rather limited standards imposed on CRM contractors and cannot be considered a contribution to archeological science. My comparison of this report to the archeology of the 1950s may have been unjust. Archeologists in the 1950s were asking a much more limited array of questions than most archeologist are today, and work conducted 30 years ago cannot be faulted because it does not measure up to the standards of today. My apologies. Work conducted in 1979 and 1980 and published in 1986 should, however, be subject to scrutiny by the standards of today, and in this respect, the Nahas Cave report fails miserably.


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The Maxon Ranch Site and the Sweetwater Creek Site are located in southwest Wyoming. These sites are important to archeology in western North America because they are representative of other sites in southwest Wyoming where Archaic pit-house structures have recently been located. Since 1981, when a structure dating 5,200 B.P. was excavated at the Medicine House Site in the Hanna Basin in southcentral Wyoming (McGuire et al. 1984), archeologists in Wyoming have located many Early and Middle Plains Archaic residential structures. Both the Maxon and the Sweetwater Creek sites were extensively excavated by Archaeological Services, Western Wyoming College, in 1985 in conjunction with a large phosphate project built by Chevron, U.S.A. Woodward-Clyde Consultants was the primary contractor for the Maxon Ranch excavations.

The Sweetwater Creek Site (48 SW 5175) is located just south of Rock Springs in the Rock Springs Uplift at an elevation of 6,600 feet a.s.l. The site is located near Sweetwater Creek, a tributary of Bitter Creek which runs west into the Green River. The Maxon Ranch Site (48 SW 2590) is about fifty miles south of Rock Springs near the Utah and Wyoming border. It is located in the foothills on the southwest flank of Miller Mountain at an elevation of 7,300-7,500 feet. The site is in the Green River Basin and is located just east of the Flaming Gorge Reservoir.

The Maxon Ranch Site contains four components dating between 5,400 and 1,200 years B.P. These components represent Early, Middle, and Late Plains Archaic periods and the Late Prehistoric Period. All components are interpreted as the result of late winter or spring residential camps. The two earliest components have structural remains in the form of small pithouses. All components have various pit features which served as hearths or roasting pits, or in some cases storage pits. Associated with the features are activity areas that are interpreted primarily as food processing areas. In all components deer, pronghorn, and rabbit were the most common identified game animals. The majority of the bone from the site was smashed beyond possible identification sug-
gesting extreme processing to obtain marrow and fat. The plant remains that were recovered were predominantly chokecherry and juniper. Pollen analysis identified Chenopodium, amaranths, juniper, knotweed, mustard, sage, and various grasses. In the report the description of each component includes an analysis of the features and activity areas, a description of the flaked stone artifacts and ground stone artifacts (which were not common), and a discussion of the faunal and floral remains.

The stated goals of the excavation at the Maxon Site were both site specific and regional (pages 1.4-1.6). The specific goals were to define the nature of the components and to identify the types of activity areas present. The regional goals were to assess the usability of a recently proposed cultural sequence for southwest Wyoming (Zier et al. 1983) and the validity of a model of prehistoric seasonal exploitation in southwest Wyoming (Sanders et al. 1982). A third goal dealing with paleoenvironmental reconstruction was abandoned due to the lack of information.

To answer these questions a 100 square meter block excavation was chosen in which each component was exposed over the entire unit before proceeding to the next deeper component. Standard excavation techniques were used. In addition to the 100 square meter unit, the pipeline construction was monitored. This monitoring resulted in additional excavations of the two pithouses and their associated features. The eolian soils allowed precise identification of features both spatially and vertically. Flotation and pollen samples were taken throughout the site from both features and stratigraphic levels.

Activity areas were defined by analyzing features and the associated artifacts and faunal and floral materials. Trend surface analysis was utilized to better describe the distribution of lithic debitage and bone. The reconstruction of the activities and activity areas occurring at the site was done convincingly using all available information from each component. This information was then compared to a list of attributes generated by Creasman et al. (1985) which are indicative of three "hypothetical activity area types." These attributes include the presence of hearths and ground stone, various descriptions of plant and animal remains, and indices of stone tool use and manufacture. The three ideal activity area types are florai processing, faunal processing, and residential. As the testing of this model was one of the stated research objectives of the project, the information from the site concerning activity areas was compared with the attributes associated with each ideal activity type. The authors conclude that the Maxon Ranch data does not adequately test the model. Actually, the reviewer believes the model was tested adequately and that the model should be rejected as a tool to identify these three activities. Basically, the model is a cumbersome way to state that if ground stone and plant remains are found in a specified locality in a site, then this area was used to process plants. Or alternatively, if lots of large butchered mammal bone and a number of stone tools are found, the area could have been used to process animals.

Another primary regional research goal was to evaluate Zier et al.'s (1983) identification of cultural phases and their chronology for southwest Wyoming. According to the authors considerable more work will be needed to fully identify the cultural content and chronology of the various phases that have been identified. As far as testing the Sanders et al. (1982) model of seasonal subsistence and settlement for the Rocky Mountains, the spring occupation of the Maxon Site and its location in the foothills supports the expectations of the model. The
model states that spring occupations should be in the foothills—that is, outside of the river basins and the high country. It also states that spring is a time of scarcity where one would expect “heavy reliance on small mammals, complete utilization of procured animals, and procurement of any edible plants as they become available” (Sanders et al. [1982:232], as quoted by Harrel and McKern [1986:5.9]). This does not seem to be a particularly profound statement that would lead to new insights into the nature of settlement in the Rocky Mountains.

It is difficult for the reviewer to assess the proposed models and to evaluate how well the research questions were addressed because the models being tested with the Maxon Ranch information are not published. They exist only in manuscript form and were written for and submitted to federal agencies or coal companies. Only summary statements and descriptions of the models were presented in the Maxon Ranch report. Overall the Maxon Ranch report provided an excellent component by component description of the excavations and the author’s well reasoned interpretations.

The Sweetwater Site dates from about 3,650 to 5,220 B.P. Three components were identified as Early, Middle and Late Plains Archaic. All components were identified as late winter-early spring residential base camps. The two early occupations contain pithouse structures. All three components contained features interpreted as hearths and roasting pits with associated activity areas. Faunal and floral remains were limited at the site and consisted of a few identified cottontail and rabbit bones and a few unidentified medium sized mammal bones. Floral remains were also uncommon at the site but chenopodium, amaranth, beeweed, and prickly-pear cactus were identified by pollen analysis. The report includes chapters describing the features, the faunal and floral analyses, the artifacts, and a component by component activity area analysis. The appendices report on the pollen analysis and on the geomorphology, sedimentology, and climatic interpretations.

The goals of the project were to identify the “. . . cultural-historical framework, the subsistence and settlement system, and the paleoenvironmental conditions of southwest Wyoming in prehistory.” In addition, a project goal was to identify activities and their location at the site. The excavation strategy was to excavate one large 96 square meter block. This was supplemented with two 1x1-m. stratigraphic pits and two backhoe trenches to provide stratigraphic control. Flotation and pollen samples were collected from all features and units.

The identification of activity areas combined the known locations of features and specific artifacts (those found in situ) and the trend surface analysis of debitage and all tools from each component. The activities identified included food preparation and stone tool manufacture. In the two earliest components residential structures were located, but only the earliest house was excavated. A cooking area, a storage area, and a sleeping area were identified in the structure. Also associated with the house are outside fire and roasting pits. The goals of the Sweetwater excavations were fulfilled in that the three separate components were identified and the activities occurring were identified. The paleoenvironmental reconstruction was based on an analysis of the geomorphology and sediments by J. C. Miller. This information is combined with other research in the area to produce a sequence of six climatic periods ranging from the Late Glacial to the Recent. The paleoclimatic sequence was an appendix and was not integrated into the interpretation of the cultural events identified at the site. However, it is a good site report containing a clear state-
Pithouses are a common feature of Early Plains Archaic components in southcentral and southwestern Wyoming (see also McGuire et al. 1984; Eakin 1987). The distribution of these features is from the Green River on the west to the North Platte River on the east and from the Sweetwater River on the north to the southern Wyoming border. These structures are solidly dated between 4,500 and 6,000 B.P. The pithouses are typically between 3 and 4 meters in diameter and approximately 0.5 meters deep, although larger ones are known. The structures from the Maxon Ranch Site and the Sweetwater Creek Site appear to be quite typical in age and in size and configuration.

Pithouses are common on the Western Snake River Plain in Idaho and, of course, in the Columbia Plateau. They have also been found in Surprise Valley, California. The Wyoming pithouses are typically older than the Northwest counterparts. Pithouses of comparable age are found in the Northwest, but they are rare, and it is not until after 4,500 B.P. that they become common. The Wyoming pithouses tend to be smaller than the Northwest varieties, which are generally 6 to 10 meters. However, small ones are found in the northwest and one larger one (6 meters) has been found in Wyoming (McGuire et al. 1984). The Wyoming pithouses have more internal features in the form of storage and roasting pits than the Northwest varieties. Undoubtedly a detailed comparison of pithouses in the two regions would provide interesting information concerning their use.

REFERENCES


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As archaeology in California and the Great Basin has been carried out increasingly