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United States Department of the Interior National Park Service

National Register of Historic Places Multiple Property Documentation Form

This form is for use in documenting multiple property groups relating to one or several historic contexts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. For additional space use continuation sheets (Form 10-900-a). Type all entries.

A. Name of Multiple Property Listing

Hohokam Platform Mound Communities of the Lower Santa Cruz River Basin,

ca. A.D. 1050 - 1450.

B. Associated Historic Contexts

The Foundation, Occupation, and Abandonment of Hohokam Platform Mound Communities of the Lower Santa Cruz River Basin, ca. A.D. 1050 - 1450.

C. Geographical Data

The Multiple Property area defined in this nomination is centered on the Lower Santa Cruz River Basin, encompassing the river and its major tributaries from near the northern end of the Tucson Mountains to the mouth of the river at the Santa Cruz Flats (Figure 1). The southern boundary of this area is located in northern Pima County, Arizona, and extends from the southern end of the Silver Bell Mountains to the northern end of the Tucson Mountains near Rattlesnake Pass. Eastern limits reach from Rattlesnake Pass northeast to the eastern slopes of the Tortolita Mountains, then north-northwest into Pinal County near the headwaters of Tom Mix Wash. The northern boundary of the Multiple Property area is formed by a line stretching west from the headwaters of Tom Mix Wash west to a point just east of Casa Grande, Arizona. From here, the western boundary extends south-southwest to the southern end of the Sawtooth Mountains, then southeast to join the southern boundary of the Multiple Property area just south of the Silver Bell Mountains.

See continuation sheet

D. Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR Part 60 and the Secretary of the Interior's Standards for Planning and Evaluation.

3-20-89 ner Date Signatur cer reservation Dric State or Federal agency and bureau

I, hereby, certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

5/11/89 Date

no Signature of the Keeper 💋 The National Register

E. Statement of Historic Contexts

Discuss each historic context listed in Section B.

Name of Context. The Foundation, Occupation, and Abandonment of Hohokam Platform Mound Communities of the Lower Santa Cruz River Basin, ca. A.D. 1050 - 1450.

Introduction.

This context is based on the local manifestation of widespread and profound changes in the Hohokam culture from about A.D. 1050 to 1450. These changes define a complex cultural pattern known as the Hohokam Classic period, and they mark a radical departure from Preclassic patterns that had endured for hundreds of years (ca. A.D. 300 to A.D. 1050 or 1100). Changes in the early Classic period (ca. A.D. 1050 or 1100 to 1300) were followed in the late Classic (ca. A.D. 1300 to 1450) by what appears to have been a severe demographic collapse, and a complete disappearance of the major patterns of the Hohokam culture (Fish, in press).

One major change during the early Classic period was a widespread shift in settlement patterns, accompanied by the construction of large, earthen mounds --"platform mounds" -- that appear to have served as community centers. Although the occupation of isolated villages, hamlets, and farmsteads continued throughout the Classic period, settlement patterns are clearly dominated by the mounds and their associated villages, agricultural fields, and resource processing camps. Study of platform mound communities, therefore, is a key to answering the many remaining questions regarding the Hohokam Classic period.

However, the fact that platform mound communities were established in a wide variety of environmental settings poses a major explanatory paradox. Any successful explanation of Classic period developments will need to account for the fact that evidently similar cultural processes -- the foundation, growth, and abandonment of platform mound communities -- took place across such diverse environments. Since the platform mound communities of the Lower Santa Cruz River Basin provide an especially sharp environmental contrast with their Phoenix Basin counterparts, and they remain particularly well preserved, they may provide a crucial comparative data set for Classic Period Hohokam studies. In particular, studies of Lower Santa Cruz River Basin sites may lead to a clearer understanding of the relative importance of ecological vs. social, cultural, and historical factors in the development of Classic period platform mound communities. Such research in turn may contribute to the study of larger issues in Southwestern prehistory, such as why most of the larger villages and apparently complex social systems of the late prehistoric period did not persist into historic times. All of these issues relate to questions of general anthropological significance, principally those concerned with the conditions that encourage or inhibit population growth, agricultural intensification, and social complexity.

The present context provides a theme useful for describing, assessing, and protecting the archaeological sites that once formed the Classic period Hohokam platform mound communities of the Lower Santa Cruz River Basin, a geographically and culturally bounded sub-region of the larger Hohokam culture area. The context employs a broad definition of the term community, including sites ranging from the remains of the largest and most complex platform mound villages, to the smallest and least complex resource processing sites. The context is based on the proposition, testable through further research, that Hohokam platform mounds served as religious, political, and economic focal points of much larger prehistoric communities encompassing a wide diversity of activities (Henderson 1987c:1, 4; Rice and Neitzel 1985; Wilcox 1984:197). The concept of the "platform

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mound community" therefore serves as a device for organizing and directing research questions related to the founding, functioning, and abandonment of the villages, agricultural fields, resource processing camps, and other sites that surrounded platform mounds during the Hohokam Classic period. With this concept, research can be designed to simultaneously address issues at several levels, ranging from the specific histories of individual platform mound communities, to region-wide patterns of community growth and decline, to interregional studies encompassing all large, late prehistoric Southwestern communities.

This context has been developed to assist the Arizona State Land Department in the long-term protection of the platform mound communities that exist on state land within the Multiple Property area. Recent archaeological surveys and excavations (e.g., Ciolek-Torrello 1987; Ciolek-Torrello et al. 1988a, 1988b; Czaplicki 1984; Czaplicki and Rankin 1984; Fish, Fish, and Madsen 1985, in press, a, in press, b; Henderson 1987b; Rice 1987b) have provided information on three such communities, centered on the following platform mound sites: 1. The Marana Platform Mound (Arizona State Museum [ASM] Marana Survey Site M-200; AZ AA:12:251 [ASM]); 2. The McClellan Wash Platform Mound (ASM Durham Survey Site D-62; AZ AA:7:4 [ASM]); and 3. The Los Robles Wash Platform Mound (ASM Robles Survey Site R-138; AZ AA:11:25 [ASM]). The context provides a framework for assessing the research significance and management needs of these three Classic period communities, and any others that exist within the Multiple Property area. In this particular submission, the context facilitates the preparation of National Register Archaeological District nominations for two platform mound communities, the Los Robles and McClellan Archaeological Districts. It is anticipated that other platform mound communities, including the Marana community, will subsequently be nominated as archaeological districts under this context. Identification and nomination of these Districts to the National Register should assist the State Land Department in formulating a coherent strategy for protecting the platform mounds and their associated sites from future vandalism, and in assessing the research significance of these properties should applications be made for land exchanges or agricultural, commercial, or residential lease and development. This Multiple Property submission, as well as nominations for the Los Robles and McClellan Archaeological Districts, have been prepared in cooperation with the Arizona State Land Department, and are funded with the assistance of a matching grant in aid from the U.S. Department of the Interior, National Park Service, under provisions of the National Historic Preservation Act of 1966, as amended, and as administered in Arizona by the Arizona State Parks Board through the State Historic Preservation Officer.

Geographical and Cultural Setting.

The Lower Santa Cruz River Basin is part of the Basin and Range physiographic province, characterized by broad, uplifted alluvial basins and short, block-

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faulted mountain ranges (Brakenridge 1984; Ciolek-Torrello and Greenwald 1987; Dart 1984; Field 1985; Katzer and Schuster 1984). The basin is surrounded by several such mountains, including the Tucson Mountains on the south, the Tortolita Mountains on the east, and the Silver Bell Mountains on the west. A small, isolated range, the Picacho Mountains, rises near the center of this area. The major drainage is, of course, the Santa Cruz River, but there are also several large, seasonally-flowing secondary streams. Among these are are Tom Mix and Brady Washes, which drain a large area north of the Picacho Mountains; McClellan Wash, which runs south of the Picachos; and Brawley and Los Robles Washes, both of which parallel the Santa Cruz River in the southern end of the basin.

All of these environmental features provided a number of resources critical to the survival of prehistoric inhabitants. Primary and secondary streambeds and alluvial fan surfaces offered sources of surface drinking water and excellent opportunities for farming; upland zones on the mountain slopes offered an abundance of wild plant and animal foods; clay deposits along the drainages offered abundant materials for ceramic manufacture; and igneous and metamorphic rock outcrops associated with mountain fronts provided the raw materials for a variety of chipped and ground stone tools.

In the late prehistoric period, the Lower Santa Cruz River Basin seems to have occupied a position intermediate between two major and well-defined sub-areas of the Hohokam culture: the core-area Hohokam of the Phoenix Basin, centered on the Gila and Salt Rivers, and the Tucson Basin Hohokam, centered on the area of the Middle Santa Cruz River (Westfall 1979:39-41, 55). Although differences between these two cultures are most pronounced in the Preclassic period, the cultures also remained distinct throughout the Classic. Included in the list of important contrasts are ceramic manufacturing and decoration techniques, burial practices, and settlement patterns (Fish, in press; Haury 1978:126-127; Kelly 1978). Perhaps the most important difference between Tucson Basin and Phoenix Basin Hohokam cultures is in the realm of subsistence practices (Doyel 1977b; Fish, in press; Masse 1979:177-182). The subsistence base of the Phoenix Basin Hohokam appears to have been heavily dependent on crops irrigated by massive canal networks that drew water from the Gila and Salt Rivers (Masse 1981). The Tucson Basin Hohokam seem to have placed much more emphasis on dry and floodwater farming, and although canals are not unknown (Bernard-Shaw 1986; Fish and Fish, in press; Kinkade and Fritz 1975), they seem to have been of much less importance to the overall subsistence base. It has been suggested (Doyel 1977b; Fish, in press; Grebinger 1971; Masse 1979:177) that different subsistence practices in the Phoenix and Tucson Basins significantly affected both the form and trajectory of cultural development in the two areas. The validity of this particular proposition, and its implications for settlements along the Lower Santa Cruz, remain unclear, although significant progress has recently been made in this area (e.g., Callahan 1988; Ciolek-Torrello et al. 1988a, 1988b; Czaplicki 1984; Czaplicki and Rankin 1984; Henderson 1987b; Rice 1987b).

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Growth, Function, and Decline of Platform Mound Communities.

From around A.D. 1050 to 1100, a series of widespread changes began to take place throughout the Hohokam culture area (Doyel 1974, 1980; Gregory 1982; Haury 1945:204, 1976:354-355; Wilcox and Sternberg 1983:242-243). One of the most important of these changes was a shift in settlement patterns. During the Preclassic period, regional settlement was generally dominated by large villages with ballcourts, clusters of pithouses, trash mounds, and loosely demarcated open spaces that may have been used as communal work or ceremonial areas (P. Fish, in press; Wilcox et al. 1981:133-223). Many Preclassic Hohokam villages show an impressive continuity of occupation, and some appear to have been occupied continuously for several centuries (Haury 1976; Kelley 1978). However, at the beginning of the Classic period, ca. A.D. 1100, some of these villages were abandoned, and the construction of new ballcourts, as well as the use of most existing ones, appears to have ceased (Fish, in press; Wallace and Holmlund 1984:185; Wilcox and Sternberg 1983:242-243). Moreover, at about this time, many large villages were founded, some near the old ballcourt settlements, but some in entirely new locations. The largest and presumably most important of these villages were centered on platform mounds. There were also changes in the form and pattern of individual dwellings. Although a variety of pithouse types continued to be used throughout the Classic period, some time during the early Classic there also appeared a new house form, the above-ground, adobe-walled room (Gabel 1931; Hackbarth 1987; Haury 1945; Hayden 1957; Herron et al. 1988; Sires 1982). Many of these rooms were joined together in contiguous, cellular arrangements resembling pueblo room blocks. Rooms and room blocks were often surrounded by large, rectangular, adobe-walled compounds (Fish, in press; Wallace and Holmlund 1984:181). Also, especially in the area south of the Gila River, there was a movement of villages and agricultural plots onto the slopes of volcanic hills, where the trend toward above-ground architecture, contiguous room arrangements, and compound enclosures was continued (Downum 1986; Downum et al. 1985; Greenleaf 1975). These changes in settlement and architecture were accompanied by new patterns of material culture, including a marked decrease in the production of red-on-buff pottery, and a sharp increase in the number and distribution of redware and red-on-brown ceramic types (Crown 1985a:443-451; Hayden 1957:129-130; Wallace and Holmlund 1984:188).

In the late Classic period, perhaps beginning at about A.D. 1300, there were numerous important changes. At some sites, there appears to have been a new phase of building activity, resulting in the construction or significant remodeling of major features like adobe room blocks and compound walls, and perhaps the construction of pithouses (Andresen 1985:613-614, 626-627). Some platform mounds and their associated compounds and structures may have been remodeled or expanded at about this time. At or shortly after A.D. 1300, new pottery types, like the widespread Salado Polychromes, began to appear. Other significant changes, such as an increase in inhumation burials, also took place in some areas (Haury 1945:205).

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These activities began what appears to have been the last significant expression of the Hohokam culture. It would appear that by about A.D. 1450, most Hohokam villages had been abandoned. The timing, rate, and causes of these abandonments, as well as the ultimate fate of Hohokam populations, remain among the most debated and important topics in Southwestern prehistory.

Research Topics

Based on what is now known about the Hohokam Classic period, it is possible to identify a number of specific research topics that could be addressed using data from the platform mound communities of the Lower Santa Cruz River Basin. Each research topic is guided by three broad questions: 1. What conditions led to the dramatic changes in Hohokam cultural patterns at the beginning of the Classic period? 2. How did the large, platform mound communities function -i.e., what were their religious, political, and economic bases, and what were their relationships to other communities, both within and beyond the Hohokam culture area? and 3. What brought about the abandonment of the platform mound communities and the end of the Hohokam cultural pattern? These general questions can be pursued by exploring the following research topics.

1. <u>Settlement Patterns</u>. One of the most profound changes of the Hohokam Classic period is the series of shifts in settlement patterns. In some areas, these shifts were relatively subtle, involving only a slight movement in the focus of a village, or a gradual set of changes in architectural forms and arrangements. In other areas, however, the changes were great, and evidently involved wholesale relocations of populations, and new forms and patterns of dwellings.

For some areas of the Lower Santa Cruz River Basin, some relocations appear to have been of the latter type, with complete abandonment of previously stable villages, and large-scale movements of populations into areas previously little used for settlement. For example, S. Fish and others (S. Fish, P. Fish, and Madsen 1985, in press, a, in press, b) have recently documented early Classic period settlement changes as they occurred in an extensive zone along the western slope of the Tortolita Mountains and the eastern slope of the Tucson Mountains. According to their reconstructions, a large area to the west of the Tortolitas experienced a major influx of population during the early Classic period. Although the movement began late in the Hohokam Sedentary period (ca. A.D. 1050), population increase clearly peaked during the early Classic. The movement appears to have involved a shift in regional population size and density, so that a new demographic center was established around the Marana Platform Mound on the lower bajada of the Tortolita Mountains. Here, populations resided in a combination of subterranean and surface adobe houses, sometimes aggregated into contiguous units, and often surrounded by adobe compound walls (P. Fish, in press; Henderson 1987b; Rice 1987b). Settlements of a variety of sizes and internal arrangements were arrayed at various distances

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from the mound, although some of the largest appear concentrated within a radius of about 1.5 km. These settlements apparently were short-lived, for diagnostic ceramics do not show occupation into the late Classic period, ca. A.D. 1300 to A.D. 1450.

Other areas of the Lower Santa Cruz show a similar pattern of population movement and aggregation. For example, along Los Robles Wash, near Cerro Prieto, the early Classic period appears to have been marked by a northward shift of population away from a substantial, Preclassic ballcourt village (ASM Robles Survey Site R-129; AZ AA:11:2 [ASM]; see also Huntington and Holmlund 1986), and toward the Los Robles platform mound. Like the Marana Platform Mound Community, the community surrounding the Los Robles mound also appears to have been abandoned prior to the late Classic.

Still other platform mound communities, at the northern end of the Multiple Property area, show somewhat different histories. At the Brady Wash Platform Mound (AZ AA:3:19 [ASM]; NA 18,0003), near the northern end of the Picacho Mountains, a Classic period village was built in an area that also experienced a considerable degree of Preclassic occupation (Ciolek-Torrello et al. 1988a; Weaver and Ciolek-Torrello 1985, 1986). Also, the Brady Wash mound appears to have been used or occupied well into the late Classic period (Gasser and Ciolek-Torrello 1988:567-572; Weaver and Ciolek-Torrello 1986:44-50). A second and much larger Picacho Mountains platform mound community, centered on the McClellan Wash mound, was evidently founded during the early Classic in a previously unoccupied area, and it also appears to have survived into the late Classic (Wilcox 1984:200).

Understanding these settlement shifts, and the variability that they represent, are essential to understanding the overall changes in Hohokam culture during the Classic period. A number of specific questions may be formulated regarding the specific form, causes, and effects of such changes. For example: When were the platform mound-centered communities established? Were they basically contemporaneous, or did mound construction occur in different places at different times? Were population movements gradual or sudden? What factors conditioned the locations of platform mounds and other settlement types? What do the new residential arrangements imply about social organization, land tenure, and task groups? Why were some platform mound communities abandoned during the early Classic period? When and why were the remaining platform mound communities finally abandoned? Do these patterns suggest links to cultural events beyond the Hohokam culture area, or are internal factors responsible? Answers to these questions, and many others, are expected through further study of the mounds and their associated sites. Such answers would in turn result in a much clearer understanding of one of the most basic aspects of Classic period Hohokam culture -- settlement patterns -- and might clarify the reasons for similar processes of cultural growth and decline in other areas of the Southwest.

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2. <u>Status Differentiation</u>. A second major research topic is the degree of status differentiation that may have accompanied the construction of platform mounds and large, nearby villages (Doyel 1974, 1977a, 1980; P. Fish and S. Fish, in press; S. Fish, P. Fish, and Madsen in press, b; Gregory 1982; Gregory and Nials 1985; Rice 1987b; Rice and Neitzel 1985; Wilcox 1987). The platform mounds themselves, and the compound-walled villages that surround them, are visually impressive features that imply a degree and kind of social differentiation not seen in the Preclassic. The occurrence of mounds and walled compounds in a variety of geographical settings implies formalized, repetitive patterns of hierarchy that may have cross-cut smaller social and linguistic units. Large-scale movements of populations into previously uninhabited zones, and the adoption of new agricultural strategies, seem to imply new forms of labor organization, land tenure, and conflict resolution.

These possibilities suggest several more specific questions about the form of such social stratification, and its possible role in the evolution and decline of Hohokam platform mound communities. For example: Did elite individuals indeed reside at the platform mounds? Do structures and features at and around the mounds show evidence of special ceremonies, not conducted at other settlement types? Within the areas of the platform mounds and compound settlements, is there evidence for consumption of "prestige" goods, e.g., exotic trade items? At these sites, is there evidence for storage and/or exchange of foodstuffs or other items? Does the evidence from platform mound communities support or disconfirm a model of centralized decision-making for Classic period Hohokam communities?

3. Demography. Characteristics of prehistoric populations are often considered to be critical variables in the explanation of prehistoric cultural change, particularly for the Hohokam (Doyel 1980:26; Grady 1976; Wilcox et al. 1981:185-212). Unfortunately, at the present time, very little is known about the size or composition of the populations that inhabited Hohokam platform mound communities at any point in time, or the rates at which these populations might have changed through time. What is known is that some time during the early Classic period, there were widespread relocations of large numbers of people, and that nearly all of these people had disappeared from southern Arizona by the end of the Classic. It is not known exactly when, how, or why the relocations of populations took place, nor is it known when, how, or why such populations eventually declined and disappeared. Given these unknowns, very little can be said about either the causes or effects of Hohokam population increase and decrease during the Classic. However, it is reasonable to expect that a number of specific research questions could be addressed through the study of the platform mound communities of the Lower Santa Cruz. For example: What do various lines of evidence -- e.g, numbers of structures (Wilcox et al. 1981:185-197), size and density of trash deposits, and size and characteristics of burial populations (Morris and Brooks 1987) -- indicate about the absolute sizes of the contemporaneous populations living at the platform mounds and in nearby settlements? How did these populations vary through time and space? What were

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the rates of population growth and decline, both for individual communities, and for the Lower Santa Cruz River Basin as a whole? Answers to these and other such questions would greatly clarify our understanding of Hohokam demography along the Lower Santa Cruz, and might contribute to overall explanations of Classic period events and processes.

4. Subsistence. Classic period shifts in settlement appear to have been accompanied by major changes in field locations, agricultural strategies, and crops (Doelle et al. 1985; S. Fish 1987a; S. Fish, P. Fish, and Madsen 1985, in press, a; S. Fish, P. Fish, Miksicek, and Madsen 1985). For at least some portions of the Lower Santa Cruz drainage, these changes involved a movement of field locations onto bajada slopes, and the cultivation of agave, corn, and other crops in extensive rock pile and terrace fields. S. Fish and others (S. Fish, P. Fish, and Madsen 1985) have documented an extensive system of early Classic period rock pile fields, apparently constructed for the cultivation of agave, on the lower slopes of the Tortolita Mountains east of the Marana Platform Mound. In addition, Fish and other researchers have established that some volcanic hillsides along the Lower Santa Cruz were intensively terraced and used for agriculture during the early Classic (Downum 1986; Downum et al. 1985; S. Fish, P. Fish, and Downum 1984; Katzer 1987). This type and scale of agricultural activity is unprecedented in the Preclassic, and implies that major changes in land tenure, task organization, and productive capacity must have accompanied well-documented settlement changes at the beginning of the Classic.

Subsistence pursuits are, therefore, central to understanding the growth, function, and decline of platform mound communities. As noted, these communities appear to represent substantial population aggregates, yet we still understand very little about how such aggregates were able to feed themselves. Consequently, even less is known about how subsistence pursuits might have been implicated in either the large-scale population movements of the early Classic, the new forms of social organization that are evident throughout the Classic, or the widespread village abandonments of the late Classic.

Thus, there are many specific questions about Classic period subsistence that might be addressed with data from the platform mound communities of the Lower Santa Cruz. For example: Why were previously unused areas such as hillsides and bajada slopes brought into cultivation at the end of the Preclassic? How significant was agave production to the subsistence bases of the various platform mound communities of the Lower Santa Cruz? Were other new crops, or new crop varieties, introduced on a large scale as well? Did the new agricultural strategies allow substantial surplus production? Are shifts in settlement location and agricultural practices? Successful resolution of these and other questions would no doubt clarify our understanding of the relationships between food production and other aspects of Classic period Hohokam culture.

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5. <u>Trade</u>. During the Classic period there are significant changes in the inventories of items obtained through trade (Crown 1985a; Gregory 1982; Howard 1985; Teague 1985; Wilcox 1984). As Wilcox (1984:207) has noted, the reasons for these shifts, and their significance, are poorly understood, but they may indicate important regional changes in economic strategies and political alliances. If so, study of this topic would contribute important information on Southwestern cultural processes at an inter-regional scale, and might lead to a better understanding of pan-Southwestern trends in settlement and organizational changes.

6. Craft Specialization. Craft specialization is closely related to the topic of prehistoric trade, since ceramics, chipped and ground stone tools, ornaments, and other common items of the Hohokam appear to have come from only a few raw material sources, and evidently were circulated through exchange (Crown 1985a; Doyel 1987; Hoffman et al. 1985; Kisselburg 1987; Lombard 1986, 1987; Shackley 1987). For example, a common but economically important Classic period tool type of the Lower Santa Cruz and elsewhere in southern Arizona is the tabular knife (Bernard-Shaw 1983; Ciolek-Torrello 1988:810; Fish, Fish, and Madsen 1985; Kisselburg 1987:144). Most of these knives, essential for the harvesting of agave leaves, appear to have been manufactured from a tabular igneous rock that is available in only a few places. Other items, such as shell and stone jewelry, and chipped and ground stone tools, were also manufactured from raw materials having an extremely limited distribution. Many habitation sites show good evidence, in the form of manufacturing debris and specialized tool types, that raw materials were sometimes brought to villages and worked in substantial quantities. It would therefore appear that craft production -- involving either utilitarian or prestige goods -- was an important economic activity during the Classic period. If so, locally manufactured items could have given individual households, household groups, or communities an ability to trade for agricultural products or other foods during times of scarcity. If craft production was a significant aspect of Classic period economies, these activities may have provided an additional stimulus to the formation of social hierarchies. All of these issues and many others concerned with the social and economic importance of craft specialization could be addressed with archaeological data from Classic period communities of the Lower Santa Cruz, where craft specialization appears to have been particularly well developed (Kisselburg 1987).

7. Warfare. One explanatory variable that is often invoked in Hohokam prehistory is warfare, either among competing villages or communities, or between the Hohokam and other prehistoric cultural groups (DiPeso 1956; Wilcox 1979; Wilcox and Sternberg 1983:239-242). Walled compounds, trincheras sites, apparent clustering of villages, distribution of trade items, and physical evidence of potential conflict, like burned houses, have all been invoked as evidence of warfare. Warfare is, of course, a historically documented factor in

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changing settlement patterns, and it may well have been a significant determinant of Classic period events and processes. On the other hand, warfare may never have been important in Hohokam prehistory, and most models invoking warfare remain largely unsupported (P. Fish and S. Fish, in press). Whatever the case, data from the platform mound communities of the Lower Santa Cruz could contribute information on the important but as yet poorly understood topic of Hohokam warfare, and its possible effects on Classic period Hohokam developments.

8. Environmental Change. Many models of Hohokam prehistory have been based on environmental change, particularly changes in climate and hydrological regimes (e.g., Ackerly 1982; Grebinger and Adam 1974; Masse 1979:177-182; Waters 1987a, 1987b; Weaver 1972). Platform mound communities of the Lower Santa Cruz River Basin may contain important information that would allow an assessment of the role of environmental forces in Classic period Hohokam prehistory. Data are badly needed on such topics as changes in climate, shifts in the composition of floral communities, and the form and magnitude of erosional processes. Such data would provide a basis for comparing the environmental conditions of the Lower Santa Cruz River Basin with other portions of the Hohokam culture area, and for assessing the role of environmental variables in developments of the Hohokam Classic period. Settlements, limited activity sites, agricultural fields, canals, and reservoirs along the Lower Santa Cruz all have the potential to contribute important and often complementary data on the topic of environmental change.

9. <u>Chronology</u>. Many of the research topics discussed above can be addressed only if there is adequate dating of the archaeological units that form the bases of analysis. Studies of population growth and decline, for example, are predicated on an ability to date houses, trash deposits, and other primary archaeological data used to monitor village, community, or regional population levels at different points in time. Similarly, the study of change in other research domains presupposes a comparable ability to accurately measure archaeological variables along a temporal dimension.

Unfortunately, the chronology of events and processes in Hohokam prehistory is far from settled, and many contemporary debates in Hohokam archaeology can be traced to different perceptions of the absolute dates or rates of important cultural changes (Haury 1976:325-340; Plog 1980; Schiffer 1982). Many major problems in Hohokam chronology stem in turn from inherent limitations on the resolution of available dating techniques (principally radiocarbon or archaeomagnetic dating), or past use of ambiguous or inappropriate materials and contexts when building regional chronologies. Fortunately, there is hope that existing chronologies can be improved. For example, problems in the resolution of dating techniques can be ameliorated by increases in the sample sizes of dates available for analysis. Contextual ambiguities can often be resolved through improved recovery and analytical techniques.

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The platform mound communities of the Lower Santa Cruz River Basin have the potential to contribute to Hohokam chronology in several ways. First, the artifacts, contexts, and datable materials from these sites may be useful to methodological studies designed to minimize the degree of error for Hohokam chronologies in all areas. Numerous methodological questions have been raised in recent critques and revisions of existing chronologies (Henderson 1987a; Neitzel 1984; Schiffer 1982; Wallace and Craig 1986), and such studies will no doubt continue as the accuracy and resolution of competing chronologies are probed. Second, the sites that comprise the communities may contribute crucial data on the chronology of specific events and processes within the Lower Santa Cruz River Basin itself, and thus enhance our understanding of the chronology of Hohokam cultural processes in general. As previously discussed, much of the research significance of this area derives from its value as a comparative data set that may be contrasted with data from other portions of the Hohokam culture area. An improved cultural chronology within the Lower Santa Cruz Basin would, of course, be of value to research issues of local interest, but reliable chronological information on the dates of important events, such as the construction of mounds, or the introduction of Salado polychrome pottery, would greatly enhance the value of the basin as a comparative regional case.

Preservation of Sites and Communities

A final factor relating to the research significance of the known platform mound communities of the Lower Santa Cruz River Basin is their degree of preservation. Most of the Hohokam platform mound communities that ever existed have now been destroyed or heavily damaged by agricultural development, urban expansion, pothunting, or vandalism (Gregory and Nials 1985:374). While none of the platform mound communities along the Lower Santa Cruz may be described as pristine, they are, relatively speaking, remarkably intact (Wilcox 1984:197-201), and many sites are capped by a shallow layer of recent alluvium (Field 1985; Field, Lombard, Katzer, and Schuster 1987; Katzer and Schuster 1984; Waters and Field 1986). Therefore, the opportunity still exists to study these communities as complete entities, and to reconstruct the spatial and functional relationships of the complete range of site types that once comprised them. In addition to providing a more complete understanding of the specific communities involved, such views of relatively intact communities may allow an improved understanding of those sites that are parts of communities that are not now intact.

ASSOCIATED PROPERTY TYPES

At present, thirteen property types can be identified as components or probable components of the Classic period platform mound communities of the Lower Santa Cruz Basin. Although additional surveys, further research, or revised definitional criteria might reveal additional property types, the following list represents the major site-level activity loci that have been discovered to date:

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- 1. Platform Mound and Associated Compound and Structures
- 2. Compound Settlement
- 3. Non-compound Settlement
- 4. Farmstead
- 5. Agricultural Field
- 6. Trincheras Site
- 7. Canal, Canal System, or Other Water Diversion Feature
- 8. Petroglyph Site
- 9. Limited Activity, Plant or Animal Food Processing Site
- 10. Rock Shelter or Cave
- 11. Reservoir
- 12. Quarry

ar Ce 13. Artifact Scatter

· Information Categories, Research Topics, and Property Types

Property types can be related to specific research topics through the recovery and analysis of several categories of information. These categories and their relevance to specific research topics are presented in Table 1. Table 2 lists the expected relevance of property types to research topics, and Table 3 shows the information categories that are required from each property type to achieve significance under National Register Criterion d.

F. Associated Property Types

I. Name of Property Type <u>Platform Mound and Associated Compound and Structures</u>

II. Description

This property type forms the core of the Classic period Hohokam platform mound community. Individual properties consist of a rectangular, earthen mound, composed of artificially filled, adobe-walled rooms or "cells" (Gasser and Ciolek-Torrello 1988:510-514). Excavation of several mounds throughout the Hohokam culture area has shown that they usually were constructed early in the Classic period (Wilcox 1984:200). However, the mounds also appear to have undergone several periods of remodeling, starting out as relatively small constructions but gradually growing larger through the addition of adobe-walled cells and repeated resurfacings of the mound exterior (Hayden 1957: 47-96, 184-190). Frecise functions of the mounds are unknown, but they evidently served as a form of monumental architecture with social or religious significance. It has been observed (Gregory 1982; Wilcox and Sternberg 1983:242-245) that early in the Classic period, platform mounds began to replace ballcourts as the major III. Significance (see continuation sheet) The research significance of this property type derives from its central position within a larger community, and apparent function as a public monument and possible settlement of social or religious importance. Platform mounds therefore may provide valuable information on a variety of research topics, particularly settlement patterns, status differentiation, demography, trade, craft specialization, and warfare (Table 1). In addition, depending on the integrity of the individual site and conditions of preservation, the property type may also be expected to contribute information on the topics of subsistence, chronology, and environmental change.

From the standpoint of comparative studies in Hohokam archaeology, platform mounds of the Lower Santa Cruz are especially significant because they provide data from an area peripheral to the Phoenix Basin Hohokam culture core. Numerous explanations of Classic period events throughout the Hohokam culture area have been generated using data from the excavation of similar property types along the Gila and Salt Rivers of the Phoenix, Basin. However, it would appear that the platform mounds of the Lower Santa Cruz River were established under cultural and environmental conditions IV. Registration Requirements (see continuation sheet)

a. National Register Criteria: d.

b. Areas of Significance: archaeology, prehistoric archaeology

c. Data Requirements: As shown in Table 1, to contribute to one or more of the research topics discussed above, examples of this property type should provide evidence that they contain at least one of the following information categories:

- 1. Formal mounds, compound walls, or other monuments
- 2. Trash mounds or middens
- 3. Habitation structures
- 4. Cremations or inhumations
- 5. Ramadas or other extramural activity surfaces
- 6. Primary refuse from artifact manufacture, discard, or loss

7. Extramural hearths, bedrock mortars or metates, portable ground stone tools, or other food processing facilities

Table 3 provides a synopsis of the information categories that are required to demonstrate significance for this property type under National Register Criterion d.

See continuation sheet

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F. Associated Property Types

1. Platform Mound and Associated Compound and Structures

II. Description continuation

monuments of large Hohokam villages. Although some Preclassic villages with ballcourts were completely abandoned at the beginning of the Classic, other villages were merely moved slightly and restructured. A common aspect of these restructurings was a shift in the focus of the village, away from the ballcourt, and toward a newly-built platform mound (Gregory 1982; Gregory and Nials 1985:385). The reasons for such modifications are not known, but with other changes such as new ceramic styles, shifts in trade relations, new house forms and arrangements, and changes in iconography and burial practices, it has been suggested that the mounds might have been part of a new social or religious order. Some mounds have evidence of structures on top, indicating that some people, perhaps civic or religious leaders, might have lived on the mounds (Doyel 1974:170, 1980:34-35). Platform mounds throughout southern Arizona are invariably surrounded by an adobe or cobble-walled compound, enclosing a large open space and a limited number of isolated pit structures and adobe rooms or room blocks. The compounds also may contain at least one especially large structure, used perhaps for some indoor, communal activity linked to the platform mound.

III. Significance continuation

that were quite different than those of their Phoenix Basin counterparts. Whereas mounds of the Phoenix Basin appear often to have been built during relatively minor shifts in settlement location (Gregory 1982), platform mounds of the Lower Santa Cruz seem often to have involved larger-scale shifts and movements into areas that were previously little-used for settlement. Furthermore, some platform mounds of the Lower Santa Cruz (e.g., the Robles and Marana Mounds) may have been abandoned at an earlier date than the platform mounds in other parts of the Hohokam culture area, for example the Phoenix and Tucson Basins. Data from the platform mound sites of the Lower Santa Cruz River would, therefore, provide independent evidence, from different geographical and environmental settings, useful for testing competing explanations of Hohokam prehistory.

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I. NAME OF PROPERTY TYPE. Compound Settlement.

II. DESCRIPTION.

This property type consists of a large settlement surrounded by a compound wall, but lacking a platform mound. Such settlements may occur in proximity to platform mound sites, but they may also be located at some distance from the mounds. The property type varies in size and internal features, but generally it is composed of an enclosing adobe wall, adobe rooms and room blocks, trash mounds, and pit structures. Individual histories of compound settlements appear to have varied a great deal. Some may have been founded late in the Preclassic or early in the Classic period, but others also contain substantial Preclassic remains, and many were occupied into the late Classic.

III. SIGNIFICANCE.

Significance of this property type derives from the fact that compound settlements apparently served as residential locations for substantial numbers of people. Although the settlements lack a platform mound, their usual proximity to the mounds and the fact that they were walled raises the possibility that they were relatively more important settlements in the larger community. Thus, data obtained from compound settlements would provide the opportunity for contrasts at several levels. For example, the functions and material contents of such sites could be contrasted with platform mound sites to assess the proposition that platform mounds represent the highest level in a hierarchy of settlement types, or that platform mounds served as the locations for ritual activities. Conversely, compound settlements could be contrasted with non-compound settlements to address the proposition that the latter settlements were socially or functionally distinct because they lacked compounds.

Compound settlements therefore may be expected to provide information on the same list of topics presented for platform mounds. These topics are, principally, <u>settlement patterns</u>, <u>status differentiation</u>, <u>demography</u>, <u>trade</u>, <u>craft specialization</u>, and <u>warfare</u> (Table 2). Again, however, depending on the factors of site integrity, conditions of preservation, and the presence or absence of certain archaeological features, compound settlements may also contribute to the research topics of <u>subsistence</u>, <u>chronology</u>, and <u>environmental</u> <u>change</u>.

IV. REGISTRATION REQUIREMENTS

a. National Register Criteria: d.

b. Areas of Significance: archaeology, prehistoric archaeology

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c. Data Requirements: As illustrated in Table 1, to contribute to one or more of the research topics discussed above, a compound settlement should provide evidence that it contains data from at least one of the following information categories:

1. Formal mounds, compound walls, or other monuments

- 2. Trash mounds or middens
- 3. Habitation structures
- 4. Cremations or inhumations
- 5. Ramadas or other extramural activity surfaces

6. Primary refuse from artifact manufacture, discard, or loss

7. Extramural hearths, bedrock mortars or metates, portable ground stone tools, or other food processing facilities

Table 3 provides a summary of the information categories required from compound • settlements to demonstrate significance under National Register Criterion d.

I. NAME OF PROPERTY TYPE. Non-Compound Settlement.

II. DESCRIPTION

This property type consists of an archaeological site that lacks a compound, but exhibits other attributes indicating that it once served as a settlement. The property is defined on the basis of dense and varied trash deposits representing formal mounds or refuse disposal areas. Some of the sites exhibit evidence of adobe or cobble walled structures, and some show pithouse depressions or other indications of subsurface structures.

III. SIGNIFICANCE

Examples of this property type appear to have been residential locations, housing varying numbers of people for varying lengths of time. However, the lack of a platform mound and compound enclosing walls indicates that these settlements may have been functionally or socially differentiated from platform mound or compound settlements. Thus, non-compound settlements provide a third major settlement type useful for analytic comparisons of individual settlements, groups of settlements, and communities. Non-compound settlements are expected to exhibit numerous feature and artifact types relevant to research topics relating to occupational activities. As with platform mound and compound settlements, non-compound settlements are principally useful for studies of <u>settlement patterns</u>, <u>status differentiation</u>, <u>demography</u>, <u>trade</u>, <u>craft</u> <u>specialization</u>, and <u>warfare</u> (Table 2). Again, however, depending on specific conditions of preservation, site integrity, and feature and artifact content, non-compound settlements may also contribute to the topics of <u>subsistence</u>, <u>chronology</u>, and <u>environmental change</u>.

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a. National Register Criteria: d.

b. Areas of Signficance: archaeology, prehistoric archaeology

c. Data Requirements: As outlined in Table 1, to contribute to one or more of the research topics discussed above, examples of this property type should provide evidence that they contain data from at least one of the following information categories:

1. Trash mounds or middens

- 2. Habitation structures
- 3. Cremations or inhumations
- 4. Ramadas or other extramural activity surfaces
- 5. Primary refuse from artifact manufacture, discard, or loss

6. Extramural hearths, bedrock mortars or metates, portable ground stone tools, or other food processing facilities

Table 3 provides a summary of the information categories that will be required from this property type to demonstrate significance under National Register Criterion d.

I. NAME OF PROPERTY TYPE. Farmstead.

II. DESCRIPTION

This property type consists of a small, dense, varied trash deposit or other evidence of small-scale habitation, such as a pithouse depression or adobe or cobble-walled structure. The property is usually considerably smaller than other types of settlements, is usually located at some distance from the platform mound, and is always near arable land, agricultural field features, or agricultural field sites. Farmsteads evidently represent seasonal or short-term occupations associated with agricultural activities away from large settlements.

III. SIGNIFICANCE

This property type forms an important link between large, permanent villages and the agrarian activities that provided the food, fiber, and other cultivated products that sustained Classic period communities. At present, the archaeological definition of "farmsteads" or agriculturally-oriented settlements and structures is still highly variable, and the role of such sites in Classic period settlement systems is far from clear (Crown 1985b; Downum and Dart 1986; Doyel 1978). The primary research topics that may be addressed through archaeological studies of farmsteads are <u>subsistence</u> and <u>settlement patterns</u> (Table 2). Because these sites were evidently used or occupied in association with agricultural activities, the artifacts, features, food and pollen remains, and locational attributes of farmsteads are of critical importance to reconstructing and analyzing the agrarian systems of Classic period Hohokam

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platform mound communities. Studies of farmsteads are expected to provide important information on the seasons and duration of farming activities, the size and composition of agricultural labor groups, the crops that were grown, and the methods that were used to harvest and process the crops for consumption and storage. If, as expected, some farmstead sites can be accurately dated through radiocarbon, archaeomagnetic, or ceramic means, they may provide important information on changes through time in Classic period agricultural strategies.

IV. REGISTRATION REQUIREMENTS

a. National Register Criteria: d.

b. Areas of Significance: archaeology, prehistoric archaeology

'c. Data Requirements: As shown in Table 1, to contribute to one or more of the research topics listed above, examples of the property type "farmstead" should provide evidence that they contain data from at least one of the following information categories:

1. Trash mounds or middens

- 2. Habitation structures
- 3. Ramadas or other extramural activity surfaces
- 4. Field structures

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- 5. Agricultural features
- 6. Specialized water delivery or storage features
- 7. Primary refuse from artifact manufacture, discard, or loss

8. Extramural hearths, bedrock mortars or metates, portable ground stone tools, or other food processing facilities

Table 3 provides a synopsis of the information categories required from this property type to be considered significant under National Register Criterion d.

I. NAME OF PROPERTY TYPE. Agricultural Field.

II. DESCRIPTION.

This property type consists of rock piles, rock alignments, check dams, and other features and artifacts, such as hoes or agave knives, that show evidence that an area was used to grow crops. These crops were not necessarily confined to the major Native American domesticates such as corn, beans, and squash, but they also included non-domesticated plants such as agave (Ciolek-Torrello 1988:810-811; Fish, Fish, Miksicek and Madsen 1985; Gasser and Miksicek 1985:486-490; Miksicek 1987).

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III. SIGNIFICANCE.

This property type provides primary evidence on the topic of Classic period Hohokam <u>subsistence</u> (Table 2). The locations, internal features, and sizes of agricultural field sites may contribute data on the labor requirements, spatial organization, and yields of Hohokam farming systems (Dart 1983:527-573; Fish 1983, 1984; Fish, Fish, Miksicek and Madsen 1985; Miksicek 1987). Pollen and macrofloral remains may provide direct evidence of crops that were grown, allowing reconstructions of farming practices and how these might have changed through time, and soils and chemical analyses may provide data on potential yields and cumulative effects of cultivation on the productive potential of a given plot of land (Dart 1983:535-537; 543-547; Fish 1983, 1984, 1987a; Fish et al. 1984; Fish, Fish, Miksicek, and Madsen 1985; Miksicek 1983).

Agricultural fields may also contribute to the study of Classic period <u>environmental change</u> (Table 2). Pollen and geomorphological evidence from prehistoric field locations provide an important additional source of chronologically sensitive information on environmental conditions outside of settlements. Environmental data from the fields is especially significant because it has the potential to inform on how farming practices might have affected local floral communities and erosional processes, two key aspects of human-induced environmental change.

IV. REGISTRATION REQUIREMENTS

a. National Register critera: d.

b. Areas of Significance: archaeology, prehistoric archaeology

c. Data Requirements: In order to contribute to either of the research topics discussed above, an agricultural field site should provide evidence that it can contribute data from at least one of the following information categories (Table 1):

1. Field structures

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- 2. Agricultural features
- 3. Specialized water delivery or storage features

4. Extramural hearths, bedrock mortars or metates, portable ground stone tools, or other food processing facilities

Table 3 provides a summary of the information categories required from agricultural field sites in order to be considered significant under National Register Criterion d.

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I. NAME OF PROPERTY TYPE. Trincheras Site.

II. DESCRIPTION. This property type refers to hillsides that exhibit rock constructions, including agricultural terraces, rock-outlined pithouses, surface masonry rooms and room blocks, rock-lined pits ("talus" pits), walls of unknown function, rock-walled compounds, trails, petroglyphs, and check dams or other water-control devices (Stacy 1974:1, 1977:11). Trincheras sites have been studied through excavation and mapping projects (Downum 1986; Downum et al. 1985; Fish et al. 1984; Greenleaf 1975; Katzer 1987; Stacy 1974, 1977; Wallace and Holmlund 1983; Wilcox 1979). For a variety of reasons, trincheras sites have traditionally been interpreted as defensive fortifications, occupied or used for short periods during times of warfare or raiding (Fontana et al. 1959; Wilcox 1979). The dates and functions of trincheras sites are not known in all cases, but most of the sites along the Lower Santa Cruz appear to have been an early Classic period phenomenon, and most appear to have served as a special type of habitation or agricultural site, or both (Downum 1986; Downum et al. 1985; Fish et al. 1984).

III. SIGNIFICANCE.

Because some trincheras sites along the Lower Santa Cruz River evidently sometimes served as Classic period settlements (Downum 1986; Downum et al. 1985), their research significance may overlap with the significance documented for other types of settlements, i.e., platform mound, compound, and non-compound settlements. Thus, as locations where substantial numbers of people resided, trincheras sites may be expected to contribute important data on the research topics of settlement patterns, status differentiation, demography, trade, craft specialization, and, especially, warfare (Table 2). Also, as with the other settlement property types, certain trincheras sites may contribute to studies of subsistence, chronology, and environmental change. Since some trincheras sites may also have served as agricultural field locations, or as activity areas where food and non-food resources such as chipped and ground stone were collected and processed (Downum 1986; Downum et al. 1985; Fish et al. 1984; Stacy 1974, 1977), trincheras sites lacking a settlement function may nonetheless contribute important information on topics such as demography, subsistence, environmental change, and craft specialization.

IV. REGISTRATION REQUIREMENTS.

a. National Register Criteria: d.

b. Areas of Significance: archaeology, prehistoric archaeology

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c. Data Requirements: As shown in Table 1, to contribute to one or more of the research topics discussed above, trincheras sites should provide evidence that they may contain data from one or more of these categories of information:

- 1. Formal mounds, compound walls, or other monuments
- 2. Trash mounds or middens
- 3. Habitation structures
- 4. Cremations or inhumations
- 5. Ramadas or other extramural activity surfaces
- 6. Agricultural features
- 7. Petroglyphs
- 8. Specialized water delivery or storage features
- 9. Primary refuse from artifact manufacture, discard, or loss

10. Extramural Hearths, bedrock mortars or metates, portable ground stone tools, or other food processing facilities

Table 3 provides a summary of the information categories required from trincheras sites in order to be considered significant under National Register Criterion d.

I. NAME OF PROPERTY TYPE. Canal, Canal System, or Other Water Diversion Feature.

II. DESCRIPTION.

This property type consists of prehistoric canals, canal-related features, diversion ditches, or other devices constructed to divert water from live streams, seasonal washes, or other drainages. Examples have recently been discovered in the Multiple Property area (Bernard-Shaw 1986; P. Fish and S. Fish, in press), including an evidently prehistoric canal connecting the large Classic period habitation site of Los Morteros (AZ AA:12:57 [ASM]) with the Marana Platform Mound (ASM Marana Survey Site M-200; AA:12:251 [ASM]) (P. Fish and S. Fish, in press).

III. SIGNIFICANCE

Because canals were used to deliver water to agricultural fields and ponds or reservoirs, they are directly relevant to reconstructions of Classic period subsistence (Table 2; Ackerly 1982; Dart 1983:363-401, 1986; Gregory 1982; Haury 1976:120-141, 142-151; Masse 1981; Woodbury 1961). Canals are a particularly rare class of site along the Lower Santa Cruz River, and any information from them would contribute to comparisons of subsistence practices in different portions of the Hohokam culture area. Because sediments, chemical samples, and pollen from canals can give important data on climatic events, hydrological regimes, and floral communities in and around field locations, canals may also provide primary data on the topic of <u>environmental change</u> (Table 2; Dart 1983:389-392, 1986:79-82; Fish 1983:584-591; Masse 1981).

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IV. REGISTRATION REQUIREMENTS.

a. National Register Criteria: d.

b. Areas of Significance: archaeology, prehistoric archaeology

c. Data Requirements: As shown in Table 1, in order to contribute to the research topics of <u>subsistence</u> or <u>environmental change</u>, or both, examples of this property type should provide evidence that they may contribute data from one or more of the following information categories:

- 1. Field structures
- 2. Agricultural features
- 3. Specialized water delivery or storage features

Table 3 also lists the information categories that will be required from this property type in order to be considered significant under National Register Criterion d.

I. NAME OF PROPERTY TYPE. Petroglyph Site.

II. DESCRIPTION.

This property type consists of pecked designs, usually placed on the outcrops or boulders of volcanic hills, but occasionally placed on colluvially or alluvially transported boulders not associated with hill slopes. Petroglyph sites often occur in special topographic settings, such as branching points for natural transportation corridors, mountain passes, ends of mountain ranges or ridges, springs or natural water catchments, or concentrations of important resources like mesquite trees or lithic raw materials. Petroglyph sites are often accompanied by bedrock mortars or metates or other artifacts or facilities indicating the processing of wild plant or animal foods, or hammerstones and chipped and ground stone debitage indicating the processing of lithic resources.

III. SIGNIFICANCE.

Petroglyphs may depict naturalistic scenes of hunting, ritual, or warfare activities, possible topographic maps, territorial markers, and symbols of social identity (Schaafsma 1985; Wallace and Holmlund 1983, 1986). The functions of petroglyph sites within larger systems of settlement, social relations, and resource exploitation are at present poorly understood, but recent advances in the dating and interpretation of individual petroglyphs and petroglyph clusters indicate great promise for future studies. Many modern researchers believe that petroglyph sites can provide significant information on a number of anthropological topics. For example, changes in the styles of individual petroglyphs and the locations of petroglyph sites may indicate shifts

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in the territories of social groups, thus providing significant data on <u>settlement patterns</u>. Depictions of ritual activities may indicate important facts about Hohokam social roles and <u>status differentiation</u>. Naturalistic representations of game animals and hunting technologies, associated artifacts and food processing facilities, and the locations of petroglyph sites with respect to a variety of critical resources may provide important information on Hohokam <u>subsistence</u>. Finally, data on the distribution of petroglyph styles and the activities depicted in certain petroglyphs may give clues regarding prehistoric warfare (Fish and Fish, in press).

IV. REGISTRATION REQUIREMENTS.

a. National Register Criteria: d.

b. Areas of Significance: archaeology, prehistoric archaeology

c. Data Requirements: As shown in Table 1, in order to contribute to the study of the research topics discussed above, a petroglyph site should exhibit the potential for producing data from the following information categories:

Petroglyphs
Primary refuse from artifact manufacture, discard, or loss
Extramural hearths, bedrock mortars or metates, portable ground stone tools, or other food processing facilities

Table 3 also lists the information categories that will be required from petroglyph sites in order to be considered significant under National Register Criterion d.

I. NAME OF PROPERTY TYPE. Limited Activity Plant or Animal Food Processing Site.

II. DESCRIPTION.

This property type is defined on the basis of a small artifact inventory, a lack of architectural remains, a lack of significant trash accumulations indicative of habitation, and the presence of roasting pits, rock rings, tabular knives, bedrock mortars or metates, portable ground stone tools, or other features or artifacts that could be interpreted in terms of food collecting or processing activities. Foods that were processed may include cultigens obtained from nearby fields, wild plant foods, or game animals.

III. SIGNIFICANCE.

As locations used for the processing of plant or animal food, this property type is directly and obviously relevant to reconstructions of Classic period Hohokam

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<u>subsistence</u> (Table 2). These sites are particularly important to the study of Classic period platform mound communities, since they are particularly abundant in the areas surrounding platform mounds, and may provide data indispensible to the reconstruction of the entire range of subsistence activities, and not just settlement-centered activities. Because these sites might contain datable materials like charcoal or fired clay surfaces in association with a variety of artifact types, or macrofloral and pollen remains useful for reconstructing offsettlement vegetation communities, they may also provide important information on the topics of chronology and environmental change (Table 2).

IV. REGISTRATION REQUIREMENTS.

a. National Register Criteria: d.

b. Areas of Significance: archaeology, prehistoric archaeology

c. Data Requirements: To contribute to the research topics listed above, examples of this property type should provide evidence that they can contribute data from at least one of the following information categories (see also Table 1):

Ramadas or other extramural activity surfaces
Primary refuse from artifact manufacture, discard, or loss
Extramural hearths, bedrock mortars or metates, portable ground stone tools, or other food processing facilities

Table 3 summarizes the information categories required in order for this property type to achieve significance under National Register Criterion d.

I. NAME OF PROPERTY TYPE. Rock Shelter or Cave.

II. DESCRIPTION.

This property type is restricted to a specific topographic location, namely a cleft, opening, or other natural shelter on the side of a hill, canyon, or mesa. The property type is defined on the basis of artifacts, smoke-blackened ceilings, or other evidence that the shelter was used prehistorically. Activities within rock shelters are highly variable, but the shelters generally were used for camping or short-term habitation in association with seasonal agriculture or resource gathering expeditions.

III. SIGNIFICANCE.

Because these sites appear to have been used as temporary shelters associated with some form of agricultural or resource-gathering activities, they may provide important information on Classic period Hohokam <u>subsistence</u>. Because rock shelters may also provide stratified deposits revealing sequences of

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artifacts such as projectile points or decorated potsherds, they may also contain important information relating to Hohokam <u>chronology</u>. Rock shelters may also contain pack rat middens and stratified or otherwise datable macrofloral and pollen evidence that would contribute to the reconstruction of Classic period <u>environmental</u> <u>change</u> (Table 2).

IV. REGISTRATION REQUIREMENTS.

a. National Register Criteria: d.

b. Areas of Significance: archaeology, prehistoric archaeology

c. Data Requirements: In order to contribute to the research topics discussed above, this property type should exhibit the potential for providing data from one or more of the following information categories (see Table 1):

1. Trash mounds or middens

2. Primary refuse from artifact manufacture, discard, or loss

3. Extramural hearths, bedrock mortars or metates, portable ground stone tools, or other food processing facilities

Table 3 summarizes the required information categories for rock shelter sites.

I. NAME OF PROPERTY TYPE. Reservoir.

II. DESCRIPTION.

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Reservoirs are prehistoric water catchments, usually excavated into natural washes, that were used to capture and store water for extended periods of time (Ciolek-Torrello and Nials 1987; Crown 1987; Dart 1983:451-524; Downum and Dart 1984:109-116; Raab 1975). This site type is known from several field studies, including the recent excavation of a reservoir near Red Rock, Arizona, within the present Multiple Property area (Ciolek-Torrello and Nials 1987).

111. SIGNIFICANCE.

Because many of the Classic period platform mound communities of the Lower Santa Cruz River Basin are located a considerable distance from permanent sources of water, reservoirs are a key element in Classic period <u>settlement patterns</u> and <u>subsistence</u> strategies (Ciolek-Torrello and Nials 1987; Dart 1983). In addition, reservoirs may contain important categories of evidence, such as pollen and sediments, that would allow reconstruction of prehistoric <u>environmental change</u> (Table 2; Ciolek-Torrello and Nials 1987:290; Dart 1983:479-482, 498-499, 509-512).

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IV. REGISTRATION REQUIREMENTS.

a. National Register Criteria: d.

b. Areas of Significance: archaeology, prehistoric archaeology

c. Data Requirements: As outlined in Table 1, in order to provide data on the research topics discussed above, examples of this property type should provide evidence that they can produce data from either of the following information categories:

Specialized water delivery or storage features
Primary refuse from artifact manufacture, discard, or loss

Table 3 provides a synopsis of the information categories required from this property type in order to achieve significance under National Register Criterion d.

I. NAME OF PROPERTY TYPE. Quarry.

II. DESCRIPTION

This property type is defined on the basis of hammerstones, cores, flakes, and other artifacts that give evidence of lithic reduction activities at or near the source of the raw material. Activities at quarry sites were most commonly geared toward the production of chipped stone artifacts, but there are also a number of Hohokam quarries where ground stone artifacts were worked (e.g., Hoffman et al. 1985), and examples are present within the multiple property area.

III. SIGNIFICANCE.

Quarries provide direct evidence of the exploitation of two critical resources for the Hohokam, i.e., the raw materials for chipped and ground stone tools. This property type may therefore provide important information on prehistoric craft specialization and trade (Table 2). Studies of individual quarry sites may provide significant information on the intensity of exploitation of particular resources at different times, the sizes of the groups involved in such activities, and the technologies that were employed. At a regional level, the study of quarry sites may provide significant information on Classic period exchange relationships by revealing the interactions and dependencies of various settlements and communities with respect to chipped and ground stone artifacts.

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IV. REGISTRATION REQUIREMENTS.

a. National Register Critera: d.

b. Areas of Significance: archaeology, prehistoric archaeology

c. Data Requirements: As shown in Table 1, in order to contribute to the study of <u>trade</u> or <u>craft specialization</u>, or both, quarry sites should show evidence that they may yield data from one or both of the following information categories:

Ramadas or other extramural activity surfaces
Primary refuse from artifact manufacture, discard, or loss

Table 3 also lists the information categories required from quarry sites.

I. NAME OF PROPERTY TYPE. Artifact Scatter.

II. DESCRIPTION.

This property type consists of a scatter of artifacts that cannot be interpreted as either a domestic refuse deposit, the remains of a plant or animal food processing event or episode, quarrying activity, or any other functionally specific activity. Although such sites may later be determined to have had a specific function within the complete round of community activities, at present they lack the diagnostic artifacts and features that would allow assignment of a functional label. Thus, they can be identified only with the provisional label of "artifact scatter."

III. SIGNIFICANCE. In spite of their functional non-specificity, it may be assumed that examples of this property type will contribute important information on the range of activities performed within the boundaries of platform mound communities, and thus will contribute information on a variety of research topics. Undoubtedly, sites that must at present be placed in the category of "artifact scatter" represent a varied group, encompassing many of the identified property types as well as combinations of activities that would subsume multiple property types. It may be reasonably assumed that upon further investigation, particularly excavation, artifact scatters will be found to represent, among other things, settlements of various types, farmsteads, agricultural fields, quarries, and limited activity plant or animal food processing locations. The principal thing that these sites have in common at present is that their functions cannot be specified, either because we do not yet have reliable indicators of the meaning of their assemblage and nonassemblage attributes, or because the sites are partially buried. Nonetheless, this site type is particularly abundant in the areas surrounding platform mound communities, and it is argued that because they likely represent property types

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of known significance, they must for now be considered important components of the platform mound communities, but with a specific significance that can be made clear only upon further inspection. However, based on prior studies of similar property types (e.g., Sullivan 1983), it is clear that artifact scatters have the potential to yield significant information that can contribute to our understanding of Classic period Hohokam <u>settlement patterns</u>, <u>subsistence</u>, <u>demography</u>, and <u>craft specialization</u> (Table 2), and for this reason are considered contributing property types within this multiple property nomination. Further study of the individual members of this property type will undoubtedly lead to more specific functional assignments and an expanded list of relevant research topics.

- **IV. REGISTRATION REQUIREMENTS:**
- a. National Register Criteria: d.
- b. Areas of Significance: archaeology, prehistoric archaeology
- c. Data Requirements:

As shown in Table 1, to contribute to one or more of the research topics discussed above, artifact scatters of unknown function should show evidence that they may contain data from one or more of the following information categories:

- 1. Trash mounds or middens
- 2. Ramadas or extramural activity surfaces
- 3. Primary refuse from artifact manufacture, discard, or loss

Table 3 provides a synopsis of the information categories that are required in order for members of this property type to be considered significant under National Register Criterion d.

G. Summary of Identification and Evaluation Methods

Discuss the methods used in developing the multiple property listing.

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Information on the platform mound communities of the Lower Santa Cruz comes from a variety of sources, but principally from several large-scale archaeological overviews, surveys and excavations that were conducted as part of the U.S. Bureau of Reclamation's(USBR) Central Arizona Project (CAP) (Callahan 1988; Ciolek-Torrello 1987; Ciolek-Torrello et al. 1988a, 1988b; Czaplicki 1984; Czaplicki and Rankin 1984; Henderson 1987b; McCarthy 1982; Rice 1987b; Wallace and Holmlund 1986; Weaver and Ciolek-Torrello 1985, 1986; Westfall 1979). One particularly important source of information is the Arizona State Museum's intensive survey of three platform mound communities, centered on the Marana (ASM Marana Survey Site M-200; AZ AA:12:251 [ASM[, McClellan Wash (ASM Durham Survey Site D-62; AZ AA:7:4 [ASM]) platform mounds (P. Fish and S. Fish, in press; S. Fish, P. Fish, and Madsen in press, a, in press, b). This survey was commissioned by the Bureau to establish the relationships of excavated sites in the path of the CAP to the larger, mound-centered communities of Marana, Los Robles, and McClellan Wash.

Three other significant sources of information are the Arizona State Museum's Tucson Basin survey project, begun in 1981; the 1983-1985 Cerro Prieto mapping project, supported by Pima Community College, the University of Arizona Department of Anthropology, and Archaeologists Unlimited, a non-profit research foundation in Tucson; and the various petroglyph studies of Tucson Archaeologists Henry Wallace and James Holmlund. The ASM Tucson Basin survey project was X See continuation sheet

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Primary location of additional documentation:

State historic preservation office Other State agency Federal agency Local government

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Specify repository: Arizona State Museum, University of Arizona, Tucson, AZ 85721

I. Form Prepared By			
name/title Christian E. Downum, Archaeological Specialist	11		
organization Arizona State Museum	date 15 No	November 1988	
street & number University of Arizona	telephone	(602) 621 - 6274	
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a massive research effort designed to cover a very large, contiguous area at the northern end of the Tucson Basin. Although separate from the later USBR surveys, the Tucson Basin Survey supplements the USBR-sponsored efforts with additional intensive coverage beyond the areas encompassed by the platform mound communities (S. Fish, P. Fish, and Madsen 1985). The Cerro Prieto mapping project was concentrated on the trincheras settlement site of Cerro Prieto, located near the Los Robles platform mound. This project resulted in a largescale, detailed map of Cerro Prieto, which is a very large, early Classic period hillside village that appears to have been a major component of the Los Robles platform mound community (Downum et al. 1985). The petroglyph work of Wallace and Holmlund took place intermittently throughout the early 1980s, using a variety of funding sources, including the USBR and the Arizona Department of Transportation. Although studies were undertaken throughout the Multiple Property area, the most intensive research was done at Rillito Peak (Wallace and Holmlund 1983) and at various localities in the Samaniego Hills and Picacho Mountains (Wallace and Holmlund 1986).

Finally, additional information comes from the extensive site records of the Arizona State Museum.

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Woodbury, Richard B.

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, · · ·	Research Topics									
<u>Information</u> <u>Categories</u>	Settlement Patterns	Status Differentiation	Demography	Subsistence	Trade	Craft Specialization	Warfare	Environmental Change	Chronology	
Formal Mounds, Compound Walls, or Other Monuments	x	x								
Trash Mounds or Middens	x	x	x	x	x	x			x	
Habitation Structures	x	x	x	x	x	x	x	x	x	
Cremations or Inhumations		x	x	X	x	x	x		x	
R a madas or Other Extramural Activity Surfaces			x	x		x		x	x	
Field Structures	x		х	х				x	x	
Agricultural Features			x	х				x		
Petroglyphs	x	x					x			
Specialized Water Delivery or Storage Features	x			x				x		
Primary Refuse from Artifact Manufacture, Discard, or Loss				x	x	x				
Extramural Hearths, Bedrock Mortars or Metates, Portable Ground Stone Tools, or Other Food Processing Facilities				x		x		x	x	

Table 1. Relevance of Information Categories to Research Topics

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<pre>x = Likely for all members of the property type + = Possible, depending on individual site contents Property Type</pre>	Settlement Patterns	Status Differentiation	Demography	Subsistence	Trade	Craft Specialization	Warfare	Environmental Change	Chronology
Platform Mound and Associated Compound and Structures	x	x	x	+	×	x	x	+	+
Compound Settlement	x	x	x	+	x	x	x	+	+
Non-compound Settlement	x	x	x	+	x	x	x	+	+
Farmstead	x			x					
Agriculture Field				x				x	
Trincheras Site	x	x	x	+	x	X	x	+	+
Canal, Canal System, or Other Water Division Feature				x				x	
Petroglyph Site	x	+		+			+		
Limited Activity, Plant or Animal Food Processing Site				x			+	+	
Rock Shelter or Cave				x			+	+	
Reservoir · ·	x			×			+		
Quarry					x	x			
Artifact Scatter	x		+	+		+			
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Research Topics

Table 2. Relevance of Property Types to Research Topics

Information Categories

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Property Types	Formal Mound, Compound Walls or other Monuments	Trash Mounds or Middens	Habitation Structures	Cremations or Inhumations	Ramadas or Other Extramural Activity Surfaces	Field Structures	Agricultural Features	Petroglyphs	Specialized Water Delivery or Storage Features	Primary Refuse from Artifact Manufacture, Discard, or Loss	Extramural Hearths, Bedrock Mortars or Metates, Portable Ground Stone Tools or Other Food Processing Facilities
Platform Mound and Associated Compound and Structures	x	x	x	x	x					x	x
Compound Settlement	x	x	x	x	x					x	x
Non-compound Settlement		x	x	x	x					x	x
Farmstead		x	x		x	x	x		x	x	x
Agricultural Field							x		x		x
Trincheras Site	X	×	x	x	х		x	x	x	x	x
Canal, Canal System or Other Water Diversion Feature		ч -				x	x		x		
Petroglyph Site								x		x	x
Limited Activity, Plant or Animal Food Processing Site					x					x	x
Rock Shelter or Cave		x					-			x	x
Reservoir									x	x	
Quarry					x					x	
Artifact Scatter		x	- - -		x					x	
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Table 3. Information Categories for each Property Type to be Significant under National Register Criterion d

Arizona

State

United States Department of the interior National Park Service

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SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: 89000337 **Date Listed:** 5/11/89

Los Robles Archeological District **Property Name**

Hohokam Platform Mound Communities of the Lower Santa Cruz River

Pima

County

Basin c. A.D. 1050-1450 Multiple Name

This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

ignature **Sf** the Keeper

Date

Amended Items in Nomination:

Item 3. Ownership of Property.

Delete public-Federal. None of the property is owned in whole or in part by a Federal agency.

Verified by phone with: Teresa Hoffman Arizona State Historic Preservation Office

DISTRIBUTION: National Register property file Nominating Authority (without nomination attachment)