# MUSEUM OF NEW MEXICO

# OFFICE OF ARCHAEOLOGICAL STUDIES

## THE WILSON HOMESTEAD: AN EARLY TWENTIETH-CENTURY SITE ON THE CANADIAN RIVER, QUAY COUNTY, NEW MEXICO

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#### ADMINISTRATIVE SUMMARY

The Canadian River project involved the archaeological testing of a historic homestead site near Logan in Quay County, New Mexico in December 1985. The New Mexico State Highway and Transportation Department plans to use the site area as a source for construction materials. The site (LA 52268) is in a sparsely settled area, on a high river terrace on the south side of the Canadian River.

Records from the Quay County Courthouse and the National Archives indicate that August W. Wilson first established residence on the land in 1915. The property subsequently changed hands at least five times prior to 1949. It is currently part of a larger landholding that is used to graze cattle.

Several features were located on the site: standing remnants of two structures, concrete foundation slabs, small cobble-outlined features, a trash dump, several checkdams, and the remains of a corral. The main feature is a tabular sandstone semisubterranean structure that served as a primary residence. Massive stone steps lead 1.75 m down into the single-room dugout. The other standing structure has complete sandstone walls on three sides and apparently was used as an outbuilding for animal shelter or equipment storage. There are two partly walled enclosures attached to the outbuilding. A concrete slab foundation on the site appears to be the remains of a residence built later than the dugout. No walls remain, but broken window glass covers the slab and the surrounding ground.

Several small rectangular stone alignments, one with a concrete foundation, were tested, but no function could be assigned to them. Trash appears to have been dumped both in and along a small drainage east of the site. One checkdam had been placed across the stream and several others were located along the periphery of the site at the tops of slopes.

Testing of the Wilson homestead makes a significant contribution to the growing documentation of late nineteenth- and early twentieth-century homesteading in eastern New Mexico by the Office of Archaeological Studies (formerly the Research Section, Laboratory of Anthropology). Demographic patterns in the area were analyzed to trace settlement patterns, ethnic derivations, and population dynamics (i.e., family size and age variables). The data from the site were compared to information from other excavated historic homesteads of this period in New Mexico, allowing for placement of the site within the broader context of an American frontier settlement pattern.

Submitted in fulfillment of the terms of Memorandum of Agreement F00474 between the NMSHTD and the Research Section, Anthropology Bureau, Museum of New Mexico.

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### **ACKNOWLEDGMENTS**

Yvonne R. Oakes and Dorothy A. Zamora of the Office of Archaeological Studies (formerly the Research Section, Laboratory of Anthropology), Museum of New Mexico conducted the test excavations at the Wilson homestead, LA 52268. Dorothy Zamora directed the artifact analysis and was assisted by OAS volunteers Gilda Brown, Bill George, and Selma Held. We appreciate the many hours that they donated to the project. Robin Gould edited the report and Ann Noble drafted the figures. Principal investigator was David A. Phillips, Jr., director of the OAS.

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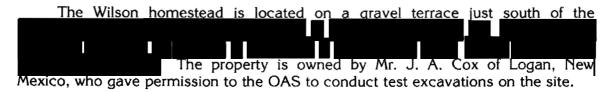
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#### INTRODUCTION

The Office of Archaeological Studies (formerly the Research Section, Laboratory of Anthropology), Museum of New Mexico, conducted test excavations at the Wilson homestead (LA 52268) between December 9 and December 21, 1985. The archaeological investigation was supervised by Yvonne R. Oakes, assisted by Dorothy A. Zamora. David A. Phillips, Jr. served as principal investigator for the project. Mr. William L. Taylor, environmental program manager of the New Mexico State Highway and Transportation Department requested the testing program for NMSHTD Project ST-(F)-024-3(202) to determine the extent and nature of archaeological material located by NMSHTD archaeologist Norman B. Nelson (Nelson 1985). The site area is the location of a proposed surfacing pit (85-24-S) to be used by the NMSHTD for road and pavement materials in the Logan area.



The testing program resulted in the delineation of a 1915 homestead with two occupations--1915 and after 1930. A series of 13 test trenches were excavated to determine the exact nature of the surface remains and uncover potential subsurface features. Historical artifacts were collected from within the test trenches and documented by grid provenience within a 114 by 84 m area for the remainder of the site. The archaeologists mapped and photographed all cultural features on the site. The report provides results of the data collection and archival research program conducted on the site.

#### ARCHAEOLOGICAL OVERVIEW

Occupation of the northeast plains of New Mexico is documented archaeologically from the Paleoindian period (10,000 to 5000 B.C.) to the present. Known prehistoric settlement of the region originates with the Clovis complex, which dates from 9500 to 9000 B.C. (Irwin-Williams 1979). Paleo-indian sites in northeastern New Mexico are generally related to bison procurement, and include the Folsom site at Folsom (Stuart and Gauthier 1981:294), Pigeon Cliffs near Clayton (Steen 1955), the Ute Lake Area site near Bueyeros (Hammack 1965), San Jon site at San Jon (Roberts 1942), Blackwater Draw near Clovis (Broilo 1971), and the Honey-Do Blowout north of Tucumcari (Way 1984). There are 25 recorded Paleoindian sites in northeastern New Mexico but Stuart and Gauthier (1981) believe that many others exist.

By the end of the Paleoindian period, a climatic drying trend caused a change in availability of wild food species. In response, there was a shift in emphasis to smaller game and to wild plant foods. This new period is called the Archaic and lasted from 5000 B.C. to A.D. 100 (Wendorf 1960). Most sites of this period are lithic artifact scatters identifiable through characteristic projectile points and milling stones. There are numerous Archaic sites located along the Canadian River (Beck 1984; Way 1984) and along nearby (Ite Creek (Baker and Campbell 1960). Lent (1982) also recorded three possible Archaic sites within 2.4 km of the Wilson homestead. Lancaster (1986) tested two probable Archaic lithic artifact scatters, one with possible Paleoindian affiliations, 3.2 km southwest of the Wilson homestead. Most of the earlier Paleoindian sites also contain later Archaic manifestations suggesting reuse of specific locations through time.

Other prehistoric groups found in northeastern New Mexico after the Archaic period include the Plains Woodland. These sites extend from Colorado into New Mexico, from the Dry Cimarron (Oakes 1979) to the Canadian rivers (Hammack 1965). The time frame for this adaptation is similar to that of the later Archaic but includes farming and ranges from about A.D. 200 to 1000. The Panhandle Aspect follows the Plains Woodland from A.D. 1000 to 1450 and is characterized by structures with upright slab foundations (Campbell 1976). Sites of this type also extend into Colorado and Oklahoma.

Anasazi use of the area lasted from about A.D. 900 to 1400. Small pueblo structures are reported primarily from the eastern slopes of the Rocky Mountains (Glassow 1980); however, small ceramic scatters are found throughout the eastern Plains. These small sites may represent use of the area as a trading thoroughfare or may indicate possible temporary use involving a mobile strategy such as hunting.

Spanish entradas criss-crossed the New Mexico plains in the sixteenth and seventeenth centuries. Traces of their presence are not well-documented archaeologically. Occasional pieces of chain mail do appear periodically in collections of local residents.

By the mid-sixteenth century, Athapaskan nomads, particularly Apaches, moved into northeastern New Mexico (Gunnerson 1979). They hunted and sometimes practiced horticulture. They quickly established trade relations with the Pueblo Indians near the Rio Grande, but were also known to have raided Hispanic, Pueblo, and later Euro-American settlements. Apaches were later joined by Comanches, Kiowas, and Utes, all commonly referred to as Plains Indians. Their sites are frequently identified by tipi ring remains with few or no artifacts in association. Sites near the project area are located near Bueyeros (Hammack 1965), San Jon (Scurlock 1979), and Conchas Reservoir (Lang 1978).

The first settlement of the area by non-Indians occurred in the mid-1800s. Raiding of these Hispanic and Euro-American communities by Plains Indians was fairly common. Settlement was understandably sparse until the establishment of Fort Bascom on the Canadian River (near present-day Tucumcari) in 1863. The fort attempted to control Indian raiding of Euro-American communities, protect trade routes, and oversee Comanchero activity. Comancheros were Spanish or Pueblo traders usually licensed by the New Mexico government. Some took unfair advantage of the Plains Indians, thus frequently instigating trouble between settlers and Indians (Scurlock 1979). Several Comanchero trails ran east-west along the Canadian River.

Plains Indians generally roamed free over northeastern New Mexico until between 1870 and 1887, when most were relocated on reservations. During this time, settlement of the region by Euro-Americans increased steadily. Soon, Texas cattlemen drove large herds into the territory and the ranching industry became firmly established. Sheep ranching also gained a foothold in the area but never became as important as the cattle industry.

Prior to the 1860s, most settlers in the area of Quay County were Hispanic ranchers and sheepherders. By 1899, Euro-American homesteaders, principally from Texas, Oklahoma, Kansas, and Missouri, filled the region. Meaders (1968:6) states that early accounts record at least one settler on every square mile of the county. By 1902, railroads entered the area. Tucumcari and Logan were both founded as railroad camps for the building of the Chicago, Rock Island, and Pacific Railway. Tucumcari was a boom town by 1913; however, Logan never attained a similar size or importance.

Most homesteading settlers lived in sod houses or dugouts. However, because of the harsh climate together with repeated influenza epidemics, range feuds with cattlemen, and the difficulty of providing sustenance for themselves and their families, many were forced to abandon the region by 1918.

Hammack (1965:60) excavated a homestead (LA 5589) at Ute Lake. No date is given for the adobe structures and historical artifacts on the site; however, the presence of a corner fireplace and several small oven-shaped hearths of adobe suggests an Hispanic occupation that may actually predate the homesteading era. Seaman (1983) investigated two homesteads near Tucumcari consisting of early twentieth-century dugouts. Beck (1984) located five possible homestead sites

along the Canadian River near Logan on a survey of eight quarter sections. All are within 1.7 km of the project site and date in the 1920s. Other late nineteenth- and early twentieth-century sites excavated in eastern New Mexico (Oakes 1983a, 1983b; Maxwell 1983) will provide a basis for socioeconomic and artifact comparisons with the Wilson homestead.

Today northeastern New Mexico remains a rural area with few large community centers other than Tucumcari or Clayton. The population is declining because young people tend to move to larger cities in New Mexico in pursuit of employment. Cattle ranching continues to dominate the economy.

#### **ENVIRONMENT**

The Wilson homestead is on the second terrace above the south bank of the Canadian River, at an elevation of 1,135 m (3,724 ft). Two entrenched arroyos drain the east and west boundaries of the site.

Local topography consists of undulating plains cut by the Canadian River drainage, which flows approximately 30 m below the surrounding steep sandstone bluffs. Outcrops of sandstone, basalt, and sedimentary rocks in the vicinity are of the Ogallala Formation (Gleske and Piggott 1982;25). Arroyo cutting is common.

The project area is within the Great Plains Province in the High Plains Section (Beck 1977:6) on the border between the Canadian River and the Llano Estacado. Within this border area all surface runoff flows into the Canadian River system, which is the only perennial stream in the region (Maker et al. 1971:6). The Canadian River rises on the eastern slope of the Sangre de Cristo Mountains and cuts a south and then east-trending valley through New Mexico (Beck 1977:13). It is the major drainage system in northeastern New Mexico.

South of the Canadian River, soil is generally a sandy loam. Gleske and Piggott (1982:12) note that rainfall in this region is generally not able to supply soils with any surplus of moisture; therefore, subsurface soils are usually dry. Soil in the site area is in the Rockland-Rough Broken and Stony Land Association which includes the canyon walls and breaks adjacent to the Canadian River. The soil is very shallow with a thin mantle of gravelly soil usually present. There are pockets of deep alluvial soils near the arroyos and the river. This type of soil supports a wide variety of grasses and shrubs (Maker et al. 1971:12-13) and is principally used for livestock and wildlife grazing.

Vegetation is typical of the Great Plains Province with short and mixed grass associations that cover the plains at lower elevations (Castetter 1956). In these associations, Camilli (1979) and Gleske and Piggott (1982) state that blue grama (Bouteloua gracilis) is dominant and is used extensively for forage. Other common grasses include buffalo grass (Buchloe dactyloides) and little bluestem (Andropogon scoparius). Perennials are stickleaf (Mentzelia sp.), thistle (Cirsium sp.), and locoweed (Astragalus spp.). Shrubs include broom snakeweed (Gutierrezia sarothrae), rabbitbrush (Chrysothamnus sp.), and soapweed (Yucca glauca). Cholla (Opuntia imbricata) is the major cactus found along with prickly pear (Opuntia phaeacantha) and hedgehog cactus (Echinocereus virdiflorus). Along a narrow strip bordering the Canadian River are also found mesquite (Prosopis juliflora), some juniper (Juniperus monosperma), and small-leaved sumac (Sapindus marginatus).

There is an extensive variety of faunal species found throughout this region (Camilli 1979). These include antelope (Antilocapra americana), mule deer and white-tailed deer (Odocoileus sp.), elk (Cervus sp.), coyote (Canis latrans),

cottontail (Sylvilagus audubonii), jackrabbit (Lepus californicus), vole (Microtus montanus), prairie dog (Cynomys gunnisoni), harvest mouse (Ruthrodontomys megalotis), wood rat (Nestoma albigula), and numerous small reptiles and rodents. Waterfowl are also found along the Canadian River.

The climate of the region is semiarid and is characterized by wide annual temperature ranges, distinct seasons, low humidity, windiness, dry winters, and mid to late heavy summer rains. Mean annual precipitation at nearby Logan is 400 mm. The growing season is 186 days. The mean temperature is 2.6 degrees Celsius in January and 25.5 degrees Celsius in July. The maximum high recorded temperature is 42.3 degrees Celsius while the maximum low is -4.9 degrees Celsius (Maker et al. 1971:6, 7). Average humidity is 51 percent (Meaders 1968:5).

Throughout the area there are periodic droughts and dust bowls. For example, in the spring of 1918 there was no rain. Grass dried up and range herds were in poor condition. Cactus was all that survived and it was used as fodder; however, many cattle and sheepmen were forced out of business. Another drought lasted from the fall of 1932 to May 1935. This one spawned the now-famous Dust Bowl with strong, constant winds. Stock was lost and vegetation literally disappeared (Cabeza de Baca 1954:171-177). Following the drought, the dry croplands were abandoned or reverted to range.

Today the land is used mostly for the production of grain, forage sorghums, and broomcom. Land unsuitable for crops is used for grazing (Maker et al. 1971:8). Some range land suffers intensive overgrazing and soils have completely eroded. On other lands, weed invasions of Russian thistle (Salsola kali), pigweed (Amaranthus sp.), and snakeweed (Gutierrezia sp.) have replaced the climax dominants and created disturbed areas that are unsatisfactory for grazing (Gleske and Piggott 1982:13).

#### RESEARCH ORIENTATION

South (1977:22) notes a theoretical shift in historical archaeology from examining sites as particular phenomena to a concern with more general issues. The shift is partly based on the concept that there is regular spatial or material patterning on archaeological sites; this is based on the concept that human behavior is not random, but is regular, predictable, and changing through time. Therefore, systematic study of historic archaeological sites should allow for identification of patterns that reflect human behavior (Lewis 1977:156-157). It is a goal of this report to examine the relationship between the material remains of the Wilson homestead and the behavioral patterns that shaped those remains.

From a general viewpoint, the homestead is only one component within a much broader sociocultural system. Therefore, analysis proceeds from the study of the site's placement within a national frontier system to an examination of regional and local factors that may be reflected on the site.

### Historical Perspective

Until the Civil War in the 1860s, the Great Plains were perceived as arid, barren, and inhospitable--the Great American Desert. Few settlers occupied the region. After the Civil War and the passage of the Homestead Act, the concept of the Plains radically changed to one of "Garden of the World" (Allen 1985:208). What caused this shift in the popular view of the region? Both concepts contained some truth, the Great Plains exhibited much variability from year-to-year and decade-to-decade, principally because of frequently changing environmental conditions. However, the shift in perspective may be found in the implicit attractiveness embedded in the newly popular word "American Frontier" and in the massive advertising campaign carried out by large corporate entities, including the U.S. government.

Early definitions of the frontier are exemplified by Billington's (1974:25) statement that a frontier is "a geographic region adjacent to the unsettled portions of the continent in which a low man-land ratio and unusually abundant, unexploited, natural resources provide an exceptional opportunity for social and economic betterment to the small-propertied individual." A more realistic conception is that of a frontier as the outer fringe of an expanding territory whereby cultural adaptations to new and varying physical and social environmental factors must be made and where there is control by some form of government.

A concept of the frontier, such as stated by Billington, undoubtedly drew many immigrants to the American West and the Great Plains. Push-pull theories of migration are no longer considered valid according to Miller and Steffen (1977:19) and Billington (1974:29-34), who note that migration to the West also occurred in

times of prosperity as well as when economic conditions were poor.

As migrations moved westward, Billington (1974:34) also notes that most of the population moved to states or territories immediately adjacent to that of current residency. For example, Meaders (1968) observes that in 1900 most of the residents of Quay County were from Texas, Oklahoma, Kansas, and Missouri. Many of these actually came from states further east, but upon reaching these areas found that good farming lands had all been claimed and so kept moving west. Areas that received new immigrants realized an expanding local market, an influx of new and needed job skills, and an increase in available capital. Western states and territories began to compete for the immigration market through extensive advertising campaigns. Soon, steamship companies, religious groups, land companies, newspapers, and railroads began promoting settlement of the West (Fite 1974:26).

Railroads were probably the most active recruiters for western settlement. They distributed pamphlets, maps, circulars, and handbills besides advertising extensively in the newspapers. The railroads often misrepresented true conditions, boasting of cheap lands, abundant crops, and financial independence (Fite 1974:29). To aid in the promotion of the West, they hired land commissioners, general immigration agents, colonization agents, district agents, traveling agents, and local representatives.

Railroad agents always encouraged land buyers to inspect the land personally and introduced special excursion rates for them to come and visit the areas. Some railroads even set up temporary housing for newcomers. Families could rent whole boxcars dubbed "emmigrant" or "zulu" cars to transport their goods west (Clark 1958:187-188).

The development of improved transportation networks was a key to the economic growth of the American West, including New Mexico. The railroads particularly were responsible for opening the West to development and providing a means of transportation to new settlers. By 1906, 46.9 percent of the American population traveled by rail (Haggett et al. 1977:49) as opposed to the former stagecoach system. Railroads also established economic links with the rest of the nation and provided the most efficient transport of goods and people. Using the railroad system reduced cargo losses, lowered inventory costs, and simplified the handling of goods.

The railroads were also responsible for the creation of numerous towns along their expanding networks. Frequently they worked hand-in-hand with land development companies to establish communities. They would anticipate strategic points along proposed lines where water or maintenance facilities were needed and communities were developed in these places.

The communities of Tucumcari and Logan both began as railroad sidings for the Chicago, Rock Island, and Pacific Railroad, which laid tracks through the project area in 1901. Tucumcari was first known as Six-Shooter Siding, but soon attained its current name. By 1903, the town had a population of 1,200 and became the county seat of newly created Quay County. In 1907, the population had reached 3,000. By this time, the Commercial Club had been established by local land developers to promote the agricultural lands of the county. It sent out numerous circulars to promote the settling of Tucumcari and surrounding areas. It is estimated that over 800 homestead claims were filed because of this activity (American Sheepherders Bulletin 1906).

Large numbers of settlers homesteaded in the Quay County area by 1885; however, the areas around Tucumcari, the Canadian River, and Ute Creek had been used extensively by Mexican herders and for grazing of cattle since the 1870s (Morton 1938; Scurlock 1983). By 1906, the *American Sheepherders Bulletin* (1906:717) notes that for the area around Tucumcari, "to the east as far as one can see are homesteads galore, each having more or less land under cultivation." In 1907, the Quay County area supposedly had at least one settler on every square mile (Meaders 1968:7).

The Homestead Act of 1862 provided a fairly easy method for settlers to claim public lands. A homestead applicant had to be the head of a household, over 21 years of age, a U.S. citizen (or file an intent of so becoming), and one who had never borne arms against the U.S. He must have been a first-time homestead owner and own no more than 160 acres of land in any state or territory. The applicant filed his claim in the local land office (in this area, Tucumcari) and had 7.5 years to produce his final proof of claim. He had to establish a residence on the land within six monthes of his initial filing and live there for five years and cultivate some of the land. The final proof involved the testimony of two witnesses who verified that he had met the necessary requirements. A notice had to be run in the nearest newspaper for five weeks, once a week, stating the applicant's intention to make final proof.

It is said that the government made filing a homestead claim too easy and thus encouraged numerous failures (Dick 1954:131). Many applicants were apparently not qualified to work the land. Also, fraud was common with land speculators or large land owners obtaining commitments from homesteaders or paying them to sell the land as soon as final claim was made. Another problem was that the 160-acre allottment was based on expected productivity for the richer soils east of the Mississippi River (Moran 1979:237). In the West, 160 acres was too small to provide an adequate subsistence base for the homesteader (Lamar 1970:15), so that many new settlers were also forced to work in nearby communities or on the railroad in manual labor jobs.

Most new settlers to the Quay County area practiced dry farming because of a lack of water in the area. The idea had been widely publicized by the railroads as a solution to the agricultural problems in the West. The purpose of dry farming was to conserve the scant moisture supply by reducing or eliminating runoff and evaporation by increasing the retention and absorption of moisture in the soil. In Quay County, settlers devised their own water system based on well or gravity irrigation or on the construction of storage basins, and also depended heavily on

annual rainfall to support crops (Seaman 1983:60). However, the practice of dry farming often resulted in the rapid deterioration of soil structure (Thornwaite 1941:184). This, in turn, led to the dust bowls of the 1920s and 1930s when topsoils were blown away by constant winds, leaving severely eroded fields.

Thus, there was a slim margin between success and failure for new farmers in the region. Along with poor soils and lack of moisture, they also had to contend with droughts, hail, high summer temperatures, insect infestations, crop diseases, and prairie fires (Fite 1974:45). Sometimes the railroads sold seed wheat at cost or on credit to save the area from agricultural loss and to keep settlers on the land as a source of labor (Clark 1958:207).

The railroad brought in most of the food that the settlers could not produce themselves, such as flour, sugar, coffee, and molasses (Archer 1978:54). Settlers, however, could grow beans, com, cowpeas, squash, pumpkins, Sudan grass, and grain sorghums.

In 1909 the Enlarged Homestead Act was passed, which allotted 320 acres instead of 160 to the homesteader. Then, in 1912, Congress reduced the five-year residency requirement to three years. A new Stock Raising Homestead Act was passed in 1916 that authorized 640 acres for grazing and for raising forage crops on nonirrigable lands. Permanent improvements had to include fencing of property and the digging of a well (Gates and Swenson 1968:503). Or, an applicant could pay \$34, live on the land for seven months out of the year for three years, make \$800 worth of improvements, and establish a residence (Vogt 1955:38).

These improved homestead laws still did not prevent the many disasters that overtook homesteaders in the Tucumcari area. A drought in 1918 forced many to abandon their lands. Plowed land became overlain with hills of sand. Nothing grew but tumbleweeds, and the livestock was in very poor condition (Cabeza de Baca 1954:271). After the drought years much of the grass never came back; there had been too much overgrazing and plowing.

A severe flu epidemic in 1918 in the county also affected homesteaders' productivity. Later, other disasters included the stock market crash of 1929 and the subsequent nationwide depression, and the aforementiond Dust Bowl of the mid-1930s. The Dust Bowl devastated the land, vegetation disappeared, and the stock perished (Cabeza de Baca 1954:177).

To the east, southeast, and south of Tucumcari, the land was "appropriated by Oklahoma boomers, irrepressible Texans, and expectant Hoosiers" (American Sheepherders Bulletin 1906). Homesteading claims were at a peak between 1906 and 1914 say Seaman and Novick (1982:10), although Pratt (1986:225) extends the peak settlement period to 1916. During this time Tucumcari was even suggested as a potential state capitol. However, beginning around 1908 a slow decline set in, which was in large part due to a reduction in railroad service between Tucumcari and Amarillo, Texas at that time. This was caused by the slack in the cattle and sheep industries due to the poor vegetative conditions of the area.

### Research Issues

The research goals of the project included placing the archaeological remains within a historical context involving specific persons, places, and dates in Quay County, New Mexico and within the broader context of general socioeconomic organizational processes and land-use patterns of the homesteading phenomenon in the early twentieth century. Specifically, the research program will use the archaeological, ethnographical, and archival data to focus on those demographic and economic land-use patterns that have contributed to the formation of the present site structure.

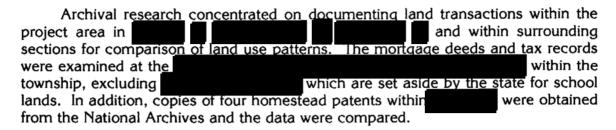
We wished to document the range of variability that may be present on the site through a comparative study of space use and patterns of material goods on other homestead sites in New Mexico. South's research data (1977) were used as a basis for examining variability within differing sites. Our analysis focused on the functions, frequencies, and causes of the spatial distribution of materials on the site. We sought evidence of patterning of these items to examine generalized regularities in human adaptive behavior.

## Specific topics included:

- 1. **Demographics.** What were the origins of the Wilson homestead settlers and those in the surrounding project area? What was the family size and age structure of the site occupants? A comparative study of the project area and other homestead locales in New Mexico attempted to establish general patterns in age differentiation, birthplace, marital status, ethnic background, family size, homestead filing date, type and size of housing, crops cultivated, and distance from towns or railroads.
- 2. **Subsistence Modes.** Was the homestead occupant self-employed or did he engage in wage labor to meet subsistence needs? What were his basic subsistence needs? What linkages to outside markets are evidenced in the artifact assemblage?
- 3. Land-Use Patterns. How was the site spatially organized? Did the site use change through time? The project included an identification of all site features and their possible function.

Archival sources for this project have included the Tucumcari Historical Museum, local and state libraries, newspapers of the time period, homestead documents from the National Archives, maps and photographs of the area, and Tucumcari County Courthouse mortgage and tax records. Ethnographic data include an interview with the wife of the former owner of the homestead and records from various homestead claims in the area.

#### ARCHIVAL BACKGROUND



A total of 180 land transactions were recorded in the township. For each section, recordation was by date, type, length of transaction, and principals involved. Several interesting facts were noted. For example, 58 of the 180 transactions (32.2 percent) were homestead patents. The mean date of first acquisition for land in this particular township is 1911.3 with a range of 1880 to 1949. While 180 cases represent only a sample population (about 50 percent) of all transactions, the results indicate some broad generalizations.

The mean acquisition date of 1911.3 is actually the mean final date on which homestead patents were approved. Based on examination of various homestead claim files, the 'proving-up' period takes an average of at least three years; thus, an initial acquisition date of about 1908 is probably more realistic for the township. This date appears to be approximately four to five years later than the dates for land acquisition in the immediate vicinity of Tucumcari, where initial settlement of the region occurred. Anderson (1907:882) states that homestead filings were recorded there at the rate of 20 per day in 1902. He also notes that, by 1907, much of the public domain in this area had been acquired by homesteaders. Seaman and Novick (1982), in a study of homestead patents in two townships surrounding Tucumcari, found that most were filed in 1908 with a slow decline thereafter.

Numerous homestead claims in Township 13 were apparently never finalized, but rather abandoned. For example, between 1911 and 1922 there were at least seven properties sold by the county for unpaid taxes. However, there were those claimants who, upon encountering rough times, mortgaged their claims in order to raise needed monies. The mortgaging of claims in the township occurred primarily between 1916 and 1923, with one land owner, Guy R. Wood, mortgaging several of his properties ten different times during this period. It is interesting that these dates correspond to the period of recorded drought from 1916 to 1918 and the occurrence of a severe flu epidemic in the region in 1918.

The practice of 'proving-up' a homestead claim only to sell it immediately upon receipt of the final papers was evident within the township. There were nine cases where the property was sold the same day upon which the patent was granted. Many more were sold within three months of acquisition. Those persons purchasing these homesteads include large landholders such as Guy R. Wood, D. C.

Green, and A. B. Cummings. Westphall (1958:41) notes that large ranch holders often encouraged homesteaders to stay on their land and 'prove it up' so that the ranch owner could then acquire it. Frequently, there was monetary reimbursement for the homesteader for this arrangement. The rancher also benefited because he often had already claimed the maximum acreage of land, and could obtain no more land except through direct purchase.

During the archival research, we noted that portions of four sections had been divided into lots. These include Sections 4, 6, 19, and 30. Each section seems to have been broken into only four lots along its northern edge with each lot equal to one-quarter of a quarter section, or 40 acres. In Section 4, lots had been divided as early as 1883. It would seem that the U.S. government owned these lots because homestead claims were filed on them. However, it is not known why there would have initially been such a division of the land. None of these sections are near settlements, communities, or rail lines, and are, in fact, quite isolated from such places (Fig. 1).

# Land Acquisition in

The project area site, LA 52268, is located in the Archival research also focused on the documentation of land transactions within this section. A total of 19 transactions involving 14 principals were traced, with the earliest being a homestead patent granted in 1881. Table 1 traces the 14 owners of these parcels through time.

Table 1 indicates that there were 4 types of homestead patents granted within Section 4. The Soldiers Additional Homestead Patent granted by the U.S. government, gave those persons who filed proof of military service additional lands for homesteads not to exceed the allotted 160 acres under the Homestead Act of 1862. One of these claims, originally settled in 1881 by James Choate, was subsequently acquired by Quay County in 1912 for nonpayment of delinquent taxes (due since 1909).

Landowners who acquired several parcels, either singly or collectively, include Isaac F. Barger, the Flynns, and Snead and Huston Co. Isaac F. Barger and his wife, Lona, originally owned 320 acres of homesteaded land near House, New Mexico, which he sold on April 8, 1921. His initial purchase in Section 4 on June 21, 1927 was the homestead property of August W. Wilson, where LA 53368 is situated. During this same year, on September 1, he also completed a Stock Raising Homestead Entry of 640 acres, partially within This brought his total holdings to 760 acres. By November 7, 1928, Barger was a widower and he sold his 640 acre parcel to Mrs. Fannie Maynard, who held it for three-and-a-half years, and then her heirs sold it back to Isaac Barger on May 6, 1931. Within a year, on April 12, 1932, Mr. Barger sold all of his holdings within to Willie L. Flynn, a widower. He then presumably married Willie Flynn's daughter who, between November 10 and December 7, 1932, divided up Barger's land between

Table 1. Land Transactions in Section 4

LAND OWNER	ACQUIRED FROM	TRANSACTION	DATE	PARCEL SIZE
John G. Falkenrath	US Government	Soldier's Additional Homestead	12/30/1881	80 acres
James Choate	US Government	Soldier's Additional Homestead	8/1/1883	80 acres
Quay County	Unknown	Delinquent taxes	2/19/1912	80 acres
August W. Wilson	US Government	Homestead patent	4/10/1920	160 acres
Isaac F. Barger	August W. Wilson	Sale	6/21/1927	160 acres
Isaac F. Barger	US Government	Stock-Raising Homestead	9/1/1927	280 acres
Fannie Maynard	Isaac F. Barger	Sale	11/7/1928	280 acres
Isaac F. Barger	Maggie D. Maynard	Sale	5/6/1931	280 acres
Willie L. Flynn	Isaac F. Barger	Sale	4/12/1932	440 acres
J. T. Flynn	Mrs. W.L. Flynn Barger	Sale	11/10/1932	160 acres
Willie L. Flynn	Mrs. W.L. Barger	Sale	12/7/1932	80 acres
H.O. Flynn	Mrs. W.L. Barger	Sale	12/7/1932	160 acres
Sneed & Huston Co.	W.L. Flynn	Sale	7/25/1942	80 acres
Sneed & Huston Co.	H.O. Flynn	Sale	7/19/1942	160 acres
Sneed & Huston Co.	J.T. Flynn	Sale	7/19/1942	160 acres
L.M. Blackwell	Sneed & Huston Co.	Sale	8/22/1943	440 acres
A.R. Northcutt	L.M. Blackwell	Sale	3/14/1945	440 acres
J.T. Sykes	A.R. Northcutt	Sale	2/23/1949	440 acres
J.A. Cox	J.T. Sykes	Sale	5/7/1949	440 acres

three members of the Flynn family. By this time, Isaac Barger was 61 years old and is no longer found in the records and probably was deceased.

All of the Flynn's holdings, totaling 440 acres formerly belonging to Isaac Barger and including August Wilson's homestead (LA 53368), were sold to M.H. Snead and Clyde W. Huston, a copartnership, between July 25 and July 29, 1942 after being held for almost ten years. They resold the property on August 22, 1943 to L. M. Blackwell of Amarillo, Texas. Mr. Blackwell sold it on March 14, 1945 to A. R. Northcutt, who then sold it to J. T. Sykes on February 23, 1949. The present owner, J. A. Cox, bought the land holdings, including the homestead, from Mr. Sykes on May 7, 1949.

Of the 14 landowners in Section 4, nine persons, or 64.2 percent, came from states or territories to the east of New Mexico. Four came from within New Mexico, and one from California. The eastern areas include Texas (5), Missouri (2), and Oklahoma (2). Westward migration was certainly evidenced in Section 4. The exception was a late immigrant from California whose other family members in Section 4 were from Texas.

Length of time of individual ownership could be calculated for 12 of the 19 land transactions within the section. The range for time of ownership was from three months for J. T. Sykes to 38 years and nine months for J. A. Cox. A check of the status of 11 of 14 landowners revealed that nine were married upon acquisition of property and one married soon afterwards. Data for calculating average age of landowners upon acquisition of land were not readily available; however, five homesteaders in Section 4 averaged 32.3 years old upon date of first filing and 35.4 years upon possession of land--a time lapse of 3.1 years.

#### The Wilson Homestead

The project site, LA 52268, is first documented in the civil records as a homestead patent granted by the U.S. government to August W. Wilson on May 29, 1920. Mr. Wilson applied for the patent on March 29, 1915. It covered 160 acres, or the section. Subdivision into lots is documented as early as 1909 in this section.

Demographic data obtained from a copy of Wilson's Final Homestead Certificate (Entry No. 018140) indicate that he was a single man, six feet tall with brown hair and blue eyes. He was born in 1893 in Arlington, Oklahoma and was 22 years old at the time of original filing in 1915. His occupation is listed as farmer on the Quay County tax rolls.

Homestead records state that Wilson completed his house by May 10, 1915, and it was located in the described in the final 1919 filing papers as containing:

10 by 12 ft rock house 8 by 10 ft dugout 40 acres fenced with 3 to 5 wire fence Horse lot (150 ft square) fenced with 4 ft hog wire Stack lot (150 by 75 ft) with 4 ft poultry wire Broken land (plowed), 20 acres

The value of these improvements was placed at \$300 in 1919. We may assume that Wilson constructed his dugout prior to building a more permanent rock house. It is also evident from the list that he owned horses and prepared land on which to grow crops.

A listing of crops grown from 1915 through 1919 by Wilson are recorded as follows:

1915	10 acres in forage crops	fair crop
1916	20 acres in forage crops	good crop
1917	20 acres in forage crops	poor crop
1918	no crops	
1919	no crops	

The mention of a poor crop in 1917 is undoubtedly related to the severe drought that was recorded from 1917 to 1918 (Cabeza de Baca 1954:171).

August (Gus) Wilson produced no crops in 1918-1919 because he was in the military service at the time. His homestead certificate notes that prior to military duty, Wilson clerked at a store in Logan and also worked on the section. (This is presumed to be a reference to railroad work for the Chicago, Rock Island, and Pacific Railroad Company, whose line ran through Logan.) According to Wilson, this work away from the homestead allowed him to earn money for his support and to improve his claim. He made a point of the fact that he was present on his claim on weekends. This statement is in response to the homestead laws, that state that the claimant must reside on his property during the 'proving-up' period.

Mortgage records indicate that Wilson was away from the land from September 16, 1917 to May 7, 1919. He was drafted into the U.S. Army during World War II and reported to Ft. Riley, Kansas where he was assigned to Company D of the 158th Infantry. Apparently, he served much of his time at Camp Funston, Kansas and reached the rank of Corporal. Wilson was discharged at Ft. Bliss, Texas in 1919 and returned to his homestead claim. He mentions in his homestead papers that he lost his team of horses while he was in the service and did not have enough money to purchase another.

Wilson published his intentions to 'prove-up' in the September 10, 1919 issue of the San Jon Sentinel. When he provided final proof of his claim on November 10, 1919, he listed four neighbors as witnesses to verify that claim. These included Guy R. Wood, Cecil O. Witt, Fred Congdon, and D. C. Green. It is of interest that Cecil Witt states that he knew Wilson all of his life. They are of the same age and it

would seem they had come together to homestead in New Mexico. With homesteaded the land directly east of Wilson in portions of and and Witt received his patent in 1922, two years later than Wilson. He then sold his property later that same year.

Guy R. Wood received a homestead patent for parts of in 1922. However, he states that he had been in the area since 1902. Mr. Wood subsequently acquired numerous parcels of land throughout the township. Wood's Place and North and South Wood's Windmills are still standing and appear on the USGS topographic map of Logan (Fig. 1).

Fred Congdon was on the land in approximately 1913 and filed claim to lands in Section 3 and areas immediately to the north in Township 14.

D. C. Green can be traced to land ownership in 1916. There is no evidence of his acquiring a homestead patent; rather, documents indicate that he purchased many parcels of land throughout the township, including a part of Mr. Green and Guy Wood eventually became two of the largest landowners in the township.

All witnesses lived no more than three-and-a-half miles from August Wilson and one, Cecil Witt, resided on the adjacent property at the time of Wilson's proving up. Several mention that they saw Wilson as they passed by once a week. This is an interesting comment because Wilson's homestead does not seem to have been on either a major or minor thoroughfare.

Wilson occupied his homestead until 1927--a period of 12 years. On March 21, 1927 he obtained a mortgage on his land for \$260.44 from D. C. Green, who had served as a witness for him in 1919. Apparently, Mr. Green was by this time a banker with the McFarland Bros. Bank in Logan. Shortly thereafter, on June 21, 1927, Wilson sold all of his land to Isaac F. Barger. At this time, the tax rolls indicate Wilson owned two horses and two cows. The transaction records show that Wilson had remained a single man during the 12-year period.

Besides owning Wilson's former homestead, Mr. Barger had filed an Original Stock-Raising Homestead Entry in August, 1927 for most of the remaining lands in 9. Barger was a 57-year-old widower at time of filing. He moved to Quay County from a former homestead claim at House, New Mexico. His final homestead certificate notes that his residence, well, windmill, and concrete stock tank were in the Corresponds to the location of ruins visible at North Woods Windmill in Section 4 and shown on Figure 1. It is important to note that records indicate that Barger never lived at the site of the Wilson residence even though he owned the property until 1932, a period of five years.

Barger claims that his property was broken, hilly, nearly all rocky, and suitable for grazing only. However, he also says he raised forage crops and cotton on 47 acres of land. Personal property included the above-mentioned structures,

stock corrals, a barn, stock shed, and three poultry houses. He also owned 40 head of cattle and horses.

Isaac Barger sold the property containing the Wilson homestead to Willie L. Flynn of Stephen's County, Texas on April 12, 1932. Various members of the Flynn family held the land until July 29, 1942 when it was sold to Sneed and Huston of Logan. It was thereafter sold in quick succession to L. M. Blackwell on August 22, 1943, A. R. Northcutt on March 14, 1945, J. T. Sykes on February 23, 1949, and finally to J. A. Cox on May 7, 1949. Mr. Cox still retains ownership of the property and the original homestead. Tax records indicate that from at least 1945 to the present there have been no improvements on the original Wilson land; it has been used strictly for grazing.

As a postscript to the Wilson homestead data, we note that August W. Wilson's obituary appeared in the Santa Fe *New Mexican* in April 1986. He was 91 years old at the time of death and left a wife, Marina, and a daughter, M. Theresa. He had been residing in Albuquerque at the time. We contacted his widow in July 1986 and she informed us that Mr. Wilson had married in 1934 at the age of 41. Apparently he had moved to Santa Fe after leaving his homestead and worked as a broker before taking a job at Los Alamos Laboratories. Mrs. Wilson had no photographs or documents regarding the homestead owned by her husband prior to their marriage.

#### TESTING PROCEDURES

The purpose of the testing program was to determine the extent and nature of cultural material within the proposed surface pit (85-24-S) to be used by the NMSHTD.

The archaeological testing was completed in three stages. Initially, all cultural features and site boundaries were mapped with a transit and stadia road and elevations systematically recorded (Fig. 2). OAS personnel drew plan maps and appropriate profiles of each of the cultural features. A series of 13 test trenches, most of them measuring 2 by 1 m, were selectively placed over various areas of the site including seven within structural units, two immediately outside of structures, 3 in amorphous rock piles, and one in a trash area. All trenches were excavated to sterile soil in arbitrary 5 cm levels. A plan map was drawn of each test trench and a photograph taken. All fill was sifted through ¼-inch mesh screen. Artifacts from each trench were collected by excavation level and bagged separately by type. At the completion of the testing program, all test trenches were backfilled. A total of 52 sq m was excavated.

Three shovel tests were placed in two small untested rock piles and across one possible rock alignment (Fig. 2).

The second stage of the research program involved overlaying a 2 by 2 m grid system on the entire site. All artifacts on the site surface that were not recovered in the test trenches were recorded by grid designation and classified according to type, size, and color. Only those artifacts that could not be identified, were unusual, or considered significant were collected. A total of 352 grid units covering 1,408 sq m were recorded or collected.

The final testing procedure included the random selection of eight grid units for surface stripping to confirm that no further features were present in those specific areas of the site. A total of 32 sq m was stripped in this manner.

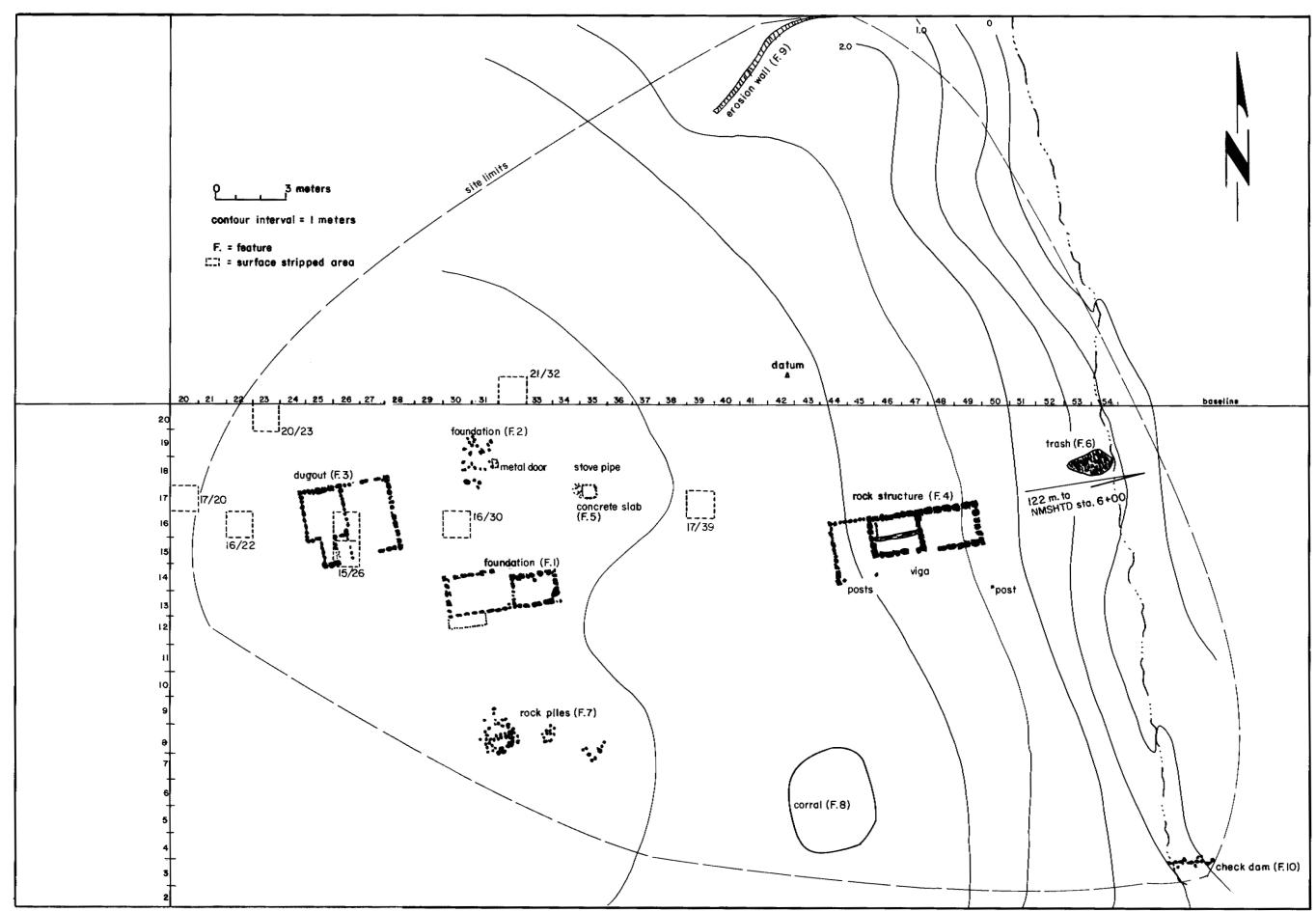


Figure 2. Site plan, the Wilson Homestead (LA 52268).

#### RESULTS OF TESTING PROGRAM

The Wilson homestead site contained visible remains of five architectural features and five other areas of evident cultural activity. Other activity areas or structures may have been present on the site but are no longer archaeologically visible.

Site plans were prepared for each of the features, showing the test trenches and their relationship to the features. Photographs were taken of each feature and appropriate stratigraphic profiles were drawn.

### Architectural Features

Feature 1: Concrete foundation for residential structure (Fig. 2). Foundation rocks, partially covered with poured concrete, are all that remain of a two-room structure that probably served as a residence for the site occupants in the 1930s (Fig. 3). A border of cobble stones along the south wall may represent a small garden plot. One doorway, measuring 75 cm wide, is on the north side of the structure. Dimensions of the foundation are: overall 8.0 m east-west by 3.3 m north-south; west room 4.75 m east-west by 3.3 m north-south; east room 3.25 m east-west by 2.75 m north-south; cobble plot 2.6 m east-west by .6 m north-south.

Both the east and west rooms have a sandstone rock foundation; however, the east room foundation is overlaid with a poured concrete base, 2.5 cm thick, which has cracked in numerous places. Several pieces of concrete still adhere to the rock foundation in the west room but no evidence of a concrete surface is present. The height of the remaining foundation is 25 cm. No evidence of a superstructure remains. Rocks are strewn around the surface near the structure and may indicate at least partial rock walls. The most common artifact near this feature is broken window glass.

Test Trench 1 was aligned north-south across the entryway to the structure and excavated to a depth of 25 cm. No further foundations and few artifacts were found. Test Trench 2 intersected both the rock foundation and the cobble plot on the south side of the structure. No change in soil color or texture was noted and few artifacts were recovered.

Based on the shape and dimensions of Structure 1, the types of associated features, and the artifacts nearby, it is probable that the foundation represents a residence of short duration.

**Feature 2:** Scattered rocks of small structure. A dispersed concentration of sandstone rocks in a 4 by 3 m area indicated the presence of a small structure (Figs. 4, 5). Among the rocks were found a vented metal door measuring 80 by 46

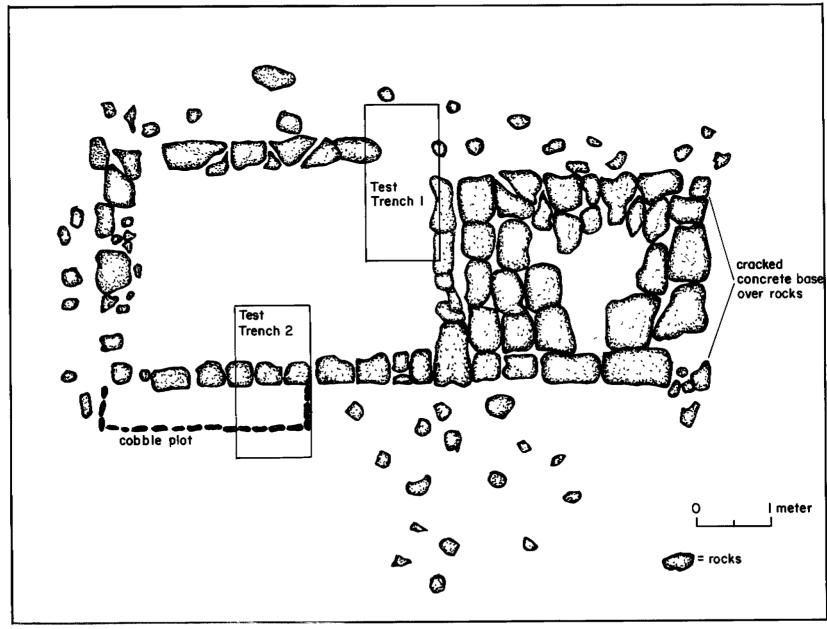


Figure 3. Feature 1, foundation of residence.

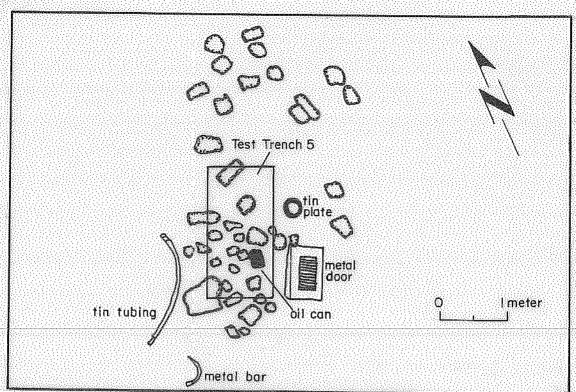


Figure 4. Feature 2, plan map, prior to testing.

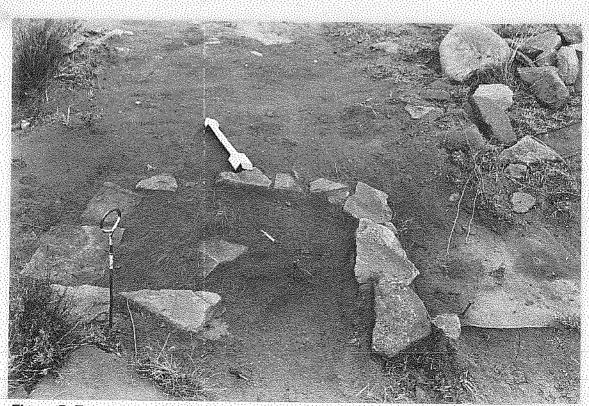


Figure 5. Feature 2, rock alignment revealed after testing, facing northeast.

cm, a motor oil can, a piece of tin tubing with a fitting at the end, fragments of metal, and a tin plate with a nail hole in the middle. Test Trench 5 was placed over the middle of the rock and artifact concentration and excavated to depth of 9 cm. At this depth, an alignment of rocks, measuring 60 by 90 cm was visible. It consisted of a single layer of sandstone slabs with what appeared to be an opening to the south-southwest. Excavations continued to a total depth of 18 cm. A rock superstructure is suggested because of the surrounding rock debris.

Before testing, we thought the scattered rocks might represent a collapsed privy or outhouse. However, the fill in the center of the structure proved to be sterile. Therefore, the function of this small structure is unknown.

**Feature 3:** Rock dugout. This structure is a well-built rock dugout that had been originally excavated three-quarters of the way into the level ground surface (Fig. 6). A series of six stone steps lead down into the single-room structure from a ground-level entryway. A second room had been added later to the dugout and sits completely above ground. A widely space semicircle of rocks extends to the east of this room.

The original dugout measures 3.85 north-south by 3.10 m east-west. The height of the standing walls reaches 2.6 m with 1.1 m of this above ground. Walls are coursed, tabular sandstone slabs that have been shaped and laid in a thin mud mortar (Fig. 7). The mean thickness of the walls is 42 cm. The roof is no longer present, indicating an additional height of at least 20 cm. There are two window openings on the east and west sides, measuring 90 cm wide by 54 cm high. The east window has a large shaped sandstone lintel and a slab sill still in place (Fig. 8). The presence of window glass in the vicinity indicates the use of glass panes. However, no wood framing material was found.

The entryway faces south and consists of a stone door sill and a series of six well-made, shaped tabular sandstone steps leading down to the dugout (Fig. 9). Test Trench 7 was placed over this area in order to confirm and define the presence of steps that had been completely covered by debris and blown dirt. The steps are 73 cm wide and descend 1.55 m into the dugout at a slope of 41 degrees. The mean height of each step is 23.6 cm. Small stone sills extend out from the walls at the bottom of the steps. These may have formerly supported a wood floor.

Test Trench 8 was placed in the interior of the dugout. If a wood floor did exist, it is no longer present. A slightly compacted dirt surface was found below 34-50 cm of fill, which was deepest at the north end of the room. The fill consisted of eolian soil with the lower 9 to 17 cm being a layer of sand sitting directly above the compacted surface. Numerous artifacts were located on top of the sand layer, which indicates secondary deposition. Also in the fill were numerous sheets of tin with nail holes at the corners that were presumably used to patch the roof of the dugout. The sheets were uniformly 50 by 23 cm in size.

The doorway to the dugout would have been completely above ground. Coursed sandstone extends along the sides of the steps enclosing them in the

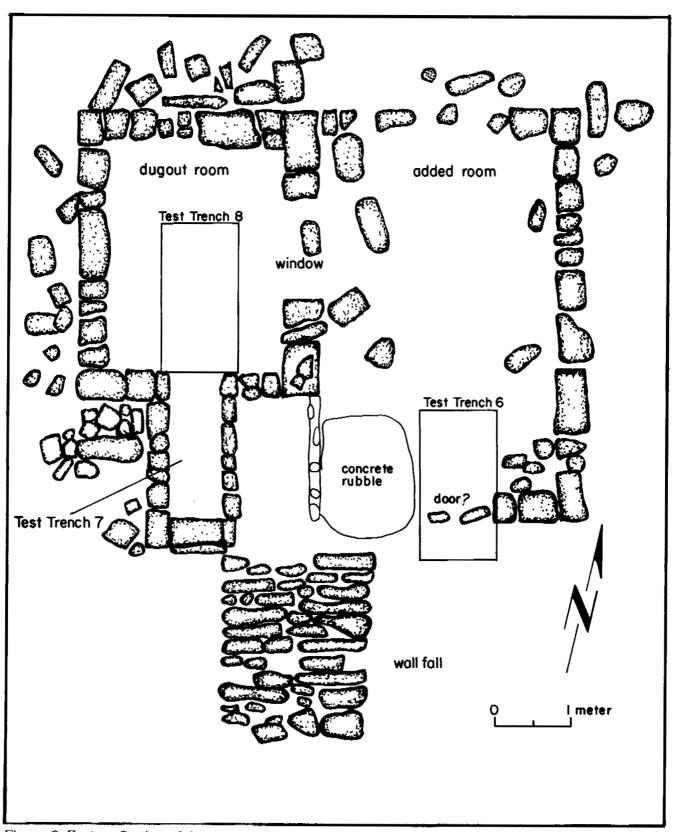


Figure 6. Feature 3, plan of dugout.

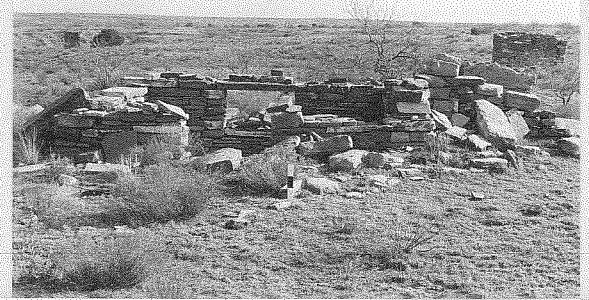


Figure 7. Dugout of tabular sandstone slabs; rock outbuilding to right; facing east.

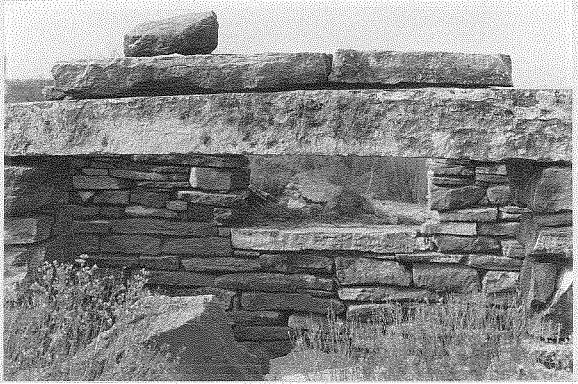


Figure 8. Window of dugout with stone lintel and sill; facing west.

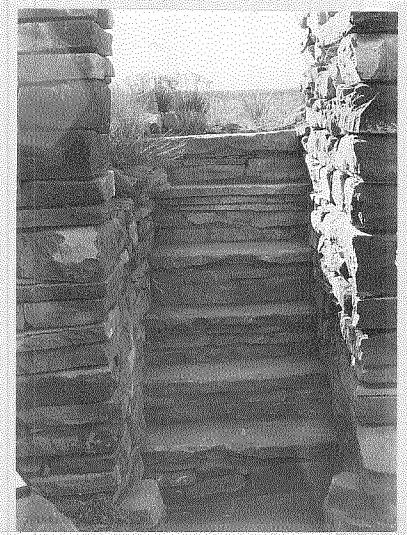


Figure 9. Stone steps leading into dugout; facing south. Note stone sills at base of stairs possibly for wood floor.

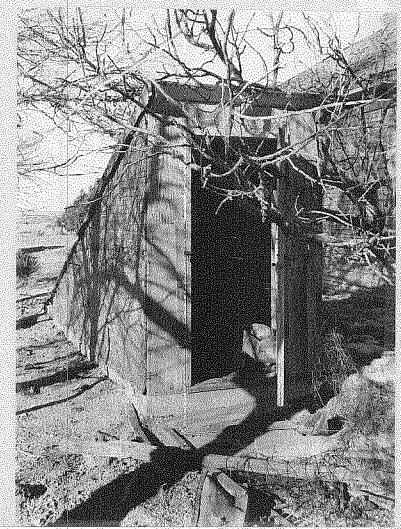


Figure 10. Entry to dugout in Prosperous Valley in Union County. Constructed from wood frame covered with chicken wire and then plastered.



Figure 11. Sandstone and concrete wall of addition to dugout; facing northeast.

manner of a vestibule (Figs. 9 and 10). We have assumed this entry area would have been roofed.

Subsequent to the construction of the dugout, a second room was added on the east side. Workmanship is poor in comparison with the original structure (Fig. 11). The walls consist of unshaped, uncoursed sandstone rocks laid in a heavy cement mortar. The room measures 5.50 by 3.45 m and is mostly one course high except for the standing wall in Figure 10. There is an entryway on the south side, but no indication of a doorway into the original dugout exists. Test Trench 6 was placed at the entry and into the interior of the room. No flooring was present and few artifacts were found.

There is a poorly defined semicircle of unshaped sandstone rocks extending to the east of the added room. The rocks are widely spaced. Their function is unknown, although they may have served to outline a garden plot.

Feature 4: Rock outbuilding. This structure exhibits the same fine workmanship in construction as does the original dugout. It is of shaped tabular sandstone with standing walls up to 2.08 m in height (Fig. 12). Walls are bonded with mud mortar mixed with small gravel. There is also occasional chinking with small sandstone fragments. Test excavations found that the walls extend 36 cm below the present ground surface or 16 cm below the compacted floor. The back wall, on the north side, is the thickest at 50 cm.

The middle portion of the structure, or Section A, was constructed first. One large viga, at 35 cm diameter, extends across the length of the room and through the side walls (Fig. 13). Several wire nails are present on the viga. A thin latilla remains across the viga in the northwest corner of the room. No evidence of former roofing is present.

The front wall, on the south, has mostly collapsed leaving a 40 cm high remnant. A 70 cm wide doorway is on the east side of the wall and a window may also have existed in this wall, based on the regular alignment of rocks where a window could have been. The hood and dashboard to an old car sit in the middle of the room. Test Trench 11 was placed inside of the room at the doorway. A dirt floor was uncovered at a depth of 20 cm below the present ground surface.

Sections B and C have been added to the main room after its original construction. Section B, on the east, measures 4.1 by 3.1 m with the highest walls standing to 58 cm in height. Much wall fall is present; however, it does not appear that these walls would have been as tall as those of Section A (Fig. 14). A 75 cm wide entryway is on the south wall with a large doorsill of stone. A metal bar embedded in the adjoining wall suggests a door or gate was once in place. A dirt surface was found through the excavation of Test Trench 12 at 30 cm depth. Very few artifacts were recovered.

Section C has been added to the west of the structure. It measures 3.0 by 4.6 m with the west wall extending to the south beyond Section A. Maximum wall height is 46 cm. The area has no south wall. Instead, there are two posts across the area with collapsed barbed wire strung between them. This section appears to have served as an animal pen at one time. Test Trench 10 was placed along the wire fence to a depth of 26 cm. One wire nail and a few pieces of charcoal were all that were recovered.

No domestic artifacts were recovered from the rock outbuilding. Also, the presence of large car parts and barbed wire fencing suggests that the structure served as a garage and/or housing for farm animals.

**Feature 5:** Concrete slab foundation. The feature first appeared to be a slightly mounded pile of sandstone rocks with small fragments of metal lying mearby. Test Trench 9 was placed over this feature. After removing the loose rocks, we found a poured concrete slab foundation surrounded by a course of sandstone rocks that were also set in concrete (Fig. 15). Width of the slab is slightly more than 1 m by .75 m. It could not be pried from the ground as could perhaps a concrete cover over a well or septic tank.

It was initially thought that this feature might indeed be the privy; however, it appears to be a foundation for a small structure.

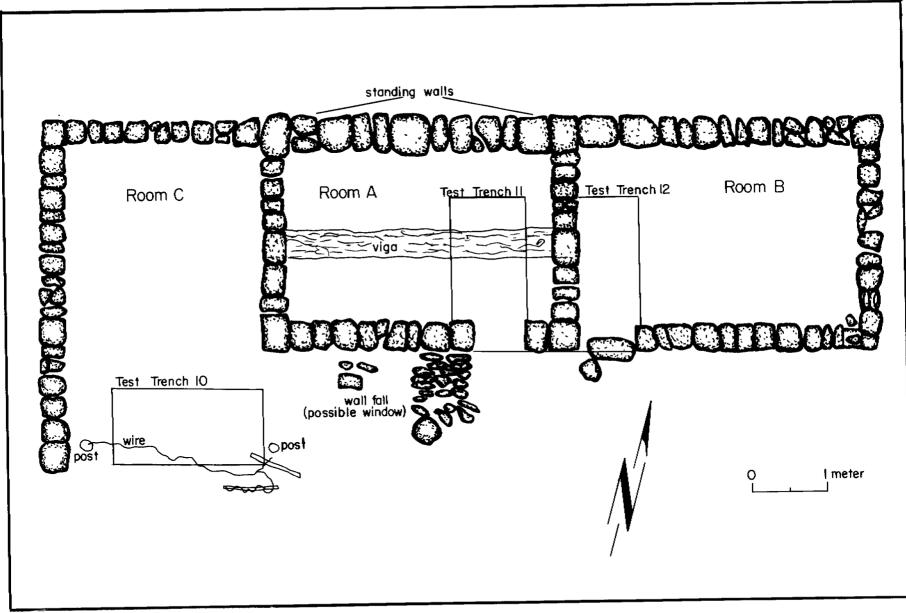


Figure 12. Plan of rock outbuilding.



Figure 13. Rock outbuilding with large viga. Front wall has collapsed; doorway is on left; facing north.



Figure 14. Section B of rock outbuilding showing collapsed walls; facing northwest.

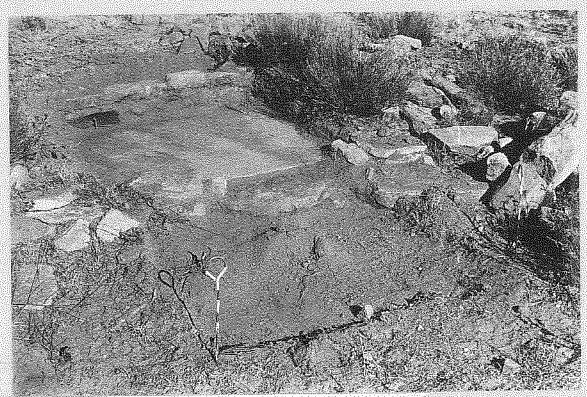


Figure 15. Concrete slab foundation; facing north.

## Other Site Features

Feature 6: Trash dump. Although thin sheet trash was present over the entire site, only one trash dump was evident. It was located on the east edge of the site next to a small arroyo (Fig. 2). The dump measured approximately 3.6 by 2.0 m. Material was piled to a height of about 30 cm. Test Trench 13 was placed over the trash dump. Artifacts found within the dump were recorded, but not collected, unless they were considered of scientific interest.

Feature 7: Rock piles. A series of three small scatters of sandstone and quartite cobbles were located near the south edge of the site (Fig. 2). Test Trenches 3 and 4, 1 by 1 m in size, were placed over the two largest of these scatters, which ranged from 3.05 by 2.40 m, to 2.5 by 1.6 m, to 1.8 by 1.5 m. A shovel test was placed in the smallest of the rock piles. No surface was found in the trenches and few artifacts. Only Test Trench 4 revealed a possible rock alignment. It was thought to define a grave; however, no evidence of subsurface disturbance was found and the function of these scattered piles could not be determined.

One other rock pile is located beyond the western border of the site, 58 m from the dugout. It is 2.0 by 1.2 m in size, and fragments of glass, crockery, and a few cans were scattered nearby. A shovel test indicated there was no subsurface depth to the pile.

**Feature 8:** Corral. A cleared area of 6 by 8 m was located south of the rock outbuilding (Fig. 2). The presence of five posts, no longer standing, and bits of rolled wire suggests that this may have once been the locus for a corral.

**Feature 9:** Water control device. A low sandstone rock wall, which follows the contour of the crest of a moderate slope, is situated on the northeast edge of the site (Fig. 2). It is 16 m long and is one to two courses high. The ground surface to the south of the wall away from the slope is fairly level and was possibly used for the cultivation of crops. The rock wall could have served as a water control device to prevent runoff from extending down the slope away from the field.

Feature 10: Checkdam. A short checkdam has been placed across the beginning of a shallow drainage to the east of the site (Fig. 2). It is 2.9 m long and consists of sandstone rocks, tire wheels, cans, and other car parts. Some of the dam on the west edge may have washed out.

#### ARTIFACT ASSEMBLAGE

Artifact collections were made only from the 13 test trenches on the Wilson homestead. All other artifacts on the site were tabulated within a superimposed 2 m sq grid system and assigned a functional category. Both collected artifacts and those tabulated in the field were included in the artifact analyses from the site. A total of 2,591 artifacts were examined on the basis of a functional typology and placed within discrete categories with each artifact receiving a specific functional assignment. The prodedure, derived from South (1977), has been developed by the OAS personnel (Maxwell 1983; Oakes 1983a, 1983b). Mean artifact dates were also used to provide a comparative chronology for the site. Functional categories used in the analyses include:

- 1. Foodstuffs. Items related to the storage and consumption or processing of food.
- 2. **Indulgences**. Liquid refreshment and medicinal items, as well as smoking paraphenalia.
- 3. **Domestic Routine.** Tableware, kitchen utensils, domestic furniture, household items, and lighting facilities.
- 4. **Construction/Maintenance**. Construction hardware and tools used in the maintenance of daily activities.
- 5. **Personal Effects.** Items of clothing, adornment, grooming, and personal possessions.
- 6. Entertainment/Leisure. Games, musical instruments, and children's toys.
- 7. Arms. Ammunition and guns.
- 8. Stable/Barn. Farm tools and machinery, stable and barn equipment.
- 9. Indeterminate. Items whose function could not be determined.

Table 2. Functional Classification of Artifacts

Category	Number	Percent
Foodstuffs	134	5.4
Indulgences	35	1.4
Domestic Routine	270	10.9
Construct/Maintenance	952	34.3
Personal Effects	38	1.5
Entertainment/Leisure	0	0
Arms	26	1.0
Stable/Barn	7	.2
Indeterminate	1129	45.3
Total	2591	100.0

Table 2 indicates the gross functional classification for all artifacts found on the site. Detailed artifact counts are presented in Appendix 1.

# Site Artifacts

Most of the artifacts recovered from the Wilson homestead are Indeterminate items (43.6 percent), which includes 920 fragments of glass bottles or containers that were too small to classify as food containers, indulgences, or medicinal bottles. Remaining items were mostly Construction/Maintenance items or articles relating to Domestic Routines. Table 3 lists the most prevalent artifacts from each functional category.

Table 3. Most Commonly Occurring Artifacts

CATEGORY	ITEMS	% OF CATEGORY
Foodstuffs	Sanitary Cans	52.3
	Mason Jars/Rings	21.5
Indulgences	Tobacco Cans/Lids	51.5
	Beer Bottles	11.4
Domestic Routine	Ironstone China	62.5
Construct/Maintenance	Window Glass	66.0
	Wire Nails	16.8
Personal Effects	Umbrella Parts	26.3
	Buttons	15.8
Arms	.22 Long/Short Cases	46.0
	.12 Gauge Shotgun Shell	19.2
Stable/Barn	Leather Pieces	29.0
	Strap Buckles	29.0
	Horse Shoe	14.0
	Snaffle Bit	14.0
	Harness Part	14.0
Indeterminate	Glass Fragments	81.5

The Foodstuffs category indicates a high dependence on home canning items and store-bought goods. Metal containers range from an early hole-in-top can to modern sanitary cans. The numerous Mason jars could indicate the presence of a woman on the site.

Artifacts in the Indulgences category suggest a strong preference for tobacco by the site occupants and a slightly higher use of beer over other alcoholic beverages. Two snuff cans were also found on the site.

Most Domestic Routine items consist of various culinary serving pieces (91.6 percent), of which the majority are ironstone fragments. Earthenware and porcelain were also represented, but to a much lesser degree (9.9 percent and 8.1 percent respectively). Pieces of a cast iron stove were found on the site indicating the method of heating used in the structures. A kerosene lamp chimney and wick suggest the method of lighting used. The metal frame of a baby carriage stamped with "Leader Baby Carriages.-Simmons Hardware Co., Inc., St. Louis, Mo, USA" is not likely to be associated with the site during the occupation by Wilson who was a single man. Also, the presence of porcelain china, condiment dishes, and cut glass suggests more than utilitarian use of dining and serving wares, suggesting that a woman had been present on the site.

The bulk of the artifacts are related to the construction of the several structures and features on the site, such as 568 pieces of both aqua and clear window glass, 161 wire nails of various sizes, and 99 pieces of several types of fencing including barbed, bailing, bundle, smooth, and poultry wiring. Roofing tins, consisting of 50 by 23 cm metal plates, were located within the dugout indicating a wood frame roof for the structure. Tools found on the site include a clamp, monkey wrench, chisel, saw blade, shovel, and an adze.

Personal Effects consist mostly of clothing items such as buttons (including overall buttons), clothing rivets and grommets, work shoes, and parts of leather gloves. The presence of a woman on the site is confirmed by the finding of a perfume stopper and a purse. Of interest is a 1927 Lincoln penny found near the rock piles south of the concrete slabbed residence.

Stable/Barn items, such as a horseshoe, harness part, and snaffle bit, indicate the presence of horses on the site. Wilson did state in his homestead papers that he possessed a team of horses.

Indeterminate items, as stated above, are mostly small glass fragments (N = 920) that, if identifiable, would probably be containers for foodstuffs, beverages, or medicines. Numerous sheets and strips of metal are also unidentifiable. A number of artifacts (62 pieces) are parts of cars or associated with car maintenance. Ten motor oil cans (RPM 30 wt. and Medallion SAE 30) postdate 1933 and a Texas license plate dating to 1932 (#185:988) indicate a post-Wilson occupation. Attempts to determine ownership of the plate were unsuccessful.

The diversity of artifacts on the site reflects a variety of activities. The high frequency of glass container fragments may reflect long-term use of the site as a residence. The presence of female-related items and a baby carriage part certainly indicate that a woman and baby were present on the site at some time, most likely during the 1930s occupation. Fencing materials and horse accoutrements agree with Wilson's stated use of the site. However, motor oil cans, the Texas license plate, and numerous bottle fragments that date after 1929 reveal a use of the site that postdates the Wilson occupation.

# Site Chronology

Artifacts from the testing program at the Wilson homestead (LA 52268) reflect a pattern of use from 1915 through the early 1930s. Using comparative artifact chronologies (Toulouse 1971; Ward et al. 1977; Herskovitz 1978), a beginning and end date of manufacture was determined, wherever possible, for each artifact. Then, adopting South's method for arriving at mean ceramic dates (South 1977: 217-227), a weighted mean artifact date was obtained for the entire site and also for various areas on the site to identify any chronological variations. Weighting was by frequency of date for each datable artifact. The mean date for the site is  $1918.3 \pm 16.5$  with a range of 1901.8 to 1934.8. The date fits well within the known occupation dates established from the archival records and falls into the date of occupation by August Wilson. Only four datable artifacts, all bottle fragments, date to the early 1940s out of a total of 1,274 and these probably represent nonresidential use of the site. However, 48 pieces of aqua window glass and one hole-in-top can represent a time frame of generally 1880 to 1910 and would seem to predate the first documented use of the site in 1915. No other artifacts fall outside of the expected range of dates for the site. Either there was an earlier, undocumented (possibly unpatented) homestead claim on the site, or more probably, the use of aqua window glass extended beyond 1910, particularly in the frontier west.

A study of the distribution of artifacts at the various structures on the site shows that both aqua and clear window glass are associated with each structure and the trash dump on the east edge of the site. Wire nails are also found with every structure except Structure 1, the concrete-based foundation. Wilson mentions constructing a rock house in his final homestead papers and this could explain the lack of nails. An artifact density map was produced showing the locations of all artifacts on the site. Virtually all areas of the site contain at least a thin scatter of material with no discrete breaks between structural units. A copy of the plot map is on file at the Site Survey Records, Santa Fe.

A concentration of artifacts within the sandy fill of the dugout, 9-17 cm above the packed dirt floor, is obviously secondary trash deposited after abandonment of the dugout. The artifacts consist of 11 bottles postdating 1929, two sanitary cans, tin roofing patches, a post-1933 motor oil can, and two lard-type buckets. All of these were deposited after Wilson sold the property in 1927. On the floor was a

metal wash tub. There was no fill present on the rest of the site to determine whether the remainder of the artifacts were also secondarily deposited. The trash area to the east was mixed with early materials such as aqua window glass and the later 1932 Texas license plate.

Although there is a mean date of 1918.3 for the site, there are apparently two separate occupations—one by August Wilson for 1915 to 1927 and a short-term occupation during the early 1930s. Wilson sold the property in June 1927 to Isaac Barger, who kept the land for 14 months, but according to his homestead papers, never lived on the site. Mrs. Fannie Maynard then purchased the land in 1928 and held it until May 1931. Several members of the Flynn family (Table 1) owned the land from 1932 to 1942. Either Mrs. Maynard or the Flynns would have been the most likely candidates responsible for the short occupation in the early 1930s.

#### SITE PATTERNS AND CONCLUSIONS

The testing program at the Wilson homestead focused on the examination of architectural features on the site and on the study of artifact functions and their dispersal over the site. Testing confirmed the presence of a dugout, residence, an outbuilding, two small unidentified units, a trash dump, corral, small rock piles, and a water control device.

The artifact assemblage was generally fragmentary and displayed temporal homogeneity with a mean use date of  $1918.3 \pm 16.5$  years. Except for the trash dump, most items probably resulted from loss or littering rather than from patterned refuse disposal. Sorting of artifacts into discrete functional categories has allowed for quantitative analysis of potential patterns. These patterns have been compared with those on other historic sites within the Late Territorial and Statehood periods in New Mexico. In this way, distinctive patterns at specific sites can be isolated and examined in depth. Also, data generated from the Wilson analysis are used to refine the generalized model of a predictive artifact pattern for New Mexico frontier sites (Maxwell 1983; Oakes 1983a, 1983b).

Six New Mexico frontier sites, mostly community residences or homesteads, have previously undergone the same artifact analyses as described in this report. It is therefore possible to make statistical comparisons between the Wilson homestead and the other sites listed in Table 4. Occupation dates range from 1888 for the Cavanaugh site to the 1920s for the Colfax residences.

Table 4. New Mexico Frontier Sites

SITE	TYPE	LOCATION	DATES	REFERENCES
Ontiberos	Homestead	Roswell	1903-1908	Oakes 1983a
Cavanaugh	House site	Las Vegas	1888-1891	Maxwell 1983
Butcher	Dugout	Tucumcari	1900-1909	Seaman 1983
Wyatt	Dugout	Tucumcari	1903-1909	Seaman 1983
Howell	House site	Brantly Res.	1895-1910	Gallagher and Bearden 1980
Colfax	Railroad Community	Colfax	1905-1920	Oakes 1983b
Wilson	Homestead	Logan	1915- 1930s	Oakes 1990

Table 5. Combined Mean, Standard Deviation, and Coefficient of Variation for Six New Mexico Sites (Source: Oakes 1983b)

Artifacts	Mean %	Standard Deviation	Range	Coefficient of Variation
Foodstuffs	4.9	3.0	1.9-7.9	61.5
Indulgences	5.5	6.7	.0-12.1	121.7
Domestic	16.7	15.2	1.4-20.5	91.5
Construction	38.1	19.3	18.8-57.4	50.6
Personal	1.2	.6	.6-1.8	47.2
Entertainment	.4	.4	.07	116.7
Arms	.5	.3	.17	60.9
Stable/Barn	.2	.3	.05	108.0
Indeterminate	32.4	7.2	25.2-39.6	22.3

As each new site is added to the data base, an expanded New Mexico artifact pattern for New Mexico frontier sites is produced. The data base for the six previously excavated sites is reproduced in Table 5.

A Student's t-test was run to determine the probability that the Wilson material could fall into the same statistical population as the six sites in Table 5. It was concluded that the Wilson homestead artifacts were not significantly different at the 0.005 level of confidence. All frequencies fell within the predicted range for New Mexico sites as calculated from the six previously excavated sites (Oakes 1983b:61).

The addition of the Wilson homestead artifact data has caused all mean percentages to rise slightly and the standard deviations to either drop slightly or remain stable. The coefficient of variation decreased significantly in all categories (compare Oakes 1983b:60) with a former range of 22.3 percent to 121.7 percent to the new range of 14.1 percent to 69.5 percent. This is a reasonable expectation as each new site is added to the data base. The lower coefficients of variation indicate that our ability to predict mean percentages of the various artifact categories on a New Mexico site is improving with each site added.

The Wilson homestead artifacts however (Table 2) do not conform completely with the expanded New Mexico pattern (Table 6). There are higher percentages of Arms and Indeterminate items on the site than would be expected. The numerous small bottle fragments undoubtedly influenced the high percentages of Indeterminate items. The Arms percentage is just slightly higher than would be expected and may indicate repeated use of the site area for hunting purposes after

Table 6. Expanded New Mexico Artifact Pattern Including Wilson Homestead

Artifacts	Mean %	Standard Deviation	Range	Coefficient of Variation
Foodstuffs	6.16	2.95	3.21-9.11	47.8
Indulgences	10.98	6.51	4.47-17.49	59.2
Domestic	25.61	17.18	8.43-42.79	67.0
Construction	48.99	10.22	38.77-59.71	20.8
Personal	1.50	.32	1.18-1.82	21.3
Entertainment	.69	.48	.21-1.17	69.5
Arms	.57	.23	.3480	40.3
Stable/Barn	.37	.24	.1351	64.8
Indeterminate	36.81	5.2	31.61-42.01	14.1

occupation had ceased. Indulgences, Entertainment, and Construction/ Maintenance items, in contrast, were represented at a lower percentage than expected. The low frequency of these first two categories may relate to the fact that the owner was a single man, working at an off-site job, and only present on weekends for most of his tenure. Few Construction/Maintenance items are the result of the superstructures of all buildings, except the outbuildings, having been removed from the site. Use of stone for construction material rather than framing lumber greatly reduced the usual high frequency of nails found on such sites.

In general, the New Mexico frontier pattern seems to be tightening its range and variability with the inclusion of each additional site to the data base. As mentioned in Oakes (1983b:82), it may be possible in the future to develop specific artifact patterns for homesteads vs railroad towns, mining communities, or urban sites.

One reason for standardizing functional classifications is to determine whether New Mexico sites may possibly be part of a larger, distinct national frontier pattern. Previously, OAS staff (Maxwell 1983; Oakes 1983a, 1983b) combined New Mexico sites with those documented by South (1977) for the eighteenth century. However, given the 200-year time difference in occupation dates and the comparison of mostly New Mexico homesteads with mostly eastern forts, the results of these analyses are considered less than ideal. Data from more sites of the same time period scattered throughout the United States are needed before accurate comparisons can be made. Comparability in use and availability of various items on a regional basis would be most provocative. For example, did New Mexico homesteads use the same available items in construction, maintenance, and daily

routine as did Colorado or Kansas homesteads or was there a difference in accessibility or use? Until such comparisons are made, we cannot claim that a distinct New Mexico pattern exists; it may or may not be very similar to patterns on other frontier sites in the western United States.

### SIGNIFICANCE OF THE WILSON HOMESTEAD

This report has examined land-use patterns on the property occupied by the Wilson homestead from 1909 to the present. Documentation of homesteading patterns in eastern Quay County has been provided along with a detailed look at the frontier life and holdings of one man--August W. Wilson. Structural remains on the site were recorded and tested for subsurface additions. The data were correlated with statements provided on several homestead patents to define function and contemporaneity. Artifact frequencies based on functional categories were also used to implement previous work done on developing a New Mexico frontier pattern of artifact use. The Wilson homestead data have generally tightened the expected range for artifact distributions and greatly decreased the variability present in the data base.

The development of specific and quantifiable patterns for New Mexico frontier sites helps to gain an understanding of the processes that have produced these sites. As Lewis (1977:156) notes, human behavior is not random, and therefore it is possible to observe patterns in human activities. Similarities between sites can therefore be identified as well as isolating variabilities.

## Results of the Testing Program

The field testing program and background archival research conducted for the Wilson homestead, LA 5228, yielded information described in this report. However, we do not believe that the site has the potential to yield important additional information on local or regional history.

Recent listings of the *National Register of Historic Places* and the *New Mexico State Register of Cultural Properties* have been consulted, and no sites listed on, nominated to, or approved for submission to either inventory are located within the proposed project limits. This report complies with the Secretary of the Interior's "Standards and Guidelines for Archaeology and Historic Preservation."

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# APPENDIX 1 ARTIFACT INVENTORY

	FOODSTUFFS	Number	Percent	% of Total
1.010	Hole-in-top can	1	.7	.03
1.020	Crimped can	7	5.2	.3
1.040	Sanitary can	70	52.2	2.7
1.050	Lard bucket	12	8.9	.5
1.060	Evaporated milk can	3	2.2	.1
1.105	Indeterminate food can	2	1.5	.07
1.111	Coffee can	1	.7	.03
1.130	Zinc screw-on lid	1	.7	.03
1.140	Fruit jar lid	2	1.5	.07
1.150	Key strip opener	1	.7	.03
1.160	Boyd's caps	4	2.9	.2
1.170	Mason jar ring	1	.7	.03
1.180	Mason jar	28	20.8	1.03
1.261	Vinegar bottle	1	.7	.03
	Total	134	99.4	5.15
	INDULGENCES			
2.010	Beer bottle	4	11.4	2.9
2.030	Whiskey bottle	1	2.9	.03
2.071	Foil seal	1	2.9	.03
2.090	Crown top can	2	5.7	.07
2.110	Beverage cap	3	8.6	.1
2.120	Beverage bottle	2	5.7	.07
2.130	Soda bottle	2	5.7	.07
2.220	Tobacco can	17	48.6	.7
2.221	Tobacco lid	1	2.9	.03
2.224	Snuff can	2	5.7	.07
	Total	35	100.0	4.07

	DOMESTIC ROUTINE	Number	Percent	% of Total
3.013	Indeter. earthenware	25	9.2	1.0
3.014	Earthenware crock	2	.7	.07
3.020	Ironstone plate	1	.4	.03
3.023	Ironstone cup	3	1.1	.1
3.026	Indeter. ironstone	163	60.3	6.3
3.035	Tea kettle part	1	.4	.03
3.037	Indeter. porcelain	22	8.1	.8_
3.050	Condiment dish	3	1.1	.1
3.070	Tumbler	6	2.2	.2
3.081	Enamel plate	2	.7	.07
3.085	Enamel dipper	1	.4	.03
3.114	Teaspoon	1	.4	.03
3.117	Indeter. utensil handle	1	.4	.03
3.131	Indeter. pressed glass	22	8.1	.8
3.132	Cut glass	1	.4	.03
3.245	Clothes hook	1	.4	.03
3.300	Bed frame	2	.7	.07
3.412	Cast iron stove part	4	1.5	.2
3.413	Fireplace shovel	1	.4	.03
3.421	Kerosene lamp chimney	1	.4	.03
3.423	Wicks	1	.4	.03
3.430	Scissors	1	.4	.03
4.435	Safety pin	2	.7	.07
4.470	Flat key	1	.4	.03
4.491	Tin match box	1	.4	.03
4.600	Baby carriage part	1	.7	.03
	Total	270	100.0	10.2

	CONSTRUCTION/ MAINTENANCE	Number	Percent	% of Total
4.010	Cut box nail	1	.1	.03
4.020	Wire box nail	43	4.5	1.7
4.021	Wire frame nail	68	7.1	2.6
4.022	Wire finish nail	44	4.6	1.7
4.024	Indeter. wire nail	6	.6	.2
4.025	Indeter. nail	30	3.1	1.1
4.030	Roofing nail	6	.6	.2
4.031	Barbed roofing nail	1	.1	.03
4.032	Fence staple	4	.4	.2
4.042	Galvanized fence staple	2	.2	.07
4.060	Tack	1	.1	.03
4.063	Double-pointed tack	1	.1	.03
4.070	Barbed wire	40	4.2	1.5
4.080	Bailing wire	37	3.9	1.4
4.081	Bundle wire	2	.2	.07
4.082	Smooth wire	19	2.0	.7
4.092	Insulator	1	.1	.03
4.100	Indeter. bolt	7	.7	.3
4.111	Carriage bolt	4	.4	.2
4.120	Wood screw	2	.2	.07
4.121	Set screw	1	.1	.03
4.130	Washer	3	.3	.1
4.140	Winged thumb nut	1	.1	.03
4.152	Metal hook	1	.1	.03
4.161	Hinge spring	1	.1	.03
4.163	Hinge	2	.2	.07
4.165	Door spring	2	.2	.07

	CONSTRUCTION/ MAINTENANCE (cont.)	Number	Percent	% of Total
4.181	Fencing	6	.6	.2
4.190	Poultry netting	1	.1	.03
4.209	Roofing tin	15	1.6	.6
4.220	Sheet glass	568	66.0	2.3
4.240	Wood fragment	15	1.6	.6
4.241	Wood beam	2	.2	.07
4.261	Rivet	1	.1	.03
4.290	Heavy duty grommet	1	.1	.03
4.315	Indeter. cut nail	1	.1	.03
4.331	Cotter pin	1	.1	.03
4.350	Clamp	1	.1	.03
4.400	Spike	1	.1	.03
4.433	Door fragment	2	.2	.07
4.443	Monkey wrench	1	.1	.03
4.446	Chisel part	1	.1	.03
4.454	Saw blade	1	.1	.03
4.461	Shovel	1	.1	.03
4.462	Adze	1	.1	.03
4.463	Indeter. tool part	2	.2	.07
	Total	952	100.0	36.42
	PERSONAL EFFECTS			
5.011	Shoe part	2	5.3	.07
5.020	Clothing rivet	1	2.6	.03
5.033	Penny	2	5.3	.07
5.050	Button	6	15.8	.2
5.052	Overall button	2	5.3	.07
5.080	Overall strap holder	1	2.6	.03

	PERSONAL EFFECTS (cont.)	Number	Percent	% of Total
5.090	Clothing strap	1	2.6	.03
5.170	Clothing grommet	1	2.6	.03
5.200	Leather glove	3	7.9	.1
5.220	Comb (plastic)	1	2.6	.03
5.350	Perfume stopper	1	2.6	.03
5.471	Clock part	2	5.3	.07
5.480	Purse	1	2.6	.03
5.500	Suitcase part	1	2.6	.03
5.510	Umbrella part	10	26.3	.4
5.570	Overall button-brad	3	7.9	.1
	Total	38	99.9	1.29
	ARMS			
7.010	.22 long case	6	23.0	.2
7.011	.22 short case	6	23.0	.2
7.023	.38 case	1	3.8	.03
7.051	.32 centerfire	1	3.8	.03
7.061	.3030 case	1	3.8	.03
7.081	.410 shotgun shell	1	3.8	.03
7.082	12 ga. shotgun shell	5	19.2	.2
7.085	16 ga. shotgun shell	1	3.8	.03
7.088	Indeter. shotgun shell	1	3.8	.03
7.121	Indeter. cartridge	3	11.5	.1
	Total	26	99.5	.88
	STABLE/BARN			
8.010	Horse shoe	1	14.0	.03
8.081	Hamess part	1	14.0	.03
8.100	Strap buckle	2	29.0	.07

	STABLE/BARN (cont.)	Number	Percent	% of Total			
8.160	Snaffle bit	1	14.0	.03			
8.300	Leather acoutrement	2	29.0	.07			
	Total	7	100.0	.23			
	INDETERMINATE FUNCTION						
9.030	Indeter. glass container	709	62.8	27.3			
9.031	Indeter. glass bottle	211	18.7	8.1			
9.034	Ind. milk glass container	9	.8	.3			
9.040	Stirring rod	1	.08	.03			
9.050	Metal container	1	.08	.03			
9.053	Indeter. can fragments	4	.3	.2			
9.058	Can spout	1	.08	.03			
9.059	Metal cap	2	.2	.07			
9.060	Twist-off cap	1	.08	.03			
9.063	Indeter. can lid	5	.4	.2			
9.070	Indeter. metal	65	5.7	2.5			
9.090	Sheet metal	1	.08	.03			
9.091	Galvanized sheet metal	1	.08	.03			
9.120	Metal band	18	1.6	.7			
9.170	Metal soldered ring	1	.08	.03			
9.220	Leather strap	4	.3	.2			
9.230	Cast iron fragment	4	.3	.2			
9.290	Bar with holes	3	.2	.1			
9.480	Wrought iron hook	1	.08	.03			
9.525	Indeter. wood	1	.08	.03			
9.550	Wire handle	2	.2	.07			
9.740	Machinery part	1	.08	.03			
9.800	Car spring	3	.2	.1			
9.840	Motor oil can	10	.9	.4			

	INDETERMINATE FUNCTION (cont.)	Number	Percent	% of Total
9.855	Brake shoe	1	.08	.03
9.860	License plate	1	.08	.03
9.875	Indeter. car part	46	4.0	1.8
9.880	Indeter. object	22	2.0	1.0
	Total	1129	99.0	43.67
	GRAND TOTAL	2591		96.76