

GEOPHYSICAL SURVEY OF LA 1674 AZTEC RUINS NATIONAL MONUMENT, NEW MEXICO

Client: National Park Service
Aztec Ruins National Monument

This project was undertaken as one part of a series of activities related to the realignment of Ruins Road along the eastern and southern boundaries of the National Monument. The realignment is necessary because vibration from vehicular traffic is endangering the structures at Aztec Ruins. The proposed alignment of the road will traverse LA 1674.

Two geophysical techniques were applied. The first was the measurement of magnetic intensity and gradient with a Geometrics Model G858G magnetometer with gradiometer option. The second was the measurement of ground resistance with the Geoscan

resistance with the Geoscan RM15 twin probe resistance system. Three areas were selected for testing based on the geophysical data.

The magnetometer survey provided more definitive results than the resistance survey. The magnetometer survey identified several previously unknown structures at the site. Two of these structures were tested by excavations.

The structures that were best defined by the geophysical surveys are shown here. The data indicate two adjacent



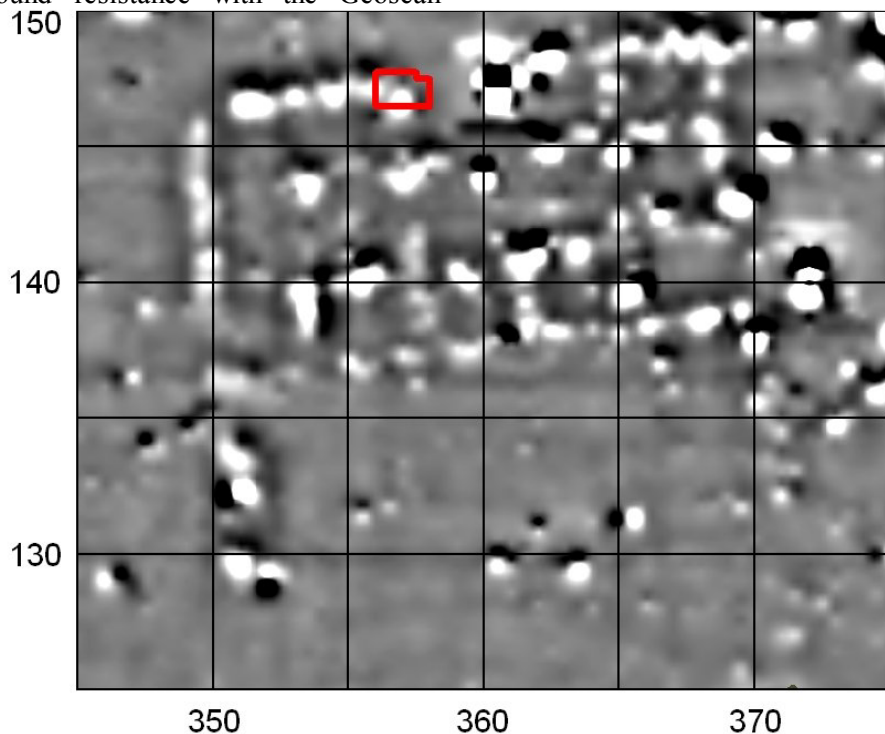
Excavation Block 1

six-room structures.

The corner of one of the structures was tested by Excavation Block 1 to determine whether there were two separate structures or one large one. The excavations showed that they were not connected. A plaza may be present along the south side of the structures.

The use of the geophysical survey not only mapped several structures, but made it possible to use a very limited excavation program to answer specific questions regarding the nature of the structures.

The survey was conducted in December, 2002 by Don Johnson and Dr. Ron Schirmer through a contract with D'Appolonia.



The location of Block 1 is shown in red superimposed over the vertical gradient image.

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