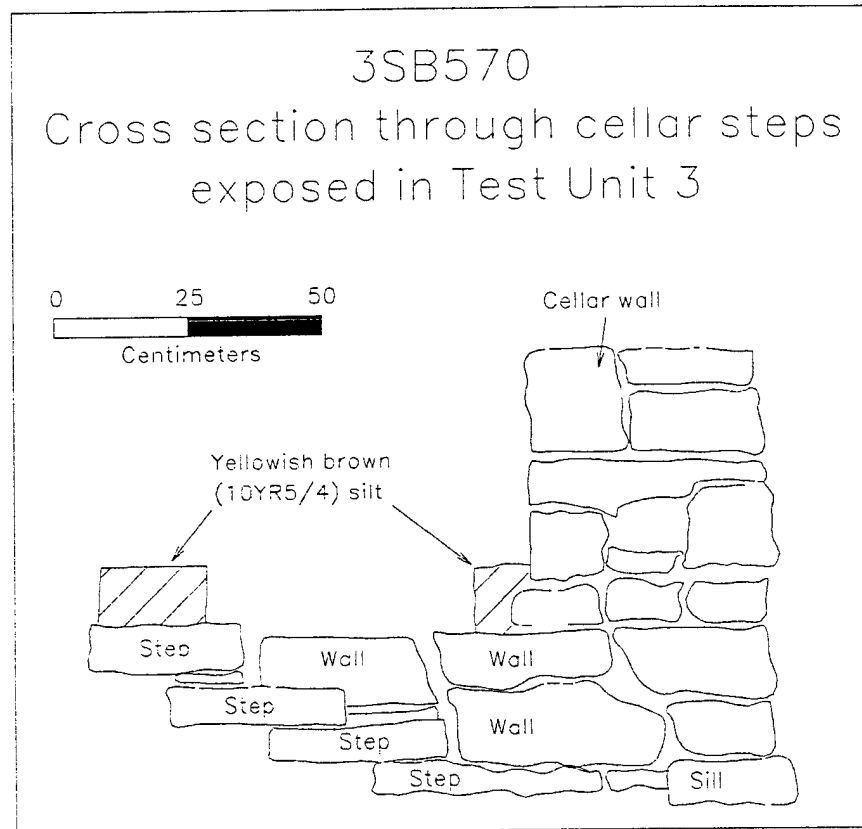
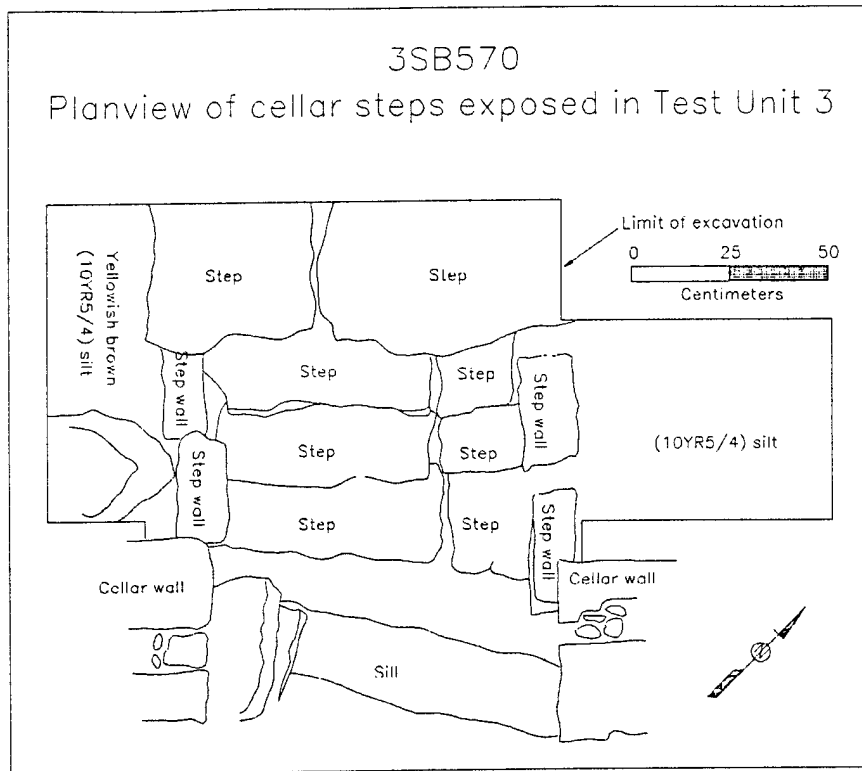


Figure SB570-4. Profile and planview of cellar entrance exposed in Test Unit 3

Results of the MCRA Work

Horizontal and Vertical Extent. The maximum dispersion of artifacts and surface features is about 45 m northwest-southeast x 60 m northeast-southwest (Appendices 1 and 3, Figure SB569-1). The site is bounded on the southeast by a fire break. All other boundaries are defined by positive shovel tests and surface features. The southwest edge is problematic due to the presence of another site, 3SB569, and dense vegetation, which made work in the area nearly impossible. No cultural materials were recovered below a depth of 20 cm with the exception of Test Unit 3 where materials were present to 43 cm. However, this was due to previous excavation of the cellar and not because materials were actually present to that depth below surface.

The limits of the prehistoric component are not definable due to the extremely low density of materials. Prehistoric materials are visible in the fire break for a distance of about 50 meters southwest and 100 meters northeast of the site datum. These are undoubtedly in disturbed context as a result of displacement from plowing and erosion.

Cultural Components Identified. The township plat maps of 1887 and 1903 show that the site dates to some time in that interval, since there is no structure shown on the 1887 plat. Whether it was occupied after 1930 when the property was forfeited for non-payment of taxes is not known. Artifacts associated with the historic component are dominated by late nineteenth and early twentieth century materials. The glassware is dominated by clear glass (63%; 1916 - present), followed by aqua (13%; pre 1916), amethyst (11%; 1880 - 1916) and other (12%). The window glass is composed entirely of aqua glass, suggesting that the earlier structure at 3SB569 may have been abandoned and some of the building materials recycled. Tablewares are dominated by plain whiteware (79%; 1820 - 1900+). Also recovered were decal whiteware (7%; 1890 - present), transfer printed whiteware (3%; 1820-1875) and beaded whiteware. No cut nails were recovered. The strand of electrical wire is a result of recent military activity at the site and is not of sufficiently heavy gauge to carry household current.

The lone diagnostic artifact, a Scallorn-like arrow point, was recovered from Level 1 of Test Unit 1. These points are associated with Late Woodland through Mississippian periods (Perino 1985:344).

Site Function. The historic component is an obvious domicile, probably dating to the turn of the century. The artifact assemblage is dominated by domestic items, reflecting activities normally associated with a rural household, such as home canning and possibly pickling food in stoneware crocks. The presence of children is suggested by a clay marble. The only direct evidence of farming activity is a plow part.

The function of the prehistoric component is not known. The data available at the site do not provide a basis upon which to base a firm conclusion. Some stone tool manufacture is indicated by the recovery of a hammerstone but this was very limited, judging by the limited flake assemblage. The arrow point may suggest hunting activity.

Significance Assessment

3SB570 is not significant and not eligible for inclusion in the National Register of Historic Places. It is one of many turn-of-the-century sites that dot Fort Chaffee and is not associated with persons or events of historic importance. Nor is it a good candidate for archeological research, since it is no longer possible to identify the locations of outbuildings to reconstruct the built environment.

Moreover, the integrity of the deposits is only fair. The historic component has been damaged by military training activities as evidenced by the presence of several bulldozer piles. While the house foundation remains and at least part of the yardscape can be reconstructed, scattered large pieces of sandstone suggest that surface indications of outbuildings have been obliterated. The prehistoric component is sparse and shallow and has suffered serious damage, both from the historic occupants of the site and the same military activities that have affected the historic component. We believe the wide dispersion of prehistoric materials to be at least partially the result of post-depositional disturbance.

MCRA recommends 3SB570 receive archeological clearance.

3SB601

3SB601 is an historic and prehistoric site situated on a high terrace and upland ridge overlooking the floodplain of Little Vache Grasse Creek from the south. Surface features include a trash dump at the eastern end of the site, a well pipe and several abandoned roads at the western end. Other more recent features include a fire break running north-south along the eastern edge of the site, numerous foxholes and a survey transect cut through the vegetation for a proposed sewerline corridor (Figure SB601-1).

The site lies on Arkansas River terrace and ridge or upland slope, minimally eroded geomorphic zones. The ridge and upland slope zone has been described previously. The Arkansas River terrace is described as follows:

Terraces in alluvial valleys are former floodplain surfaces which have been abandoned when the local channel goes through a cycle of bed erosion and subsequent creation of a new floodplain at a lower level. Terraces may form as a result of the local stream responding to a major external factor (i.e., drop in local base level) or they may be the product of the natural geomorphic evolution of a stream system in the absence of major changes in external variables effecting stream behavior. Terraces are common in most alluvial valleys of several thousand years age or older.

Four separate terrace levels of the Arkansas River were identified in the Arkansas Valley at Fort Chaffee ranging in elevation from 60 to 6 feet above the active floodplain. The two lower terraces are separated by former Arkansas River banks, are largely masked by natural levee deposits and exhibit only minor erosion of their original surface. Terrace level three occupies a broad area northwest of the floodplain of Little Vache Grasse Creek. The surface of terrace level three has been moderately eroded by the evolution of small localized streams, indicating a greater age than the two lower levels. The surface of terrace level three is also characterized by the occurrence of numerous low (2-4 feet) round (20-40 feet in diameter) mounds, known as "mima" or "pimple" mounds, or "prairie blisters." A fourth (highest) Arkansas River terrace is mapped adjacent to the south bank of the Arkansas River near Lock and Dam 13. This oldest terrace surface is marked by substantial erosion and thick, relatively well-developed soil horizons, suggesting a greater age than the lower three terraces.

Many terrace levels have been observed in the tributary valleys. As many as three terrace levels may exist in some of the larger tributary valleys. The higher (greater than 12 feet above the modern floodplain) terraces are most likely at least as old as late Pleistocene (late Wisconsinan). Numerous low terraces also exist in the areas mapped as undifferentiated tributary floodplain (TU), as observed in the field, but, due to their small extent, are not identified on the geomorphic maps. These low tributary terraces, ranging in elevation from 2 to 12 feet above the modern floodplain, were formed during the Holocene (last 12,000 years). As a general rule, the higher the terrace is above the modern floodplain, the greater its age (Smith 1986:12)

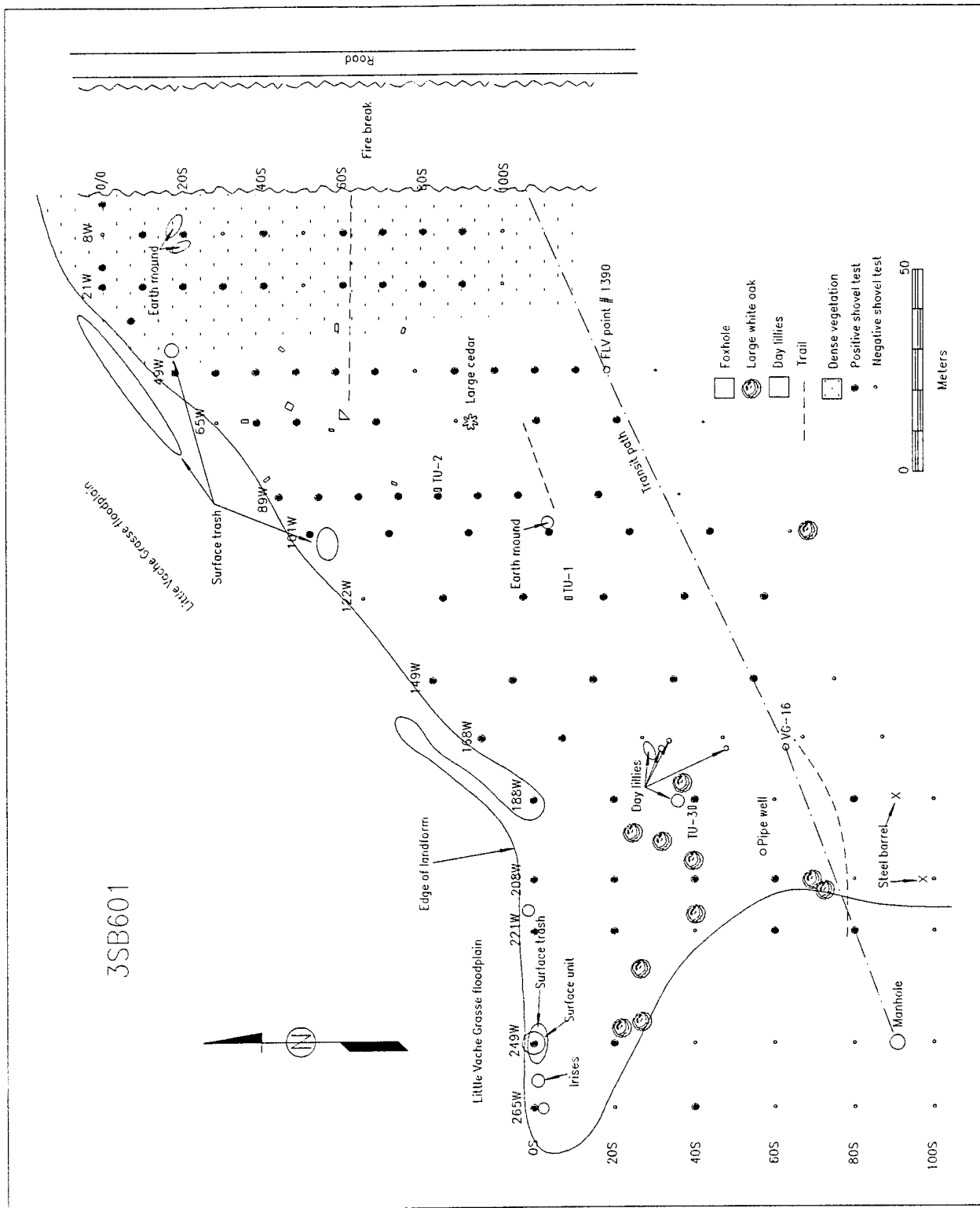


Figure SB601-1. Map of 3SB601 showing surface features and the location of the MCRA work.

The site is situated at an elevation of 420 ft. with slopes ranging from 3% along the crest of the landform to nearly vertical on the north-facing slope. The Little Vache Grasse floodplain is situated some 10 - 20 meters lower than the north edge of the site. The soil is classified as McKamie silt loam, 3 - 8 % slopes (Cox et al. 1975:16, Sheet 8) and presently supports second growth species, most notably dense stands of blackberries, rose bushes, greenbriar and honeysuckle. Numerous large deciduous trees remain on the site, particularly along the steep north slope of the site. Part of the site had been previously cleared for military training exercises but most of it was densely vegetated, particularly at the east end.

Previous Investigations

The site was recorded on January 9, 1989 during a survey of the proposed Barling wastewater project conducted by Archeological Assessments, Inc. It was revisited in March 1994. They describe the site as an extensively disturbed surface scatter of flakes of unknown size. No surface collection was made and 20 shovel tests all produced negative results. During the 1994 revisit, the site size was estimated at 50 x 100 m. Chert flakes were noted but no collection was made. AAI investigators noted that the site has suffered disturbance from military activities and other unidentified sources and recommended that test excavations be undertaken to assess the site's significance relative to National Register of Historic Places criteria.

MCRA Archival Investigations

The site overlooks Little Vache Grasse Creek just upstream from its confluence with the Arkansas River. During 1887, this site was in Sulphur Township. There is no structure shown here on the Sebastian County Atlas of 1903, but the General Highway and Transportation Map of Sebastian County (1936, revised 1941) shows a road running to the river and a structure where 3SB601 is located. These maps suggest the structure was erected between ca. 1903 and 1936.

An original copy of the land patents was found in Special Collections, Mullins Library. This property was acquired by David Thompson on August 31, 1837. He acquired considerable land in this area during 1837, 1838, and 1839. There is no record of Thompson in the Federal Census of 1850 (Jackson et al. 1976), 1860, or 1870 (Jackson 1987). Apparently, he was speculating in land and did not reside in the area.

Since the Real Estate records on file at the Sebastian County Courthouse in Greenwood do not go back beyond 1881, it was not possible to examine earlier land transactions. According to land records in Little Rock, Mitchell Sparks patented this land during 1880. This would have had to be one of his sons if the date is correct, since Mitchell Sparks died in 1864. Sparks is identified in the description of site 3SB508. He was a merchant in Fort Smith and resided in the city. He acquired numerous acres in land speculation.

The Real Estate Tax record of 1881 showed that John Carnall was listed as an agent for this land. During 1887 and 1903, Wharton Carnall, his son, owned the land. The Carnall family was very influential in the development and history of Fort Smith. It is extremely unlikely that any members of the Carnall family ever occupied this property. Martin (1985) wrote a lengthy article on John Carnall, father of Wharton Carnall. A summary of his background provides insights on the status, education, and wealth of the family.

John Carnall came to Fort Smith from Virginia in 1840. He built the first residence in Greenwood after it was platted during the 1850s (Wilkinson 1961:9). Carnall came as a teacher and founded two schools. Patterson (1936:66) states that in 1840, John Carnall

started a school on the corner of Third Street and Garrison Avenue. After teaching there awhile, he opened a school in his house, on Lot 8, in Block 17. He also taught in a house built for the purpose on Block 22, near the Episcopal Church. Carnall taught from 1840 to 1846. In 1870, the City of Fort Smith bought John Carnall's brick house on the present North Sixth, remodeled it, and named it Belle Grove School (Faulk and MacJones 1983:48; Patton 1936:151). The second one was built on his farm on Massard Prairie (Martin 1985:9). John was also one of the originators of Sebastian County, and was the first clerk of the Circuit Court. He held that office until 1857. He was also elected as Senator in the Confederate State Legislature in 1864, and was a member of the State Legislature during the Civil War.

In 1878, John Carnall started The Fort Smith Elevator, ". . . a weekly newspaper which he used as a means to acquaint potential investors and home seekers with the rich resources and paramount advantages of Fort Smith" (Martin 1985:9).

Wharton Carnall was born April 10, 1862. On March 18, 1941 he was interviewed by Coleman Y. Harris as part of the Early Settlers' Personal History interviews. The original copies of these interviews are on file at the Special Collections, Mullins Library. He stated that his birth-place was ". . . in a country home about six miles from Fort Smith on a little prairie, which we all know as Massard Prairie in Sebastian County, Arkansas." Martin (1985:10) states that he was educated in the Carnall School on Massard Prairie or at the Maple Grove school. Wharton Carnall stated during his interview that his first school was

. . . three miles south from my home in this (Sebastian) County. My teacher, that is my first teacher, was Mr. Bugg I only attended three of four days of this my first school to this Mr. Bugg. My father was a well educated man, having been reared in the state of Virginia and had finished in some of the best schools in Virginia. Therefore he taught me. I came to town, Fort Smith, to school when I was yet a young lad, about thirteen years old, and received about twelve months schooling. The school I attended was the Belle Grove.

The 1887 plat of T7-8N, R31W shows that John Carnall owned a number of acres of land just south of the Arkansas River in the Massard Post Office area. There is also a school house on his land in Section 29. About three miles south of this property is the Massard School on the property of T. W. Bugg. No dwelling is visible on any of the land that John Carnall owned in this area in 1887. It is possible that he had sold the property by this time, and the family was living in Fort Smith. There is no dwelling shown on the property where 3SB601 is located, and there is no indication that the family ever lived out in that area. In fact, the Federal Census of 1860 shows that John Carnall lived in Fort Smith. Wharton stated in the interview that he assisted his father for a few years with the newspaper (ca. 1878-1882). The Fort Smith Combined Directory of 1881, on file at the Fort Smith Public Library, states that Wharton Carnall was a carrier for the Elevator. He resided on Fitzgerald Street. J. Carnall & company included J. and J. H. Carnall. They were publishers and Proprietors of the Fort Smith Elevator and were land agents. Their address was 167 Garrison Avenue. John sold the newspaper and devoted the remainder of his years to his real estate business. The family was in Fort Smith.

Of particular interest was Wharton Carnall's description of houses in the area during the late 19th century and probably early 20th century. Martin (1985) states:

Most homes were built of pine lumber, the boards were cut one inch thick by twelve inches wide for the walls of the house and nailed to the crude framework which consisted of a two by eight and sixteen or eighteen feet in length which the boards are nailed to at the bottom end, and another piece

of lumber two inches thick by four inches in width of the same length of this bottom reach or tie, to which the top end of these boards are nailed to thus forming the walls of the house. Most houses were covered or roofed with boards which were riven or spit (split?) out of timber, the men would go to the woods, with a saw, ax, frow, and mallet, after finding a tree that would split straight and was of a tough fiber, they proceeded to make the boards for the roof of the house. They fell the tree, then cut the log into the desired lengths, which was usually about eighteen inches long. Then they split these cuts, removed the bark from the timber to be used, and then it is split into pieces about 3 or 4 inches thick and 4 to 6 inches wide called bolts. Then they are ready to rive. The board maker takes his frow and mallet and proceeds to make the boards. A good board maker made about fifteen hundred boards per day. Some were built of logs, some of stone, some of brick. The stone and brick were obtained in our own community. Most chimneys were built of stone, quite a few were made of brick and a few of strips and clay.

Wharton got involved in real estate in later years. The Directory of the City of Fort Smith of 1890, on file at the fort Smith Public Library, lists Carnall Bros. (J. H. and Wharton Carnall), real estate, their office was at 719 Garrison Avenue. Wharton was living at 302 Fitzgerald Street.

In 1906, Section 25 was divided among three landowners. A. W. Rutherford owned the W $\frac{1}{2}$ of the SE $\frac{1}{4}$; T. W. Bugg owned the SW $\frac{1}{4}$; and Wharton Carnall owned the E $\frac{1}{2}$ of the SW $\frac{1}{4}$. Site 3SB601 would have been on Carnall's land. As a note, the 1881 Real Estate tax record shows that Rutherford already owned his land; John Carnall was agent as noted above; and W. A. Blagg owned the part later owned by Bugg. Carnall was not farming the land, since the 1881 personal Property Tax record carried no entry of him. The same ownership continued in 1886. In 1896, A. Barling owned the part that Blagg and eventually Bugg owned. By 1903, Bugg acquired the SW $\frac{1}{4}$. Then, by 1908-1909, T. W. Bugg acquired all of the land (240 acres) in the section, and was shown as holding it in 1910 and 1915. In fact, in 1928 and 1935, the Bugg family members still owned most of the land, although a B. L. Butler owned the partial fractional part of the W $\frac{1}{2}$ of the SE $\frac{1}{4}$. The United States had acquired the land by 1943.

Based on the characteristics of the landowners associated with 3SB601, it would seem that of all the persons, T. W. Bugg is the one most likely having occupied a structure at the site. It is also possible that a tenant, relative, or someone else lived there who is not recorded in the tax records. It is very probable that the Carnall family never occupied the land, although they could have leased it to someone for farming.

As noted in the introduction to this site description, the General Highway and Transportation Map of Sebastian County, Arkansas (1936, revised 1941) shows a structure where 3SB601 is located. There were a number of structures along this road between Central and the Arkansas River. The presence of this structure suggests that it could have been present until ca. 1941.

MCRA Field Investigations

A preliminary visit was made on May 31, 1994 to relocate the site and assess its condition. MCRA field investigations took place on June 1 - 3 and 6 - 10, 1994, resulting in the recovery of 2,100 artifacts weighing 10,600.1 g. These included the excavation of 109 shovel tests and three 0.5 x 2 m test units.

The shovel tests were laid out with a compass and tape along north-south transects established at randomly selected origins along a baseline oriented with the front of the landform. The transects began 8, 21, 49, 65, 89, 101, 122, 149, 168, 188, 208, 221, 249 and 265 meters west of the datum and extended a distance of 100 m. The 8, 16, 49, 101 and 122 transects were extended further south when no negative shovel tests were encountered in the first 100 meters. Shovel tests were excavated along the transects, initially at 10 m intervals and then at 20 m when it became obvious that the site had the potential to be very large. Each test was excavated in 20 cm levels until at least two consecutive culturally sterile levels were encountered, and the soil was screened through 1/4 inch mesh hardware cloth. The recovered artifacts were bagged by level and notes were maintained on soil color and texture, as well as other comments deemed pertinent by the excavators. Eighty-four of 109 tests yielded cultural material (Table SB601-1). Cultural materials were recovered to a maximum depth of 80 cm.

Three test units were excavated at the site in places where shovel tests had shown high densities of cultural materials. Test Unit 1 was placed between shovel tests 40S and 60S/122W, Test Unit 2 was placed adjacent to shovel test 40S/89W, and Test Unit 3 adjacent to shovel test 20S/188W.

Test Unit 1 was excavated in 10 cm levels to a maximum depth of 58 cmbs and a posthole test excavated an additional 55 cm to 1.13 m. Level 5 (40 - 50 cm) was stepped down to 0.5 x 1 m and Level 6 (50 - 60 cm) to 50 cm x 50 cm due to the presence of shale bedrock. All soil was screened through 1/4 inch mesh hardware cloth and notes were maintained on soil color and texture, artifact content, the presence or absence of features, disturbances and other information deemed pertinent by the excavator. Three strata were identified during excavation (Figure SB601-2). Stratum 1 was roughly 15 cm thick and consisted of a brown (10YR4/3) silt. Below this, Stratum 2 consisted of about 12 - 15 cm of strong brown (7.5YR5/6) clayey silt. Stratum 3 was a stony strong brown (7.5YR5/6) clayey silt with yellowish red (5YR4/6) and light gray (10YR7/2) mottling below 65 cm. Cultural materials (Table SB601-2) were recovered to a depth of 50 cm but most (86%) were no deeper than 30 cm.

Test Unit 2 was excavated in the same manner as Test Unit 1 to a depth of 70 cmbs where shale bedrock prevented further excavation. All soil was screened through 1/4 inch mesh hardware cloth and notes maintained on soil color and texture, artifact content, the presence or absence of features, disturbances and other information deemed pertinent by the excavator. Two strata were identified during excavation (Figure SB601-3). Stratum 1 was roughly 26 cm thick and consisted of a dark yellowish brown (10YR3/4) silt. Below this, Stratum 2 consisted of about 40 cm of strong brown (7.5YR4/6) silty clay. Cultural materials (Table SB601-3) were recovered to a depth of 70 cm but most (95%) were no deeper than 50 cm. One hundred twenty-five (42%) were recovered from level 4 in association with Feature 1.

Table 3SB601-1. Shovel Tests Artifacts.

DEPTH (CM)	0-15		0-20		0-30		20-40		40-60		60-80		SHOVEL TESTS TOTAL	
	Number/	Grams	CT.	WT.	CT.	WT.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.
HISTORIC														
Stoneware--slipped			1	16.6									1	16.6
Tableware														
Porcelain			1	1.2									1	1.2
Whiteware			1	0.6			1	7.8					2	8.4
Glass shards														
Clear			2	3.0									2	3.0
Modern color			3	5.8									3	5.8
Windowpane--aqua			5	6.3									5	6.3
Clear			1	4.7									1	4.7
Armaments--clay pigeon				9.7				4.3					0	14.0
Miscellaneous metal				57.0									0	57.0
HISTORIC SUBTOTAL	0	0.0	14	104.9	0	0.0	1	12.1	0	0.0	0	0.0	15	117.0
PREHISTORIC														
Projectile point--dart			2	12.0			1	3.4	1	2.5			4	17.9
Preform			1	5.3									1	5.3
Biface			1	5.3			1	21.3					2	26.6
Scraper									1	4.2			1	4.2
Adze									1	58.1			1	58.1
Pebble tool							1	40.7					1	40.7
Pestle, pitted			1	430.2									1	430.2
Core			2	6.5									2	6.5
Tested pebble			2	30.0									2	30.0
Flakes	11	5.7	372	230.7	18	8.9	108	54.5	23	10.3	7	1.9	539	312.0
Perforator/graver			2	2.2			1	2.0					3	4.2
Retouched/utilized			12	18.3	1	1.7	4	4.0					17	24.0
Decortication			1	0.9			2	5.6					3	6.5
Decortication	4	10.4	23	52.6	2	3.1	4	6.0					33	72.1
Soft hammer lip			2	0.9									2	0.9
Polish			1	3.7									1	3.7
Soft hammer lip	1	1.0	10	8.2			3	1.9					14	11.1
Polish	1	1.2	1	0.5									2	1.7
Shatter	2	1.1	56	47.5	1	0.4	28	14.4	3	1.2	2	1.1	92	65.7
Retouched/utilized			1	0.9									1	0.9
Polish							1	0.5					1	0.5
Unmodified rock													0	0.0
Hematite			1	2.6									1	2.6
Limonite			2	1.9				0.3					2	2.2
Sandstone				280.0		41.6		37.0					0	358.6
PREHISTORIC SUBTOTAL	19	19.4	493	1140.2	22	55.7	154	191.6	29	76.3	9	3.0	726	1486.2
Faunal--bone			3	6.8			1	2.4					4	9.2
Floral--charcoal								2.7					0	2.7
TOTAL ARTIFACTS	19	19.4	510	1251.9	22	55.7	156	208.8	29	76.3	9	3.0	745	1615.1
ARTIFACT DENSITY per cubic meter	230	235	450	1104	257	651	300	401	179	471	250	83	369	799

Table 3SB601-2. Test Unit 1 Artifacts.

UNIT DEPTH (CM)	TEST UNIT 1 0-10		TU 1 10-20		TU 1 20-30		TU 1 30-40		TU 1 40-50		TEST UNIT 1 TOTAL	
	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.
PREHISTORIC												
Core							2	7.9			2	7.9
Abrader					1	31.7					1	31.7
Flakes	81	39.3	192	77.7	142	75.8	68	41.6	2	0.5	485	234.9
Retouched/utilized	4	9.0	5	12.7	3	4.2					12	25.9
Decortication	4	4.1	8	13.3	10	6.6	8	15.0	2	5.3	32	44.3
Soft hammer lip	2	0.8			3	1.9	3	1.1			8	3.8
Shatter	24	14.2	43	20.2	43	23.2	9	3.2			119	60.8
Unmodified rock												
Hematite		0.5		0.9				48.6			0	50.0
Sandstone		20.3				102.3		3.5			0	126.1
HISTORIC												
Glass shards--clear	1	2.0	1	1.5							2	3.5
TOTAL	116	90.2	249	126.3	202	245.7	90	120.9	4	5.8	661	588.9
ARTIFACT DENSITY per cubic meter	1160	902	2490	1263	2020	2457	900	1209	40	58	1322	1178

Table 3SB601. Test Unit 2 Artifacts.

DEPTH (cm)	0-10		10-20		20-30		FEATURE 1 30-40		30-40		40-50		50-60		60-70		TEST UNIT 2 TOTAL	
	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.
PREHISTORIC																		
Biface							2	1.3									2	1.3
Cores									1	13.1	1	16.0	1	3.2			3	32.3
Flakes	42	24.0	36	15.9	107	60.9	46	11.7	28	14.1	30	20.2	7	3.1	2	0.8	298	150.7
Retouched/utilized			1	3.1	1	1.5			1	0.4	2	3.3					5	8.3
Decortication															1	9.0	1	9.0
Decortication			1	3.2							1	1.1					2	4.3
Soft hammer lip	1	0.2			1	0.2					1	1.9					3	2.3
Shatter			3	1.0	15	10.8	11	0.9	3	0.4	6	2.8	3	1.2			41	17.1
Unmodified sandstone						46.8				6194.2							0	6241.0
HISTORIC																		
Tableware--whiteware					1	4.7											1	4.7
Glass shard																		
Modern color	1	0.4															1	0.4
TOTAL	44	24.6	41	23.2	125	124.9	59	13.9	33	6222.2	41	45.3	11	7.5	3	9.8	357	6471.4
ARTIFACT DENSITY (/cubic m)	440	246	410	232	1250	1249	1180	278	660	1244	410	453	110	75	30	98	510	9245
										kg								

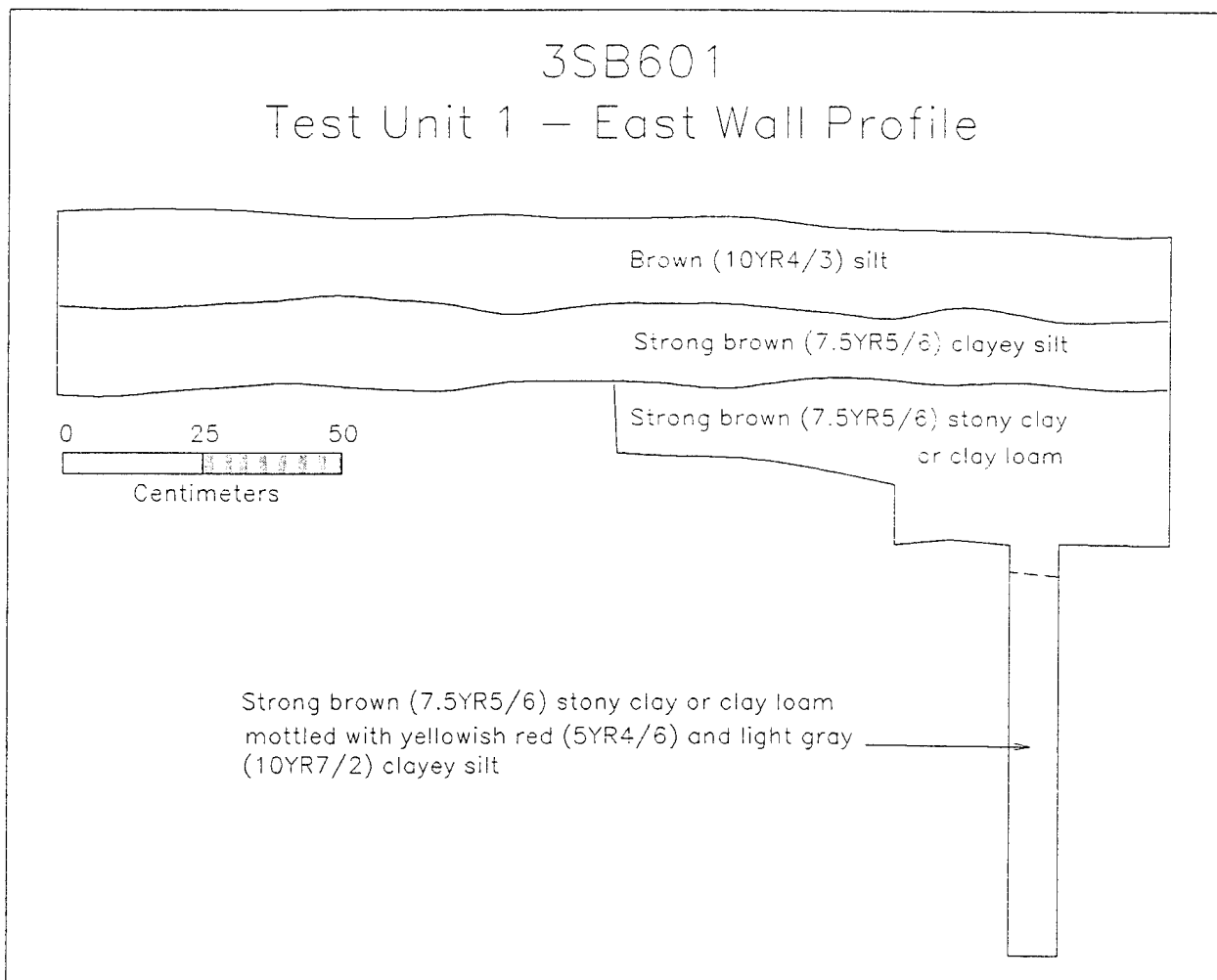


Figure SB601-2. Profile drawing of the west wall of Test Unit 1 at 3SB601.

Feature 1, a concentration of burned sandstone, was encountered at the top of Stratum 2 (Figures SB601-3 and SB601-4). It had a well-defined southern margin and was 10 cm or less thick and was of unknown size. A sample of sandstone was removed and the remainder weighed and discarded. In all, 6,194 grams of sandstone were recovered. Artifacts recovered from a soil sample taken from between the rocks yielded 2 biface fragments (1.3g), 46 flakes (11.7g) and 11 pieces of chert shatter (0.9g). No other features were found in association with Feature 1.

Test Unit 3 was excavated in the same manner as test units 1 and 2 to a depth of 80 cmbs where shale bedrock prevented further excavation. Level 8 (70 - 80 cm) was stepped down to 0.5 x 1 m due to an absence of cultural material and difficulty encountered in screening the soil. All soil was screened through ¼ inch mesh hardware cloth and notes maintained on soil color and texture, artifact content, the presence or absence of features, disturbances and other information deemed pertinent by the excavator. Four strata were identified during excavation (Figure SB601-5). Stratum 1 was roughly 12 cm thick and consisted of a brown (10YR4/3) silt containing some slate in the upper 5 cm. Stratum 2 consisted of about 17 cm of brown (7.5YR4/4) to strong brown (7.5YR4/6) silt and did not encompass the entire excavation. Stratum 3 consisted of strong brown (7.5YR4/6) clayey silt that was variable in thickness but extended to about 45 - 50 cmbs. Stratum 4 was a strong brown (7.5YR4/6) silty clay loam containing concretions below 60 cm and extended to the base of the excavation. Cultural materials

(Table SB601-4) were recovered to a depth of 60 cm but most (89%) were no deeper than 40 cm.

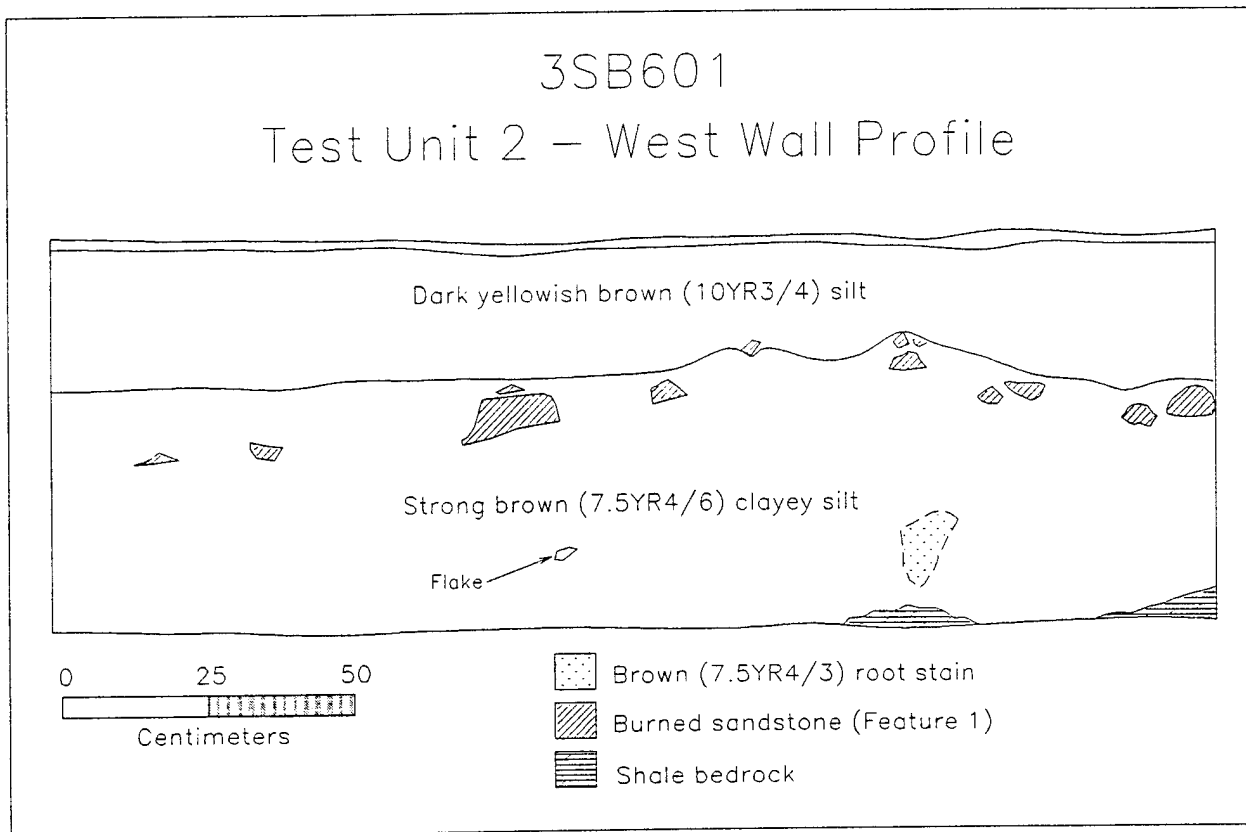


Figure SB601-3. Profile drawing of the west wall of Test Unit 2 at 3SB601.

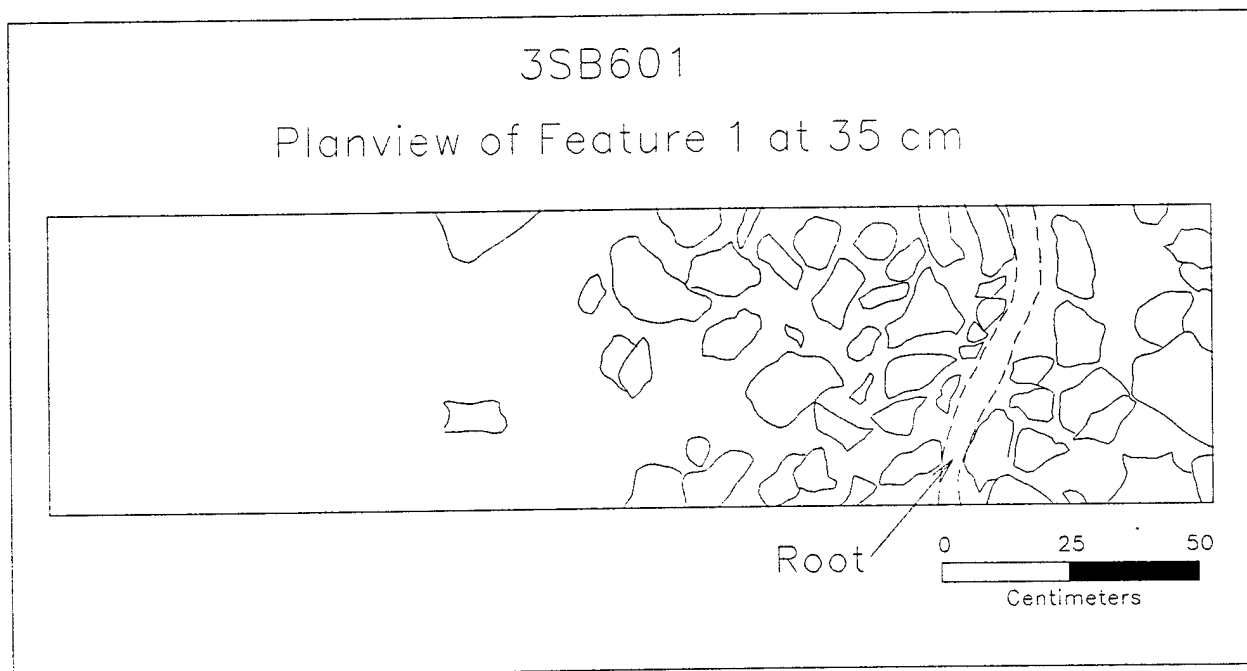


Figure SB601-4. Planview drawing of Feature 1.

Table 3SB601-4. Test Unit 3 Artifacts.

DEPTH (CM)	0-10		10-20		20-30		30-40		40-50		50-60		TEST UNIT 3	
	Number/Grams		CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.	CT.	WT.
PREHISTORIC														
Uniface	1	2.4	1	3.6									2	6.0
Projectile point/dart			1	4.0									1	4.0
Flakes	40	43.2	37	31.1	46	22.5	49	19.1	17	5.7	9	4.9	194	126.5
Perforator/graver			1	5.3									1	5.3
Soft hammer lip	1	1.4	1	1.1	4	2.8	2	0.5	1	0.4			9	6.2
Retouched/utilized	2	3.5											2	3.5
Decortication					1	6.2							1	6.2
Decortication	3	17.9	1	1.1	4	4.9	2	1.7	1	7.5			11	33.1
Polish			1	0.2									1	0.2
Shatter	9	4.8	7	6.4	12	4.0	12	6.0	2	0.7	1	1.9	44	23.8
Unmodified sandstone		74.2											0	74.2
Fire-cracked rock		6.0											0	6.0
HISTORIC														
Tableware--whiteware	1	0.7											1	0.7
Glass shard--clear	1	1.2											1	1.2
Windowpane--aqua	1	1.3											1	1.3
TOTAL	59	156.6	50	52.8	67	40.4	65	27.3	21	14.3	10	6.8	269	298.2
Artifacts/cubic meter	590	1566	500	528	670	404	650	273	210	143	100	68	448	497

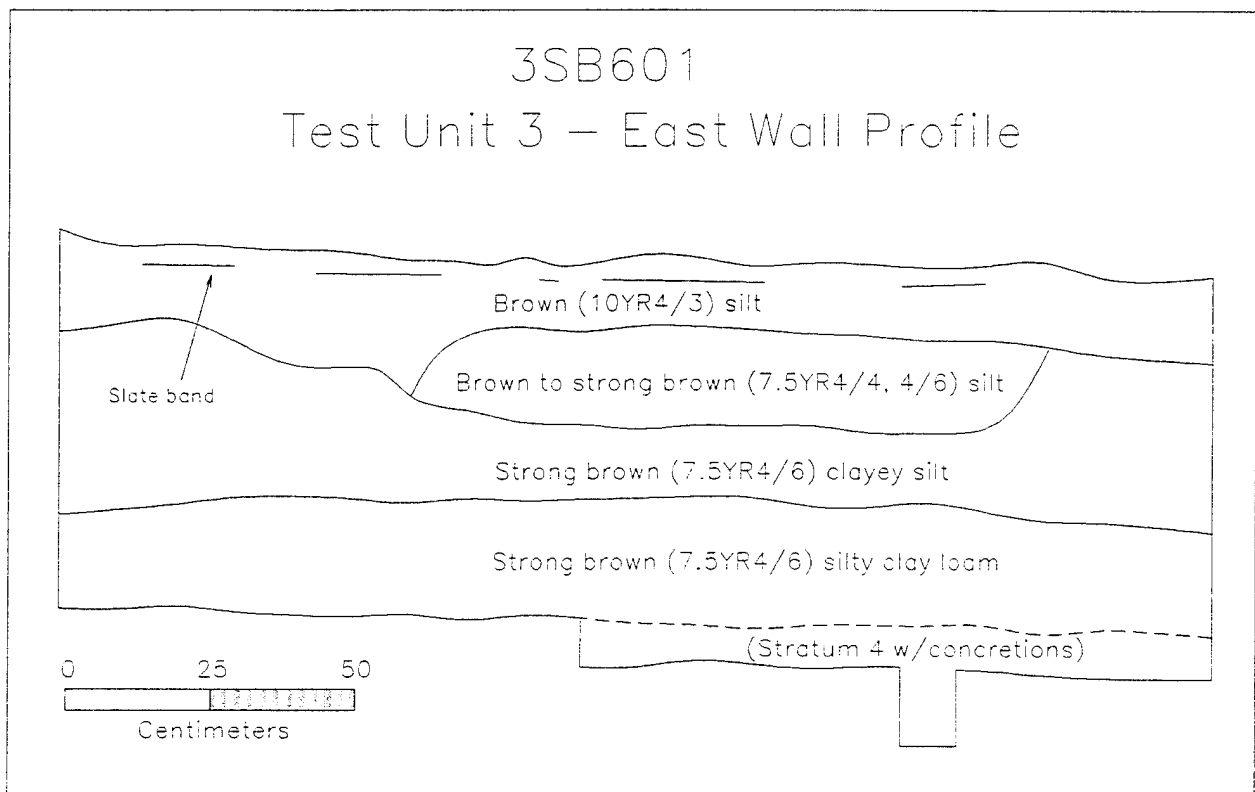


Figure SB601-5. Profile drawing of the west wall of Test Unit 3 at 3SB601

Results of the MCRA Work

Horizontal and Vertical Extent. The maximum dispersion of artifacts and surface features is about 300 m east-west x 120 m north-south (Appendices 1 and 3, Figure SB601-1). The site is bounded on the north by the steep slope marking the edge of the landform. The western edge is defined by surface artifacts, positive shovel tests and topography. The southern edge is marked by positive shovel tests. The eastern edge is marked by the boundary of Fort Chaffee, but the landform continues beyond it onto private property and the cultural deposits may as well. The core area of the historic component is difficult to define based on the shovel tests, particularly given the recent contamination by modern trash at the east end of the site. The only remaining features include a well pipe (that appears too large to be a household water supply) and several flower beds in the vicinity of Test Unit 3. The normal depth to which historic artifacts were recovered was 20 cm with a maximum of 80 cm.

The prehistoric component occupies the entire site area but exhibits two concentrations. The first is restricted to the crest of the landform between shovel test transects 65W and 208W. The second is smaller and is restricted to the very highest elevation at the extreme west end of the site. The maximum depth to which prehistoric materials were recovered was 70 cm.

Cultural Components Identified. Artifacts associated with the historic component are dominated by twentieth century materials. The assemblage is dominated by shards of clear and modern colored bottle glass (100%), many of which appear to be modern canning jar fragments, and plain porcelain (15%; 1825 - present) and whiteware (46%; 1820 - 1900+) ceramics. Also recovered were transfer printed whiteware (31%; 1825 -1875) and decalcamania whiteware (8%; 1890 - present). The bottles recovered were all modern machine made (post 1900). Also present were piles of rusting food tins, paint cans, and used fencing, particularly at the east end of the site. These may represent trash dumped since the site was abandoned, judging by measures taken by the Army to prevent unauthorized dumping. A large mound has been bulldozed up next to the road to block access and no dumping signs posted.

No diagnostic prehistoric artifacts were recovered. Five dart point fragments were recovered. These included 2 distal fragments, one midsection and 2 square-stems. One of the square stems, recovered in Level 2 of Test Unit 3, is heavily edge-ground and may date to the Early Archaic period. If this is a stratified site, the shallow depth at which it was recovered suggests that it is out of context.

Site Function. The function of the historic component is difficult to determine. While a structure is shown at the site on the highway and transportation map (1936, revised 1941), no direct evidence of farming activity was recovered in the documentary research or the testing.

The prehistoric component appears to have served as a base settlement, based on the size of the site and the wide range of activities suggested by the artifacts. The presence of a tested cobble, 7 cores and a smattering (86) of decortication flakes demonstrates that at least some stone tool manufacturing occurred. Stone tools include 4 dart points, an adze, 4 perforator/gravers, 1 uniface, 1 scraper, 41 flake tools, an abrader and a pitted cobble. These suggest a wide range of activities from wood and bone working to cutting and butchering and plant processing. The fire-cracked sandstone feature encountered in Test Unit 2 suggests stone boiling, roasting, or nut drying as a means of food preparation.

Significance Assessment

3SB601 is significant and eligible for inclusion in the National Register of Historic Places. While the historic component is of little research value, the prehistoric component appears to be in reasonably good condition and the dart point fragment recovered from Test Unit 3 suggests that the site may have been occupied at a very early date. The size and depth of the site and volume of prehistoric materials present argue for at least periodic intense occupation of the site for relatively long periods of time. While most (95%) of the chert recovered is from locally available Arkansas River gravel, the presence of materials from both the Ozarks (Boone chert) to the north and Ouachitas (Novaculite) to the south suggest use of the site by more than a single group.

The historic component has been damaged by the removal of structures but there are no indications of extensive subsurface disturbance. The dumping of trash, particularly at the east end of the site has contaminated the historic component with more recent material. Thus, while no evidence of structures associated with the historic occupation remains, several roadways and at least part of the yardscape (in the form of flower beds) are still preserved. Taken as a whole, however, the historic component is in relatively poor condition and not amenable to archeological investigation.

The prehistoric component has suffered damage, both from the historic occupants of the site and military activities but these appear to be relatively minor. Test Unit 2 yielded good evidence that the deposits in that area are intact in the form of a feature and a corresponding peak in artifact density. These suggest that the top of Stratum 2 may represent a buried surface on which the burned sandstone and accompanying artifacts were deposited. Moreover, horizontal concentrations of artifacts are readily identifiable, further suggesting that the site is not heavily damaged.

CHAPTER 4

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This section of the report briefly outlines the results discussed in Chapter 3. The patent year, patentee or first landowner, if purchased by William Edenborn, the last landowner, and significance are presented (Table 4-1).

Federal Regulation 36CFR60.4 outlines the qualities that make cultural properties significant and eligible for nomination to the National Register of Historic Places (NRHP). These regulations state:

National Register criteria for evaluation

The quality of significance in American history, architecture, archeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

(a) That are associated with events that have made a significant contribution to the broad patterns of our history; or

(b) That are associated with the lives of persons significant in our past; or

(c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(d) That have yielded, or may be likely to yield, information important in prehistory or history. (Federal Register 1976:1595).

Sites significant and eligible for NRHP nomination must have intact deposits and a high degree of integrity of location, setting, feeling, and association. While these are not criteria for significance, they comprise a general precondition defined in the regulations. In some instances it can be waived if intact deposits of a particular study unit (cf. Davis 1982 and Raab et al. 1982, for example) are not known or are known to be almost nonexistent. In the Ozarks, for example, Sabo et al. (1982) explicitly included disturbed assemblages from the Archaic, Mississippi, and Woodland periods and virtually any Paleo-Indian/Dalton site as potentially significant, which suggests just how rare these undisturbed sites are in that region. Other highly disturbed sites known to be representative of classes of sites with known undisturbed deposits are likely to be non-significant, however, specific arguments might also waive this. When The State Plan for the Conservation of Archeological Resources in Arkansas (Davis ed. 1982) was prepared, the section on the Arkansas River Valley was brief. It was recognized as a distinct study unit, and despite considerable work in the area, research questions and approaches were unavailable. Numerous historic farmsteads have been tested in Arkansas but data recovery has occurred at only three sites in the Fort Chaffee vicinity. These include the Moser site (Stewart-Abernathy 1986) the Dowell site (Lafferty et al. 1994) and the Lambert Farmstead (Cande 1995). Some excavations in towns (Jurney 1979, Martin 1972) are virtually all of the historic sites reported

and excavated in Arkansas.

The temporal cut off for significance is legally set at more than 50 years old. Again, this requirement can be waived if the resource is associated with someone of note or importance is otherwise eligible under Criteria a, b, or c. In the case of the sites tested, the age factor was not addressed since all the tested historic sites meet the requirement.

For a site to be archeologically significant (Criterion d) it must be shown to have data relevant to current research questions in an archeological region such as Northwest Arkansas or the Arkansas River Valley (cf. Tainter and Lucas 1983 for comment and extensive reference of this discussion). There has been almost no intensive archeological investigation in this area. It is necessary to draw upon research from Arkansas and eastern Oklahoma to gain a basis for developing research questions. The only historic sites excavated in the Arkansas portion of the Arkansas Valley was the basement of a mansion in Little Rock. We do not have baseline data on the nature of this kind of site in the Arkansas Valley, and only three have been extensively excavated in the Ozarks.

3SB508 possesses a prehistoric and historic component. Surface features include those associated with military activities and a stone-lined well. This site has been heavily impacted by earth moving activities. Archival records indicate Mitchell Sparks purchased this area from the government in 1850. George J. Shelby is recorded as residing at the site, perhaps as early as 1870. A single Dalton point was recovered by AAI. MCRA investigations failed to identify any additional artifacts which can be considered characteristic of a Dalton assemblage. It is the opinion of MCRA that 3SB508 is not eligible for nomination to the National Register of Historic Places.

3SB533 has several surface features including concrete steps, a U-shaped structure covered by rubble, an oval depression, well pipe, and iris. This site is part of land patented by William M Gwin and Samuel Davis in 1836. These individuals were land speculators and never resided at the site. Absentee ownership continued until 1881 when W. S. Coleman purchased the land. A single test unit and 97 shovel tests (25 positive) were excavated. Investigations failed to identify the presence or potential presence of information which would further our understanding of life in the 1880's. It is MCRA's opinion 3SB533 is not significant in terms of the National Register of Historic Places Criterion d.

3SB537 Surface features identified at this site include foundation remnants of two structures, iris, and wisteria. A high level of disturbance was recorded. Archival records indicate Henry Rymal purchased this land in 1866 for speculation. Absentee landowners maintained control until the 1880's. Investigations conducted by MCRA entailed the excavation of 61 shovel tests (22 positive) and two test units. The cultural material recovered support a 1880's to post-1916 occupation. Based on a high level of disturbance and the absence of significant or potentially significant information it is the opinion of MCRA 3SB537 is not eligible for nomination to the National Register of Historic Places.

3SB542 is on 40 acres first owned by Joseph Crockett and Wallace Clyma. Surfaces features identified at the site include a north/south sunken road, a stone-lined well, cellar, and structure foundations. Investigations conducted by MCRA included the excavation of 55 shovel tests (20 positive) and two test units. Archival records indicate a structure was built at this site in the 1870's or earlier. Cultural material recovered from 3SB542 identifies the presence of artifact classes not normally recovered at sites. These include artifacts associated with faunal remains, makers marks, clothing, and recreation. It is the opinion of MCRA that 3SB542 is significant and eligible for nomination to the National Register of Historic Places under Criterion d.

Table 4-1. Land Transactions and Site Significance.

Site Number	Patent Year	Patentee or First Owner	Year Purchase by Edenborn	Last Landowner	Significant
3SB508	1850	Mitchell Sparks		John Kirkendall	no
3SB533	1836	William M Gwin Samuel Davis		Charles A. Selig Elizabeth A Selig	no
3SB537		Henry Rymal		W.F. Byrum	no
3SB542		J.F. Crockett	by 1896	Edenborn	yes
3SB544	1836	William M Gwin Samuel Davis		Lydia Morley	no
3SB543	1836	William M Gwin Samuel Davis		R.S. Smith	no
3SB550	1855	Needom Crawford	after 1903	Edenborn	no
3SB560	1836	William M Gwin Samuel Davis		L.B. Howard	no
3SB562	1836	William M Gwin Samuel Davis		P.J. Weir Laura Mae Weir	no
3SB566	1836	Abraham S. Wilty	1895	Edenborn	yes
3SB567	1836	William M Gwin Samuel Davis		E.M. Wingfield	no
3SB569	1836	William M Gwin Samuel Davis		Weirs(?)	no
3SB570	1836	William M Gwin Samuel Davis		Wiers (?)	no
3SB601	1837	David Thompson		T.W. Bugg B.L. Butler	yes

3SB543 has a prehistoric and historic component. Surface features identified at the site include a house foundation, two outbuilding foundations, a livestock pen, and a stone retaining wall. Investigations entailed the excavation of 74 shovel tests (11 positive), and three test units. Archival information indicates the land was patented in 1836 by speculators. Occupation of the site began in 1869 when James McAlister purchased it. It continued in 1909 when Fred McCord obtained it. Cultural material recovered by MCRA recognize the post-1900 occupation but not the earlier one. No temporally sensitive prehistoric artifacts were recovered during the investigations. It is the opinion of MCRA that 3SB543 is not eligible for nomination to the National Register of Historic Places.

3SB544 Surface features identified at 3SB544 include three structures, a possible fourth, a stone-lined well, an old north/south road, iris, and yucca. Extensive disturbance in the form of bulldozed dirt piles and low areas was documented. Archival records indicate the land was patented in 1836 and held by speculators. A farm was present by 1880 with a house possibly dating as early as 1869. Investigations by MCRA failed to identify a component dating to the early 1870's. Investigations failed to identify the presence or potential presence of information that could be used to address problems associated with the turn of the century. Land alteration has compromised any spatial patterning that may be evident at this site. It is the opinion of MCRA that 3SB544 is not eligible for nomination to the National Register of Historic Places under Criterion d.

3SB550 Surface features identified at this site include two intersecting linear mounds of dirt/shale, a conical mound of dirt/shale, a concrete structure at the intersection of the two mounds, and a concrete ramp-like structure. Investigations conducted at this site included a single test unit and 39 shovel tests. All subsurface investigations were negative. Large ubiquitous artifacts, including pipe, sheet tin, and cable were the only materials noted on the surface. Temporally sensitive artifacts were not recovered from this site. If the surface features date to the ownership by the Western Coal and Mining Company then the site dates between 1887 and 1903. It is the opinion of MCRA that 3SB550 is not significant.

3SB560 Surface features at 3SB560 consisted of domestic flowers. No structure was identified on the 1887 and 1903 Sebastian County Atlas and no evidence of a structure was recognized during the fieldwork. Cultural material recovered from the site indicate a post-1900 occupation. Archival records indicate the land was patented in 1836 by speculators. The Agricultural Census of 1870 and 1880 indicate an active farm was present. Investigations failed to identify artifacts clearly associated with the early historic occupation, no spatial patterning is evident, nor any evidence of *in situ* deposits. It is the opinion of MCRA that 3SB560 is not eligible for nomination to the National Register of Historic Places.

3SB562 Surface features at 3SB562 include iris and several large trees. Extensive disturbance has destroyed structural remains identified by AAI. Investigations conducted by MCRA included the excavation of a single test unit and 71 shovel tests (17 positive). The land on which 3SB562 is located was patented in 1836 by speculators. The 1870 Agricultural Census indicates an active farm in 1870. The 1880 census indicates the ownership changed and the farming operation expanded in scope. MCRA investigations failed to document any intact deposits. Extensive disturbance at 3SB562 has effectively destroyed the site. It is the opinion of MCRA that 3SB562 is not eligible for nomination to the National Register of Historic Places.

3SB566 Surface features at 3SB566 are represented by a scatter of foundation rocks and two small piles of sandstone. Subsurface investigations included the excavation of 43 shovel tests (26 positive) and a single test unit. A prehistoric occupation dating to the Late Archaic (Gary) and a historic occupation predating 1900 were identified. Archival records indicate the land was patented by Mitchell and Annie Sparks in August 1836. Although the archival research does not show evidence of a structure at this site, structural and domestic artifacts were recorded. In addition, faunal and weapon remains were recovered. It is the opinion of MCRA that 3SB566 is significant under Criterion d and eligible for nomination to the National Register of Historic Places.

3SB567 Surface features identified at 3SB567 include a structure foundation, flower bed, depression, a linear mound of rock, scattered foundation stones, numerous junk cars, and Stewart tanks. Numerous shell holes from target practice are evident at the site. Investigations included the excavation of 40 shovel tests (14 positive) and two test units. Archival records indicate the land was patented in 1836 by a speculator. The 1880 Agricultural Census indicates the site was occupied by John Maxwell. The cultural material supports the archival information in terms of site occupation. Due to the disturbance at the site and the absence of information that can be used to address turn-of-the-century lifeways MCRA recommends archeological clearance. It is the opinion of MCRA that 3SB567 is not eligible for nomination to the National Register of Historic Places.

3SB569 possesses a prehistoric and historic component. Surface features identified included a structure foundation, depression, flower bed, and scattered possible foundation

stones. Investigations entailed the excavation of 33 shovel tests (12 positive) and two test units. Archival information indicates this site is associated with 3SB570 and was owned by the same individuals. The land was patented in 1836 by speculators. It was occupied and, based on the 1880 Agricultural Census, supported an active farm. However, very little material dating to this period was recovered. No temporally sensitive prehistoric artifacts were recovered. It is the opinion of MCRA that 3SB569 is not eligible for nomination to the National Register of Historic Places.

3SB570 possesses a historic and prehistoric component. Surface features identified at the site included a house foundation, well, fence line, rock pile, and scattered foundation stones. Recent disturbance in the form of bulldozer dirt piles were also noted. Investigations at 3SB570 included 25 shovel tests (6 positive) and three test units. The land was patented in 1836 by speculators. It was occupied and, based on the 1880 Agricultural Census, supported an active farm. However, very little material dating to this period was recovered. A single Scallorn projectile point was recovered. It is the opinion of MCRA that 3SB570 is not eligible for nomination to the National Register of Historic Places.

3SB601 possesses a prehistoric and historic component. Surface features identified at the site included a trash dump, well pipe, and abandoned roads. Investigations included the excavation of 109 shovel tests (84 positive) and three test units. Archival research indicates the land was patented in 1837 by a speculator. Locally influential person who owned this land included Sparks and John Carnall though none lived on the site. Test unit excavations recorded cultural material extending to a minimum of 70 cmbs. In addition, a fire-cracked rock feature was identified in the 30-40 cm level. Several projectile point fragments were recovered during the investigations. However, due to their fragmentary nature none were identified. It is the opinion of MCRA that 3SB601 is eligible for nomination to the National Register of Historic Places under Criterion d.

In summary it is MCRA's opinion that three sites (3SB542, 3SB566, 3SB601) have significant deposits and are eligible for nomination to the National Register of Historic Places. These sites should be preserved in place. If this is not possible mitigation by data recovery should be implemented.

Eleven of the tested sites (3SB508, 3SB533, 3SB537, 3SB543, 3SB544, 3SB550, 3SB560, 3SB562, 3SB567, 3SB569, and 3SB570) lack significant deposits and have been substantially altered by bulldozing. We recommend no further archeological work on these sites.

REFERENCES CITED

- AAS Site Files
 n.d. Arkansas Archeological Survey Site Files. Registrar's Office, Arkansas Archeological Survey, Fayetteville, Arkansas.
- Albert, Lois E.
 1981 Ferndale Bog and Natural Lake: Five Thousand Years of Environmental Change in Southeastern Oklahoma. Studies in Oklahoma's Past No.7 Oklahoma Archaeological Survey, Norman.
- 1987 An Archeological Survey in the James Fork Watershed, LeFlore County, Oklahoma. Archeological Resource Survey Report Number 28. The University of Oklahoma, Oklahoma Archeological Survey, Norman.
- Albert, Lois E. and Don G. Wyckoff
 1984 Oklahoma Environments: Past and Present. In Prehistory of Oklahoma, edited by Robert E. Bell. Academic Press, Inc., New York. pp. 1-43.
- Banks, Larry D.
 1984 Lithic Resources and Quarries. In Prehistory of Oklahoma, edited by Robert E. Bell. Academic Press, Inc., New York.
- Bell, Robert E., Gayle S. Lacy, Margaret T. Joscher, and Joe C. Allen
 1969 The Robinson-Solesbee Site, HS-9, A Fulton Aspect Occupation, Robert S. Kerr Reservoir, Eastern Oklahoma. Oklahoma River Basin Survey Archaeological Site Report 15. University of Oklahoma Research Institute, Norman.
- Bennett, W. J. Jr.
 n.d. Executive Summary: Fort Chaffee Cultural Resource Studies: 1986-1989.
- 1987 Archeological Testing at Selected Prehistoric Sites in the Biswell Hill and Gin Creek Areas. Fort Chaffee Cultural Resource Studies No. 4 (Archeological Assessments Report No. 72).
- 1988 Cultural Resources Survey: 1987-1988 12% Sample. Fort Chaffee Cultural Resource Studies No. 7. (Archeological Assessments Report No. 86).
- Bennett, W.J., Jr., J.A. Blakely, R. Brinkman, R. Bennett, J. Northrip, W. Isenberg, and M. Bennett
 1993 Archeological Investigations at Seventeen Euro-American Farmsteads, Ft. Chaffee, Arkansas. Fort Chaffee Cultural Resource Studies No. 7. Archeological Assessments Report No. 68. Nashville, Arkansas.
- Brooks, Robert L.
 1982 The Talihina Project: Survey and Testing of the Proposed Talihina Wastewater Treatment Plant Improvements, LeFlore County, Oklahoma. Archaeological Resources Survey No. 15. Oklahoma Archaeological Survey, University of Oklahoma, Norman.
- Brown, Ian W.
 1980 Salt and the Eastern North American Indian: An Archaeological Study. Lower Mississippi Survey Bulletin No. 6. Peabody Museum, Harvard University, Cambridge.

- Burnett, Barbara A.
1989 A Bioarcheological Synthesis of the Ozark and Ouachita Mountains and the Arkansas River Valley, 1350-1100 B.P. to 300 B.P. M.A. thesis, University of Arkansas, Fayetteville.
- Butler, William J.
1972 Fort Smith: Past and Present; A Historical Summary. The First National Bank, Fort Smith.
- Cartledge, Thomas R.
1970 The Tyler-Rose Site and Late Prehistory in East-Central Oklahoma. Oklahoma River Basin Survey Archaeological Site Report 19. University of Oklahoma Research Institute, Norman.
- Clark, Sue
1982 Sebastian County, Arkansas Original Land Grants. Frontier Researchers, Fort Smith.
- Crabtree, Don
1972 An Introduction to Flintworking. Occasional Papers of the Idaho State University Museum, Number 28. Pocatello.
- Cravens, Fadjo Jr.
1978 The Sparks Family of Fort Smith, Arkansas. The Journal 2(2):64-66. Fort Smith Historical Society, Fort Smith.
- Cox, John B., Billy A. Garner, and Frank M. Vodrazka
1975 Soil Survey of Sebastian County, Arkansas. USDA Soil Conservation Service in cooperation with the Arkansas Agricultural Experiment Station.
- Davis, Hester A. (editor)
1982 A State Plan for the Conservation of Archeological Resources in Arkansas. Arkansas Archeological Survey, Research Series No. 21.
- Dickson, Don R.
1991 The Albertson Site: A Deeply and Clearly Stratified Ozark Bluff Shelter. Arkansas Archeological Survey Research Series No. 41. Fayetteville.
- Dougan, Michael B.
1972 Life in Confederate Arkansas. The Arkansas Historical Quarterly 31:15-35.
- Evans, John G.
1978 An Introduction to Environmental Archaeology. Cornell University Press, Ithaca, New York.
- Faulk, Odie B. and Billy MacJones
1983 Fort Smith: An Illustrated History. The Old Fort Museum, Fort Smith and Western Heritage Books, Muskogee.
- Federal Register
1976 36CFR60 National Register of Historic Places: Nominations by State and Federal Agencies. Rules and Regulations, 9 January 1976.
- Ferguson, Jim G.
1920 Outlines of the Geology, Soils, and Minerals of the State of Arkansas. State of Arkansas, Little Rock.

- 1922 Minerals in Arkansas. State of Arkansas, Little Rock.
- Foti, Thomas L.
1974 Natural Divisions of Arkansas. In Arkansas Natural Area Plan, prepared by the Arkansas Department of Planning, pp. 11-34. Arkansas Department of Planning, Little Rock.
- Frontier Researchers
1982 1890 Census (Reconstructed), Sebastian County, Arkansas. Private Printing, Fort Smith.
- Galm, Jerry R.
1978 The Archaeology of the Curtis Lake Site (34LF5A), LeFlore County, Oklahoma. Archeological Research and Management Center Research Series 2. The University of Oklahoma, Norman.
- Gettys, Marshall
1984 Early Specialized Hunters. In Prehistory of Oklahoma, edited by Robert E. Bell, pp. 97-108. Academic Press, New York.
- Goodspeed
1889 Biographical and Historical Memoirs of Benton, Washington, Carroll, Madison, Crawford, Franklin, and Sebastian Counties, Arkansas. Goodspeed, Chicago.
- Hayes, E. L. & Company
1887 Outline Map of Sebastian County, Arkansas. E. L. Hayes & Company, Chicago.
- Henningson, Burton E., Jr.
1975 Northwest Arkansas and the Brothers of Freedom: The Roots of a Farmer Movement. The Arkansas Historical Quarterly 34:304-324.
- Cande, Kathleen H.
1995 The Ozarks as Destination: Phase III Archeological Investigations at the Lambert Farmstead (3CW674) and Phase II Testing at the Dement Farmstead and Cemetery (3CW685), Crawford County, Arkansas. Draft Report, Projects 829 and 864. Arkansas Archeological Survey, Fayetteville. submitted to Arkansas Highway and Transportation Department, Little Rock.
- Jackson, Ronald Vern, Gary Ronald Teeple, and David Schaeffermeyer
1976 Arkansas 1850 Census Index. Accelerated Indexing System, Inc., Bountiful, Utah.
- Jackson, Ronald Vern
1987 1870 Census, Arkansas. Accelerated Indexing Systems, International, Inc. Bountiful, Utah.
- Jurney, David H.
1979 The Ridge House Cellars: Using Faunal Analysis to Reconstruct Meat Diet. Unpublished Master's Thesis, Department of Anthropology, University of Arkansas, Fayetteville.
- King, James E.
1973 Late Pleistocene Palynology and Biogeography of the Western Missouri Ozarks. Ecological Monographs 43(4):539-565.
1974 Climatic Change Since the Ice Age. The Living Museum 36(2):232-233.
1980 Palynological Studies of Big Lake, Arkansas. In Zebree Archeological Project, edited by

Dan F. Morse and Phyllis A. Morse, Chapter 14. Report by Arkansas Archeological Survey for the U. S. Army District, Corps of Engineers.

Klinger, Timothy C., Lawrence L. Ayres, Don R. Dickson, Margaret L. Guccione, Steven M. Imhoff and James W. Smith.

1993 Graham Farm and Winn Creek: Data Recovery at Two Prehistoric Sites Along the Relocation Route of U.S. Highway 71 Within the Ozark-Arkansas-Ouachita Region Washington County, Arkansas. Report submitted the Arkansas Highway and Transportation Department Little, Rock, Arkansas.

Lafferty, Robert H. III, M. C. Sierzchula, R. F. Cande, P. B. Mires, M. T. Oates, M. J. Guccione, N. L. Lopinot, S. Scott and M. Cleaveland

1994 Cato Spring Archeology and Geomorphology: Archeological Data Recovery at 3WA539, 3WA577 and 3WA741, U. S. Highway 71 Relocation, Washington, County, Arkansas. Mid-Continental Research Associates Report 94-6. Springdale, Arkansas.

Lewis, R. Barry

1974 Mississippian Exploitative Strategies: A Southern Missouri Example. Missouri Archeological Society Research Series, No. 11. Columbia.

Lucas, Rev. Silas Emmett Jr.

1978 History of Benton, Washington, Carroll, Madison, Crawford, Franklin, and Sebastian Counties, Arkansas. Reprint of the Goodspeed Publishing Company book of 1889. Southern Historical Press, Easley, South Carolina.

Mapes, Ruth B.

1965 old Fort Smith: Cultural Center on the Southwestern Frontier. Pioneer, Little Rock.

Martin, Amelia

1985 John Carnall Educator and Man of Vision. The Journal 9(1):9-10. Fort Smith Historical Society, Fort Smith.

Martin, Patrick E.

1977 An Inquiry into the Locations and Characteristics of Jacob Bright's Trading House and William Montgomery's Tavern. Arkansas Archeological Survey Research Series No. 11. Fayetteville.

Miller, Henry M.

1972 A Vegetal Reconstruction of Early Historic Northwest Arkansas. M.A. thesis, University of Arkansas, Fayetteville.

McArthur, Priscilla

1986 Arkansas in the Gold Rush. August House, Little Rock.

McGehee, Wanda Carson

1992 Ancestors Inside the Gates of Fort Chaffee, Sebastian County, Arkansas. Private Printing, Fort Smith.

Morse, Dan F. and Phyllis A. Morse

1983 Archaeology of the Central Mississippi Valley. Academic Press, New York.

Munsey, Cecil

1970 The Illustrated Guide to Collecting Bottles. Hawthorne Books, Inc.. New York, N.Y.

- Patton, J. Fred
1936 History of Fort Smith, Arkansas. M. A. Thesis, The University of Arkansas, Fayetteville.
- Perino, Gregory
1985 Selected Preforms, Points and Knives of the North American Indians. Points and Barbs Press, Idabel, Oklahoma.
- Powell, Mary Lucas and J. Daniel Rogers
1980 Bioarchaeology of the McCutchan-McLaughlin Site (LT-11). Oklahoma Archaeological Survey Studies in Oklahoma's Past No. 5.
- Raab, L. Mark, and Gayle J. Fritz, Daniel Wolfman, and Robert H. Ray.
1982 Arkansas Ozarks. In A State Plan for the Conservation of Archeological Resources in Arkansas, edited by Hester A. Davis, Arkansas Archeological Research Series, No. 21, Arkansas Archeological Survey, Fayetteville.
- Randall, Mark E.
1971 Early Marbles. Historical Quarterly 5:102-105.
- Rolingson, M and M. J. Kaczor
1987 Toltec-Delos Inventory System and Dictionary. Arkansas Archeological Survey Technical Papers 7A, Fayetteville, Arkansas.
- Sabo, George, David B. Waddell, and J. H. House
1982 A Cultural Resources Overview of the Ozark-St. Francis National Forests, Arkansas. Report by the Arkansas Archeological Survey for the USDA Forest Service, Ozark-St. Francis National Forests, Russellville.
- Santeford, Lawrence Gene, Robert H. Lafferty III, Michael C. Sierzchula, Kathleen M. Hess, and Priscilla Seamen
1994 Windows Into the Past: Archeological Testing of 37 Prehistoric Native American Sites on the Fort Chaffee Military Garrison, Sebastian County, Arkansas. submitted to U.S. Army Corps of Engineers, Little Rock District, contract no. DACW03-92-D-0013, Order 1. Mid-Continental Research Associates, Inc., Report 93-1, Springdale, Arkansas.
- Scott, Gail
1977 Federal Census 1860, Sebastian County, Arkansas. Northwest Arkansas Genealogical Society, Rogers.
- Sierzchula, Michael C., Robert H. Lafferty III, Holly Wagner, James T. Toney, Lawrence G. Santeford, M. Tracy Oats, and W.J. Bennett, Jr.
1994 Archeological Testing of 13 Historic Sites, Fort Chaffee Military Garrison, Sebastian County, Arkansas. Draft submitted to U.S. Army Corps of Engineers, Little Rock District, DACW03-92-D-0013, Order 002. Mid-Continental Research Associates, Inc. Report No. 94-2, Springdale, Arkansas.
- Skiles, Albert
n.d. Arkansas Climatic Atlas. Arkansas Energy Office, Little Rock.
- Smith, Bruce D.
1975 Middle Mississippi Exploitation of Animal Populations. Museum of Anthropology, University of Michigan Anthropological Papers No. 57. Ann Arbor.
- Smith, Lawson M.

- 1986 Geomorphological Reconnaissance of Fort Chaffee, Arkansas. (Working Copy)
Submitted to U.S. Army Engineer District, Little Rock. Geotechnical Laboratory,
U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.
- Stewart-Abernathy, Leslie C.
1986 The Moser Farmstead, Independent but not Isolated: The Archeology of a Late
Nineteenth Century Ozark Farmstead. Arkansas Archeological Survey Research
Series No. 26. Fayetteville.
- Stroud, Raymond B., Robert H. Arndt, Frank B. Fulkerson, and W. G. Diamond
1969 Mineral Resources and Industries of Arkansas. United States Department of the Interior,
Bureau of Mines Bulletin 645.
- Sullivan, J. N. and J. E. Terry
1970 Arkansas River Basin: Drainage Areas of Streams in Arkansas. United States Department
of the Interior, Geological Survey, Water Resources Division. Little Rock.
- Tainter, Joseph A. and G. John Lucas
1983 Epistemology of the Significance Concept. American Antiquity 48:707-719.
- U.S. Army Corps of Engineers
n.d. Fort Chaffee Military Garrison, Fort Chaffee, Arkansas, Historic Preservation Plan.
Submitted to the U.S. Army Corps of Engineers, Little Rock under Contract No.
DACW03-89-D-0068, Order 22.
- Wallis, Charles S.
1980 A review of Cultural Resources Within Proposed Impoundment Locales 3A and 3B,
San Bois Creek Watershed, Latimer County, Oklahoma. Oklahoma Conservation
Commission General Survey Report.
- Weaver, Frank
1978 Fort Smith Hub From Which the Western Gold Seekers Went into the Wilderness.
The Journal 2(2):56-60. Fort Smith Historical Society, Fort Smith.
- Wilkinson, Means
1961 Greenwood, Sebastian County, Arkansas: 110 Years a County Seat (1851-1961).
The Farmers Bank, Greenwood.
- Wyckoff, Don G.
1984 The Foragers: Eastern Oklahoma. In Prehistory of Oklahoma, edited by Robert E. Bell,
pp. 119-160. Academic Press, New York.
- Young, Gloria A. and Michael P. Hoffman (editors)
1993 The Expedition of Hernando de Soto West of the Mississippi, 1541-1543. The University
of Arkansas Press, Fayetteville.

**APPENDIX 1
SHOVEL TEST RESULTS**

3SB508: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/ Negative
ST000N/000E	0-20	10YR4/4	silt	positive
	20-50	7.5YR4/6	clay	negative
ST008N/000E	0-11	7.5YR4/6	sandy silt	negative
	11-30	7.5YR5/8	clayey silt	negative
ST008N/020E	0-9	7.5YR4/6	sandy silt	negative
	9-30	7.5YR5/8	clayey silt	negative
ST008N/040E	0-4	7.5YR4/6	sandy silt	negative
	4-23	7.5YR5/8	clayey silt	negative
ST008N/060E	0-4	7.5YR4/6	sandy silt	negative
	4-15	7.5YR4/3	sandy silt	negative
	15-20	7.5YR5/8	clay	negative
ST008N/080E	0-2	7.5YR4/6	sandy silt	negative
	2-14	7.5YR4/3	sandy silt	negative
	14-22	7.5YR5/8	clay	negative
ST008N/100E	0-2	7.5YR4/6	sandy silt	negative
	2-21	7.5YR5/8	clay	negative
ST021N/000E	0-20	10YR4/4	silt	negative
	20-40	7.5YR4/6	clay	negative
ST021N/020E	0-35	7.5YR4/6	gravely silt	negative
ST021N/040E	0-5	10YR4/4	silt	negative
	5-40	7.5YR4/6	clay loam	negative
ST021N/060E	0-10	10YR4/4	silt	negative
	10-30	7.5YR5/8	clay	negative
ST021N/080E	0-10	10YR4/4	silt	negative
	10-30	7.5YR5/8	clay	negative
ST021N/100E	0-5	10YR4/4	silt	negative
	5-30	7.5YR5/8	clay	negative
ST049N/000E	0-9	7.5YR4/6	silt	negative
	9-19	7.5YR3/4	silty clay	negative
	19-21	7.5YR5/8	clay	negative
ST049N/020E	0-8	7.5YR4/6	silt	negative
	8-19	7.5YR3/4	silty clay	negative
	19-22	7.5YR5/8	clay	negative
ST049N/040E	0-2	7.5YR4/6	silt	negative
	2-22	7.5YR3/4 & 5/8	disturbed	negative
	22-25	7.5YR5/8	clay	negative
ST049N/060E	Located on pond dike; not excavated			
ST049N/070E	0-10	2.5YR4/6	clay	negative
ST049N/100E	Bulldozed for medical tent; not excavate			
ST065N/000E	0-5	10YR4/4	silt	negative
	5-30	7.5YR5/8	clay	negative

3SB508: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/ Negative
ST065N/020E	0-12	10YR4/4	silt	negative
	12-30	7.5YR5/8	clay	negative
ST065N/040E	0-14	10YR4/4	silt	negative
ST065N/040E	14-30	7.5YR5/8	clay	negative
ST065N/060E	0-20	10YR4/4	silt	negative
	20-30	7.5YR5/8	clay	negative
ST065N/080E	0-20	10YR4/4	silt	negative
	20-30	5YR4/6	clay	negative
ST065N/100E	0-10	10YR4/4	silt	negative
	10-15	5YR4/6	clay	negative
ST089N/000E	0-20	10YR4/4	silt	positive
	10-20	2.5YR4/6	clay	negative
ST089N/010E	0-15	10YR4/4	silt	positive
	15-40	2.5YR4/6	clay	negative
ST089N/010W	0-20	10YR4/3	silt	positive
	20-40	10YR4/4	silt loam	negative
ST089N/020E	0-19	10YR4/4	silt	negative
	19-30	7.5YR4/6	clayey silt	negative
	30-35	7.5YR5/8	clay	negative
ST089N/020W	0-7	10YR4/3	silt	negative
	7-30	10YR4/4	silt loam	negative
ST089N/030E	0-6	10YR4/4	silt	negative
	6-20	7.5YR4/6	clay	negative
ST089N/030W	0-5	10YR4/3	silt	negative
	5-20	10YR4/4	silt loam	negative
ST089N/040E	0-20	10YR4/4	silt	negative
	20-40	7.5YR5/8	clay loam	negative
ST089N/050E	0-30	10YR4/4	silt	negative
	30-40	2.5YR4/6	clay	negative
ST089N/060E	0-20	10YR4/4	silt	negative
	20-30	7.5YR5/8	clay loam	negative
ST089N/080E	0-10	7.5YR4/4	dry silt	negative
	10-20	7.5YR4/4	silt	negative
	20-25	7.5YR4/4	silt	negative
ST089N/090E	0-20	10YR4/4	disturbed's	positive
	20-50	7.5YR4/6	silt	negative
ST089N/100E	0-10	10YR4/4	silt	negative
	10-30	5YR4/6	clay	negative
ST101N/000E	0-20	10YR4/4	silt	positive
	20-30	2.5YR4/6	clay	negative
ST101N/010E	0-25	10YR4/4	silt	positive
	25-35	2.5YR4/6	clay	negative
ST101N/010W	0-10	10YR4/3	silt	positive
	10-20	10YR4/4	silt loam	positive
	20-40	2.5YR4/6	clay	negative

3SB508: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/Negative
ST101N/020E	0-10	10YR4/4	silt	positive
	10-40	2.5YR4/6	clay	positive
ST101N/020W	0-3	10YR4/3	silt	negative
ST101N/020W	3-20	2 .5YR4/6	clay	negative
ST101N/030E	0-10	1 0YR4/4	silt loam	negative
ST101N/030W	0-5	1 0YR4/3	silt	negative
	5-20	1 0YR4/4	silt	negative
ST101N/040E	0-20	1 0YR4/4	silt	positive
	20-30	2 .5YR4/6	clay	negative
ST101N/060E	0-5	1 0YR4/4	silt	negative
	5-30	2 .5YR4/6	clay	negative
ST101N/100E	0-25	1 0YR4/4	silt	negative
	25-40	7 .5YR4/6	clay	negative
ST122N/000E	0-20	1 0YR4/4	silt	positive
	20-35	2 .5YR4/6	clay	negative
ST122N/010E	0-20	1 0YR4/4	silt	positive
	20-30	2 .5YR4/6	clay	negative
ST122N/020E	0-10	1 0YR4/4	silt	positive
	10-30	7 .5YR4/6	clay	negative
ST122N/030E	0-10	1 0YR4/4	silt	positive
	10-30	2 .5YR4/6	clay loam	negative
ST122N/040E	0-14	1 0YR4/4 & 2.5YR4	disturbed	negative
	14-30	2 .5YR4/6	clay	negative
ST122N/050E	0-30	N /A	shale fill	negative
ST122N/060E	0-20	N /A	shale fill	negative
ST122N/070E	0-5	1 0YR4/4	silt	negative
	5-20	5 YR4/6	silt	negative
	20-30	5 YR4/6	clay loam	negative
ST122N/080E	0-10	1 0YR4/4	silt	positive
	10-34	2 .5YR4/6	clay	negative
ST122N/090E	0-10	1 0YR4/4	silt	positive
	10-30	2 .5YR4/6	clay	negative
ST122N/100E	0-10	7 .5YR4/4	silt	positive
	10-20	7 .5YR4/4	silt	positive
	20-40	7 .5YR4/4	clay	negative
	40-50	2 .5YR4/4	clay	negative

3SB533: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/ Negative
-19/10	0-9	7.5YR4/6	loam	negative
-19/20	0-10	7.5YR4/6	loam	negative
-19/30	0-16	7.5YR4/6	silt	negative
	16-19	7.5YR5/6	loam	
-6/0	0-22	10YR5/4	silt loam	negative
-6/10	0-29	7.5YR5/6	silt	negative
-6/20	0-22	7.5YR5/6	silt	positive
	22-31	7.5YR4/4	loam	
-6/30	0-24	7.5YR5/6	silt	positive
-6/40	0-32	7.5YR5/6	silt	positive
-6/50	0-29	7.5YR5/6	silt	negative
-6/60	0-12	7.5YR6/6	silt	negative
-6/70	0-11	7.5YR6/6	silt	negative
	11-29	7.5YR7/6	loam	
-6/80	0-19	7.5YR5/6	silt	positive
-6/90	0-11	7.5YR5/6	silt	negative
-6/100	0-16	7.5YR5/6	silt	negative
8/0	0-16	10YR5/4	silt	positive
8/10	0-20	10YR4/3	silt	positive
8/20	0-5	10YR5/4	silt	positive
8/30	0-25	10YR5/4	silt	negative
	25-30	7.5YR4/6	silt	
8/40	0-22	10YR4/4	silt	positive
	22-30	7.5YR4/6	silt	
8/50	0-12	10YR5/4	silt	positive
	12-23	7.5YR4/6	silt	
8/60	0-20	10YR4/4	silt	negative
8/70	0-10	10YR5/4	silt	negative
	10-20	7.5YR4/6	silt	
8/80	0-20	10YR5/4	silt	negative
8/90	0-20	10YR5/4	silt	negative
11/0	0-14	7.5YR4/6	silt loam	negative
11/10	0-21	7.5YR5/6	silt	positive
	21-24	7.5YR4/3	silt	
11/20	0-16	7.5YR5/6	silt	positive
	16-26	7.5YR4/3	loam	
11/30	0-27	7.5YR5/6	silt	positive
11/40	0-23	7.5YR5/6	silt	positive
11/50	0-21	7.5YR5/6	silt	negative
11/60	0-20	7.5YR5/6	silt	negative
11/70	0-9	10YR4/4	silt	negative
11/80	0-20	7.5YR5/6	silt loam	negative
11/90	0-6	7.5YR5/6	silt	negative
	6-9	5YR4/6	loam	

3SB533: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
23/0	0-15	7.5YR4/6	silt loam	negative
23/10	0-9	7.5YR5/6	silt	negative
23/20	0-31	10YR4/6	silt	positive
23/30	0-29	10YR4/6	silt	positive
	29-31	7.5YR4/4	loam	
23/40	0-11	10YR4/6	silt	positive
	11-26	7.5YR4/6	silt	
23/50	0-4	10YR4/6	silt	positive
	4-21	7.5YR4/6	silt	
23/60	0-19	7.5YR4/6	silt	negative
23/70	0-15	7.5YR4/6	silt	negative
23/80	0-20	7.5YR5/6	silt	negative
23/90	0-16	7.5YR5/6	silt	negative
	16-20	7.5YR4/4	loam	negative
36/0	0-5	7.5YR5/6	silt	negative
36/10	0-23	10YR5/4	silt	positive
36/20	0-20	10YR5/4	silt	positive
36/30	0-19	7.5YR5/6	silt	positive
36/40	0-20	7.5YR5/6	silt	negative
36/50	0-20	7.5YR5/6	silt	negative
36/60	0-19	7.5YR5/6	silt	negative
44/0	0-5	7.5YR5/6	silt	negative
44/10	0-21	10YR5/4	silt	positive
	21-25	7.5YR5/6	silt	
44/20	0-19	10YR5/4	silt	positive
44/30	0-20	10YR5/4	silt	negative
44/40	0-19	7.5YR5/6	silt	negative
44/50	0-19	7.5YR5/6	silt	negative
44/60	0-12	7.5YR5/6	silt loam	negative
	12-15	7.5YR4/4	loam	
57/0	0-30	10YR5/4	silt	negative
57/10	0-20	10YR4/3	silt	positive
57/20	0-16	7.5YR5/6	silt loam	negative
57/30	0-22	7.5YR5/6	silt loam	negative
57/40	0-16	7.5YR5/6	silt	negative
62/0	0-20	10YR5/4	silt	negative
62/10	0-20	10YR5/4	silt	negative
62/20	0-23	10YR5/4	silt	negative
62/30	0-25	10YR5/4	silt	negative
62/40	0-15	10YR5/4	silt	negative
62/50	0-14	10YR5/4	silt	negative
62/60	0-5	10YR5/4	silt	negative

3SB533: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/ Negative
75/0	0-25	10YR5/4	silt	negative
75/10	0-30	10YR5/4	silt	positive
75/20	0-20	10YR5/4	silt	negative
75/30	0-5	10YR5/4	silt	negative
	5-7	10YR5/6	silt	
75/40	0-13	10YR4/3	silt	negative
75/50	0-5	10YR5/4	silt	negative
75/60	0-6	10YR5/4	silt	negative
83/0	0-7	10YR6/4	silt	negative
83/10	0-20	10YR5/4	silt	negative
83/20	0-5	10YR5/3	silt	negative
83/30	0-26	10YR5/4	silt	negative
83/40	0-13	10YR5/3	silt	negative
83/50	0-20	10YR6/4	silt	negative
83/60	0-5	10YR5/4	silt	negative
97/0	0-15	10YR6/4	silt	negative
97/10	0-30	10YR6/4	silt	negative
97/20	0-18	10YR5/4	silt	negative
	18-30	10YR5/6	silt	negative
97/30	0-10	10YR5/4	silt	positive
	10-30	10YR5/6	silt	
97/40	0-16	10YR6/4	silt	negative
97/50	0-19	10YR5/0	silt	negative
97/60	0-10	10YR5/3	silt	negative
108/0	0-15	10YR5/4	silt	negative
108/10	0-6	10YR6/4	silt	negative
108/20	0-26	10YR5/4	silt	negative
108/30	0-20	10YR5/4	silt	negative
108/40	0-13	10YR5/4	silt	negative
108/50	0-20	10YR5/4	silt	negative

3SB537: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
9/0	0-30	10YR4/3	silt	negative
9/10	0-30	10YR5/3	silt	negative
9/20	0-25	10YR4/3	silt	positive
	25-30	10YR5/3	silt	
9/30	0-30	10YR3/3	loam	positive
9/40	0-20	10YR3/3	loam	negative
	20-25	10YR5/8	silt	
9/50	0-20	10YR4/3	loam	negative
	20-30	7.5YR5/6	silt loam	
9/60	0-30	10YR3/3	loam	negative
9/70	0-20	10YR4/3	loam	positive
	20-30	10YR5/6	silt	
19/0	0-25	10YR5/4	loam	negative
	25-30	10YR6/3	silt	
19/10	0-20	10YR5/4	silt	negative
	20-30	10YR6/3	silt	
19/20	0-15	10YR4/3	loam	positive
	15-25	10YR5/3	silt	
19/30	0-10	10YR3/3	loam	negative
	10-25	7.5YR4/6	silt clay	
19/40	0-15	10YR3/3	loam	positive
	15-30	7.5YR4/6	silt loam	
19/50	0-15	10YR3/3	loam	positive
	15-30	7.5YR4/6	silt loam	
19/60	0-30	10YR4/3	loam	negative
19/70	0-20	10YR4/3	loam	negative
	20-30	10YR5/6	silt	
28/0	0-25	10YR5/4	loam	negative
	25-30	10YR6/3	silt	
28/10	0-20	10YR5/4	loam	negative
	20-30	10YR6/3	silt	
28/20	0-20	10YR4/3	loam	negative
	20-30	10YR5/3	silt	
28/30	0-20	10YR4/3	loam	positive
	20-30	10YR5/4	silt	
28/40	0-10	10YR4/4	loam	negative
	10-25	10YR5/6	silt	
28/50	0-20	10YR3/3	loam	positive
	20-30	7.5YR4/6	silt	
28/60	0-30	10YR3/3	loam	negative

3SB537: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
28/70	0-10	10YR3/3	loam	negative
	10-20	10YR4/3	silt loam	
	20-30	10YR5/6	silt	
34/0	0-4	10YR5/4	silt loam	negative
	4-23	10YR6/8	loam	
	23-27	10YR6/8 mottled with 7.5YR5/6	loam	
34/10	0-23	10YR6/8	loam	negative
	23-28	10YR6/8 mottled with 7.5YR5/6	loam	
34/20	0-20	10YR6/8	loam	positive
34/30	0-29	10YR5/4	silt loam	positive
34/40	0-3	10YR5/4	silt	negative
	3-21	7.5YR6/8	silt loam	
34/50	0-6	10YR5/4	silt loam	positive
	6-20	7.5YR6/8	loam	
34/60	0-20	10YR2/2	silt loam	positive
	20-30	10YR3/3	silt	
34/70	0-10	10YR3/3	loam	negative
	10-20	10YR4/3	silt loam	
	20-25	10YR5/6	silt	
42/0	0-3	10YR5/4	silt	negative
	3-26	10YR6/8	silt loam	
42/10	0-3	10YR5/4	silt	negative
	3-23	10YR6/8	silt loam	
	23-29	10YR6/8 mottled with 7.5YR5/6	loam	
42/20	0-19	10YR6/8	loam	negative
	19-22	10YR6/8 mottled with 10YR6/1	clay	
42/30	0-9	10YR5/4	silt	positive
	9-16	10YR6/8	silt	
42/40	0-14	10YR5/4	silt	positive
	14-24	10YR6/8	silt	
	24-28	7.5YR5/6	silt	
42/50	0-10	10YR5/4	silt	positive
	10-27	10YR6/8	silt	
42/60	0-7	10YR5/4	silt	negative
	7-27	10YR6/8	silt	
55/0	0-6	10YR5/4	silt	negative
	6-27	10YR6/8	silt	
55/10	0-4	10YR5/4	silt	negative
	4-25	10YR6/8	silt	

3SB537: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
55/20	0-4	10YR5/4	silt	negative
	4-24	10YR6/8	silt	
55/30	0-5	10YR5/4	silt	positive
	5-25	10YR6/8	silt	
55/40	0-5	10YR5/4	silt	positive
	5-25	10YR6/8	silt	
55/50	0-20	10YR4/3	silt	positive
	20-28	10YR6/8	silt	
55/60	0-6	10YR5/4	silt	negative
	6-24	10YR6/8	silt	
65/0	0-5	10YR5/4	silt	negative
	5-26	10YR6/8	silt	
65/10	0-6	10YR5/4	silt	negative
	6-25	10YR6/8	silt	
65/20	0-3	10YR5/4	silt	negative
	3-28	10YR6/8	silt	
65/30	0-8	10YR5/4	silt	positive
	8-29	10YR6/8	silt	
65/40	0-4	10YR5/4	silt	positive
	4-29	10YR6/8	silt	
65/50	0-14	10YR5/4	silt	positive
	14-29	10YR6/8	silt	
65/60	0-19	10YR5/4	silt	negative
	19-30	10YR6/8	silt	
65/70	0-29	10YR6/8	silt	negative
77/0	0-21	10YR5/4	silt	negative
	21-29	10YR6/8	silt	
77/10	0-21	10YR5/4	silt	negative
	21-28	10YR6/8	silt	
77/20	0-20	10YR5/4	silt	negative
	20-30	10YR6/8	silt	
77/30	0-10	10YR5/4	silt	negative
	10-29	10YR6/8	silt	
77/40	0-11	10YR5/4	silt	negative
	11-24	10YR6/8	silt	
77/50	0-15	10YR5/4	silt	negative
	15-30	10YR6/8	silt	
77/60	0-21	10YR5/4	silt	negative
	21-30	10YR6/8	silt	

3SB542: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
-10/0	0-5	7.5YR5/6	silt	negative
	5-19	7.5YR6/8	silt	
-10/10	0-4	10YR4/4	silt	negative
	4-10	7.5YR5/6	silt	
-10/20	0-5	10YR4/4	silt	negative
	5-24	7.5YR5/6	silt	
	24-27	7.5YR7/8	silt	
-10/30	0-8	7.5YR5/6	silt	negative
	8-20	7.5YR6/8	silt	
-10/40	0-6	7.5YR5/6	silt	negative
	6-17	7.5YR6/8	silt	
-10/50	0-5	10YR4/4	silt	negative
	5-15	7.5YR5/6	silt	
2/0	0-7	10YR4/4	silt	negative
	7-24	10YR5/4	silt	
2/10	0-6	10YR4/4	silt	positive
	6-24	10YR5/4	silt	
	24-27	7.5YR5/4	silt	
2/20	0-9	10YR4/4	silt	positive
	9-20	10YR5/4	silt	
	20-29	7.5YR5/4	silt	
2/30	0-10	10YR4/4	silt	positive
	10-16	10YR5/4	silt	
	16-29	7.5YR5/6	silt	
2/40	0-11	10YR4/4	silt	positive
	11-17	10YR5/4	silt	
2/50	0-9	10YR4/4	silt loam	positive
2/60	0-13	10YR4/4	silt	negative
	13-22	7.5YR5/6	silt	
2/70	0-5	10YR4/4	silt	negative
	5-20	7.5YR5/6	silt	
13/0	0-3	10YR4/4	silt	negative
	3-20	7.5YR6/8	silt	
13/10	0-8	10YR4/4	silt	positive
	8-19	7.5YR5/6	silt	
13/20	0-9	10YR4/4	silt loam	positive
	9-20	7.5YR5/6	silt loam	
13/30	0-15	10YR3/2	silt loam	positive
	15-20	7.5YR6/8	silt loam	
13/40	0-17	10YR4/4	silt	positive
	17-20	7.5YR5/6	silt	
13/50	0-9	10YR4/4	silt	negative
	9-20	7.5YR5/6	silt	

3SB542: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
13/60	0-6	10YR4/4	silt	positive
	6-20	7.5YR6/6	silt	
13/70	0-13	10YR4/4	silt	negative
	13-20	7.5YR6/6	silt	
13/80	0-3	10YR4/4	silt	negative
	3-20	7.5YR6/6	silt	
20/0	0-2	10YR4/4	silt	negative
	2-19	7.5YR5/6	silt	
	19-22	7.5YR6/6	silt	
20/10	0-11	10YR4/4	silt	positive
	11-20	7.5YR5/6	silt	
20/20	0-3	10YR4/4	silt	positive
	3-21	7.5YR5/6	silt	
	21-24	7.5YR6/6	silt	
20/30	0-6	10YR4/4	silt	positive
	6-19	7.5YR5/6	silt	
	19-22	7.5YR7/6	silt	
20/40	0-8	10YR4/4	silt	positive
	8-20	7.5YR5/6	silt	
20/50	0-3	10YR4/4	silt	positive
	3-16	7.5YR5/6	silt	
20/60	0-13	10YR4/4	silt	negative
	13-20	7.5YR5/6	silt	
20/70	0-11	10YR4/4	silt	negative
	11-20	7.5YR5/6	silt	
37/0	0-20	10YR4/4	silt	negative
37/10	0-20	10YR4/4	silt	negative
37/20	0-20	10YR4/4	silt	positive
	20-25	7.5YR5/6	silt	
37/30	0-20	10YR4/4	silt	positive
37/40	0-20	10YR4/4	silt	positive
37/50	0-13	10YR4/4	silt	negative
	13-30	7.5YR5/6	silt	
37/60	0-9	10YR4/4	silt	positive
	9-20	7.5YR5/6	silt	
37/70	0-4	10YR4/4	silt	negative
	4-20	7.5YR5/6	silt	
47/0	0-30	10YR4/4	silt	negative
47/10	0-30	10YR4/4	silt	negative
47/20	0-30	10YR4/4	silt	negative
47/30	0-30	10YR4/4	silt	positive
47/40	0-30	10YR4/4	silt	positive

3SB542: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
47/50	0-13	10YR4/4	silt	negative
	13-30	7.5YR5/6	silt	
47/60	0-20	10YR4/4	silt	negative
	20-30	7.5YR5/6	silt	
47/70	0-21	10YR4/4	silt	negative
	21-30	7.5YR5/6	silt	
57/0	0-14	10YR4/4	silt	negative
	14-20	7.5YR5/6	silt	
57/10	0-11	10YR4/4	silt	negative
	11-20	7.5YR5/6	silt	
57/20	0-19	10YR4/4	silt	negative
	19-25	7.5YR5/6	silt	
57/30	0-20	10YR4/4	silt	negative
57/40	0-20	10YR4/4	silt	negative
57/50	0-20	10YR4/4	silt	negative
	20-25	7.5YR5/6	silt	
57/60	0-20	10YR4/4	silt	negative
57/70	0-20	10YR4/4	silt	negative

3SB543: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/Negative
ST000N/000E		7.5YR4/3	silt	negative
	0-10	10YR4/4	silt	negative
ST000N/008E	0-12	7.5YR4/3	silt	negative
	12-40	5YR4/6	silt	positive
ST000N/021E	0-10	10YR4/4	silt	negative
	10-30	7.5YR4/3	silt	negative
ST000N/049E	0-10	10YR4/4	silt	negative
	10-30	7.5YR4/3	silt	negative
ST000N/065E	0-20	7.5YR4/6	silt	negative
ST000N/101E	0-10	10YR4/4	silt	positive
	10-30	10YR3/6	silt	negative
ST010N/008E	0-20	7.5YR4/4	silt	positive
	20-40	7.5YR4/6	silt	negative
ST010N/021E	0-14	7.5YR4/4	silt	negative
	14-20	7.5YR4/6	silt	negative
ST010N/049E	0-10	10YR4/4	silt	positive
	10-30	10YR3/6	silt	negative
ST010N/065E	0-20	7.5YR4/2	silt	negative
ST010N/089E	0-20	7.5YR4/4	silt	negative
ST010N/101E	0-20	10YR4/4	silt	negative
	20-30	10YR3/6	silt	negative
ST010S/008E	0-30	7.5YR4/3	silt	negative
ST010S/021E	0-40	10YR4/4	silt	positive
ST010S/049E	0-10	10YR4/4	silt	negative
	10-30	10YR3/6	silt	negative
ST010S/065E	0-17	7.5YR4/4	silt	negative
	17-23	7.5YR4/6	silt	negative
ST010S/089E	0-30	10YR4/4	silt	positive
ST010S/101E	0-20	7.5YR4/4	silt	negative
ST020N/008E	0-14	7.5YR4/4	silt	negative
ST020N/021E	0-17	7.5YR4/4	silt	positive
	17-30	7.5YR4/6	silt	negative
ST020N/049E	0-10	10YR4/4	silt	positive
ST020N/049E	10-30	10YR3/6	silt	negative
ST020N/065E	0-10	7.5YR4/4	silt	positive
	0-10	7.5YR4/6	silt	negative
ST020N/101E	0-30	10YR4/4	silt	negative
ST020S/008E	0-10	10YR4/6	silt	negative
ST020S/021E	0-15	10YR4/4	silt	negative
ST020S/049E	0-10	10YR4/4	silt	negative
ST020S/065E	0-20	7.5YR4/4	silt	negative
ST020S/089E	0-20	10YR4/4	silt	negative
	20-30	10YR3/6	silt	negative
ST020S/101E	0-9	7.5YR4/4	silt	negative

3SB543: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/ Negative
ST020S/101E	9-20	7.5YR4/6	silt	negative
ST030N/008E	0- 7	7.5YR4/4	silt	negative
	7-20	7.5YR4/6	silt	negative
ST030N/021E	0- 8	7.5YR2.5/1	silt	negative
	8-20	7.5YR4/6	silt	negative
ST030N/049E	0-10	10YR4/4	silt	negative
	10-30	7.5YR5/6-4/6	silt	negative
ST030N/101E	0-20	7.5YR4/4	silt	negative
ST030S/021E	0- 5	10YR4/4	silt	negative
ST030S/049E	0- 5	10YR4/4	silt	negative
ST030S/065E	0-14	7.5YR4/4	silt	negative
ST030S/089E	0- 8	7.5YR4/4	silt	negative
ST030S/101E	0-15	7.5YR4/4	silt	negative
	15-20	7.5YR4/6	silt	negative
ST031S/008E	0-10	10YR4/6	silt loam	negative
	0-11	7.5YR2.5/1	silt	negative
	11-20	7.5YR4/6	silt	negative
ST040N/021E	0- 9	7.5YR4/4	silt	negative
	9-20	7.5YR4/6	silt	negative
ST040N/049E	0-10	10YR4/4	silt	negative
	10-30	10YR3/6	silt	negative
ST040N/101E	0-20	10YR4/4	silt	negative
ST040S/021E	0- 0	Bedrock; not dug		negative
ST040S/049E	0-10	10YR4/4	silt	negative
ST040S/065E	0- 0	Large rocks; not dug		negative
ST040S/089E	0-13	7.5YR4/4	silt	negative
ST040S/101E	0- 0	Bedrock; not dug		negative
ST050N/008E	0-17	7.5YR4/3	silt	negative
ST050N/021E	0-24	7.5YR4/4	silt	negative
	24-31	7.5YR4/6	silt	negative
ST050N/049E	0-10	10YR3/6	silt	positive
	10-30	7.5YR5/6- 4/	silt	negative
ST050N/065E	0-14	7.5YR4/4	silt	negative
	14-20	7.5YR4/6	silt	negative
ST050N/101E	0-30	10YR4/4	silt	negative
ST050S/049E	0- 0	Bedrock; not dug		negative
ST050S/065E	0- 0	Large rocks; not dug		negative
ST050S/089E	0- 0	Bedrock; not dug		negative
ST050S/101E	0- 0	Bedrock; not dug		negative
ST060N/008E	0-17	7.5YR4/3	silt	negative
	17-20	5YR4/6	clayey silt	negative
ST060N/021E	0-13	7.5YR4/4	silt	negative
	13-22	7.5YR4/6	silt	negative
ST060N/049E	0-20	10YR4/4	silt	positive
	20-40	10YR3/6	silt	negative

3SB543: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/Negative
ST060N/065E	0-20	10YR4/4	silt	negative
	20-30	10YR3/6	silt	negative
ST060N/101E	0-13	7.5YR4/4	silt	negative
	13-20	7.5YR4/6	silt	negative
ST070N/008E	0-16	7.5YR4/3	silt	negative
	16-30	5YR4/6	clayey silt	negative
ST070N/021E	0-14	7.5YR4/4	silt	negative
	14-20	7.5YR4/6	silt	negative
ST070N/049E	0-15	10YR4/4	silt	positive
	15-30	10YR3/6	silt	negative
ST070N/065E	0-20	7.5YR4/4	silt	negative
ST080N/008E	0-18	7.5YR4/3	silt	negative
	18-20	5YR4/6	clayey silt	negative
ST080N/021E	0-14	7.5YR4/4	silt	negative
	14-20	7.5YR4/6	silt	negative
ST080N/049E	0-10	10YR4/4	silt	negative
	10-20	10YR3/6	silt	negative
	20-30	7.5YR5/6-4/6	silt	negative
ST080N/065E	0-20	10YR4/4	silt	negative
	20-30	10YR3/6	silt	negative
ST090N/008E	0-14	7.5YR4/3	silt	negative
	14-23	5YR4/6	clayey silt	negative
ST090N/021E	0- 2	7.5YR2.5/1	Root mat	negative
	2-13	7.5YR4/4	silt	negative
	13-21	7.5YR4/6	silt	negative
ST090N/049E	0-30	7.5YR5/6-4/6	clay	negative
ST090N/065E	0-10	10YR4/4	silt	negative
	10-30	7.5YR5/6-4/6	clay	negative

3SB544: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
0/-30	0-5	10YR4/3	silt	negative
	5-26	7.5YR5/6	silt	
0/-20	0-4	10YR4/3	silt	negative
	4-24	7.5YR4/6	silt	
0/-10	0-4	10YR4/3	silt	negative
	4-25	7.5YR5/6	silt	
0/0	not excavated			
0/10	0-21	7.5YR5/6	silt	negative
0/20	0-6	10YR4/4	silt	positive
	6-25	7.5YR4/6	silt	
0/30	0-5	10YR4/3	silt	negative
	5-20	7.5YR4/6	silt	
	20-23	7.5YR7/8	silt loam	
0/40	0-5	10YR4/4	silt	negative
	5-25	7.5YR5/6	silt	
15/-30	0-7	10YR4/4	silt	negative
	7-25	7.5YR5/6	silt	
15/-20	0-5	10YR4/4	silt	negative
	5-24	7.5YR5/6	silt	
15/-10	0-7	10YR4/4	silt	negative
	7-21	7.5YR5/6	silt	
15/0	not excavated			
15/10	0-25	7.5YR6/6	silt	negative
15/20	0-8	10YR4/4	silt	positive
	8-20	7.5YR4/6	silt	
	20-25	7.5YR7/8	loam	
15/30	0-5	10YR4/3	silt	positive
	5-20	7.5YR5/6	silt	
15/40	0-4	10YR4/3	silt	positive
	4-12	10YR5/6	silt	
15/50	0-7	10YR4/4	silt	negative
	7-24	7.5YR5/6	silt	
	24-26	7.5YR7/8	loam	
23/-30	0-8	10YR4/4	silt	positive
	8-25	7.5YR5/6	silt	
23/-20	0-3	10YR4/4	silt	negative
	3-14	7.5YR6/8	loam	
	14-16	5YR6/6	loam	
23/-10	0-5	10YR4/4	silt	negative
	5-21	7.5YR5/6	silt	
23/0	not excavated			
23/10	0-25	7.5YR5/6	silt	negative

3SB544: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
23/20	0-5	10YR4/4	silt	negative?
	5-12	7.5YR5/6	silt loam	
	12-25	7.5YR7/8	loam	
23/30	0-9	10YR4/3	silt	positive
	9-22	7.5YR5/6	silt	
23/40	0-19	10YR4/4	silt	negative
	19-21	7.5YR5/6	silt	
23/50	0-2	10YR4/4	silt	negative
	2-17	7.5YR5/6 mottled with 7.5YR6/8		
37/-30	0-2	10YR5/4	silt	negative
	2-20	7.5YR5/6	silt loam	
37/-20	0-12	10YR5/4	silt loam	positive
	12-15	7.5YR7/8	loam	
37/-10	0-5	10YR4/4	silt	positive
	5-22	10YR5/4	silt	
	22-23	7.5YR5/6	silt loam	
37/0	not excavated			
37/10	0-6	10YR4/4	silt	positive
	6-21	10YR5/4	silt	
	21-25	7.5YR5/6	silt loam	
37/20	0-7	10YR4/4	silt	negative
	7-12	10YR5/4	silt	
	12-21	7.5YR5/6	silt loam	
	21-24	7.5YR7/8	loam	
37/30	0-7	10YR4/4	silt	positive
	7-22	10YR5/4	silt loam	
	22-25	7.5YR5/6	silt loam	
37/40	0-9	10YR4/4	silt	positive
	9-23	10YR5/4	silt	
37/50	0-8	10YR4/4	silt	negative
	8-17	10YR5/4	silt	
	17-21	7.5YR5/6	silt loam	
44/-40	0-6	10YR4/6	silt	negative
	6-23	7.5YR5/6	silt	negative
44/-30	0-2	10YR5/4	silt	positive
	2-25	7.5YR5/6	silt	
44/-20	0-21	10YR5/4	silt	positive
	21-25	7.5YR7/8	loam	
44/-10	0-10	10YR5/4	silt	positive
	10-13	7.5YR6/8	loam	

3SB544: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
44/0	not excavated			
44/10	0-9	10YR4/3	silt	positive
	9-21	10YR5/4	silt	
	21-25	5YR6/8	loam	
44/20	0-5	10YR4/4	silt	positive
	5-21	10YR5/4	silt	
	21-24	7.5YR7/8	loam	
44/30	0-27	10YR4/4	silt	positive
44/40	0-4	10YR4/4	silt	positive
	4-25	10YR5/4	silt	
44/50	0-25	10YR5/4	silt	negative
52/-50	0-13	10YR3/4	silt	negative
	13-23	7.5YR4/4	silt	
	23-30	7.5YR4/6	silty clay	
52/-40	0-15	10YR3/4	silt	negative
	15-28	7.5YR4/6	silt	
52/-30	0-7	10YR5/4	silt	negative
	7-16	7.5YR6/6	loam	
52/-20	0-3	10YR4/4	silt	negative
	3-19	7.5YR4/6	silt	
52/-10	0-9	7.5YR4/6	silt	negative
52/0	not excavated			
52/10	0-12	10YR4/4	silt	negative
52/20	0-15	10YR4/4	loam	positive
	15-19	5YR6/8	loam	
52/30	0-5	10YR4/3	silt	positive
	5-24	10YR5/4	silt	
52/40	0-4	10YR4/3	silt	negative
	4-25	10YR5/4	silt	
65/-50	0-8	10YR3/4	silt	negative
	8-20	7.5YR4/4	silt	
	20-30	7.5YR4/6	silty clay	
65/-40	0-10	7.5YR4/4	silt	negative
	10-30	5YR4/6	silty clay	
65/-30	0-10	10YR3/4	silt	negative
	10-24	10YR4/4	silt	
	24-30	7.5YR4/6	silt	
65/-20	0-16	10YR3/4	silt	positive
	16-30	7.5YR4/6	silt	
65/-10	0-20	10YR3/4	silt	negative
	20-30	7.5YR4/6	silt	
65/0	not excavated			
65/10	0-12	10YR3/4	silt	negative?
	12-30	7.5YR4/4	silt	

3SB544: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
65/20	0-10	10YR3/3	silt	positive
	10-30	7.5YR4/4	silt	
65/30	0-20	10YR3/3	silt	positive
65/40	0-30	10YR3/4	silt	negative
79/-40	0-15	7.5YR4/4	silt	
79/-30	15-30	7.5YR4/6	silt	negative
	0-13	10YR3/3	silt	
79/-20	13-30	7.5YR4/4	silt	negative
	0-20	10YR3/3	silt	
79/-10	20-30	10YR4/6	silt	positive
	0-17	10YR3/3	silt	
	17-27	7.5YR4/6	silt	
79/0	not excavated			
79/10	0-20	10YR3/3	silt	positive
	20-30	7.5YR3/4	silt	
79/20	0-10	10YR3/3	silt	negative
	10-30	10YR4/3	silt	
79/30	0-20	10YR3/3	silt	positive
	20-30	10YR4/3	silt	
79/40	0-20	10YR3/3	silt	positive
	20-30	10YR4/3	silt	
89/-40	0-10	10YR3/4	silt	negative
	10-30	7.5YR4/4	silt	
89/-30	0-10	10YR4/4	silt	negative
	10-20	7.5YR4/6	silt	
89/-20	20-30	10YR5/6	silt	negative
	0-30	10YR4/4	silt	
89/-10	0-10	10YR4/4	silt loam	positive?
95/10	0-20	10YR4/4	silt	negative
	20-30	10YR4/6	silt	
95/20	0-26	10YR4/4	silt	negative
	26-30	10YR4/6	silt	
95/30	0-16	10YR3/2	silt	negative
	16-30	10YR4/6	silt	
95/40	0-20	10YR4/4	silt	negative
	20-30	10YR4/6	silt	

3SB550: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
1	under water			
2	0-3	10YR4/4	silt	negative
	3-20	7.5YR6/8	silt	
3	0-4	10YR4/4	silt	negative
	4-20	7.5YR6/8	silt	
4	0-5	10YR4/4	silt	negative
	5-20	7.5YR6/8	silt	
5	0-2	10YR4/4	silt	negative
	2-20	7.5YR6/8	silt	
6	under water			
7	0-20	10YR5/3	silt	negative
8	0-20	10YR5/3	silt	negative
9	0-3	10YR4/4	silt	negative
	3-20	10YR5/3	silt	
10	0-5	10YR4/4	silt	negative
	5-20	7.5YR6/8	silt	
11	0-4	10YR4/4	silt	negative
	4-20	7.5YR6/8	silt	
12	0-20	10YR5/4	silt	negative
13	0-20	10YR5/4	silt	negative
14	under water			
15	0-3	10YR4/4	silt	negative
	3-20	10YR4/6	silt	
16	0-4	10YR4/4	silt	negative
	4-20	7.5YR6/8	silt	
17	under water			
18	under water			
19	0-20	10YR2/2	silt	negative
20	0-5	10YR4/4	silt	negative
	5-20	7.5YR6/8	silt	
21	0-7	10YR4/4	silt	negative
	7-20	7.5YR6/8	silt	
22	0-3	10YR5/4	silt loam	negative
	3-22	10YR5/4 mottled with 7.5YR6/8	silt loam	
23	0-11	10YR4/4	silt	negative
24	under water			
25	0-3	10YR4/3	silt	negative
	3-22	10YR2/2	shale/silt mix	
26	0-22	10YR4/3	silt loam	negative
27	0-20	10YR4/3	silt loam	negative

3SB550: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
28	0-13	10YR2/2	shale/silt mix	negative
29	0-15	10YR2/2	shale/silt mix	negative
30	0-20	10YR2/2	shale/silt mix	negative
31	0-16	10YR2/2	shale/silt mix	negative
	16-20	10YR6/4	silt loam	
32	0-20	10YR4/4	silt loam	negative
33	0-20	10YR4/4	silt loam	negative
34	0-20	10YR4/4	silt loam	negative
35	0-18	10YR4/4	silt loam	negative
36	0-20	10YR4/4	silt loam	negative
37	0-20	10YR4/4	silt loam	negative
38	0-20	10YR4/4	silt loam	negative
39	0-20	10YR4/4	silt loam	negative

3SB560: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/Negative
ST008N/000E	0-10	10YR4/6	silt	negative
	10-30	5YR4/6	silt	negative
ST008N/010E	0-30	7.5YR4/4	silt	negative
	30-35	7.5YR4/6	silt	negative
ST008N/020E	0-25	7.5YR4/6	silt	negative
	25-40	7.5YR4/6	silt	negative
ST008N/030E	0-20	7.5YR4/6	silt	negative
	20-40	7.5YR4/6	silt	negative
ST008N/040E	0-20	7.5YR4/6	silt	negative
	20-40	7.5YR4/6	silt	negative
ST008N/050E	0-16	10YR4/4	sandy silt	negative
	16-30	10YR4/4, 5/1, 3/1	sandy silt	negative
ST021N/000E	0-34	7.5YR3/4		
		w/2.5YR	silt	positive
	34-50	2.5YR4/6	clay	negative
	30-50	2.5YR4/6	clay	negative
ST021N/010E	0-30	7.5YR3/4	silt	positive
ST021N/020E	0- 5	7.5YR3/4	silt	negative
	5-20	2.5YR4/6	clay	negative
ST021N/030E	0- 8	7.5YR3/4	silt	negative
	8-20	2.5YR4/6	clay	negative
ST021N/040E	0-10	7.5YR3/4	silt	negative
	10-20	2.5YR4/6	clay	negative
ST021N/050E	0-15	10YR4/4	sandy silt	negative
	15-20	10YR4/4, 5/1, 3/1	sandy silt	negative
ST049N/000E	0-30	10YR3/4	silt	positive
	30-35	5YR4/6	silt loam	negative
ST049N/010E	0-20	10YR3/4	silt	positive
	20-45	5YR4/6	silt loam	negative
ST049N/020E	0-15	10YR3/4	silt	positive
	15-40	5YR4/6	silt loam	negative
ST049N/030E	0-20	10YR3/4	silt	negative
	20-30	5YR4/6	silt loam	negative
ST049N/040E	0-15	10YR3/4	silt	negative
	15-30	5YR4/6	silt loam	negative
ST065N/000E	0-33	10YR3/4	silt	positive
	33-40	5YR4/6	clay	negative
ST065N/010E	0-17	10YR3/4	silt	negative
	17-20	5YR4/6	clay	negative
ST065N/020E	0-10	10YR3/4	silt	negative
	10-30	5YR4/6	clay	negative
ST065N/030E	0-10	10YR3/4	silt	negative
	10-20	5YR4/6	clay	negative
ST065N/040E	0- 9	10YR3/4	silt	negative

3SB560: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/Negative
ST065N/040E	9-20	5YR4/6	silt loam	negative
ST065N/050E	0- 5	10YR4/4, 5/1		negative
	5-20	10YR4/4, 5/1, 3/1		negative
ST089N/000E	0- 5	10YR4/4	silt loam	negative
	5-20	5YR4/6	clay	negative
ST089N/010E	0-20	7.5YR4/6	silt loam	negative
ST089N/020E	0- 9	10YR4/4	silt loam	negative
	9-20	5YR4/6	clay	negative
ST089N/030E	0- 8	10YR4/4	silt loam	negative
	8-20	7.5YR4/6	silt loam	negative
ST089N/040E	0-20	10YR5/3	fine sandy loam	negative
ST089N/050E	0-10	10YR5/3	fine sandy loam	negative
ST101N/000E	0- 2	7.5YR4/2	humus	negative
	2-16	7.5YR4/3, 4/6	silt	negative
	16-20	7.5YR4/6	silt	negative
ST101N/010E	0-20	10YR5/4	silt loam	negative
ST101N/020E	0-20	10YR5/3	fine sandy loam	negative
ST101N/030E	0-20	10YR5/3	fine sandy oam	negative
ST101N/039E	0- 7	10YR5/4	fine sandy loam	negative
	7-10	10YR5/1	fine sandy loam	negative

3SB562: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
5/0	not excavated			
5/10	0-18	10YR4/4	silt	negative
5/20	0-19	10YR4/4 mottled with 7.5YR7/8	silt and clay loam	negative
5/30	0-17	10YR4/4 mottled with 7.5YR7/8	silt and clay loam	negative
	17-20	7.5YR7/8	clay loam	
5/40	0-13	10YR4/4	silt	positive
5/50	0-4	7.5YR6/8	loam	negative
18/0	not excavated			
18/10	0-11	10YR4/4 mottled with 7.5YR6/8	silt and silt loam	positive
	11-14	7.5YR4/6	silt loam	
18/20	0-9	10YR4/4 mottled with 7.5YR6/8	silt and silt loam	positive
18/30	0-8	10YR4/4 mottled with 7.5YR6/8	silt and silt loam	positive
18/40	0-10	10YR4/4 mottled with 7.5YR6/8	silt and silt loam	positive
18/50	0-9	10YR4/4 mottled with 7.5YR6/8 and 5YR5/8	silt and silt silt	negative
25/-20	0-15	10YR4/4 mottled with 7.5YR6/8	silt loam	negative
25/-10	0-10	10YR4/4 mottled with 5YR5/8	silt and clay loam	negative
25/0	not excavated			
25/10	0-17	10YR4/4 and 5YR6/8	silt and clay loam	negative
25/20	0-15	10YR4/4, 5YR6/8, 7.5YR6/8	clay loam	positive
25/30	0-12	10YR4/4, 5YR6/8, 7.5YR6/8	clay loam	positive
25/40	0-10	7.5YR4/6	silt loam	negative?
25/50	0-21	10YR4/4	silt loam	negative
34/-20	0-15	5YR5/8 mottled with 10YR4/4	clay loam and silt loam	negative
34/-10	0-17	5YR4/6, 5YR6/8 and 7.5YR6/8	silt loam	positive
34/0	not excavated			
34/10	0-15	10YR4/4 and 5YR6/8	silt loam	positive?
34/20	0-20	10YR4/4 and 5YR6/8	silt loam	positive
34/30	0-15	10YR4/4	silt	negative

3AB562; Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
34/40	0-18	10YR4/4 and 5YR6/8	silt loam	positive
34/50	0-18	10YR4/4 and 5YR6/8	silt loam	positive
49/-20	0-15	10YR4/4, 5YR5/8, 7.5YR6/8	silt loam and clay loam	negative
49/-10	0-15	10YR4/4	silt	negative?
49/0	not excavated			
49/10	0-14	10YR4/4	silt	negative
	14-18	7.5YR6/8	silt loam	
49/20	0-20	7.5YR3/2	silt	positive
49/30	0-11	10YR4/4	silt	positive
	11-15	7.5YR6/8	silt loam	
49/40	0-3	10YR4/4	silt	negative
	3-14	7.5YR4/6	silt	
	14-18	7.5YR6/8	silt loam	
49/50	0-3	10YR4/4	silt	negative
	3-12	7.5YR4/6	silt	
49/60	0-20	10YR4/3	silt	negative
55/0	not excavated			
55/10	0-13	10YR4/4	silt	positive
	13-15	7.5YR4/6	silt	
55/20	0-19	10YR4/3	silt	positive
	19-24	7.5YR5/6	silt	
55/30	0-11	10YR4/4	silt	positive
	11-15	7.5YR5/6	silt	
55/40	0-15	10YR4/4 and 7.5YR6/8	silt	positive
55/50	0-8	10YR4/4	silt	negative
	8-10	7.5YR5/6	silt	
55/60	0-9	10YR4/4	silt	negative
62/0	not excavated			
62/10	0-20	10YR3/4	silt	negative
62/20	0-11	10YR3/4	silt	negative
62/30	0-20	7.5YR3/3	silt	positive
62/40	0-14	7.5YR3/3	silt	negative
62/50	0-12	7.5YR3/3	silt	negative
62/60	0-13	7.5YR3/3	silt	negative
71/0	not excavated			
71/10	0-7	10YR4/4	silt	negative
71/20	0-10	10YR4/4	silt	negative
71/30	0-8	7.5YR3/3	silt	negative

3SB562: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
71/40	0-8	7.5YR3/4	silt	negative
71/50	0-12	7.5YR3/4	silt	negative
71/60	0-8	10YR3/3	silt	negative
83/0	not excavated			
83/10	0-20	7.5YR4/4	silt	negative
83/20	0-11	7.5YR4/6	silt	negative
83/30	0-9	7.5YR3/4	silt	negative
83/40	0-11	7.5YR3/4	silt	negative
83/50	0-14	7.5YR4/4	silt	negative
95/0	not excavated			
95/10	0-12	10YR4/4	silt	negative
	12-28	7.5YR4/6	silt	
95/20	0-20	10YR4/4	silt	negative
95/30	0-13	7.5YR3/4	silt	negative
95/40	0-8	7.5YR4/4	silt	negative
95/50	0-12	10YR4/4	silt	negative
	12-20	10YR4/6	silt	
109/0	not excavated			
109/10	0-27	10YR4/4	silt	negative
109/20	0-25	10YR4/4	silt	negative
109/30	0-20	7.5YR3/3	silt	negative
109/40	0-10	10YR4/4	silt	negative
109/50	0-25	10YR4/4	silt	negative
118/0	0-20	7.5YR4/4	silt	negative
118/10	0-15	7.5YR4/4	silt	negative
118/20	0-15	10YR4/4	silt	negative
118/30	0-10	10YR4/4	silt	negative
118/40	10-30	7.5YR4/6	silt	negative
118/50	0-30	10YR4/4	silt	negative

3SB566: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
-10/-20	0-11	7.5YR6/6	silt	positive
	11-14	7.5YR4/6	silt loam	
-10/-10	0-9	7.5YR6/6	silt	positive
	9-11	7.5YR4/6	silt loam	
-10/0	0-14	7.5YR6/6	silt	positive
	14-16	7.5YR4/6	silt loam	
-10/10	0-13	10YR4/6	silt	positive
	13-16	7.5YR4/6	silt loam	
-10/20	0-12	10YR4/6	silt	positive
	12-23	7.5YR6/6	silt	
	23-27	7.5YR4/6	silt loam	
-10/30	0-21	10YR4/6	silt	positive
	21-27	7.5YR6/6	silt	
0/0	0-6	10YR5/4	silt	positive
	6-32	7.5YR6/6	silt	
0/10	0-4	10YR5/4	silt	positive
	4-14	7.5YR4/6	silt	
	14-21	7.5YR6/6	silt	
0/20	0-4	10YR5/4	silt	positive
	4-21	7.5YR5/6	silt	
0/30	0-7	10YR5/4	silt	positive
	7-20	7.5YR5/6	silt	
0/40	0-4	10YR5/4	silt	positive
	4-21	10YR6/6	silt	
0/50	0-19	10YR4/6	silt	negative
	19-24	7.5YR6/6	silt	
14/-20	0-20	7.5YR6/6	silt	negative
14/-10	0-10	10YR4/6	silt	positive
	10-25	7.5YR6/6	silt	
14/0	0-24	10YR5/6	silt	positive
	24-30	7.5YR6/6	silt	
14/10	0-16	10YR5/6	silt	positive
	16-26	7.5YR6/6	silt	
14/20	0-10	10YR5/4	silt	positive
	10-28	7.5YR6/6	silt	
	28-30	7.5YR4/6	silt	
14/30	0-6	10YR4/4	silt	positive
	6-28	7.5YR6/6	silt	
	28-31	7.5YR4/6	silt	
14/40	0-5	10YR5/6	silt	positive
	5-20	7.5YR6/6	silt	

3SB566: Shovel Test Information.

Shovel Test	Depth (cm)	Munsell	Texture	Shovel Test Positive/Negative
14/50	0-19	10YR4/6	silt	positive
	19-29	7.5YR6/6	silt	
14/60	0-21	10YR4/6	silt	negative
	21-26	7.5YR6/6	silt	
22/-10	0-7	7.5YR6/6	silt	positive
	7-24	7.5YR7/6	silt	
22/0	0-15	10YR5/4	silt	positive
	15-30	10YR5/6	silt	
22/10	0-20	10YR5/4	silt	positive
	20-35	10YR5/6	silt	
22/20	0-40	10YR4/4	silt	positive?
22/30	0-3	10YR5/6	silt	positive
	3-26	7.5YR6/6	silt	
22/40	0-14	7.5YR6/6	silt	positive
	14-27	7.5YR4/6	silt loam	
22/50	0-4	10YR5/4	silt	positive
	4-19	7.5YR6/6	loam	
22/60	0-29	10YR5/4	silt	negative
30/-10	0-20	7.5YR7/6	silt	negative
30/0	0-30	10YR5/4	silt	negative
30/10	0-20	10YR5/4	silt	negative
	20-30	10YR5/4	silt	
30/20	0-22	10YR5/4	silt	positive
	22-30	10YR5/6	silt	
30/30	0-19	10YR5/4	silt	positive
	19-30	10YR5/6	silt	
30/40	0-12	7.5YR4/6	silt	positive
	12-30	7.5YR5/6	silt	
30/50	0-16	7.5YR6/6	loam	positive
47/-20	0-30	10YR5/4	silt	negative
47/-10	0-18	10YR5/4	silt	positive
	18-30	10YR4/4	silt	
47/0	0-25	10YR5/4	silt	positive
	25-30	10YR6/4	silt	
47/10	0-30	10YR5/4	silt	positive
47/20	0-10	10YR5/4	silt	negative
	10-20	7.5YR4/6	silt	
47/30	0-20	10YR5/4	silt	negative
	20-30	7.5YR4/6	silt	
47/40	0-16	10YR5/4	silt	positive
	16-20	7.5YR4/6	silt	

3SB567: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/Negative
ST010N/008E	0-16	10YR3/4	silt	negative
	16-30	10YR5/6	silt	negative
ST010N/008W	0-30	7.5YR4/4	clay	positive
ST010N/021E	0-30	10YR3/4	silt	positive
ST010N/021W	0-20	7.5YR4/4	silt	negative
ST010N/049E	0-30	10YR3/4	silt	positive
ST010N/065E	0-20	7.5YR4/3	silt	negative
ST020N/008E	0-33	10YR4/3	silt	positive
ST020N/008W	0-24	10YR3/4	silt	positive
	24-30	7.5YR4/4	clay	negative
ST020N/021E	0-30	10YR4/3	silt	negative
ST020N/049E	0-15	10YR3/4	silt	positive
	15-40	7.5YR4/4	clay	negative
ST020N/065E	0-20	10YR3/4	silt	negative
ST020N/089E	0-20	7.5YR4/3	silt	negative
ST030N/008E	0-40	10YR3/4	silt	positive
	40-50	7.5YR4/4	clayey silt	negative
ST030N/008W	0-20	7.5YR4/4	silt	negative
ST030N/021E	0-30	10YR4/3	silt	positive
ST030N/021W	0-20	7.5YR4/4	silt	negative
ST030N/049E	0-30	10YR3/4	silt	positive
ST040N/008E	0-50	10YR4/3	silt	positive
ST040N/008W	0-20	7.5YR4/4	silt	negative
ST040N/021E	0-25	10YR3/4	silt	positive
	0-20	7.5YR4/4	silt	negative
ST040N/049E	0-18	10YR3/4	silt	positive
	18-30	7.5YR4/4	clay	negative
ST040N/065E	0-20	10YR3/4	silt	negative
ST040N/089E	0-20	10YR3/4	silt	negative
ST050N/008E	0-30	10YR3/4	silt	negative
ST050N/008W	0-20	7.5YR4/4	silt	negative
ST050N/021E	0-30	10YR3/4	silt	negative
ST050N/021W	0-20	10YR3/4	silt	negative
ST050N/049E	0-20	7.5YR4/3	silt	negative
ST050N/065E	0-20	10YR3/4	silt	negative
ST060N/008E	0-10	10YR4/3	silt	negative
	10-30	10YR4/4	silt	negative
ST060N/021E	0-10	10YR3/4	silt	positive
	0-10	10YR4/4	silt	positive
ST060N/049E	0-20	10YR3/4	silt	negative
ST060N/089E	0-20	7.5YR4/3	silt	negative
ST071N/021E	0-14	10YR3/4	silt	positive
	14-30	7.5YR4/4	clay	negative
	0-20	10YR5/4	silt	negative
ST080N/089E	0-20	10YR3/4	silt	negative

3SB567: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/ Negative
ST090N/021E	0-14	10YR3/4	silt	positive
	14-30	7.5YR4/4	clay	negative
	0-20	10YR5/4	silt	negative

3SB569: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/Negative
ST008N/010W	0-10	10YR4/3	silt	negative
ST008N/020W	0- 0	Large rocks; not dug		negative
ST008N/030W	0-20	10YR4/3	silt	negative
ST008N/040W	0-20	10YR4/3	silt	negative
ST008N/050W	0-12	10YR4/3	silt	negative
	12-20	7.5YR4/6		negative
ST008N/060W	0-20	10YR4/3	silt	negative
	20-25	7.5YR4/6	silt	negative
ST008N/070W	0-20	10YR4/3	silt	negative
ST021N/010W	0-20	10YR4/3	silt	negative
ST021N/020W	0-15	10YR4/3	silt	negative
ST021N/030W	0-22	10YR4/3	silt	negative
ST021N/040W	0-22	10YR4/3	silt	positive
	22 44	5YR4/6	clayey silt	negative
ST021N/050W	0-15	10YR4/3	silt	negative
	15-21	5YR4/6	clay	negative
ST021N/060W	0-15	10YR4/3	silt	negative
	15-21	5YR4/6	clay	negative
ST049N/010W	0-10	10YR4/3	f sandy loam	negative
ST049N/020W	0-20	10YR4/3	f sandy loam	positive
ST049N/030W	0-15	10YR4/3	silt	positive
	15-20	5YR4/6	silt	negative
ST049N/040W	0-20	10YR4/3	silt	positive
	20-30	5YR4/6	silt	positive
ST049N/050W	0-20	10YR4/3	silt	positive
	20-50	5YR4/6	silt	negative
ST049N/060W	0-30	10YR4/1 m/ 5YR4/6, 7.5YR5/4	silt	positive
ST049N/070W	0-30	10YR4/1 m/ 5YR4/6, 7.5YR5/4	silt	negative
ST049N/080W	0-20	10YR4/1 m/5YR4/6	silt	negative
	20-30	7.5YR8/3, 7/8	silt	negative
ST065N/010W	0-19	10YR4/3	silt	positive
	19-34	5YR4/6	clayey silt	negative
ST065N/020W	0-20	10YR4/3	silt	negative
ST065N/030W	0-27	10YR4/3	silt	positive
	27-41	5YR4/6	clayey silt	negative
ST065N/040W	0-29	10YR4/3	silt	positive
	0-10	5YR4/6	clayey silt	negative
ST065N/050W	0-27	10YR4/3	silt	positive
	27-30	5YR4/6	clayey silt	negative

3SB569: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/Negative
ST065N/060W	0-20	10YR4/1, 5YR4/6, 7.5YR5/4	clayey silt	negative
ST065N/070W	0-20	10YR4/1, 5YR4/6, 7.5YR5/4	clayey silt	negative
ST089N/020W	0-10	10YR4/4	silt loam	negative
	10-20		clayey silt	positive
ST089N/030W	0-17	10YR4/3	silt loam	positive
	17-30	7.5YR4/3	silt loam	negative
ST089N/040W	0-10	7.5YR4/3	silt loam	positive
	10-20	7.5YR5/4	silt loam	negative
	20-30	7.5YR5/4	silt loam	negative
ST089N/050W	0-17	7.5YR4/3	silt loam	negative
	17-20	7.5YR5/4	silt loam	negative
ST089N/060W	0-20	10YR6/3	f sandy loam	negative

3SB570: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/Negative
ST000N/010W	0-20	10YR4/4	silt	negative
ST000N/020W	0-30	10YR4/4	silt	positive
ST000N/030W	0-30	10YR4/4	silt	negative
ST000N/040W	0-17	10YR4/4	silt	positive
	17-30	7.5YR4/6	silt	positive
ST000N/050W	0-20	10YR4/4	silt	negative
ST000N/060W	0-20	10YR4/4	silt	negative
ST000N/070W	0-20	10YR5/3	silt	negative
ST000N/080W	0-20	7.5YR7/1, 5/6	silt	negative
ST016N/010W	0-20	10YR4/4	silt	negative
ST016N/020W	0-25	10YR4/4	silt	positive
ST016N/040W	0-20	7.5YR4/4	silt	negative
ST016S/020W	0-17	10YR4/4	silt	negative
	17-20	7.5YR4/4	silt	negative
ST016N/030W	0-13	10YR4/4	silt	positive
	0-17	10YR4/4	silt	negative
	17-20	7.5YR4/4	silt	negative
ST016S/030W	0-10			positive
ST016N/040W	0-18	10YR4/4	silt	negative
	18-20	7.5YR4/6	silty clay	negative
ST016N/050W	0-18	10YR4/4	silt	negative
ST016N/050W	18-20	7.5YR4/6	silty clay	negative
ST032N/010W	0-20	7.5YR4/4	silt	negative
ST032N/020W	0-19	10YR4/4	silt	positive
	19-30	7.5YR4/6	silt	negative
ST032N/030W	0-22	10YR4/4	silt	positive
	22-30	7.5YR4/4	silt	negative
ST032N/040W	0-20	10YR5/3	silt	negative
ST032N/050W	0-8	10YR4/4	silt	negative
	8-20	7.5YR4/6	silty clay	negative
ST032N/060W	0-20	10YR5/3	silt	negative
ST054N/010W	0-20	10YR4/4	silt	negative
ST054N/020W	0-20	10YR4/4	silt	negative
ST054N/030W	0-20	10YR4/4	silt	negative

3SB601: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/ Negative
ST000S/000W	0-21	10YR4/6	silt loam	positive
	21-43	10YR6/6	silt loam	negative
	43-60	10YR7/4	clayey silt	negative
	60-120	10YR6/8	clay	negative
ST000S/016W	0-10	10YR3/3	silt?	positive
	10-25	tan		negative
	25-30		clay	negative
ST000S/021W	0- 5	10YR3/3	silt?	positive
	5-40	tan		positive
ST000S/032W	0-10	10YR3/3	silt?	positive
	10-25	tan		negative
	25-30		clay	negative
ST000S/049W	0-10		humus	negative
	10 70	7.5YR5/4	clay	positive
	70-80	2.5YR4/6	clay	negative
ST000S/065W	0-10		humus	negative
	10-40	5YR5/4	clay	negative
ST000S/089W	0- 5		humus	negative
	5-10	light brown	silt	positive
	10-56	5YR4/4	clay	negative
	0-29	10YR4/4	silt	positive
ST000S/101W	29-33	10YR6/6	stony silt?	negative
	0-15	10YR4/3	silt	negative
ST000S/122W	0-15	10YR4/3	silt	positive
ST000S/149W	0-15	10YR4/3	silt	positive
ST000S/168W	0-26	10YR4/4	silt	positive
ST000S/188W	0-15	10YR4/3	silt	positive
	15-25	7.5YR5/6	silt	negative
	0-15	10YR5/4	silt	positive
ST000S/208W	15-38	7.5YR4/6	clayey silt	positive
	0-30	10YR5/4	silt	positive
ST000S/221W	30-70	10R4/8, 2.5YR4/8		
		10YR5/4	clay	negative
	0-18	10YR5/4	silt	positive
	18-80	5YR4/6	clayey silt	positive
ST000S/265W	0-24	7.5YR5/8	silt loam	positive
ST000S/265W	24-41	5YR5/8	silt loam	positive
ST010S/008W	0-25	10YR3/3	silty clay	positive
	25-60	yellowish tan	clay	positive
ST010S/021W	0- 5	10YR3/3	silt?	positive
	5-35	tan		positive
	35-40		silt	negative
ST010S/049W	0-20	7.5YR4/6	silt	positive
	20-40	10YR5/6	silty clay	positive
ST010S/065W	0-35	10YR4/4	silt	positive

3SB601: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/Negative
ST010S/065W	35-40	7.5YR4/8	clayey silt	positive
ST010S/089W	0-24	10YR3/3	silt	positive
	24-60	yellowish tan	clay loam	negative
ST020S/008W	0 64	10YR3/3	silty clay	positive
	64-80	yellowish tan	clay	negative
ST020S/021W	0-15	tan		positive
	15-30	red	silt	negative
ST020S/049W	0-25	10YR4/4	silt	positive
ST020S/065W	0-30	10YR4/3	silt	positive
	30-60	red	clayey silt	positive
ST020S/089W	0-30	10YR3/3	silt	positive
	30-80	yellowish tan	silty clay	negative
ST020S/101W	0-43	10YR4/4	silt	positive
	43-80	7.5YR4/4	clayey silt	negative
ST020S/122W	0-20	10YR4/3	silt	positive
	20-40	7.5YR4/6	silt	negative
ST020S/149W	0- 5		humus	negative
	5-20	10YR5/6	silt?	positive
	20-40	7.5YR5/8	silt?	negative
ST020S/168W	0-22	10YR4/4	silt	positive
	22-47	7.5YR5/6	clayey silt	positive
ST020S/188W	0-15	10YR4/3	silt	positive
ST020S/208W	0-20	10YR5/4	silt	positive
	20-35	7.5YR4/6	stony clay	positive
	35-75	10YR5/8	stony clay	negative
ST020S/221W	0-30	10YR5/4	silt	positive
ST020S/249W	0-13	10YR5/4	silt	positive
ST020S/265W	0-15	10YR6/6	gravelly	
			silt	negative
ST030S/008W	0-10	10YR3/3	silt?	negative
	10-30	tan		negative
ST030S/021W	0-30	10YR3/3	silt?	positive
ST030S/049W	0-30	10YR4/4	silt	positive
	30-50	7.5YR4/6	clayey silt	positive
ST030S/089W	0-20	7.5YR4/3	silt	positive
	20-80	7.5YR4/4	clay	positive
ST040S/008W	0-10	10YR3/3	silt?	positive
	10 30	tan		negative
ST040S/021W	0-20			positive
	20-30		clay	negative
ST040S/049W	0-20	7.5YR5/3	silt?	positive
	20-40	7.5YR5/6		negative
ST040S/065W	0-20	10YR4/3	silt	positive
	20-40	7.5YR4/6	silt	positive
	40-50	5YR4/6	clayey silt	negative

3SB601: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/ Negative
ST040S/089W	0-20	7.5YR4/3	silty clay	positive
	20-80	7.5YR4/4	clay	positive
ST040S/101W	0-48	10YR4/4	silt	positive
	48-80	7.5YR4/4	clayey silt	positive
ST040S/122W	0-20	10YR4/3	silt	positive
	20-40	7.5YR4/6	clayey silt	positive
ST040S/149W	0-20	5YR4/3	silt?	positive
	0-20	7.5YR3/4	clayey silt?	positive
ST040S/168W	0-25	10YR4/4	silt	positive
	25-80	7.5YR5/6	clayey silt	negative
ST040S/188W	0-15	10YR4/3	silt	positive
	15-30	7.5YR5/6	silt	negative
ST040S/208W	0- 5	10YR5/4	silt	positive
	5-60	10R4/8, 2.5YR4/8		
		10YR5/4	clay	negative
ST040S/221W	0-40	10YR6/8, 5/8, 7/1	stony clay	negative
ST040S/249W	0-10	10YR3/1	shaley clay	negative
	10-15	10YR3/1		
		m/10YR6/6	shaley clay	negative
	15-25	10YR3/1	shale	negative
ST040S/265W	0- 3	10YR4/3	humus	negative
	3-15	10YR6/6	gravelly	
			silt	positive
ST050S/008W	0-20	10YR3/3	silty clay	negative
	20-40	yellowish tan	clay	negative
ST050S/021W	0-20	10YR3/4	silt	positive
	20-30	7.5YR4/6	silt	negative
ST050S/049W	0-40	10YR4/4	silt	positive
	40-45	7.5YR4/6	clayey silt	positive
ST050S/089W	0 24	7.5YR4/3	silty clay	positive
	24-80	7.5YR4/4	clay	positive
ST060S/008W	0-35	10YR3/3	silty clay	positive
	35-80	yellowish tan	clay	negative
ST060S/021W	0-15	10YR3/4-6	silt	positive
ST060S/049W	0-20	10YR4/4	silt	negative
	20-40	7.5YR4/6	clayey silt	negative
ST060S/089W	0-20	7.5YR4/3	silty clay	positive
	20-60	7.5YR4/4	clay	positive
ST060S/101W	0-46	10YR4/4	silt	positive
	46-47	7.5YR5/6 &		
		5YR4/3	stony clay	negative
ST060S/122W	0-15	10YR4/3	silt	positive
	15-40	7.5YR4/6	clayey silt	positive
ST060S/149W	0-30	10YR4/3	silt loam	positive
	30-40	7.5YR5/6	clayey silt	negative

3SB601: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/Negative
ST060S/149W	40-45	7.5YR5/6	wet silty cl	negative
	45-50	7.5YR5/8	stony silty	negative
ST060S/168W	0-20	10YR4/4	silt	negative
	20-40	7.5YR5/6	silt	negative
ST060S/188W	0-40	10YR4/3	silt	positive
ST060S/208W	0- 4	10YR3/3	silt	negative
	4-60	5YR5/8	clayey silt	positive
ST060S/221W	0- 5	10YR5/4	silt	positive
	5-60	10R4/8, 2.5YR4/8		
ST060S/249W	0-40	10YR5/4	clay	negative
	0-40	10YR3/3	silty clay	negative
ST060S/265W	0- 5	10YR4/3	humus	negative
	5-22	10YR4/4	silt loam	negative
ST070S/008W	0-24	tannish brown	silty clay	positive
	24-35	yellowish brown	silty clay	positive
ST070S/021W	35-80	yellowish tan	clay	negative
	0-10	10YR2/1	silt	positive
ST070S/049W	10-45	7.5YR5/4	clayey silt	negative
	0-10		humus	positive
ST070S/089W	10 30	7.5YR4/8	clayey silt	negative
	0-30	10YR4/4	silt	negative
ST080S/008W	30-40	10YR5/6	silt	negative
	0-20	10YR3/3	silty clay	positive
ST080S/021W	20-50	yellowish brown	clayey silt	positive
	50-80	yellow	clay	negative
ST080S/021W	0-10		humus	positive
	10-20	10YR5/4	silt	negative
ST080S/021W	20-40	10YR5/8	clayey silt	negative
ST080S/049W	0-30	10YR4/4	silt	positive
	30-40	7.5YR4/8	clayey silt	positive
ST080S/065W	0-30	10YR4/3	silt	positive
	30-40	10YR5/6	clayey silt	negative
ST080S/089W	0-23	10YR4/4	silt	positive
	23-60	10YR5/6	clay	negative
ST080S/101W	0-15	10YR4/4	silt	positive
	15-60	7.5YR5/6 & 5YR4/3	clay?	negative
ST080S/122W	0-20	10YR4/3	silt	positive
	20-40	7.5YR4/6	clayey silt	positive
ST080S/149W	0-30	10YR4/3	silt loam	positive
	30-40	7.5YR5/6	clayey silt	positive
ST080S/168W	0-15	10YR5/4	silt	positive
	15-40	7.5YR4/6	clayey silt	positive
ST080S/208W	40-80	7.5YR5/8	clayey silt	negative
	0-24	10YR5/4	silty clay	negative

3SB601: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/Negative
ST080S/208W	24-40	5YR4/6, 4/3	clay	negative
ST080S/221W	0- 4	10YR3/3	silt	positive
	4-18	7.5YR5/6	silt	negative
	18-60	5YR5/8	clayey silt	negative
ST080S/249W	0-40	10YR3/1, 4/2	silt	negative
ST080S/265W	0-23	7.5YR6/8, 6/1	clay & shale	negative
	23-29	10YR2/1	coal	negative
	29-40	7.5YR6/8, 6/1	clay & shale	negative
ST090S/008W	0 19	5YR4/4	clay	negative
	19-40	10YR5/4	silt loam	positive
	40-80	10YR6/4	loam	negative
ST090S/021W	0- 5		humus	negative
	5-30	10YR5/4	silt	positive
	30-40	10YR5/8	clayey silt	negative
ST090S/049W	0-20	10YR4/4	silt	positive
	20-40	7.5YR4/8	clayey silt	negative
ST100S/008W	0-20	5YR4/4	clay	negative
	20-40	10YR5/4	silt loam	negative
ST100S/021W	0-15	2.5YR4/3		
		m/2.5YR5/6	clay	negative
ST100S/021W	15-30	10YR??/?	silt	negative
ST100S/049W	0-25	10YR4/4	silt	positive
	25-40	7.5YR4/8	clayey silt	positive
ST100S/065W	0-20	10YR4/3	silt	positive
	20-40	5YR5/6-8	clay	negative
ST100S/089W	0-19	10YR4/4	silt	negative
ST100S/101W	0-64	10YR4/4	silt	positive
ST100S/122W	0-30	10YR4/3	silt	positive
ST100S/149W	0-40	10YR5/4	silt	negative
ST100S/168W	0-25	10YR5/4	silty clay	negative
	25-40	5YR4/6, 4/3	clay	negative
ST100S/208W	0- 6	10YR5/4	silty clay	negative
	6-40	5YR4/6, 4/3	clay	negative
ST100S/221W	0- 7	10YR3/3	silt	positive
	7-40	7.5YR5/6	silt	positive
ST100S/249W	0- 8	10YR6/8, 2.5Y5/2	silt w/clay	negative
	8-40	10YR6/8, 2.5Y5/2	shaley silt	negative
ST110S/008W	0-20	2.5YR3/0, 5/0	shale	negative
	20-40	2.5YR3/6	disturbed	
			clay	negative
ST120S/049W	0-20	10YR4/4	silt	negative
	20-40	7.5YR5/6	silty clay	negative
ST120S/065W	0-15	10YR4/4	silt	negative
	15 40	7.5YR5/6	disturbed	
			silt	negative

3SB601: Shovel Test Information

Shovel Test	Depth (cm)	Munsell Value	Texture	Shovel Test Positive/Negative
ST120S/101W	0-20	10YR4/2	silt	negative
	20-40	10YR5/6	clayey silt	negative
ST120S/122W	0-14	10YR4/2	silt	negative
	14-40	10YR5/6	clayey silt	negative

APPENDIX 2
SCOPE OF WORK

DELIVERY ORDER NUMBER 004
CONTRACT NUMBER DACW03-92-D-0013
SCOPE OF WORK

ARCHEOLOGICAL TESTING OF FOURTEEN ARCHAEOLOGICAL SITES AT THE
FORT CHAFFEE MILITARY GARRISON, SEBASTIAN AND FRANKLIN COUNTIES,
ARKANSAS

1. General. The contractor shall furnish all services, materials, supplies, plant, labor, equipment, travel, and other elements as required in connection with the above stated project in accordance with the basic contract and the general scope of work (Section C) it contains. Work beyond this scope of work shall be done only upon written direction of the contracting officer.

2. Description of Work.

The contractor will examine 14 archeological sites at Fort Chaffee Military Garrison and prepare a comprehensive report which evaluates each site for its National Register eligibility as called for by AR 420-40 and the Historic Preservation Plan for the Fort Chaffee Military Garrison. The sites to be examined include the following: 3SB601, 508, 533, 537, 542, 543, 544, 550, 560, 562, 566, 567, 569, and 570. At the request of Ft. Chaffee's Environmental Branch sites 3SB601 and 3SB508 must be tested first. A short management summary for these two sites will be submitted to the LRD archaeologist immediately upon completion of testing for these two sites. The complete testing results for these and the remaining sites will be presented in the draft report as discussed in section 3.

The integrity of these sites will be assessed according to the National Park Service Guidelines entitled "How to Apply the National Register Criteria for Evaluation" published June 1, 1982. The eligibility of each site for the National Register of Historic Places will be determined using Criteria D (Archeological Research Potential).

Archival and oral history work will be performed for the historic archeological sites to determine who lived at these sites and if the persons were important to the history of the region, State, or nation.

Field investigations will be conducted to determine the exact nature of the archeological record present at these locations. At a minimum, intensity of investigation must provide the following information: approximate horizontal extent of site(s); approximate vertical extent of site (depth of deposit); sufficient information to establish nature and density of cultural occupation. Shovel tests will be excavated to define the site edges and to sample the subsurface variation present on the site. These will be excavated by 10 cm levels, screened, and

soils described. Shovel tests will be numbered and mapped. Based on the results of the shovel testing, test units will be excavated.

Methodology for the excavation of test units must conform to the procedures discussed in the base contract (DACW03-92-D-0013 section C.4.b.). Depending on the size of the site one to six hand-excavated 1 meter x 1 meter test units shall be excavated at each site to culturally sterile soil. Two meter x .5 meter test units may be substituted to reach the minimal one square meter of coverage.

In general, subsurface work (shovel testing, soil core extraction, and hand excavation of control columns) will be used to determine the nature and extent of buried cultural deposits present at these locations. Subsurface features encountered in the test units will be recorded by photography and appropriately scaled drawings. A site map, drawn to scale and showing the position of all test units, features, cores, etc, and relationship to immediate topography, and landmarks, will be prepared for each site.

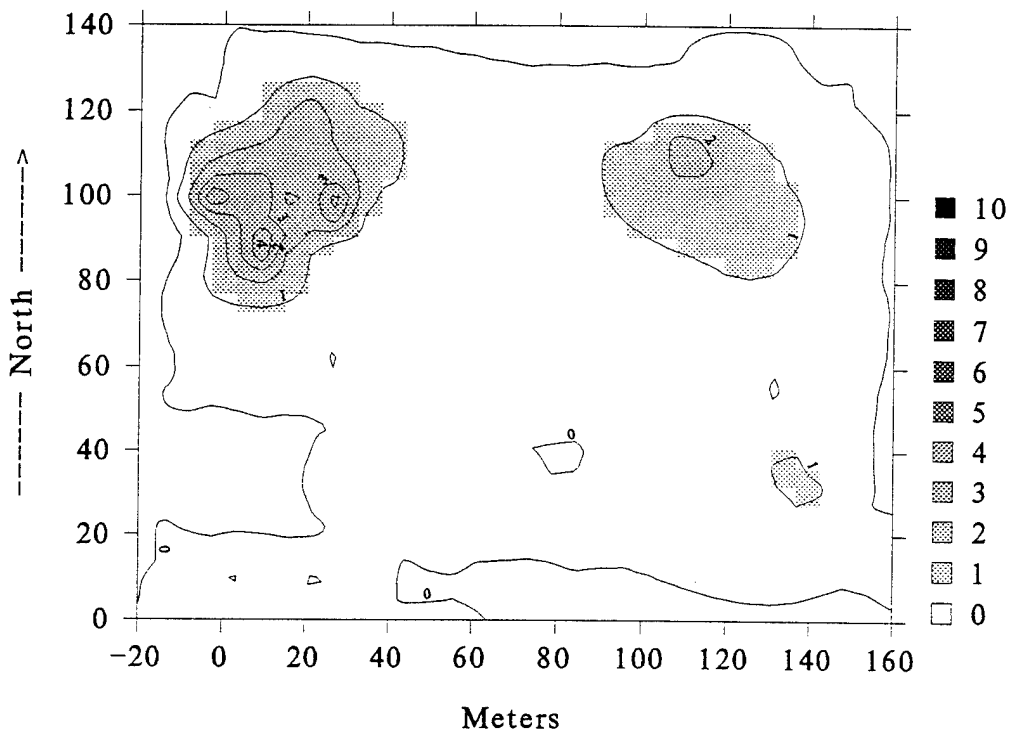
The distribution of surface artifacts will be recorded. Collection for curation will be restricted to artifacts from the subsurface test units and surface artifacts which are culturally/temporally diagnostic. Collections should be prepared for curation according to the curation standards of the University of Arkansas Museum. A separate Curation Agreement with the Museum will be negotiated by the USAED, Little Rock and Fort Chaffee staffs.

A report which synthesizes this data for each of these sites will be prepared. This report will include an evaluation of the National Register eligibility of these properties and recommendations for further management activities. Sections C.4.e (Requests for Determination of Eligibility), and C.4.f (Mitigation Recommendations) of the base contract must be adhered to unless specifically changed by the Contracting Officer's Representative. Report Format should conform to section C.6.d of the base contract.

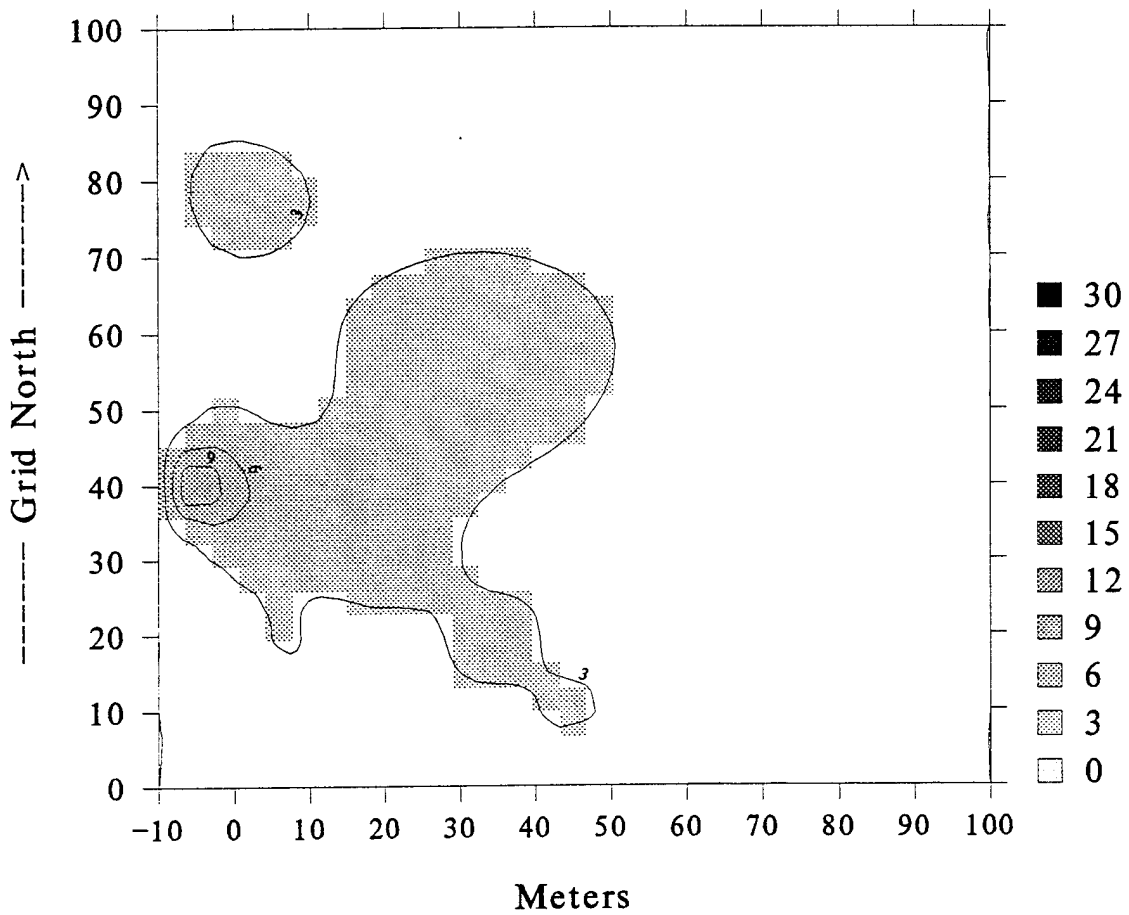
3. Schedule of Payment. Payment for this work will be made according to the unit prices set forth in contract DACW03-92-D-0013 (FIRST OPTION). Work will begin within ten days after receipt of the delivery order. An intensive review of the site forms and the historical records pertaining to these sites will begin NLT June, 1994. This review will be completed or nearly complete prior to the initiation of field work. Field work will be completed by September 1, 1994. A completed draft report will be submitted for review to the USAED, LR by January 15, 1995. The draft report will be reviewed by the Arkansas State Historic Preservation Officer, TRADOC's Historic Preservation Officer, the Little Rock District Archeologist, and the Fort Chaffee Environmental Staff. Additional peer reviews may also be requested. Formal correspondence concerning the work should be addressed to Mr. Kenneth W. Carter, Chief, Planning Division, Authorized Representative of the Contracting Officer.

APPENDIX 3
ARTIFACT DENSITY MAPS

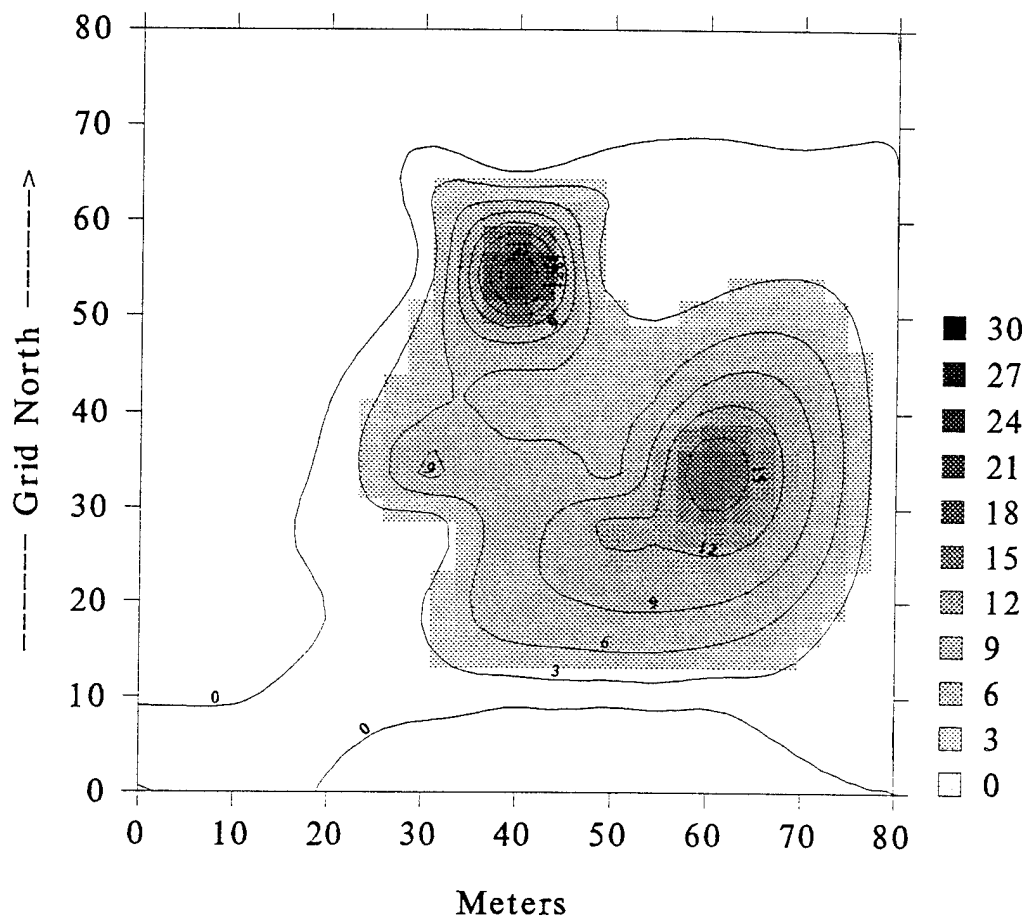
3SB508 Artifacts by Count



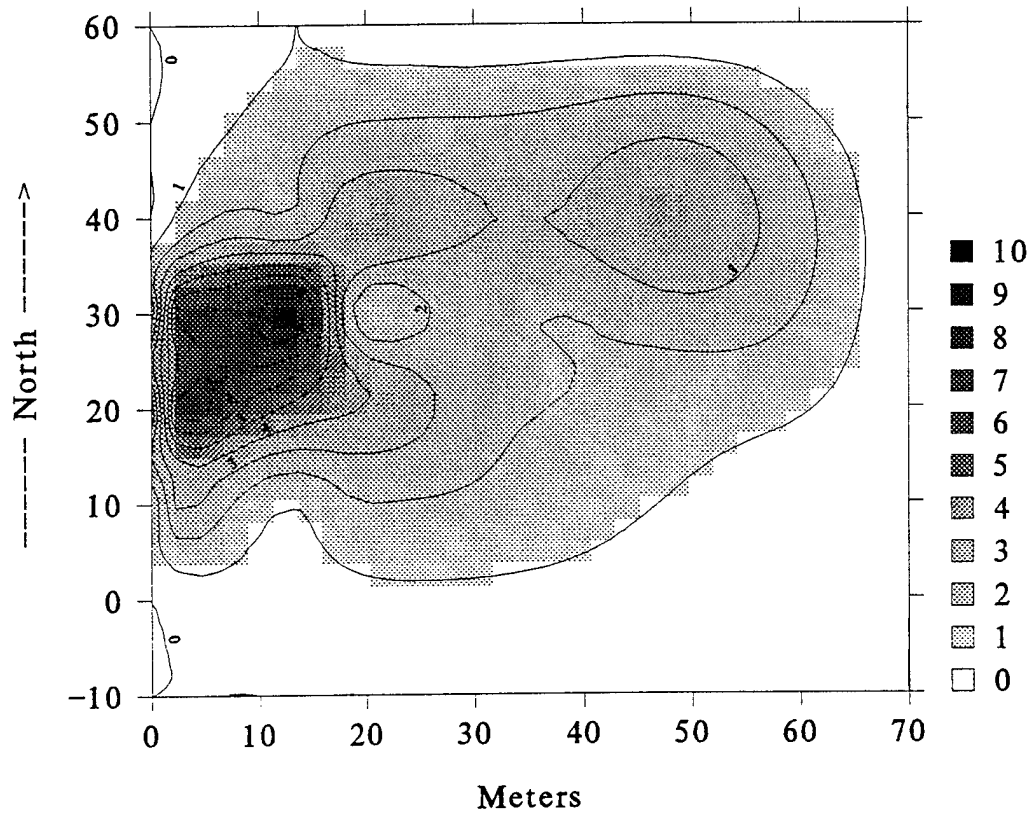
3SB533 Artifacts in Shovel Tests



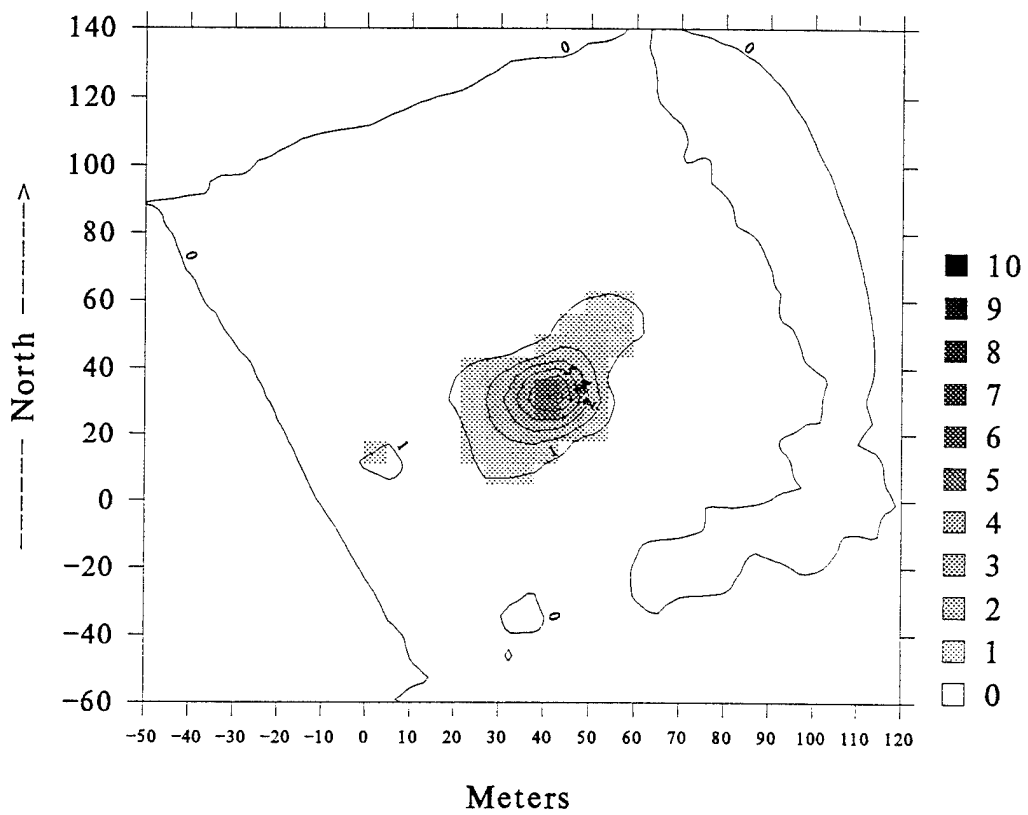
3SB537 Artifacts in Shovel Tests

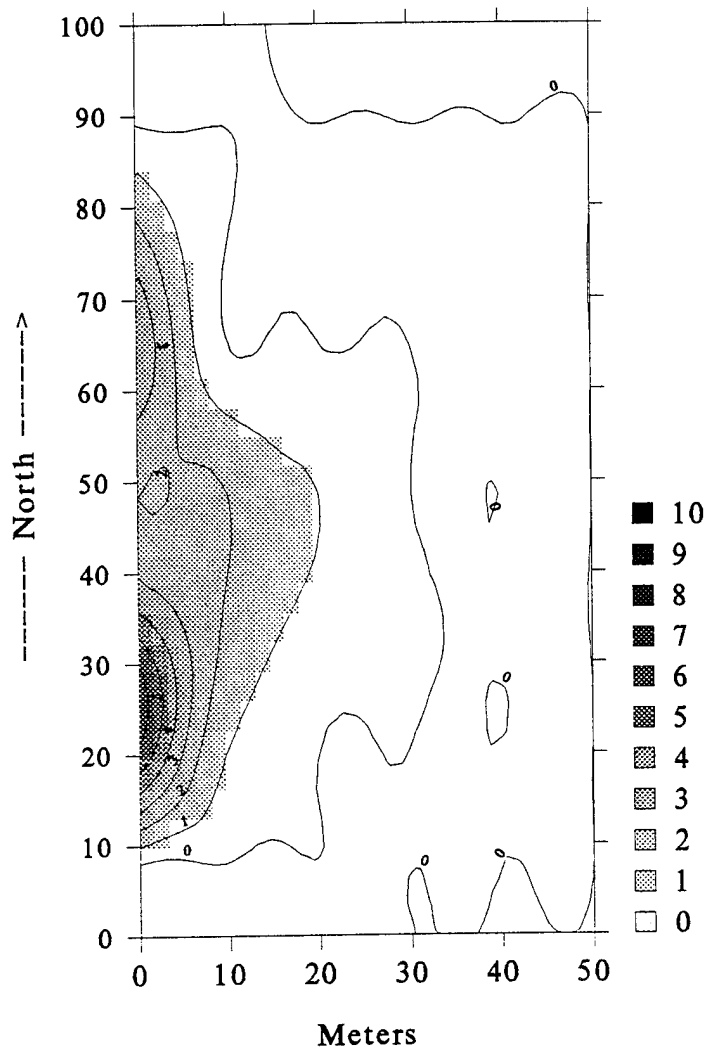


3SB542 Artifacts by Count

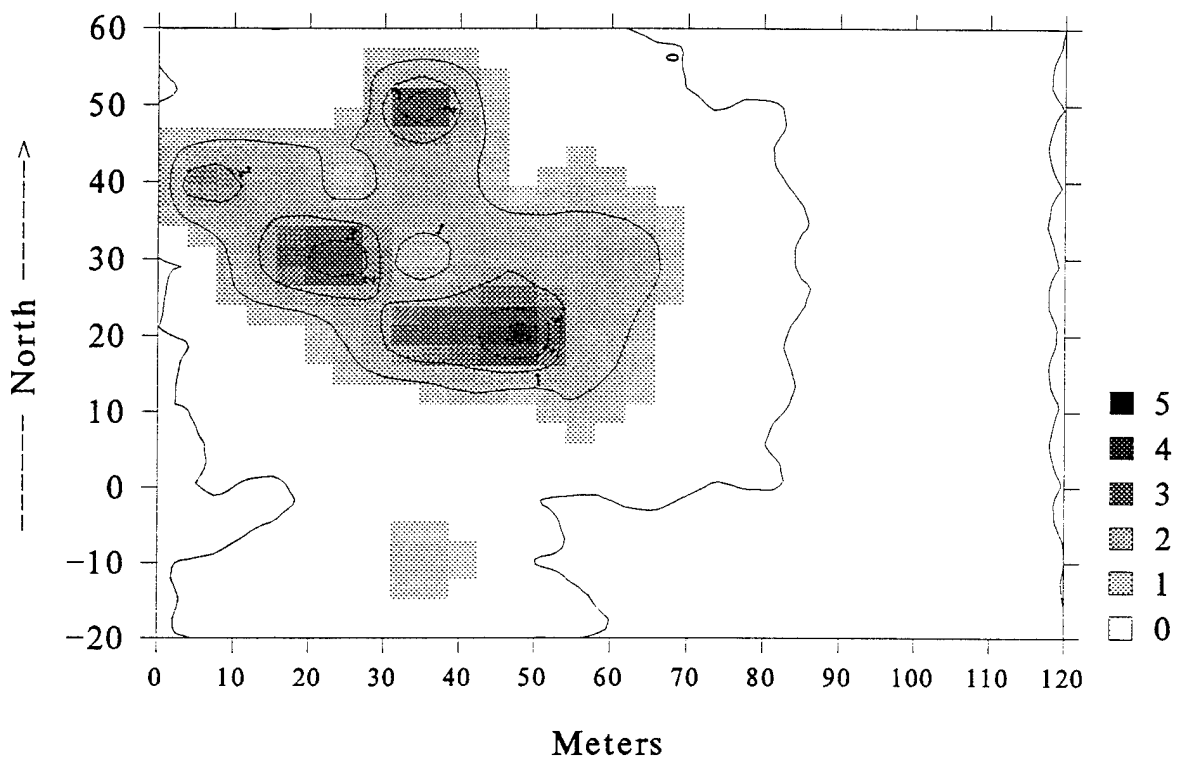


3SB543 Artifacts by Count

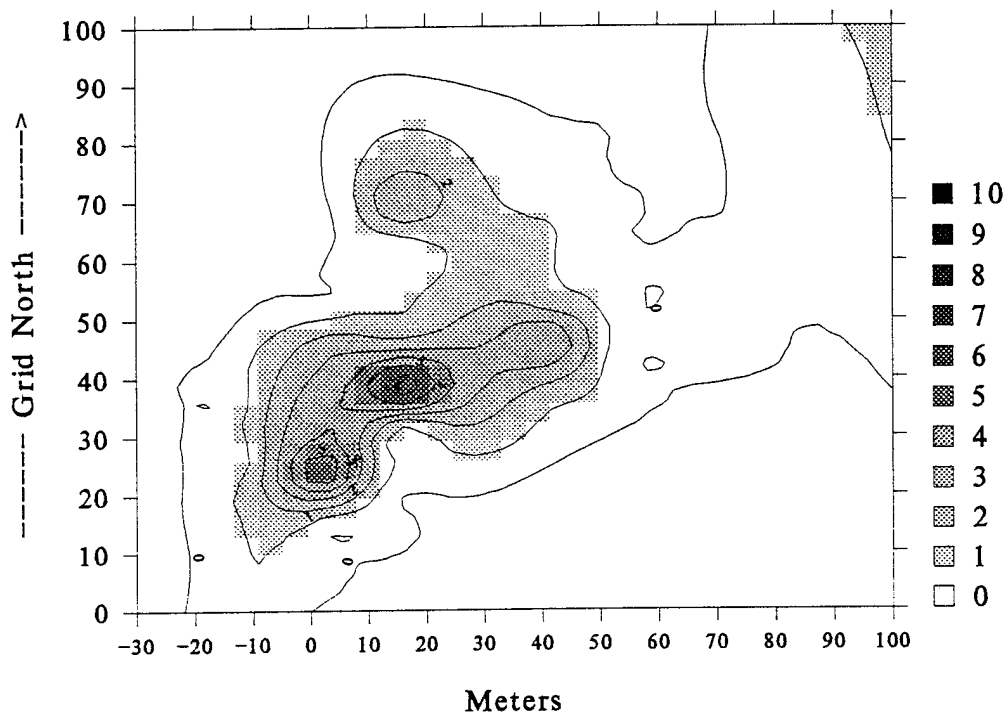




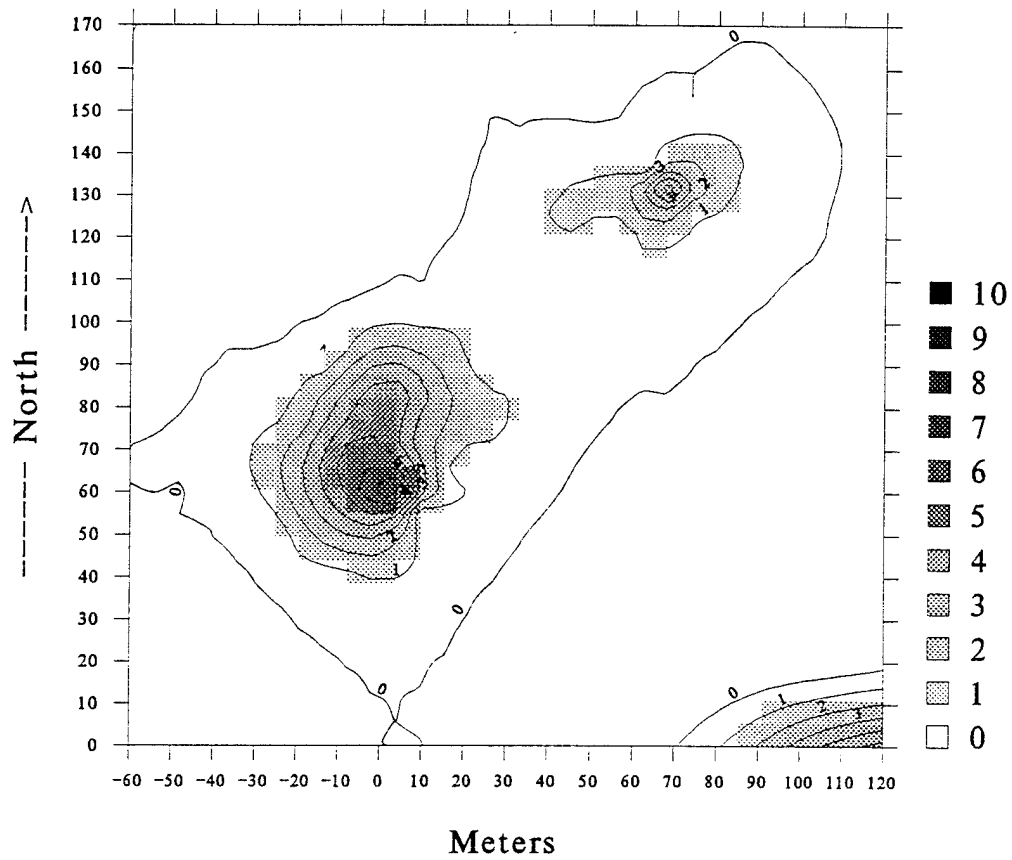
3SB562 Artifacts by Count



3SB567 Artifacts in Shovel Tests



3SB569 & 3SB570 Artifacts by Count



3SB601 Artifacts by Count

