Rock Art, Ranch, and Residence: Cultural Resources in the Town of Oro Valley and Its Planning Area

FINAL REPORT

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With contributions by
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Submitted to
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Planning and Zoning Department
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WSA Technical Report No. 2009-51
January 2010

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EXECUTIVE SUMMARY

This report presents the results of an inventory of cultural resources in the Town of Oro Valley and its larger planning area, prepared through a combination of archival research, historic context development, limited field survey, and evaluation. The inventory will be used by the town in future efforts to document and evaluate cultural resources in the community, and in the development of an overall historic preservation plan.

The inventory showed that about 35 percent of the Town of Oro Valley and its larger planning area (a total area of about 49,500 acres; referred to here as the study area) has been formally surveyed for cultural resources. Beginning in 1976, 157 surveys of various sizes have identified 185 archaeological sites in the study area. Of the 185 sites, 160 are exclusively prehistoric in date, 17 are exclusively historic, and 8 have both prehistoric and historic components. Only a small percentage of these sites have been evaluated for National Register of Historic Places eligibility, and only two sites are currently listed on the National Register. The current condition of many of these sites, some first recorded decades ago, is unknown. Three large prehistoric village sites—Honey Bee Village, Sleeping Snake Village, and Romero Ruin—have been the focus of almost all of the archaeological excavations in the study area; all three have yielded important information on the Hohokam culture of the Tucson Basin.

One of the National Register–listed properties in the study area, the Steam Pump Ranch, is notable both for its important association with the early historic period along the Cañada del Oro and for its preservation of examples of early ranching-related architecture, including the original residence of the ranch owner, George Pusch. The Steam Pump Ranch is also an archaeological site and may preserve significant buried features associated with its early history.

The inventory also showed that the study area holds two important examples of architect-designed residences from the first half of the twentieth century, and at least four post–World War II subdivisions that may be eligible for the National Register as residential historic districts. Although the Town of Oro Valley was incorporated in 1974, just 35 years ago, a significant number of the subdivisions that were developed during the two decades before incorporation are now approaching 50 years of age, the usually accepted minimum age for National Register eligibility. The four early subdivisions that are already probable National Register candidates—Campo Bello, Oro Valley Estates, Shadow Mountain Estates, and Suffolk Hills—are an indication of the steadily increasing historic significance of an area that is often considered simply a recent addition to the landscape of metropolitan Tucson.

The inventory concludes with general recommendations for long-term planning by the Town of Oro Valley, and specific recommendations for a second phase of the inventory. The second phase will include the preparation of a preservation plan based on the inventory, and the expansion of public outreach to more fully engage the Oro Valley community in the identification and protection of its many cultural resources.

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CHAPTER 1

INTRODUCTION

In July 2009, William Self Associates, Inc. (WSA), was hired by the Town of Oro Valley to prepare an inventory of cultural resources within the limits of the town and its larger planning area. The purpose of the inventory was to identify potentially significant cultural resources—including prehistoric and historic archaeological sites, individual historic buildings, and historic architectural districts—using a combination of archival research, historic context development, limited field survey, and evaluation. This report presents the results of the inventory, which was carried out by the WSA team in July–October 2009. The inventory has shown that the Town of Oro Valley and its planning area have a long and rich history and hold a wealth of cultural resources, ranging from prehistoric archaeological sites to post–World War II residential subdivisions. Most of these resources have not been fully evaluated for their historic or scientific significance, and many resources recorded within the last few decades have already been destroyed. Many other resources, as yet unrecorded, likely exist within the town and its planning area in locations not yet surveyed for cultural resources.

The cultural resources inventory is viewed by the Town of Oro Valley as Phase One in a two-phase effort to document and evaluate the cultural resources in its jurisdiction. Based on the results of the inventory the town also plans to carry out a Phase Two, which will focus on the development of a preservation plan that defines policies, procedures, and strategies for maintaining and preserving significant cultural resources. An effective preservation plan will help the town make the most of Oro Valley's heritage and help it avoid the complications that arise when development projects unexpectedly impact significant resources.

The WSA team for the cultural resources inventory was led by John Ravesloot, Ph.D., principal of the Tucson office of WSA, who served as principal investigator for the inventory. Scott O'Mack, M.A., served as project director. Subconsultants for historic architecture were Ralph Comey Architects and Janet H. Strittmatter, Inc., Associated Architects, of Tucson. Subconsultant for public outreach and planning was Poster Frost Associates, also of Tucson. Dr. Ravesloot and Mr. O'Mack were assisted in various aspects of the research and report preparation by WSA staff members Michael Boley, Brandon Gabler, Melanie Medeiros, and Trevor Self.

Project Overview

The Town of Oro Valley, incorporated in 1974, encompasses an area with deep historical roots. Centered on the Cañada del Oro drainage in the northern portion of the Tucson Basin, the town occupies part of the western foothills of the Santa Catalina Mountains (Figure 1). Pusch Ridge forms a dramatic backdrop to the east, the picturesque Tortolita Mountains rise close by to the north, and metropolitan Tucson flanks the town to the south and west. The distinctive natural setting of Oro Valley, its location along a riparian strip that was a focus of human settlement in prehistoric times, and its proximity to the historic core of southern Arizona at Tucson have given the area a significant role in nearly every aspect of the region's cultural history. Ancient rock art

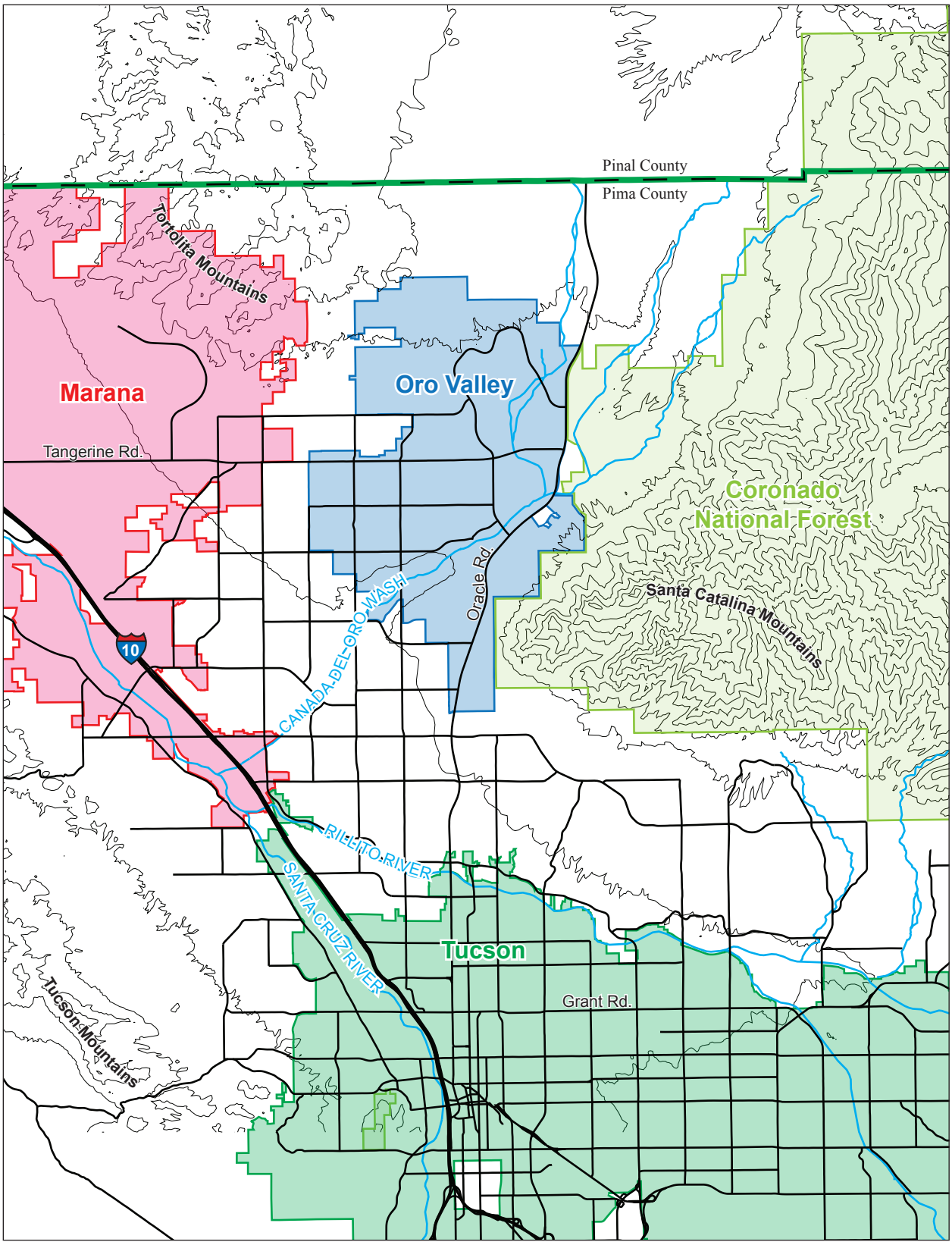

Figure 1. Location of the Town of Oro Valley in the northern Tucson Basin.

and Hohokam villages, historic trails and roads, nineteenth-century homesteads and ranches, and post–World War II residential subdivisions have all helped to shape the modern community of Oro Valley. All of these resources can contribute to an understanding and appreciation of Oro Valley and its history, but all present notable challenges to town planning.

Archaeological sites are by their nature the most difficult of cultural resources to identify, document, and evaluate, and the oldest archaeological sites are typically the most difficult of all. At the same time, archaeological sites often yield uniquely valuable information about cultures and ways of life that have otherwise gone unrecorded. Major prehistoric archaeological sites in the Oro Valley vicinity include Sleeping Snake Village, Romero Ruin, and Honey Bee Village. All three are extensive Hohokam village sites dating to the period A.D. 450–1450. Archaeological investigations at the three sites have revealed a wide variety of features, including the remains of houses (in the case of Honey Bee Village, nearly 800 pit houses), storage pits, ball courts, and terrace gardens. The information from these sites has allowed a significant expansion in our understanding of prehistoric Native American life in southern Arizona, and archaeological sites of similar age and importance are likely preserved elsewhere in the Cañada del Oro drainage, including within Oro Valley. This inventory of cultural resources includes an up-to-date list of known archaeological sites within the Town of Oro Valley planning area, a list of archaeological surveys carried out to date in the planning area, and a discussion of the culture history of the area useful in evaluating the significance of archaeological sites either already known or yet to be recorded.

Historic-period cultural resources, which include standing architecture, early roads, ranching and farming features (such as corrals and irrigation ditches), and even archaeological sites, can be valuable both as sources of information about the past and as irreplaceable visual reminders of a community's heritage. In the Cañada del Oro drainage, the earliest known settlers of the historic period came a decade or so after the Gadsden Purchase made southern Arizona a part of the United States. In the late 1860s, Francisco Romero, a man of Mexican descent whose family had a long presence in the Tucson area, established a cattle ranch in what is now Catalina State Park, centering his spread on the former Hohokam village later called Romero Ruin. Romero's tenure on his ranch was short-lived because of the constant threat of Apache attacks, but other settlers eventually followed him to the area. In the 1870s, German immigrants George Pusch and his Swiss colleague John Zellweger established the Steam Pump Ranch along what is now Oracle Road, south of the Cañada del Oro. Pusch later became sole owner of the ranch, which received its name from the early use of a steam pump to raise well water. Today, the Steam Pump Ranch, recently listed on the National Register of Historic Places, is one of Oro Valley's most important historic properties and the center of a commercial development that has accommodated the surviving portion of the ranch.

Other early residents of the Oro Valley area included William Henry Sutherland, whose ranch can still be seen along the banks of the wash bearing his name, and William Neal, who ran a stage coach line from Tucson to the mines at Mammoth, with a stop at the Steam Pump Ranch. Archival research for the cultural resources inventory has expanded the list of known residents of the Cañada del Oro area in the historic period, and the list of surviving features associated with their homesteads, ranches, and businesses. In some cases, historic features visible on the ground

are associated with significant buried archaeological features. A case in point is the Steam Pump Ranch, where a 2007 evaluation concluded that subsurface archaeological resources, at least 50 years old, were likely preserved on the property. And it is important to note that subsurface archaeological features from the historic period may be present in places where no surface features survive.

History in the Cañada del Oro area did not end with the ranching and homesteading period of Romero, Pusch, and other early settlers. A period of greater importance to the development of modern Oro Valley came after World War II, when the population boom affecting nearby Tucson pushed people beyond the city limits into the surrounding rural areas. Some of the earliest residential development in the Oro Valley area during this period included well-appointed homes, like the residence designed by noted Tucson architect Josias Joesler for Joseph McAdams (1940), and the Countess of Suffolk's Forest Lodge Mansion (1937), now the Immaculate Heart Convent, as well as the distinctive planning of the Campo Bello subdivision (platted in 1946), with its baroque-inspired radial street plan. In 1958, Louis Landon, a frequent visitor to Tucson and a golf aficionado, transformed 375 acres of land at the former Cañada del Oro Ranch into a resort golfing community with luxury homes. Sixteen years later, Landon's Oro Valley Estates would be the center of a newly incorporated town.

By the late 1960s, the Cañada del Oro area was becoming a residential hub and the City of Tucson started planning to annex it. Residents of the area were alarmed at the prospect of annexation and began to work toward the incorporation of an independent town. Despite a lengthy court case that made its way to the Arizona Supreme Court, the Town of Oro Valley was finally incorporated on April 15, 1974. At the time of incorporation, Oro Valley encompassed 2.5 square miles and was home to just 800 residents. Today the town encompasses more than 34 square miles and has a population of around 44,000.

Method of Approach

For Phase One of the cultural resources inventory, we have used the Town of Oro Valley Planning Area, established in the Town of Oro Valley General Plan Update 2020, as the limits of our study area (Figure 2). Throughout the report, we refer to this area as the Oro Valley cultural resources inventory study area, or simply the study area. Because Oro Valley and its vicinity are a part of southern Arizona, a region recognized by archaeologists and historians as a more or less discrete entity, we often refer to this larger area, especially in the culture-historical discussions, but the inventory itself did not extend beyond the planning area.

Our approach to Phase One of the inventory has been to: (1) collect detailed information about the number, variety, and historical background of cultural resources in the study area through archival research; (2) use the results of the archival research to prepare a narrative discussion of prehistory and history in the study area; (3) conduct an initial field survey of potentially significant cultural resources in the study area, also based on the archival research; and (4) use the narrative discussion to define specific historic contexts for the study area. Each of these four steps in the approach is briefly discussed here, with fuller discussions in the corresponding chapters of the report.

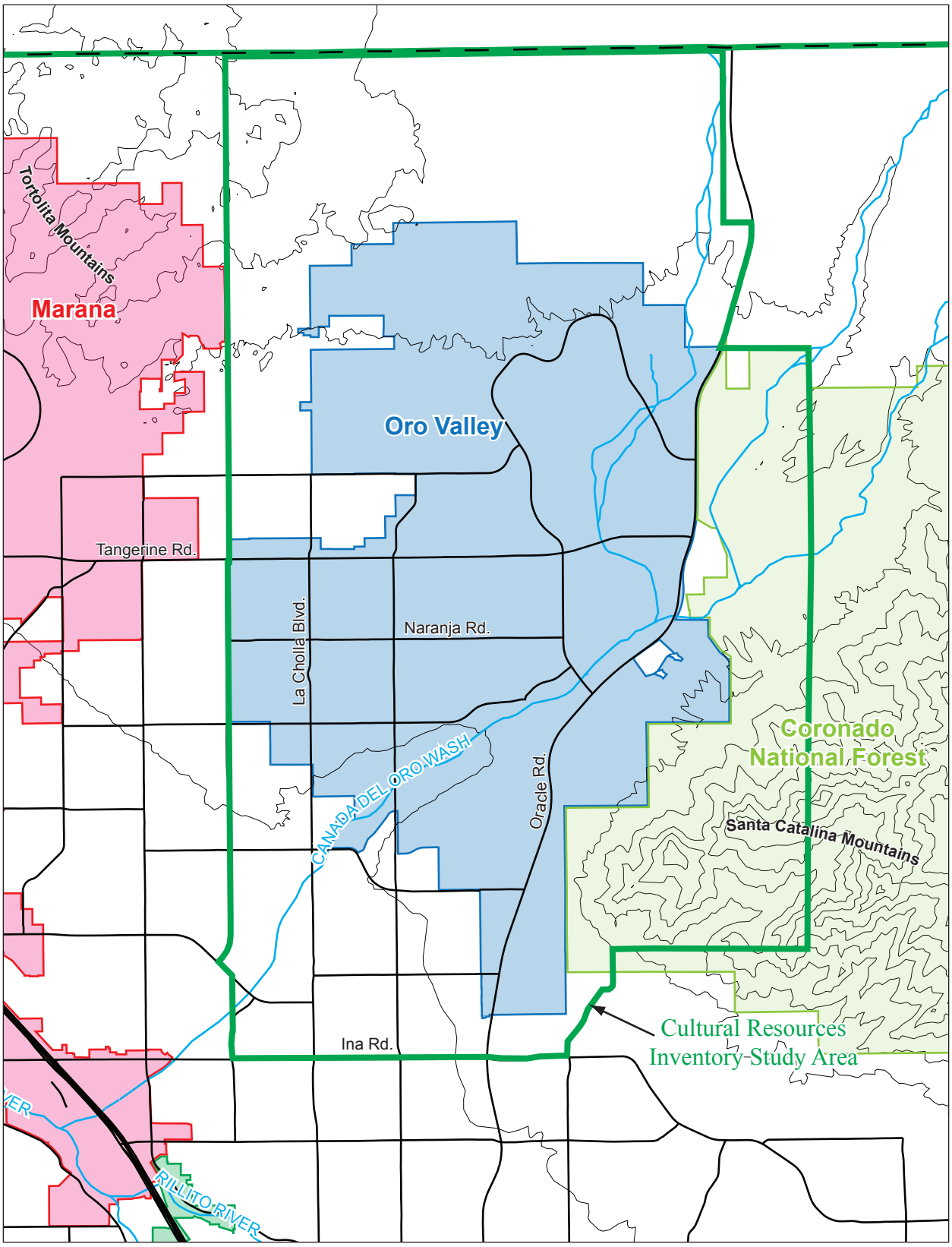

Figure 2. The Town of Oro Valley and the study area for the Oro Valley Cultural Resources Inventory.

In addition to the steps outlined here, Phase One also included a series of public meetings and an open house, all designed to allow the Town of Oro Valley staff, the Oro Valley Historic Preservation Commission, and the general public to evaluate the progress of the inventory and to contribute their knowledge and expertise to the project.

Archival Research

The archival research consisted of a review of relevant published and unpublished materials on the prehistory and history of the Cañada del Oro drainage, including several electronic databases. The following repositories were checked for relevant materials (in a few cases, our search was limited to consulting an online catalog with negative results):

Arizona Historical Society, Tucson
Arizona State Library, Archives, and Public Records, Phoenix
Arizona State Museum Library and Archives, Tucson
Bureau of Land Management, General Land Office Records
Immaculate Heart Convent, Oro Valley
Oro Valley Historical Society, Oro Valley
Pima County Assessor's Office, Tucson
Pima County Cultural Resources and Historic Preservation Office
Pima County Recorder's Office, Tucson
Pima County Public Library, Tucson
Town of Oro Valley, Planning and GIS Departments
University of Arizona, College of Architecture, Arizona Architectural Archive, Tucson
University of Arizona Library, Special Collections, Tucson

The relevant materials kept at these repositories include books, newspaper and magazine articles, maps, General Land Office (GLO) records, property and tax records, photographs, aerial photographs, oral history interviews, and miscellaneous published and unpublished materials. We cite particular sources of information at appropriate places throughout the report.

For information on prehistoric and historic archaeological sites, we consulted the AZSITE database maintained by the Arizona State Museum. AZSITE combines the archaeological site records of the Arizona State Museum, Arizona State University, the Bureau of Land Management, and other agencies and is the principal database for archaeological site information in Arizona. The Arizona State Museum is also the state's central repository for archaeological survey and excavation reports and other site-related materials, and we have relied heavily on its files for these materials. We have also checked the National Register of Historic Places and the Arizona State Register of Historic Places for properties within the study area.

An important component of the archival research has been the creation of maps of the study area depicting archaeological survey coverage, archaeological sensitivity zones, and archaeological site locations (Appendixes A–C). These oversize maps, accompanied by GIS shape files, have been delivered on CD to the Town of Oro Valley.

Narrative of Prehistory and History

Using the results of the archival research, we have prepared a narrative that traces the culture history of the study area from prehistoric times through the incorporation of the Town of Oro Valley in 1974. Among the topics considered in the narrative are: the history of archaeological and historical research in the area; the role of the natural environment in prehistory and history; economic pursuits in prehistoric and historic times; ranching, mining, and homesteading in the historic period; the influence and growth of the Tucson metropolitan area after World War II; historic-period settlement patterns in Oro Valley; and the origins of the current town configuration as conditioned by growth, transportation, subdivisions, and annexation.

Historic Contexts

Our narrative of prehistory and history has served in turn for the definition of specific historic contexts for the Oro Valley study area. As defined by the National Register of Historic Places, a historic context is a statement about the "patterns or trends in history by which a specific occurrence, property, or site is understood and its meaning (and ultimately its significance) within history or prehistory is made clear" (National Register of Historic Places [NRHP] 1997:7). Thus, a historic context provides a basis for evaluating the significance of a cultural resource, whether an archaeological site, a historic building, or a traditional cultural property. Because the Oro Valley study area includes diverse cultural resources from a long span of prehistory and history, we provide multiple historic contexts to cover the range of resources.

Initial Survey of Cultural Resources

In our initial survey of cultural resources in the study area, we relied on early maps, aerial photographs, and information gathered in our archival research to define areas of particular historic interest. Because of the size of the study area and the constraints of the project, our actual field survey was limited to the residential architecture of seven potentially historic early subdivisions within the Town of Oro Valley. The information gathered in the initial survey is the basis for our recommendations for additional documentation of these neighborhoods, which will ideally include nomination of each neighborhood to the National Register of Historic Places as a residential historic district.

Organization of the Report

The report has seven chapters. This introductory chapter is followed by a chapter surveying the Native American culture history of the study area. A third chapter reviews the results of the archival and records research, presents lists of previously recorded archaeological sites and previously conducted archaeological surveys in the study area, and describes in detail the most important sites and surveys. A fourth chapter surveys the history of the study area from Spanish colonial times to the founding of Oro Valley in 1974. A fifth chapter describes important individual

examples of historic architecture in the study area and discusses the results of our initial survey of residential subdivisions. A sixth chapter provides the historic contexts defined for the study area. And a seventh and final chapter provides our recommendations for further work on the cultural resources of Oro Valley.

CHAPTER 2

NATIVE AMERICAN CULTURE HISTORY IN THE ORO VALLEY STUDY AREA

Throughout the prehistoric period, the Native American peoples who lived in or visited the Cañada del Oro area participated in cultural traditions documented more fully by archaeologists elsewhere in southern Arizona, most notably in the greater Tucson Basin. An understanding of the prehistory of the Cañada del Oro area is possible only with reference to these wider traditions. In this chapter, we provide a brief overview of Native American culture history in southern Arizona, with an emphasis on the Tucson Basin. We begin with the earliest known evidence for human occupation of the region and end with the period just before the earliest contacts with Europeans (Figure 3). The discussion draws on earlier syntheses of southern Arizona prehistory by Chenault and Tucker (2003), Craig (1989), Ezzo (2007a), O'Mack and others (2004), Whittlesey (2003), and Whittlesey and others (1994). Other sources are cited when the discussion touches on particular aspects of prehistory in the region. At the end of the chapter, we briefly summarize Native American culture history in the period after Europeans settled in southern Arizona.

Paleoindian Period

Archaeologists call the earliest documented Native American occupation of the Americas the Paleoindian period, which began at least as early as 12,000 years ago—many recent studies place its beginning thousands of years earlier—and lasted until around 10,000 years ago (Meltzer 2009). The Paleoindian period was characterized by small, highly mobile bands of people and a hunting-and-gathering way of life adapted to a climate that was generally cooler and wetter than today. Archaeological sites dating to the early part of the Paleoindian period are often associated with the remains of extinct large mammals such as mammoth, bison, and camel, which has long been interpreted as reflecting a heavy reliance on hunting big game (Waguespack and Surovell 2003) using spears tipped with the distinctive fluted Clovis and Folsom stone points found at Paleoindian sites. Little evidence for the Paleoindian period has been found in southern Arizona as a whole (Mabry et al, 1998), but the Naco, Lehner, and Murray Springs sites, all located in the upper San Pedro valley, were particularly important to the definition and formulation of the Clovis culture (Haury 1953; Haury et al. 1959; Haynes and Huckell 2007). Essentially no Paleoindian material has been recovered in the Tucson Basin, including the Cañada del Oro area.

Archaic and Early Agricultural Periods

The Archaic period, which in southern Arizona began around 10,000 years ago and ended about 4,000 years ago, was also characterized by a hunting-and-gathering way of life, but Archaic peoples exploited a much greater diversity of plant and animal species than their Paleoindian predecessors. Little evidence of an Early Archaic occupation (10,000 to 6,800 years ago) has been found in the region, but archaeologists have recently excavated sites in the Santa Cruz River floodplain that have shown an intensive Middle Archaic presence (6,800 to 4,000 years ago) (Gregory 1999).

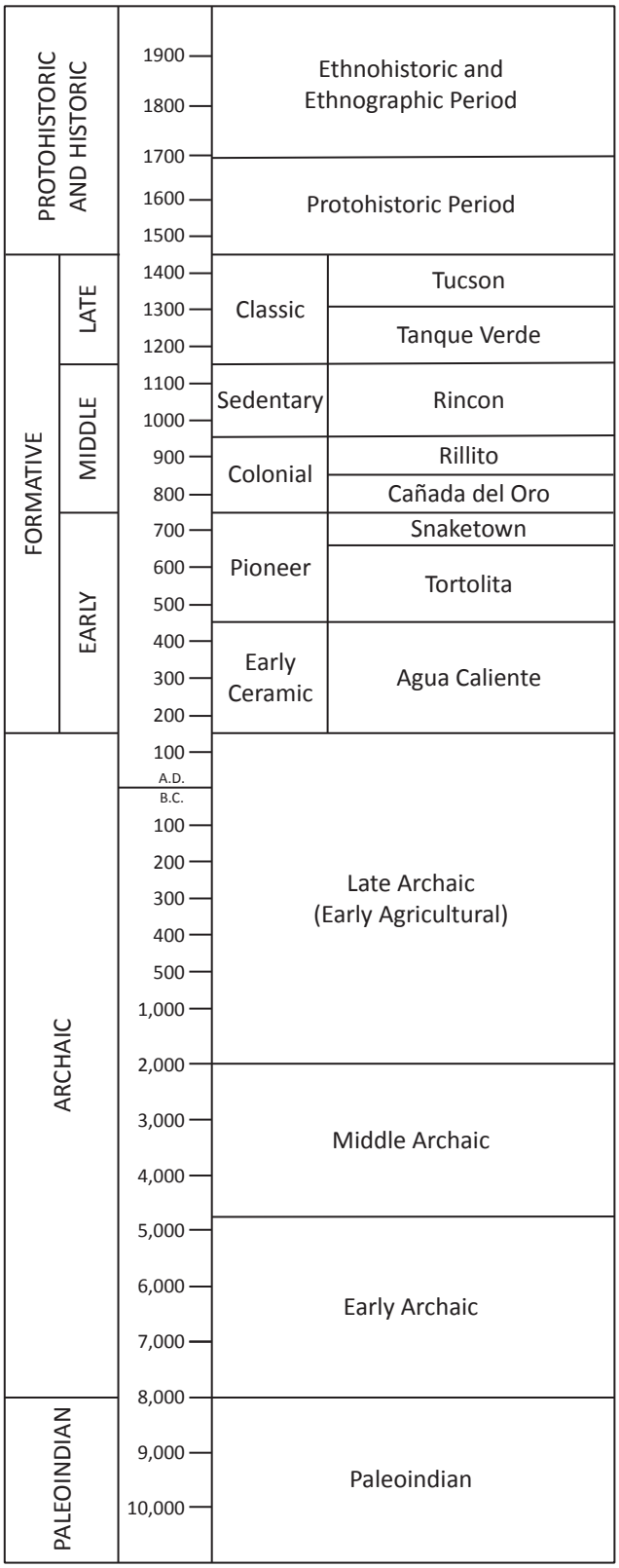

Figure 3. Chronology of Native American culture history in southern Arizona.

Additionally, evidence of domesticated maize has been found in southern Arizona dating to the Middle-to-Late Archaic transition (Ezzo 2007a:35–38; Ezzo and Deaver 1998), and evidence for the practice of agriculture is now abundant for the Late Archaic period, which archaeologists have begun to call the Early Agricultural period (4,000 years ago to A.D. 150). About 4,000 years ago, the Archaic hunting-and-gathering lifestyle began to give way to a more sedentary existence, made possible in no small part by the introduction of maize and other cultigens and the techniques needed to grow these crops in different environments. This period, formerly known as the Late Archaic period, is increasingly referred to as the Early Agricultural period.

Intensive use of the Santa Cruz River floodplain in the Early Agricultural period, from about 4,000 years ago to A.D. 150, is indicated by the recent excavation of surprisingly large settlements, which have included evidence for generally increased sedentism, the repeated use of specific locations, and ritual practices, particularly during the San Pedro phase (3,200 to 2,800 years ago, or 1200 to 800 B.C.) and Cienega phase (2,800 to 1,850 years ago, or 800 B.C. to A.D. 150) (Diehl, ed. 2005; Mabry 2008; Mabry, ed. 2008; Sliva, ed. 2005). The evidence for sedentism includes specialized storage pits, a reliance on maize and other tropical cultigens, and the production and use of pottery for storage (Ezzo 2007a:37; Mabry 1998; Mabry and Clark 1994). Other evidence from the Early Agricultural period points to the beginnings of transitions that are better known for the subsequent Formative period: from informal “houses in pits” to true pit houses, and from round to rectangular and better-made structures. Evidence for long-distance exchange networks in the Early Agricultural period has been discovered at the Santa Cruz Bend site (Mabry 1998; Thiel 1998), and the site of Las Capas has recently yielded evidence for fairly complex agricultural practices during the period, notably irrigation ditches (Hesse and Foster 2005; Mabry 2008). Pit houses at Las Capas were also ahead of their time: large circular and oval structures during the San Pedro phase are like the ones previously known only at Cienega phase sites.

No Archaic or Early Agricultural period sites have been recorded within the limits of the Oro Valley study area, but given the abundance of evidence for these occupations on the Santa Cruz River floodplain, this is probably because a substantial portion of the study area has never been systematically surveyed for archaeological sites. At least one small Archaic site has been documented in Catalina State Park, just outside the study area (Huckell 1980a:36).

Formative Period

In the Formative period, typically defined as the period A.D. 150–1450, many of the important adaptations of the Early Agricultural period continued to develop: increased sedentism, true pit houses, pottery production, and long-distance exchange. The defining characteristic of the Formative period has traditionally been a reliance on maize agriculture as the dominant form of subsistence (Ezzo 2007a:38). A distinction is usually made between the pre-Hohokam cultures of the Early Ceramic period and the Hohokam cultures of the successive Pioneer, Colonial, Sedentary, and Classic periods.

Early Ceramic Period

The Early Ceramic period, comprised entirely by the Agua Caliente phase (A.D. 150–450) in the Tucson Basin, is primarily defined by the presence of an early plain ware horizon and ends with the appearance of a red ware horizon (Wallace 2003). This period witnessed an increase in the diversity of pottery vessel forms and the proficiency of ceramic manufacturing techniques. Seed jars and hemispherical bowls, both used mostly for food storage, were the most common vessel forms in this period, which is similar in this way to the early Mogollon cultures to the north and east of the Tucson Basin (Burton 1991; Whittlesey 1998). Agriculture intensified through the period. The increase in ceramics for storage coincided with a decrease in the number of subsurface storage pits found at Early Ceramic sites. Architecture during the period was more formalized than before: square and rectangular pit structures were the rule, with plastered hearths centered on the entry and the occasional flanking of entries by adobe pillars. The distribution of these structures within communities became increasingly organized through time, as discrete courtyard groups, open plazas, and communal houses appeared, anticipating later developments along these lines (Wilcox et al. 1981). The cultural affiliation for Early Ceramic period sites is unresolved, but three hypotheses exist: Haury's (1978) idea that these groups were, basically, Hohokam; Huckell (1987) and Di Peso's (1956, 1979) proposition of a Mogollon influence; and Deaver and Ciolek-Torrello's (1995) notion that the Hohokam culture emerged from these Early Ceramic period farmers.

Hohokam Culture

By around A.D. 450, the Hohokam culture was taking root in the Tucson Basin, as evidenced by a "consolidation of patterns in artifact styles, architecture, and economics" (Fish and Fish 2007:8). The distribution of red-on-buff ceramics and ball courts (Wilcox 1991) reached its greatest areal extent during the Colonial and Sedentary periods, or A.D. 700–1150. Around the end of the Sedentary period, a major reorganization took place, marked by changes in both domestic and ritual life that would characterize the ensuing Classic period. Archaeological evidence of the Hohokam disappears at about A.D. 1450. Reasons for the sudden decline remain contested, but external environmental changes, internal political changes, and the introduction of Old World diseases all may have played a role. Throughout the "Hohokam Millennium" (Fish and Fish, eds. 2007), the Hohokam were most notable for their abilities as farmers, using a combination of ditch irrigation, dry farming, and storm water runoff diversion, elaborating many of the traditions first established in the Early Agricultural period.

Pioneer Period

The Pioneer period in the Tucson Basin consists of two phases: the Tortolita phase (A.D. 450–700) and the Snaketown phase (A.D. 700–750), recently refined as the result of work at sites like Valencia Vieja along the Santa Cruz River (Wallace ed., 2003). In the Tucson Basin, the Pioneer period is characterized by small, dispersed villages with pit houses and some irrigation ditches. At Snaketown, a major village site in the middle Gila River valley where the Hohokam tradition

was first defined, evidence was found of a developing ceremonial complex, including artificial mounds, cremations, figurines, and ball courts (Doyel 1991; Gladwin et al. 1937; Haury 1976). Regional ceramic diversity began in the Pioneer period, especially during the Snaketown phase, and some archaeologists consider the Pioneer ceramic traditions the beginning of truly decorated pottery, like Snaketown Red-on-buff. Two of the largest prehistoric sites in the study area, Honey Bee Village (Medrano 2008) and Romero Ruin (Elson and Doelle 1987a), were both founded during this period.

Colonial Period

The Colonial period began around A.D. 750 and ended about A.D. 950. It consisted of the Cañada del Oro and Rillito phases, each approximately 100 years in length. In southern Arizona, the Cañada del Oro phase is not as well documented as other phases, but a handful of sites have provided important information, including Hodges Ruin (Kelly 1978), Valencia (Wallace, ed. 2003), Dakota Wash (Craig 1988), and the three largest prehistoric sites in the study area: Honey Bee Village, Romero Ruin, and Sleeping Snake Village (Ezzo, ed. 2007). All of these sites had at least one ball court (Doelle and Wallace 1991). During the subsequent Rillito phase, there was a fourfold increase in the number of sites in the Tucson Basin (Doelle and Wallace 1991). Ezzo (2007a) discusses several of the ball court villages of this phase along the Santa Cruz River, including Sunset Mesa (Lindeman 2000), Los Morteros (Wallace 1995), and Huntington Ruin. The number of primary villages increases throughout the phase and there is a diversity in pit houses, with both true pit houses and the less-formal "houses in pits." In contrast to other changes in Hohokam culture during the period, there is little change in the ceramics apart from some increase in the formalization of wares.

Sedentary Period

More recorded prehistoric sites date to the Sedentary period (A.D. 950–1150) (composed entirely of the Rincon phase) than to any other prehistoric period in the Tucson Basin (Doelle and Wallace 1991), which has made it the best-understood part of the Hohokam chronology in the region. In general, the Sedentary period was a time of relative cultural stability and population growth. Small, dispersed sites were located on the *bajada* (piedmont) slopes and alluvial fans in the basin, while large sites were located along the Santa Cruz River and other major drainages (Whittlesey et al. 1994). Courtyard groups, or several houses oriented around a common courtyard or plaza, were the primary mode of organization within sites, and irrigation systems were expanded during this time. Inhabitants used the *bajada* slopes for rock-pile agave cultivation, in addition to other agricultural and wild resource uses. Ceramics of the Sedentary period show a decrease in the quality of painted line decoration, with an overall bolder style; vessels are also thicker and heavier. Rincon Red ware, a style of pottery coated with a red slip before firing, entered into large-scale production. Rincon Polychrome, a style of pottery with decoration in multiple colors, also became widespread. During the late Sedentary period, people initiated new forms of adobe wall construction and increased their use of dry farming and storm water runoff farming. Toward the end of the period, many villages were abandoned, setting the stage for changes evident in

the succeeding Classic period. Romero Ruin, Honey Bee Village, and Sleeping Snake Village (Ezzo 2007a:43–44) were all still occupied during this time, but not much beyond.

Classic Period

The tumultuous transition from the Sedentary period to the Classic period resulted in numerous changes to the material culture of the Hohokam. In the Classic period (A.D. 1150–1450), semi-subterranean adobe-walled pit houses and aboveground adobe and stone-masonry structures became the principal forms of architecture, and they were typically located inside walled compounds, as at the Marana Platform Mound site (Fish et al., eds. 1992) and the University Indian Ruin (Hayden 1957). Ball courts were replaced by platform mounds as the dominant form of public architecture, and local examples again include the Marana Platform Mound site (Fish et al., eds. 1992), the University Indian Ruin (1957), and the Tom Mix mound, located on the east side of the Picacho Mountains (see Fish and Fish 1992). Red-on-brown ceramics took on a less curvilinear and more rectilinear pattern than in previous periods. Inhumations were added to the burial practices of the Hohokam, and both cremations and inhumations continued through the Classic period. Populations aggregated in larger primary villages, formed along the major drainages throughout the Tucson Basin. The total population of the region may have peaked in the early Classic period (or the Tanque Verde phase, A.D. 1150–1300), but then declined in the late Classic (or the Tucson phase, A.D. 1300–1450). A debate continues regarding the causes of the reorganization that occurred between the Sedentary and Classic periods, and one also continues regarding the disappearance of the Hohokam at the end of the Classic period. It is likely that environmental changes played a role in both events (see Waters and Ravesloot 2001 for one such argument concerning the transition), and the influx of an outside population, particularly from the Tonto Basin may also have played a role (Haury 1945; O'Mack et al. 2004; Sires 1987; Whittlesey 2000). Alternatively, Hill and others (2004) argue that the disappearance of the Hohokam was due less to a catastrophic event than to demographic trends started many years earlier. Future investigations of Classic period sites may help resolve these differing interpretations.

Native Americans of the Protohistoric and Historic Periods

Whatever the full explanation for the demise of the Hohokam and other Classic-period traditions, the period between A.D. 1450 and the European-dominated historic era was a transition from the prehistoric cultures documented by archaeology to the modern Native American cultures documented by historical sources and ethnographic studies. The transition from prehistory to history is often called the Protohistoric period by archaeologists, but in southern Arizona it is defined in various and sometimes contradictory ways (Gilpin and Phillips 1998). Ravesloot and Whittlesey (1987:83) have pointed out that, strictly speaking, protohistory began with the first arrival of Europeans in the New World (A.D. 1492) and ended with the start of sustained contact between Europeans and Native Americans, which means that the end date for the Protohistoric period differs by region. But they suggest that in southern Arizona, where sustained European contact came relatively late, the start of the Protohistoric period is usefully defined as A.D. 1540, the year of the first substantial Spanish expedition to the region, and the end of the period is best

defined by the establishment of the first Spanish presidio along the Santa Cruz River at Tubac in 1752. On the other hand, Officer (1987) has argued that a more appropriate end date would be the 1690s, when the Jesuit priest Eusebio Francisco Kino initiated the Catholic conversion of the region, establishing missions along the Santa Cruz as far north as San Xavier del Bac (see Chapter 4 of this report on the early Spanish presence in southern Arizona).

Despite questions about its precise definition, the Protohistoric period is a convenient way of referring to Native American cultural developments in southern Arizona during a time before Europeans arrived in the region but after European influences—in the form of European crops, livestock, and material culture—were already strongly present. When Kino made his earliest trips along the Santa Cruz River into southern Arizona, the sedentary peoples in the farming villages he visited had long ago added wheat and other European crops to their fields, and the horse had been adopted long ago by the nomadic peoples who frequented the surrounding mountains and canyons. Infectious diseases introduced by Europeans to the New World had undoubtedly also spread into the Southwest by the seventeenth century, though the timing and impacts of these diseases on Native Americans in the region are poorly understood (Sheridan 1988).

Southern Arizona was known by Kino as the Pimería Alta, the upper land of the Piman speakers, in contrast to the Pimería Baja, the lower land of the Piman speakers, now part of the Mexican state of Sonora, where Kino had been a missionary for many years before expanding his work into southern Arizona. There were two major groups of indigenous peoples living in the Pimería Alta when Kino arrived, separated by differences in language and way of life. The more numerous group was the O'odham (the name Piman speakers used for themselves), who relied on agriculture to the extent that a particular local environment would allow. The other major group was the Apache, who spoke an Athapaskan language and who relied on a mix of hunting, gathering, and raiding, and only minimally on farming. The Apache were highly mobile and did not live in permanent villages. Their primary range was the vast, sparsely populated area north and east of the Pimería Alta, but they often entered the Tucson Basin to raid the livestock and food supplies of the sedentary O'odham.

According to Spicer (1962:119), there were as many as 30,000 Piman speakers living in the Pimería Alta in the late 1600s. Early on, the Spanish thought of the O'odham in terms of four major subdivisions—the Pima, the Soba, the Sobaipuri, and the Papago—which may not have corresponded closely with the O'odham's own conceptions. The Pima lived in the southeastern part of the region, extending into modern Sonora; the Soba lived to the southwest along the Altar River; the Sobaipuri lived along the San Pedro and Santa Cruz Rivers as far north as the Gila River; and the Papago, now known as the Tohono O'odham, lived in the desert to the west of the Santa Cruz River. In the course of the eighteenth century, the distribution of all of these groups changed significantly as encroachments by the Spanish and introduced diseases took their toll. The Soba and Sobaipuri lost their distinct identity altogether and were absorbed by other O'odham groups. The Tohono O'odham became the largest component in the mission settlements along the Santa Cruz River.

Ethnohistorians have noted other probable distinctions among the Piman speakers living along the Santa Cruz River. For example, the Kohatk seem to have been a distinct group living along the

lower Santa Cruz as far north as the Picacho Mountains. The Piman speakers living along the Gila River, later known as the Akimel O'odham, were also a discrete group that fared comparatively well in the colonial period, largely because they were beyond the regular reach of Spanish missionaries (Dobyns 1976; Erickson 1994). When modern anthropologists began studying O'odham culture in the twentieth century, the O'odham themselves recognized three distinct groups based on economic practices and residential patterns. The Hia C'ed O'odham, or Sand People, were the most mobile and least agricultural of the O'odham and lived in the arid western desert as far south as the Gulf of California. The Tohono O'odham or Desert People, alternated between summer farming villages and winter hunting-and-gathering camps in the vast area between the Santa Cruz River and the arid western desert. And the Akimel O'odham, or River People, stayed year-round in permanent villages along the Gila River. In Fontana's (1983) terms, these groups are, respectively, the No Villagers, the Two Villagers, and the One Villagers.

The Apache were also labeled many different ways by the Spanish, though the Spanish tendency to call any nomadic people "Apache" whether or not they were Athapaskan speakers makes it difficult to interpret some early sources. In southeastern Arizona and southwestern New Mexico, the Jocome and Suma occupied what was later the territory of the Chiricahua Apache (Spicer 1962:237). Farther to the east were the Jano, Manso, and Jumano, who ranged through what is now Chihuahua as far east as the Río Grande. Schroeder (1974a, 1974b) has suggested that no Apache peoples ranged south of the Gila River before the 1680s, which would mean that the ongoing conflict between O'odham and Apache first described by Kino and other Spaniards late in the seventeenth century had begun only recently. North of the Gila River was a region mostly unexplored by the Spanish but called Apachería, land of the Apache, a loosely applied term describing the area between Pimería Alta and and the pueblos of Hopi and Zuni (Opler 1983:402). Basso (1983:465) has suggested that the inhabitants of this area later became the Western Apache. By 1700, the Western Apache occupied an extensive territory extending south from the Mogollon Rim to the Gila River.

From the founding of the first Spanish presidio at Tubac in 1752 until the surrender of the Apache leader Geronimo in 1886, the history of southern Arizona was dominated by the conflict between the sedentary peoples of the region and various bands of Apache. The successive efforts of the Spanish, Mexican, and U.S. governments to make the region suitable for settlement were focused heavily, often exclusively, on reducing the threat of Apache raids. There were occasional conflicts between Euroamericans and the O'odham in the region, but none compared in duration or ferocity with the conflict between Euroamericans and the Apache, and the O'odham typically sided with the Spanish, Mexican, or U.S. forces in their attempts to drive out or eliminate the Apache. For the Apache, raiding was a cultural tradition and an important element in their economic survival. The villages of the O'odham, the associated small Euroamerican settlements, and any traveling party in the region were easy and regular targets of the Apache. It was only in the 1870s, when the U.S. Army succeeded in driving the Apache east and north out of the Tucson Basin, that Euroamerican settlement was able to expand significantly beyond the narrow confines of the Santa Cruz River valley (Dobyns 1976; Officer 1987; Sheridan 1995).

The Cañada del Oro area was apparently devoid of O'odham settlements in the historic period, probably because it was part of the usual range of various Apache bands. Apart from occasional

references to encounters between Apaches and Euroamericans along the Cañada del Oro, there is little evidence for how the Apache may have used the area for hunting and gathering or how often they may have passed through the area en route to raids. As discussed in Chapter 4, historical references to the conflict between the Apache and the people of the Tucson area often mention the Cañada del Oro crossing, but archaeological evidence for the Apache presence in the area is entirely lacking.

A third group of Native Americans, the Yaqui, had an important presence in the Tucson Basin relatively late in the historic period. The Yaqui speak a dialect of Cahita, a language once spoken in a large area in what are now the Mexican states of Sonora and Sinaloa. The traditional home of the Yaqui is along the Yaqui River in Sonora and in adjacent portions of the Sierra Madre, where they led a primarily agricultural way of life. Because of persecution by the Mexican government in the late nineteenth century, groups of Yaqui abandoned their traditional territory for locations elsewhere in northern Mexico and southern Arizona. In the Tucson area, the Yaqui eventually settled in two principal locations: Pascua Village on the near north side of Tucson and a smaller satellite community in Marana. Although there is no evidence that the Yaqui had a substantial presence in the Oro Valley study area, many Yaqui have worked on farms and ranches all around the Tucson area and it would not be surprising to learn that they also worked at places along the Cañada del Oro (Spicer 1940, 1983).

CHAPTER 3

ARCHAEOLOGICAL SITES AND SURVEYS IN THE STUDY AREA

In this chapter, we summarize the results of our search for information on previously recorded archaeological sites and previously conducted archaeological surveys in the Oro Valley study area. The primary source of information for both sites and surveys is AZSITE, the statewide electronic database of archaeological sites and surveys maintained by the Arizona State Museum (ASM) in Tucson. We also consulted the paper site and survey files of the ASM Archaeological Records Office, as well as the archaeological reports collection of the ASM Library. The University of Arizona Library is another important source for archaeological reports, and we have also relied in this regard on the WSA–Tucson company library. For information on National Register of Historic Places sites and districts in the Oro Valley study area, we have consulted the National Register nomination forms for the individual properties. Information on archaeological sensitivity in the study area was adapted from the Sonoran Desert Conservation Plan, a long-term planning initiative of Pima County. Additional information on archaeological sensitivity within the Arroyo Grande Planning Area was also obtained from Pima County.

Archaeological Survey Coverage in the Study Area

Systematic archaeological survey, which typically consists of walking over an area at regularly spaced intervals in search of artifacts or other archaeological evidence, has been a fundamental part of archaeological research in the United States for over 50 years. Nevertheless, the first recorded archaeological survey in the Oro Valley study area did not take place until 1976. This seemingly late date is not unusual for southern Arizona (or even for most other regions in the country) where archaeological surveys did not become common until the 1970s. It was only then that federal, state, and many municipal agencies began regularly requiring archaeological surveys in advance of development projects.

The sudden demand for surveys can be attributed to implementation of Section 106 of the National Historic Preservation Act of 1966, which requires a federal agency to consider the effects of its undertakings (even minor ones, such as issuing a permit) on archaeological sites and other historic properties eligible for listing on the National Register of Historic Places. Together with related state and local legislation, Section 106 led to the emergence of contract archaeology as an industry, and soon professional archaeological surveys—of all sizes, for projects of all descriptions—were being conducted around the country, including in the Oro Valley study area.

Since the first survey in 1976, 157 archaeological surveys have been carried out in the Oro Valley study area. We have listed all of the surveys in Table 1, which is based primarily on the information available on AZSITE. Most of these surveys have been of limited areas associated with minor development projects, such as road widenings, linear utility installations, and small residential tracts, but taken together these 157 surveys have covered approximately 35 percent of the study area. Three surveys (or sets of surveys) in the study area account for a large part of

Table 1. Archaeological surveys in the Oro Valley study area

Project No. (ASM, or as noted)	References	Acreage[1]	Focus of Survey
1976-1	Brew and Rogge 1976	120	Cañada del Oro sewer line
1978-75	Hewitt and Johnson 1978	1636	Tortolita Mountains
1979-22	Brew 1979	160	Tangerine Hills housing development
1979-39	Rozen 1979	n/a	northern Tucson Basin/lower Santa Cruz valley TEP transmission line
1980-10	Urban 1980a	148.6	Cañada del Oro Estates
1980-140	Huckell 1980a	n/a	Catalina State Park
1980-150	Urban 1980b	147	Linda Vista Terrace and Estates housing development
1981-49	Urban 1981a	15	Villa de Miranda housing development
1981-50	Urban 1981b	379	Saddle Valley housing development
1981-55	Urban 1981c	20.5	La Cañada Village, Units I–IV housing development
1981-160	Urban 1981d	31	El Conquistador Country Club Estates housing development
1981-174	Fish et al. 1992; Madsen et al. 1993	2,595 (in study area)	northern Tucson Basin
1982-76	Madsen 1982	2	Tucson-Florence Highway at Rollins Road in the town of Catalina
1982-140	Urban 1982	15	El Conquistador Resort Patio Homes housing development
1982-158	Elson 1982	n/a	State Route 89 road widening between First Road and Milepost 84
1983-4	Urban 1983a	150	Shadow Roc housing development
1983-49	Madsen 1983	800	Catalina State Park public recreation facility addition
1983-82	Urban 1983b	20	Magee Road housing development
1983-85	Urban 1983c	25	Magee Road east of Romero housing development

Table 1. Archaeological surveys in the Oro Valley study area (continued)

Project No. (ASM, or as noted)	References	Acreage[1]	Focus of Survey
1983-99	Perrine 1983	30	ADOT materials pit and haul road
1983-158	Bartlett 1983	160	La Cañada and Naranja drives housing development
1984-8	Urban 1984	165	La Cholla Hills housing development
1984-11	Stephen 1984a	390	Tangerine Road/La Cañada Drive
1984-19	Stephen 1984b	74	Broadmoor Project
1985-75	Weed 1985	7	RA Homes housing development
1985-134	Fish 1985	1	asphalt plant construction
1985-147	Dart 1985a	35	Tohono Chul Park
1985-221	Seymour 1986a	n/a	Honeybee Canyon tribal land transfer
1986-24	Heuett 1986	n/a	Catalina outfall sewer pipeline
1986-33	Mayro 1986	4	WLB Group housing development
1986-197	Madsen 1986	20	radio communications
1986-210	Stephen et al. 1986	n/a	Oracle Highway road clearance between Mileposts 82.15 and 87.81
1986-220	Craig and Wallace 1987	8000	Rancho Vistoso housing development
1987-25	Madsen 1987	0.2	private access road
1987-123	Elson and Doelle 1987a	2400	Catalina State Park
1987-237	Stone and Bontrager 1987	n/a	Tangerine Road road clearance between First Avenue and I-10
1987-204	Mayro 1987	0.22	Mona Lisa Road/Carmack Wash boc culvert clearance
1988-93	Slawson 1988	400	First Avenue and Oracle Road rezoning for development

Table 1. Archaeological surveys in the Oro Valley study area (continued)

Project No. (ASM, or as noted)	References	Acreage[1]	Focus of Survey
1988-103	Goodfellow 1988	n/a	Ina Road/Skyline Drive widening
1989-33	Goodfellow 1989	n/a	Magee Road widening between Paseo del Norte and Oracle Road
1990-159	Mabry 1990	10	La Cholla Hills Block A townhouse development
1991-176	Slawson 1991	81	Oracle "E," "G," and "I" zones water reservoir clearance
1992-38	Maldonado 1992	16.8	Palisades "C" zone water reservoir clearance
1992-61	Scott 1992	40	Naranja housing development
1992-145	Slawson 1992	9.4	Paseo del Norte Christian Science church site
1992-221	Levi 1992	27.37	Catalina State Park northwestern fence construction
1993-43	Scott 1993	8	Mikid Acres housing development
1994-48	Eppley 1994	0.6	Magee and Wanda Roads water main replacement
1994-279	Brown and Rohman 1994	204	Oracle to Tucson WPA transmission line
1994-375	Freisinger and Montero 1994	17.96	Catalina State Park northern boundary fence construction
1994-403	Stephen 1994a	42	Naranja/Sec. 2 housing development
1995-53	Carpenter 1995	40	Grover Road and La Cholla Boulevard housing development
1995-63	Freeman 1995	n/a	Magee Road and Paseo del Norte water main replacement
1995-275	Tompkins 1995	30	Tucson-Florence Highway and Northern Road housing development
1995-436	Heuett 1995a	36	Glover Road School site
1996-7	Jones 1996a	30	Church of The Apostles site
1996-22	Carpenter 1996	13.6	Overton Road and La Cholla Boulevard buried cable

Table 1. Archaeological surveys in the Oro Valley study area (continued)

Project No. (ASM, or as noted)	References	Acreage[1]	Focus of Survey
1996-281	Eppley 1996	8	Northside locations (multiple) water main replacement
1996-325	Stone 1996	23	State Route 77 (between Linda Vista Boulevard and Cortarto Farms Road) road clearance
1996-433	Tompkins 1996	27	La Cholla Boulevard grading permit
1996-472	Jones 1996b	n/a	Rancho Vistoso housing development
1997-6	Tompkins 1997	1.13	La Cañada and Naranja drives road grading permit
1997-10	Heuett 1997	2.3	commercial development (Bailey property)
1997-102	Stephen 1997a	80	Casa Adobes Baptist Church site
1997-201	Stephen 1997b	163	Tucson National Golf Course
1997-311	Lorentzen et al. 1997	62.14	Desert Springs housing development
1997-437	Barz 1998	n/a	State Route 77 (between First Avenue and Tangerine Road) road clearance
1997-503	Davis and Hohmann 1997	28	Rooney Ranch
1997-528	Stephen 1997c	3.9	Pusch Ridge Christian Church site
1998-9	Jones 1998	7.99	La Reserve Drive and Oracle Road (southeast corner)
1998-160	Chavarria 1998	13.63	Club Carmel
1998-522	Fratt and Powell 1999	30	north of Foothills Mall near Ina Road and La Cholla Boulevard
1999-58	Folb and Ezzo 1999	12	Sari Property
1999-114	Dart and Kaldahl 1999	1.36	Pusch Ridge Chevron Property
1999-131	Jones 1999a	5.6	Shannon Road realignment (between Magee Road and Ina Road)
1999-134	Schaafsma 1999	59.7	Catalina State Park

Table 1. Archaeological surveys in the Oro Valley study area (continued)

Project No. (ASM, or as noted)	References	Acreage[1]	Focus of Survey
1999-181	Doak 1999	30	Cañada Del Oro Riverfront Park
1999-203	Kaldahl 1999	93	Northwest Pima Community College and YMCA
1999-261	Lorentzen 1999	2.39	El Conquistador Plaza
1999-312	Jones 1999b	14.6	Cañada del Oro Wash to Magee Roadmain transmission corridor
1999-313	Jones 1999c	20.3	Thornydale Well transmission main corridor and collector lines
1999-439	Heilen 1999	32.88	Mira Vista
1999-444	Hayes and Fratt 1999	6	Coronado School off-site sewer extension
1999-453	Stephen 1999	173	Naranja/Sec. 2 housing development
1999-596	Fratt and Rude 2002a	308	Amphitheater Public School District/Oro Valley
1999-595	Fratt and Rude 2002b	10	Woodburne Road (Rancho Vistoso)
2000-13	Jones 2000a	25	La Cholla Boulevard (between Khaibar Place and Magee Road)
2000-24	Hayes 2000	1.5	Naranja Road sewer installation
2000-38	Diehl 2000	48.5	La Cholla Boulevard (between Ina and Magee roads)
2000-103	Jones 2000b	10	Linda Vista Boulevard and Egleston Drive
2000-162	Stephen 2000a	11.18	Tangerine Road/First Avenue (southwest corner) residential development
2000-243	Jones 2000c	16.87	St. Marks Church site
2000-331	Slawson 2000	8.806	Copper Mountain Church site
2000-715	Slawson 2001a	12.6	Magee Road improvements between La Cañada Drive and Oracle Road
2000-782	Stephen 2000b	1.9	La Cañada Drive/Naranja Drive (southwest corner) land development

Table 1. Archaeological surveys in the Oro Valley study area (continued)

Project No. (ASM, or as noted)	References	Acreage[1]	Focus of Survey
2000-787	Stephen 2000c	70	La Cañada Drive/Tangerine Road (northeast corner) reisdential development
2000-791	Stephen 2000d	12.67	La Cholla Boulevard residential development
2000-792	Stephen 2000e	8	First Avenue/Tangelo Drive (southwest corner) residential development
2000-821	Wright 2000	322	State Route 77 (between Tucson and Catalina)
2001-61	White and Rogge 2001a-i; Winter and Rogge 2001a-k	18.15	Nextel Communications Tower (various locations)
2001-96	Stephen 2001a	1.5	Westward Look Resort
2001-136	Olsson and Klune 2001	1.54	La Cholla Boulevard and Overton Road
2001-215	Shaw and Dart 2001	3.8	La Cholla Boulevard and Magee Road (southwest corner) development clearance
2001-295	Jones and Dart 2001	3.6	River, Cloud, Mountain Shadows, and Trico-Marana roads buried cable clearance
2001-341	Slawson 2001b	0.2	Quiet Rain cell tower
2001-552	Stephen 2001b	1.84	Metro Water District well sites
2001-564	Stephen 2001c	10	Sunrise Office Park
2001-576	Wyman and Dart 2001	28.5	First Avenue (between Tangerine Road and Oracle Road) road clearance
2001-578	Boggess 2001	29.1	Sombra Homes housing development
2001-583	Fuller 2001	0.76	Shannon Road trenching
2001-628	Cook 2001	5.1	Northwest Quadrant water main replacement (numerous loci)
2001-666	Stephen 2001d	13.34	La Cholla Boulevard commercial development
2001-791	Brack 2001	1,100	Saguaro Canyon Ranch
SHPO-2001-3039	Goldstein 2001	0.12	Verizon Wireless telecommunications site in Kriegh Park

Table 1. Archaeological surveys in the Oro Valley study area (continued)

Project No. (ASM, or as noted)	References	Acreage[1]	Focus of Survey
2002-39	Sevara and Olsson 2002	2,650 linear feet	La Cholla Boulevard and Magee Road
2002-82	Treat and Dart 2002	0.23	Public Ball Field Park communications tower
2002-150	Geiger and Dobschuetz 2002	n/a	Canyon del Oro High School telecommunications project
2002-330	Stephen 2002a	13.1	La Cañada Drive and Lambert Lane (southeast corner) residential and commercial development
2002-360	Davis 2002	40	West Lambert Lane park
SHPO-2002-1030	Bauer and Dobschuetz 2002	0.5	Rancho Vistoso TEP substation
2003-7	Hesse, I. 2003a	5	Cañada del Oro Wash
2003-22	Hesse, S. 2003	74	Linda Vista Boulevard transmission main
2003-427	Breen 2003	0.25	State Route 77 (between Calle Concordia and Tangerine Road) for right of way/ construction easements
2003-511	Stephen 2003a	33	Tangerine Road ADOT crossing
2003-541	Fahrni and Twilling 2003	1.4 miles of variable width	State Route 77, First Avenue, and Pusch View Lane right of way
2003-562	Diehl 2003	8	Oracle and Hardy roads for new sewer line
2003-796	Davis and Hohmann 2002	1.95	TEP-ADOT Pole cell tower
2003-864	Hohmann et al. 1998	17.63	Rooney Ranch, Parcel B
2003-1241	Cook 2003	4.8	Cañada del Oro Wash (Tangerine Road) pipeline alignment
2003-1378	Jerla and Dart 2003	7.05	Naranja and La Cañada drives (northwest corner), and north side of Lambert Lane (west of La Cañada Boulevard) development clearance
2003-1456	Stephen 2003b	79	Rooney Ranch, Parcel A residential and commerical development
2003-1518	Ruble 2003	3.2	Oracle Road, Calle Concordian, and Linda Vista Boulevard water pipeline

Table 1. Archaeological surveys in the Oro Valley study area (continued)

Project No. (ASM, or as noted)	References	Acreage[1]	Focus of Survey
2004-5	Stephen 2003c	17.26	Tangerine Road and La Cholla Boulevard intersection improvement
2004-8	Doak 2002	n/a	Immaculate Heart High School property
2004-18	Moses 2004	2,600 linear feet	La Cholla Boulevard and Overton Road
2004-80	Tucker 2003	42	Pusch Ridge Vistas II
2004-279	Morton et al. 2004	133	Cañada del Oro Wash flood hazard (FEMA)
2004-514	Slawson 2002	30.3	Magee Road and Paseo del Norte transmission mains
2004-559	Tucker 2004	36	Cañada del Oro Wash Sacred Use Path
2004-565	Klucas 2002	n/a	La Cañada Drive TEP monitoring
2004-663	Hesse, I. 2003b	208	Rancho Vistoso neighborhood
2004-730	Thurtle and Moses 2004	16.5	Magee Road (between La Cholla Boulevard and La Cañada Drive) housing development
2004-1811	Rainey 2004	0.05	Canyon del Oro High School cellular communications facility
2005-38	Stephen 2003d	4.4	Latter Day Saints church site
2005-53	Stephen 2002b	49	Pusch Ridge Christian Academy site
2005-552	McKee and Dart 2005	4.81	Las Casas Bellas Block 1 Parcels condominium development
2005-719	Levstik 2005	1.17	Oracle Road and Sahuaro Vista Road (northeast corner) commercial development
2005-781	Cook 2004	9.46	Shangri La development site
2007-328	Stone 2007	46.4	Cañada del Oro River Park improvement
2007-497	Stephen 2005	n/a	Tucson National Golf Course
2008-133	Stembridge and Twilling 2008	30	Cañada del Oro Wash (east bank)

Table 1. Archaeological surveys in the Oro Valley study area (continued)

Project No. (ASM, or as noted)	References	Acreage[1]	Focus of Survey
2008-213	Harris Environmental Group 2008a	27.6	Magee Road (between Shannon Road and La Cholla Boulevard) road widening
2008-205	Harris Environmental Group 2008b	19.4	Oracle Road and Linda Vista Boulevard hotel construction
2008-295	Harris Environmental Group 2008c	24.8	Lambert Lane road improvements
2008-456	Howell 2008	7.45 linear miles	Santa Catalina Mountains (foothills)
2008-538	Jones 2009	3.6	Camino del Sur waterline
2008-759	Levstik 2008	1.7	Park-and-Ride Project in Oro Valley

[1]Acreage is listed as n/a when the information was not available. When possible, linear survey coverage has been converted to acreage.

the total archaeological survey coverage and are discussed individually below. The coverage of these three surveys within the Oro Valley study area, totaling 11,644 acres, is depicted in the Appendix A map. Because it is difficult to accurately depict the coverage of small archaeological surveys relying solely on the GIS data available from AZSITE, Appendix A does not include the many smaller surveys carried out to date in the Oro Valley study area.

The total area of the Town of Oro Valley is about 22,338 acres. Of that area, about 11,644 acres were covered in the three major surveys discussed below. Total archaeological survey coverage within the Town of Oro Valley limits, including the many minor surveys, is about 65 percent. Regarding previous survey coverage in both the Town of Oro Valley and the larger Oro Valley study area, it is important to emphasize that the Arizona State Historic Preservation Office generally requests that an area previously surveyed for archaeological sites be resurveyed when the previous survey took place more than ten years ago. This is especially pertinent for the major surveys discussed below, all of which took place more than ten years ago (with the exception of small surveys representing expansions of the original major surveys).

Catalina State Park Surveys (1973–1999)

The earliest archaeological survey of what is now Catalina State Park was conducted in 1973, when ASM was contracted by Ratliff-Miller Development Company to survey the proposed residential development known as Rancho Romero, which encompassed seven 640-acre sections (Roubicek et al. 1973) (see Chapter 4 of this overview for the history of Catalina State Park and its relationship to Rancho Romero). However, the survey was limited to a cursory field inspection of a sample area of four sections within the entire seven-section project area. A few years later, ASM was contracted by Brown and Caldwell Consultant Engineers to provide an archaeological assessment of 100 square miles in advance of construction of a system of wastewater treatment plants and a gravity sewer line. The study area included the future Catalina State Park, as well as areas to the north, south, and west (Brew 1975). The assessment was performed by completing a records search for previously recorded sites, but no fieldwork was carried out. At the time of the records search, 45 sites had been recorded in and around the vicinity of Catalina State Park.

It was not until 1980 that ASM archaeologist Lisa Huckell carried out the first systematic archaeological survey of Catalina State Park (Huckell 1980a). Huckell's project included pedestrian coverage of over 9.7 square miles, recorded four new sites, and revisited seven previously recorded sites. The sites ranged in dates from the Early Ceramic period to the historic period (A.D. 650–1900). Huckell recommended that four sites, including the Romero Ruin (AZ BB:9:1 [ASM]), be nominated to the National Register. She also noted that, with further investigation, the whole of Catalina State Park might be eligible for listing on the National Register as an archaeological district (Huckell 1980a; Elson and Doelle 1987a).

More recently, site-specific documentation and limited excavation of the Romero Ruin, along with National Register eligibility documentation of the Sutherland Wash Archaeological District, have been carried out by the Institute for American Research (later Desert Archaeology) (Elson and Doelle 1987a; Swartz 1991, 1994). In 1994 and 1999, three small surveys were carried out

within the limits of the park in advance of road and facilities expansion and park boundary fencing (Freisinger and Montero 1994; Schaafsma 1999; Schrager and Farrell 1994). The total acreage for all of the Catalina State Park surveys within the study area is about 2,170 acres.

Northern Tucson Basin Survey (1980–1987)

One large survey that included part of the Oro Valley study area was prompted by an academic research program rather than a development project. In 1980, ASM archaeologists carried out a survey of the middle and lower Santa Cruz River valley north of Tucson. The initial phase of the survey, completed with support from an Arizona Historic Preservation Planning and Survey Grant, included the lower Cañada del Oro in the vicinity of Marana. The results of the initial phase served as the basis for a National Science Foundation grant, which allowed a continuation of the fieldwork over a much larger area. Between 1980 and 1983, over 100 square miles of the northern Tucson Basin were surveyed. A year later, the Bureau of Reclamation invited ASM to continue additional phases of survey in the vicinity of Marana, Brady Wash, and McClellan Wash (Madsen et al. 1993). By the time these phases were completed in 1987, over 685 square miles had been surveyed and 1,267 newly identified prehistoric and historic sites had been recorded (Madsen et al. 1993). The Northern Tucson Basin Survey is still the largest archaeological survey ever carried out in southern Arizona. Many of the archaeological sites known today along the Cañada del Oro, and along the eastern edge of the Oro Valley study area were first recorded during the Northern Tucson Basin Survey. The total acreage for the Northern Tucson Basin survey within the study area is about 2,595 acres.

Rancho Vistoso Surveys (1980–2007)

In 1977, Vistoso Partners, a Tempe-based concern, proposed a large residential and commercial development in the area north of the recently incorporated Town of Oro Valley. Later known as Rancho Vistoso, the project eventually grew to encompass 7,626 acres and included shopping centers, office parks, and several retirement communities (Ezzo 2007b). Rancho Vistoso has prompted numerous archaeological investigations in the Cañada del Oro area. In 1980–1981, the archaeological field school of Pima Community College carried out a systematic survey of portions of the proposed development, recording for the first time the major Hohokam site now known as Sleeping Snake Village (AZ BB :9:104 [ASM]) (Ezzo and Euler 2007). Three years later, the Bureau of Land Management conducted a 480-acre survey in a land exchange associated with the Navajo-Hopi Relocation Act. During the course of the survey, the BLM identified three prehistoric sites that would later be the focus of excavations carried out by SWCA Environmental Consultants in 2006 (Brunson et al. 1984, Ezzo 2006).

The entirety of the Rancho Vistoso property was surveyed by the Institute for American Research (now Desert Archaeology) in 1986 (Craig and Wallace 1987). During the survey, 51 prehistoric sites and three historic sites were recorded. The prehistoric sites, all of them of probable Hohokam association, included artifact scatters, village and farmstead sites, procurement and processing sites (with bedrock mortars and grinding slicks), rock art, and lithic quarries (Craig and Wallace

1987). In 2003, SWCA performed a noncollection survey of 208 acres within Neighborhood 12, at the north end of Rancho Vistoso (Hesse, I. 2003b). Five newly recorded sites and three previously recorded sites were documented; four of the sites were later excavated (in 2006), and one site, AZ BB:9:149 (ASM), a series of historic rock fence segments, was thoroughly mapped and described (Ezzo 2006; Hesse, I. 2003b). Additional small surveys in Rancho Vistoso related to telecommunications towers and substations have been performed in recent years (Bauer and Dobschuetz 2002; Cook 2006; Erickson and Rogge 2007). The total acreage for all of the Rancho Vistoso surveys within the study area is about 6,880 acres.

Several large excavations have been carried out at major sites in the Rancho Vistoso area, including Sleeping Snake Village and Honey Bee Village (AZ BB:9:88 [ASM]) (Craig 1988; Ezzo 2007b). We discuss the work at these two sites later in the chapter.

Archaeological Sensitivity in the Study Area

Archaeological sensitivity, or the probability that a given location as yet unsurveyed will preserve archaeological remains, can be estimated by considering various characteristics of the location, including proximity to sources of food and water, suitability for building houses, proximity to good farm land, the presence of transportation routes, and so on—the things that matter will vary according to the economic adaptation and cultural preferences in a given time period. Another important clue to the archaeological sensitivity of a location is the distribution of archaeological sites already recorded in the surrounding area.

The only systematic analysis of archaeological sensitivity to include the Oro Valley study area was carried out by the Pima County Cultural Resources and Historic Preservation Office in 2000 as part of the Sonoran Desert Conservation Plan (SDCP). The SDCP is a comprehensive planning document for eastern Pima County developed by biologists, ecologists, geographers, archaeologists, and other specialists to guide the long-range planning decisions of the county (SDCP 2009). The goal of the archaeological sensitivity analysis was to create a sensitivity map for the eastern portion of the county that would help county planners gauge, in a general way, the probable impacts of proposed development projects on archaeological sites. The map is currently in use by county planners and can be viewed in its entirety on the SDCP web site (http://www.dot.co.pima.az.us/cmo/sdcpmaps/). We have excerpted the portion of the map covering the Oro Valley study area as Appendix B.

The SDCP sensitivity map is based on the kinds of factors already mentioned—proximity to resources, suitability for habitation, the distribution of known sites, and so on—and defines areas in terms of three archaeological sensitivity ratings: low, moderate, and high. As in all analyses of archaeological sensitivity, the distinctions made between areas of different sensitivity have to be considered rough estimates rather than precise calculations, because it is impossible to know all of the factors affecting the use of a location in any time period. An area characterized as having low sensitivity may well hold significant archaeological sites, and an area of high sensitivity may well be devoid of sites. Nevertheless, the Appendix B map does provide a useful characterization of the Oro Valley study area: about 77 percent of the study area is rated as having high sensitivity, about 23 percent is rated as having moderate sensitivity, and no part of the study area is rated as having low sensitivity.

The sensitivity ratings for the study area do not take into account the impacts of recent development. Given that much of the study area has been drastically altered through ground-disturbing activities associated with residential and commercial development, significant portions of the areas of high and moderate sensitivity actually have little or no potential to preserve archaeological remains. But the impacts of development are highly variable and difficult to know precisely without archaeological investigation. An area long used as a parking lot, a road, or even a large building may still preserve significant subsurface archaeological features despite the evident impacts to the original ground surface. Thus, archaeological sensitivity ratings can be used only as an initial indication of the archaeological sites that might be found in an area and not to predict whether archaeological remains are preserved in a particular place.

Archaeological Sensitivity in the Arroyo Grande Planning Area

The northern portion of the Oro Valley study area includes the Arroyo Grande Planning Area, which consists of 11,547 acres of state trust land in unincorporated Pima County, situated between the northern boundary of the Town of Oro Valley and the Pima-Pinal county line (see Figure 2). The Arroyo Grande Planning Area is the focus of an effort by the Arizona State Land Department to develop a land use plan that will outline appropriate uses for the area based on a wide range of environmental, economic, and social considerations. In response to the state planning effort for Arroyo Grande, the Pima County Cultural Resources and Historic Preservation Office prepared a brief overview of archaeological potential in the Arroyo Grande Planning Area (Mayro and Rose 2008). The overview notes that Arroyo Grande includes an area of potentially great archaeological significance, centered on a large Hohokam village site known as Indian Town Ruin, or AZ BB:5:26 (ASM).

First recorded in 1976 in a survey by Pima Community College (Hewitt and Johnson 1978), Indian Town Ruin is located just north of the Pima-Pinal county line. It covers at least 74 acres and is probably much larger, extending south of the county line into Pima County. Although it has not yet been fully documented, Indian Town Ruin includes over 100 adobe-walled structures, pits, trash mounds, and other features, as well as petroglyphs, rock alignments, and myriad artifacts. The site was in all likelihood the center of a complex system of settlement in the eastern foothills of the Tortolita Mountains, a system that included a wide range of sites of different sizes and functions. Some of these other sites have already been documented on both sides of the county line, but the percentage of the Arroyo Grande planning area that has been surveyed for sites is still low, less than 25 percent.

In keeping with the goals of the Sonoran Desert Conservation Plan and the Pima County Comprehensive Land Use Plan, the county has recommended that a contiguous parcel of about 3,500 acres encompassing the Indian Town Ruin and 31 other previously recorded sites—all possibly related to the Indian Town Ruin—be designated a Priority Archaeological Site Complex (see Appendix B). This designation amounts to a recommendation that the entire complex of sites be preserved in place as an archaeological landscape of exceptional importance. If preservation of the entire complex is not possible, individual sites within the complex should be avoided by proposed land uses and protected in place, and newly discovered sites in the area should be

treated in the same way. When avoidance of an individual site is not possible, the impacts should be mitigated—in other words, the site should be excavated by professional archaeologists following a county-approved data recovery plan. The authors of the county overview also emphasize that a thorough reassessment of the entire Indian Town Ruin complex is needed to determine the full extent and condition of its archaeological resources.

Previously Recorded Archaeological Sites in the Study Area

Archaeological surveys in the Oro Valley study area have recorded a total of 185 archaeological sites, ranging in dates from the prehistoric period (A.D. 100–1450) to the historic post–World War II period (1945–1960). Of the 185 sites, 160 are exclusively prehistoric in date, 17 are exclusively historic in date, and eight sites have both prehistoric and historic components. Table 2 lists the numbers of sites in the study area by period and site function. Table 3 provides a full list of sites with report references. The locations of previously recorded archaeological sites are provided on the Appendix C map. Three prehistoric sites—Honey Bee Village, Romero Ruin, and Sleeping Snake Village—have special importance both for the study area and for the prehistory of the Tucson Basin more generally. All three sites were large Hohokam villages that were occupied for extended periods of time. All three sites hold the remains of numerous houses, storage and roasting pits, and a variety of other features, including the probable remains of ball courts, which served a specialized ritual function. Each site was the center of an organized system of smaller sites related to the large site through social, economic , and political connections.

Honey Bee Village (AZ BB:9:88 [ASM])

Honey Bee Village covers an area of about 75 acres on the west side of Honey Bee Wash, one of the main feeder washes draining from the north into the Cañada del Oro. The site was first recorded in 1980 by archaeologists and field school students from Pima Community College in a survey of the eastern Tortolita Mountains. The fieldwork consisted of sketch maps and limited surface collections of artifacts (Hewitt and Johnson 1978). The site was revisited in 1986 by the Institute for American Research (later Desert Archaeology) during the Rancho Vistoso Survey (Craig and Wallace 1987). Detailed maps were made and an intensive surface collection yielded more than 6,000 Hohokam-associated artifacts. Preliminary analysis of the surface artifacts indicated an occupation from the Colonial period through the Rincon phase of the Sedentary period. In 1989, the Institute for American Research conducted archaeological testing at the site within a 12-acre area believed to represent the central part of the site (Craig 1989). The area included large trash mounds, a ball court compound, and other rock-walled features visible on the modern ground surface. The test excavations, which revealed architecture and artifacts consistent with the range of dates established for the site in the previous surveys, focused on questions of community organization. The results showed that the trash mounds were arranged around areas of intensive habitation, which were arranged in turn around a central plaza or open area.

In 2006–2007, Desert Archaeology carried out large-scale excavations at Honey Bee Village, recording nearly 800 pit houses, 206 human burials, and the burials of several dogs, a hawk, and

Table. 2 Archaeological sites in the Oro Valley cultural resources inventory study area

Total Area of Oro Valley Cultural Resources Inventory Study Area	49,498 acres
Portion of study area with high archaeological sensitivity	77 %
Portion of study area with moderate archaeological sensitivity	23 %
Portion of study area with low archaeological sensitivity	0 %
Percentage of Archaeological Survey Coverage in Study Area	approx. 35 %
Total Number of Known Archaeological Sites	185
Number of sites with prehistoric component only	160
Number of sites with historic component only	17
Number of sites with both prehistoric and historic components	8
Prehistoric Components by Function	
Habitation (village or farmstead)	56
Communication (rock art)	1
Limited Activity (food processing or procurement)	21
undetermined	90
Prehistoric Components by Period	
Early Ceramic (AD 100 –750)	2
Early–Middle Ceramic (AD 100–1150)	12
Middle Ceramic (AD 750–1150)	13
Middle–Late Ceramic (AD 750–1450)	14
Late Ceramic (AD 1150–1450)	5
undifferentiated Ceramic	118
undetermined	4
Historic Components by Function	
Habitation (homestead or ranch)	12
Ranching (no associated habitation)	1
Communication (transmission line)	1
Transportation (road)	2
Religious (shrine)	1
Irrigation (canal or ditch)	1
undetermined	7
Historic Components by Period	
European Contact to Territorial (1690–1856)	1
Territorial (1856–1912)	2
Territorial to World War II (1856–1941)	1
Territorial to Early Statehood (1856–1918)	1
Early Statehood (1912–1918)	2
Interwar (1918–1941)	4
World War II (1941–1945)	1
Post–World War II (1945–1960)	3
undetermined	10

Table 3. Archaeological sites in the Oro Valley study area

Site Number (ASM, except as noted)	Site Name[2]	Prehistoric Period	Prehistoric Function	Historic Period	Historic Function	NRHP Eligibility[3]	Reference(s)[4]
AZ AA:12:8	—	ceramic	habitation	—	—	undetermined	Haury 1937a
AZ AA:12:39	—	Tanque Verde phase	habitation	—	—	undetermined	Kurath and Brown 1941
AZ AA:12:49	—	ceramic	habitation	—	—	undetermined	Phillips 1958
AZ AA:12:50	—	ceramic	undetermined	—	—	undetermined	Madsen 1982
AZ AA:12:79	—	Rincon phase	limited activity	—	—	undetermined	Barthels 1970; Jones et al. 1992 (see Barthels 1970)
AZ AA:12:244	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:245	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:246	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:247	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:249	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:263	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:264	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:265	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:279	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:282	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:283	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993

Table 3. Archaeological sites in the Oro Valley study area (continued)

Site Number (ASM, except as noted)	Site Name[2]	Prehistoric Period	Prehistoric Function	Historic Period	Historic Function	NRHP Eligibility[3]	Reference(s)[4]
AZ AA:12:284	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:288	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:289	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:290	—	ceramic	limited activity	—	—	determined ineligible	Slawson 2000
AZ AA:12:291	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:292	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:294	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:295	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:296	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:297	—	ceramic	limited activity	—	—	undetermined	Madsen et al. 1993; Stone and Bontrager 1987
AZ AA:12:298	—	ceramic	undetermined	—	—	undetermined	Jones 1996c
AZ AA:12:378	Matt Lockas Homestead	—	—	Early Statehood	habitation	recommended eligible	Olsson 2001
AZ AA:12:397	—	—	—	Interwar	undetermined	undetermined	Madsen et. al. 1993
AZ AA:12:404	—	—	—	undetermined	habitation	undetermined	Madsen et. al. 1993
AZ AA:12:408	—	ceramic	undetermined	undetermined	habitation	undetermined	Madsen et. al. 1993
AZ AA:12:409	—	Tanque Verde phase	habitation	—	—	recommended eligible	Madsen et. al. 1993

Table 3. Archaeological sites in the Oro Valley study area (continued)

Site Number (ASM, except as noted)	Site Name[2]	Prehistoric Period	Prehistoric Function	Historic Period	Historic Function	NRHP Eligibility[3]	Reference(s)[4]
AZ AA:12:436	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:500	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:675	—	ceramic	undetermined	—	—	undetermined	Madsen et. al. 1993
AZ AA:12:676	—	ceramic	limited activity	—	—	undetermined	Fish 1982a
AZ AA:12:677	—	ceramic	limited activity	—	—	undetermined	Fish 1982b
AZ AA:12:725	—	ceramic	undetermined	—	—	determined ineligible	Stephen 2003e
AZ AA:12:726	—	ceramic	undetermined	—	—	undetermined	Jones 1996d
AZ AA:12:728	—	ceramic	limited activity	—	—	undetermined	Stone and Bontrager 1987
AZ AA:12:777	—	ceramic	limited activity	—	—	recommended eligible	Heuett 1995a
AZ AA:12:778	—	ceramic	limited activity	—	—	recommended eligible	Heuett 1995b
AZ AA:12:779	—	ceramic	limited activity	—	—	undetermined	Swartz 1995
AZ AA:12:817	—	ceramic	limited activity	—	—	recommended eligible	Jones 1968
AZ AA:12:824	—	ceramic	limited activity	—	—	determined ineligible	Stephen 1997b; O'Brien and Stephen 2007
AZ AA:12:825	—	ceramic	limited activity	—	—	undetermined	Stephen 1997b; O'Brien and Stephen 2007
AZ AA:12:826	—	ceramic	limited activity	—	—	undetermined	Stephen 1997b; O'Brien and Stephen 2007
AZ BB:5:28	—	ceramic	undetermined	—	—	undetermined	Murray and Urban 1979

Table 3. Archaeological sites in the Oro Valley study area (continued)

Site Number (ASM, except as noted)	Site Name[2]	Prehistoric Period	Prehistoric Function	Historic Period	Historic Function	NRHP Eligibility[3]	Reference(s)[4]
AZ BB:5:29	—	ceramic	undetermined	—	—	undetermined	Hewitt and Johnson 1978
AZ BB:5:31	—	ceramic	habitation	—	—	undetermined	Hewitt and Johnson 1978
AZ BB:5:32	—	ceramic	undetermined	—	—	undetermined	Hewitt and Johnson 1978
AZ BB:5:33	—	Rincon to Tanque Verde phases	habitation	—	—	undetermined	Hewitt and Johnson 1978
AZ BB:5:36	—	ceramic	undetermined	—	—	undetermined	Hewitt and Johnson 1978
AZ BB:5:37	—	ceramic	limited activity	—	—	undetermined	Hewitt and Johnson 1978
AZ BB:5:38	—	ceramic	undetermined	—	—	undetermined	Hewitt and Johnson 1978
AZ BB:5:39	—	ceramic	limited activity	—	—	undetermined	Hewitt and Johnson 1978
AZ BB:5:41	—	ceramic	limited activity	—	—	undetermined	Hewitt and Johnson 1978
AZ BB:5:59	—	ceramic	limited activity	—	—	undetermined	Hewitt and Johnson 1978
AZ BB:5:82	—	ceramic	undetermined	—	—	undetermined	Brown and Rohman 1994
AZ BB:5:123	Oracle-Tucson Transmission Line	—	—	World War II	communication	determined ineligible	Brown and Rohman 1994
AZ BB:9:1	Romero Ruin/ Pueblo Viejo	Agua Caliente to Tanque Verde phases	habitation	Territorial	habitation	undetermined	Elson and Doelle 1987; Swartz 1991, 1993; Swartz and Doelle 1996
AZ BB:9:2	—	ceramic	undetermined	—	—	undetermined	Haury 1937b
AZ BB:9:3	Rooney Ranch Site	Rincon to Tanque Verde phases	habitation	—	—	recommended eligible	Stephen et al. 1992

Table 3. Archaeological sites in the Oro Valley study area (continued)

Site Number (ASM, except as noted)	Site Name[2]	Prehistoric Period	Prehistoric Function	Historic Period	Historic Function	NRHP Eligibility[3]	Reference(s)[4]
AZ BB:9:3 (BLM)	—	Rincon phase	habitation	—	—	recommended eligible	n/a
AZ BB:9:4	—	ceramic	habitation	—	—	undetermined	Bull 1969
AZ BB:9:39	—	ceramic	undetermined	—	—	undetermined	Phillips 1959
AZ BB:9:41	Cañada del Oro–Camp Grant Wagon Road	—	—	Territorial	transportation	undetermined	n/a
AZ BB:9:45	—	Agua Caliente to Rincon phases	habitation	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:48	—	Agua Caliente to Rincon phases	habitation	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:49	—	Agua Caliente to Rincon phases	habitation	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:52	—	ceramic	undetermined	undetermined	habitation	undetermined	Cummings et al. 1973a
AZ BB:9:57	—	Tortolita phase	habitation	—	—	recommended eligible	Craig and Wallace 1987; Hewitt and Johnson 1978; Wellman and Ezzo 2004
AZ BB:9:63	—	—	—	undetermined	habitation	undetermined	Cummings et al. 1973b
AZ BB:9:64	—	ceramic	limited activity	—	—	undetermined	Cummings et al. 1973c
AZ BB:9:75	Steam Pump Ranch	—	—	Territorial to post–World War II	habitation	determined eligible	Gregonis and Huckell 1980; Jeffery 2003; Polk and Lyon 2002; Thiel 2007
AZ BB:9:82	—	ceramic	habitation	—	—	undetermined	Hewitt and Johnson 1978
AZ BB:9:83	—	ceramic	limited activity	—	—	undetermined	Hewitt and Johnson 1978

Table 3. Archaeological sites in the Oro Valley study area (continued)

Site Number (ASM, except as noted)	Site Name[2]	Prehistoric Period	Prehistoric Function	Historic Period	Historic Function	NRHP Eligibility[3]	Reference(s)[4]
AZ BB:9:84	—	Rincon to Tanque Verde phases	habitation	—	—	recommended eligible	Brown and Rohman 1994
AZ BB:9:85	—	Tanque Verde phase	undetermined	—	—	undetermined	Hewitt and Johnson 1978
AZ BB:9:86	—	Rincon to Tanque Verde phases	habitation	—	—	undetermined	Hewitt and Johnson 1978
AZ BB:9:87	—	ceramic	habitation	—	—	determined eligible	Craig and Wallace 1987; Wellman and Cummings 1999; Hewitt and Johnson 1978
AZ BB:9:88	Honey Bee Village	Rincon to Tanque Verde phases	habitation	—	—	determined eligible	Craig and Wallace 1987; Brown and Rohman 1994; Craig and Stephen 1985; Craig 1989; Hewitt and Johnson 1978
AZ BB:9:96	—	ceramic	undetermined	—	—	undetermined	Huckell 1980b
AZ BB:9:98	—	ceramic	undetermined	—	—	undetermined	Huckell 1980c
AZ BB:9:99	—	ceramic	undetermined	—	—	undetermined	Huckell 1980d
AZ BB:9:102	—	ceramic	undetermined	—	—	undetermined	Hewitt 1981
AZ BB:9:103	—	Tanque Verde phase	habitation	—	—	undetermined	Hewitt 1980
AZ BB:9:104	Sleeping Snake Village	Rillito to Tanque Verde phases	habitation	—	—	determined eligible	Craig and Wallace 1987
AZ BB:9:105	—	Rillito to Tanque Verde phases	habitation	—	—	undetermined	East and Burns 1980
AZ BB:9:106	—	ceramic	undetermined	—	—	undetermined	Tagg et al. 1981

Table 3. Archaeological sites in the Oro Valley study area (continued)

Site Number (ASM, except as noted)	Site Name[2]	Prehistoric Period	Prehistoric Function	Historic Period	Historic Function	NRHP Eligibility[3]	Reference(s)[4]
AZ BB:9:107	—	ceramic	undetermined	—	—	undetermined	Brown and Rohman 1994
AZ BB:9:109	—	Cañada del Oro to Tanque Verde phases	habitation	—	—	recommended ineligible	Brew et al. 1981
AZ BB:9:110	—	Cañada del Oro to Tanque Verde phases	habitation	—	—	recommended ineligible	Brew et al. 1981
AZ BB:9:119	—	Agua Caliente to Rincon phases	habitation	—	—	determined ineligible	Wright 2000
AZ BB:9:120	Abused Ridge Site	Rincon to Tanque Verde phases	habitation	—	—	determined ineligible	Lorentzen et al. 1997; Tagg 1983
AZ BB:9:142	—	Rincon phase	limited activity	—	—	determined ineligible	Wright 2000
AZ BB:9:145	—	Cañada del Oro and Rincon phases	undetermined	—	—	undetermined	Dart 1985b
AZ BB:9:146	—	Rincon to Tanque Verde phases	habitation	—	—	undetermined	Austin and Poppy 1985
AZ BB:9:148	—	Agua Caliente to Rincon phases	habitation	—	—	recommended ineligible	Hesse, I. 2003b
AZ BB:9:149	—	—	—	undetermined	ranching	recommended ineligible	Hesse, I. 2003b
AZ BB:9:151	—	Rincon phase	undetermined	—	—	undetermined	Seymour 1986
AZ BB:9:152	—	ceramic	habitation	—	—	recommended eligible	Brown and Rohman 1994; Craig and Wallace 1987
AZ BB:9:153	—	Rincon phase	undetermined	—	—	undetermined	Craig 1988
AZ BB:9:154	—	ceramic	undetermined	—	—	undetermined	Craig and Wallace 1987

Table 3. Archaeological sites in the Oro Valley study area (continued)

Site Number (ASM, except as noted)	Site Name[2]	Prehistoric Period	Prehistoric Function	Historic Period	Historic Function	NRHP Eligibility[3]	Reference(s)[4]
AZ BB:9:155	—	ceramic	undetermined	—	—	undetermined	Craig and Wallace 1987
AZ BB:9:156	—	ceramic	undetermined	—	—	undetermined	Craig and Wallace 1987
AZ BB:9:157	—	Rillito to Tanque Verde phases	undetermined	—	—	undetermined	Craig and Wallace 1987
AZ BB:9:158	—	ceramic	undetermined	—	—	undetermined	Craig and Wallace 1987
AZ BB:9:159	—	Tortolita to Rincon phases	habitation	—	—	recommended ineligible	Craig and Wallace 1987; Wellman and Ezzo 2004
AZ BB:9:160	—	Rincon phase	habitation	—	—	undetermined	Craig and Wallace 1987; Wellman and Ezzo 2004
AZ BB:9:161	—	ceramic	undetermined	—	—	undetermined	Craig and Wallace 1987
AZ BB:9:162	—	ceramic	undetermined	—	—	undetermined	Craig and Wallace 1987
AZ BB:9:163	—	ceramic	undetermined	—	—	undetermined	Craig and Wallace 1987
AZ BB:9:164	—	ceramic	undetermined	—	—	undetermined	Craig and Wallace 1987
AZ BB:9:165	—	ceramic	undetermined	—	—	undetermined	Craig and Wallace 1987
AZ BB:9:166	—	Rincon phase	habitation	—	—	undetermined	Craig and Wallace 1987; Wellman 1995
AZ BB:9:167	—	Tortolita phase	habitation	—	—	recommended ineligible	Craig and Wallace 1987; Wellman and Ezzo 2004
AZ BB:9:169	—	Rincon phase	habitation	undetermined	undetermined	recommended ineligible	Brown and Rohman 1994; Craig and Wallace 1987
AZ BB:9:170	—	Tanque Verde phase	habitation	—	—	undetermined	Craig and Wallace 1987

Table 3. Archaeological sites in the Oro Valley study area (continued)

Site Number (ASM, except as noted)	Site Name[2]	Prehistoric Period	Prehistoric Function	Historic Period	Historic Function	NRHP Eligibility[3]	Reference(s)[4]
AZ BB:9:171	—	Rincon phase	habitation	—	—	recommended ineligible	Lyon and Ezzo 2004
AZ BB:9:172	—	ceramic	undetermined	—	—	undetermined	Craig and Wallace 1987
AZ BB:9:173	—	Rincon phase	habitation	—	—	undetermined	Craig and Wallace 1987; Jones 1996b
AZ BB:9:174	—	ceramic	undetermined	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:175	—	ceramic	undetermined	—	—	recommended eligible	Lyon 2006
AZ BB:9:176	—	Rincon phase	habitation	—	—	recommended eligible	Lyon 2006
AZ BB:9:177	—	ceramic	undetermined	—	—	undetermined	Craig and Wallace 1987
AZ BB:9:178	—	ceramic	undetermined	—	—	undetermined	Craig and Wallace 1987
AZ BB:9:179	—	ceramic	undetermined	—	—	undetermined	Craig and Wallace 1987
AZ BB:9:180	—	ceramic	undetermined	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:181	—	ceramic	undetermined	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:182	—	ceramic	undetermined	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:183	—	ceramic	undetermined	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:184	—	ceramic	habitation	—	—	undetermined	Elson and Doelle 1987; Craig and Wallace 1987
AZ BB:9:185	—	ceramic	undetermined	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:186	Los Venados	ceramic	habitation	—	—	determined eligible	Craig and Wallace 1987; Ezzo 2007

Table 3. Archaeological sites in the Oro Valley study area (continued)

Site Number (ASM, except as noted)	Site Name[2]	Prehistoric Period	Prehistoric Function	Historic Period	Historic Function	NRHP Eligibility[3]	Reference(s)[4]
AZ BB:9:187	—	ceramic	undetermined	—	—	undetermined	Craig and Wallace 1987
AZ BB:9:189	Honey Bee Glyphs and Associated Village and Pusch Ranch	Tortolita to Rincon phases	habitation	Territorial to Early Statehood	habitation	determined eligible	Craig and Wallace 1987; Wellman and Ezzo 2004
AZ BB:9:190	—	ceramic	undetermined	—	—	undetermined	Craig and Wallace 1987
AZ BB:9:191	—	Agua Caliente to Rincon phases	habitation	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:192	—	Agua Caliente to Rincon phases	habitation	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:193	—	Agua Caliente to Rincon phases	habitation	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:194	—	ceramic	unidentified	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:195	—	Agua Caliente to Rincon phases	habitation	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:196	—	Rincon to Tanque Verde phases	habitation	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:207	—	—	—	Contact to Territorial	habitation	undetermined	Elson and Doelle 1987
AZ BB:9:209	—	Agua Caliente to Tanque Verde phases	habitation	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:210	—	Agua Caliente to Tanque Verde phases	habitation	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:212	—	Agua Caliente to Rincon phases	habitation	—	—	undetermined	Elson and Doelle 1987

Table 3. Archaeological sites in the Oro Valley study area (continued)

Site Number (ASM, except as noted)	Site Name[2]	Prehistoric Period	Prehistoric Function	Historic Period	Historic Function	NRHP Eligibility[3]	Reference(s)[4]
AZ BB:9:213	—	Rincon to Tanque Verde phases	habitation	—	—	recommended eligible	Elson and Doelle 1987; Lorentzen et al. 1997
AZ BB:9:216	—	ceramic	habitation	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:217	—	ceramic	undetermined	—	—	undetermined	Elson and Doelle 1987
AZ BB:9:225		Rincon phase	habitation	—	—	undetermined	Kalthoff and Freeman 1999
AZ BB:9:234	—	—	—	post–World War II	religious	undetermined	Seymour and Sternberg 1988
AZ BB:9:262	—	ceramic	undetermined	—	—	undetermined	Stephen 1991
AZ BB:9:264	—	—	—	undetermined	habitation	undetermined	Roth 1992
AZ BB:9:270	—	ceramic	undetermined	—	—	undetermined	Stephen and Jones 1992
AZ BB:9:273	—	ceramic	habitation	—	—	undetermined	Stephen and Jones 1993
AZ BB:9:281	—	ceramic	undetermined	—	—	recommended ineligible	Brown and Rohman 1994
AZ BB:9:282	—	ceramic	undetermined	—	—	undetermined	Brown and Rohman 1994
AZ BB:9:283	—	ceramic	undetermined	—	—	recommended ineligible	Brown and Rohman 1994
AZ BB:9:284	—	ceramic	habitation	—	—	recommended eligible	Brown and Rohman 1994
AZ BB:9:285	—	ceramic	habitation	—	—	undetermined	Brown and Rohman 1994
AZ BB:9:295	—	undetermined	undetermined	—	—	undetermined	Howard 1994
AZ BB:9:298	—	undetermined	undetermined	undetermined	undetermined	recommended eligible	Wallace 1994

Table 3. Archaeological sites in the Oro Valley study area (continued)

Site Number (ASM, except as noted)	Site Name[2]	Prehistoric Period	Prehistoric Function	Historic Period	Historic Function	NRHP Eligibility[3]	Reference(s)[4]
AZ BB:9:299	—	ceramic	limited activity	—	—	undetermined	Swartz 1995
AZ BB:9:319	—	ceramic	undetermined	—	—	recommended eligible	Lorentzen et al. 1997
AZ BB:9:320	Joseph E. McAdams House	ceramic	habitation	post–World War II	habitation	prehistoric recommended ineligible; historic recommended eligible	Lorentzen et al. 1997
AZ BB:9:328	Rooney Ranch/ Johnson Ranch	—	—	Early Statehood	habitation	recommended eligible	Hohmann et al. 1998
AZ BB:9:329	—	—	—	Interwar	undetermined	recommended eligible	Hohmann et al. 1998
AZ BB:9:330	—	—	—	Interwar	undetermined	recommended eligible	Hohmann et al. 1998
AZ BB:9:331	—	—	—	undetermined	irrigation	recommended eligible	Hohmann et al. 1998
AZ BB:9:332	—	undetermined	undetermined	—	—	recommended eligible	Schaafsma 1999
AZ BB:9:333	—	ceramic	undetermined	—	—	undetermined	Fratt and Rude 2002b; Klune et al. 2001
AZ BB:9:334	—	ceramic	undetermined	—	—	recommended eligible	Fratt and Rude 2002a
AZ BB:9:335	—	ceramic	undetermined	—	—	recommended eligible	Fratt and Rude 2002a
AZ BB:9:336	—	ceramic	undetermined	undetermined	undetermined	recommended eligible	Fratt and Rude 2002a
AZ BB:9:337	—	ceramic	undetermined	—	—	recommended eligible	Fratt and Rude 2002a

Table 3. Archaeological sites in the Oro Valley study area (continued)

Site Number (ASM, except as noted)	Site Name[2]	Prehistoric Period	Prehistoric Function	Historic Period	Historic Function	NRHP Eligibility[3]	Reference(s)[4]
AZ BB:9:339	—	ceramic	undetermined	—	—	recommended eligible	Fratt and Rude 2002a
AZ BB:9:340	—	ceramic	undetermined	—	—	recommended ineligible	Fratt and Rude 2002a
AZ BB:9:341	—	ceramic	undetermined	—	—	recommended eligible	Fratt and Rude 2002a
AZ BB:9:342	—	ceramic	undetermined	—	—	undetermined	Fratt and Rude 2002a
AZ BB:9:347	—	ceramic	communication	—	—	recommended ineligible	Kelly et al. 1985
AZ BB:9:352	—	undetermined	undetermined	—	—	recommended ineligible	Stephen 2000a
AZ BB:9:368	—	—	—	post–World War II	undetermined	recommended ineligible	Doak 2002
AZ FF:9:17	SR 80 / US Highway 80	—	—	Interwar	transportation	determined eligible	Rodda 1992

[1] A version of this table with UTM coordinates for each site is included on the CD with Appendixes A, B, and C.

[2]Only descriptive or generally accepted site names are included here. Some sites in the AZSITE database were assigned names casually when they were first recorded, and the names have no relationship to the history or nature of the site. We do not include these names here.

[3]NRHP Eligibility Key:

undetermined = no recommendation by recorder, no determination by SHPO

recommended ineligible = recommended ineligible by recorder, no determination by SHPO

determined ineligible = determined ineligible by SHPO

recommended eligible = recommended eligible by recorder, no determination by SHPO

determined eligible = determined eligible by SHPO

[4]The abbreviation "n/a" indicates that a report for the site was not available and the information provided here is strictly from the ASM site card.

a golden eagle; the total number of artifacts recovered from the site exceeds 73,000 (Medrano 2008). Preparation of a final report on the excavations is still in progress, but Honey Bee Village has already become an important example of the wealth of information that prehistoric sites in the Oro Valley area can provide when they are the focus of systematic archaeological investigation. The final treatment of Honey Bee Village is also a landmark in the protection of archaeological resources. In an agreement among the various stakeholders in the project—the developer, the Town of Oro Valley, Pima County, ASM, and the Tohono O'odham Nation (which considers Honey Bee Village an ancestral site)—the developer donated 13 acres at the core of the site to be protected in perpetuity as an archaeological preserve. The protected parcel includes several large mounds, a plaza, a ball court, and various other features, all of which are protected from development (OVHS 2009e).

Romero Ruin (AZ BB:9:1 [ASM])

Romero Ruin is a 15-acre Hohokam site with a later historic component located within present-day Catalina State Park. It sits on a ridge above Sutherland Wash, with an associated field system that extends from the southern edge of the site toward the adjacent Santa Catalina Mountains. Professional archaeologists consider Romero Ruin "one of the most significant sites in the Tucson Basin" (Elson and Doelle 1987a:1). The Romero Ruin is also part of the Sutherland Wash Archaeological District, which was listed on the National Register as an archaeological district in 1987 (Elson and Doelle 1987b).

Elson and Doelle (1987a) provide the most detailed summary of the history of investigations at Romero Ruin, as well as a comprehensive discussion of the site itself; we follow their summary here. Romero Ruin, originally called Pueblo Viejo, was identified as early as 1915 by Robert Forbes, an early president of the University of Arizona and an avid explorer of southern Arizona's wilderness areas. The earliest scientific investigation of the site was by Ellsworth Huntington (1910), who was interested in human adaptations to arid climates and used the Hohokam as a case study. Huntington recorded the two ball courts at the site as reservoirs, but correctly identified the occupation sequence at the ruin (Elson and Doelle 1987a:6–8).

From 1973 to 1980, archaeologists working with ASM conducted two surveys and an overview of Romero Ruin and the surrounding area. Roubicek and others (1973) resurveyed the area including Romero Ruin for the Ratliff-Miller Development Company, and recommended further intensive survey. Brew (1975) conducted a records search on behalf of Brown and Caldwell Consultant Engineers. Brew was among the first archaeologists to note the importance of the historic component of Romero Ruin in addition to the Hohokam component. Huckell (1980a) assessed the Catalina State Park area for impacts of park development, examined the outlying area, and reassessed all previously known sites to update the ASM files. Huckell recommended Romero Ruin for National Register nomination in addition to more intensive investigations.

In early 1987, Elson and Doelle (1987a) conducted a survey of the Catalina State Park centered on Romero Ruin. They collected diagnostic surface artifacts, then mapped and described all of the surface features. They collected a total of 11,499 artifacts from the site surface and analyzed

a sample, including 1,659 decorated ceramic sherds, 339 flaked stone tools, and 126 pieces of ground stone (Elson and Doelle 1987a:14–18). The same year, the National Register nominations for the Sutherland Wash Archaeological District (Elson and Doelle 1987b) and the adjacent Sutherland Wash Rock Art District (Farrell and Burton n.d.) were prepared and submitted. In the fall of 1990, test excavations were carried out at Romero Ruin (Swartz 1991), providing the largest early red ware assemblage from a stratigraphic context at the time and establishing the Tortolita phase (A.D. 450–650) occupation at Romero. In 1993, additional limited archaeological testing was conducted by the Center for Desert Archaeology at Romero Ruin to make way for an interpretive trail (Swartz 1994).

The archaeological features at Romero Ruin include 17 trash mounds, 12 trash concentrations, two ball courts, three possible cremation areas, a masonry compound, a plaza area, a large field system for agriculture, and 37 other prehistoric cultural features; the site also has the visible remains of four or five masonry rooms from historic times. Romero Ruin was occupied prehistorically from around A.D. 550 through the Tucson phase (A.D. 1300–1450) of the Hohokam Classic period, and likely during some part of the Protohistoric period (A.D. 1450–1692), though the intensity of occupation in the latter period is unknown. The site was reoccupied in the late 1860s as a cattle ranch by Francisco Romero and his family (see the discussion of the Romero family in Chapter 4). The Hohokam occupation of the site led to a series of mound groups at the site, each mound representing a combination of trash, building rubble, and living space surrounded by trash. Elson and Doelle (1987a:47) have argued that the mounds were placed deliberately, in order to define social space at the site; this is supported by the placement of two ball courts, one at either end of the site. There is evidence of continuous occupation of the site as a whole, and periodic reoccupation of individual mound areas.

Sleeping Snake Village (AZ BB:9:104 [ASM])

Sleeping Snake Village is an extensive Hohokam site covering about 99 acres at the eastern foot of the Tortolita Mountains, in the northern portion of the Oro Valley study area. Like Romero Ruin and Honey Bee Village, Sleeping Snake Village is a ball court site with evidence of a long, continuous occupation. The site dates to the middle Sedentary through early Classic periods of the Hohokam chronology, with its most intensive occupation occurring during the Sedentary period (A.D. 950–1150). The site was first recorded in 1980 by archaeologists and field school students from Pima Community College during a survey of the eastern Tortolita Mountains (Ezzo and Euler 2007). This initial survey included the preparation of sketch maps of the site and a limited surface collection of artifacts. The site was revisited in 1986 during the Rancho Vistoso survey carried out by the Institute for American Research (Craig and Wallace 1987). The Rancho Vistoso survey included the first systematic investigation of Sleeping Snake Village: a site grid was established, five mound areas (called site loci) were defined, and more than 100 features were tentatively identified, including the ball court and 30 trash mounds. The ball court was mapped in full cross section (Ezzo 2007b:53).

In 1994, SWCA began test excavations at Locus B for Vistoso Partners. A total of 380 linear meters of backhoe trenches exposed 24 features, and diagnostic artifacts were collected from the site

surface, the trenches, and a hand-excavated test unit. In the SWCA report (Roberts et al. 1995), the archaeologists recommended data recovery excavation under eight research themes: site structure, household economy, socioeconomic relations, chronology, subsistence and resource exploitation, mortuary practices, paleoenvironment, and settlement patterns (Ezzo 2007b:53). In 1995, 1996, and 2000, SWCA carried out additional test excavations and then phased data recovery excavations at all five original loci (A–E), identifying another mound area (Locus F). Additional trenching (3,481 linear meters), feature mapping, excavation, and sampling allowed SWCA to identify a total of 520 previously unrecorded features. Of these, 267 were more intensively investigated (Ezzo 2007b:53–70).

The results of the work at Sleeping Snake Village, combined with the results from Los Venados (AZ BB:9:186 [ASM]), a nearby site of the same age also investigated by SWCA, has provided valuable information about community structure, settlement patterns, and other aspects of the Hohokam culture of the northern Tucson Basin. Ezzo (2007c:779) has concluded that households at Sleeping Snake Village were tightly linked in courtyard groups, in contrast to the more loosely connected households at Los Venados. This suggests a difference in social organization at the two sites even though many inhabitants of the area likely used both sites. Sleeping Snake Village held little evidence for the manufacture of goods beyond items relating to the basic activities of hunting, gathering, and growing maize and other foods. Instead, the people who lived at the site seem to have imported the pottery, obsidian projectile points, and shell ornaments that they used (Ezzo 2007c:779).

The layout of Sleeping Snake Village matches the dispersed *ranchería* plan typical of Hohokam sites in the Tucson Basin: a nucleated center surrounded by numerous smaller clusters of features, all of it distributed across a large open space (Ezzo 2007d:795; Fish and Fish 1994). The smaller clusters represent multiple site types—procurement areas, food-processing loci, individual pit houses, and hamlets. Rock art, which is common in the area, may have played an integrative role for the site center and the outlying clusters. Ezzo (2007e:805) has suggested that rock art in the area "layered the landscape with ritualistic, shamanic, territorial, cosmological, and informational meaning." There is some evidence that the vicinity of Sleeping Snake Village, including Los Venados and Honey Bee Village, was occupied by two distinct cultural traditions in succession: the Pioneer-period Cochise tradition, then the Sedentary-period Hohokam tradition, which became the primary cultural presence in the region. There is little to no evidence of a Classic period occupation at Sleeping Snake Village, which suggests Classic-period resettlement to larger aggregated settlements such as the Marana Community near the Santa Cruz River (Ezzo 2007e:805–806).

Historic Archaeological Sites in the Study Area

As Table 2 indicates, far fewer historic archaeological sites have been recorded in the Oro Valley study area than prehistoric sites. This circumstance relates in part to the relatively brief period of settlement in the historic period—150 years or so—compared to the relatively long period of settlement in the prehistoric period—2,000 years or more. But it also relates to a bias toward prehistoric sites on the part of archaeologists during the past 35 years of systematic surveys in

the study area. As elsewhere in the United States, the archaeological remains of historic-period settlement in southern Arizona, particularly the unexotic, relatively recent remains of ordinary houses and other features from the early twentieth century (not to mention the remains of even more recent settlement), were long overlooked by archaeologists or given less priority than prehistoric sites or simply dismissed as unimportant. In recent years, this bias has waned significantly and archaeological surveys now regularly record historic sites that would have been neglected in earlier surveys.

Not withstanding the increased attention that archaeologists now pay to historic archaeological sites, the number of such sites recorded in the Oro Valley study area is still low. Ironically, the two historic sites that have received the most attention owe that attention to other aspects of their identity. The archaeological component of the Steam Pump Ranch, AZ BB:9:75 (ASM), has been recommended as eligible to the National Register (Thiel 2007), but the site is best known for its architectural and other surviving ranching-related features, and its recent listing on the National Register is based on those features rather than its archaeological potential (Barker 2009). Similarly, the historic component of Romero Ruin, AZ BB:9:1 (ASM), is recognized by archaeologists (e.g., Brew 1975) as an important part of the site, but one wonders if the remains of Francisco Romero's early ranch house would have even survived if he hadn't built it directly atop an important Hohokam site.

The GLO survey plats and other early maps discussed in Chapter 4, along with the large number of homesteads patented in the Cañada del Oro area, suggest that plenty of other historic archaeological sites await discovery in Oro Valley, even if many others have already been destroyed by development.

Sites and Districts on the National Register of Historic Places

Currently, the Oro Valley study area has only two historic properties listed on the National Register of Historic Places. The first to be listed was the Sutherland Wash Archaeological District, a large area in Catalina State Park that includes the lower portion of Sutherland Wash and the vicinity of its junction with the Cañada del Oro. Listed in 1987, the district consists of 38 mostly undisturbed archaeological sites ranging in age from the Archaic period to the historic period of the late nineteenth century (Elson and Doelle 1987b). A portion of the district, including its largest site, Romero Ruin, or AZ BB:9:1 (ASM) falls within the Oro Valley study area (see earlier in this chapter for a description of the site). A plot of the boundary of the Sutherland Wash Archaeological District is included on the Appendix C map.

The other National Register–listed property in the Oro Valley study area is the Steam Pump Ranch, or AZ BB:9:75 (ASM), which was listed just this year (Barker 2009). The home of early settler George Pusch and his family during the approximate period 1874–1931, the Steam Pump Ranch is located along the west side of Oracle Road just north of its intersection with First Avenue. The ranch was owned by the John Procter family from 1933 until 2005, and the Procter family is as important to the ranch's historic identity as the Pusch family. Twenty structures still stand on the property, 13 of which are considered contributing elements of the historic ranch. Of the 20

structures, 9 are buildings and the rest are ranching-related structures. The period of significance for the Steam Pump Ranch nomination is 1874–1962, for which the ranch is considered to retain integrity of location, design, setting, materials, workmanship, feeling, and association. The ranch has undergone various changes over the years, but the "essential physical features" of the ranch in the period of significance are still readily appreciated.

Another National Register–listed property falling just outside the Oro Valley study area is worth mentioning because of its connection to the Sutherland Wash Archaeological District. The Sutherland Wash Rock Art District, located just east of the study area, was also listed in 1987 (Farrell and Burton n.d.). It consists of a 30-acre area along Sutherland Wash that holds an estimated 1,500 petroglyph elements, one of the largest concentrations of prehistoric rock art documented in southern Arizona. The petroglyphs represent two principal traditions: the Hohokam tradition, usually dated to A.D. 600–1450; and the earlier Western Archaic tradition. The boundary of the Sutherland Wash Rock Art District is just east of the area covered by the Appendix C map.

As Table 3 makes clear, the small number of properties in the Oro Valley study area that are currently listed on the National Register belies the number of important archaeological and historic sites previously recorded in the area. Of the 185 previously recorded sites in the study area, six others have been determined eligible for listing and another 29 have been recommended eligible for listing by their recorders. Many of the recorded sites have never been evaluated, and many have probably been destroyed by development since they were recorded. There is little question that other sites in the study area, both previously recorded sites and sites yet to be discovered, are eligible for listing on the National Register.

A final note regarding historic district designations in the Oro Valley area: the entire cultural resources inventory study area is included in the proposed Santa Cruz Valley National Heritage Area, which encompasses the portion of the Santa Cruz River watershed from the international border with Mexico to the Pima-Pinal county line (Santa Cruz Valley Heritage Alliance 2009). The National Register sites and districts already designated in the study area, along with additional sites and districts designated through future work, will be an important part of the National Heritage Area and contribute to the attraction of the Oro Valley area for both local residents and visitors.

CHAPTER 4

HISTORY IN THE ORO VALLEY STUDY AREA, 1539–1974

In southern Arizona, the beginning of the historic period is conventionally placed at 1539, the year of the first *entrada* (exploratory expedition) to the region sponsored by the Spanish colonial government in Mexico City. The end of the historic period is often placed, more arbitrarily, at 50 years ago—currently 1959—in conformance with the usual practice of the National Register of Historic Places not to consider a property historically significant until it is at least 50 years old. Archaeologists and historians, who are often called on to evaluate properties for National Register eligibility, usually refer to anything less than 50 years old as modern, but in southern Arizona such a distinction between historic and modern is not always a meaningful one. In Oro Valley, where the modern landscape is above all a product of post–World War II suburban development, a more useful distinction is the one between the postwar period, or 1945 to the present, and the four centuries of history that preceded it. The first three decades of postwar development in Oro Valley culminated in the incorporation of the Town of Oro Valley in 1974, the year that marks the limit of our concern for the cultural resources inventory.

In this chapter, we survey the history of the study area in two pieces. First we look at the long period from the earliest Spanish *entrada* into southern Arizona to the end of World War II, or 1539–1945. Then we look at the much shorter period from the end of the war to the incorporation of the town, or 1945–1974. Throughout the chapter, we try to link the regional history of southern Arizona to the particular history of the Cañada del Oro area, but this is not always easily done. Before the Town of Oro Valley was incorporated, the history of the area was mostly peripheral to the history of Tucson, which was the cultural and economic center of southern Arizona throughout the historic period. Tucson was itself, for most of the historic period, a place on the periphery of a much larger entity, first the Spanish colonial empire, then the newly independent Mexican republic, then the large, sparsely populated area added to the United States well before social and economic ties made it a recognizable part of the country. Thus, the place that became Oro Valley was long a peripheral part of an already peripheral place, which means that much of Oro Valley's history is undocumented, or approachable only through the history of southern Arizona as a whole. The first few sections below review a regional history with little direct mention of the Cañada del Oro or its vicinity, but it is all useful background for the later sections dealing directly with the study area.

Southern Arizona History in Brief

The history of southern Arizona can be divided into three periods, corresponding to the three political entities that have encompassed the region in succession: the Spanish Colonial period (1539–1821), the Mexican period (1821–1854), and the U.S. period (1854–present). The transition from one period to the next was not as neat as these precise year dates suggest, but each period was characterized by distinctive social and economic patterns that left lasting impressions on the region. The following discussion of the three periods is based on syntheses of Arizona and

regional history by Bolton (1984), O'Mack and others (2004), O'Mack and Toupal (2000), Sheridan (1988, 1995), Weber (1982, 1992), and Whittlesey and others (1994).

Spanish Colonial Period (1539–1821)

The earliest documented *entrada* into what later became Arizona was made by the Franciscan friar Marcos de Niza in 1539. With the support of the Spanish colonial government, Niza led a small expedition northward from the town of Culiacán, in what was then northernmost New Spain, to the vicinity of the pueblo of Zuni, in what is now western New Mexico. It is uncertain whether Niza himself made it as far north as Zuni, but he and his companions probably passed through southern Arizona along the San Pedro River, reaching at least as far north as the Gila River before returning to Culiacán. One member of Niza's expedition, a North African called Esteban, reportedly did reach Zuni but died there at the hands of the suspicious residents.

Niza's report of a fabulously wealthy place called Cíbola (inspired by what he had heard of Zuni) prompted a more substantial *entrada* in 1540, led by Francisco Vásquez de Coronado and consisting of some 300 Spaniards, 1,000 Native American guides and porters, and 1,500 head of cattle, horses, and mules. Much of Coronado's route, which eventually led him as far north and east as the Great Plains, is difficult to reconstruct, but he, too, passed through southern Arizona, probably also traveling along the San Pedro River. Over the next two years, Coronado's lieutenants made numerous exploratory side trips, including at least a dozen into Arizona, but none of these trips included any further exploration of the southern portion of the state. Coronado never did find Cíbola or anything remotely like it, and southern Arizona remained essentially unexplored and uninhabited by Europeans for the next 150 years.

A sustained Spanish presence in southern Arizona did not begin until 1691, when Eusebio Francisco Kino, a Jesuit priest, led a small expedition from an established Jesuit mission in what is now Sonora, Mexico, to an O'odham (Pima-speaking) settlement at Tumacacori on the Santa Cruz River. Kino's purpose was to spread the Catholic faith to the inhabitants of the region, just as he and his Jesuit colleagues had already done at their missions in Sonora. His many subsequent trips to the region over the next two decades led to the establishment of missions at several O'odham settlements on the Santa Cruz, most notably San Xavier del Bac, nine miles south of modern Tucson. Kino also established a number of *visitas*—secondary mission sites without resident priests—at smaller O'odham settlements along the Santa Cruz north of San Xavier, including San Cosme de Tucsón, on the west bank of the river and across from the eventual site of the Tucson presidio.

In 1752, in response to a rebellion by the O'odham the year before, the Spanish government established a presidio at Tubac on the Santa Cruz River near Tumacacori. This was the first permanent Spanish settlement in Arizona. The presidio afforded some protection to the missions along the river and served as a base for further explorations of southern Arizona. Following the expulsion of the Jesuits from the New World in 1767, care of the missions along the Santa Cruz fell to the Franciscans, who continued the efforts of the Jesuits despite a declining O'odham population and an increasing incidence of Apache raiding. Bands of Apaches lived in mountain strongholds to the north and east of the Santa Cruz Valley, descending regularly on the sedentary O'odham population to carry off food and livestock, and disrupting the efforts of the missions. In 1776, with

the hope of better protecting the settlements and missions of the northernmost frontier of the colony, the colonial government closed the Tubac presidio in favor of a new presidio at Tucson, and for the remainder of the colonial period, Tucson represented the maximum northern extent of the Spanish colony in what later became Arizona.

The Tucson presidio held a small, permanent contingent of soldiers and officers, which afforded enough protection from Apache raids to allow the development of a small community of settlers outside its adobe walls. This community, the beginning of modern Tucson, consisted mostly of Spanish-speaking settlers from other parts of New Spain, but it also included Tohono O'odham from places in the surrounding desert and a small enclave of pacified Apaches. The presidio community, located at the tail end of colonial supply lines, largely supported itself, farming the adjacent Santa Cruz River floodplain and grazing cattle and other stock on the lands around the presidio. Mining was pursued on a small scale, but the places suitable for mining were in the mountains, where travel was too dangerous to allow any sustained effort at mining.

Mexican Period (1821–1854)

When Mexico gained its independence from Spain in 1821, the Spanish presence in southern Arizona was limited to the Tucson presidio with its small dependent community of settlers and the two Franciscan missions at San Xavier del Bac and Tumacacori. At first, little changed under the newly formed Mexican government, except that daily life for both the Spanish and the O'odham residents of the Santa Cruz Valley became even less secure. The remoteness of the administrative center of Mexico, along with the instability of the Mexican government in the early decades of independence, led to a neglect of the northernmost frontier, which led in turn to an increase in the incidence of Apache raids, further isolating the already remote outpost of Tucson. In 1828, uneasy with the power of the Catholic Church in remote parts of the republic, the Mexican government ordered the withdrawal of the Franciscans from the northern missions, leaving the O'odham community and the recently built mission churches at San Xavier del Bac and Tumacacori without their longtime advocates in the region.

In 1848, when the Treaty of Guadalupe Hidalgo ended the Mexican-American War, the Gila River became the new boundary between Mexico and the United States. The region south of the river remained a part of Mexico, but the new proximity of the United States fostered a significant increase in the social and economic interaction of the region with the rapidly expanding country to the north. In 1849, the California gold rush brought an influx of Anglo-American and other Euroamerican immigrants to southern Arizona, following long-established but never heavily used trails across the region.

U.S. Period (1854–present)

In 1854, the Gadsden Purchase made the rest of what is now southern Arizona, from the Gila River to the modern international border, a part of the United States. The Gadsden Purchase was prompted in part by U.S. interest in securing a suitable right-of-way for a southern railroad route to California, and it was immediately followed by topographical surveys searching for the

most practical route. Small U.S. Army posts were also established in the region shortly after its purchase, and soon more Anglo-Americans and others were entering the region, first as traders and merchants, and later as farmers and ranchers. The Homestead Act of 1862 made it easy for ordinary citizens to file claims on recently acquired government lands, and the end of the Civil War sent a new generation of immigrants to the west in search of economic opportunities in farming, ranching, and mining. Tucson was still the only substantial settlement in southern Arizona at the start of the U.S. period, but within a decade new settlements were taking shape in the region, including along the Salt and Gila rivers to the north.

The Civil War made southern Arizona an area of Union-Confederate contention for a brief time in 1861–1862, which temporarily inhibited Anglo-American settlement, but a far more substantial obstacle was posed by the Apaches, who were a relentless threat in southern Arizona for another two decades. Arizona, a part of New Mexico Territory since the Gadsden Purchase, became its own territory in 1863, but it was not until 1870 that U.S. Army Gen. George Crook arrived in southern Arizona to begin the final campaign to subdue the Apaches. By 1873 he had pushed the Apache frontier far enough eastward from Tucson to allow both Mexican- and Anglo-Americans to ranch with some success along the Santa Cruz River. Other ranchers soon followed with successful operations in the Arivaca area to the west of the Santa Cruz, along Tanque Verde Creek to the east, along Sonoita Creek to the southeast, and along the Cañada del Oro to the north.

The Southern Pacific Railroad was built across southern Arizona, from west to east, in 1878–1880. Following the same corridor along the Gila and Santa Cruz rivers used for many years by foot and wagon traffic, the railroad reached Tucson in March 1880. Its arrival led to an even greater influx of Anglo-Americans and others to southern Arizona and marked southern Arizona's complete integration into the national economic system. The political integration of Arizona into the United States became similarly complete when the territory finally achieved statehood in 1912.

Sources on the Early History of the Study Area

Aside from its occasional mention as a place along the road north from Tucson, the Cañada del Oro area did not appear often in documentary sources until a few people began to live there on something like a regular basis, which happened no earlier than the late 1860s. If the earliest fitful attempts at settlement are excluded, the history of the area is not substantially documented until the late 1870s, when George Pusch and his business partner, John Zellweger, began raising cattle at the place later known as the Steam Pump Ranch. An abundance of documentation is available for the late 1870s and later, including articles in the Tucson newspapers; federal census records; federal land patents; county land records; birth, death, and marriage records; and so on. Thiel's recent study of the Steam Pump Ranch (2007) is a good example of the kind of detailed information on a particular place that can be gathered from these sources. Many other places in the study area, not settled or used quite as early as Pusch and Zellweger's ranch, could be studied in similar detail using the same kinds of sources.

George Pusch and the Steam Pump Ranch have been the focus of all or part of several other works (Allen-Bacon 1997; Jeffery 2003; Marriott 2005, 2008; OVHS 2009a, 2009b, 2009c; Zipf 1988–1989), but the subject is far from exhausted. Henry Zipf, a grandson of George Pusch and a resident of Oro

Valley, has donated to the Oro Valley Historical Society twenty banker boxes full of documents and other items relating to his grandfather's business and private life. These materials have not been fully inventoried but will undoubtedly provide much new information about the George Pusch and the Steam Pump Ranch. The Town of Oro Valley will also soon donate to the Oro Valley Historical Society the collection of early photographs found recently in the ruins of the chicken coop at the Steam Pump Ranch. These photographs date to the period when John Procter and his family owned and lived on the ranch, a period already examined in some detail by Thiel (2007).

The following paragraphs discuss the history of the Cañada del Oro from the days of the earliest settlers to the mid-twentieth century, as it can be approached using two sources, early maps and homesteading records. This is not a comprehensive study of either the period or the two kinds of sources, but hopefully it provides a sense of the relevant sources that exist for the study area and of the interesting, unanswered questions that these sources can raise.

Early Map Research

Because of its proximity to Tucson, the land encompassed by the study area is included on most early maps of southern Arizona, but it was not until the early U.S. period that maps of the region were prepared with enough detail to show features such as settlements or roads in the area just west of the Santa Catalina Mountains. A good example from the early U.S. period is the *Map of the Military Department of New Mexico*, prepared during the Civil War by a U.S. Army engineer (Anderson 1864). The map covers both New Mexico and Arizona territories (the latter created just a year before), but it is nonetheless fairly detailed, with an emphasis on the locations of military posts and the routes that connected them (Figure 4). The map has certain shortcomings (among them, miscomprehensions of Spanish place names: the Tortolita Mountains are labeled "Sierra Tortillista"), but it accurately shows the army posts at Tubac ("Tabac") and Tucson, and the wagon road that connected them paralleling the Santa Cruz River. It also shows Fort Grant, recently established northeast of the Santa Catalinas near the point where Aravaipa Creek enters the San Pedro River. A trail (not a wagon road) extends north from Tucson to Fort Grant, skirting the west side of the Santa Catalinas then heading northeast to the San Pedro River. This is one of the earliest depictions of the route that eventually became modern Oracle Road. (The place labeled "Charles de los Pimas" north of Tucson and west of the Tucson–Fort Grant Road is probably the place known as Charco de Yuma or Charco de las Jumas, a large Hohokam ruin better known as Los Morteros, in present-day Marana; see Wallace 1996).

Most other nineteenth-century maps of southern Arizona show little else along the west side of the Santa Catalinas other than the road between Tucson and one or another named destination on the San Pedro River. An important exception is the *Official Map of Pima County* prepared in 1893 by a former county surveyor, George Roskruge (Roskruge 1893). Roskruge's map includes a wealth of detail for the Tucson area but also for other parts of Pima County where settlement was still sparse. His depiction of the area between the Santa Catalina and Tortolita Mountains (the latter labeled "Tortillita Mountains") shows the Cañada del Oro, the road from Tucson to Mammoth (a mining settlement on the lower San Pedro), and three locations where early settlers had established ranches, labeled Steam Pump, Romero, and Charouleau (Figure 5). Roskruge

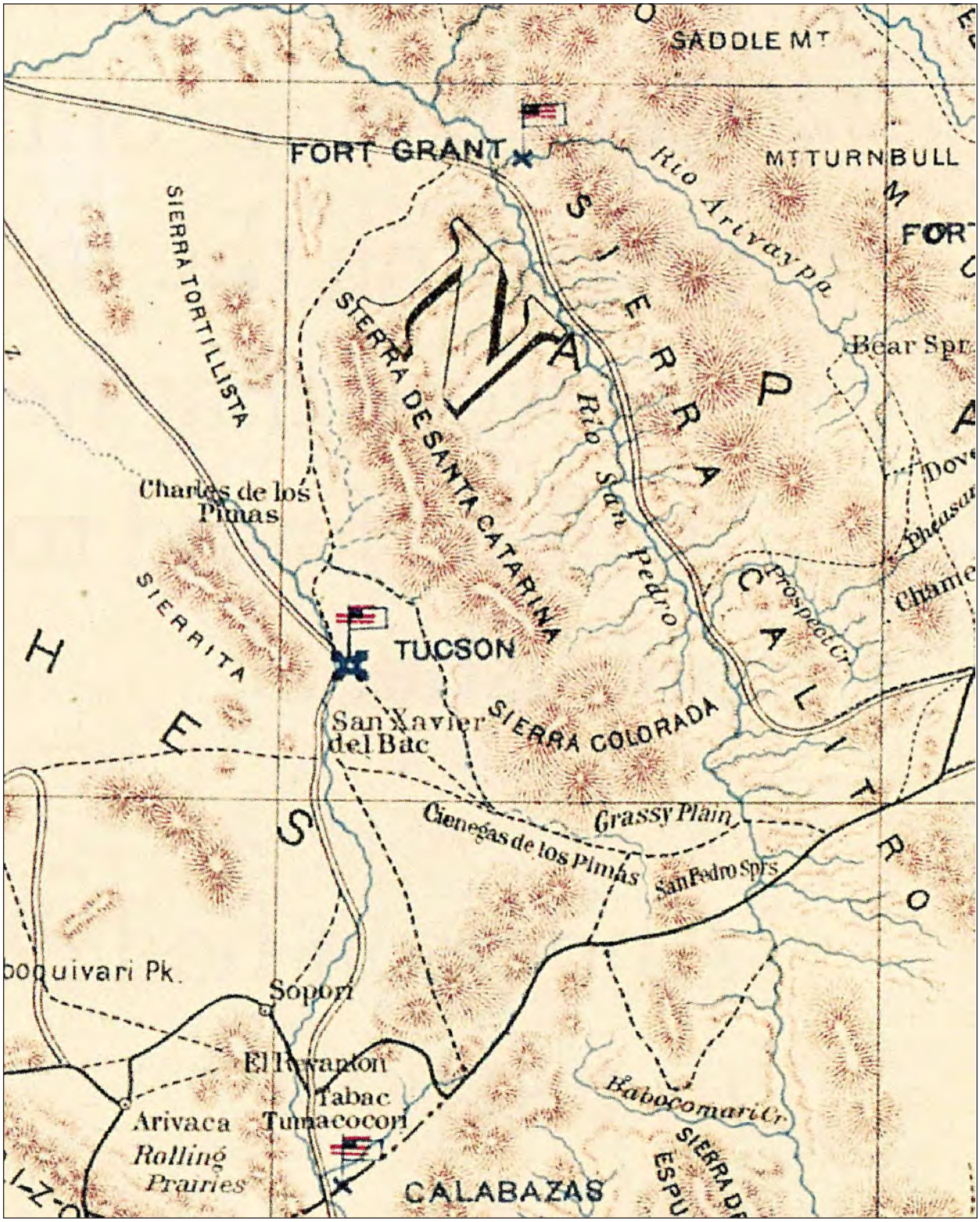

Figure 4. Portion of the Map of the Military Department of New Mexico (Anderson 1864).

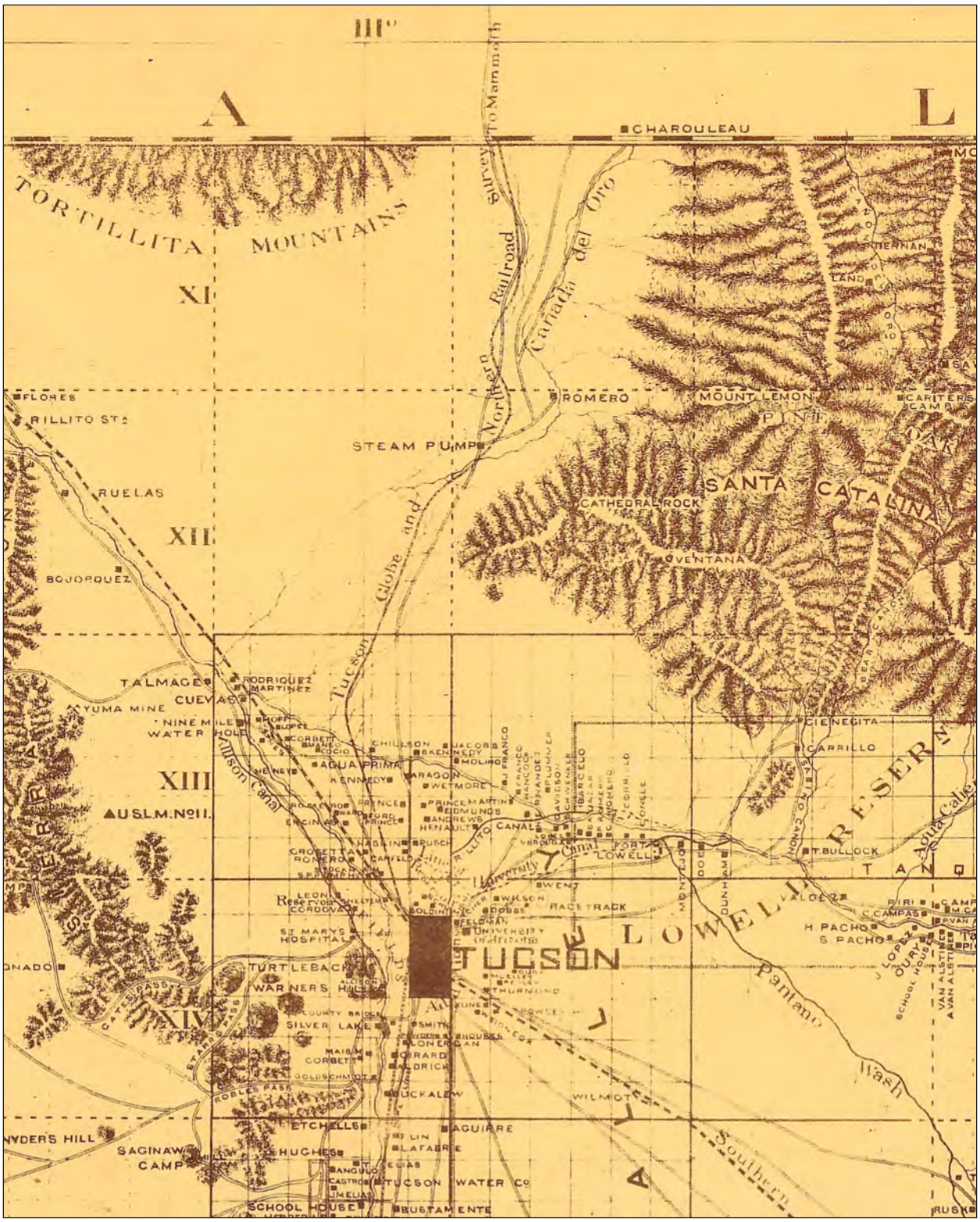

Figure 5. Portion of the Official Map of Pima County, Arizona (Roskruge 1893). This is a scan of a portion of a very large map of the same scale. Many of the details on the original map are similarly difficult to read.

also included the surveyed route of the proposed Tucson, Globe, and Northern Railroad, which roughly paralleled the Tucson-Mammoth road. All of these features, which played different roles in the history of the area, are discussed below.

Perhaps the most interesting thing about Roskruge's map is the contrast between the large number of settlers shown along the Santa Cruz and Rillito rivers, just outside Tucson proper, and the near-absence of settlers along the Cañada del Oro. Within a decade after the map appeared, the Cañada del Oro area would see the steady spread of homesteading north from Tucson, but at the end of the nineteenth century it was still largely without settlement. The relatively late beginning for settlement along the Cañada del Oro can be attributed in large part to a continuing perception of the area as dangerous: it was still considered a place too far from Tucson and too close to the usual range of the Apaches.

General Land Office Survey Plats

In the early twentieth century, as settlement in the Tucson area began to expand northward into the Cañada del Oro area, the first formal surveys of the area were carried out by the U.S. Surveyor General's Office in Phoenix. Prior to the surveys, all of the lands in the Cañada del Oro area, like the lands in any other unsettled part of the West, were part of the public domain and regulated by the federal government. Surveying the land was a necessary step in making the land available for homesteading and other claims by private parties. The maps (called plats) and notes from these early surveys, all of which were eventually filed with the General Land Office (GLO) in Washington, D.C., are often uniquely detailed sources on the cultural and natural features in an area early in its settlement history.

The typical plat covers a township, or an area six miles square, designated with Township and Range numbers that indicate the place of the township in a large survey grid established for the given region. The grid itself is defined by a baseline (or east-west line) and a meridian (or north-south line) that intersect at a specified point. A standard township contains 36 one-mile-square sections. The Oro Valley study area encompasses portions of four townships, all part of the survey grid defined by the Gila and Salt River Baseline and Meridian, which intersect at a point near the confluence of the two named rivers. The earliest GLO plats for all four townships in the Oro Valley study area are listed in Table 4.

Table 4. Early GLO survey plats of townships in the Oro Valley study area

Township and Range	Year of Survey	Surveyor	Notes
Township 11 South, Range 13 East	1921	W. H. Thorn	
Township 11 South, Range 14 East	1908	F. B. Jacobs and [?] Curry	
Township 12 South, Range 13 East	1911	H. F. DuVal	partial survey
	1913	J. B. Wright and W. H. Elliott	partial survey
Township 12 South, Range 14 East	1902	F. B. Jacobs	partial survey
	1932	T. Vander Meer and D. R. Averill	partial survey

We reviewed the portion of each survey plat that falls within the Oro Valley study area for cultural features. The resulting list of features, arranged by township and section, is presented in Table 5. The list does not include roads or trails, which are too numerous and extensive to list and describe in this way. The portions of each township plat falling within the Oro Valley study area are reproduced in Figures 6–11. All of the features depicted on these early maps represent potential historical-archaeological sites, although modern development has undoubtedly destroyed many of them.

Table 5. Historic features shown on early GLO survey plats of the Oro Valley study area

Plat (Year)	Sections	Feature[1]
T11S, R13E (1921)	1, 12, 13	fence lines, probably part of a fenced pasture
	11	Nelson Ranch, house and well
	11	dam across wash, just north of Nelson Ranch
	13	dams across wash, 1 mile north of Andres Elias house
	21	B. Jimenez, house and well
	24	Andres Elias, house
	24	dam across wash, just south of Andres Elias house
	27	T. Trevan, house and well
	28	Jimenez, house (distinct from B. Jimenez)
T11S, R14E (1908)	16, 20, 21, 29, 32	telephone line, roughly paralleling Tucson-Oracle Road
	28, 29	R. Griego, fenced pasture
	32	B. Buzzini, fenced field on west side of Tucson-Oracle road
	33	F. Romero, fenced pasture straddling wash
T12S, R13E (1911)	25, 36	telephone line, roughly paralleling Tucson-Oracle road
T12S, R13E (1913)	13, 23, 24	old railroad grade, running northeast-southwest, about ¾ mile in length, just east of Cañada del Oro (probably a remnant of the Tucson, Globe and Northern Railroad)
	13, 24	telephone line, roughly paralleling Tucson-Oracle road
	21, 22	Matt Lockas, house and fenced field
T12S, R14E (1902)	4, 5	fence lines, probably part of a fenced pasture (and of Mexican Ranch in Section 5)
	5	Mexican Ranch, house and small fenced field
	5, 7, 8	telephone line, roughly paralleling Tucson-Mammoth road
	5, 7, 8	fenced pasture, probably part of Pusch Ranch
	7	Pusch Ranch, buildings and well
T12S, R14E (1932)	—	(no features)

[1]Only features within the Oro Valley Planning Area are noted. Roads and trails, numerous on most of the plats, are not included here.

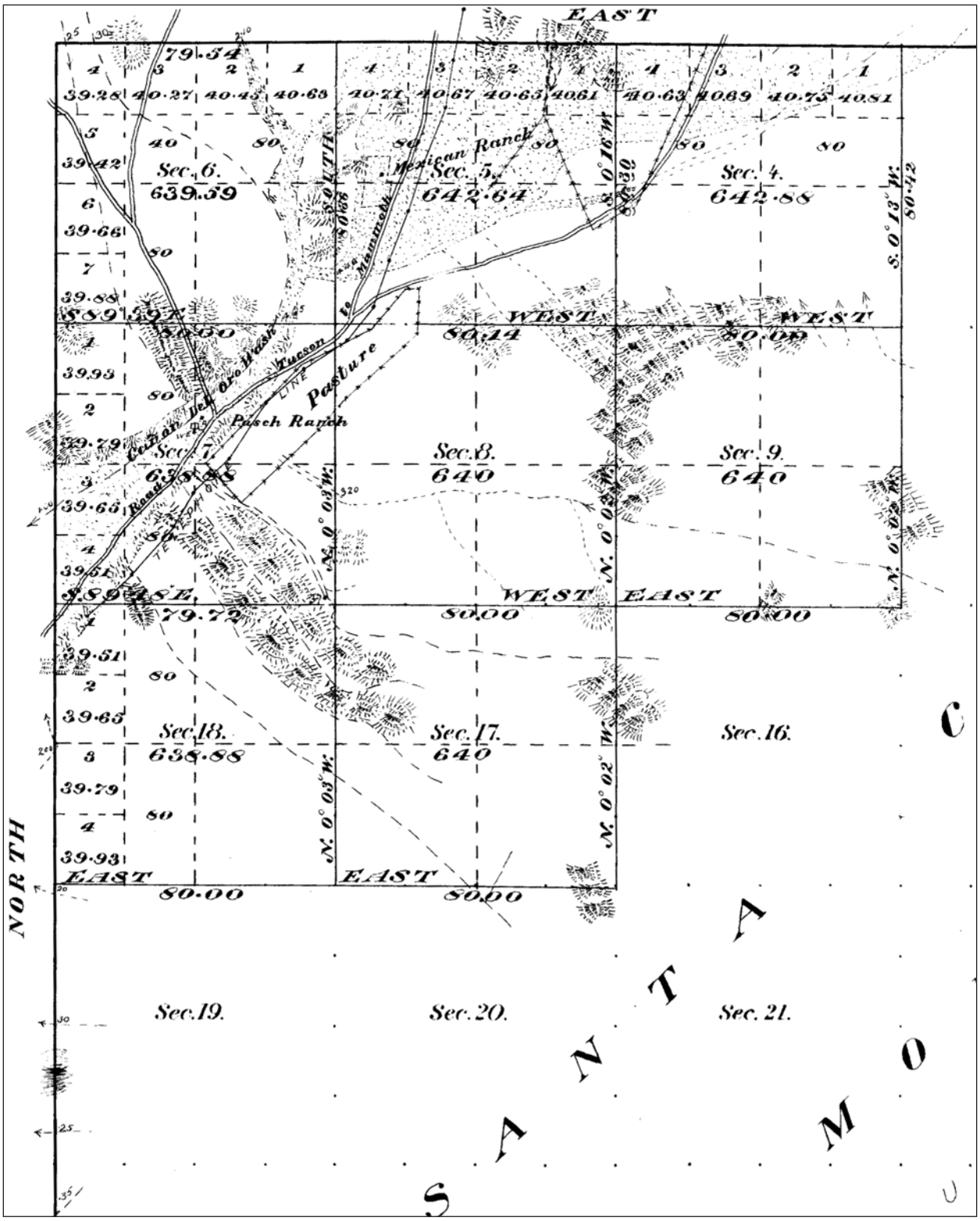

Figure 6. Portion of the 1902 GLO survey plat of Township 12 South, Range 14 East (GLO 1902).

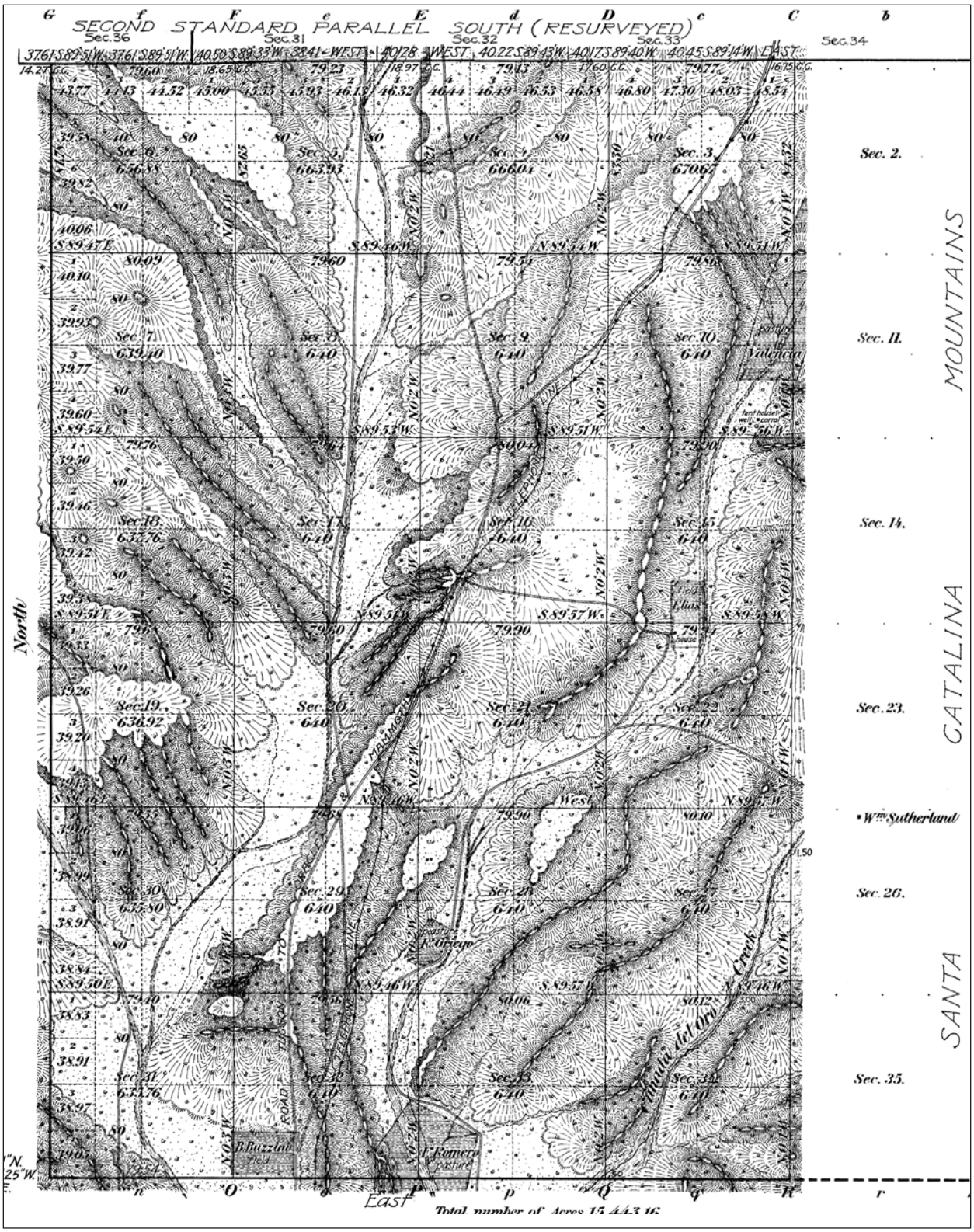

Figure 7. Portion of the 1908 GLO survey plat of Township 11 South, Range 14 East (GLO 1908).

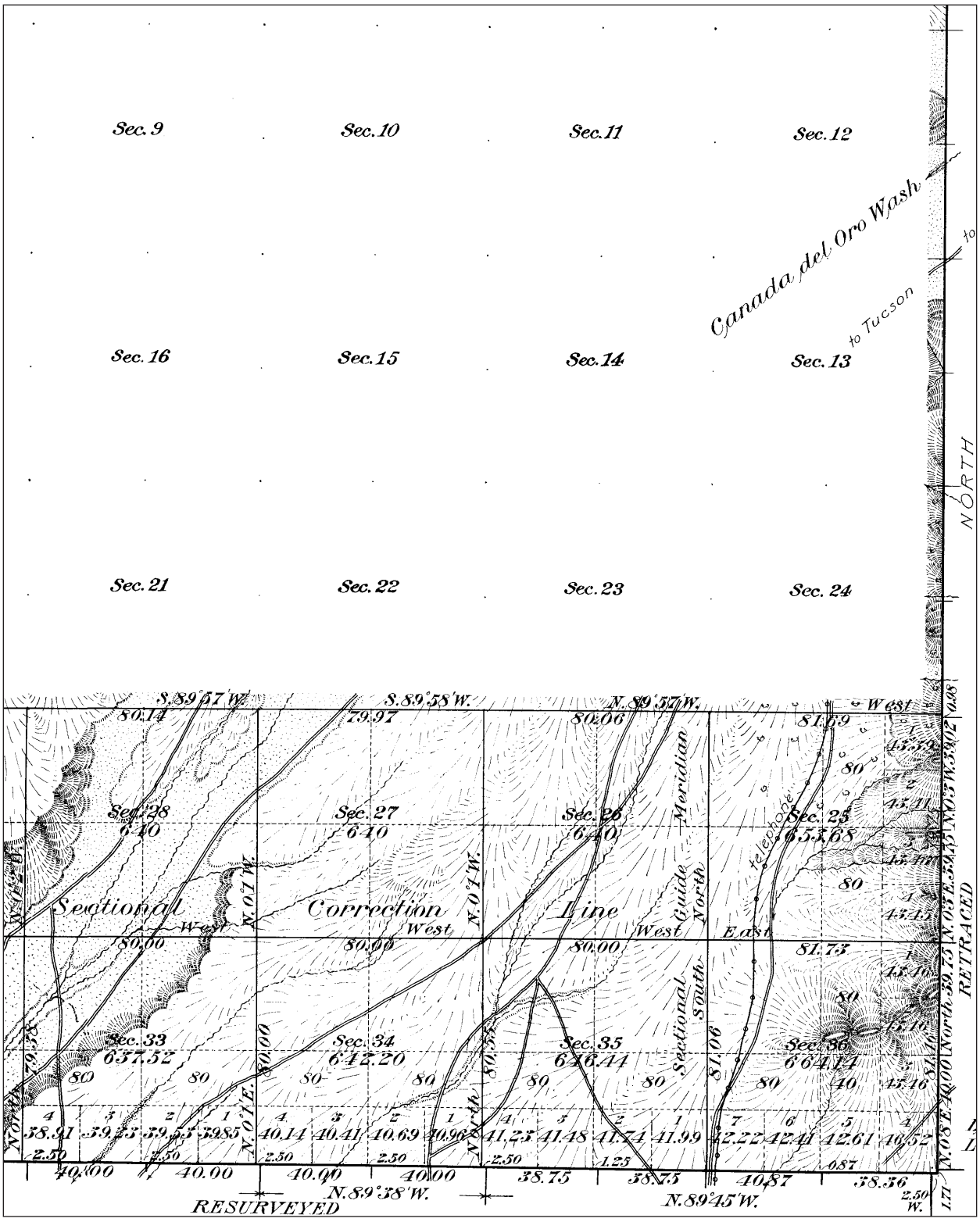

Figure 8. Portion of the 1911 GLO survey plat of Township 12 South, Range 13 East (GLO 1911).

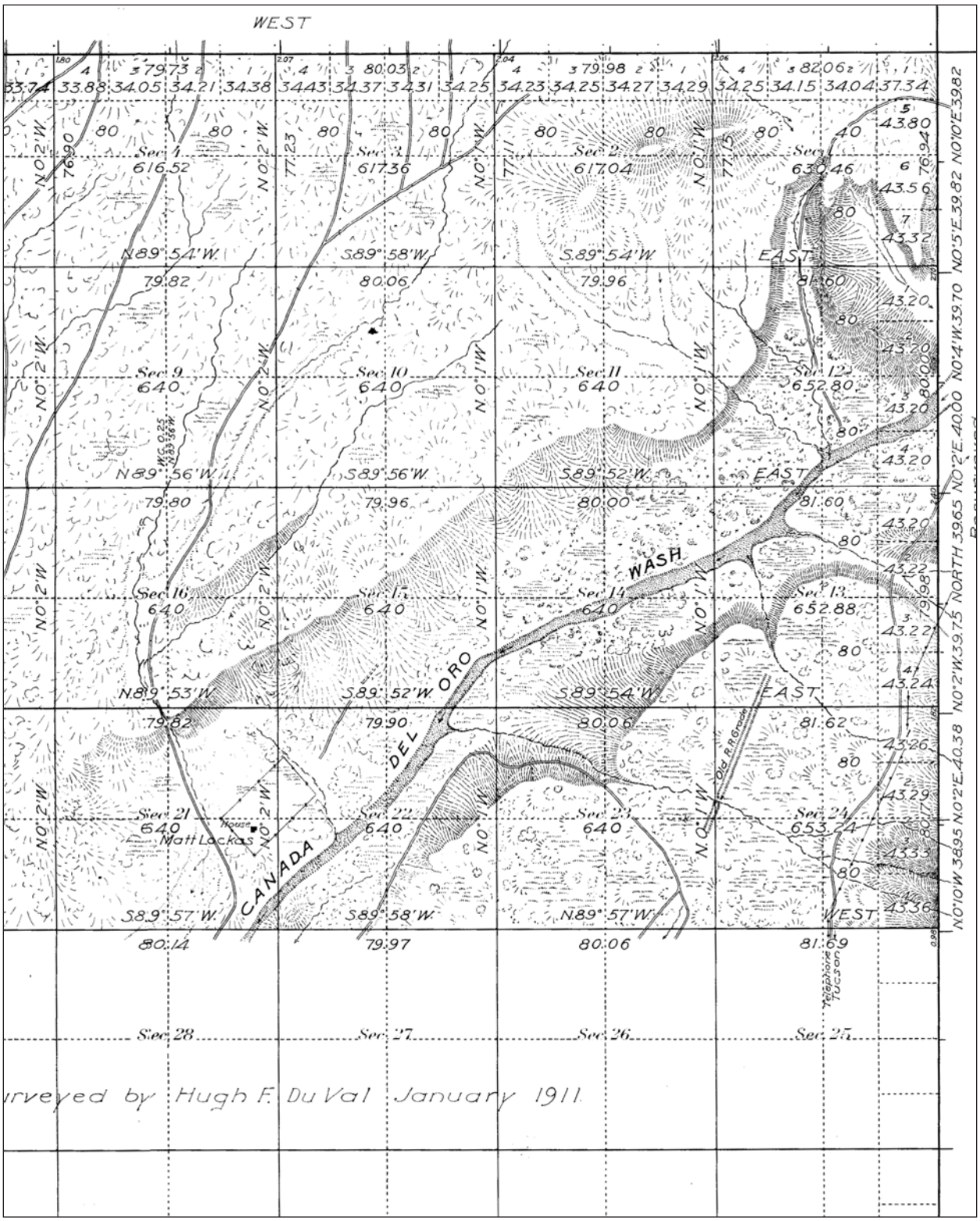

Figure 9. Portion of the 1913 GLO survey plat of Township 12 South, Range 13 East (GLO 1913).

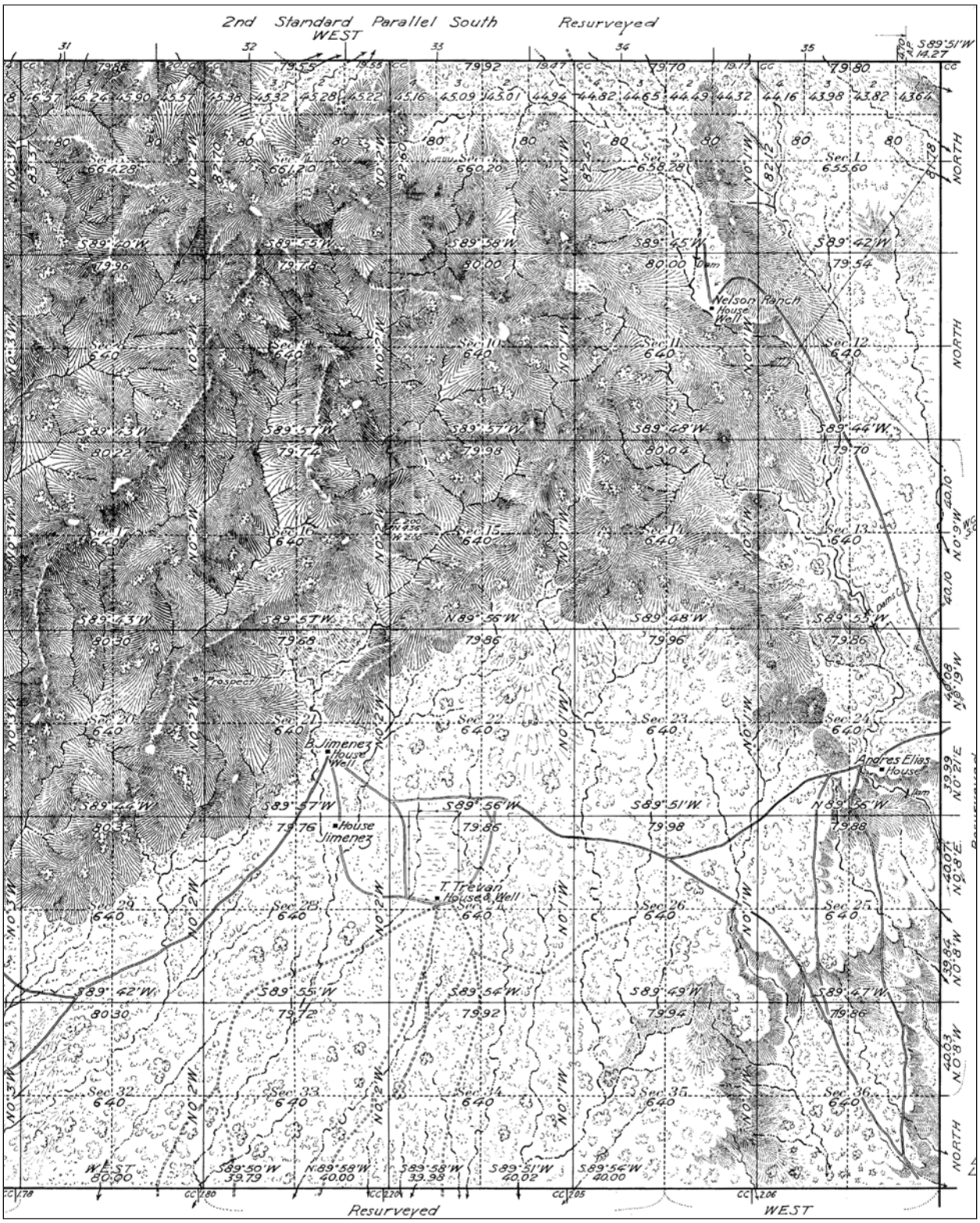

Figure 10. Portion of the 1921 GLO survey plat of Township 11 South, Range 13 East (GLO 1921).

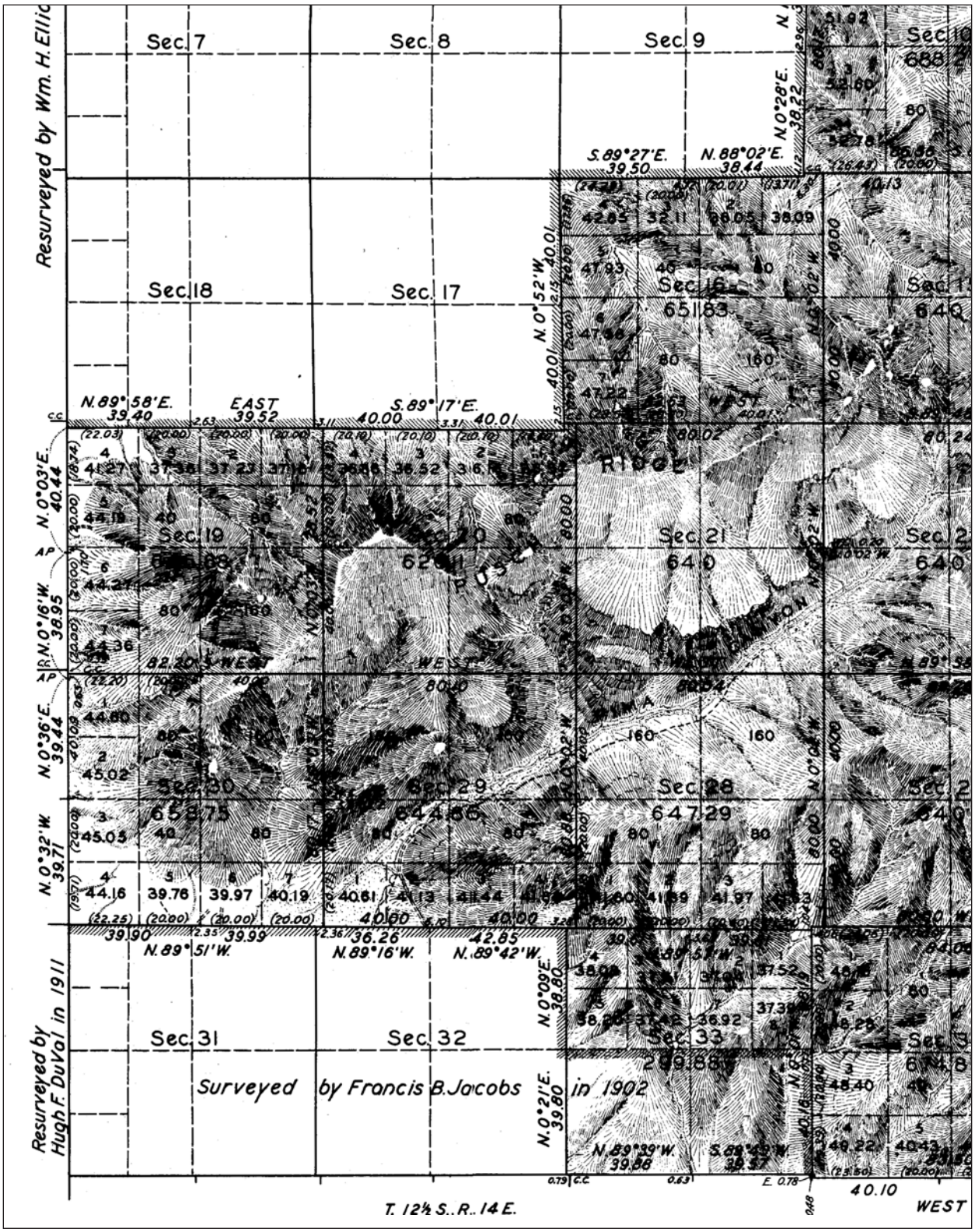

Figure 11. Portion of the 1932 GLO survey plat of Township 12 South, Range 14 East (GLO 1932).

United States Geological Survey Topographic Maps

Around the same time that the earliest GLO survey plats of the Cañada del Oro area were being drawn, the United States Geological Survey (USGS) was preparing the first detailed topographic maps of southern Arizona. Like the survey plats, the early USGS maps are generally accurate and useful records of the settlements, transportation routes, and other features that existed in an area at the time a given map was prepared. The earliest USGS maps that include the Oro Valley study area are the 1:125,000-scale maps in the 30-minute topographic series, most notably the 1905 Tucson quadrangle, which encompasses most of the study area (USGS 1905). A thin slice of the northernmost portion of the study area falls on the adjacent Winkelman 30-minute quadrangle (USGS 1911).

On the 1905 Tucson quadrangle (Figure 12), some of the same names appear that are also seen on the Roskruge map and the GLO plats—Pusch, Sutherland, Romero, Lockas—but a few are shown in unexpected places. "Pusch's Steam Pump" is shown at its well-known location along the Cañada del Oro, but the 1905 map also shows a "Pusch's Ranch" several miles to the north, near the foot of the Tortolita Mountains. This second location, on a parcel apparently never officially owned by Pusch and part of a land claim patented many years later (1935) by Warren Stewart, was evidently part of the Pusch ranching operation at an early date. Similarly, the Matt Lockas homestead, settled around 1912 a few miles downstream from Pusch's Steam Pump, was evidently preceded by a Lockas Ranch located in 1905 a full township to the north, also at the foot of the Tortolitas. This earlier Lockas property was never patented by anyone and became state property in 1937. (See below for more discussion of these and other early homesteads in the study area.)

The next USGS maps to include the study area are the 1:62,500-scale, 15-minute topographic quadrangles. The 1957 Mount Lemmon quadrangle (USGS 1957) includes most of the study area; smaller portions of the area fall on the adjacent Cortaro, Oracle, and Tortolita Mountains quadrangles (USGS 1947, 1959a, 1959b). The larger-scale 15-minute quadrangles are notably more detailed than the 30-minute quadrangles but do not label as many isolated properties as the earlier maps. The 1957 Mount Lemmon quadrangle (Figure 13) is especially interesting for its depiction of the study area just before it experienced the development boom that began in the 1960s. In the southern portion of the study area (Figure 14), the Steam Pump Ranch is still prominently depicted, but so are the beginnings of some of the earliest subdivisions in the area: Campo Bello, platted in 1946 but its distinctive radial street layout still only partially in place, showing 14 houses (section 23, right-center of Figure 14); and Linda Vista Citrus Tracts, just to the north of Campo Bello, showing a half dozen houses, including one surrounded by an orchard (depicted as a small rectangle of green dots).

The successor to the 15-minute series of USGS topographic maps is the 1:24,000-scale, 7.5-minute series, which is the most recent USGS series. Six quadrangles in this series cover different portions of the study area (USGS 1981, 1988a, 1988b, 1992a, 1992b, 1992c). Each quadrangle has seen several revisions over the years, to keep pace with the rapidly changing landscape of metropolitan Tucson. All of the quadrangles were originally based on aerial photography ranging in dates from 1958 to 1975, with later revisions based on more recent aerial photography. The 7.5-minute

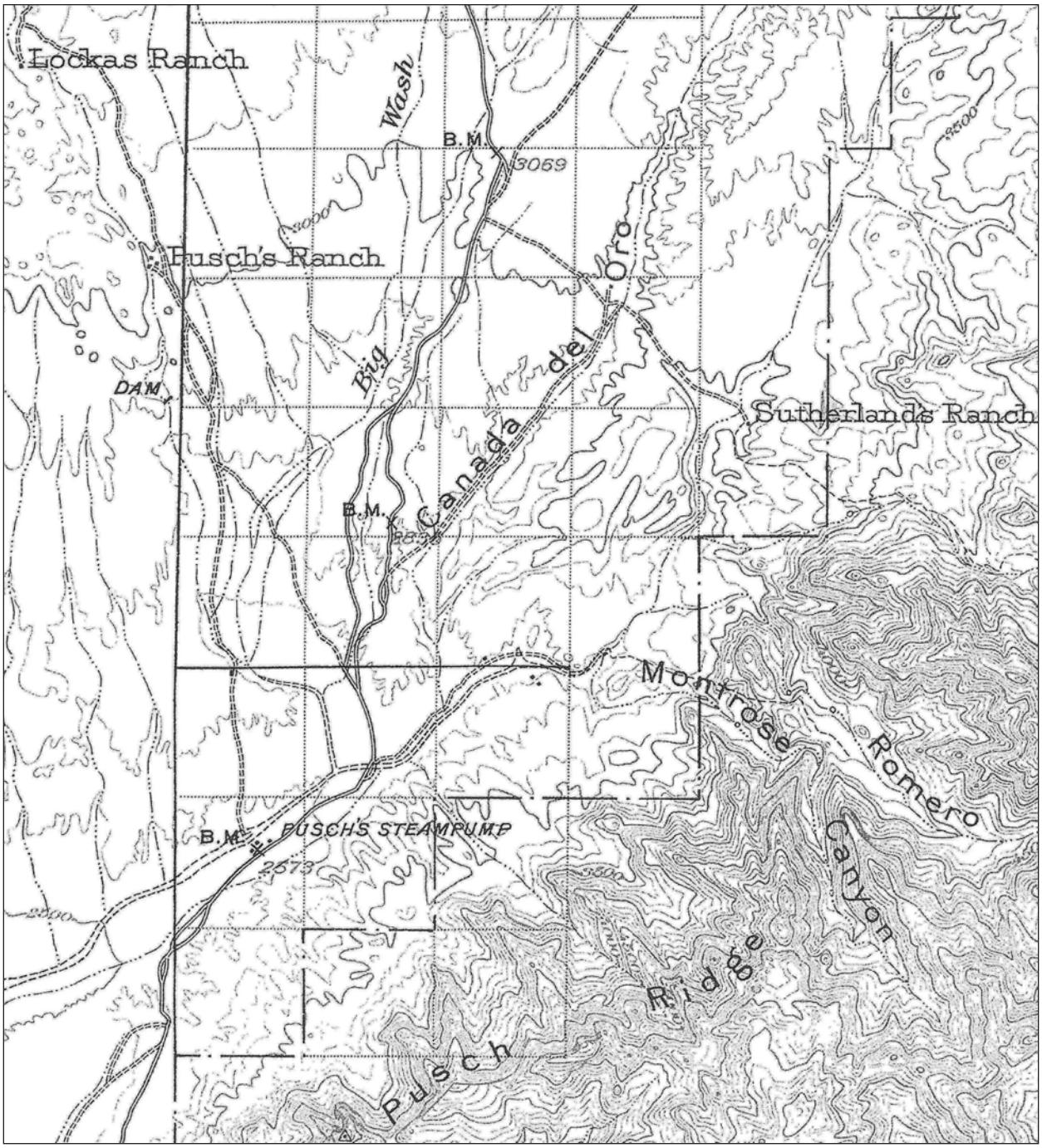

Figure 12. Detail from the 1905 USGS Tucson 30-minute topographic quadrangle (USGS 1905).

quadrangles are of less interest for the pre-development historic period in the study area and are not discussed here, but their sequence of revisions are a potentially valuable source for a closer look at the progression of suburban development in the study area.

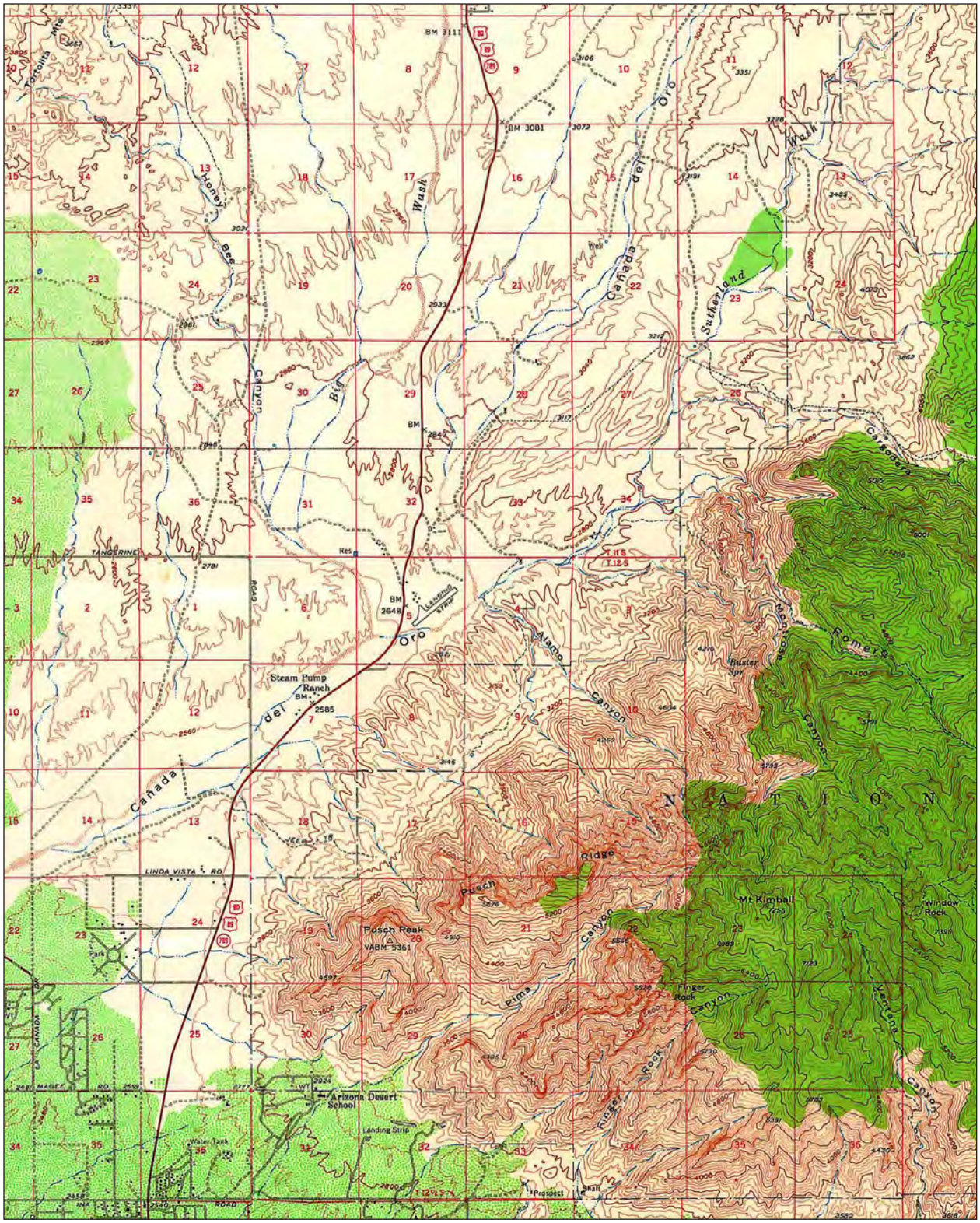

Figure 13. Portion of the 1957 USGS Mount Lemmon 15-minute topographic quadrangle (USGS 1957).

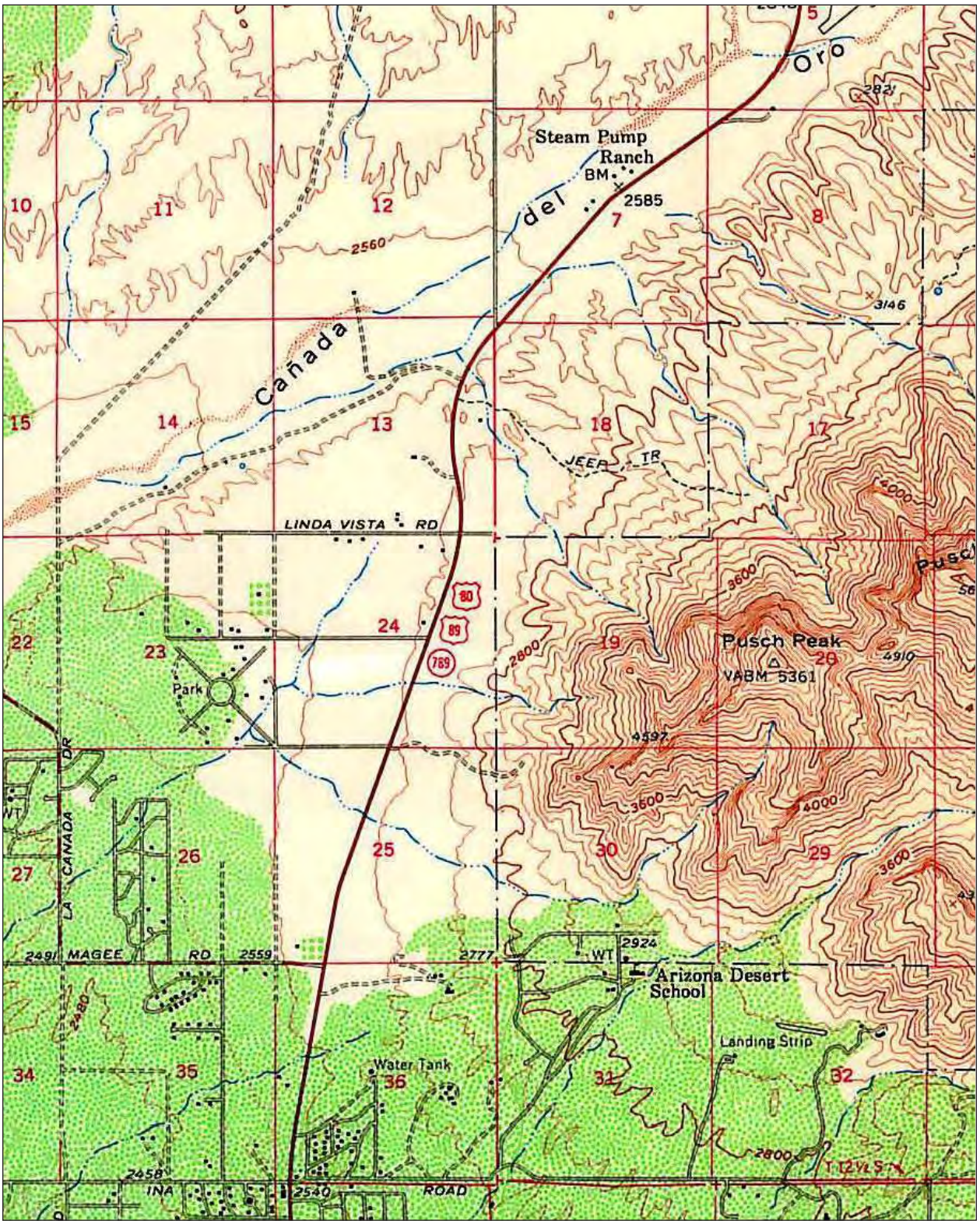

Figure 14. Detail from the 1957 USGS Mount Lemmon 15-minute topographic quadrangle (USGS 1957).

Early Historic Settlement in the Study Area

When the Gadsden Purchase made southern Arizona a part of the United States in 1854, almost all of the land in the region became part of the public domain, subject to federal laws regarding its appropriate use, including the laws that regulated the transfer of public land to private parties. An important exception to the status of public domain was any grant of land made by the Mexican government or its predecessor, the Spanish colonial government, to a private citizen before southern Arizona became U.S. territory. Under the terms of the Gadsden Purchase, the United States agreed to honor any existing Spanish or Mexican land grant that could be confirmed as legitimate. The same terms were part of the Treaty of Guadalupe Hidalgo in 1848, which ended the Mexican-American War and transferred most of what is now the U.S. Southwest (except for the Gadsden Purchase) from Mexico to the United States (Mattison 1946).

In southern Arizona, Spanish and Mexican settlement was restricted mostly to the Santa Cruz River valley in the vicinity of Tucson and never extended at all to the north of Tucson, so the number of Spanish and Mexican land grants in the region was relatively small compared to the much larger number of such grants in New Mexico and California. Most grants in southern Arizona were nevertheless large—17,000 acres was typical, and a few were much larger—and the legal wrangling over these grants in the second half of the nineteenth century was often long and involved, tying up large tracts of choice land for decades and having enduring effects on land tenure in the region. But none of this had any direct effect on the Cañada del Oro area, where the land suitable for agriculture was minimal and settlement in the Spanish and Mexican periods was nonexistent because of the nearly constant threat of Apache raiding.

It was not until the 1870s, two decades after the Gadsden Purchase, that Euroamericans began settling with any permanency near the Cañada del Oro. By that time, the staking of claims on public land was governed by a series of federal laws passed to promote settlement in previously unsettled areas, most notably the Homestead Act of 1862. The Homestead Act provided that an adult head of a family could claim and receive title to 160 acres of surveyed land if the claimant built a house on the property, cultivated a portion of it, lived there continuously for five years, then paid a small registration fee per acre (Stein 1990). During the later nineteenth century and the first decades of the twentieth century, various other acts were passed that represented modifications of the original Homestead Act, such as the Desert Land Act of 1877, intended specifically to promote the irrigation of arid lands, and the Stock Raising Homestead Act of 1916, which increased the acreage of the original Homestead Act to a maximum of 640 acres to allow claims large enough to support grazing in arid areas. The latter act became the most important and commonly used authority for claiming land in the Oro Valley study area before 1945.

Homesteaders and Other Early Settlers

To get an idea of the nature of settlement in Oro Valley during the late nineteenth and early twentieth centuries, we compiled a comprehensive list of patents granted by the General Land Office (GLO) before 1945 to private individuals for homesteads and other land claims within the limits of the study area (Table 6). From 1945 to 1959, many more private claims were granted

Table 6. Homesteads and other land claims patented in the Oro Valley study area before 1945

Patentee	Year	Acreage	Authority	Township	Range	Section	Aliquot Parts
Ackley, Walter D.	1934	616.92	HES	12 S	13 E	24	S½
						25	NE¼, W½SE¼, NE¼SE¼
Arizona Desert School, Inc.	1939	164.08	EFS	12 S	14 E	30	S½S½
Baldridge, William T.	1932	640	HES	12 S	13 E	15	E½
						22	E½
Bernard, Edwin P.	1919	318.88	HE	12 S	14 E	7	W½
Braun, Rose	1935	622.14	HES	12 S	13 E	4	S½, S½N½, N½NW¼, NW¼NE¼
				13S	12E	3	NW¼SW¼
Buente, Frederick W.	1940	480	HES	11 S	13 E	24	SW¼
						25	W½
Burckhardt, Helen M.	1935	40	HES	11 S	13 E	28	SW¼SE¼
Buzzini, Bernardo	1913	321.38	HE	11 S	14 E	31	SE¼
						32	S½SW¼
				12 S	14 S	5	N½NW¼
Buzzini, Bernardo	1920	320	HES	11 S	14 E	31	NE¼, E½W½
Buzzini, Germana	1921	78.02	CE	11 S	14 E	31	W½SW¼
Carpena, Andres	1938	400	HES	11 S	13 E	15	S½, S½NE¼
Cummings, William Bunyon	1934	640	HES	11 S	13 E	33	W½SW¼, SW¼NW¼
				10S	11E	29	S½, S½N½, NE¼NE¼
Elias, Andres	1932	480	HES	11 S	13 E	24	SE¼
						25	E½
Elias, Jesus M.	1914	320	HE	11 S	14 E	21	SE¼
						28	E½NW¼, W½NE¼

Table 6. Homesteads and other land claims patented in the Oro Valley study area before 1945 (continued)

Patentee	Year	Acreage	Authority	Township	Range	Section	Aliquot Parts
Elias, Jesus M.	1921	320	HES	11 S	14 E	28	W½NW¼
						29	NE¼, E½SW¼
Elias, Jesus M.	1921	80	CE	11 S	14 E	29	W½SE¼
Frantz, Mary A.	1938	320	HES	11 S	13 E	26	NW¼, S½NE¼, NE¼SE¼
						28	NW¼SE¼
Gallego, Ramon L.	1913	160	HE	11 S	14 E	28	SW¼
Gates, Walter C.	1920	320	HE	12 S	13 E	12	SW¼
						13	NW¼
Germaine, Allen J.	1944	640	HES	12 S	13 E	10	SW¼, S½NW¼
						15	W½
						22	N½NW¼
Geyer, Alice C.	1938	263.45	HES	12 S	14 E	18	NW¼NW¼, S½NW¼, NW¼SW¼, E½SW¼
				13S	14 E	15	S½NW¼
Gittings, Ina E.	1932	480.55	HES	11 S	14 E	29	NW¼
				12 S	13 E	34	W½
Givens, Katherine	1940	640	HES	11 S	13 E	9	entire
Greaber, James P.	1925	320	HE	11 S	14 E	19	SE¼
						30	NE¼
Greaber, John P.	1925	315.49	HE	11 S	14 E	30	SW¼, W½SE¼
						31	W½NW¼
Greaber, William E.	1925	316.38	HE	11 S	14 E	19	E½SW¼, W½SW¼
						30	E½NW¼, W½NW¼
Hardy, Carl A.	1919	121.89	CE	12 S	14 E	4	NW¼NW¼
						5	N½NE¼

Table 6. Homesteads and other land claims patented in the Oro Valley study area before 1945 (continued)

Patentee	Year	Acreage	Authority	Township	Range	Section	Aliquot Parts
Hedgepeth, William J.	1931	640	HES	11 S	13 E	26	SW¼, SE¼SE¼, W½SE¼
						28	NE¼SW¼
						35	N½
Johnson (Burke), Mabel J.	1932	640	HES	12 S	13 E	14	W½
						23	W½
Johnson, Morris S.	1922	320	HE	12 S	14 E	5	SW¼SE¼, S½SW¼
						6	SE¼
						7	NW¼NE¼
Keyes, Norbert J.	1936	640	HES	11 S	13 E	22	S½, S½NW¼, NE¼
						27	N½NW¼
King, Charles C.	1926	40	CE	11 S	14 E	22	NW¼SW¼
Lockas, Matt	1917	320	HE	12 S	13 E	21	E½SE¼
						22	S½NW¼, SW¼
Lovejoy, Walter E.	1938	43.45	CE	12 S	13 E	25	SE¼SE¼
Magee, Arthur Eugene	1933	289.68	HES	12 S	13 E	13	N½SW¼, NW¼SE¼, S½NE¼, E½SE¼
Magee, John A.	1932	640	HES	12 S	13 E	27	entire
Marin, Francisco	1908	160	HE	12 S	14 E	5	S½NW¼, N½SW¼
Marin, Teodoro R.	1914	160	HE	12 S	14 E	5	S½NE¼, N½SE¼
Moodie, Maggie	1932	640	HES	12 S	13 E	25	NW¼
						26	N½, SW¼
Morrison, Richard C.	1930	617.36	HES	11 S	13 E	28	W½SW¼
				12 S	13S	3	NE¼, W½
						10	N½NW¼

Table 6. Homesteads and other land claims patented in the Oro Valley study area before 1945 (continued)

Patentee	Year	Acreage	Authority	Township	Range	Section	Aliquot Parts
Muzzy, Tony T.	1930	644.36	HES	12 S	13 E	34	E½
						35	W½
Overton, Mary K.	1939	40	HES	11 S	13 E	34	NE¼SW¼
Overton, Rosalie and Victor W.	1935	320	HES	12 S	13 E	10	SE¼SE¼
						11	S½SW¼
						21	E½SW¼, W½SE¼
						28	NE¼NW¼
Parker, George	1938	618.12	HES	12 S	13 E	33	SW¼NE¼
				14S	11E	33	NW¼, SE¼, N½SW¼, SE¼SW¼, W½NE¼, SE¼NE¼
Perrin, Edward B.	1904	120	FLS	12 S	14 E	7	E½NE¼
						8	NW¼NW¼
Phillips, Charles L.	1932	120	HES	12 S	13 E	28	E½SE¼
						33	NE¼NE¼
Proctor, John M.	1938	80	CE	12 S	14 E	8	SE¼NE¼
						18	NE¼NW¼
Pusch, George	1903	40	FLS	12 S	14 E	7	SW¼NE¼
Reidy, James B.	1938	640	HES	11 S	13 E	23	S½, S½N½, NW¼NW¼
						26	N½NE¼
						28	SE¼SW¼
Reitzel, Moses T.	1936	640	HES	12 S	13 E	9	entire
Reynolds, Barney William	1938	520	CE	12 S	13 E	21	N½, W½SW¼
						28	W½NW¼, NW¼SW¼
Rice, Joseph E.	1939	80	CE	11 S	13 E	34	S½NW¼

Table 6. Homesteads and other land claims patented in the Oro Valley study area before 1945 (continued)

Patentee	Year	Acreage	Authority	Township	Range	Section	Aliquot Parts
Romero, Bernardina A.	1924	600	HES	11 S	14 E	28	E½NE¼, SE¼
						33	W½E½, NE¼SW¼, NW¼
Romero, Fabian S.	1924	641.56	HES	12 S	14 E	4	S½, NE¼, SE¼NW¼
						5	SE¼SE¼
						8	N½NE¼
Romero, Francisco	1911	160.69	HE	11 S	14 E	33	W½SW¼, SE¼SW¼
				12 S	14 E	4	NE¼NW¼
Rudasill, Wylie E.	1935	200	HES	12 S	13 E	23	SE¼
				13S	13 E	12	NE¼SW¼
Seaney, Samuel W.	1930	643.73	HES	12 S	13 E	25	SW¼
						26	SE¼
						35	E½
Skinner, Lue W. G.	1926	280	HE	12 S	13 E	13	SW¼SE¼, S½SW¼
						24	NW¼
Skinner, Lue W. G.	1929	326.55	HES	12 S	13 E	23	NE¼
						24	NE¼
Skinner, Lue W. G.	1934	39.93	HES	12 S	14 E	18	SW¼SW¼
Smith, Edward B.	1921	159.38	CE	12 S	13 E	33	SE¼NE¼, E½SE¼, SW¼SE¼
Smith, Manuel F.	1923	158.14	CE	12 S	13 E	33	E½SW¼, NW¼SE¼, SW¼SW¼
Sotomayor, Perfecto	1929	640	HES	11 S	13 E	21	SW¼NE¼, NW¼SE¼, NE¼SW¼, SE¼NW¼, S½S½
						28	N½
Stewart, Warren A.	1935	642.06	HES	11 S	13 E	13	SE¼
						24	NE¼
				12 S	13 E	1	E½

Table 6. Homesteads and other land claims patented in the Oro Valley study area before 1945 (continued)

Patentee	Year	Acreage	Authority	Township	Range	Section	Aliquot Parts
Strickland (Duke), Hannah C.	1939	640	HES	11 S	13 E	34	N½NW¼, E½, SE¼SW¼, W½SW¼
				12 S	13 E	5	SE¼SE¼
				10S	11E	20	SW¼SW¼
						29	NW¼NW¼
Strickland, Helen E.	1934	623.96	HES	11 S	13 E	33	E½, E½W½, NW¼NW¼
				13S	16E	17	S½NW¼, S½NE¼
Teran, Antonio	1926	640	HES	11 S	13 E	27	NE¼, S½NW¼, S½
						28	E½SE¼
Tormey, Stephen	1932	640	HES	12 S	13 E	3	SE¼
						10	NE¼, N½SE¼
						11	NW¼, N½SW¼
Verdugo, Jesus	1921	640	HES	11 S	14 E	33	E½E½
						34	N½, N½S½
Watson, Courtland O.	1935	409.6	HES	12 S	13 E	12	N½, N½SE¼
Wilson, Lawrence B.	1930	640	HES	12 S	13 E	11	E½
						14	E½
Wolfley, Silas D.	1936	639.59	HES	12 S	14 E	6	N½, SW¼
				12 S	12E	31	E½SE¼, SE¼NE¼
				13S	15E	19	SE¼SW¼

Note: All information is derived from the online database, Bureau of Land Management, General Land Office Records, http://www.glorecords.blm.gov/. All names are spelled as they appear in the database.

by the Bureau of Land Management (the successor to the GLO) in the Oro Valley area, but most were cash sales of small tracts and were not part of the traditional pattern of homesteading that prevailed before the end of World War II. Our list also excludes lands granted by the federal government to the State of Arizona either before or after World War II, because such grants were similarly unrelated to the homesteading tradition.

Table 7 lists the legal authorities used in the study area to claim and patent public lands before 1945, including the total number and acreage of patents granted under each authority. Of the 72 patents, the majority (45) were made under the Stock Raising Homestead Act in the period 1920–1944. Only 14 patents were granted under the original Homestead Act, all in the relatively early period 1908–1926. Another 10 patents were Cash Sale entries in the period 1919–1939. Two patents were Forest Lieu Selections in the period 1903–1904, both undoubtedly prompted by the creation of national forest reserves after 1891, such as the Santa Catalina Forest Reserve in 1902 (see below). And one patent was a Forest Service Exchange granted to the Arizona Desert School in 1939. The large number of patents granted in the study area after 1920 under the Stock Raising Homestead Act is notable and undoubtedly reflects the perception of most settlers by that year that the land in the area was suitable for grazing livestock but mostly unsuitable for farming. The impact of the act on the privatization of public land in the study area is remarkable: of the approximately 49,000 acres in the study area, 22,640 acres became private land through the Stock Raising Homestead Act.

Table 7. Summary of patented land claims in the Oro Valley study area before 1945, by authority

Abbreviation[1]	Authority	Year Enacted	Number of Claims	Year Range of Claims	Acreage
FLS	Forest Lieu Selection (30 Stat. 11)	1897	2	1903–1904	160
HE	Homestead Entry Original (12 Stat. 392)	1862	14	1908–1926	3,793
CE	Sale–Cash Entry (3 Stat. 566)	1820	10	1919–1939	1,361
HES	Homestead Entry–Stock Raising (39 Stat. 862)	1916	45	1920–1944	22,640
EFS	Exchange–Forest Service General (42 Stat. 465)	1922	1	1939	164
				Total	28,118

[1]Based on Bureau of Land Management, General Land Office Records, http://www.glorecords.blm.gov/. The abbreviations are unofficial ones created for this report.

Although the appearance of a name in Table 6 does not necessarily mean that the claimant held on to his or her property any longer than it took to receive a patent, a look at the list of 72 patentees does give a sense of the farming and ranching community that took shape in the study area during the first half of the twentieth century. Much like the rest of southern Arizona in the same period, the study area was a mix of Anglo-Americans and Mexican Americans, with the occasional recent European immigrant. A few of the names—Romero and Pusch—have become closely associated with Oro Valley's early history, while others—Hardy, Magee, Overton, Rudasill—survive in the modern names of streets and roads in the study area. Some patentees later subdivided their property for residential development. As a notable example, Lue W. G. Skinner, who patented two Stock Raising Homestead claims totaling about 600 acres in 1926–1929, almost immediately

subdivided the claims as the Linda Vista Citrus Tracts, obtaining county approval of his plat in 1930 (see the discussion of residential development below). The actual construction of houses in the subdivision did not begin until after World War II, but Skinner was clearly interested in using his claims for something other than raising stock shortly after he received them, if not before.

Limiting our coverage of GLO patents to the Oro Valley study area excludes some homesteads just outside the area that were nonetheless influential in Oro Valley history. For example, William Sutherland and his family patented a series of homesteads in the early 1920s just east of the study area, along the upper Cañada del Oro and what is now known as Sutherland Wash, including parts of sections 1, 2, 10, 14, 15, 23, and 26 of Township 11 South, Range 14 East. Most of this land later became part of Catalina State Park. Similarly, Pierre (Pedro) Charouleau, a prominent Tucson-area rancher in the early twentieth century, patented claims in section 35 of Township 10 South, Range 14 East, and sections 1 and 2 of Township 11 South, Range 14 East, immediately north of the study area. His first patent was obtained in 1904, but Charouleau was settled in the area many years earlier. His property appears on the 1893 *Official Map of Pima County* (Roskruge 1893) along the Tucson-Oracle Road, right where the road crosses into Pinal County (see Figure 5).

Francisco Romero and Descendants

A notable characteristic of the list of patented claims in Table 6 is the relatively late date of the earliest patents—none is earlier than 1903—compared with the earlier dates for the initial settlement of the Cañada del Oro area known from other sources. Federal laws governing and promoting claims on the public domain were fully in place when Euroamericans first settled the area, but the earliest settlers were apparently not much concerned in the early days with formalizing their ownership of lands in the public domain, perhaps because of more pressing concerns. Francisco Romero, a member of an old Tucson family that first came to southern Arizona as part of a Spanish presidio force in the late eighteenth century, was probably the first settler of the Cañada del Oro area. Romero established a ranch near the confluence of the Cañada and Sutherland Wash, probably in the late 1860s though a Romero descendant once claimed the original attempt took place as early as 1828 (Mabry 1991:62). Another source (Hayden n.d.) puts it at 1844, but Sheridan (1986:280, n. 7, citing a personal communication with James Officer) has noted that Romero is unlikely to have been ranching in the Cañada del Oro area even as early as the 1840s: "[I]t would have been almost impossible . . . to run cattle that far north of [Tucson] at a time when Apache raiding was at its most intense, especially since the Cañon was located along one of the Pinal Apaches' primary raiding routes." In 1871, Romero complained to the territorial legislature that his Cañada del Oro ranch had been raided by Apaches several times in 1869–1870, which prompted him and his family to abandon the property in 1870 (Mabry 1991:64). This suggests that he was living on the ranch at least as early as 1869, which, regardless of his lack of success, made him the earliest known Euroamerican to settle in the area.

Francisco Romero's ranch centered on an enclosed house compound that he built atop the ruins of a large prehistoric archaeological site known at the time as Pueblo Viejo. The site is better known today as the Romero Ruin, or archaeological site AZ BB:9:1 (ASM) (see the discussion in Chapter 3). The Romero compound was probably a ruin itself by the time Romero's only son,

Fabián Romero, returned to the Cañada del Oro and built a new ranch house in 1889, just below the ridge where his father's house had stood; the remains of the younger Romero's house also survive today as an archaeological site, AZ BB:9:52 (ASM) (Mabry 1991:68–69). It is not clear how much of a presence the Romero family had along the Cañada del Oro between the abandonment of the first Romero house and the building of the second, but after the family first left the area they lived for many years along the Santa Cruz River near Tucson; perhaps they continued to run cattle in the Cañada del Oro area when conditions permitted. Mabry (1991:68) cites a source on Fabián Romero that gives the eventual acreage of his Cañada del Oro ranch as 4,800 acres, an acreage accumulated before 1900. A house labeled Romero appears on George Roskruge's 1893 map of Pima County (Roskruge 1893), in about the location of the Romero Ruin (Township 12 South, Range 14 East, Section 4), but Fabián Romero's house, located in the next section north, was presumably the only one standing by that time.

Francisco Romero eventually patented a 160-acre homestead in the vicinity of Romero Ruin in 1911 (see Table 6), but since he died in 1905 (Hayden n.d.), the patent was probably issued posthumously in his name to an heir. Interestingly, this homestead did not include Romero Ruin, though it did include the parcel where Romero's son, Fabián, had built his house in 1889. Fabián himself never patented any land in the area. In 1924, a patent was issued to Fabián Romero for a stock-raising homestead of 640 acres (see Table 6), but this was probably Fabián Romero, Jr., a son of the original Fabián Romero. This homestead did include the Romero Ruin and thus the remains of Francisco Romero's original house. Also in 1924, Bernardina Romero, the wife of Fabián, Jr., patented a 600-acre stock-raising homestead just to the north of her husband's claim. Without knowing more about the history of the family, it is hard to say what prompted this particular sequence of claims by the Romeros, but they clearly had a history in the area that long predated their official ownership of the land.

George Pusch and the Steam Pump Ranch

Another settler along the Cañada del Oro whose presence long predated his official ownership of the land was George Pusch, a German immigrant who came to Tucson from California in 1874. Shortly after he arrived, Pusch and his friend John Zellweger, a Swiss immigrant, pooled their resources and acquired a ranch along the Cañada del Oro, soon to be known as the Steam Pump Ranch after Pusch dug a well there and installed a steam-powered pump, probably the first such pump in Arizona. The exact year the pump was installed is uncertain, but the property was apparently well known as the Steam Pump Ranch by the early 1880s. In 1883, Pusch became sole owner of the ranch when he bought Zellweger's share in it. Both he and Zellweger were successful businessmen apart from their joint interests, and Pusch also became politically active, eventually serving in the territorial legislature. The Steam Pump Ranch was for many years a much-used watering place and stopover for cattlemen moving stock along the road between Tucson and the San Pedro River, where Pusch and Zellweger also had a large operation known as the Feldman Ranch. Pusch operated the Steam Pump Ranch until his death in 1921. The ranch was acquired from his estate by another rancher, John Procter, in 1933 (Allen-Bacon 1997:2; OVHS 2009a, 2009b, 2009c; Thiel 2007:13–20; Zipf 1988–1989).

The reference to Pusch and Zellweger acquiring what became the Steam Pump Ranch in 1874 raises a number of questions that we have been unable to answer with the sources we have consulted. First, who did they buy the ranch from? It is hard to imagine that someone had established a ranch on the Cañada del Oro by 1874, just five years after Romero had given up on the area because of difficulties with the Apaches. Second, what was the legal basis for the original ownership? The area was part of the public domain in 1874, still unsurveyed by the GLO and, technically at least, not subject to claims much less prior ownership. Indeed, Pusch himself did not receive a patent for the 40-acre parcel where the Steam Pump Ranch was centered until 1903 (see Table 6), and his receipt of the patent implies that the land was previously unclaimed and unowned. If Pusch and Zellweger really did buy the ranch in 1874 from someone they believed owned it, it may mean that private parties at the time were buying and selling land in the public domain before anyone had an actual legal claim to it. Unfortunately, research into the history of the Steam Pump Ranch by Marriot (2005, 2008), the Oro Valley Historical Society (OVHS 2009b, 2009c), Thiel (2007), and others has not uncovered any information in this regard. This is a worthy subject of further research, since it would undoubtedly involve not only Pusch but other early settlers in the area.

Whatever the circumstances, it is clear that by 1903, the year he received his patent, Pusch was well established in the Cañada del Oro area and was undoubtedly also using other parcels in the general vicinity for his ranching operation. Marriott (2005:61) has published a map of the eventual extent of Pusch's holdings in southern Arizona, which covered a vast area in Pima and Pinal counties, dwarfing the one 40-acre parcel he obtained directly from the public domain. (Henry Zipf, the grandson of George Pusch, is the principal source for the depiction on the Marriott map.) Pusch's early use of other lands in the Cañada del Oro area might also seem to be indicated by the type of patent he received for his Steam Pump Ranch parcel: a Forest Lieu Selection, which means he was granted the patent in exchange for a parcel he had previously been using within an area later designated as a national forest reserve. The nearby Santa Catalina Forest Reserve, designated in 1902 and incorporating a large portion of the Santa Catalina Mountains (the reserve became part of the newly created Coronado National Forest in 1908 [Coronado National Forest 2009]) seems the most likely location, but Pusch actually received his Forest Lieu Selection in exchange for a 40-acre parcel he owned in what became the San Jacinto Forest Reserve in southern California (GLO 1903), a reserve that is now part of the Cleveland National Forest near San Diego. Pusch lived for a short time in California before coming to Tucson (Zipf 1988–1989). Either he claimed the forest parcel himself while he was in California or he acquired it secondarily from someone else.

A Possibility for Further Homestead Research

The scope of work for this overview did not allow for it, but additional information on patented GLO claims can be obtained by contacting the National Archives and Records Administration in Washington, D.C., which keeps the land-entry case files for individual claims. These files, copies of which are currently available by mail at $40.00 per land entry (http://www.archives.gov/), typically include the original claim filed by the patentee, the written testimonials of witnesses in support of the claim, other documents related to the verification of the claim or any dispute it may

have prompted, and the final claim decision. Some case files include descriptions of the property, including the improvements made by the claimant to satisfy the requirements of the claim, such as buildings and irrigation ditches. Land-entry case files are almost always useful to a historian or archaeologist interested in the early history of a property, but the amount of information they provide varies considerably. Some case files contain a surprising amount of detail while others hold very little information, and it is impossible to know what a particular case file might hold before examining it.

Mining, Farming, and Ranching in the Study Area

The historic period in Arizona was dominated by three economic pursuits—mining, farming, and ranching (see especially Sheridan 1995:103–227)—but the amount of emphasis placed on each pursuit varied by the circumstances in a given location. In the Oro Valley study area, mining was important early on, but only as something carried out in the nearby mountains by settlers who were sometimes also busy with other pursuits directly in the study area, notably ranching. The Cañada del Oro (Canyon of Gold) was called by that name at least as early as the 1850s, but the name was probably originally applied because of what was going on in its uppermost reaches. The stream begins on the northern slope of Mount Lemmon in the Santa Catalina Mountains, about 10 miles south of the modern town of Oracle; it flows directly north for several miles before turning west and southwest to eventually pass through the study area. The history of mining in the Santa Catalinas has been summarized by Wilson (1995a:161–162; 1995b:16–17), who mentions efforts to exploit the gold placer deposits in the gravels of the upper Cañada del Oro in 1858–1859, and possibly earlier. The same placers continued to be exploited occasionally into the 1930s, but the yields were always small.

Ranching was the most important pursuit drawing people to the Cañada del Oro area in the late nineteenth century, as is clear from our discussion of the earliest families settling in the study area. It was also the most important factor in drawing people to the area well into the twentieth century, as the large number of stock-raising homestead claims made in the period 1900–1944 indicates (see Table 7). But much about ranching in the area has yet to be studied systematically. For example, how much land was required for a successful ranch? How were sources of water developed and controlled? What kinds of facilities were built by ranchers, and how did this vary in relation to different factors, such as the ethnic background of the rancher? And what role did farming, always a minor pursuit in the area, have in the ranching economy?

Details on the early GLO plats of the study area point to the kinds of information that might be gathered to answer these questions. First is the depiction of the Steam Pump Ranch property on the 1902 plat of Township 12 South, Range 14 East (Figure 15). Pusch's property sat close to another property, labeled "Mexican Ranch," just to the north. This was probably the land later patented by Francisco Marín in 1908 (see Table 6) and may have been settled by him long before that year, much as Pusch was operating the Steam Pump Ranch long before he patented it. In fact, according to the Oro Valley Historical Society (Patricia Spoerl, personal communication 2009), an Oro Valley resident recently suggested to the society that the land that became the Steam Pump Ranch was originally owned by the Marín family and bought from them. We have not yet

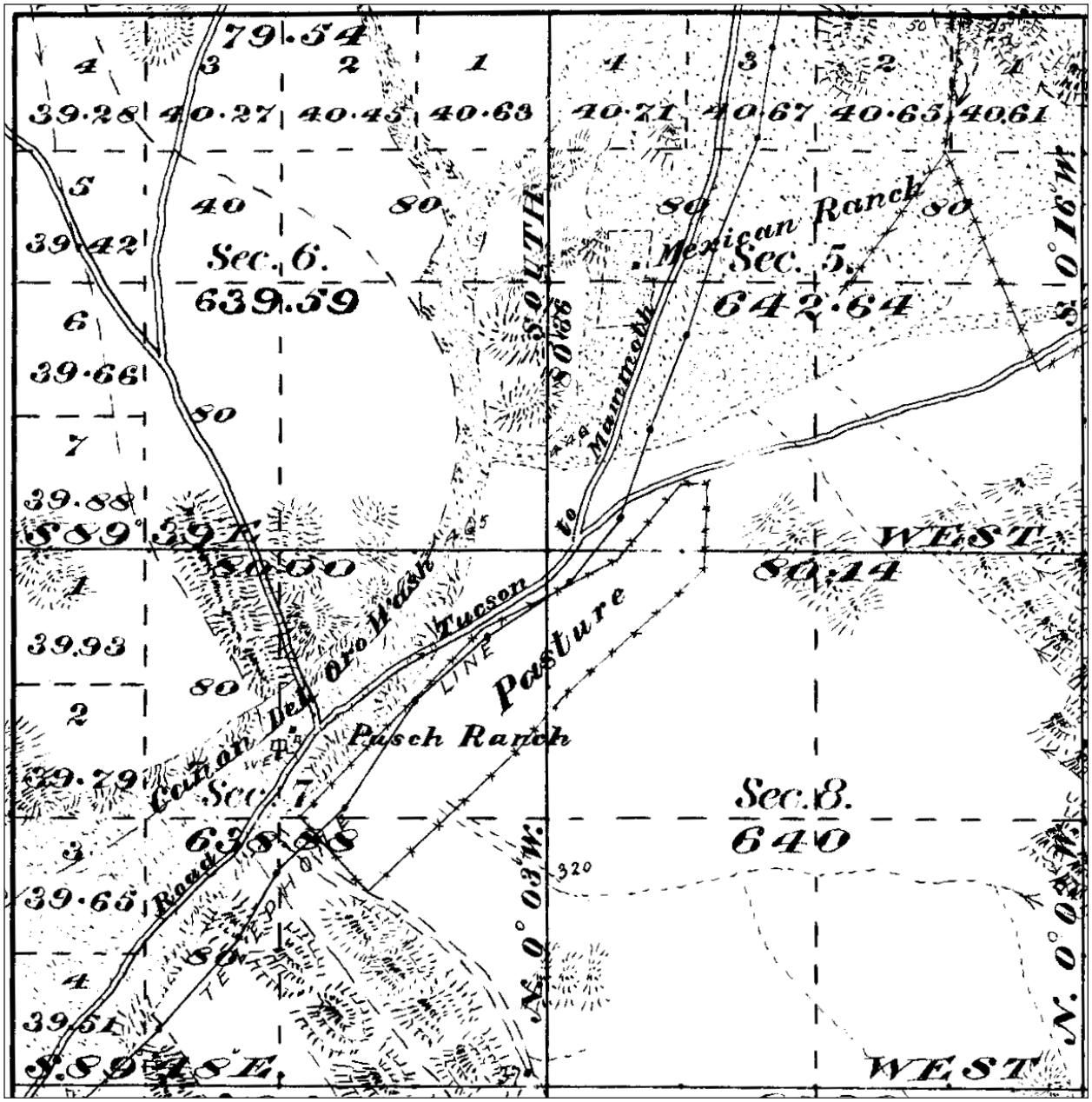

Figure 15. Detail from the 1902 GLO survey plat of Township 12 South, Range 14 East (GLO 1902), showing the Pusch ranch and a Mexican ranch.

been able to evaluate this information, but if that was indeed the case it raises the interesting question of how Pusch and Zellweger learned about their property and its availability, and what arrangements they may have made with the family that suddenly became their close neighbor. For that matter, how much did Pusch and Zellweger, recent immigrants to an environment they must have found very unfamiliar, rely on the local knowledge of Francisco Marín and other Mexican-American ranchers with long experience in the region to get their own ranch up and running?

Other GLO plat details similarly emphasize the proximity of Anglo-American and Mexican-American ranches in the study area, which continued after the earliest settlers in the area had sold their

claims. A detail from the 1921 plat of Township 11 South, Range 13 East (Figure 16) shows two houses labeled Jiménez, about a half mile apart and probably representing two generations of a Mexican-American family, and another house labeled Trevan, a half mile from one of the Jiménez houses and probably representing an Anglo-American settler. Neither the Jiménez or Trevan name is among the names of the original GLO patentees in the area (see Table 6), which means both must have acquired their land from earlier owners. By itself, the map depiction means little, but it suggests the continuing multicultural (or at least bicultural) nature of ranching in the study area during the early twentieth century.

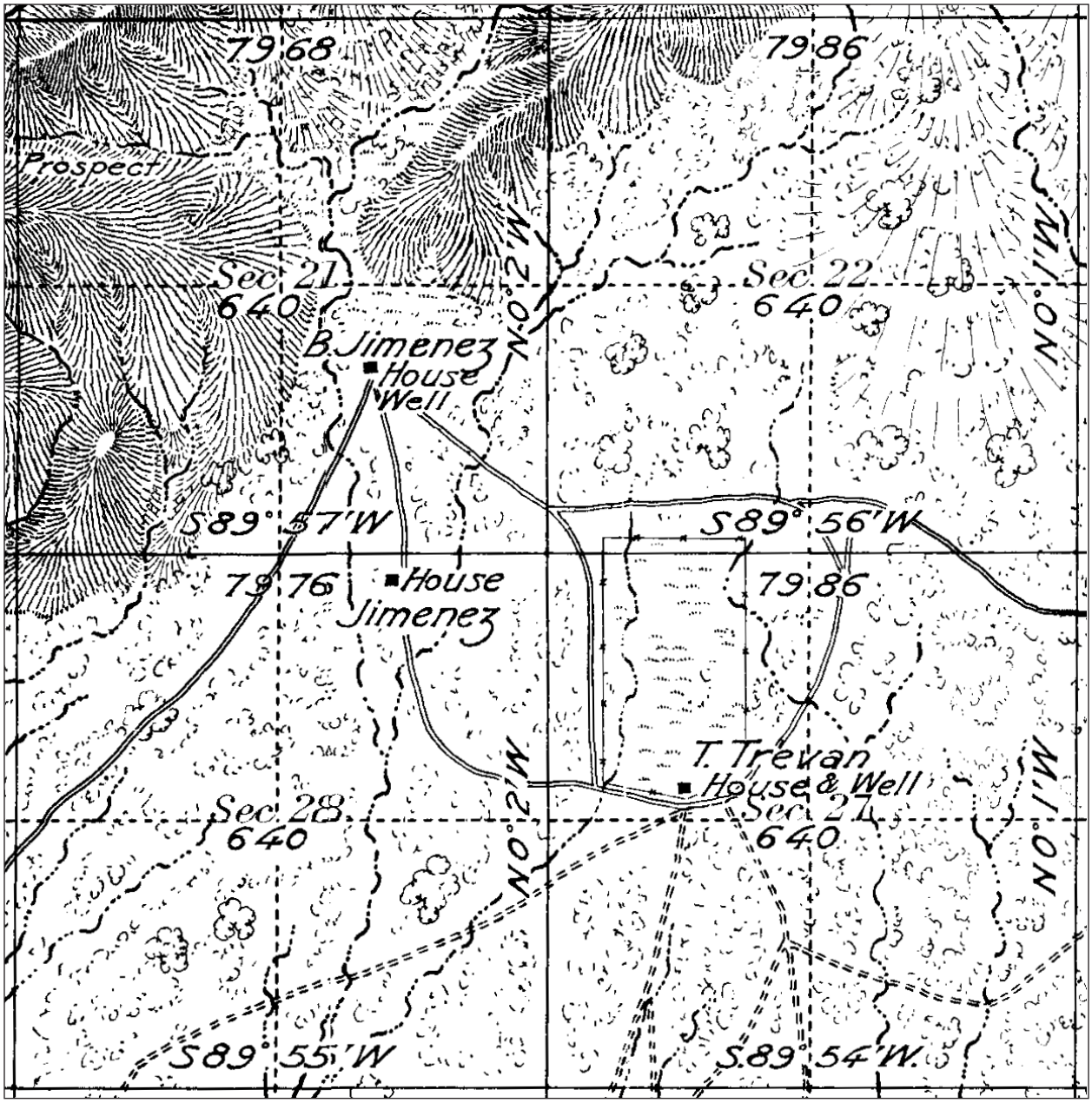

Figure 16. Detail from the 1921 GLO survey plat of Township 11 South, Range 13 East (GLO 1921), showing ranches labeled Jimenez and Trevan.

The question of water and its relationship to ranching in the study area is also hinted at in GLO plat details. On the plat just mentioned, the Trevan house and one of the Jiménez houses are both shown with wells. Having a well was undoubtedly indispensable for watering livestock in a place where the most substantial watercourse, the Cañada del Oro, was miles away and in any case altogether dry for most of the year, but some early settlers in the study area also built small dams on the seasonal washes that crossed their property. On the 1921 plat of Township 11 South, Range 13 East, the Nelson Ranch is shown with a house and well, but there is also a dam shown just northwest of the ranch, on the small wash that passes north-south along the foot of the Tortolita Mountains (Figure 17; the wash is labeled Sausalito Creek on modern maps). Nelson, a Swedish immigrant who first ranched near the Tortolitas in the 1890s, later bought the large ranching operation of William Sutherland near the Santa Catalinas; he became well known in Pima County when he was elected sheriff in 1908 (Willson 1956:30). The purpose of the small dam on his Tortolita Mountain property is uncertain, but it would only have functioned during rains, routing the flow in the wash either onto fields to irrigate crops or into an earthen tank for watering livestock. This particular location probably lacked land appropriate for farming, so the dam probably served to fill a tank, though it is not depicted on the plat. The extent to which ranchers like Nelson relied on dams rather than wells to water their stock is an interesting question for future research.

Early Roads in the Study Area

Transportation in the study area before 1945 centered on a single route, the road variously labeled on early maps as the Tucson–Camp Grant road, the Tucson-Mammoth road, the Tucson-Florence road, and the Tucson-Oracle road. It is the direct predecessor of modern Oracle Road, which is also a portion of modern State Route 77. In 1961, the road was designated with an archaeological site number, AZ BB:9:41 (ASM), but the designation was based solely on early map depictions and historical references and not on an actual field recording. Aside from its frequent appearance on modern maps, the road is not documented as a historic property and today bears no resemblance to its earlier self.

As noted above, one of the earliest depictions of Oracle Road is on the *Map of the Military Department of New Mexico*, which dates to the Civil War (Anderson 1864). This map was prepared not long after the only encounter of Union and Confederate troops in Arizona, the brief skirmish known as the Battle of Picacho Pass, which was fought on April 15, 1862, between a small force of Confederates, sent west to occupy Tucson, and the California Volunteers, a Union force sent east from California to chase the rebels out of the Southwest. After the indecisive skirmish at Picacho, the California Volunteers regrouped on the San Pedro River at what soon became Fort Grant, then entered Tucson from the north via the Cañada del Oro (Wilson 1995a:91–92).

On their way from the San Pedro River to Tucson, the California Volunteers followed a road that had long played an important role in the history of the region. Especially important was the point where the road crossed the Cañada del Oro, a location that seems to have served as a kind of entry point to the Tucson Basin. Officer (1987:257) describes a moment in 1850, during the late Mexican period, when several bands of Apaches, including the Pinal Apaches, joined forces

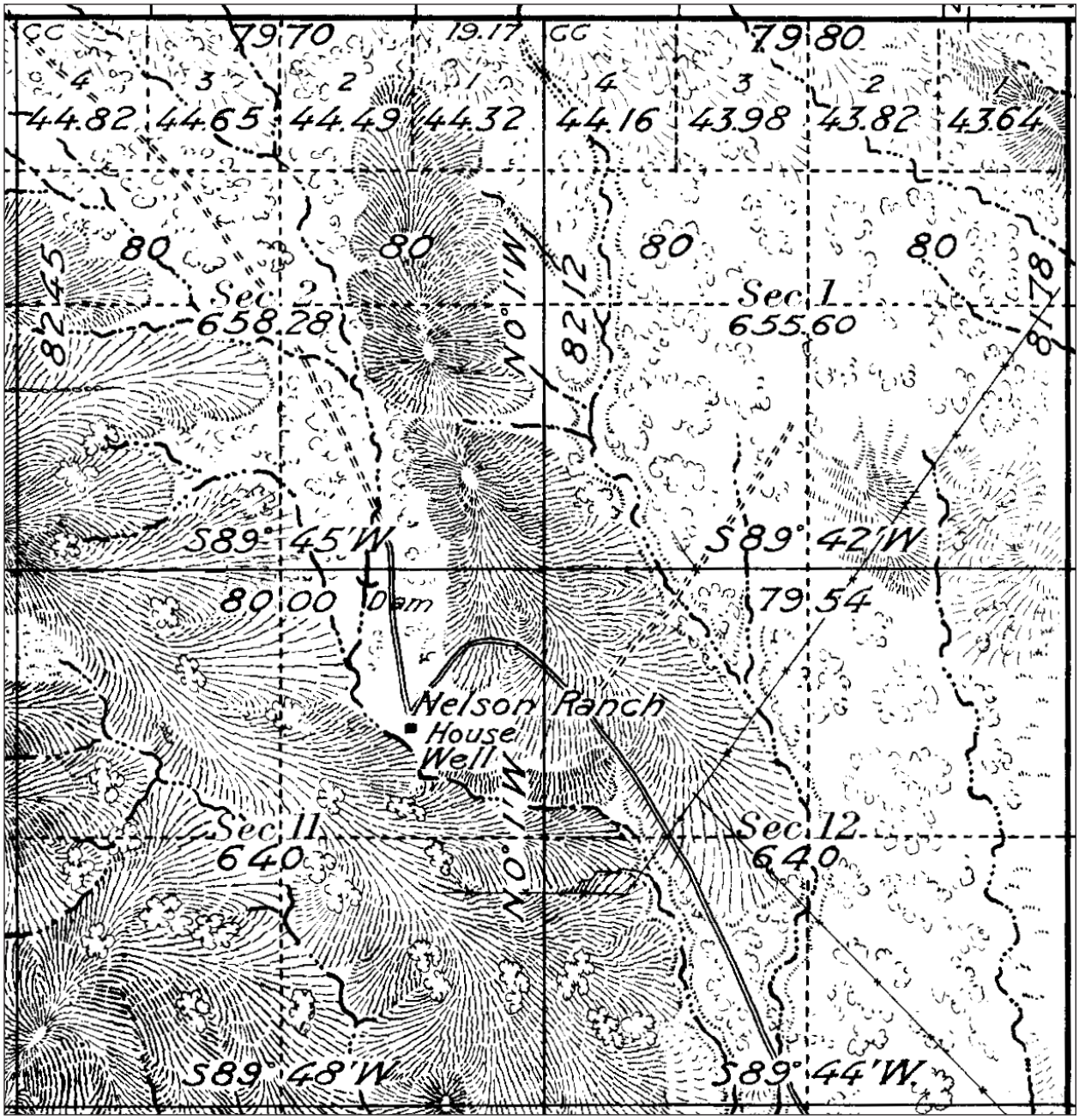

Figure 17. Detail from the 1921 GLO survey plat of Township 11 South, Range 13 East (GLO 1921), showing the Nelson ranch.

to attack the presidio at Tucson. The Pinal band had second thoughts and decided not to join the attack, waiting instead at a point just north of the Cañada del Oro. Officer (1987:264) also describes a second incident, a year later, when an Apache attack was repelled and the attackers were pursued fruitlessly by a presidio force as far as the Cañada del Oro, where the chase was abandoned.

The Cañada del Oro crossing continued to serve a similar role in the early U.S. period. The Oro Valley Historical Society has gathered several secondary references to interactions between

Apache bands and the earliest representatives of the U.S. government (military men, Indian agents, and settlers) in the late 1850s, enough to suggest strongly that the wash and its crossing were seen by the Apaches as a good site both for raiding travelers and for negotiating a truce. In 1871, the Cañada del Oro crossing also apparently played a role in the infamous Camp Grant massacre, when a group of about 150 Tucsonans, including Anglo-Americans, Mexican Americans, and Tohono O'odham, attacked an Apache camp near Fort Grant, ostensibly in retaliation for a series of recent Apache raids in the Tucson area. More than 100 Apaches were killed in the attack, including many women and children, and the event became a notorious example of unnecessary brutality in the treatment of Native Americans by settlers in the Southwest. According to one source, the attackers stationed men at the Cañada del Oro crossing to turn back messengers from Tucson who might have alerted the Apache camp of the impending attack (OVHS 2009d; Spoerl n.d.).

It is hard to tell from early map depictions whether the most suitable point to cross the Cañada del Oro was always the same or whether it shifted from time to time depending on conditions in the wash. Today Oracle Road crosses the Cañada del Oro just upstream of its junction with Big Wash, which does not seem much different from the alignment of the road on the 1902 GLO plat of the area (see Figure 15). But earlier maps, notably the 1893 Roskruge map (see Figure 5), show the road heading due north from the Steam Pump Ranch, which would put the crossing almost a mile southwest of its location today. The 1902 GLO plat does show another, presumably secondary road crossing the wash directly at the Steam Pump Ranch, which may indicate that a crossing was maintained at the ranch even when the principal crossing for the main road was well to the northeast. On all of the early GLO plats that show it, the road is accompanied by what seem to be short, alternative routes diverging from it, then roughly paralleling it for short distances, then returning to join it again. These lesser routes may have simply been roads to access particular properties, or they may have been temporary realignments prompted by difficulties in the main road caused by weather or other factors.

All of the GLO plats of the area also show numerous trails (dashed lines) and other roads (solid lines), most trending northeast-southwest, parallel to the drainages that cross the area, including the Cañada del Oro (see Figures 6–11). Some connect individual homesteads with other properties or with Oracle Road. Unlike Oracle Road, most of these trails and roads have disappeared with development.

The Tucson, Globe, and Northern Railroad

The other early transportation feature of note in the study area was never actually completed or used. Myrick (1975:258–262) has summarized the history of the ill-fated project (also see McClintock 1916:299–230; Robertson 1986:109). In 1882, two years after the Southern Pacific Railroad reached Tucson, a group of local businessman organized to build the Arizona Narrow Gauge Railroad, which would run north from Tucson through Oracle to the Gila River, then eastward to New Mexico. The project was troubled from the start with political wrangling and the dubious motives of investors, but the company was nevertheless able to convince Pima County to provide substantial funding through bonds. Construction began in 1883 when a grade was

raised for several miles extending north from Tucson. Some track was also eventually laid, but the effort was repeatedly stalled by difficulties in funding and organization. In 1887, the name of the railroad was changed to the Tucson, Globe, and Northern to reflect revised plans and a renewed construction effort, but by 1894 the project had been abandoned altogether and the company was sold off.

The proposed route of the Tucson, Globe, and Northern through the study area is shown on the 1893 map of Pima County prepared by Roskruge (see Figure 5), who in 1886 surveyed part of the line in his capacity as county surveyor. The extent of the completed portion of the railroad is uncertain, but Myrick has suggested Magee Road as the northern limit of laid track. The grade itself was probably completed at least as far north as the Steam Pump Ranch, where a grading camp was established with the consent of George Pusch, who stood to benefit from a railroad passing through his property. The track was removed when the railroad went out of business, but the grade was left in place and may still survive today in a few places. In our review of the early GLO plats of the study area, we noticed a probable remnant of the grade on the 1913 plat of Township 12 South, Range 13 East (Figure 18). This remnant, mostly in section 24 of the township, ran immediately northwest of the future site of Canyon del Oro High School. Today this is part of a residential area of large lots, large enough to offer hope that some part of the remnant still survives, but nothing like it is discernible in modern air photos of the location.

The Postwar Period, 1945–1974

From the end of World War II to the incorporation of the Town of Oro Valley in 1974, the study area changed from an expanse of open land used mostly for grazing to the nucleus of a suburban community that soon had little room for grazing. A detailed history of the period has not yet been written, but some of its main features have been recounted by Marjorie Kriegh (OVHS 2009e), Barbara Marriott (2005, 2008), Henry Suozzi (1999), and Henry Zipf (1989–1990). Much useful information is also preserved in the county records that were created as new subdivisions were planned and approved, and in the records of county tax assessments of individual properties. Because part of our task in the cultural resources inventory has been to identify and evaluate residential neighborhoods in the town that are of potential historic interest, we have looked closely at some of these county records, including the original plats submitted to the county for proposed residential developments and the information on individual houses maintained by the county assessor. The Pima County Assessor's Office has helped by providing digital data on houses in the study area, including construction dates.

Other sources on the recent history of Oro Valley exist that we have not consulted for this project. The Oro Valley Town Clerk, Ms. Kathryn Cuvelier, provided us with a comprehensive list of governmental records maintained by the town and available to the public, all potentially useful sources for a study of the history of Oro Valley after incorporation. The town also has a complete set of Oro Valley newspapers, most notably the Oro Valley Voice, originally collected by town resident Jim Kriegh and donated to the town. The Oro Valley Public Library also has a collection of newspaper clippings about the town donated by Marjorie Kriegh.

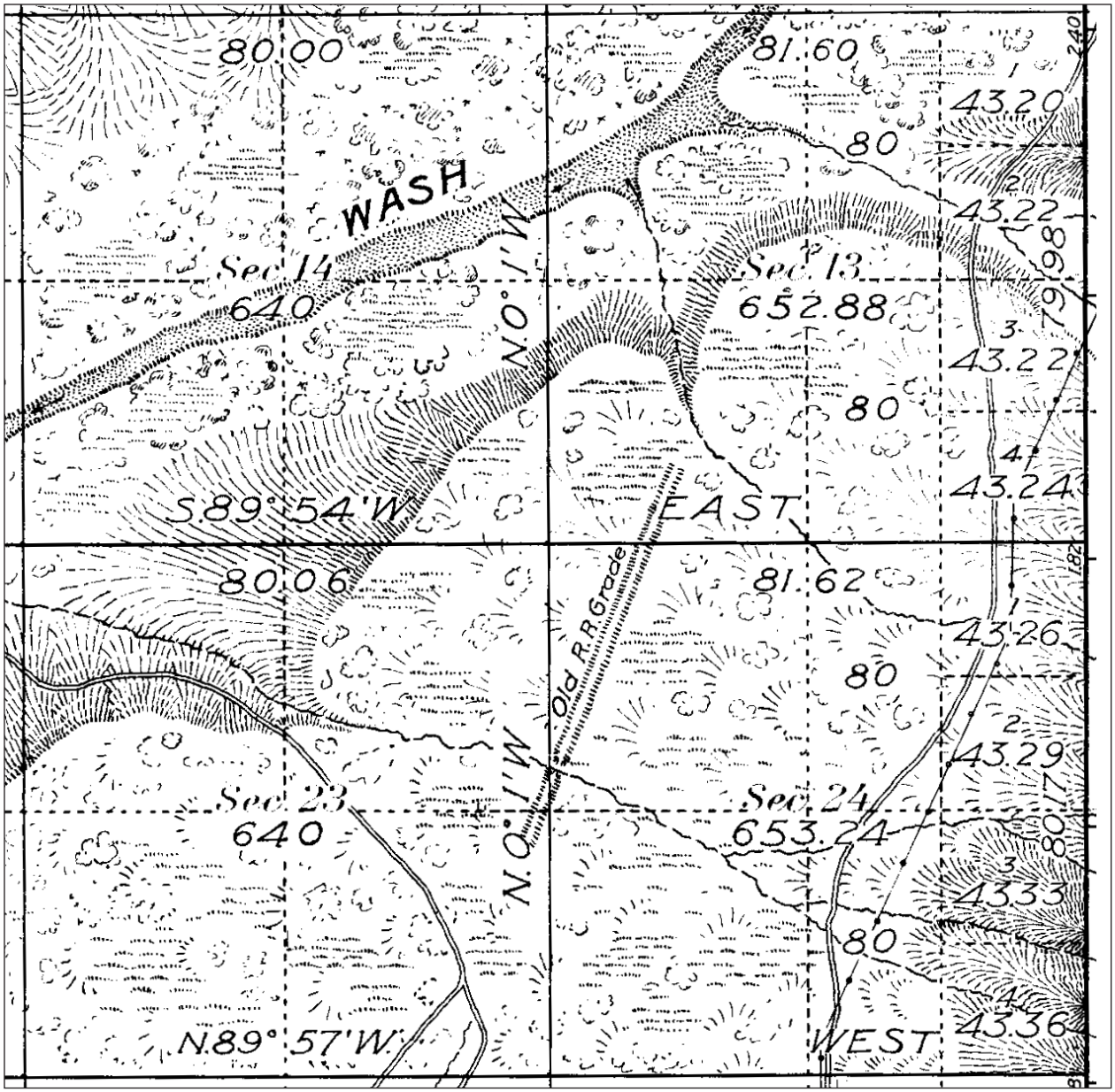

Figure 18. Detail from the 1913 plat of Township 12 South, Range 13 East (GLO 1913), showing a remnant of the never-completed Tucson, Globe, and Northern Railroad.

Early Residential Development in Oro Valley

Although much of Oro Valley's growth came after the town was incorporated in 1974, interest in the residential development of the area actually began well before World War II. The most obvious indication of this early interest is the range of years that plats were originally filed with Pima County for the subdivisions that are now within the Town of Oro Valley. Table 8 lists the 19 subdivisions with original plats approved before 1974. (As the names indicate, several of the 19 subdivisions are later phases of an originally smaller subdivision.) The fact that two plats date to before 1945, and the earliest plat dates to 1930, attests to the early development ambitions

Table 8. Oro Valley subdivisions platted before 1974, by plat year

Subdivision	Plat Year	Total No. of Houses	Earliest House	No. of Pre-1965 Houses	% Pre-1965 Houses	No. of Pre-1974 Houses
Suffolk Hills (1–44 . . .)	1958	44	1957	32	72.70%	40
Suffolk Hills (45–107)	1958	63	1958	45	71.40%	58
Shadow Mountain Estates	1959	151	1958	77	51.00%	138
Suffolk Hills (109–113 . . .)	1959	58	1960	29	50.00%	46
Campo Bello	1946	25	1948	9	36.00%	12
The Highlands (1–357)	1960	3	1961	1	33.30%	2
Suffolk Hills (108, 114–125 . . .)	1960	25	1962	7	28.00%	23
Oro Valley Estates	1959	216	1955	32	14.80%	92
Shadow Mountain Estates–East	1960	57	1962	8	14.00%	35
Fairhaven Village (Map 14, Plat 59)	1960	26	1958	3	11.50%	22
Linda Vista Citrus Tracts No. 2	1937	44	1951	5	11.40%	8
Linda Vista Citrus Tracts	1930	14	1971	0	0.00%	1
Fairhaven Village (Map 13, Plat 24)	1958	13	1969	0	0.00%	12
Sunnyslope (3–59)	1965	43	1973	0	0.00%	5
Lomas De Oro (1–21)	1967	20	1970	0	0.00%	5
Rancho Verde (171–218)	1971	49	1971	0	0.00%	43
Rancho Verde (87–170)	1971	81	1971	0	0.00%	65
Rancho Catalina (107–221)	1972	115	1973	0	0.00%	93
Rancho Catalina (1–106)	1972	104	1972	0	0.00%	89

of private landowners in the Oro Valley area, even at a time when the economic circumstances of most people made the successful development of a still relatively remote part of suburban Tucson a long shot. Not surprisingly, the year the first house was built in any one of these 19 subdivisions was usually much later than the year of the plat, and in no subdivision was the first house actually built before 1945.

In the first 20 years after the war, 1945–1964, construction within the platted subdivisions was limited largely to a handful of subdivisions: Oro Valley Estates, Shadow Mountain Estates, Campo Bello, and Suffolk Hills (first two phases). With the exception of Suffolk Hills, these subdivisions would form the core of the area incorporated as the Town of Oro Valley in 1974. The new town also included Linda Vista Citrus Tracts, which was essentially undeveloped at the time despite its early plat date.

As related in interesting detail by Zipf (1989–1990), Oro Valley Estates was part of an ambitious development project conceived in 1958 by Louis F. Landon, a Chicago businessman and avid golfer who had wintered in Tucson for many years. Landon was convinced that the Tucson area could support another golf course—there were just three at the time—so he assembled a group of investors in Chicago and began shopping for a suitable building site. In a deal that reflects the enduring influence of George Pusch on the area, Landon contacted Hank Lieber, a former professional baseball player and University of Arizona athlete who had a real estate office in downtown Tucson's Pioneer Hotel. The Pioneer was owned at the time by Lieber's father-in-law, Jack (John) Procter, the man who had bought the Steam Pump Ranch from the Pusch estate. Lieber and Landon were interested in land along the south bank of the Cañada del Oro, an area that was then a part of the Cañada del Oro Ranch, just down the wash from Procter's property. The Cañada del Oro Ranch was owned by Francis Rooney, president of the Manhattan Construction Company (of Oklahoma) and managed by George Pusch, the son of the original owner of the Steam Pump Ranch.

Unfortunately for Landon, Rooney sold the desired portion of the Cañada del Oro Ranch to another investor, Joseph Timan, before Landon could make an offer. Timan went on to found the enormously successful Horizon Land Company, which was later involved in large land deals in several other states. Undaunted, Landon soon persuaded Timan to sell 375 acres of the Cañada del Oro property to Landon's newly created corporation, Oro Valley, Inc. The sale was made official on May 14, 1958, with Landon required as part of the deal to build a golf course. Later that year, Timan and Landon announced plans to build an elaborate resort on the Cañada del Oro property, with a vast artificial lake, luxury hotels, health spas, swimming pools, tennis courts, and other amenities. Most parts of the plan never materialized, but Landon did build his golf course, designed by the noted golf-course architect Robert Bruce Harris; it opened in February 1959. In October of the same year, Landon and a few others incorporated the Oro Valley Country Club, which has operated the golf course ever since. Landon also developed Oro Valley Estates on the land surrounding the golf course, and Timan developed The Highlands, a mobile home park on the other side of the wash from the golf course. Timan also built a large apartment complex on Greenock Drive at the Oracle Road entrance to Oro Valley Estates. According to a longtime Oro Valley resident, the apartments were completed before construction in Oro Valley Estates had gotten far and were initially rented to people waiting for their houses to be completed (Lois Nagy, personal communication 2009).

Landon's use of the name Oro Valley both for his development company and his subdivision project seems to have been the earliest use of the name later adopted by the Town of Oro Valley. Although incorporation of the town did not take place until 1974, the idea of incorporation dated to at least as early as 1968, just 10 years after Landon acquired the land to build his golf course and subdivision. According to Marjorie Kriegh (OVHS 2009e), the original impetus for incorporation was the mayor of Tucson's strongly expressed desire to extend Tucson's corporate limits to include all such outlying developments. Many of the residents in Oro Valley Estates and the immediately adjacent subdivisions felt strongly that the area should not be absorbed by Tucson and began organizing to incorporate their own town, which they planned to call Palo Verde. State laws on incorporation, written primarily to protect large municipalities from the adjacent proliferation of small municipalities, allowed for incorporation of areas located at least six miles from an existing corporate boundary and having a minimum of 500 like-minded inhabitants. It took six years and a protracted court battle—finally resolved in the Arizona Supreme Court—but the Town of Oro Valley, encompassing about 2.5 square miles and holding just 800 residents was officially incorporated on April 15, 1974. (The town's birthday is celebrated today on April 17, the day in 1974 when the first mayor and town council were appointed). The new town included parts of the early subdivisions of Campo Bello, Linda Vista Citrus Tracts, Shadow Mountain Estates, and Shadow Mountain Estates East, and all of Oro Valley Estates. The switch from Palo Verde to Oro Valley for the name of the town was made to encourage the residents of a key component of the new town, Oro Valley Estates, to support incorporation.

Organization of the incorporation effort was taken on by two presidents of local homeowner associations, Jim Kriegh of Shadow Mountain Estates, and Steve Engle of Oro Valley Estates. Kriegh, who died in 2007, was a native of Kansas and a retired professor of civil engineering at the University of Arizona. He was long interested in the history of the Oro Valley area and was later a co-founder the Oro Valley Historical Society (in 2005). Because of his efforts in pursuing incorporation, he is considered by many town residents to be the founding father of Oro Valley. In 1995, when the Town of Oro Valley assumed ownership of Dennis Weaver Park from Pima County, it renamed it James D. Kriegh Park. The park is located just west of Oracle Road, on the north side of Calle Concordia and adjacent on the east to Canyon del Oro High School. Jim Kriegh and his family lived just across the street from the park in Shadow Mountain Estates (Sottosanti 2007).

Citrus Groves in the Study Area

The names of some of the earliest subdivisions in the Oro Valley area include references to citrus—for example, Linda Vista Citrus Tracts, Catalina Citrus Estates—as do the names of some of the major streets in the study area—for example, Tangerine Road and Naranja Drive (*naranja* is Spanish for orange). We have not been able to investigate the history of citrus farming in the study area in any detail, but all of these names probably relate to an interest on the part of early landowners to promote the area as a suitable location for small-scale citrus farming, in response to the successful development of citrus groves just south of the study area in the 1920s and 1930s. Linda Vista Citrus Tracts, originally platted in 1930, did not see residential development until decades later, but the land apparently had a citrus orchard of some size by the 1950s, as can

be seen on the 1957 USGS 15-minute Mount Lemmon topographic quadrangle (see Figure 13 and the Early Map Research section above).

As surveyed by Parkhurst (2000:2–8), citrus farming in the area northwest of Tucson began in the late 1920s, had a period of relative success after World War II and into the 1950s, then declined steadily until its virtual disappearance in the 1970s. The largest citrus operation in the area, and the only one to have substantial commercial success, was Reid Farms (also known as Reid's Citrus Gardens, then Rancho Palos Verdes) which included about 1,500 acres in the area bounded by Orange Grove Road on the south, Ina Road on the north, Oracle Road on the east, and La Cholla Road on the west. The owner, Maurice Reid, defied the many skeptics who considered the Tucson area too prone to winter frost to allow for successful citrus farming. He learned through his own study of temperature patterns that certain areas north of the Rillito River and west of the Santa Catalina foothills constituted a "thermal belt" where higher areas were protected from frost by the drainage of cold air through adjacent lower areas.

Reid sold off his citrus farms in the 1950s, prompted by the lowering of the water table, which made pumping irrigation water for citrus trees too expensive, and by the expansion of suburban Tucson, which was quickly making land more valuable for housing than for farming. But Reid's demonstration that citrus could be raised successfully in the foothills north of Tucson led to an interest in the "gentleman's orchard estate," or the establishment of small citrus groves by individuals who were interested as much in having a rural lifestyle as in the actual commercial viability of citrus. "Citrus farming," Parkhurst (2000:5) writes, "was considered to be an occupation which combined the aesthetic and practical values of life." As early as 1935, Reid had begun to supplement his citrus business with a second career as a real estate developer, selling small orchard estates and promoting them with large advertisements in the *Arizona Daily Star* (see especially Bowen 1935 and the advertisement following the article).

In the Oro Valley study area, the platting and development of subdivisions with names like Linda Vista Citrus Tracts were apparently related to the success of Reid (and perhaps others) in promoting these small-scale orchard estates and not to the presence of large-scale citrus farms. Aerial photographs from 1945 and ca. 1953 included by Parkhurst (2000; she reproduces photographs by Gene Magee published by Glinski 1995:58, 60) show the area of Reid's citrus operation in the Oracle–Orange Grove area, with a good view of the southern portion of the Oro Valley study area just to the north. In contrast to the large rectangle of irrigated orchards belonging to Reid, the area to the north has only a few small areas of irrigated growth that probably represent small orchards, including what is probably a part of Linda Vista Citrus Tracts.

Rancho Romero and Catalina State Park

A few years before the Town of Oro Valley was incorporated, the proposed development of a large area along the western foot of the Santa Catalina Mountains came close to radically changing the appearance of the east side of the Oro Valley study area. Price (2004:103–108) has traced the history of Rancho Romero, a planned community of 17,000 residents, that was almost built on the land between Oracle Road and the Coronado National Forest, land that instead became Catalina State Park.

Rancho Romero was conceived by the developer John Ratliff, perhaps better known today as the developer of Rancho Vistoso. Ratliff named his earlier project after the historic ranch of the Romero family, discussed earlier in this chapter. By 1972, the project had caught the attention of a diverse group of environmental organizations in the Tucson area, all of whom viewed the proposed development as an unacceptable use of a pristine tract of the Santa Catalina foothills. Through the efforts of these organizations and a series of umbrella organizations, enough public outcry was raised against Rancho Romero to convince the Pima County Board of Supervisors to vote against approval of the project in September 1973. The subsequent effort to preserve the undeveloped land eventually led to the establishment of Catalina State Park, but it involved a long and complicated process of acquiring land for the state from numerous landholders by purchase or exchange. It was only in 1981 that the full, 5,500-acre park parcel became state trust lands, and it was not until 1983 that Catalina State Park finally opened.

In the beginning, Arizona State Parks leased the land for Catalina State Park from the Arizona State Land Department, but as land values quickly rose in the surrounding area, the land department was required by law to raise its lease rate. By 1987, the rate was beyond what Arizona State Parks could pay, which threatened the existence of the park. The park was rescued when the land it occupied became part of the Coronado National Forest through the Santa Rita Land Exchange Project, which involved a complicated exchange of federal lands for state lands at several locations around Arizona. In 1991, most of Catalina State Park became the property of the U. S. Forest Service, which remains the owner today (except for 19 acres still owned by Arizona State Parks). The park is leased from the Forest Service by Arizona State Parks at a much lower rate than would have been possible if the park had remained with the Arizona State Land Department.

CHAPTER 5

HISTORIC ARCHITECTURE IN THE STUDY AREA

An important goal of the Oro Valley cultural resources inventory has been to gather basic information about the extent and nature of potentially historic architecture in the study area. As discussed in Chapter 4, residential development in the Oro Valley area did not begin until after World War II, and the first subdivisions, though originally platted as early as the 1930s, did not see the construction of significant numbers of houses until the late 1950s. Even so, the study area holds at least two important examples of residential architecture built before the war, and several of the earliest subdivisions in Oro Valley are now of an age to merit consideration as historic districts (Figure 19). The following paragraphs describe the two notable architect-designed residences in the study area and summarize the results of our initial survey of early residential subdivisions.

Countess of Suffolk Forest Lodge

In 1935, Margaret Howard, a wealthy American also known as the Countess of Suffolk because of her marriage to the Earl of Suffolk (the Englishman Henry Molyneaux Paget Howard), came to Tucson to establish a winter residence. She was a widow by that year, her husband having died in combat years earlier in World War I. The Countess hired noted Tucson architect Richard A. Morse to design a house for a property she had bought in the foothills of the Santa Catalina Mountains north of Tucson. The result was the spacious and distinctive Forest Lodge, a pure example of the Modern style (Figure 20; and see Figure 19).

The Forest Lodge, 410 East Magee Road, is today a part of the Suffolk Hills subdivision, which occupies the southeasternmost corner of the Town of Oro Valley. The house, mostly unchanged from its original construction, is owned by the Sisters of the Immaculate Heart of Mary, a religious order of the Roman Catholic Church (Figure 21). The order operates Immaculate Heart Academy and Immaculate Heart High School on the former property of the Forest Lodge and uses the house itself as a residence for the members of the order. The house is well maintained and the residents recognize its importance as a historic architectural property.

The spare, uncluttered Modern (or International) style exemplified by the Forest Lodge was popular in the upscale residential architecture of Los Angeles and a few Eastern cities in the 1930s, but it was unusual for Tucson. Not long after it was built, the house appeared in a number of architectural publications as a notable example of the Modern style. James Ford and Katherine Morrow Ford included it in *The Modern House in America* (1940), a compendium of residential architecture in the Modern style in the United States (Ford and Ford 1989:80–81). The Fords included in their book floor plans and three photographs of the Forest Lodge, along with a brief description of its construction and fixtures. The spacious, two-story house included multiple servant quarters and expensive materials like travertine floors, but it also had the pronounced austerity of its style: “Trim as far as possible has been eliminated and all built-in fittings, such

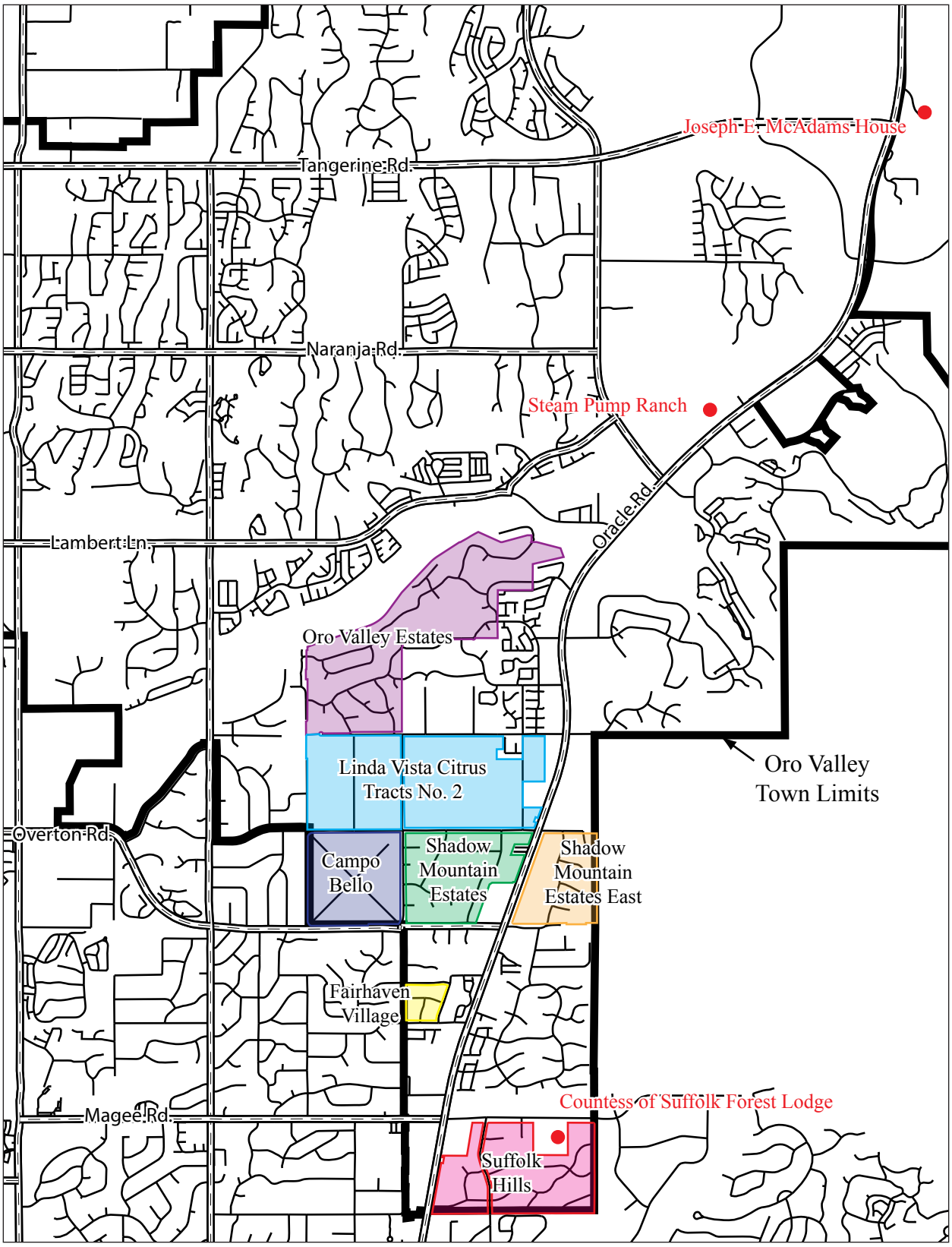

Figure 19. Locations of the seven pre-1974 subdivisions surveyed for the inventory, and the locations of the Countess of Suffolk Forest Lodge and the Joseph E. McAdams house.

Figure 20. Recent aerial view (2006) of the Forest Lodge, occupied today by the Sisters of the Immaculate Heart of Mary. Photograph courtesy of Pima County MapGuide.

Figure 21. The Forest Lodge today, part of the north façade, view to the south-southwest.

as cabinets, bookcases, and window seats are of plain design" (Ford and Ford 1989:81). Some local residents failed to appreciate these aesthetic virtues. An interior decorator familiar with the house thought it looked like "an institution or a hospital" (Needham n.d.:2).

Richard Morse, educated at Harvard University and a native of Massachusetts, came to Tucson in 1932. He established his own architectural firm and worked with success in a variety of styles in the course of a long career. He and one of his Tucson protégés, Arthur T. Brown, who became successful in his own right, designed another residence in the Modern style for a Tucson client, built in 1939 near the University of Arizona. Morse was the first president of the Arizona chapter of the American Institute of Architects, serving in 1941–1942. He died in 1982 at 84 years of age (Brown 1982; Ford and Ford 1989:82). The Arizona Architectural Archives at the University of Arizona holds the complete set of Morse's architectural drawings for the Forest lodge, which are in excellent condition, if fragile. The plans show that the original Forest Lodge grounds were much larger than the property that survives. Morse drew plans for the grounds, including an elevation drawing of the gate, which had the words "Forest" and "Lodge" prominent at either side.

In 1957, the Countess decided to relocate farther from the growing Tucson metropolitan area and had a new house built near Oracle; the house is now part of the University of Arizona's Biosphere II. She sold the Forest Lodge residence and associated buildings to the Catholic Church, which established Immaculate Heart Academy on the property in 1962. The Sisters of the Immaculate Heart of Mary have operated the school ever since. The land around the Forest Lodge was sold to a developer who platted the Suffolk Hills subdivision, named for the Countess, in 1958. Suffolk Hills is one of the earliest subdivisions in Oro Valley and is discussed below.

Joseph E. McAdams House

In 1940, noted Tucson architect Josias Joesler was hired by Joseph E. McAdams of Springfield, Ohio, to design a residence for a parcel McAdams owned just east of Oracle Road, near what is now its intersection with Tangerine Road (Figure 22; and see Figure 19). The house was built the same year by Tucson builder John Murphey, whose company was responsible for several notable residential developments in the Tucson area, including Catalina Foothill Estates. Joesler, born in Switzerland and educated in Europe, had come to Tucson in 1926, teaming with Murphey for the next 30 years and designing a wide range of distinctive residences for Murphey's affluent clients, as well as other buildings (Nequette and Jeffery 2002:258–259).

The McAdams residence is Contemporary Ranch in style and has a separate garage and guest house in the same style, also designed by Joesler. The three buildings occupy the top of a hill and are surrounded by a mostly natural desert landscape. Joesler's complete drawings for the house, on file at the Arizona Architectural Archives at the University of Arizona, show the main house with adobe brick construction, a clay tile roof, and a C-shaped floor plan around an open courtyard (Figure 23). As Joesler-designed residences go, the McAdams house is a modest example, but it retains most of its original materials and exterior appearance, and the desert setting is still much as it was when the house was built. The project architects visited the property during the initial survey but were unable to access the main house.

Figure 22. Recent aerial view (2006) of the Joseph E. McAdams house. Photograph courtesy of Pima County MapGuide.

When the hill where the McAdams house stands was prepared for construction in 1940, the grading unexpectedly exposed a substantial Hohokam archaeological site, including pottery, grinding stones, a human burial, and other features, including possible pit houses. The Murphey-Joesler files at the University of Arizona indicate that, to Murphey's credit, he stopped the grading immediately and contacted the Arizona State Museum. The museum director visited the site and documented the site. McAdams, still in Ohio while the house was being built, was fascinated by the discovery. Murphey assured him that no one else would be allowed to disturb the site. In 1997, an archaeological survey of the area around the McAdams house recorded the house as part of an archaeological site, AZ BB:9:320 (ASM), making reference to the inadvertent 1940 discovery (Jeffery 1997; Lorentzen et al. 1997).

Today the McAdams house is part of a 120-acre parcel known as Kelly Ranch, which borders Catalina State Park at the eastern limits of the town. In 2004, a county bond election approved $2.5 million to be used by the Town of Oro Valley to buy the Kelly Ranch property, but just recently the Town Council approved an alternative use of the bond money, to buy the land needed to create a wildlife crossing of Oracle Road. The purpose of the proposed crossing, which is part of the Arroyo Grande planning effort, is to preserve an ecological connection between the Tortolita Mountains and the Coronado National Forest via Catalina State Park. The Kelly Ranch property, which also includes many archaeological sites, remains in private ownership, but many Oro Valley residents believe its acquisition by the town is still an important goal in preserving the ecology and heritage of the area between Oracle Road and Catalina State Park (Medrano 2009).

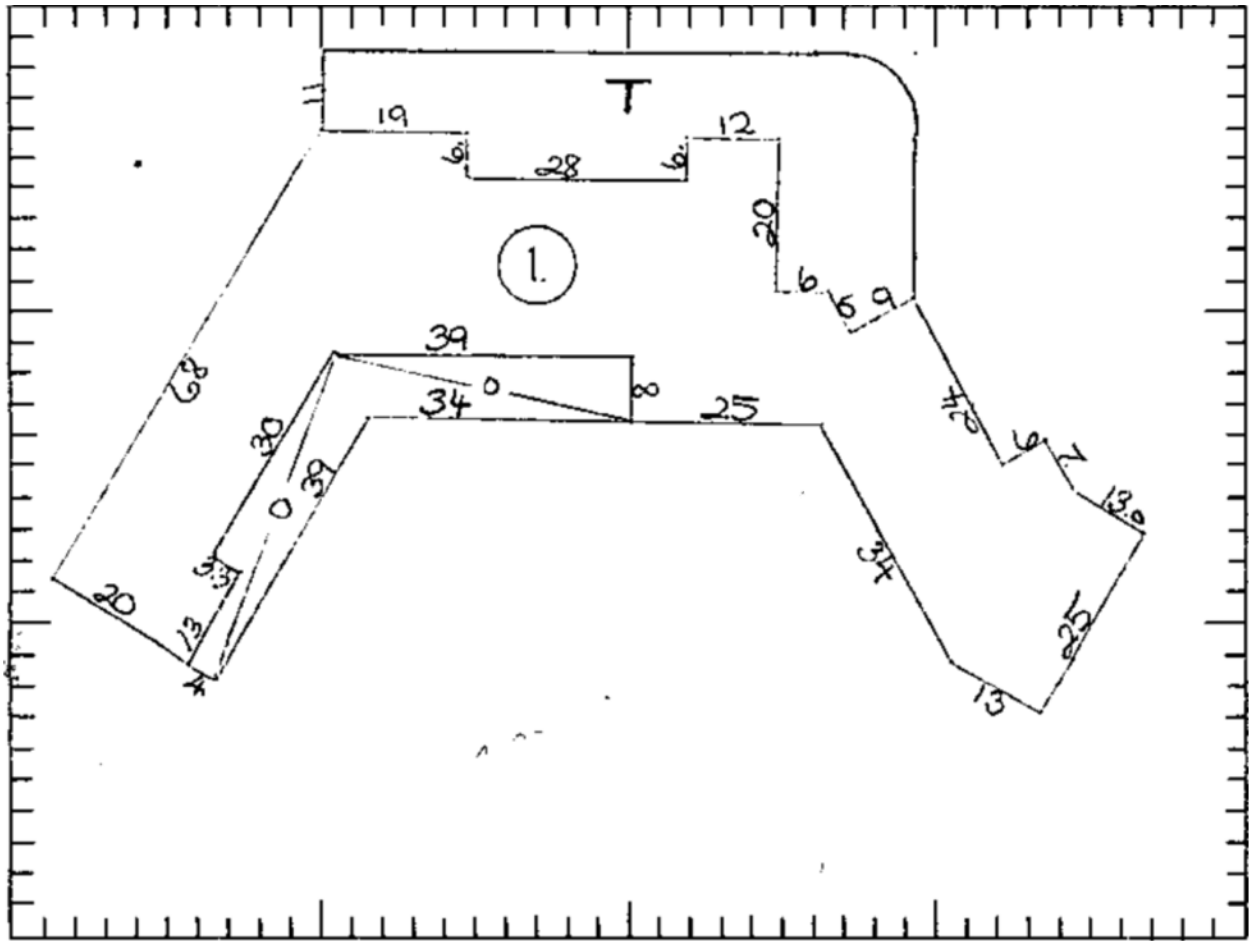

Figure 23. Sketch of the floor plan of the McAdams house, from the Pima County Assessor property card.

Other Individual Buildings of Note in the Study Area

In their guide to the notable architecture of Tucson and the surrounding area, Nequette and Jeffery (2002:234–235) mention three other buildings that fall within the Oro Valley study area. Two of the buildings are part of the 49-acre Tohono Chul Park, a botanical garden and interpretive center located just northwest of the intersection of Ina and Oracle Roads. The earliest of the two buildings at Tohono Chul is the Exhibit House, designed by Paul Holton and built in 1937 using heavy adobe blocks made on site. Originally in the Sonoran style, the Exhibit House was remodeled in 1984 but retains much of its historic character. The second building is the Tea Room, designed by Lewis Hall and built in 1963 as the residence of the property owner. The Tea Room is of burnt adobe block with exposed wooden rafters and distinctive ceramic tile accents.

The third building noted by Nequette and Jeffery is St. Andrew's Presbyterian Church, located at 750 West Chapala Drive, just south of Magee Road and west of Oracle Road. Built in 1962, the church was designed by Ned Nelson with a large A-frame roof supported by laminate wooden beams. Nequette and Jeffery point especially to the "commendable" interrelationship of the building and its site, which includes multiple-level seating, intimate courtyards, and a stone base for the church itself.

Pre-1974 Subdivisions in the Town of Oro Valley

As part of the Cultural Resources Inventory, the historic architects on the WSA team made an initial survey (sometimes called a "windshield survey") of selected residential architecture in Oro Valley. The purpose of the survey was to identify buildings and neighborhoods with potential historic or architectural significance and to provide preliminary descriptions of these resources. The results of the survey will serve as the basis for later decisions about which buildings or neighborhoods are most suitable for detailed study and documentation.

The selection of residential neighborhoods for the initial survey was based on our research into the history of development in the Oro Valley area. Of particular use were the dates of subdivision plats and house construction that we gathered from the records of the Pima County Assessor. The tables below summarize this information, organized with reference to two years: 1965 and 1974. The usual age threshold for historic resources, following the guidelines of the National Register of Historic Places, is 50 years. In other words, a historic property—whether a building, a neighborhood, an archaeological site, or another resource—is generally not eligible for listing on the National Register until it is at least 50 years old. However, the Arizona State Historic Preservation Office (SHPO) usually places the age threshold at 45 years for architectural properties, including residential neighborhoods, to help ensure that properties close to the age threshold are not excluded from consideration. The SHPO also generally requires that at least 50 percent of the houses in a neighborhood be at least 45 years old for the neighborhood to qualify as a historic district.

Our initial survey focused on neighborhoods that have at least some houses built 45 years ago, or before 1965. We were less concerned about the percentage of pre-1965 houses, because other factors, such as exceptional design, can outweigh the 50 percent rule. In addition to pre-1965 houses, we also wanted a sense of how many neighborhoods had a significant number of houses built before 1974, the year the Town of Oro Valley was incorporated. This would give us an idea of the character of the town at the time of incorporation and also show us which of the neighborhoods with only a limited number of pre-1965 houses would soon be increasing that number. In other words, the number of pre-1974 houses in a neighborhood is a hint of the historic preservation issues that the town may face over the next decade.

Nineteen subdivisions in the Town of Oro Valley were platted before 1974, with the earliest plat filed in 1930 (see Table 8). All of these subdivisions are located in the southern portion of the town, in or near the original limits of incorporation. Note that in a few cases a considerable gap came between the platting of the subdivision and the actual construction of the first house. All 19 subdivisions have at least one house built before 1974, but only 11 subdivisions have houses built before 1965. In terms of percentages of pre-1965 houses, only three subdivisions exceed 50 percent, but there are enough pre-1974 houses in the other eight to push them over the 50 percent mark in the next decade (Table 9).

Discounting the pre-1974 subdivisions without pre-1965 houses, and combining the multiple phases of the Suffolk Hills and Fairhaven Village developments, we narrowed our list of neighborhoods for the initial survey to just seven (Table 10). These seven neighborhoods have

Table 9. Oro Valley subdivisions platted before 1974, by pre-1965 percentage

Subdivision	Plat Year	Total No. of Houses	Earliest House	No. of Pre-1965 Houses	% Pre-1965 Houses	No. of Pre-1974 Houses
Linda Vista Citrus Tracts	1930	14	1971	0	0.00%	1
Linda Vista Citrus Tracts No. 2	1937	44	1951	5	11.40%	8
Campo Bello	1946	25	1948	9	36.00%	12
Fairhaven Village (Map 13, Plat 24)	1958	13	1969	0	0.00%	12
Suffolk Hills (1–44 . . .)	1958	44	1957	32	72.70%	40
Suffolk Hills (45–107)	1958	63	1958	45	71.40%	58
Oro Valley Estates	1959	216	1955	32	14.80%	92
Shadow Mountain Estates	1959	151	1958	77	51.00%	138
Suffolk Hills (109–113 . . .)	1959	58	1960	29	50.00%	46
Fairhaven Village (Map 14, Plat 59)	1960	26	1958	3	11.50%	22
Shadow Mountain Estates–East	1960	57	1962	8	14.00%	35
Suffolk Hills (108, 114–125 . . .)	1960	25	1962	7	28.00%	23
The Highlands (1–357)	1960	3	1961	1	33.30%	2
Sunnyslope (3–59)	1965	43	1973	0	0.00%	5
Lomas De Oro (1–21)	1967	20	1970	0	0.00%	5
Rancho Verde (171–218)	1971	49	1971	0	0.00%	43
Rancho Verde (87–170)	1971	81	1971	0	0.00%	65
Rancho Catalina (107–221)	1972	115	1973	0	0.00%	93
Rancho Catalina (1–106)	1972	104	1972	0	0.00%	89

Table 10. Oro Valley subdivisions in the initial survey

Name	Plat Year	Total No. of Houses	Earliest House	No. of Pre-1965 Houses	% Pre-1965 Houses	No. of Pre-1974 Houses
Suffolk Hills (all phases)	1958–1960	190	1957	113	59.50%	167
Shadow Mountain Estates	1959	151	1958	77	51.00%	138
Campo Bello	1946	25	1948	9	36.00%	12
Oro Valley Estates	1959	216	1955	32	14.80%	92
Shadow Mountain Estates–East	1960	57	1962	8	14.00%	35
Linda Vista Citrus Tracts No. 2	1937	44	1951	5	11.40%	8
Fairhaven Village (both phases)	1958–1960	39	1958	3	7.70%	34

Note: Subdivisions in bold have the most potential as historic districts.

been the focus of the initial survey by the project architects (see Figure 19). The following paragraphs summarize the results of the initial survey in each of the seven neighborhoods. The brief survey forms completed for the seven neighborhoods during the survey are provided in Appendix D.

Campo Bello

Campo Bello was one of the earliest subdivisions to be platted and developed in Oro Valley. The original plat was filed just after World War II by the owners, Toney and Mabel Hardy, for a 160-acre tract that was formerly part of a homestead patented by Wylie Rudasill in 1935 (Figure 24). Campo Bello is notable for its distinctive radial street plan, which is similar to Beaux Arts–inspired street plans known elsewhere before the war, most notably at El Encanto Estates in Tucson, platted in 1928. The radial plan derives ultimately from the Renaissance and Baroque periods in Europe (Ames and McClelland 2002:41).

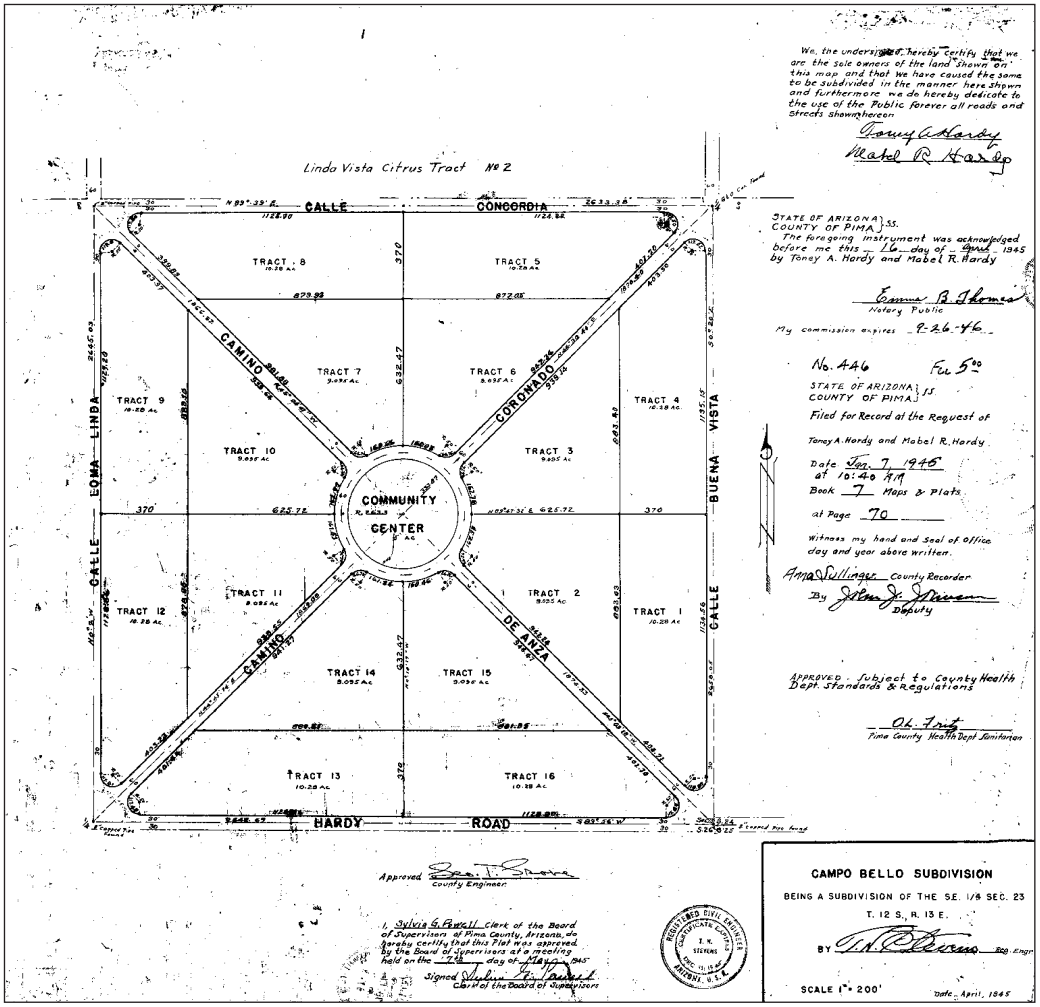

Figure 24. Original subdivision plat of the proposed Campo Bello subdivision, filed in 1946. City of Tucson, Department of Transportation, Maps and Records.

Campo Bello was platted early but developed only gradually. Of the 25 houses that currently stand in the Campo Bello neighborhood, the earliest was built in 1948 and only 12 were built before 1965. The large early lots of the original plat, ranging from 9.1 to 10.3 acres, were later subdivided, but today all of the lots are still relatively large, the smallest around 3.3 acres. The 5-acre circular area at the center of the street plan was originally reserved for a community center, but nothing was ever built on the parcel (Figure 25). The diagonal streets of the symmetrical street plan have never been paved.

Figure 25. Recent aerial view (2008) of the Campo Bello subdivision. Photograph courtesy of Pima County MapGuide.

The spacious lots, low-density housing, unpaved streets, and large number of properties having horse facilities give Campo Bello a notably open, rural feel (Figure 26). The view of the Santa Catalina Mountains is uniformly spectacular (Figure 27). Native vegetation is the rule, primarily prickly pear and cholla, with occasional trees. Most properties have some type of perimeter fence or wall.

Although the architecture of Campo Bello is of limited historic interest in itself, with only 36 percent of its houses meeting the 45-year age threshold, the neighborhood does have potential as a historic district because it preserves its distinctive subdivision design. The north half of Campo Bello formed part of the original Town of Oro Valley when the town was incorporated in 1974; the south half became part of the town in 1984.

Figure 26. Sonoran Revival–style residence built in 1963 in the Campo Bello neighborhood (2009).

Figure 27. Streetscape in the Campo Bello neighborhood, view to the east toward Pusch Ridge (2009).

As discussed in Chapter 4, the development of Oro Valley Estates is linked closely with the history of the Town of Oro Valley. Platted in 1959, Oro Valley Estates is located just west of Oracle Road on the south bank of the Cañada del Oro, an area that was formerly part of the Cañada del Oro Ranch. It is an early example of a residential community planned around a professionally designed golf course, with the greens and fairways of the course flanked by small, curvilinear residential clusters (Figures 28 and 29). The design reflects considerable terrain modification of the kind landscape architects call naturalistic constructivism. The neighborhood as a whole

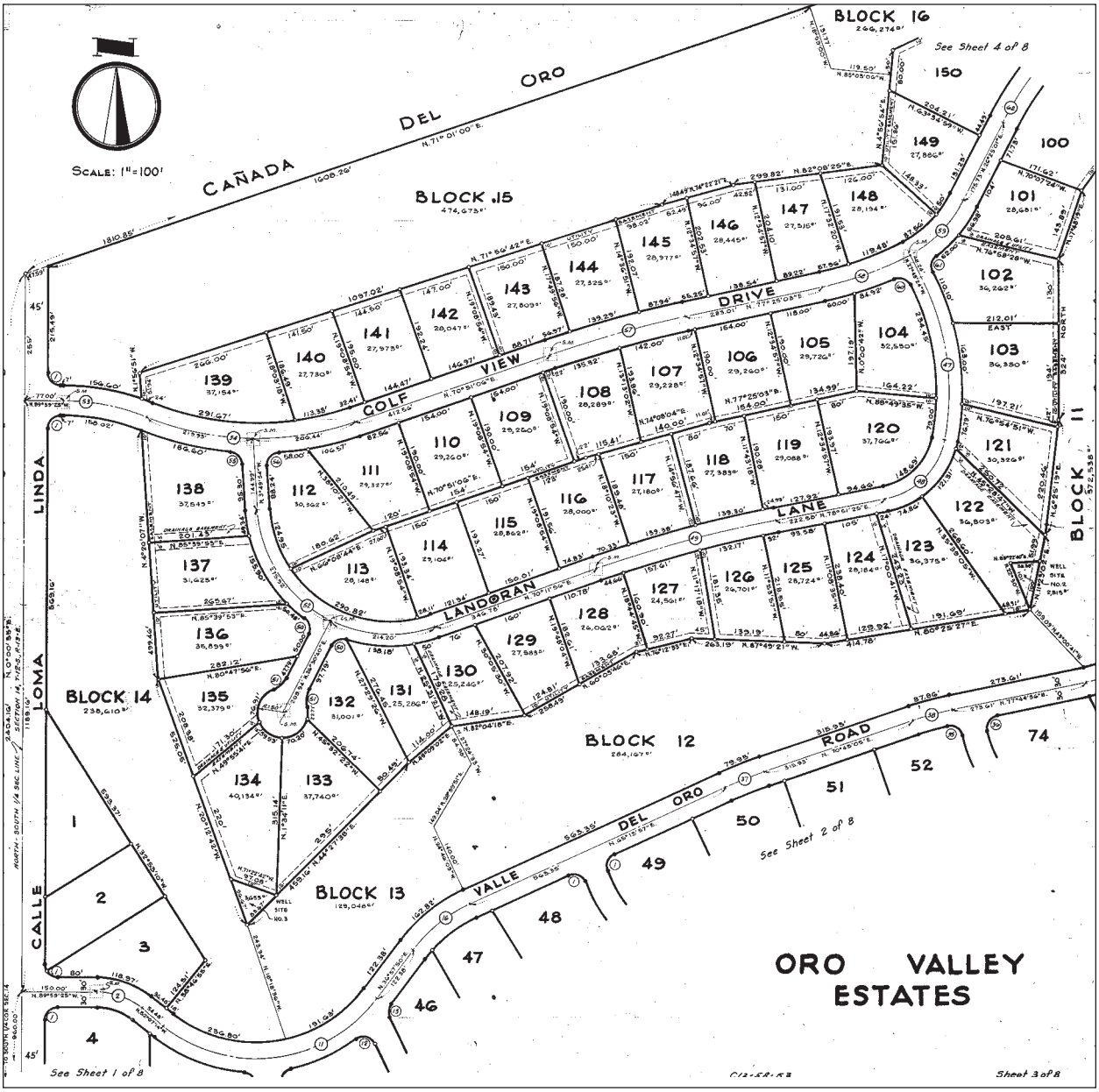

Figure 28. Original subdivision plat of a portion of the Oro Valley Estates subdivision, filed in 1958. City of Tucson, Department of Transportation, Maps and Records.

Figure 29. Recent aerial view (2008) of a portion of the Oro Valley Estates subdivision. Photograph courtesy of Pima County MapGuide.

has spectacular views of the Santa Catalina Mountains to the east, and the golf course offers extensive, grass-turf vistas with occasional tree borders (Figure 30). The residential clusters are of well-designed houses, most in the Modern style, carefully sited on large, irregularly shaped lots with open front yards (Figure 31). Residential landscaping is sparse, consisting mostly of desert species planted on gravel or scraped earth. The openness of the subdivision, its superior design linking the residential areas with the golf course, and the proximity of the mountains give this neighborhood a distinctively tranquil feel.

Today Oro Valley Estates has a total of 216 houses, just 32 of which (14.8 percent) were built before 1965; another 60 were built before 1974. Despite the low number of early houses, Oro Valley Estates has some potential as a historic neighborhood because of the relatively early date of its design as a golf course community and the aesthetic layout of its streets and lots in relation to the course. Oro Valley Estates was one of the principal parts of the Town of Oro Valley at its incorporation in 1974.

Shadow Mountain Estates

Shadow Mountain Estates, located on the west side of Oracle Road between Hardy Road and Calle Concordia, was platted in 1959 on part of a large homestead patented by Walter D. Ackley in 1934. According to Marriott (2008:69–72), who has published several photographs of the original homestead kept by the Ackley family, Ackley was an optician who playfully named his homestead

Figure 30. Streetscape in Oro Valley Estates, view to the east toward Pusch Ridge (2009).

Figure 31. Modern–style residence built in 1959 in Oro Valley Estates (2009).

the Eye del Wild Ranch. The homestead also included a large acreage on the east side of Oracle Road (see Table 6), which included the area later subdivided for Shadow Mountain Estates–East and Suffolk Hills. The history of ownership of the Ackley homestead after the family sold the property has not been researched, but all of this area was the property of the Arizona Land, Title and Trust Company when the original plats for Shadow Mountain Estates, Shadow Mountain Estates–East, and Suffolk Hills were filed.

Shadow Mountain Estates has a postwar curvilinear subdivision plan, which is also true of three other early subdivisions in the survey—Shadow Mountain Estates–East, Suffolk Hills, and Fairhaven Village. This type of plan became the approved standard of the Federal Housing Administration (FHA) for sound neighborhood design after World War II. The type includes curvilinear interior roads, cul-de-sacs, and generously sized, irregularly shaped lots (Figure 32). Curvilinear plans

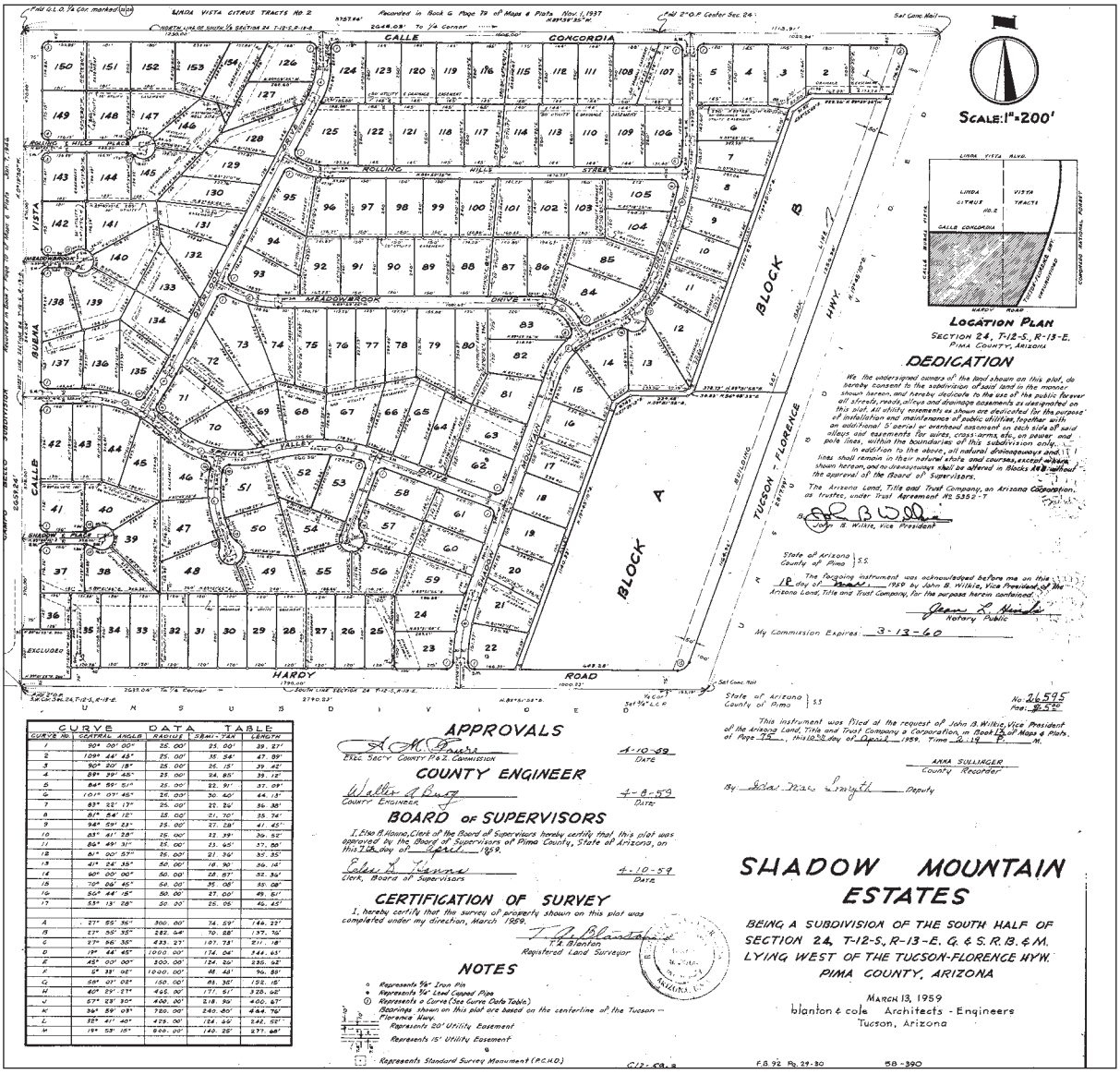

Figure 32. Original subdivision plat of the proposed Shadow Mountain Estates subdivision, filed in 1958. City of Tucson, Department of Transportation, Maps and Records.

were promoted heavily by the building industry in response to the strict standards required by FHA loans, and the many curvilinear subdivisions that sprang up across the United States in the postwar period, most filled with Ranch and Modern style houses, were the direct result of these standards. Curvilinear subdivision plans actually had their beginnings in the concepts of landscape architects of the late nineteenth and early twentieth centuries who sought an alternative to the conventional rigidity of the urban grid (Ames and McClelland 2002:48–51; also see Akros, Inc., et al. 2007).

Shadow Mountain Estates has a builder-designed subdivision plan that is largely intact. About 51 percent of the houses were built before 1965, and 138 of the 151 of the houses were built before 1974. The pre-1965 houses, many of which appear to be the work of a single builder, tend to be Ranch-style houses with wide frontal gables and lateral shed carports. Other houses are Modern or Eclectic in style (Figure 33). Many lots were scraped originally, but there has been some natural regrowth. Drives are circular or straight; some are unpaved, some have rock edging. The Santa Catalina Mountains are prominent in views to the east.

Shadow Mountain Estates has a subdivision plan that is average in quality and distinctiveness and would probably not qualify as a historically significant neighborhood based solely on the subdivision plan. However, the percentage of houses built before 1965 gives it some historic potential.

Figure 33. Ranch–style residence built in 1959 in Shadow Mountain Estates (2009).

As noted above, the Suffolk Hills subdivision takes its name from the Countess of Suffolk, whose distinctive Forest Lodge residence, built in 1937, now forms part of the Immaculate Heart Academy property, in the northeastern portion of the neighborhood. Although the Suffolk Hills subdivision was built in several phases based on plats from the years 1958–1960, it is a coherent whole and is best considered as a single development (Figure 34). The subdivision is located on the south side of Magee Road and the east side of Oracle Road, bounded on the east by First Avenue and on the south by the Town of Oro Valley boundary. Suffolk Hills has the most houses—190—of any of the seven early subdivisions in the survey.

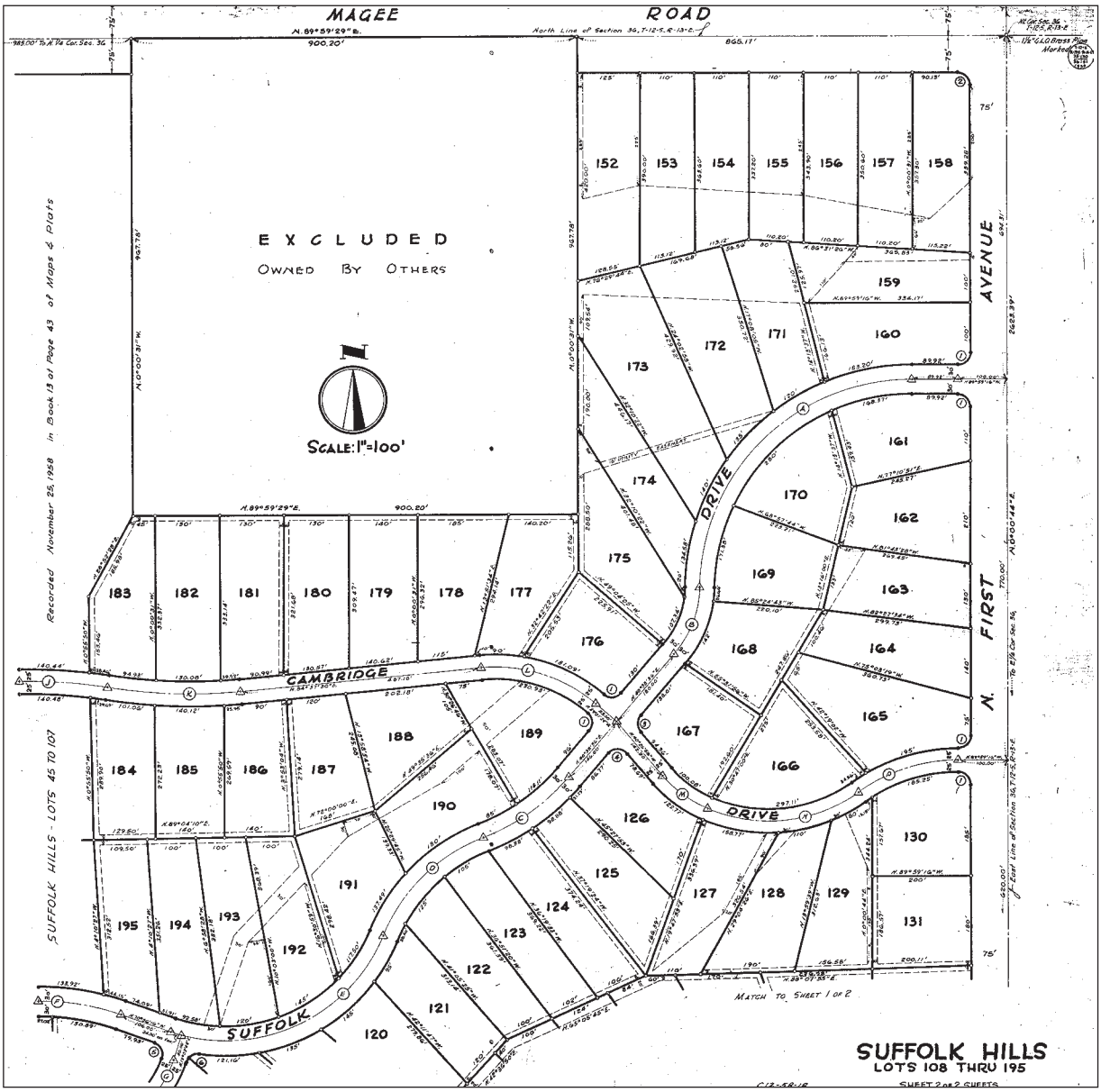

Figure 34. Original subdivision plat of a portion of the Suffolk Hills subdivision, filed in 1958. City of Tucson, Department of Transportation, Maps and Records.

Suffolk Hills is an excellent, visually pleasing example of a postwar curvilinear subdivision plan. True to its name, the subdivision is quite hilly, and the interior road system is adapted to the natural topography. Significant landscape features include an abundance of natural desert vegetation, added plantings along streets, and the generous use of native stone in retaining walls and edgings. About 60 percent of the houses in Suffolk Hills are of historic age; most are Modern or Ranch in style (Figure 35). Suffolk Hills has historic potential both for its distinctive, well-preserved design and its relatively high percentage of pre-1965 houses. The presence of the historic, essentially intact Forest Lodge residence is an added virtue.

Figure 35. Ranch–style residence built ca. 1960 in Suffolk Hills (2009).

Shadow Mountain Estates–East

An extension of the original Shadow Mountain Estates subdivision, Shadow Mountain Estates–East is located on the opposite side of Oracle Road, bounded on the north by Calle Concordia, on the south by Hardy Road, and on the east by the Coronado National Forest. Its increased proximity to the Santa Catalina Mountains gives it a distinctly different feel from its namesake west of Oracle Road. This area is steeply hilly, with excellent views of the looming mountains to the east (Figure 36).

Shadow Mountain Estates–East is postwar curvilinear in design, with a main north-south street (North Riviera Drive) from which three cul-de-sacs extend uphill to the east. Most lots are irregularly shaped and generously sized; many building sites are quite steep. The earliest

Figure 36. Streetscape in Shadow Mountain Estates–East, view to the east toward Pusch Ridge (2009).

houses are in the Ranch style; later houses are Neoeclectic (Figure 37). There is less consistency of style here than in other early subdivisions in the survey. Natural desert vegetation is the most common landscaping throughout the subdivision, either intact natural vegetation or enhanced with plantings; very little non-native vegetation is seen in the subdivision. Driveways are asphalt or gravel, semicircular where the terrain allows.

Despite its striking views and attractive setting, Shadow Mountain Estates–East currently has low potential as a historic district. Just 14 percent of the houses were built before 1965, house styles are inconsistent, and the subdivision design is average. Because 35 of the 57 houses in the subdivision were built before 1974, the historic potential of the subdivision should be reconsidered in another 10 years.

Linda Vista Citrus Tracts No. 2

Linda Vista Citrus Tracts No. 2 was platted in 1937 by the owners, Lue W. G. and Frieda A. Skinner, the same couple who had platted Linda Vista Citrus Tracts in 1930. Lue Skinner had patented the land covered by these plats as two separate GLO claims in 1926 and 1929 (see Table 6). Linda Vista Citrus Tracts No. 2 is bounded on the east by Oracle Road, on the west by Calle Loma Linda, on the south by Calle Concordia, and on the north by Linda Vista Boulevard. The smaller Linda Vista Citrus Tracts, located on the north side of Linda Vista Boulevard, was never fully developed

Figure 37. Ranch–style residence built ca. 1960 in Shadow Mountain Estates–East (2009).

and today holds just 14 houses, the earliest of which was built in 1971. Linda Vista Citrus Tracts No. 2 has 44 houses today, just five of which were built before 1965 and just seven before 1974.

Linda Vista Citrus Tracts No. 2 has a regular, rectilinear subdivision plan, originally consisting of 40 basically square lots, each measuring about 9.5 acres in area. Some lots have been further subdivided since the original plat was filed, but the lots in general are still large and rectangular. The overall design is simple in the extreme and may reflect a desire by the original owners to sell the land quickly, with minimal investment, perhaps in response to the demand for "gentleman's orchard estates" of the 1930s, as discussed in Chapter 4. The north-south streets that were part of the original plat—Calle Loma Linda, Calle Milagro, Calle Buena Vista, Calle Almendra, Calle Codorniz—are still in place today and divide the rectangular subdivision into five rectangular parts (Figure 38).

Like the other early subdivisions in the survey, Linda Vista Citrus Tracts No. 2 has excellent views of the Santa Catalina Mountains to the east. Most have limited natural desert vegetation and instead include a mix of introduced plantings concentrated near the houses. In certain areas, some desert vegetation has regrown, especially prickly pear and cholla cactus, and some of the denser stands may reflect patterns of former orchard or other agricultural growth. Because of the large size of many lots, the subdivision has an open, rural feel; some of the more substantial properties have distinctive gate features, perimeter fencing or walls, and horse-related features. The southeast corner of the subdivision is occupied by Canyon del Oro High School and James D. Kriegh Park (formerly Dennis Weaver Park).

Figure 38. Streetscape in Linda Vista Citrus Tracts No. 2, view to the north along Calle Loma Linda (2009).

Linda Vista Citrus Tracts No. 2 has only a small number of historic houses and many show evidence of significant alterations. Although the neighborhood is of interest for its connection to early efforts to develop the Oro Valley area in the 1930s, the architecture and landscape of the neighborhood reflect this connection only in a limited way. The subdivision has low potential as a historic district based on either its design or its houses.

Fairhaven Village

Platted in two parts in 1958 and 1960, Fairhaven Village is another, minor example of a postwar curvilinear subdivision plan. The neighborhood is bounded on the east by Oracle Road, on the north by Fairhaven Street, on the west by Northern Avenue, and on the south by Cortaro Farms Road. This area has relatively flat terrain with a slight uphill slope to the northeast; good views of the mountains to the east; and sparse natural desert plantings with no enhanced plantings along the streets. The streetscape includes some shallow drainage ditches but no other special features.

Only 3 of the 26 houses in Fairhaven Village were built before 1965, though 22 were built before 1974 (Figure 39). The design of the subdivision is intact but simple and undistinguished. Because of the small number of early houses and the average quality of the subdivision, Fairhaven Village has low potential as a historic district.

Figure 39. Ranch–style residence built ca. 1960 in Fairhaven Village (2009).

CHAPTER 6

HISTORIC CONTEXTS FOR THE STUDY AREA

Based on the narrative of prehistory and history presented in Chapters 2 and 4, we have defined a set of historic contexts for evaluating the significance of cultural resources in the Oro Valley study area. As noted in Chapter 1, the National Register of Historic Places defines a historic context as a statement about the "patterns or trends in history by which a specific occurrence, property, or site is understood and its meaning (and ultimately its significance) within history or prehistory is made clear" (NRHP 1997:7). In other words, a historic context is the basic information one needs to understand how a historic property relates to its particular time and place. "Historic property" as used by the National Register means any district, site (including archaeological site), building, structure, or object. A historic property is considered significant in a particular historic context if it is clearly associated with the context and still has the physical characteristics that convey that association.

Historic contexts are used to evaluate the eligibility of a property for listing on the National Register. The National Register provides four criteria for significance evaluation that amount to general statements about how a property must relate to specific historic contexts. In other words, to be eligible for listing on the National Register, a property must meet at least one of the four criteria, but meeting these criteria requires the development of specific historic contexts relevant to the particular property. The four National Register criteria for evaluation are:

A. The property is associated with events that have made a significant contribution to the broad patterns of our history.

B. The property is associated with the lives of persons significant in our past.

C. The property embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction.

D. The property has yielded, or may be likely to yield, information important in prehistory or history.

Criteria A, B, and C are typically used to evaluate districts, buildings, structures, and objects, but Criterion D is used almost exclusively to evaluate archaeological sites. Most archaeological sites do not readily convey an association with particular events or individuals or methods of construction and are instead valuable primarily for the information they might yield through excavation. At the same time, certain properties may be eligible for the National Register under two or more criteria, or even all four. As a pertinent example, the Steam Pump Ranch was recently listed on the National Register under Criterion A for its association with the historic context of "early cattle ranching during the Arizona Territorial period and the founding of settlement along the Cañada del Oro" (Barker 2009). Although the nomination considered only the Criterion A eligibility of the ranch, a recent evaluation by Thiel (2007) recommended that the ranch be considered eligible under all four criteria: A, for its association with ranching; B, for its association with the Pusch and

Procter families; C, for its distinctive ranching-associated architecture; and D, for its archaeological potential relating to the historic period. The Arizona State Historic Preservation Office probably decided to ease the process of National Register nomination by pursuing only one criterion of eligibility, but the ranch may retain its eligibility under the other three.

As this discussion implies, an important part of evaluating the National Register eligibility of a property is its *integrity*. If a property has been altered or renovated or damaged in a way that seriously compromises its ability to convey its association with a historic context, it no longer has significance and is not eligible for listing on the National Register. Depending on the type of property, integrity may apply to "location, design, setting, materials, workmanship, feeling, and association" (NRHP 1997:2). For archaeological sites, the essence of integrity is the likelihood that a site preserves information relevant to one or more historic contexts developed for the region, usually in a research design written by a professional archaeologist.

The National Register eligibility of a property is also evaluated in terms of the scope of its significance, or whether the property is of local, state, or national significance. It is likely that most historic properties in the Oro Valley study area, if eligible for the National Register, are eligible at a local level of significance. The pertinent example is again the Steam Pump Ranch, which was nominated under Criterion A in part for its association with cattle ranching. Although cattle ranching is the subject of a statewide historic context (Collins n.d.), the level of significance pursued in the Steam Pump Ranch nomination was local. In other words, the ranch is significant for the way it represents a statewide phenomenon, but its significance does not extend beyond the local context. Other statewide contexts that are potentially relevant for historic properties in Oro Valley include contexts on homesteading (Stein 1990), historic trails (Stein 1994), railroads (Garrison et al. 1989), the New Deal (Collins 1999), the Protohistoric period (Gilpin and Phillips 1998), prehistoric water utilization (Foster et al. 2002), stone artifacts (Slaughter 1992), and the Paleoindian and Archaic periods (Mabry et al. 1998).

Historic Contexts for Prehistoric Archaeological Sites

The development of historic contexts for prehistoric archaeological sites is typically based on the kinds of questions that a group of sites is thought to be capable of answering through excavation or other intensive study. In other words, the historic contexts developed for prehistoric sites amount to a research design, with a set of general research themes tailored for the expectations in a particular project. The following paragraphs describe four historic contexts (research themes) appropriate for the evaluation of the information potential of prehistoric sites in the Oro Valley study area. Because archaeological research in the study area has focused primarily on three large sites (Honey Bee Village, Sleeping Snake Village, and Romero Ruin) and very little work has been carried out at other sites, the four contexts are based heavily on what is known to be relevant for understanding these three sites.

Cultural Affiliation and Interaction

The study of affiliation and interaction among distinct cultures has long been an important part of archaeological research, including in southern Arizona. At prehistoric sites in the region, elements of the prevalent Hohokam tradition are sometimes found in close association with elements of the Mogollon, Salado, and other cultures centered in regions well to the north and east of the Tucson Basin. As discussed in Chapter 2, the Hohokam traditions of the Tucson Basin are themselves, in many respects, distinct expressions of traditions originating or better known in the Phoenix Basin. The significance of a prehistoric site in the Cañada del Oro area can depend on the degree to which the site provides evidence of affiliation and interaction between the Tucson Basin and other cultural regions at different times in prehistory.

Cultural affiliation and interaction were also important aspects of Native American life during the Protohistoric and historic periods. In the Cañada del Oro area, Native American archaeological sites from these two periods have yet to be recorded, but we know from historical and ethnographic documentation that the area was frequented by different bands of Apache early in the historic period. The Cañada del Oro itself seems to have marked a frontier between the Apache and the Tucson Basin, which in protohistoric times was the home of sedentary Pima speakers and in historic times the Tohono O'odham. If Protohistoric or later Native American sites are eventually found in the study area, their interpretation will unavoidably include the context of affiliation and interaction among distinct Native American cultures.

Chronology

Dating an archaeological site, or determining when it was occupied, is a fundamental task of archaeological research. Site dates are used to construct a regional chronology, or a temporal sequence that places sites in relation to each other according to their periods of occupation. In the Southwest as a whole, the period of occupation of a site is usually established through absolute or chronometric dating techniques such as radiocarbon dating, archaeomagnetic dating, optically stimulated luminescence (OSL), and dendrochronology; or by relative dating, which relies on the presence of artifacts or other material culture known to be diagnostic of a particular time period. In southern Arizona, radiocarbon dating is the most commonly used technique for obtaining absolute dates; relative dating relies mostly on ceramic (pottery) and stone tool (especially projectile point) typologies with well-established temporal associations, often tied to absolute dates.

Sites in the Oro Valley study area have the potential to contribute to questions of regional chronology when they are likely to yield materials for either absolute or relative dating. Chronological information gathered in recent excavations at two of the major prehistoric sites in the study area—Sleeping Snake Village and Honey Bee Village—has provided substantial new insights into the timing of settlement and population growth in the Cañada del Oro area.

Diet and Subsistence

The foods people ate and how they obtained them is a focus of almost any archaeological study. One of the first steps in studying prehistoric diet and subsistence is to reconstruct the natural environment, or the setting where the inhabitants of a site necessarily pursued their mode of subsistence, whether it was large-game hunting, a mix of hunting and gathering, or agriculture. Geoarchaeological studies, the analysis of macrobotanical and pollen samples, and the analysis of animal remains can provide information useful in the reconstruction of the prehistoric environment. In addition to environmental reconstruction, an understanding of prehistoric diet and subsistence depends on interpretations of site structure, land-use practices, and settlement patterns, and on the analysis of artifacts, notably ceramics and stone tools. Reconstructing diet and subsistence with these methods has been an important part of the recent work at Sleeping Snake Village and Honey Bee Village.

Community Organization

Archaeology has long placed an emphasis on intrasite organization, or the distribution of artifacts and features (such as the remains of houses) within an individual site, and on settlement patterns, or the distribution of archaeological sites across a regional landscape. Taken together, intrasite organization and settlement patterns can illuminate the nature of community organization in a given time and place, or how the different parts of an individual site and the different contemporaneous sites in a region functioned together as a community. For the Tucson Basin Hohokam, the nature of both intrasite organization and settlement patterns changed through time, and archaeologists have correlated these changes with developments in subsistence focus, sociopolitical complexity, religious and ideological systems, and other aspects of Hohokam culture.

In the Oro Valley study area, the work at Sleeping Snake Village and Honey Bee Village has examined the complexity of intrasite organization at these large sites and its relationship to the distribution of smaller sites in the surrounding area, all of which seems to reflect a significant degree of functional specialization both within and among sites. Evaluation of the information potential of other prehistoric sites in the study area will necessarily take into account the issue of community organization.

Historic Contexts for the Historic Period in the Study Area

The Oro Valley study area, always on the periphery of the historic core of southern Arizona at Tucson, nevertheless experienced to one degree or another nearly every part of the larger region's history. But the timing and details of southern Arizona history as experienced in the study area are what make Oro Valley a distinctive place with its own historical identity. Three contexts capture much of that distinctiveness and can serve as references for interpreting the significance of individual cultural resources in the study area.

Early Transportation Routes and the Cañada del Oro Crossing

Although we have not documented it fully in this report, a recurrent theme in the history of the study area is the importance of the Cañada del Oro crossing as a way station along the road between Tucson and points north, particularly places along the lower San Pedro River. At least as early as the Mexican period (1821–1854), both Euroamericans and Native Americans considered the crossing not simply the best place to ford the Cañada del Oro but apparently also as a kind of marker of the northern limit of the Tucson Basin. It is not clear if the crossing was fixed at a specific spot or if it varied somewhat over the years or with the seasons, but it seems always to have been in the same general location. It was, not surprisingly, the focus of the earliest successful settlements in the vicinity of the Cañada del Oro, including George Pusch's Steam Pump Ranch.

It is safe to say that virtually all transportation routes in the Oro Valley study area, from the earliest trails to modern Oracle Road, were created with some reference to the Cañada del Oro crossing. The remains of other historic features associated with the crossing, such as camp sites, stage stops, or early bridges, may also survive as archaeological sites in the area, and all would be covered by this context. We have not specified a time period for the context, but it potentially includes the entire historic period.

Cattle Ranching and Homesteading in the Cañada del Oro Area, 1869–1962

Cattle ranching was the impetus for nearly all early settlement in the study area, from the earliest attempts by Francisco Romero, George Pusch, and a few others to the many stock-raising homesteads patented in the area before World War II. The dominant role of the stock-raising homestead in the transfer of public lands to private ownership meant that cattle ranching and homesteading were essentially the same activity for most early settlers. The stock-raising homestead was also the starting point for much of the residential development that took place in the area after the war.

This context is a slight modification of the historic context defined for the National Register nomination of the Steam Pump Ranch, "early cattle ranching during the Arizona Territorial period and the founding of settlement along the Cañada del Oro" (Barker 2009). Here the beginning date, 1869, is the probable earliest year of Francisco Romero's presence in the area. The end date is the same as that of the Steam Pump Ranch context, which reflects the end of John Procter's tenure at the ranch.

Early Residential Development in the Cañada del Oro Area, 1945–1974

The platting of subdivisions in the Oro Valley study area began as early as 1930, but the actual construction of houses in platted subdivisions did not begin until well after World War II—the earliest subdivisions in what is now the Town of Oro Valley did not see their first houses until the late 1950s. But despite the late date of initial construction, residential development in the study area is part of the larger postwar boom that had an almost immediate effect on the entire greater

Tucson area, including the area immediately south of modern Oro Valley. Thus, early residential development in the Oro Valley area is best understood with reference to all of the postwar years preceding the incorporation of the Town of Oro Valley; hence the period of significance here, 1945–1974.

Just as the ranching and homesteading period was defined by the transfer of a single expanse of public land in pieces to the private domain, the period of early residential development in the study area was defined by the transformation of a relatively small number of large ranch holdings into numerous, far smaller parcels for individual houses. It is this process of subdivision and the variety of forms it took that characterize the postwar years, and it is this process that is now represented in the plats, streets, lots, and houses of Oro Valley's early neighborhoods.

CHAPTER 7

RECOMMENDATIONS

This report summarizes Phase One of the Oro Valley cultural resources inventory, a first step in documenting the number and variety of archaeological sites, historic places, and early residential architecture in the Town of Oro Valley and its planning area. The report will serve as a basic planning tool for the town and is the starting point for Phase Two of the inventory, which will center on the preparation of a preservation plan. This chapter presents a set of general recommendations for cultural resources work in the town over the next five to ten years and discusses the specific tasks to be carried out in Phase Two. The general recommendations are organized by three categories of resources: archaeological sites, sources on the history of Oro Valley, and residential subdivisions. A summary list of the general recommendations is provided at the end of the chapter, followed by the specific recommendations for Phase Two.

Archaeological Sites

Information about archaeological sites in the Town of Oro Valley and its planning area is constantly changing and expanding as archaeological survey and excavation projects are carried out in advance of development. This report provides a comprehensive list of previously recorded prehistoric and historic archaeological sites in the study area, as well as a comprehensive list of archaeological surveys carried out in the study area, but both lists, based on the AZSITE archaeological database maintained by the Arizona State Museum, are useful only as an indication of the state of archaeological research in the study area at this particular moment. Evaluating the potential impacts of a proposed project on archaeological sites will always require freshly updated information from AZSITE (as well as other sources). In addition, because of the highly variable quality of the data recorded in AZSITE, the significance and reliability of the data is always a matter of interpretation. Using AZSITE data to make decisions about the potential impacts of a proposed project should always be left to a professional archaeologist familiar with the shortcomings and idiosyncrasies of data collected at many different times and under many different circumstances.

A useful and inexpensive step that the town can take to ensure that it always has updated archaeological information for the planning area is to subscribe to AZSITE as a land-managing agency. This will allow the town to receive regular, updated installments of AZSITE archaeological site and survey data. The full interpretation of this information will still require a professional archaeologist (and AZSITE may require that the town have an established relationship with a professional archaeologist who will receive and interpret the information), but the data will provide the town with a preliminary sense of resources already recorded and the extent of previous research in a given location. Information about AZSITE and how to subscribe can be found at http://www.azsite.arizona.edu/.

The task of managing the archaeological resources of Oro Valley would also benefit greatly from the creation of the town's own centralized archaeological archive. In addition to the basic information

on site locations and survey coverage available from AZSITE, keeping track of previously recorded sites and the professional attention they have already received requires direct reference to survey and excavation reports. In many cases, consulting the full range of reports on a site or a particular area can involve trips to multiple locations, including the Arizona State Museum, the University of Arizona Library, and various local, state, and federal agencies. And obtaining copies of reports on short notice from any of these repositories can be time-consuming and expensive. With a well-focused effort, the town could acquire copies of all reports and other documentation for all previously recorded sites and previously conducted archaeological surveys in its jurisdiction, which would help streamline future planning efforts involving archaeological sites and survey coverage. These reports and other documentation, like the site locational and survey information obtained from AZSITE, would need to be kept by the town in a way that restricts public access yet allows ready access to the appropriate professionals.

Evaluating the potential impact of development on archaeological resources always benefits from a consideration of all available information on archaeological sensitivity in areas that have not been surveyed or otherwise systematically investigated by archaeologists. The general information on archaeological sensitivity in the Sonoran Desert Conservation Plan (see Chapter 6) is a useful start, but a valuable expansion of this effort would be to prepare a geoarchaeological study of site sensitivity in selected areas. Geoarchaeological investigation involves backhoe trenching in locations considered to be of high sensitivity but lacking significant surface archaeological remains. A specialist in geoarchaeological analysis (someone who combines geological and archaeological expertise) examines the trenches for evidence of buried cultural deposits and assigns sensitivity ratings based on a variety of geomorphological factors. An example of an area of particular interest in Oro Valley is the floodplain of the Cañada del Oro, where major prehistoric sites may be mostly or totally obscured by relatively recent soil deposition.

Finally, because the information on previously recorded archaeological sites provided in this report was collected at many different times over the last 40 years or more, much of the information has been made obsolete by the many development projects that have taken place in the town over the same period. It was beyond the scope of the present project to make a systematic, reliable assessment of which previously recorded sites are still intact today and which have been partially or wholly destroyed by development. This kind of assessment is complicated by the fact that some sites, although obliterated from the modern ground surface, may still survive to a significant degree below the surface. An important and valuable step the town could take to increase its understanding of selected archaeological sites in its jurisdiction would be to make a systematic evaluation of impacts to these sites, including field evaluations by a professional archaeologist.

Sources on Oro Valley History

As Chapter 4 of this report makes clear, the history of Oro Valley is known today only because people at different times have saved the documents that relate to that history or have written down their own memories and experiences of places and events. Many useful sources on Oro Valley history have been generated or preserved through the official activities of government agencies—survey

plats by the GLO, topographic maps by the USGS, subdivision plats and tax assessment records by Pima County—but other important sources exist only because private individuals, through their personal connections to the Oro Valley area, were interested in its history and took the time to write things down. The official records of government agencies will, we can reasonably assume, continue to be generated and preserved; for example, the Oro Valley Town Clerk has provided us with an outline of the comprehensive town records actively maintained by her office. But it is not safe to assume that the many people who have firsthand experience of Oro Valley's history will have the opportunity or the inclination to record their memories and experiences. The town can be grateful that so many descendants of early Oro Valley residents have already contributed to the valuable collections of historical information by Marriott (2005, 2008), but how many other residents and descendants of residents have yet to share their important memories?

We recommend that the Town of Oro Valley sponsor a systematic effort to collect the historical memories of Oro Valley residents and their descendants, and to seek out the documents, photographs, and other items owned by residents that relate to the history of the town. One part of this effort should be a well-publicized notice that the town is interested in hearing from people with memories of the town in the years before incorporation, followed by as many interviews (usually called oral history interviews) of interested people as possible. To preserve this information and make it easily accessible to everyone, the interviews should be recorded with good equipment in a suitable setting, then accurately transcribed. A second part of the effort should be an annual history clinic, when residents and other interested people are invited to bring documents, photographs, and other items to be examined by knowledgeable people who can photograph or scan the items as appropriate and record any information that the owners provide. The annual history clinic could coincide with other public events, such as an open house at the Steam Pump Ranch or a reading at the Oro Valley Public Library. The Oro Valley Historical Society is an active and thriving organization that could undoubtedly be enlisted to assist in the effort.

The accumulation of historical documents, photographs, and other items implied by history clinics and similar efforts raises the question of how and where all of these materials will be organized and stored. The Oro Valley Historical Society itself already has a substantial collection of materials, many of which still need to be inventoried and organized, and all of which lack a permanent storage facility. The town will do a great service to its residents and its history if it makes a systematic effort to consolidate, inventory, organize, and house the various sources on Oro Valley history that are currently held by individual residents, the Oro Valley Historical Society, and the town itself. The ideal situation would be a central repository in Oro Valley, perhaps at the public library or the town government offices, where these sources are organized and maintained, and where town residents and other interested people can have easy access. Because of the sensitive and irreplaceable nature of some of the materials, access would have to be carefully monitored and limited to onsite use. The repository would probably need to operate in the manner of a special collections department at a library. A good starting point for an effort leading to a centralized repository would be a curation-needs assessment to determine the volume and kinds of materials to be managed and the type of facility required to manage them effectively.

Getting the town's historical sources in one place, organizing and inventorying them, and making them readily accessible will help promote a fuller use of these sources by interested professionals,

the town's residents, and the town itself. One important use of visual and documentary sources that the town should consider is to develop exhibits on the history of the Oro Valley area. Exhibits could be designed for a single location, such as the public library or the town government offices, or they could be designed to travel among different locations, including the public library, area schools, special events, and other public settings. The same could be done for the major prehistoric sites in the town: displays incorporating the artifact collections from Honey Bee Village, Sleeping Snake Village, or Romero Ruin—much of which languish in boxes at the Arizona State Museum—could be developed for the same kinds of venues.

Residential Subdivisions

Our initial survey of residential architecture in Oro Valley has shown that four of the earliest subdivisions in the town are potentially eligible for nomination to the National Register of Historic Places as residential historic districts. The four subdivisions are Oro Valley Estates, Suffolk Hills, Campo Bello, and Shadow Mountain Estates. We recommend that the town consider nominating each of the four subdivisions to the National Register, with the consent and cooperation of the residents.

Because of the preliminary nature of our survey, we are not certain that the Arizona State Historic Preservation Office (SHPO) will agree that any of the four subdivisions is appropriate for a National Register nomination. Before deciding to pursue a nomination, which can be a significant expense, a determination of eligibility should be made for the selected subdivision by the SHPO. A determination of eligibility involves contacting the SHPO, providing a minimal level of documentation about the selected subdivision, and arranging for the SHPO to visit and tour the subdivision. If the SHPO determines that the subdivision is eligible for listing on the National Register, a nomination is warranted.

Following a determination of eligibility, the town would approach the neighborhood association for the subdivision, or the residents themselves, and recommend that a nomination be prepared. The nomination process, which includes writing a detailed historic context for the subdivision and preparing SHPO historic building inventory forms for all of the houses, could be funded directly by the town, by contributions from the neighborhood residents, or by a combination of these sources. When each resident contributes a portion of the nomination cost, individual contributions are usually smaller when the neighborhood is large, because much of the expense of a nomination is in the historic context, which is generally the same for any size of neighborhood. In other words, the per-house cost of a nomination declines as the number of houses increases.

If the town decides to pursue only one National Register nomination of a subdivision, we recommend that either Oro Valley Estates or Suffolk Hills be nominated. Oro Valley Estates has a relatively low percentage of houses built before 1965, but it is notable for its excellent subdivision design in association with a golf course. It is also closely connected with the history of the Town of Oro Valley as one of the original subdivisions at incorporation. Suffolk Hills has both a high percentage of houses built before 1965 and an excellent subdivision design. It is also associated with the Countess of Suffolk's Forest Lodge, an important example of Modern architecture in the

town and in the Tucson area as a whole. The listing of either subdivision on the National Register would be a boon to the residents, who would receive a tax benefit for having a contributing house in the district, and to the Town of Oro Valley, which would draw new attention to its commitment to the effective management of cultural resources in its jurisdiction.

However many residential district nominations the town decides to pursue in the short term, the long-term planning for the town should include regular consideration of additional district nominations. As we indicated in Chapter 5, other subdivisions in the town not considered here will soon approach the 45-year threshold. Not all will be suitable for nomination, but early subdivisions constitute the most substantial undocumented cultural resources in the town, even if an appreciation of their historic significance is still mostly uncultivated in Oro Valley.

Summary of Recommendations

Our general recommendations to the Town of Oro Valley for the next five to ten years can be summarized in a list:

1. Archaeological Sites
    a. subscribe to AZSITE as a land-managing agency
    b. create a centralized archaeological archive
    c. conduct geoarchaeological evaluation of selected high-sensitivity areas
    d. conduct field assessment of recent impacts to selected archaeological sites
2. Sources on Oro Valley History
    a. sponsor a systematic effort to collect sources on Oro Valley history, including:
        - oral history interviews and transcriptions
        - annual history clinics
    b. conduct a curation-needs assessment for collected historical sources
    c. develop a centralized repository for historical sources
    d. develop exhibits on local history and archaeology
    e. develop a register of local historic landmarks
3. Residential Subdivisions
    a. nominate four early subdivisions as National Register districts:
        Oro Valley Estates
        Suffolk Hills
        Campo Bello
        Shadow Mountain Estates
    b. regularly consider additional nominations in long-term planning

Our specific recommendations for Phase Two of the inventory relate to two tasks: preparing a preservation plan, and expanding public outreach.

1. Preservation Plan

The Phase One inventory has brought together much valuable information about the cultural resources of Oro Valley and how these resources embody the history and cultural heritage of the town. Using the results of the inventory and our general recommendations for additional cultural resources work, an effective preservation plan can now be assembled that will help the town set priorities and make decisions about the documentation, evaluation, and preservation of resources as development projects in the town are proposed and carried out. The preservation plan should be concise (5 to 10 pages) and include a distillation of the inventory findings. The general recommendations presented here should be the focus of the plan. It is also important that the plan be easily understood by a wide audience and consistent with the standards of the Arizona SHPO, the Arizona State Museum, the National Register, and the cultural resource goals and standards already established by the Town of Oro Valley.

2. Public Outreach

The Phase One inventory included the preparation of a four-page brochure summarizing the goals and results of the inventory and geared to a general audience. The inventory also included an Open House held in the town council chambers, with a slide show and large-format posters (text and photographs) focused on the various aspects of the inventory. All of these materials were intended to inform Oro Valley residents of the results of the inventory and to encourage their participation, but only a small number of the town's residents have been able to take advantage of these opportunities. We recommend that an additional effort be made in Phase Two to involve the public in the results of the inventory and to encourage public participation in the preservation of the town's cultural resources. This effort could include three items in particular:

a. publication of the Phase One brochure in a high-quality color format, slightly revised to reflect completion of the inventory, with 2,000–3,000 copies printed; the brochure could be distributed both by the town at public locations and by the Oro Valley Historic Preservation Commission in its ongoing outreach efforts

b. making the Phase One inventory report easily available on CD (50–100 copies), and for download on the town website; the town should also consider having 100 perfect-bound hard copies of the inventory report printed for targeted distribution

c. hosting a public lecture series on the cultural resources of Oro Valley, sponsored by the Oro Valley Historic Preservation Commission in cooperation with the Oro Valley Historical Society

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APPENDIX A

Major Archaeological Surveys in the Oro Valley Cultural Resources Inventory Study Area

Note: Because of the sensitivity of archaeological information, Appendix A, an oversize map, is not included with publicly distributed copies of this report.

APPENDIX B

Archaeological Sensitivity Zones in the Oro Valley Cultural Resources Inventory Study Area

Note: Because of the sensitivity of archaeological information, Appendix B, an oversize map, is not included with publicly distributed copies of this report.

APPENDIX C

Previously Recorded Archaeological Sites in the Oro Valley Cultural Resources Inventory Study Area

Note: Because of the sensitivity of archaeological information, Appendix C, an oversize map, is not included with publicly distributed copies of this report.

APPENDIX D

Residential Subdivision Inventory Forms

Oro Valley Subdivision Inventory Form

Subdivision: Campo Bello **Plat Year:** 1946 **Total No. of Houses:** 25

Pre-1965 Houses: 9 **% Pre-1965 Houses:** 36% **Pre-1974 Houses:** 12

Location: southwest part of Oro Valley; northwest corner of Hardy Road/Calle Buena Vista intersection

Topography: relatively flat; prickly pear desert

Subdivision Design: formal, radial street layout (square plot with central circle and corner diagonal roads); large, irregular lots; equestrian-focused subdivision

Significant Features: good view of Catalina Mountains; wide, graded dirt roads/streets; native desert vegetation; equestrian center plus some individual horse properties; informal rural atmosphere despite formal street plan; subdivision has historic potential for street plan, not for houses

Yard Design: most properties have some type of perimeter fence or wall; scraped sites with a few native trees and cacti

Lot Size: 3.3 to 11.1 acres

Representative Houses (address, architectural style, integrity, NR eligibility):

8900 Camino Coronado, Sonoran Revival, integrity good, potential contributor

730 W. Hardy Road, Sonoran Revival, integrity good, potential contributor

PHOTOGRAPHS (all October 6, 2009):

Subdivision:

Photo J-026, Circle Road with view of Catalina Mountains, looking NE

Photo J-028, equestrian center, looking NW

Photo R-026, Camino Coronado with mountain view

Houses:

Photo R-032, 8900 N. Camino Coronado

Photo R-035, 730 W. Hardy Road

Oro Valley Subdivision Inventory Form

Subdivision: Oro Valley Estates **Plat Year:** 1959 **Total No. of Houses:** 216

Pre-1965 Houses: 32 **% Pre-1965 Houses:** 14.8% **Pre-1974 Houses:** 92

Location: south of Cañada del Oro wash, west of Oracle Road, integrated with Oro Valley Country Club

Topography: partly hilly but in valley along Cañada del Oro wash

Subdivision Design: post–World War II curvilinear layout, integrated with golf course

Significant Features: spectacular views of Catalina Mountains; integration of groups of houses with golf greens; rise of bank of Cañada del Oro wash to north; well-designed houses placed on open, carefully sited lots; paved streets with sloped concrete curbs; percentage of pre-1965 houses still low, but historic potential for superior subdivision design

Yard Design: mostly sparse desert plants; gravel or scraped earth; circle drives with asphalt, some concrete; plain edges at street

Lot Size: 0.4–1.4 (0.7–0.8 typical)

Representative Houses (address, architectural style, integrity, NR eligibility):

341 Golf View Drive, Modern style, integrity good, contributor to subdivision eligibility

820 Golf View Drive, Modern style, integrity good, contributor to subdivision eligibility

525 Golf View Drive, Modern style, integrity good, contributor to subdivision eligibility

PHOTOGRAPHS (all October 7, 2009):

Subdivision:

Photo R-005, golf course view with Catalina Mountains backdrop, view to E

Photo R-018, Golf View Drive, streetscape, view to NE

Houses:

Photo R-002, 341 Golf View Drive, Modern style, view to NE

Photo R-011, 820 Golf View Drive, Modern style, view to N

Photo R-013, 525 Golf View Drive, Modern style, view to SE

Oro Valley Subdivision Inventory Form

Subdivision: Shadow Mountain Estates **Plat Year:** 1959 **Total No. of Houses:** 151

Pre-1965 Houses: 77 **% Pre-1965 Houses:** 51% **Pre-1974 Houses:** 138

Location: southwest part of Oro Valley; northwest corner of Hardy Road/Oracle Road intersection

Topography: gentle upslope to northeast; slightly undulating topography; washes, some with rock banks

Subdivision Design: postwar curvilinear; one through-street, Shadow Mountain Drive; street layout fits site

Significant Features: strong presence of Santa Catalina Mountains as backdrop; some natural desert vegetation; some streets elevated with sloped drainage swales; metal pipe culverts; large number of ranch houses may be by same builder—wide front gable with lateral shed carports; subdivision design is average but has historic potential because of percentage of pre-1965 houses; variety of houses—modern, ranch, eclectic

Yard Design: some lots may have been scraped originally; some natural regrowth; circular and straight drives, some unpaved, some with rock edging

Lot Size: 0.8–1.2 acres

Representative Houses (address, architectural style, integrity, NR eligibility):

320 W. Spring Valley Dr., modern Ranch, integrity excellent, potential contributor

102 W. Meadowbrook Dr., modern Ranch, integrity excellent, potential contributor

9050 W. Meadowbrook Dr., modern Ranch, integrity good, potential contributor

PHOTOGRAPHS (all October 15, 2009):

Subdivision:

Photo R-011, Spring Valley Drive, looking NE

Photo R-019, Shadow Mountain Drive at Meadowbrook Drive intersection, looking NE

Houses:

Photo R-010, 320 W. Spring Valley Dr., looking NE

Photo R-014, 102 W. Meadowbrook Dr., looking NE

Photo R-016, 9050 W. Meadowbrook Dr., looking NE

Oro Valley Subdivision Inventory Form

Subdivision: Suffolk Hills **Plat Year:** 1958 **Total No. of Houses:** 190

Pre-1965 Houses: 113 **% Pre-1965 Houses:** 59.5% **Pre-1974 Houses:** 167

Location: southwest of Oracle/Magee intersection, south edge of Oro Valley

Topography: mostly hilly with washes; some flat areas

Subdivision Design: post–World War II curvilinear; street layout fits topography; striking views of Catalina Mountains; Village Drive and Suffolk Drive are thru streets, Arundel Drive is a loop; several cul-de-sacs

Significant Features: fine desert vegetation, some added plantings along streets; some concrete edgings of blacktop; yards often have stone edging; stone piers at mailboxes; high-quality plan and housing; historic potential

Yard Design: rubble stone edging, terracing; gravel, dirt, and paved driveways, either circles or straight to garage; occasional wood fence; some scraped, enhanced yards; yards both flat and hilly

Lot Size: 0.8–1.8 acres

Representative Houses (address, architectural style, integrity, NR eligibility):

455 Suffolk Drive, Modern style, integrity good, Criterion C

7931 Village Drive, Modern style, integrity good, Criterion C

313 Suffolk Drive, Ranch style, integrity good, Criterion C

PHOTOGRAPHS (all October 6, 2009):

Subdivision:

Photo R-004, E. Suffolk Drive, view to NE, vegetation and distant mountains

Photo J-009, E. Suffolk Drive, view to NE, desert-plant edging along street

Houses:

Photo R-001, 313 Suffolk Drive, drive entrance

Photo J-007, 313 Suffolk Drive, mailbox tower

Photo R-010, 455 Suffolk Drive

Photo J-012, 455 Suffolk Drive, close-up

Photo R-018, 7931 Village Drive

Oro Valley Subdivision Inventory Form

Subdivision: Shadow Mountain Estates - East **Plat Year:** 1960 **Total No. of Houses:** 57

Pre-1965 Houses: 8 **% Pre-1965 Houses:** 14% **Pre-1974 Houses:** 35

Location: northeast corner of E. Hardy Road and N. Oracle Road

Topography: steeply hilly foothills of Santa Catalinas

Subdivision Design: postwar curvilinear; main north-south street is N. Riviera Drive, from which three cul de sacs extend uphill to east; irregularly shaped, generously sized lots; historic houses are modern Ranch, nonhistoric are Neoeclectic; less consistency of style than other early subdivisions in area;

Significant Features: steep slope with close-in view of mountains, which loom above houses; excellent natural desert vegetation; plat and houses lack historic potential

Yard Design: asphalt and gravel drives, semicircular where terrain allows; very little non-native vegetation; steep building sites; some sites enhanced with added desert vegetation

Lot Size: 0.7–3.0 acres

Representative Houses (address, architectural style, integrity, NR eligibility):

530 E. San Moritz Place, modern Ranch, good integrity, potential contributor

8902 E. Eden Place, modern Ranch, good integrity, potential contributor

PHOTOGRAPHS (all October 15, 2009):

Subdivision:

Photo R-006, view up San Moritz Place showing looming Santa Catalinas

Houses:

Photo R-003, 530 E. San Moritz Place

Photo R-004, 8902 E. Eden Place

Oro Valley Subdivision Inventory Form

Subdivision: Linda Vista Citrus Tracts No. 2 **Plat Year:** 1937 **Total No. of Houses:** 44

Pre-1965 Houses: 5 **% Pre-1965 Houses:** 11% **Pre-1974 Houses:** 8

Location: northwest corner of E. Calle Concordia and N. Oracle Road

Topography: former citrus grove; flat terrain

Subdivision Design: utilitarian rectangular plat with periodic north-south road dividers following property lines; regular rectilinear lots of variable size; plat may codify earlier land transactions

Significant Features: pervasive east view of Santa Catalinas; more-substantial properties have distinctive gate features; some perimeter fencing; desert vegetation regrowth patterns seem to reflect prior agricultural use; utilitarian layout, few historic houses, most altered; neither plat or houses have historic potential

Yard Design: some properties set back from street have walled yards; some have equestrian features; very few have old vegetation; most have replantings near residences

Lot Size: 3.2 to 9.9 acres

Representative Houses (address, architectural style, integrity, NR eligibility):

9295 N. Camino Milagro, probably Southwest Revival, poor integrity, noncontributor

9369 N. Calle Buena Vista, Ranch, good integrity, noncontributor

PHOTOGRAPHS (all October 16, 2009)**:**

Subdivision:

Photo R-007, Calle Loma Linda streetscape showing old vegetation at 9250 N. Loma Linda

Photo R-008, dense groves of cholla and prickly pear regrowth, reflecting former citrus grove?

Houses:

Photo R-004, 9295 N. Calle Milagro

Photo R-006, 9369 N. Calle Buena Vista

Oro Valley Subdivision Inventory Form

Subdivision: Fairhaven Village **Plat Year:** 1960 (Map 14, Plat 59) **Total No. of Houses:** 22

Pre-1965 Houses: 3 **% Pre-1965 Houses:** 11.5% **Pre-1974 Houses:** 22

Location: adjacent on east to Calle Buena Vista, west of Oracle Road, south of Hardy Road; south part of Oro Valley

Topography: relatively flat; slight uphill slope along Yellowstone and Camino del Oro

Subdivision Design: post–World War II curvilinear, rather direct street layout

Significant Features: good view of mountains, desert growth sparse, no enhanced plantings along streets; streetscape has slight drainage ditches along Camino del Oro, no other special features; average subdivision, low historic potential

Yard Design: some drives with islands, some brick- or rock-lined; yards simple, a few with added desert or arid plants

Lot Size: 0.5–0.9 acres

Representative Houses (address, architectural style, integrity, NR eligibility):

324 Camino Del Oro, Neoeclectic style, integrity good, Criterion C

8445 Yellowstone Ave., Ranch style, integrity good, Criterion C

8521 Yellowstone Ave., Ranch style, integrity good, Criterion C

PHOTOGRAPHS (all October 6, 2009):

Subdivision:

Photo R-024, view to E along Camino del Oro

Photo R-025, view to NW along Yosemite Ave

Houses:

Photo R-019, 324 Camino del Oro, Neoeclectic, view to N

Photo R-020, 8445 Yellowstone Ave., Ranch, view to NW

Photo R-023, 8521 Yellowstone Ave., Ranch, view to NW