

08-10 yr. 1

## **Archaeological Investigation of Pigeon's Ranch, Year 1**

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### **Introduction**

The first stage of archaeological research at Pigeon's Ranch in the Glorieta Unit of Pecos National Historical Park funded by a grant from WNPA is complete. The work accomplished this year consists of a surface survey and documentation of the artifacts and features above ground, excavation of a large pile of dirt at the east end of the Pigeon's Ranch building, and excavation of seven 1 x 1-meter units on the north side of the same building to help ascertain whether a hump of dirt there could be regraded to facilitate drainage away from the back wall of the building. While the original research proposal called for a separate metal detection survey instead of the excavation, it was discovered after the submission of the grant application that one had recently been conducted. As reported in the April project update to WNPA, we consulted with park staff and implemented the limited excavation as a way of beginning work on the goals for the proposed second year of funding and assisting the park with some much needed compliance.

### **Research Questions**

This project was somewhat compliance driven in that park staff are working to open this unit of the park for greater public access and to do much more interpretation of the Civil War, Old Spanish Trail, and other subjects at this location. To some extent, then, this project was geared towards gathering additional baseline information about the site and the structures and features present and assessing the extent and integrity of subsurface archaeological deposits. In addition, with ongoing preservation work on the remaining building taking place, some specific questions related to architectural details and building function were raised (Spude 2007, 2008) that we attempted to address. Specifically, we examined the following:

- Can we show that the Valle era 1850s-60s house had glass windows or not (handmade glass vs. post-railroad manufactured glass) or were the window openings just shuttered?
- Is the back wall of the standing structure in the right place? Was the building wider during the 19th century?
- The historic roofing material appears to be wooden shingles; can this be proven?
- Square nails should appear on site; if not, were the craftsmen using other techniques to hold wooden components?
- Will archeological evidence show if the standing Greer residence/curio shop also was the rooms used as residence by Taber (1880s-1910s), Hebert (1865-1886), and Valle (1850s-1860s)?
- Can evidence be found to locate the inn or tavern in the form of liquor bottles, tableware, chamber pots, etc.?
- Did the yard area contain a blacksmith shop?
- Is there evidence of the granaries (hay, corn, other silage)?
- Occupation during the Civil War was brief, but is there any evidence of use as field hospital (March-May, 1862)?
- Archival research indicates the peak use of the site was in the 1870s; can this be verified archaeologically?

## **Methods**

The survey was conducted by Dr. Emily Brown, Heather Atherton, and Ron Winters. Excavation was conducted by Dr. Brown with assistance from volunteers Rich and Jean Higgins. An interview with Don Alberts about his memories of the reconstruction of the back wall of the building in the 1980s was conducted by Rich Higgins and Dr. Brown.

The first task was to do an in-depth survey of the surface of the project area. Three crew members walked transects 10 meters apart, flagging artifacts and features. Single artifacts and features were then plotted with a GPS unit and described. Individual artifacts in particularly dense concentrations were described individually but the GPS unit was used to record a perimeter rather than each object. The GIS files of objects on the surface were combined with data from the metal detection survey performed by the Midwest Archeological Center (Scott 2005). Clusters of artifacts are broadly evident, and tend to be indicative of disposal areas rather than the locations of previously existing buildings.

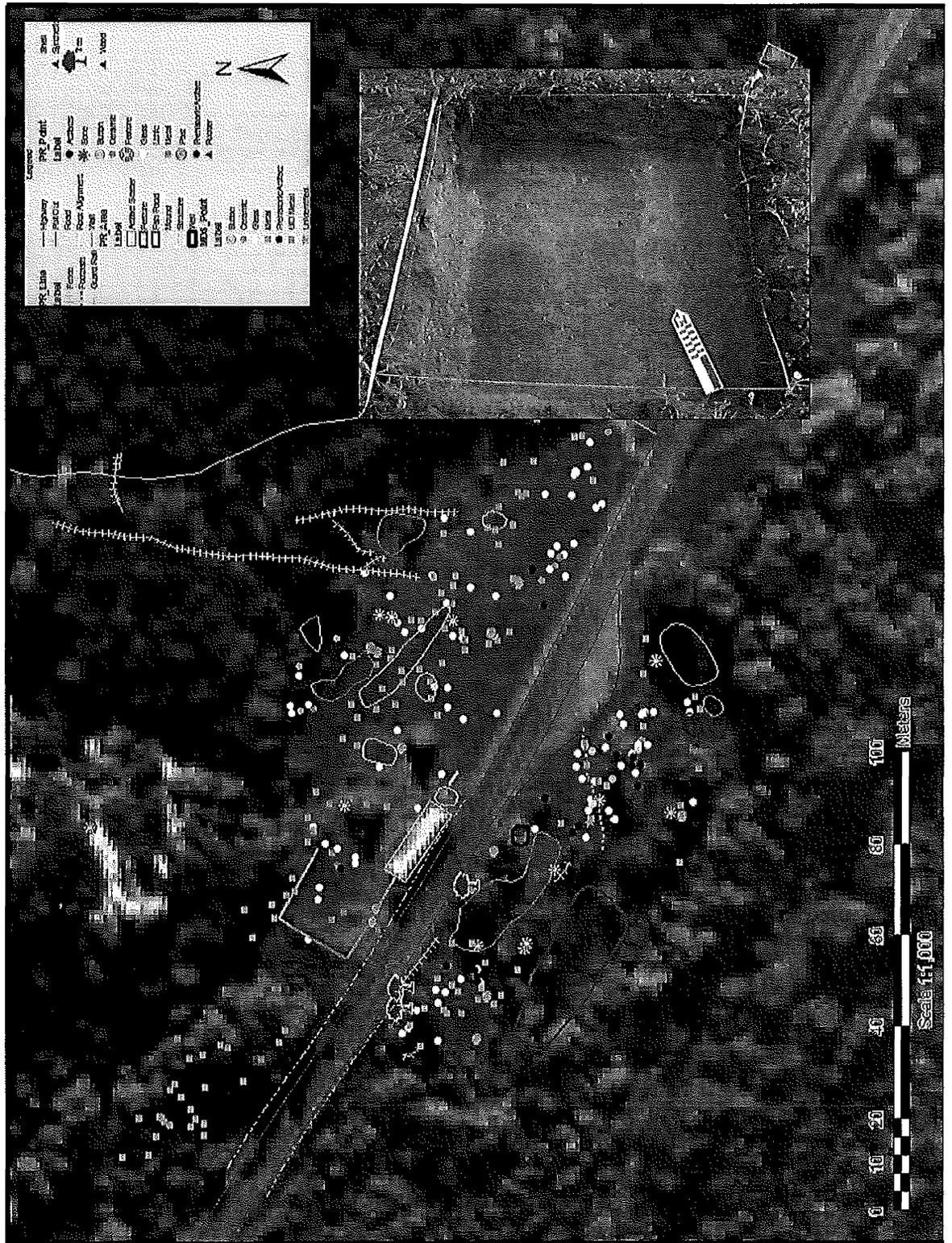
The second task was to test a mound of earth near the back of the structure that was causing water to puddle against it and an intrusive pile of dirt on the east side of the building. The mound needs to be leveled so that water drains away from the structure, but the probing conducted by Wilson (1984) and historic photos indicate that the area behind the structure was once a set of rooms extending to the northeast and the inside of an interior compound. A series of 1x1-meter test units was laid out along the back wall. Eight of them were laid out parallel to the back wall two meters from it. Two others were placed at a distance of 3 meters from the back wall and in such a way as to avoid the stump of a ponderosa tree visible in historic photographs. One was placed so as to see whether a stone wall foundation visible at the structure wall extended into the mound.

Excavation began with Units 1 and 2. When Unit 2 was dug to a depth of 60 cm before encountering cultural deposits or much in the way of strata and because the ground disturbance was not going to go as deep as this, the decision was made to excavate only every other unit unless future findings warranted more thorough testing of the area. Consequently, only Units, 1, 2, 4, 6, 8, 9, and 10 were excavated. Each was dug in 10-cm levels and screened through a quarter-inch screen.

## **Project Findings**

The surface survey resulted in the documentation of more than 775 artifacts, most of which were fragments of bottle glass, but some pieces of historic Anglo and Native American ceramics were present, as were various metal objects associated with the ranching and automotive history of the site. We had initially hoped that the metal detection, coupled with our surface survey data, would help pinpoint the locations of structures visible in historic photographs but no longer standing. However, the metal detection data proved somewhat problematic in that there were so many hits, the crew had turned down the sensitivity of the detectors in order to filter out the smaller fragments of metal. So while there are definite clusters of objects visible on the map below (including a very strong cluster is where previous archaeological research determined a saloon might once have stood [Oakes 1995]), this approach proved no more useful for identifying the locations of past structures for future excavation than looking at the mounds of melted adobe visible on the surface was.

However, we are optimistic that if the project is funded for a second year, a meaningful excavation strategy can be developed and implemented. In the course of excavating at the back of the structure, we had the opportunity to ground truth Wilson's work (1984). Wilson used pin flags to probe the area to locate subsurface stone foundations in the 1980s. Foundations and walls found in two excavation units as predicted by the map he developed confirm that the adobe buildings dating to the



GIS map showing results of the surface survey

1800s had stone foundations and can be relocated using this technique. A second year of research would involve coordinating the interpretive plans for the site with a research strategy

that would add to the information used in interpreting the site and assess the integrity of the deposits in different areas in advance of trails, interpretive signs, and a possible parking area.

In addition to the more practical results described above, we were able to draw some initial conclusions from a research perspective based on the research questions posed above.

*Can we show that the Valle era 1850s-60s house had glass windows or not (handmade glass vs. post-railroad manufactured glass) or were the window openings just shuttered?* We found an abundance of pane glass in the dirt pile on the east of the structure and scattered fragments in the excavation units. None of it appeared to be handmade. Given the lack of provenience for the eastern dirt pile, it is impossible to say whether the glass from it represents the Valle era, the Greer era, or something in between (not to mention the slight possibility that the pile came from somewhere else entirely). In sum, if the house had glass, it was likely manufactured rather than handmade glass.

#### **Adobe bricks visible in Unit 6.**

*Is the back wall of the standing structure in the right place? Was the building wider during the 19th century?* The foundation of the back wall was covered by a concrete bond beam during reconstruction in the 1980s, and excavation directly against (and potentially under) this concrete would be needed to answer the question with certainty. However, the perpendicular stone foundations against this wall continue all the way to the concrete, and thus while the wall may have been moved out, it is highly unlikely that it was moved in. There are stone foundations extending out from the east wall that once supported the breezeway and second half of the structure, but it appears unlikely that the configuration of the walls of the standing building have changed since it was originally constructed.

*The historic roofing material appears to be wooden shingles; can this be proven?* We found many, many nails in the excavation units as well as in the pile of dirt on the eastern end of the building. They came in all sizes, and it stretches credibility to suggest they are all the results of drops from the reroofing that was done. That said, it is impossible to know exactly whether they were used for shingles and whether they came from the roof of the existing building or the one that once extended out to the north in the late 1800s. The few pieces of wood that appeared in the excavation units were far too fragmentary for conclusions to be drawn about their original function. Additional research into the type of nails most commonly used for shingles and additional excavation might result in a more concrete answer to this question.

*Square nails should appear on site; if not, were the craftsmen using other techniques to hold wooden components?* Square nails were definitely present in relative abundance. Virtually all were machine-made rather than wrought, meaning that they date to post 1810, when the L-headed square nails that are most common at the site first started to be manufactured. The other common type of square nail found at the site with a more uniform, square head was made from 1830 to 1890. The relative abundance of square nails at the site given the length of time the site was occupied after wire nails were common speaks both to the amount of construction that took place in the 1800s as well as the frontier status of the property.

*Will archeological evidence show if the standing Greer residence/curio shop also was the rooms used as residence by Taber (1880s-1910s), Hebert (1865-1886), and Valle (1850s-1860s)?*

The excavation units were not well-placed to answer this question—it would be more useful to excavate the interior of the structure, the area under where the front porch was, and the area to the east where the rest of the structure once stood. There were fragments of domestic artifacts in the subsurface archaeological deposits that are consistent with use of the area as a residence. None of them can be dated to the narrow timeframes specified above, however, and the dates they were manufactured and deposited remains relatively unknown.

*Can evidence be found to locate the inn or tavern in the form of liquor bottles, table ware, chamber pots, etc.?* There are many fragments of liquor bottles on the site, both on the surface and in the subsurface deposits. The greatest number is found on the south side of Highway 50 where Oakes postulates the saloon was. The fragments of historic ceramics are not complete enough to postulate a function other than that related to the vessel form, and it is unknown whether they were made by manufacturers who specialized in large sets for hotels and institutions. No other hospitality-related artifacts have been found to date.

*Did the yard area contain a blacksmith shop?* We found nothing in our surface survey to indicate that one was present, and the metal detection conducted by Scott is also inconclusive with regards to this question. Survey with a magnetometer would identify areas where burned material is that could be investigated by excavation; it is possible that a forge could be found this way.

*Is there evidence of the granaries (hay, corn, other silage)?* There is nothing on the surface that indicates whether and where granaries were present. There is a light colored layer in the profiles of Units 1 and 2 that resembles a layer of animal dung, but a laboratory analysis would be needed to confirm this and given its location, it would post-date the 1800s.

*Occupation during the Civil War was brief, but is there any evidence of use as field hospital (March-May, 1862)?* With the exception of the unidentified metal object found in deep in Unit 2, there is nothing we found that might date to the Civil War era that wasn't architectural in nature. As with other questions about the use of the existing building, this question would best be answered by excavation of the fill under the floors and the area that was under the front porch.

*Archival research indicates the peak use of the site was in the 1870s; can this be verified archaeologically?* It would require a comprehensive archaeological excavation program to answer this question thoroughly, as it requires that 1800s-era foundations be located and subsurface deposits assessed for the proportion of artifacts from the period in question. Speaking generally based on the survey and excavation conducted during this project, it appears that while the occupations of the 1900s were less intensive than those of the 1800s, they had a much greater impact on the current state of the site because of the goals of the inhabitants and the type of machinery available.

The last question addresses to some degree the question of the integrity of the deposits of the site. More excavation would be needed to confirm this, but my sense is that Pigeon's Ranch is a site with a long occupation and a history of owners who very deliberately changed the configuration of the buildings and landscape to suit their own goals. Further, the periods of occupation that are of the greatest historical significance are the earliest ones, and the possibility that the archaeological remains of these early deposits were disturbed by later activities is

relatively high. However, the sheer number of artifacts still present, albeit very fragmentary ones, suggests the site still holds tremendous information potential.

The products of this project are a written report (Brown, Emily J., 2008, Archaeological Investigation at Pigeon's Ranch, Pecos National Historical Park, Year 1, MS on file at Pecos National Historical Park), and a GIS database combining the results of our surface survey with the previous metal detection. The park's collection now includes an assemblage of excavated artifacts, a series of archival prints of select artifacts, and the original field notes, maps, and other documents from the project. There were no particularly earth shattering discoveries from a historical perspective, but the results of the project have been shared with park interpretive staff. The results of our testing allowed the recontouring of the drainage behind the Pigeon's Ranch building, the structure is now better protected, and a foundation has been laid for future research.

### References Cited

Oakes, Yvonne R.

1995 *Pigeon's Ranch and the Glorieta Battlefield: An Archaeological Assessment*. Museum of New Mexico, Office of Archaeological Studies, Archaeology Notes 123, Santa Fe.

Scott, Douglas D.

2005 *Detecting Glorieta: A Metal Detecting Archeological Reconnaissance of the Glorieta Battlefield, Pigeon's Ranch Sub-Unit, Pecos National Historical Park, New Mexico*. On file at the Midwest Archeological Center and Pecos National Historical Park.

Spude, Robert L.

2007 Personal communication to Jeff Brown, September 6, 2007.

2008 *Pigeon's Ranch Historical Structure Report*. National Park Service, Intermountain Support Office, Santa Fe.

Wilson, John P.

1984 *Archeological Investigations at Pigeon's Ranch, New Mexico*. MS on file at Santa Fe Planning Associates and Pecos National Historical Park.