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**EXECUTIVE SUMMARY**

The Palo Verde Ruin is a significant cultural resource located in the City of Peoria. Predominately surrounded by residential development, a portion of the 80 acre ruin is owned and managed by the City as the Palo Verde Park. The City of Peoria contracted with Logan Simpson Design to prepare an Interpretive Plan for the cultural resources in the City’s Palo Verde Park. The Park is located southwest of the intersection of North 73rd Drive and West Briles Road, Peoria, Arizona 85383 and shown on Figure 2 of the Plan. The Interpretive Plan provides a set of recommendations to develop interpretative information about the Park’s cultural resources and implementation tools to share the information, protect the cultural resources, and ideas on how this Park can be part of a larger network of interpretative sites in the City.

The Interpretive Plan includes:
- Introduction with Park site information
- Palo Verde Ruin site significance
  - Area and site maps
  - Interpretative Plan:
    - Signage concepts and materials
    - Sign locations
  - Cultural resource management issues
  - Site stabilization

The Interpretive Plan identifies topics that are appropriate for explaining northeastern Peoria’s past. It includes a history of archaeological research in the Park and the chronology of the prehistoric occupation of the Palo Verde Ruin, an approximately 80 acre archaeological site that encompasses the area in and around the Park. The topics are arranged as primary themes and subthemes for information that can be used on the interpretative signage. The chronological development of the Ruin (when the site was occupied and in the order the settlement occurred) is the overall thematic structure for the interpretation of the cultural resources; 14 subthemes are appropriate for in-depth discussions on the interpretative panels.

**Primary Themes:**
- Southwestern Archaic Period
- Early Formative and Late Formative Periods
- Nineteenth and Twentieth Centuries

**Subthemes:**
- Architecture
- Chronological Identification
- Conflict
- Cultural Affiliation
- Economy
- Land Use
- Material Culture
- Population and Demography
- Site Structure and Organization
- Social Organization
- Subsistence
- Trade and Exchange
- Historic Period
- Archeological Methodology
The Plan identifies methods for presenting information within the Park (including a kiosk, interpretive signs, and Quick Response (QR) codes linking Smartphone users to the City’s website), and describes the physical and cultural setting of the Palo Verde Ruin within the larger context of central Arizona prehistory. Included are descriptions of the materials, graphic images, text, and estimated cost to fabricate and install the proposed interpretive signage in the Park. In addition, the Plan recommends development of an interpretive trail through the Park that could link with other current and planned trail systems within the region. Three interpretative sign panel templates were designed for signage and kiosks in the Park.

The Plan describes strategies for providing the public with specific information about Palo Verde Ruin, educating the public about the past, explaining how the science of archaeology is conducted, and connecting Park visitors with other recreational and educational resources in the region. The physical infrastructure to provide this information could include low-maintenance signs and a kiosk in the Park. The integration of Smartphone QR codes into the signs provides an opportunity for links to on-line resources that have more in-depth information than could be discussed on the signs themselves.
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INTRODUCTION
The Palo Verde Ruin is a significant cultural resource located in the City of Peoria. A portion of the ruin is owned and managed by the City as the Palo Verde Park. The City of Peoria contracted with Logan Simpson Design to prepare an Interpretive Plan for the cultural resources in the City’s Palo Verde Park.

This Interpretive Plan serves as a planning tool for the development of interpretative signage and other media describing the cultural resources associated with the archaeological resources within the Park. It is also intended as a resource for the City to seek additional funding for the final design and construction of interpretative signage at the Park.

The Plan provides appropriate interpretative information to communicate to the public in terms of themes, subthemes, graphics, photos, images, and supporting research and documentation. The Plan also contains the conceptual sign design for a single interpretative node, possible signage locations within the Park, placement and maintenance considerations, and materials for the sign panels and sign structure. Possible alternative signage and media information is included for use in expanding the interpretative signage opportunities to include kiosks and electronic media. Figures and tables in the Plan depict the possible locations and media content for interpretative and regulatory signage within the Park.

Implementation of this Plan could be the first step of a larger plan to promote the City’s cultural resources and enhance the public’s knowledge of the area’s early history. The significant cultural resources in the Park are educational tools that can benefit the public by teaching them about their community and the past. It is recommended that City develop a Historic Preservation Plan (HPP) for the Park. A comprehensive HPP could include a plan for linking the Park with trails to other undeveloped cultural resource sites throughout the City.

PARK AND SITE DESCRIPTION
The Park is located in northeastern Peoria, Arizona within the Terramar Development (Figure 1). The Park’s eastern edge is located near the intersection of North 73rd Drive and West Briles Road and the western edge of the park is located in the New River floodplain (Figure 2). The Park is composed of 19.8 acres. Archaeological resources are present within 15–17 acres of the Park and represent the geographical core of the Palo Verde Ruin (Ruin), AZ T:8:68(ASM), the largest prehistoric habitation village on the New River. Before construction of the Terramar Development, the site of Palo Verde Ruin encompassed over 80 acres.

The original topographic setting included a moderately dense cover of Sonoran Desert vegetation of the Lower Colorado River paloverde-cacti-mixed scrub series. Vegetation was mainly creosote bush and bursage with some saguaro and palo verde trees. The original vegetation has been replaced with modern housing and exotic plants used to landscape the Terramar Development, a single-family housing community that began development in 1999. The housing and vacant lots cover 52 acres of the 80 acre site. The central 19.8 acres of the Ruin are preserved within the Park. Approximately 8.2 acres of the site are situated north of the Terramar Development on private land.
SITE SIGNIFICANCE AND ARCHEOLOGICAL RESEARCH
Palo Verde Ruin is a listed property in the Arizona Register of Historic Places (ARHP) and in the National Register of Historic Places (NRHP). The prehistoric site has been determined eligible for listing under National Register Criterion D, information potential. Previous archaeological investigations at the site were conducted within the Terramar Development.

The Park can be divided into four subsections that correspond to where previous archaeological investigations have been completed (Figure 2). The four subsections reflect the previous survey, testing, and data recovery investigations conducted within the Park. The entire Park, including the Open Space subsection, was surveyed before the property was donated to the City (Hackbarth 1996, 1997, 2000; Larkin 1996). The Recreational Park, the Modified Preserve, and the Undisturbed Preserve were later the subject of a Phase 1 archaeological testing program (Moore 2005). Extensive Phase 2 data recovery investigations were conducted in the Recreational Park, whereas only limited work was conducted in the Undisturbed Preserve (surface mapping) and the Modified Preserve (hand excavation and geophysical sensing surveys) (Hackbarth 2011). The Undisturbed Preserve and the Modified Preserve may contain undisturbed subsurface archaeological deposits.

The Park encompasses the center of the Ruin. The original site boundary had an irregular shape that extended 1,000 m along the eastern bank of the New River and more than 600 m east of the river. Within this area is an extensive late Colonial (A.D. 900) to middle Sedentary period (A.D. 1070) Hohokam artifact scatter with 104 trash mounds. A historic component, the Keefer Ranch locus, covers 2.5 acres near the site’s southern boundary but is a noncontributing element for the site’s National Register eligibility status (Hackbarth and Craig 2007a, 2007b).
Figure 1. The original Palo Verde Ruin site boundary
Figure 2. Overall Site Plan and the four subsections of the Palo Verde Ruin Open Space Park.
INTERPRETIVE PLAN

PURPOSE
The purpose of the Plan is to provide resources and guidelines to complete the final design, fabrication, and installation of interpretative media/signage and to suggest management and site stabilization options. The Plan’s themes and subthemes provide subject areas to focus the interpretive messages about the Palo Verde Ruin in order to educate the public about the past; explain how archaeological data creates a narrative of the past; and present alternative narratives of the past from descendent Native American communities.

MEDIA
Within the Park, information about the site could be made available through permanent signs, take-away brochures, and/or Smartphone Quick Response (QR) codes placed on signs. The content for each presentation method may vary from brief (signs in the Park) to more detailed (City’s website and Smartphone’s QR codes).

Five categories of media are proposed for use within the Park: text, electronic data, graphics, audio, and visual. Text could generally be composed of brief commentaries that do not exceed 2 or 3 sentences. Graphics could include photographs and maps to accompany and explain the text. An audio recording is proposed for the central kiosk (at the location of sign “A”, as shown in Figure 4) that could include music; for example, selections of O’Odham songs. A narrator could summarize the pertinent information about the Park and the City’s role in preserving the archaeological data. Visual data could be presented as both static images on the signs and as videos available from the City’s website through a QR code link or to a video screen in the kiosk. A QR code is a two-dimensional square bar code. Individuals with Smartphones equipped with an application that reads QR codes could scan the code on an interpretive sign, which would open a page on the City’s website on their phone’s internet browser. The web page would then serve as an extension of the media actually on site at the park and could include links to the themes and subthemes proposed in this Plan.

Figure 3. Example QR Code

Proposed media information in this Plan are united in terms of signage design elements, signage materials, and format and/or content of the media. The preliminary interpretative panels were developed based on research that included reviewing prior reports, photos, and images pertaining to the data recovery projects; a site visit to review the physical area of recent park development; and image searches in books and online depicting architectural, functional, and artistic elements of Hohokam culture. Information can be presented on signs through text, photos, and graphics. The signs should include Smartphone QR codes that link the visitor to the City’s website and other resources that provide information, maps, and trail guides for the region.

The types of media selected (graphics and text on signs, electronic media, audio, Smartphone QR codes, and others) will determine the level of detail to be included within the Park displays and related links. Text and graphics for the proposed displays can be extracted from the Palo Verde Ruin National Register nomination form (Hackbarth and Leonard 2011) and may use
information from other sources in the region (e.g., Deer Valley Rock Art Center, Perry Mesa National Monument, Peoria Arizona Historical Society, and Native American communities).

Updates and new information about the Park and Ruin could be provided to the public through public meetings and presentations, the City’s website, newsletters, and notices in utility bills or other printed media.

Table 1: Interpretive Signage Media Applicability

<table>
<thead>
<tr>
<th>Subtheme</th>
<th>Paleolindian</th>
<th>Southwestern Archaic</th>
<th>Formative</th>
<th>Historic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>-</td>
<td>T</td>
<td>All</td>
<td>T G Y</td>
</tr>
<tr>
<td>Chronology</td>
<td>G</td>
<td>T E G</td>
<td>All</td>
<td>T</td>
</tr>
<tr>
<td>Conflict</td>
<td>-</td>
<td>-</td>
<td>All</td>
<td>T G</td>
</tr>
<tr>
<td>Cultural affiliation</td>
<td>All</td>
<td>T E G</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Economy</td>
<td>-</td>
<td>-</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Land use</td>
<td>T</td>
<td>-</td>
<td>All</td>
<td>T E G</td>
</tr>
<tr>
<td>Material culture</td>
<td>All</td>
<td>All</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Population and demography</td>
<td>-</td>
<td>T</td>
<td>All</td>
<td>T</td>
</tr>
<tr>
<td>Site structure and organization</td>
<td>-</td>
<td>-</td>
<td>All</td>
<td>-</td>
</tr>
<tr>
<td>Social organization</td>
<td>E</td>
<td>T</td>
<td>All</td>
<td>E</td>
</tr>
<tr>
<td>Subsistence</td>
<td>T</td>
<td>All</td>
<td>All</td>
<td>-</td>
</tr>
<tr>
<td>Trade and Exchange</td>
<td>-</td>
<td>T</td>
<td>All</td>
<td>All</td>
</tr>
</tbody>
</table>

Legend
- T = Text;  E = Electronic;  G = Static Graphic;  A = Audio;  V = Visual;  All = All Media Types Applicable.

Interpretative Sign Locations

Interpretative signage types selected for this Park should consider the City’s Parks, Recreation, Open Space, and Trails Master Plan and the proposed development of a Historic Preservation Plan (HPP) for the Park. The Park is one of several undeveloped interpretative sites throughout the City that include interpretive and recreation opportunities and have been described as “pearls on a strand” within the park system. The selection of interpretive signage for the Park should include the broader goals of the City’s park system with a unified theme that is distinctive and appropriate in terms of design, materials, and appropriate costs. In addition, signs at the beginning and end of the trail through the Park could provide directions to other parks and trails in the region. The selected design concepts could be repeated throughout the City at other parks, historic sites, recreational locations, and/or interpretive sites.

It is recommended that information be presented in the Park at five locations. The approximate locations for the signs and kiosk are identified in Figure 4. Table 1 indicates possible subtheme topics further described later in the Plan and media types that could be presented at each location.
Figure 4. Park Site Plan and proposed interpretive sign locations within the Park.
INTERPRETATIVE SIGN CONCEPT/SIGN PANELS
The Interpretive signage concept prepared by Logan Simpson Design represents a preferred design. The concept could incorporate multiple elements such as text, maps, photographs, and Smartphone QR codes. The preferred design concept integrates elements from the architecture of the recently constructed recreational facilities within the Park. Materials, finishes, and forms of the Park’s shade structure and fencing were incorporated into the concept. Later in this Plan there is an in depth description of interpretive themes that can be used to organize information about the Park and Ruin that should be included in the sign panel displays.

The conceptual sign panel templates are designed to be 24”x36” panels. Final design and construction of the selected panel design should be specific to the themes and subthemes selected for each sign location. For instance, each panel will use graphics to illustrate the topics under discussion and the design of the panel will use materials, colors, forms, and shapes that accentuate and contribute to the discussion.

GRAPHICS
Graphics for the interpretive displays related to the Ruin are available from the National Register form and published archaeological reports (Hackbarth 2011; Hackbarth and Craig 2007a, 2007b; Larkin 1996; Moore 2005). Additional historic narratives could be obtained from the Peoria Arizona Historical Society and the five modern Native American communities that have claimed affiliation with the prehistoric sites in the region. The Peoria Arizona Historical Society may contribute insight into the early history of nineteenth century farming, ranching, mining, and commercial enterprises in the region. Native American communities may provide narratives of the past that interpret archaeological sites in a different framework. Incorporation of traditional narratives, names, and histories of landmarks provided by Native American communities and the Peoria Arizona Historical Society will strengthen the final product and broaden the appeal of the displays.

MATERIALS AND FABRICATION
Interpretive signage should be constructed from materials that will be durable, cost effective, resistant to vandalism, and withstand the desert environment.

Recommended Sign Structure and Panel Materials:
- Rusticated metal/corten steel
- Digital high-pressure laminate panel
- Rebar embellishments


Costs
The estimate of probable costs assumes that the preferred concept interpretative sign will be installed at the Park. Costs include materials and labor to fabricate and install the signage. No costs have been provided for final design required on the interpretative panels, structural engineering for foundations (though none is anticipated), cultural site monitoring during installation, or permits that may be required once final design has been completed.
• Sign frame: .................................................. $175 - $250 ea
• 4” Square steel posts (2 included per sign): $225 - $350 ea
• Concrete footing: ........................................ $225 - $350 ea
• Digital high-pressure laminate panel: $600 - $800 ea
• Rebar embelishments: .................................. $150 - $200 ea

Estimated Prices per Interpretative sign: Low $1,375 and High $1,950 each.

**INTERPRETATIVE SIGN – PREFERRED ALTERNATIVE DESIGN**
SIGN PANEL – ALTERNATIVE 1

Palo Verde Ruin Interpretation Plan
December 2011

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**INTERPRETATIVE THEMES**

The Interpretative Themes are the categories of information that should be considered in the final development of signs and other forms of media at the Park and on the City’s website. The organizing principle of the Plan is a chronological framework, which provides a comprehensive way to interpret cultural resources in the region. The primary themes are based on this chronological framework. The subthemes summarized in the Plan provide specific topics and aspects of the cultural significance that can be discussed in the signs and other media. Table 1 identifies the themes, subthemes, and media that may be used within each of the chronological periods. Attachment A is a summary of the Palo Verde Ruin National Register Nomination that can be used to interpret the Ruin and Park.

The level of detail that can be presented in some media may be limited. Text, graphics, and visual media are appropriate for sign panels, but signs need to have topics that can be presented in brief, informative and interesting discussions. Additional supporting discussions, graphics, and visual content on the City’s website can expand the depth and breadth of information presented.

**Table 2. Proposed Sign Locations with Theme Categories**

<table>
<thead>
<tr>
<th>Location</th>
<th>General topica</th>
<th>Chronological theme</th>
<th>Subtheme</th>
<th>Mediab</th>
<th>c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Sign</td>
<td>* Introduction to Palo Verde Ruins * Excavations results within the Park</td>
<td>* Paleoindian Archaic Alternative narrative</td>
<td>* Architecture Site structure and organization</td>
<td>* Kiosk: Text Maps Photographs Smartphone QR code</td>
<td></td>
</tr>
<tr>
<td>Secondary Sign</td>
<td>* Introduction to the Park * Parks and artifact rules and regulations</td>
<td>* Paleoindian Archaic Alternative narrative</td>
<td>* Cultural affiliation</td>
<td>* Static Sign: Smartphone QR code Static sign Audio</td>
<td></td>
</tr>
<tr>
<td>Tertiary Sign</td>
<td>* Environmental setting Erosion * Damage from off-road traffic</td>
<td>* Historic Alternative narrative</td>
<td>* Land use Population and demography Economy Conflict</td>
<td>* Static sign: Text Maps Photographs Smartphone QR code</td>
<td></td>
</tr>
<tr>
<td>Tertiary Sign</td>
<td>* Looting Archaeological methods</td>
<td>* Formative</td>
<td>* Trade and exchange Material culture Social organization</td>
<td>* Static sign: Text Smartphone QR code</td>
<td></td>
</tr>
<tr>
<td>Tertiary Sign</td>
<td>* Directions to other trails/sites</td>
<td>* Historic Formative Alternative narrative</td>
<td>* Subsistence/Agriculture</td>
<td>* Static sign: Text Maps Smartphone QR code</td>
<td></td>
</tr>
</tbody>
</table>

a Location for proposed sign is shown in Figure 4.
b Includes warning not to collect artifacts or to dig; warnings to stay on trail, to watch for snakes, and to carry water; information about distances between parks, etc.
c Smartphone QR codes could have different age-appropriate versions of the information.

Graphic representation of the chronological framework may be a linear time line on a sign panel, or alternatively, a graphic table with archaeological period and phase names in columns and the calendar dates in rows. Native American communities may present alternative perspectives of the past that do not use a linear time line.
The chronology should include a discussion of the region prior to the establishment of the Ruin. The periods preceding occupation of the Ruin are the Paleoindian, Southwestern Archaic, and Early Formative. The Paleoindian time period could be discussed in terms of cultural affiliation; origins of the Paleoindian people; population movement across North and South America with particular reference to Arizona; subsistence; and the infrequent use of the Phoenix Basin by Paleoindians.

**Primary Themes**

**Southwestern Archaic Period**

The Southwestern Archaic period lends itself to discussion of the cultural affiliation and social differentiation of mobile residential groups. The mobility of social groups during the Archaic period includes the subthemes of subsistence (hunter-gatherers of food resources from a wide variety of environmental settings), settlement patterns (the types of sites created), and the architectural forms established during seasonal rounds. The Southwestern Archaic period could also be discussed from a geographical perspective of archaeological traditions within the mountains, mesas, and deserts of Arizona and social divergence/convergence through time. Agricultural development during the Late Archaic is a particularly important subtheme of subsistence that could be related to the development of sedentism and environmental impacts caused by an increasing population density.

**Early Formative and Late Formative Periods**

The third prehistoric time period includes the Early Formative and Late Formative periods, which encompasses the Hohokam populations that lived within the Phoenix Basin, including the village of Palo Verde Ruin. Information specific to the Ruin should include mention that the site was occupied for a relatively brief period of time beginning in the late Colonial period (A.D. 900–950/975). The Colonial period could be discussed in terms of the expansion of settlements along marginal drainages, such as the New River, and the growth of farmstead/villages communities. The regional expansion can also be discussed in terms of subthemes of social complexity; architectural variability and its meaning; and evidence for trade and exchange, including shell, obsidian, pottery, cotton, copper, pyrite mirrors, and other exotic goods. Archaeological methods related to determining the age of artifacts can be provided for decorated pottery styles, projectile point types, or other classes of artifacts. Abandonment of the Ruin in the middle Sedentary period (A.D. 1070) is a subtheme that could be examined. Hypotheses that explain site abandonment could be discussed, including regional conflict; economic or social inequalities engendered by exchanges through the Hohokam ball-court system; and the movement of populations across the landscape in response to environmental change.

**Nineteenth and Twentieth Centuries**

The final time period is the historic period, spanning the late nineteenth century and twentieth century. The influx of settlers, laborers, and businessmen all affected land use in the New River region. The impact of federal incentives to settle the American West (e.g., Mining Law of 1872 and the Homestead Act of 1863 and its amendments) could be reviewed with particular reference to nearby sites and landmarks (e.g. Sunrise/Relief Mine, Keefer Locus, Beardsley Canal, and Lake Pleasant) (Gomez et al. 2008; Hackbath and Craig 2007a; Rayle and Foster 2009a, 2009b).
Subthemes
Each time period identified as a primary theme can be discussed in terms of 14 subthemes. Expansion of the subthemes to include topics of particular relevance to each time period is appropriate. For example, the role of irrigation agriculture would be appropriate for Hohokam sites, but would not be appropriate for the Early and Middle Archaic periods. In addition, archaeological information may not be available for all subthemes; for example, mobile groups of the Archaic period created few architectural features, rendering discussions of these features relatively brief.

Architecture
Archaeologists often encounter the physical remains of field houses, brush structures, pit houses, ramadas, surface structures, plazas, ball courts, big houses (rare), and compounds that comprise the architecture of prehistoric groups in Arizona. Historic period architecture includes houses, outbuildings, mine buildings, and other specialized structures. Discussions may focus on the materials used to construct the architectural features (local versus nonlocal materials), adaptation to local environmental setting (seasonal use and thermal efficiency), duration of use, and repair or recycling of structures.

A study of architecture is pertinent to Palo Verde Ruin because pit houses and a ball court have been reported within previously excavated portions of the site. The Park undoubtedly has additional examples of pit houses that have been preserved. A possible plaza is located in the Undisturbed Preserve.

Architectural styles from different regions and time periods within Arizona could be presented in graphic forms. The variety of building styles could be discussed in terms of the cultural affiliation of individuals and groups.

Chronological Identification
The proposed Interpretive Plan uses the age of artifacts, sites, and archaeological time periods to relate Palo Verde Ruin to the rest of central Arizona. The subtheme of chronology could explain how absolute dating methods (tree-ring dating, radiocarbon assays, archaeomagnetic samples, and thermoluminescence) are used by archaeologists to infer the age of sites and artifacts. Relative dating methods could be explained using sites in southern Arizona where stratigraphy, artifact styles, and flouride dating have been applied.

Radiocarbon assays were used to establish the age of the Ruin. An explanation of the capability and limitation of the method could help the public evaluate the appropriateness of the site’s dates. Archaeological dates rely on the association of a chronometric sample with other artifacts, which is fraught with potential errors. The potential pitfalls of the different dating methods could be explained.

Regional chronologies have been established for subdivisions of Arizona and surrounding areas. The limitation of some methods, such as cross-dating ceramics with dendrochronology, could be identified.
Conflict
In the past, conflict has occurred as different levels of intensity, such as individual actions, group raids, witchcraft aimed at individuals or groups, social ostracism, and warfare. Archaeologists use multiple lines of evidence to suggest when and what type of conflict activity occurred at archaeological sites.

The number of burned structures at the Palo Verde Ruin was exceptionally high and could be evidence of conflict. However, other lines of evidence to support this conclusion are either missing or not recognized. For instance, cremation of human remains has prevented an examination of osteological data that may have retained evidence of conflict.

Evidence of conflict may be visible in the Ruin data in terms of the timing of regional abandonment and the high incidence of burned structures. Supporting evidence for conflict is available at sites in the Agua Fria River valley, where the discovery of unburied bodies on the floor of structures may indicate that violence occurred during the Classic period.

Cultural Affiliation
The cultural affiliation of archaeological sites is evaluated through multiple lines of evidence, including the material culture (artifacts). However, artifacts are not absolute proof of membership in any particular group. Ethnographic studies have demonstrated that artifacts with a particular style associated with one group may be spread beyond the original group by various methods. Artifacts can be obtained through trade, gift exchange, theft, discovery of lost artifacts, and imitation. Evaluating how particular groups of artifacts were obtained requires a holistic approach to artifact analyses.

The cultural affiliation of Palo Verde Ruin and other Formative-period archaeological sites in northeastern Peoria has been variously identified as Sinagua tradition, Hohokam tradition, and a frontier market manifestation of the Hohokam. Detailed discussions are needed to define what variables are used to identify an archaeological tradition and to explain why archaeologists may disagree about the affiliation of a particular site.

Identifying cultural affiliation is more likely to be possible between regions where multiple excavations have been completed. Contrasting the Ruin with sites from the Flagstaff, Tucson, or Yuma areas would be more productive than comparing sites between the New River and Agua Fria River.

Economy
Economic production is the sum total of all material goods that circulate within and between social groups. Items manufactured and consumed locally, as well as those destined for nonlocal use, are part of a local economy. Artifacts in a local economy may include resources used in the construction of houses, food resources, items manufactured for exchange, materials destined for use as grave goods, or other artifacts.

Palo Verde Ruin's economy included a diverse set of material goods from ceramics to ground stone to marine shell. Items that are thought to be locally produced, along with nonlocal goods, were found in all residential areas of the Ruin, but some households had higher concentrations
of one type of resource than other households. For example, roughly one-quarter of all marine shell at the site was found in Residential Area F, even though marine shell was found in all of the 14 excavated residential areas.

The concentration of one type of resource in one residential area may indicate household specialization. Exchange of pottery, marine shell, obsidian, cotton, copper, pyrite mirrors, or other exotic goods contributed to the regional economy. Items that were widely circulated may have originated from more than one location. For example, obsidian is available from dozens of sources throughout the Greater Southwest. Nevertheless, obsidian from a source close to the Ruin (the Vulture source near Wickenburg) was relatively less common than obsidian from the Government Mountain source near Flagstaff. The origin of goods found at the Ruin are likely related to social connections of individuals, exchange through the ball-court system, and the cultural affiliations of groups.

**Land Use**

Land use is the pattern of all human activities that modify the landscape. Construction of infrastructure within sites and on adjoining land is assumed to be part of the same occupation unless chronometric evidence to the contrary is found.

Palo Verde Ruin is surrounded by land with evidence of resource extraction activities such as lithic manufacturing debris, ground-stone tool manufacturing, resource procurement, agricultural fields, and irrigation canals. The Ruin is at the center of the New River community, and land use associated with the community extends as much as 5 miles north and south of the site along New River.

Other village sites situated on the New River were occupied at the same time as the Ruin. The extent of the communities surrounding these other sites is poorly documented because of modern urbanization. Nevertheless, each village is probably surrounded by a cluster of agricultural fields, farmsteads, limited activity sites, and resource extraction loci similar to the Ruin.

**Material Culture**

Artifacts recovered from archaeological sites compose the material culture of the site. Imperishable materials such as stone, mineral, and ceramics are typical of artifacts at prehistoric sites. Depending on preservation qualities, faunal bone and marine shell may also be present. Faunal bone is evidence of subsistence and marine shell can document trade and exchange. Archaeologists use small charcoal fragments and microscopic phytoliths and grains of pollen to inform about subsistence patterns. Recent advances in residue studies have expanded the repertoire of items that may contribute to subsistence studies.

Ceramics are a significant aspect of Palo Verde Ruin's artifact assemblages. Locally made plainware sherds were generally large storage vessels and were probably used to store food resources. The large size suggests that food was stored until needed, possibly during feasts held in conjunction with ball-court activities. Decorated ceramics from northern Arizona contributed to determining the age of the site and suggest that exchange occurred with other groups.
Likewise, obsidian, marine shell, ceramics, worked stone, ground stone, and turquoise demonstrate that an exchange network was in operation.

Artifacts from archaeological sites throughout Arizona are the basis for assessing cultural affiliation, trade and exchange, economy, chronology, subsistence, and social organization. The recovery of nonlocal materials at the Ruin documents connections between widely separated locations.

**Population and Demography**

Human remains are evidence of the prehistoric population that lived at archaeological sites. The age at death and gender classes from sites inform about the demography of the population. Human remains and architectural features can provide a crude estimate of a site’s population, and the frequencies of age and gender grades in the burial population can inform about cultural practices.

A low population density at Palo Verde Ruin was documented in the late tenth century, but around A.D. 1010 the population increased dramatically. Less than 60 years later the entire population of the site was gone. The rapid development of the Ruin over a short period of time implies that households immigrated to the site. The sudden decline of the site’s population may be a continuation of the migration that built up the site’s population. Alternatively, conflict may have played a role in the abandonment of the site.

The rapid abandonment of the Ruin may be related to a similar rapid increase in the population of villages along the Agua Fria River, 5 miles northwest of the Ruin. Population movement into larger villages also occurred along the Verde River, 32 miles to the east, and near Cave Creek, 10 miles to the east. This shift in residential patterns has implications for regional population growth and decline.

**Site Structure and Organization**

The subtheme of site structure and organization focuses on the layout, distribution, and components of individual houses, house clusters, courtyard groups, residential precincts, and communal/ceremonial areas. Residential areas are studied in terms of physical and organizational composition and occupational intensity as determined from structure morphology and from the presence or absence of storage facilities and nearby burials and midden areas. Occupational development and change is identified through assessments of pit-house architecture and function; the number, distribution, and arrangement of structures within house groups; patterns of structure remodeling, reuse, and abandonment; occurrence and patterns of superposition in relation to other structures; and co-association with and placement of storage facilities, cooking areas, and midden areas.

Palo Verde Ruin is an expansive Hohokam village divided into 15 or more residential areas. A ball court—the quintessential public architecture of pre-Classic Hohokam society—and a plaza are located at the center of the site and surrounded by a ring of large trash mounds.

The placement of the ball court, plaza, and residential areas within the Ruin is similar to contemporary sites in southern Arizona. The presence of ball-court villages across Arizona is a
widespread phenomenon, which demonstrates the importance of the ball-court system and implies that some level of social integration occurred over large areas in prehistory. The collapse of the regional ball-court system was concomitant with change in economiccultural affiliation, social heirarchy, and site organization of sites in central Arizona.

**Social Organization**
Archaeologists infer the organization of social groups using archaeological data and comparison with ethnographic evidence. The complexity of sites and population density are variables that archaeologists use to assess the types of interactions between individuals living in a society. The types of activities people participate in is evidence of vertical or horizontal integration within the society.

The village of Palo Verde Ruin was probably organized at the household level with each of the 15 or more residential areas comprising a household. Individual households constructed pit houses that were oriented toward a common central courtyard. Each household had essentially the same type of house and material goods, which suggests the households had roughly equal social standing within the community. Access to locations within the household’s residential area was unrestricted by physical barriers. The open spaces and ready access to all portions of the residential area implies horizontal integration of the population.

Classic-period Hohokam villages have multiple compounds and many are larger than the Ruin. Generally, movement within Classic-period sites is unrestricted, but some precincts within Classic period sites have areas with limited or restricted access. Portions of platform mounds either were blocked from view or had limited access to the top of the platform mound. This limited access implies social differentiation that was not present at the Ruin. Other sites in the Southwest have similar evidence of social differences.

**Subsistence**
Subsistence is the study of how foodstuffs are obtained and apportioned amoung individuals and groups. The types and variety of plant and animal resources may be obtained from irrigation agriculture and hunting and gathering expeditions. Subsistence production data can be obtained from pollen, flotation, phytolith, and protein residue studies, as well as from faunal material collected from habitation structures and cooking and storage pits.

The evidence for subsistence at Palo Verde Ruin indicates that a mixed strategy of irrigation farming and hunting/gathering was conducted in the surrounding area. The diversity of plant resources at the site suggests that resource production and use were varied. Hunting of large mammals was readily identifiable from the plethora of faunal remains.

The production and consumption of subsistence resources is standard fare in archaeological investigations. Environmental conditions in different regions provide a variety of resources available to prehistoric populations. The availability of particular resources or the cultural preference for certain resources is identifiable through comparative analyses of archaeological data.
**Trade and Exchange**
Trade and exchange is defined by the structure, patterns, and processes of interactions within social and economic groups. Exchange may occur as reciprocal activities to obtain needed resources and also to sustain social ties and mutual obligations. Ritual events, feasts, and other social activities that were held in conjunction with ball-court activities may have facilitated exchange among the Hohokam.

Previous investigations at Palo Verde Ruin recovered nonlocal items that were imported to the site, such as marine shell, obsidian, and some types of decorated ceramics. The nonlocal materials generally arrived at the site as finished objects and were not manufactured at the site. Other artifact types, such as plainware ceramics and ground-stone tools, were likely made of local materials and manufactured at the site for exchange with groups outside the site.

Activities held at the Ruin ball court probably facilitated exchange of resources throughout the region. The regional Hohokam ball-court system collapsed during the late Sedentary period, roughly the same time period in which the Ruin was abandoned. Trade and exchange as a component of the ball-court system could be discussed for the Ruin and the region.

**Historic**
The Historic period at Palo Verde Ruin involves activities that occurred within the region and impacted the archaeological site. A historic transportation route (Frog Tanks Road) crossed the archaeological site and is visible in the Park. Subthemes associated with the road include the following: trade and exchange between Wickenburg and Phoenix, dam construction/irrigation water on the Agua Fria River, and mining in Wickenburg. Mining could also be addressed by reference to the nearby Sunrise/Relief Mine on Happy Valley Road. Historic homesteading on the New River could be discussed in terms of the Keefer Locus, a component of the Ruin (see Hackbarth and Craig 2007a). Irrigation water and storage dams on the Agua Fria River could be addressed by reference to Lake Pleasant and the Beardsley Canal and Agua Fria Canal (Fenicle et al. 1994; Intracaso 1988).

**Archaeological Methodology**
Archaeological methodology is another issue that is worthy of interpretation to the public. The role of dating methods, ethnographic comparisons, and historic analogy could be emphasized in discussions. The proposed reconstruction of a ball court at Palo Verde Ruin could be a topic for discussion about archaeological methodology.

**SITE MANAGEMENT**

**SIGN MAINTENANCE**
The maintenance and reduction/elimination of vandalism nuisances is an important part of the successful design of interpretive signage elements. The frequency of maintenance and annual costs to the City can be managed and minimized through careful placement of signs to consider solar orientation and defensible locations as well as using vandal resistant components, hidden attachments, and design to minimize damageable surfaces or theft.
Interpretive signage placement is an important consideration to reduce degradation by sun exposure. Ideal placement would be to orient the interpretive signage with the media panel facing north to northeast. South and southwest orientation is the least favorable for long term sun exposure, but could be used under shaded structures. Locating the signage in defensible, openly visible locations would support the reduction/elimination of vandalism and would provide visual cues that clearly identify the interpretive areas.

**FENCING**

Fencing and barriers should be integrated with the design of interpretive signage and existing Park architecture. Fencing should be durable, vandalism resistant, and deter unauthorized pedestrian, motorized, and nonmotorized vehicular uses in the Park. The fence materials should mimic some of the steel and rebar elements used in the park entry fencing and/or dense thorny desert plant material of the surrounding native desert. The existing pipe rail fence along the south and west portions of the Park could be repeated near Frog Tanks Road. Planted barriers should be implemented with permanent fencing to soften the look and to blend in with the hilly background landscape; underground irrigation pipes should be avoided to protect the Park’s underground cultural features.

**INTERPRETATIVE PATH**

A pass-through or loop path should be considered as an enhancement to the existing Park features as part of the Park Master Plan and HPP. The interpretive path could serve as a tool for guided educational tours, offering a different way for visitors to experience the site. A preliminary identification of a pass-through interpretative trail alignment is shown on the site plan in Figure 4. In addition, the loop path may be a more appropriate manner to guide visitors through the site until such time as a connection to the New River Trail is installed. In the future, interpretative signage may be added along the loop trail, following guidelines in the Park’s Historic Preservation Plan. The surface features should be stabilized and a plan for managing the cultural resources should be completed before the loop trail is installed.

**CULTURAL RESOURCE MANAGEMENT ISSUES**

Cultural resources in the Park were reviewed in terms of past, present, and future impacts. Remedial actions are recommended to minimize negative impacts in the future and to suggest ways that could stabilize the cultural resources. Management guidelines would be established in the Park’s HPP. Management plans for the Park must consider the high probability that human remains are present. Access management and cultural site monitoring are the recommended methods to manage the Park’s resources.

Management of the Park should recognize that cultural resources cover approximately 80 percent of the Park’s modern ground surface. The remaining 20 percent of the Park is divided between wash channels and alluvial settings that lack surface archaeological resources (8 percent) and the New River floodplain (12 percent). Off-road vehicles have damaged the modern ground surface in the floodplain, but ephemeral agricultural fields may be buried within the floodplain. One possible irrigation canal is visible as a shallow depression along the interface of the floodplain and the bajada.
**Looting and Erosion**
Looting and erosion have occurred within the Park and negatively affect the integrity of archaeological resources. Looter’s holes have been excavated into trash mounds. The amount of damage caused by looting in trash mounds may be minimal because mounds normally have mixed strata. However, looting may have more serious consequences where trash mounds have accumulated over pit houses and the illicit digging has intruded into the lower features.

Erosion is a common occurrence on the bajada. Three examples of erosion are documented within Palo Verde Ruin. Excavations in 1998 identified pit houses in RA-A that were partially destroyed by erosion. In 2010, excavations within the recreational portions of the Park documented overbank flood deposits that damaged a prehistoric thermal pit. Modern overbank scouring has produced a channel through archaeological deposits down slope (southwest) of the Frog Tanks Road alignment. The channel from these floods has cut across a previously undisturbed portion of the site and exposed ceramic and lithic artifacts. A drop structure has been constructed to reduce future erosion at this location. The effectiveness of a drop structure has not been tested.

**Vandalism and Dumping**
The potential for vandalism to archaeological resources, fences, and interpretive signs is high. Recently, illicit excavations in the Park have created dirt mounds for BMX riders and the prehistoric mounds themselves may also be used by BMX riders. Erosion caused by the repeated BMX traffic and the creation of new mounds through illicit digging damages the site’s integrity.

Public use of the Park has included dumping within the confines of the City property. Cable barriers and fencing have minimized dumping of large truckloads of dirt, but trash and yard wastes continue to accumulate within the Park’s boundary. In addition, use of the park may involve persons that collect surface artifacts, especially decorated pottery.

**Human Remains**
Prehistoric residential areas within the Park undoubtedly have human remains, which are protected resources under two Arizona laws (ARS§41-844 and ARS§41-865). Human remains can be expected in formal cemeteries and isolated locations within the Open Space Park. In addition, one trash mound (Feature 1283) may be analogous to the Shrine Area at the Grewe Site. The Shrine Area was the location of unusually rich burial goods and could be a cemetery where high status community members were interred or where mortuary rituals were conducted for all community members. Regardless of its origin and function, the original survey of the Park identified Feature 1283 as unusual because of the exceptionally high incidence of artifacts, including exotic white ware ceramics (Ciolek-Torrello 1982). Feature 1283 is located close to the plaza and both features are elements of the site’s public architecture.

**Access Management**
The immediate task for preserving the cultural resources is to limit access to the Open Space Park. Restricting access and off-trail travel to the area west of Frog Tanks Road will minimize the unauthorized collection of surface artifacts and additional damage to the surface features. A fence/barrier that restricts access west of Frog Tanks Road in the Open Space Park is
recommended. Fencing/barriers should be durable and vandalism resistant and should deter pedestrian, motorized, and nonmotorized vehicular uses from preservation areas. Reproducing the pipe-rail fence that is along the southern and western portion of the Park is one option for the boundary within the Open Space Park. Alternatively, a fence with an ornamental design mimicking the steel and rebar elements used in the entry fencing of the Recreational Park could also be appropriate. Gabion baskets could also be paired with pipe rail to manage access. A barrier using dense or thorny desert plant material is another option for a less structured approach to limiting access within the Open Space Park; a living barrier could be used to stabilize the wash bank. To protect the Park’s underground features, planted barriers should not include subsurface irrigation pipes/lines. Planted barriers may be implemented with more permanent fencing to soften the appearance of fences and blend with the natural landscape.

Following construction of a trail through the Open Space Park, installation of a sign/fence/barrier along the trail is recommended to minimize off-trail travel. Signs that request visitors to stay on the trail may be adequate measures. However, if surface artifacts are being collected by visitors, then additional fencing may be necessary. Repeated monitoring of artifact density along the trail may be needed to determine whether artifacts are being collected.

**Cultural Site Monitoring**
Monitoring the density of surface artifacts may be performed by docents, site stewards, or members of the Friends of Peoria’s Archaeological Heritage (FoPAH). Repeated counting of artifacts in the same areas across the site may be conducted over several years. Counts performed on an annual basis over multiple years will be able to document whether surface artifacts are being collected. The City's could also inform the neighborhood about their role as Park stewards through informational flyers. The flyers could incorporate information about the City's goals and how residents can help maintain the Park. Flyers sent to Terramar’s homeowners should include a list of allowable uses, restricted activities, and contact information to report any violations.

Surface erosion and unauthorized construction of BMX trails or mounds can be monitored by docents, site stewards, or members of FoPAH. Repeat photography of eroded surfaces from the vantage point may be able to document whether erosion is continuing to destroy archaeological resources. Surface artifact counts from eroded contexts may also determine whether erosion is continuing or remaining stable. Surface maps or cross sections of incised channels may also indicate whether erosion has stopped.

Previously excavated looters’ disturbances and BMX mounds/depressions could be cleaned, examined, and profiled to enhance an understanding of what was encountered during the looting episodes. Maps of the individual mounds and backdirt piles could be created to establish the size and location of disturbances. Eventually, the City may identify the limits of disturbances and backfill the depressions with clean fill and a permanent, permeable barrier. Backfilling would minimize future erosion and would re-create a surface that is recognizable and interpretable to the public.
SITE STABILIZATION

Site stabilization is a long-term task with two components. In the short term, the first goal is to prevent further damage to the cultural resources. Barriers such as fencing, signs, and plants may accomplish goal of the initial task. The second goal is to enhance the Park and maintain its cultural resources for the enjoyment and enrichment of future residents and visitors. Enhancement of the Park includes the currently proposed Plan and the City’s long-term goal of linking multiple parks and trails to provide unequaled educational and recreational experiences within the City’s park system.

The preferred methods for site stabilization should be identified in a Historic Preservation Plan as part of a Park Master Plan. The Park’s Master Plan should establish management guidelines and a timeline for the proposed management activities for the entire Park. The Historic Preservation Plan could establish the City’s goals for the management of cultural resources within the Palo Verde Ruin and should identify and detail the implementation of appropriate stabilization methods and acceptable ways to manage and use the cultural resources in the Park. Table 3 identifies potential implementation goals and activities that could be further developed in the proposed Historic Preservation Plan.

Table 3. Proposed Interpretive Enhancements

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<tr>
<th>Goals</th>
<th>Undeveloped Park</th>
<th>Developed Park</th>
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<td></td>
<td>Open Space Park</td>
<td>Unmodified Preserve</td>
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<tr>
<td>Education</td>
<td>Displays</td>
<td>• None</td>
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<td></td>
<td>• Guided tours</td>
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<td></td>
<td>• Venue to show what the region</td>
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<td>looked like before Terramar</td>
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<td>interpret data from previous</td>
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<td></td>
<td>investigations</td>
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<tr>
<td>Park Enhancement</td>
<td>• Fence/barrier along Frog Tanks</td>
<td>• Maintain current status</td>
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<td></td>
<td>Road</td>
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<td></td>
<td>• Fence/barrier along trail</td>
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<td>• Displays</td>
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<tr>
<td>Cultural Resource Preservation</td>
<td>• Profile looters’ disturbances</td>
<td>• Monitor erosion and minimize erosion</td>
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<td>• Back fill looters’ disturbances</td>
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<td></td>
<td>• Monitor surface artifact density</td>
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<td>• Limited excavations under</td>
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<td>appropriate conditions</td>
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IMPLEMENTATION

FUNDING
The timing of implementation for the recommendations of this plan may vary depending on the availability of various funding sources. Basic stabilization of the Park’s resources, such as fencing along Frog Tanks Wash may occur in the short-term, while it may be more appropriate to postpone more extensive enhancements until they can be completed in tandem other improvements, e.g. installing trail barriers concurrently with trail surface improvements. In addition to City budget funding through the City’s General Fund or Capital Improvements Program, opportunities for grant funding may be available to support the preservation and educational goals presented in this plan. In particular, the annual Federal Historic Preservation Pass-Through Grant, which partially funded the preparation of this plan, may be available. In addition, the Preserve America Grant Program, should it receive Federal appropriations, may be a source of funds to further preservation and interpretation efforts for this site. As part of a larger trail system, trails on this site could be part of larger projects that may be eligible for the Federal Highways Administration-funded Transportation Enhancement Program.

IMPLEMENTATION ACTIONS
1. Identify/determine funding sources.
2. Develop a Historic Preservation Plan for the site to address site/resource management
   (See Table 3.)
3. Determine route for Interpretive Path, giving consideration to access management.
4. Create text/designs for interpretive signs.
5. Produce and install sign or signs.
6. Develop companion documents/brochures or other media (e.g. videos, self-guided audio tours, etc.) that can be placed on the City’s Historic Preservation webpage and linked to the QR codes on the interpretive signs to expand upon the information provided by the signs.
7. Prepare informational flyers or brochures for distribution to neighboring households.

SUMMARY
The Palo Verde Ruin Open Space Park Interpretive Plan creates a framework to provide the public with specific information about Palo Verde Ruin, educate the public about the past, explain how the science of archaeology is conducted, describe alternative narratives about the past from Native American communities, and connect Park visitors with other recreational and educational resources in the region. The physical infrastructure to provide this information should include low-maintenance signs and may include a kiosk in the Park. The integration of Smartphone QR codes into the signs can provide an opportunity for links to resources that have more detail and in-depth discussions than the signs themselves, while an interpretive path could support guided tours.
ATTACHMENT A

REGIONAL AND HISTORIC SITE CONTEXT

Paleoindian
Human presence in the Southwest began as long as 11,000 years ago. The initial period of occupation, during the Paleoindian period dating from approximately 9500 B.C. to 8500 B.C., appears to have been intermittent, given the limited amount of recovered archaeological materials. The evidence for Paleoindian occupation consists primarily of isolated surface finds of Clovis points, as well as buried megafaunal kill sites in alluvial contexts that have yielded associated lithic assemblages (Haynes 1980, 2011). Based on these scant data, the period appears to be characterized by dispersed mobile groups that primarily hunted now-extinct megafauna and supplemented their diet with collected wild plant materials (Waters 1986). Only a few artifactual surface finds have been reported in southern Arizona (Agenbroad 1967; Huckell 1982) and it is likely that most Paleoindian period remains are currently buried by substantial Holocene alluvial deposits. Two isolated points have been found in the northern periphery of the Phoenix Basin (Crownover 1994; Huckell 1982; North et al. 2004, 2005), representing the only known evidence, to date, of Paleoindian occupation or use of the Phoenix Basin.

Archaic
Following climatic amelioration and the extinction of the previously exploited flora and fauna, a new cultural pattern emerged, the Southwestern Archaic period, manifested by small, mobile, residential groups that hunted small to medium-sized game and foraged for diverse floral resources. This adaptive pattern persisted through the Early Archaic (8500 B.C. to 5000 B.C.) and Middle Archaic (5000 B.C. to 1500 B.C.) periods. Over time, there was a trend toward an increased reliance on migratory patterns based on seasonally available plant resources, as evidenced by the increased prevalence of grinding tools in the artifact assemblage. By the Late Archaic period (1500 B.C. to A.D. 1), some groups occupied well-watered upland locations or locales along primary or secondary stream courses where crops were planted. In these locations they adopted maize horticulture, maintained substantial storage facilities, and established a semi-sedentary subsistence-settlement pattern (Huckell 1995; Mabry 2000). Around 500 B.C. large seasonally occupied villages, some with communal structures, were established in southern Arizona (Mabry 2000). These villages centered around floodplain maize agriculture and riparian resources, but with continued exploitation of upland bajada resources. In nonriverine desert areas, however, the tradition of hunting and foraging, accompanied by increased sedentism, appears to have persisted at least through the end of the Archaic period (Halbirt and Henderson 1993).

Early Formative
The succeeding Early Formative period, dating between A.D. 1 and approximately A.D. 700, is characterized primarily by the introduction and early development of plainware ceramics. This period is considered a period of transition, during which sedentism and the reliance on horticulture increased throughout the American Southwest. However, current understanding of the initial phase of the Early Formative period in the Salt-Gila River Valley, the Red Mountain phase (Haas 1993), is limited to data derived from a limited number of sites and site components in the Phoenix Basin (Mabry 2000). The Red Mountain phase, which is represented
by the earliest component at Pueblo Patricio (Cable and Doyel 1987; Hackbarth 2010; Henderson 1995) and the Red Mountain site (Morris 1969), is characterized by groups of small pit houses of varying configurations that composed small semi-sedentary farmsteads. No definitive Early Formative period sites have been identified along the New River but one site has been found along the Agua Fria River (Steinbach et al. 2009). It appears that occupation of the New River area began later, around A.D. 700, during the early Colonial period (Doyel and Elson 1985).

**Hohokam**

The emergence of the Hohokam as an integrated cultural pattern occurred possibly as early as A.D. 600 with the introduction of incised and painted ceramics (Estrella and Sweetwater Red-on-gray), although a much earlier origin beginning in the Vahki phase originally had been proposed (Gladwin et al. 1965). Recent assessments have suggested that the suite of cultural traits and developments that marked the beginnings of regional cultural differentiation and that characterized the Hohokam does not appear to be fully established until the Snaketown phase or possibly as late as the middle of the Gila Butte phase of the Colonial period, beginning around A.D. 750 (Dean 1991; Doyel 1991; Wallace et al. 1995; Wilcox 1979; Wilcox and Sternberg 1983). These traits, which reflect the development of an integrated belief and ritual system and the inception of a regional system, include the adoption of public architectural forms, such as ball courts, into the settlement structure and the development of a characteristic mortuary complex, large-scale irrigation agriculture, and naturalistic iconography in decorated ceramics. Along the New River, prehistoric occupation during the early Pioneer period was likely transitory with seasonal camps and activity areas (Doyel 1985).

Throughout the Pre-Classic, between A.D. 700 and approximately A.D. 1150, the Phoenix Basin can be considered the primary focus of Hohokam regional development. During the Snaketown phase, the emerging Hohokam cultural pattern was manifested by the first documented construction of canals (Wilcox and Shenk 1977) and urn burials (Haury 1976). Trash mounds appeared during this period, and one at Snaketown was capped with caliche, possibly a precursor to the later platform mounds (Haury 1976). Evidence of Hohokam occupation is first identified outside of the Phoenix Basin in locations such as the lower Verde River and in the Tucson Basin (Crown 1991).

Numerous villages were established during the Colonial period throughout southern and central Arizona. Large villages were established in the northern Phoenix Basin along more substantial drainages—such as the New River—that were capable of supporting irrigation agriculture, including peripheral areas along secondary drainages where canal irrigation was not feasible. Habitation sites consisting of pit houses arranged in courtyard groups focused on a common living or workspace represent a frequent pattern of settlement organization (Howard 1985; Wilcox et al. 1981). Sites typically consist of one or two courtyard groups, trash mounds, cemetery areas, and roasting pits that tend to be arrayed around the margins of the courtyard. At larger villages, composed of clusters of courtyard groups, central plazas and communal cemeteries and work areas were incorporated into the village (Howard 1985; Wilcox and Sternberg 1983). The introduction of ball courts at some of these villages, at least by the Gila Butte phase, suggests the beginnings of site functional differentiation and intercommunity
integration. Ball courts, as a widespread form of public architecture, increased in number and expanded in areal extent throughout the Colonial period. By the Sedentary period, ball courts were represented not only in the Phoenix Basin but in surrounding areas as well. A ball court at the Palo Verde Ruin/AZ T:8:68(ASM) probably was constructed by A.D. 1010 and abandoned within 60 years.

The Santa Cruz phase of the Colonial period and the Sacaton phase of the Sedentary period were times of substantial growth in the number and size of Hohokam settlements and ball-court villages, and in the extent of the canal networks in the Phoenix Basin (Doyel 1991). It was likely during this time that the settlement system along the New River expanded and the implementation of canal irrigation ensued (Doyel 1985). The Palo Verde Ruin was the center of this regional system, with numerous hamlets, ground-stone manufacturing sites, and temporary activity areas/agricultural sites dating to this time (Doyel and Elson 1985). Northwest of Palo Verde Ruin is a small hamlet site, the Antelope Glyph Site, which was established during the Sacaton period as a satellite to the larger village (Doyel 1985). The establishment of this hamlet may have coincided with the abandonment of some farmsteads in the southern end of the New River settlement system (Doyel 1985). In peripheral drainages, the number of hamlets and farmsteads increased during the Sedentary period. Nonirrigation agricultural intensification and the intensive use of agricultural rock piles for the cultivation of crops, such as agave and cholla, appear to have developed at least by the late Sedentary or early Classic periods (Fish et al. 1992; Masse 1991).

By the beginning of the early Classic period, change in the structure of Hohokam communities is manifested by a shift in burial practices from primarily cremations to inhumations; a change in regional exchange networks as reflected by the shift in the production and distribution of ceramic types and exotic materials; and the development of new domestic and public architectural forms, including post-reinforced and adobe-walled structures and walled compounds. The decline and eventual collapse of the ball-court system occurred before this period; social activity formerly associated with the ball courts may, instead, have become focused upon platform mounds (Gregory 1987). In the northern periphery, Classic period farming loci and temporary campsites tend to cluster along the Agua Fria River at village sites with rock compounds walls (Doyel 1985; Green 1989).

Development of platform mounds began during the late Sedentary period and represented an important architectural component of a new community organization that was manifested in Hohokam settlements not only in the Phoenix Basin, but in other settlements over a much wider region, including Tonto Basin and Tucson Basin and along the lower San Pedro River. The platform mound apparently evolved in function from an initial nonresidential, special-purpose facility to a residence used by a specific residential group (Gregory 1987). In conjunction with this Classic period community restructuring, a hierarchy of settlement types also emerged. These included villages with only one or a few walled residential compounds, villages with one or more platform mound compounds as well as other compounds, and large settlements (Wilcox 1991). Along the Agua Fria River, the construction of stone-lined pit houses during the Classic period occurred, a phenomenon that was not duplicated along the New River drainage (Doyel 1985). After A.D. 1100, the construction of hilltop forts occurred farther north along the
New River and eastward along Cave Creek, a secondary drainage (Doyel and Elson 1985; Rodgers 1978). After development of the hilltop fort system and large masonry villages, the New River area was relegated to a peripheral status within the Hohokam regional system and few post-A.D. 1100 sites have been found (Doyel 1985).

**Protohistoric**

Archaeological evidence for Protohistoric groups north of the Salt River Valley is commonly found in dry caves. Artifact scatters with small triangular points and Tizon Brown Ware are relatively common (Gilpin and Phillips 1993). Protohistoric populations moved between different environmental zones in conjunction with the changing seasons, as indicated by the temporary nature of the occupied sites.

Material culture of the Protohistoric period includes small, triangular projectile points, which are similar to point styles used by the historic Yavapai. Ceramics associated with the Protohistoric period also are similar to the historic Yavapai ceramics, especially Tizon Brown Ware, a paddle-and-anvil, hand-smoothed, sand-tempered, and poorly oxidized ware, which often exhibits distinctive wiping marks (Dobyns and Euler 1958; Euler and Dobyns 1985; Pilles 1981; Whittlesey and Benaron 1997).

The transition from the Protohistoric to the Historic period occurred as early as the seventeenth century. Spanish explorers encountered ancestors of the Yavapai people northeast of the Bradshaw Mountains (Gifford 1936; Protas 2002; Schroeder 1959; Whittlesey and Benaron 1997). One possible protohistoric site dating to the early sixteenth century, AZ T:4:38(ASM), has been reported near Lake Pleasant (Hackbarth 1989).

**Historic**

The mountainous areas north and west of the Salt River were largely occupied by the Yavapai. Gifford (1932, 1936) considered the Yavapai most closely aligned in terms of cultural traits with the upland Yuman Walapai and Havasupai of northwestern Arizona. Four Yavapai subtribes occupied the area between Bill Williams River and the Mazatzal Mountains. These four subtribes were divided into smaller, individual bands lead by separate civic and war leaders. Each subtribe was independent of the others and no central authority was established at the tribal level (Gilpin and Phillips 1999; Khera and Mariella 1983). Each subtribe exploited a territory that included desert, mountain, and transitional zones. Traditional homelands of each band, however, did not have precisely defined borders (Corbusier 1969; Gifford 1932, 1936; Khera and Mariella 1983; Whittlesey and Benaron 1997). Northern Peoria includes an area traditionally used by the Wipukpaya, the central band of the Yavapai, who formerly resided in the southern Bradshaw Mountain foothills and the upper New River.

The Yavapai were organized into extended families that camped together to exploit seasonally available food resources. During autumn, as many as 100 families would gather in the upper elevations of their traditional range in areas where nuts, seeds, and berries could be collected. The subtribes would then disperse into small groups during the spring and summer to plant crops and collect desert plants in the lowlands (Khera and Mariella 1983). Collected resources included acorns, piñon, walnuts, sunflowers, goldeneye, wild grasses, manzanita, juniper, mulberry, hackberry, lemon berries, banana yucca, chenopodium, amaranth, and agave (Khera
and Mariella 1983). Agricultural products grown during the late spring and early summers in the lowlands supplemented collected cactus fruits, such as saguaro. Domestic crops—including corn, beans, squash, and tobacco—were planted along small streams, intermittent washes, and near springs, where pot watering and floodwater farming were feasible (Khera and Mariella 1983). Hunting was conducted in the uplands during the fall, although small game was taken opportunistically throughout the year.

South of the Yavapai homelands, the landscape was unoccupied although Yavapai and their traditional enemies, the Pima, used the Salt River and New River valleys as seasonal resource zones. The Pima and Maricopa occupied the middle portion of the Gila River at the time of Spanish contact in the mid- to late sixteenth century. The Pima are considered the descendants of the Hohokam in the Phoenix Basin (Doyel 1991; Haury 1976), although the validity of this particular prehistoric-historic connection is debated (Doelle 1981; Masse 1991).

Euro-American incursion into central Arizona occurred around 1846 as a result of the Mexican-American War. The incursions intensified when the war ended in 1848 with the signing of the Treaty of Guadalupe Hidalgo. Military expeditions, explorers, surveyors, immigrants, and settlers began to enter the region during the American era (A.D. 1853–1950). The Gadsden Purchase of 1853 added southern Arizona to the nation, which allowed travelers on the Gila Trail to pass through southern Arizona on their way to California. The Gila Trail passed through Pima villages on the Gila River where travelers were able to replenish their stocks of food by trading with the Pima (DeJong 2007).

The late 1800s saw an influx of settlement into the Salt River Valley encouraged by a series of national public land laws, such as the National Homestead Act (1862), Timber Culture Act (1873), Desert Land Act (1877), and Enlarged Homestead Act (1909) (Bostwick and Rice 1987; Stein 1990). The influx of Euro-American miners and farmers created conflict with the Yavapai as their traditional lands and water sources were usurped. Violent confrontations occurred between militias established by the miners and individual Yavapai bands before 1865. Following the end of the Civil War, the US military presence in Arizona increased and efforts to engage and suppress the Yavapai and Apache intensified. Pima scouts serving as an auxiliary force to the US military were instrumental in tracking and engaging the Yavapai. A winter campaign of attrition eventually led to the defeat of the Apache and Yavapai in 1871–1872.

Following suppression of the Native Americans, the majority of homesteads filed in Arizona were located wherever water was available, especially along the Salt River (Stein 1990). By the late 1870s, many settlers in the Salt River Valley were extensively cultivating farm land under private canal systems (Arizona Board of Regents 1989). Farming in the valley began in the 1870s as dispersed communities near Phoenix, Mesa/Lehi, and Tempe. The towns of Peoria, Buckeye, Avondale and Glendale were established two decades later. Land obtained under the homestead acts, however, was worthless without irrigation water to grow forage, grain, cotton, or citrus. Small groups of farmers in the Salt River Basin, beginning in 1867, built irrigation canals across vacant land to supply water to their fields. Beginning in the 1880s, however, large companies owned by outside investors built irrigation systems, such as the Grand and Arizona canals. These canal systems supplied water to farmers that purchased the water, but did not
own shares in the irrigation companies. Conflict over water delivery, ownership of water rights, and crop damage from water logged soils—caused by excessive and improper irrigation methods—created calls for public control of irrigation in the Salt River Basin. President Theodore Roosevelt signed the Reclamation Act of 1902, creating the first national effort to build large-scale irrigation projects in the western United States. Two dams along the Salt River (Granite Reef and Roosevelt) and the extensive canal network in the Phoenix Basin became the nation’s flagship reclamation project. The irrigation and electricity provided by this, the Salt River Project, propelled the development of Phoenix during the twentieth century (Zarbin 1986). A privately funded dam and irrigation system was constructed on the Agua Fria River in the western valley. Lake Pleasant had numerous legal problems but eventually was completed in the 1930s (Fenicle et al. 1994; Intracaso 1988).

Control of water also formed the basis of economic stability for Arizona ranching. The ranching industry in Arizona was based on a prior appropriator model or “customary occupancy” laws, which stated that whoever controlled the water source also controlled the surrounding grazing lands (Hage 1989). Cattle, sheep and goats raised on Arizona’s ranches had to survive on scanty forage. Another challenge facing the ranchers was the free use of open range, which pitted the growing number of ranchers against each other. Further conflict developed in the 1880s and 1890s when sheep herders seasonally trailed their flocks between the low desert and mountain pastures. Two overland sheep trails near Peoria, the Black Canyon Trailway and a route west of the Bradshaw Mountains, brought itinerant sheep herders and ranchers living along the trailways into conflict over grazing rights.

New River became the focus of historic development starting in November 1886, when the Straw family established a homestead near what would become Peoria. By August 1888 a post office was established to serve 27 residents in the community (Barnes 1988) and a plat map for the Peoria townsite was filed with the county recorder’s office in 1897. The plat was filed at the request of Joseph B. Greenhut and Deloss S. Brown, owners of the section of land where the original Peoria townsite was established (Gilbert 2004). Most individuals in Peoria were Midwestern farmers that had been attracted to Arizona Territory by the potential of irrigated lands. Peoria was established in the vicinity of 83rd and Peoria Avenues, nine miles south of the current project area, and named after the city the farmers left behind in Illinois. William J. Murphy, the financier, designer, and contractor for the Arizona Canal Company, sold land irrigated by the canal to the immigrants. The privately owned irrigation system using Lake Pleasant water encountered legal problems with the Salt River Project when it tried to deliver water to the area west of Peoria.

Nineteenth century immigrants to the area experimented with agricultural crops that could be grown in the area, but most commonly planted barley and alfalfa. Citrus and cotton became staples in the twentieth century along with vegetables, melons, and sugar beets. Unreliable water delivery from the Arizona Canal Company prompted residents of Peoria to construct a well and large water tank near Grand Avenue. The elevated water tower proved to be a landmark for travelers along Grand Avenue.

Travelers and freight haulers moved through Peoria along dirt trails and roads. One of the
earliest dirt trails in the area was Frog Tanks Road, which originated in Phoenix, followed the New River through the area that is now Palo Verde Park, and crossed the Agua Fria River at a proposed dam near modern-day Lake Pleasant (Fenicle et al. 1994; Intracaso 1988). Travelers on Frog Tanks Road either proceeded west to Wickenburg from the Lake Pleasant vicinity, or turned north to access the farming community of Walnut Grove and mines near Congress and Prescott.

Railroad routes were established in the late nineteenth century that linked Peoria to the rest of Arizona Territory. Construction of the Santa Fe, Prescott and Phoenix Railroad began in 1887 to connect Prescott with the Congress Mine. The railroad was extended to Wickenburg, Peoria and Phoenix in 1895 along the Grand Avenue alignment. The railroad linked two transcontinental railroad systems that passed through Arizona and provided an important embarkation point for agricultural crops grown in Peoria and sold in distant markets throughout the nation (Myrick 2001; Sayre 1985). Railroad service superseded the Frog Tanks Road connection to Wickenburg and eventually the road fell into disuse.

ARCHAEOLOGICAL INVESTIGATIONS AT PALO VERDE RUIN

In the 1930s, Frank Midvale (n.d.) recorded Palo Verde Ruin as a large prehistoric village on the east and west sides of the New River. Subsequent surveys redefined the extent of Palo Verde Ruin and assigned the site number AZ T:8:68(ASM) to the area east of the New River (Dittert 1976; Madsen 1984; Ruppé 1966). Midvale described the site as a large village with multiple trash mounds, a high artifact density, and a ball court.

Dittert (1976:62) resurveyed the site and made surface collections at Palo Verde Ruin as part of the Central Arizona Project’s (CAP) survey for a canal alignment. The CAP artifact collections were made in 38 randomly placed units, which had a low frequency of red-on-buff ceramics. No further work at the site was conducted for tasks related to the CAP.

The Museum of Northern Arizona (MNA) conducted limited testing at Palo Verde Ruin during the selection process for the West Wing dam, a federally-funded flood control dam (Ciolek-Torrello 1981, 1982). The MNA archaeologists used augers to test the largest trash mounds and also cleaned, faced, and inspected the profiles of some looter’s pits. Surface collections were limited to temporally diagnostic ceramics and unique artifact classes. The site’s age was estimated as A.D. 700 to A.D. 1300 based on decorated ceramics, which include Kana’a, Sosi, and Black Mesa Black-on-whites and Deadmans Black-on-red (Ciolek-Torrello 1982). Ciolek-Torrello (1982) commented that the site’s central precinct—the area that currently within the COP’s 19.8 acre park—had the highest artifact density and the oldest occupation within the site. Reanalysis of the CAP artifacts and the MNA collections suggested the decorated ceramics were evidence for wide-spread trade (Doyel and Elson 1985).

In early 1996, a Class III archaeological survey of the Terramar Development was conducted for Richfield Investments (Larkin 1996). The survey confirmed the site boundary established by Arizona State University’s investigators (Dittert 1976; Ruppé 1966), which included the historic Keefer Ranch locus. Based on the variety of prehistoric artifacts and associated trash mounds, Larkin recommended that the Palo Verde Ruin was eligible for inclusion in the NRHP (Larkin
1996:8). Larkin recorded the historic component but was equivocal about its importance and NRHP eligibility.

A reconnaissance survey of the Terramar Development reidentified the site boundary but did not include an inspection of the Park (Hackbarth 1996). The survey reported 104 surface features within the Terramar Development’s project area. Later survey of the 19.8 acre Park (Hackbarth 1997, 2000) recorded an additional 27 trash mounds, 1 rock and ground stone concentration, 2 fire-cracked rock concentrations, 9 artifact concentrations, and numerous looter’s pits.

Archaeological testing of 52 acres within the Terramar Development was completed in 1998 for Richfield Investments. Backhoe trenches were excavated throughout the 52 acres using 352 backhoe trenches for a total of 4,845 linear meters. The trenches exposed 199 prehistoric and 32 historic features, including 79 trash mounds, 44 pit houses, 1 ball court, 51 pits, 4 secondary cremations, 7 rock features, and 1 possible canal—later determined to be the historic Frog Tanks Road alignment (Hackbarth et al. 1997).

Phase 2 data recovery excavations of Palo Verde Ruin at the Terramar Development were conducted from April to September 1998 and recorded 1,273 archaeological features. Mechanical excavation of nearly 12 acres (5 hectares) exposed 866 features from subsurface contexts (Hackbarth and Craig 2007a). The investigations identified 113 pit houses, of which 76 were fully or partially excavated. The field work also excavated 326 extramural pits, 1 ball court, and 80 features with human remains. Results of the excavations indicate the site’s prehistoric occupation began during the Santa Cruz phase (A.D. 950) as a series of small hamlets along the river’s edge. The village expanded during the early Sacaton phase (A.D. 1010) as migrants constructed residential areas on the site’s perimeter. The village continued to be occupied through the middle residential phase, but was abandoned by A.D. 1070.

In 2001, Richfield Investments transferred 19.8 acres to the COP for use as a park. The COP originally planned to develop the entire parcel as a recreation park. The realization that approximately 15–17 acres of the park had cultural resources led to the decision to divide the land into an open space park and a smaller recreational park. In 2004, the COP contracted with Northland Research, Inc. (NRI) to write an archaeological testing plan for the eastern 4.5 acres of the park (Marshall et al. 2004) and conduct a Phase 1 data recovery testing program in the proposed recreational park (Moore 2005). The Phase 1 testing included surface artifact collections, a geomorphic analysis, observations about the modern vegetation, excavation and inspection of 37 trenches, and an analysis of the recovered artifacts (Moore 2005). Moore (2005) interpreted the ceramics as evidence of a Santa Cruz and Sacaton phase occupation. The evidence for a Santa Cruz phase occupation was one Cibola White Ware (a Kiututhlanna Black-on-white sherd) and one brown-paste variant of red-on-buff ceramic that date to the Colonial period (A.D. 850–950). Wingfield Red ceramics—common during the middle Sacaton phase—and Sacaton phase (A.D. 950–1150) sherds were also found (Moore 2005:18).

In 2008, LSD completed a Treatment Plan to conduct work in the Recreational Park (Hackbarth and Gomez 2008). LSD’s Phase 2 excavations were implemented in a portion of the Park where
Palo Verde Ruin's Interpretive Significance

Prehistoric cultural developments in and near Palo Verde Ruin were a part of larger events in the region. The site is situated within a landscape that has had human occupation as early as 11,000 years ago. Isolated Clovis points have been found less than a dozen miles from the site (Crownover 1994; North et al. 2005), representing the only known evidence, to date, of Paleoindian use of the Phoenix Basin.

After the Paleoindian period, the Archaic emerged throughout the Southwestern. This adaptive pattern of mobile hunter and gatherers persisted through the Early Archaic (8500 B.C. to 5000 B.C.), Middle Archaic (5000 B.C. to 1500 B.C.), and Late Archaic (1500 B.C. to A.D. 1) periods. Archaeological sites dating to the Early Archaic are rare and have not been identified near Peoria. Middle and Late Archaic sites have been found within 30 miles of Peoria (Hackbarth 1998; Hohmann 1999; Phillips et al. 2001; Potter and Neal 2000; Stubing and Mitchell 1999; Wright 2002) and additional survey will undoubtedly discover more sites. During the Late Archaic, the continued reliance on collected resources as society developed agriculture and a sedentary lifestyle is well documented from excavations at the Last Ditch Site. The succeeding Early Formative period (A.D. 1 to A.D. 700) is characterized primarily by the introduction and use of plainware ceramics and its incorporation into a farming and collecting/hunting economy. A growing body of evidence for Early Formative site near Palo Verde Ruin suggests this period is present in northern Peoria (Steinbach et al. 2009; Weed 1972).

Palo Verde Ruin was established during the Hohokam period (A.D. 700 to A.D. 1450), a period characterized by the growth of a complex society and production of decorated ceramics. Palo Verde Ruin’s significance stems in part from its large size, relatively brief occupation, and proximity to contemporaneous sites that surrounded the village. Palo Verde Ruin was at the geographical center of a cluster of small farmsteads, agricultural fields, and limited activity sites that were as much as 5 miles north and south of the site (Doyel and Elson 1985). The outlying sites probably were elements of a prehistoric community (hereinafter called the New River community). Residents of Palo Verde Ruin and other New River community members would have interacted frequently with each other and relied on each other for economic support and subsistence resources.

Archaeological data recovery within the Terramar Development has documented the presence and distribution of 14 residential areas (RA-A to RA-N) across the site (Hackbarth and Craig 2007a). One additional residential area (RA-O) was postulated within the Recreational Park (Moore 2005). The Open Space Park is large enough to encompass one or more residential areas. Each residential area was probably the center of activity for a household group consisting of several nuclear families related through descent and marriage. The prehistoric occupation in the Open Space Park is similar to the previously excavated features, but an earlier component may be present. The Open Space Park is at the geographical center of Palo Verde Ruin and an early occupation was suggested by decorated ceramics (Ciolek-Torrello 1982). If an early occupation is present, its location at the center of the site may indicate that the household(s)
occupying the Open Space Park was one of the founding families. Founding households within the community may have had tenure that would have given them disproportionate influence over decisions made by the community.

The ball court and plaza at the geographical center of Palo Verde Ruin are strong evidence of the site’s importance to the New River community. The ball court and plaza are public architecture that would have been used by all members of the community and would have been an important segment of the site. Households close to the ball court and plaza may have had an advantage over households that lived farther away from the public features.

Water from the New River was undoubtedly an important resource that the Palo Verde Ruin’s farmers highly prized. A decrease in water levels in the river may have occurred and contributed to abandonment of the site (Phillips 1998). Alternatively, conflict with groups living in the Perry Mesa area may have forced abandonment of the lower New River area.

The Hohokam ball-court system collapsed roughly the same time that Palo Verde Ruin was abandoned, around A.D. 1070. In the following years, the Hohokam reorganized their settlement and subsistence systems by moving into fewer but larger villages. Classic-period occupation of northern Peoria occurred along the Agua Fria River and consisted of large compound villages and smaller farmsteads.

Following the collapse of the Classic-period Hohokam (A.D. 1450 to A.D. 1863), central Arizona either was totally abandoned or was occupied by small groups, such as the Yavapai, that left hard-to-recognize archaeological sites.

Early Historic period (A.D. 1863 to A.D. 1912) farmers, miners, and ranchers who settled Peoria relied on the transportation network to provide goods they could not produce themselves. The Frog Tanks Road connected miners in Wickenburg with commercial enterprises in Phoenix. The road passed through Palo Verde Ruin, but it was abandoned after the railroad and Grand Avenue became the main travel route between Phoenix and the Bradshaw Mountains. Mineral wealth from the Sunrise and Relief mines, near Happy Valley Road and west of the New River, contributed to the growth of Peoria in the 1890s. During the Late Historic period (A.D. 1912 to A.D. 1955), the Peoria economy diversified as commerce, manufacture, and agriculture developed in the Salt River valley. Homesteads were established as Peoria and the Arizona Territory grew. Most of the homestead claims developed along the New River failed by the 1920s, partially because of the scarcity of water.

The foregoing topics are possible interpretive issues for the cultural resources in Palo Verde Ruin. Native American communities may have an alternative perspective of the significance of archaeological sites. The five modern communities that claim affinity with Archaic and Hohokam cultural traditions in central Arizona are GRIC, Ak-Chin, SRPMIC, the Nation, and the Hopi. Incorporation of Native American perspectives about prehistoric archaeological sites is recommended because these perspectives could provide alternative histories of the past. Some of the communities view archaeological sites as sacred locations because of the association of human remains.
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