CHAPTER 10

GILA RIVER

Introduction

The Gila River Relocation Center, was located at about 33°05' N latitude and 111°52'W longitude, and at approximately 1,350 feet elevation in Pinal County of south central Arizona (Figure 10.1). Gila River consisted of two camps–Canal Camp (Camp #1) and Butte Camp (Camp #2)–about three miles apart in the broad Gila River Valley. The sites are within nine miles of Sacaton, and 16 miles of Casa Grande. Phoenix is approximately 30 miles to the north while Tucson lies about 100 miles to the southeast. The relocation center’s official post office designation was “Rivers” after Jim Rivers, the first Pima Indian killed in World War I (Burton et al., 2002). U.S. Interstate 10 runs diagonally across the former center’s lands from northwest to southeast.

The following pages address: 1) the physical and human setting in which Gila River was located; 2) why south central Arizona was selected for a relocation center; 3) the structural layout of Gila River; 4) the origins of Gila River’s evacuees; 5) how Gila River’s evacuees interacted with the physical and human environments of south central Arizona; 6) relocation patterns of Gila River’s evacuees; 7) the fate of Gila River after closing; and 8) the impact of Gila River on south central Arizona some 60 years after closing.

Physical Setting

Physiography, Geology and Landforms. The Gila River Relocation Center occupied the Sonoran Desert section of the Basin and Range physiographic province (Fenneman, 1931) (Figure 10.2). The Basin and Range consists of north-trending mountain ranges separated by low relief basins. It stretches from southern Oregon and Idaho into northern Mexico, and from eastern California to western Utah (Fenneman, 1931). The center lay on the north flanks of the Sacaton Mountains surrounded by basin floor and twelve small mountain ranges, all within 35 miles of the former center. Starting with the ranges to the northeast and moving clockwise, these include the Santan Mountains, Picacho Mountains, Casa Grande Mountains, Sawtooth Mountains, Silver Reef Mountains, Tat Momoli Mountains, Valva Hills, Table Top Mountains, Palo Verde Mountains, Sevenmile Mountains, Sierra Estrella, and South Mountains (Figure 10.3). The highest of these, the Sierra Estrella Mountains, extend to about 4,500 feet elevation. The lands of the relocation center ranged from isolated, steep hills of the Sacaton Mountains to plains dipping gently north to the Gila River floodplain. Tuan (1959, p. 39) aptly described the Sacaton Mountains as having “been reduced to a loose cluster of peaks, ridges, and knolls, riddled with passes and cols”. Total relief over the entire former center’s lands is only about 310 feet, ranging from 1,518 feet on the summit of Sacaton Butte to 1,210 feet along the Casa Blanca Canal in the north (Figure 10.4).
Figure 10.1. Pinal County, Arizona and adjacent counties. Adapted from Official Arizona Road Map (1975).
Figure 10.2. Gila River and the Sonoran Desert within the Basin and Range physiographic province. Map adapted from Fenneman (1931, Plate 1).
The general geology of the area consists of exposed bedrock in the Sacaton Mountains while the surrounding terrain is mantled with recent deposits (Figure 10.5). The mountains are composed of Precambrian (more than 550 million years old) granite and schist intruded by Mesozoic (about 250 to 65 million years ago) diorite and Tertiary (about 65 to 2 million years ago) basalt. In more recent times, weathering, mass wasting, and stream erosion denuded the mountains and hills leading to the formation of planar, erosional surfaces known as pediments (Howard, 1942; Tuan, 1959). Sacaton Butte (at Butte Camp) and the unnamed hill northwest of Canal Camp are inselbergs—i.e., erosional remnants of once more extensive hills and mountains in the area (Howard, 1942). The degree of mountain dissection and lowering suggests that denudation has
Figure 10.4. Topographic map of Gila River Relocation Center and vicinity. Adapted from U.S. Geological Survey Mesa, Arizona 1:100,000-scale topographic map.
Figure 10.5. Geology of Gila River Relocation Center and vicinity. Adapted from Wilson and Moore (1959).
occurred for a very long time here (Tuan, 1959). Intermittent and ephemeral streams deposited a veneer of alluvium atop the pediment surface thus creating alluvial fans that were subsequently dissected by streams to leave fan terraces (i.e., fan remnants) (Wilson, 1969; Johnson et al., 1998). The construction of the South Side Canal, and a berm upslope of that canal, apparently terminated all intermittent and ephemeral streams flowing north off the Sacaton Mountains. Contemporary, irrigated agriculture has erased the old channels on the farmlands north of the canal. Recent winds have also shaped the landforms of the site through deflation of surfaces creating desert pavement and through deposition of loess on other surfaces (Johnson et al., 1998).

The northeastern portion of the former relocation center lands occupies the margins of the recent Gila River floodplain. The margin of the floodplain is marked by stream terraces that truncate the alluvial fans spreading from the Sacaton Mountains (Johnson et al. 1998; Waters and Ravesloot, 2000). Floodplain landform changes correspond to the characteristics of flooding in the area—i.e., floodplain widening occurs during large floods while floodplain narrowing is a product of few large floods. Flooding of longer duration appear to have greater impacts on the area’s floodplains than do brief events (Huckleberry, 1995).

Weather and Climate. The area is characterized by hot, dry summers and mild, dry winters. The climate is classified under the Koppen system as a dry midlatitude hot desert (BWh) (Griffiths and Driscoll, 1982).

The low, middle latitude setting ensures high to moderate sun angles year around thus temperatures are generally hot to warm. The continental location means clear skies for much of the year so sunlight is used primarily for heating rather than latent heat conversions (i.e., evaporation). The generally low elevation of the site also enhances its warmth. The 1931-1960 average January temperature at Sacaton was about 49°F while the average July temperature was 89°F (Figure 10.6). The mean annual temperature during the same period was about 69°F (Western Regional Climate Center, n.d.a). The high temperatures of most mid-June through August days exceed 100°F. However, summer nighttime temperatures will often dip to 60 °F or even 50 °F (Sellers and Hill, 1974). The growing season (i.e., last 32°F killing freeze of spring to the first 32°F killing freeze of fall) at Sacaton in five out of ten years is 247 days extending from 14 March to 16 November (Western Regional Climate Center, n.d.a).

Annual precipitation was approximately 8 inches/year in Sacaton during the period 1931-1960 (Figure 10.6). Average monthly precipitation exceeded 1 inch in only July and August during this period. Nearly 50% of annual precipitation fell during July, August, and September (Western Regional Climate Center, n.d.a). The general aridity of the site is the result of the subtropical high pressure zone and the inland location (Paulson et al., 1991). Precipitation occurs in the summer when moist, marine air from the Pacific (including the Gulf of California only about 150 miles distant) and the Atlantic (i.e., Gulf of Mexico) moves inland as a result of intense land surface heating and resulting convective uplift. Some of the moist air moving inland may also be the remnants of tropical storms (Sellers and Hill, 1974; Western Regional Climate Center, n.d.b). Thunderstorms are a common result of this monsoon flow and uplift. An average of 23 thunderstorms occur in the area each year with most of these occurring in the summer
Figure 10.6 Climograph showing 1931-1960 mean temperature and precipitation for Sacaton, Arizona. Data from Western Regional Climate Center (n.d.a).
Winter precipitation typically comes from fronts and cyclones originating over the Pacific Ocean and driven inland by the jet stream (Paulson et al., 1991). Measurable snowfall has only occurred twice in the past >90 years at Sacaton—12 March 1922 and 21 January 1937 (Sellers and Hill, 1974). Two significant droughts occurred during the 1931-1960 period—1932-1936 and 1942-1964. The latter was the most significant drought to strike the area in the previous 350 years (Paulson et al., 1991). With annual lake evaporation at approximately 70 inches/year during the 1946-1955 period (Meyers, 1962), crops require ample irrigation, and salts may build up in soils as a result of these evaporated waters.

Prevailing winds in the area are out of the east. The highest average wind speeds occur in the spring but only average 7 miles per hour (Johnson et al., 1998).

Soils. The soils of the former Gila River Relocation Center are a function of the five soil forming factors—i.e., parent material, topography, climate, biota, and time. Parent materials are primarily alluvium associated with floodplains, stream terraces, and fan terraces, and bedrock, residua (i.e., weathered bedrock), and colluvium (i.e., gravity-moved sediments) from hills and mountains. Alluvial soils range from medium to coarse textures and are generally deep (>60 inches). The soils of the hills and mountains have similar textures but tend to be very shallow (<20 inches). Most of the study area’s soils are well to excessively drained. The area’s arid climate concentrates salts via evaporation so all soils are alkaline, and some are saline and/or sodic (i.e., sodium-rich). The native desert scrub vegetation of the area means that little organic matter accumulates atop or within the soils. The geologically active nature of the hills and mountains as well as the alluvial surfaces results in little time for soil development.

Aridisols (i.e., Denure, Gunsight, Momoli, Pahaka, Redun, Rillito, Shontik, and Vaiva series) dominate the stable fan terraces and stream terraces of this arid environment while immature entisols (i.e., Carrizo, Indio, Quiltosa, and Vint series) are the soils of the more geologically active (thus recent) floodplains, hills, and mountains (Figure 10.7) (Johnson et al., 1998). At the time of relocation, most of these soils were considered fertile and if irrigated, capable of supporting a variety of crops including long staple cotton, alfalfa, various vegetables, and melons (U.S. Army–Western Defense Command, 1943). The irrigable soils range from Land Capability Classification (LCC) I to IVs. LCC I soils (i.e., Pahaka) have few limitations while LCC IIs soils (i.e., Indio, Redun, and Shontik) have moderate limitations because of being drought-prone or stony. LCC IIIIs (i.e., Denure, Momoli, and Vint) and IVs (i.e., Carrizo) soils have severe to very severe limitations associated with their droughty or stony conditions. Non-irrigable soils are classified as LCC VIIs (i.e., Gunsight, Quiltosa, Rillito, and Vaiva) with very severe limitations related to their shallow, stony or droughty nature that make them literally unsuitable for cultivation (Johnson et al., 1998; U.S. Natural Resources Conservation Service, n.d.).

Water. Gila River Relocation Center was situated in the Gila River Watershed, a drainage of approximately 57,900 mi² (Huckleberry, 1999). The Gila River originates in the mountains of southwestern New Mexico and flows west across Arizona to join the Colorado near Yuma. Annual discharge once reflected the watershed’s precipitation and snowmelt patterns. Median
Figure 10.7. Soils of the Gila River Relocation Center and vicinity. Data from Johnson et al. (1998).
annual flow at the Buttes, upstream of the Gila River Indian Reservation and 12 miles east of Florence (Figure 10.3) was 525 ft$^3$/second totaling 380,000 acre feet/year prior to 1870. The pre-1870 Gila River experienced perennial flow through the floodplain just north of the subsequent Gila River Relocation Center lands (Thomsen and Eychaner, 1991). However, the influx of non-Native American settlers to the area and subsequent water diversions beginning in the 1870s, and the later completion of Coolidge Dam and its reservoir San Carlos Lake in 1929, resulted in intermittent or ephemeral flow of the Gila River downstream of the dam (Johnson et al., 1998).

Discharge on the Gila River at Kelvin (Figure 10.3) over the 1931-1960 period averaged 346 cfs (Figure 10.8) with the highest discharge (632 ft$^3$/second) in 1941 and the lowest (95 ft$^3$/second) in 1953 (U.S. Geological Survey, n.d.). While we often think of low discharge as being characteristic of arid rivers, flooding has been a common occurrence on the Middle Gila River over time. Flooding here is a product of winter/spring frontal systems originating in the Pacific, summer events associated with convective uplift, or late summer/early fall eastern Pacific tropical storms (Huckleberry, 1994). Large floods occurred on the Middle Gila in historical

Figure 10.8. Mean annual discharge for the Gila River at Kelvin, Arizona, 1931-1960. Data from U.S. Geological Survey (n.d.).

Prior to 1870, groundwater lay 15 feet below the surface at Sacaton, primarily as a result of the perennial flow of the Gila River (Thomsen and Eychaner, 1991). Groundwater in the vicinity of Sacaton, like Gila River water, had a high salinity content (Kister and Hardt, 1966).

**Biota.** The Gila River Relocation Center lay in the American Semi-Desert and Desert Ecoregion (Bailey, 1995) (Figure 10.9). Vegetation patterns in the area are a function of climate and associated soil moisture, soil chemistry, and human land uses. Creosote bush (*Larrea tridentata*) is the dominant shrub of the upland surfaces, often occurring in nearly homogenous stands (Bailey, 1995). Saquaro cactus (*Carnegiea gigantea*), palo verde (*Cercidium* spp.), and bursage (*Ambrosia* spp.) also grow on the non-cultivated portions of the former center. Gila River floodplain phreatophytes include cottonwood (*Populus* spp.), willow (*Salix* spp.), seepwillow (*Baccharis glutinosa*), and mesquite (*Prosopis pubescens*). Tamarisk or saltcedar (*Tamarisk gallica*) invaded the floodplain areas in the early 20th century (Thomsen and Eychaner, 1991).

Large native mammals are rare in this area but may include kit foxes (*Vulpes macrotis*) and coyotes (*Canis latrans*). Western spotted skunks (*Spilogale gracilis*), Merriam kangaroo mice (*Dipodomys merriami*), pocket mice (*Chaetodipus penicillatus*), and antelope ground squirrel (*Ammospermophilus leucurus*) are present here. A variety of snakes, lizards, and bird life also inhabit the area (Bailey, 1995).

**Human Setting**

**Race and Ethnicity.** The Middle Gila River Valley area has been inhabited by a variety of racial and ethnic groups over time. These include Native Americans, Spaniards, Mexicans, various Anglos, Hindus, Chinese, and Japanese.

Southern Arizona, including the Middle Gila River Valley, lies in the Southwest Culture Area (Waldman, 2000). This area has been characterized by Native American occupation since at least 11,000 years before present (yr BP). In late prehistoric times, these inhabitants were the Hohokam and in historic times, the Pimas, and Maricopas (Berry and Marmaduke, 1982; Ezell, 1983; Harwell and Kelly, 1983).

The Spaniards arrived in Arizona by 1540 (Walker and Bufkin, 1979). However, it was not until the 1690s that Father Eusebio Francisco Kino, a Jesuit missionary, made it to the Pima and Maricopa villages on the Middle Gila River in the vicinity of present-day Sacaton (Smith et al.,
Figure 10.9. Ecoregion map showing Gila River’s location within the American Semi-Desert and Desert ecoregion province. Adapted from Bailey (1995, Foldout Map).
Aside from Kino’s several visits, the Pimas and Maricopas apparently had little contact with the Spaniards. Even after the Mexican government gained control of the Gila River Basin during Mexican Independence in 1821, there was little Mexican influence on the area.

Approximately 300 years after the Spaniards took control of the region and at about the time of Mexican Independence, the race and ethnicity of the region began to change. American fur trappers began to pass through the Middle Gila River Valley in the 1820s. In the 1840s, the U.S. Army of the West, led by General Stephen W. Kearny, traveled through the Middle Gila River Valley en route to California to fight the Mexicans. The army’s passage through the area and subsequent mapping by Kearny’s topographical engineer, William H. Emory, opened the way for Anglo gold seekers and emigrants to pass through the Middle Gila River Valley from points east. Soon after the Mexican War, Mormons proposed a State of Deseret that would have included all of Arizona north of the Gila River but this proposal was rejected by Congress. Some Mormons ended up settling in the upper Gila River Valley near Safford as well as in Mesa and Lehi in the Salt River Valley near Phoenix (Walker and Bufkin, 1979; David DeJong, written communication, 10 April 2007).

As time went on, south central Arizona was increasingly an ethnic melting pot. Railroad construction brought the first Chinese to the area (Berry and Marmaduke, 1982). Russian laborers worked in the region’s sugar beet fields, and by the 1930s, Hindu farmers were raising crops in the area. Mexican Nationals and Mexican Americans were also an important part of Southern Arizona’s cultural geography in the early part of the 20th century (Walz, 1997).

The first person of Japanese descent to enter southern Arizona was likely Hachiro Onuki, an Issei (i.e., first generation Japanese American born in Japan) who quickly realized the financial advantages of providing water to Tombstone, Arizona silver miners in the 1870s. The profits from Onuki’s venture enabled him, along with EuroAmerican investors, to start the Phoenix Illuminating Gas and Electric Company in 1886, and subsequently Garden City Farms in 1900 (Iwata, 1992; Walz, 1997). Onuki thus played a key role in Arizona’s mining industry, the development of Phoenix, and the agricultural beginnings in the Salt River Valley. Many of the Japanese Americans who followed Onuki in the late 19th and early 20th century were cooks, domestic servants, and farm laborers. Subsequently, many of the Japanese American men who moved to the state for employment opportunities were able to save money, go into business for themselves, start families, and generally put down roots in south central Arizona. The Japanese American population in Arizona thus climbed over time (Figure 10.10). Most of Arizona’s Japanese Americans prior to World War II were located in three Maricopa County communities—the Mesa-Lehi area east of Phoenix, the lands around the base of South Mountain south of Phoenix, and the Glendale area, west of Phoenix (Walz, 1997) (Figure 10.3). The total Japanese American population of Pinal County and the four adjacent Arizona counties—Maricopa, Gila, Graham, and Pima (Figure 10.1)—generally mirrored the overall Arizona pattern through the 1930 census with 2 in 1880 to 731 in 1930. Unlike the continued rise at the state level, however, the Japanese American population of this five county region dropped by nearly 200 to 555 in 1940. It is not clear why this 1930-1940 decline occurred.
When examined alone, Pinal County, subsequent home of the Gila River Relocation Center, had few Japanese Americans through time with 2 first showing up in the 1900 census, 9 in 1910 and in 1920, 7 in 1930, and 0 in 1940 (U.S. Census Office, 1895; 1901; U.S. Bureau of the Census, 1913; 1922; 1932; 1943).

The economic successes of the Japanese Americans and the growth of their population in south central Arizona led to xenophobia and a desire to remove them from the area. The first step toward this removal was the enactment of the Arizona Alien Land Law of 1913 that forbade those racial groups ineligible for U.S. citizenship from purchasing land in Arizona. However, it did allow such groups to lease lands. The more far-reaching Arizona Alien Land Law of 1921 was enacted to close the lease loophole and drive Japanese Americans out of the state. However, some Japanese Americans found ways to circumvent these laws thus allowing them to keep farming (Sato, 1973; Walz, 1997).
By 1930, in addition to a growing Japanese American population statewide, others migrated through the area as part of an annual cycle of farm labor that took them from California to Arizona and Texas before returning to California late in the year (Figure 10.10) (U.S. Bureau of the Census, 1932). Of the 700 Japanese living in the Salt River Valley in 1930, 350 were U.S. citizens (August, 1979). The agricultural successes of the Japanese American farmers and the onset of the Great Depression fanned the flames of tension that had existed between EuroAmerican and Japanese American farmers since before the 1913 Alien Land Law was enacted (Walz, 1997). By 1934, Arizona’s Japanese Americans were openly harassed in the newspapers and on the streets (Sato, 1973). A banner on one of 150 automobiles in an August 1934, anti-Asian parade in Glendale proclaimed:

*WE DON’T NEED ASIATICS*

*JAP MOVING DAY AUGUST 25TH, WE MEAN IT*

*MOVE OUT BY SATURDAY NOON AUGUST 25TH,*

*OR BE MOVED*

August (1979, p. 116) and Walz (1997, p. 110-11)

Extreme harassment of the Japanese Americans—i.e., bombings, farm field floodings, and shootings—followed in the late summer of 1934 (Sato, 1973; August, 1979). Arizona House Bill 78 was introduced in February 1935 as a way to further squeeze the Japanese American farmers by preventing their participation in any types of agricultural activities (Sato, 1973). Churches opposed the bill as did the Mitsu-Mitsubishi Company of Tokyo, a major buyer of raw cotton grown in the southwestern U.S. The bill was further hampered by previous U.S. Supreme Court decisions regarding an individual’s right to work. The U.S. Government, under pressure from the Japanese Government, pushed Arizona legislators to withdraw the bill. Finally, it died in the Arizona House of Representatives in March 1935 (August, 1979). While the failure of Arizona House Bill 78 was a victory for Arizona Japanese Americans, it did not signal the end of animosity between them and EuroAmerican farmers in the southern part of the state.

Thus, on the eve of the Pearl Harbor bombing, most Arizona Japanese Americans were Issei farmers concentrated in Maricopa County’s portion of the Salt River Valley, especially in and around Phoenix, Glendale, and Mesa (Iwata, 1992). Attitudes toward these community members were anything but positive (Sato, 1973; August, 1979). Their position of influence in local, regional, and national agriculture, combined with their strong inter-community ties, would be necessary to weather the storm of hatred unleashed on 7 December 1941 (Walz, 1997).

*Economic Geography.* Hunting and gathering, agriculture, and transportation have long been the prominent economic patterns of the Middle Gila River region of south central Arizona. To some degree, these patterns have all depended on the presence and availability of water in this system.

Early Native American economic strategies in the area were primarily hunting and gathering. Paleo-Indians persisted from at least 11,000 yr BP until about 8,000 yr BP and were
characterized by a hunting and gathering economy that was especially focused on the large mammals of the late Pleistocene. The subsequent Archaic peoples were hunter-gatherers who lived in the area from approximately 8,000 yr BP until about 1,700 yr BP (Berry and Marmaduke, 1982).

Since the end of the Archaic Period, the economic geography of the area has been dominated by agriculture. The move toward agriculture came about during the Hohokam period approximately 1,700 yr BP to about 500 yr BP (Berry and Marmaduke, 1982). Weather and climate patterns likely impacted floodplains thus shaped patterns of floodplain agriculture within this period (Waters and Ravesloot, 2001). The Pima apparently continued this agricultural tradition, albeit with dispersed rancherias (i.e., small native villages) and small irrigation systems (Huckleberry, 1995). At the time of Jesuit missionary Kino’s contact with the Pimas and Maricopas in the Middle Gila River in the 1690s, these groups were practicing a form of shifting, floodplain agriculture. In this system, they would farm one area until the lands lost productivity, then move on to other parts of the floodplain (DeMallie, 1977). Associated with this agriculture were three prominent Pima villages near present-day Blackwater, Cottonwood, and Snaketown (Berry and Marmaduke, 1982) (Figure 7.3). Despite the political changes that occurred in the 19th century—i.e., transfer of control of these lands from the Spanish to the Mexican government in 1821, the loss of these lands to the U.S. Government following the Mexican War of 1846, and the subsequent Gadsden Purchase of 1854—the economies of the Pima and Maricopas were little affected (Walker and Bufkin, 1979). In 1858, the Pima and Maricopa villages along the Middle Gila were described as consisting of pueblos, with fields of corn, wheat, pumpkins, beans, peas, and melons, all irrigated by canals stretching from the Gila River (DeMallie, 1977). Others also described cotton growing in the fields. The common agricultural surpluses were vigorously traded with American military personnel, gold seekers, and immigrants. As late as 1867, the Pimas and Maricopas were selling corn, beans, wheat, peas, melons, pumpkins, tobacco, and cotton as well as horses and cattle (Ezell, 1994). The establishment of the Gila River Indian Reservation for the Pimas and Maricopas in 1859 prevented a future influx of white settlers to the area. It was the first Indian reservation in Arizona, and is unique in that it is the only Arizona reservation placed on the traditional lands of the majority of its peoples (Walker and Bufkin, 1979; Berry and Marmaduke, 1982). The reservation was subsequently enlarged in 1869, 1876, 1879, 1882, 1883, 1911, 1913, and 1915 to 372,000 acres (Walker and Bufkin, 1979; David DeJong, written communication, 10 April 2007).

Following the Civil War, EuroAmericans settling in the upper Gila River Basin began to develop their own systems of irrigated agriculture. These systems involved diverting and using the waters of the Gila River for their crops thus disrupting flows that the Pima and Maricopa had depended on for centuries (Berry and Marmaduke, 1982). By the late 1880s, EuroAmerican farmers had pre-empted most of the waters used by the Pima agriculturalists on the Gila River Indian Reservation (Walker and Bufkin, 1979). The taking of these waters resulted in the Pimas receiving ever-declining amounts of the Gila River’s flow—e.g., 100% of the flow in 1866 to 29.5% in 1918 (DeJong, 2004a). In post-1866 drought years, little if any water reached the Pimas and Maricopas on the Gila River Indian Reservation downstream. Indeed, no irrigation

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water reached the Pimas and Maricopas as early as 1871 and crops failed. This era became known as the “Forty Years of Famine” and was a time characterized by severe health, economic, and cultural instability for a society that had long depended on water (Ezell, 1994). Conditions were particularly harsh between 1892 and 1904 when drought caused summer crop failure 11 times and winter crops failure at least five times (DeJong, 2004a). The Pimas and Maricopas adjusted by forming new communities off the reservation in the more water-rich Salt River Valley, pursuing off-reservation employment, changing agricultural practices (e.g., irrigated acreage adjustments, dry land cropping, and growing different crops), and selling mesquite firewood cut from the forests along the Gila River (Ezell, 1994; DeJong, 2004a). Those remaining on the Gila River Indian Reservation had to obtain Government assistance in order to survive beginning in 1880 (DeJong, 2004a). Episodic famine continued in the years following the end of the drought in 1905. Two events brought hope that more water might again flow to the Gila River Indian Reservation—the 1908 Winters v. U.S. case that affirmed that Indian tribes had “reserved rights” to water that was not subject to the prior appropriation doctrine that ruled western U.S. water and the 1916 authorization of the Florence-Casa Grande irrigation project. Despite these events, the Gilas only received an average of 35% of all water passing through the Ashurst-Hayden Dam (Figure 10.3) in the 1930s and 1940s (DeJong, 2004b).

Early twentieth century agriculture in south central Arizona was strongly influenced by Japanese immigrants. The Canaigre Company of Tempe employed 100 Japanese in 1897 to gather canaigre roots along the Agua Fria River near Phoenix but this venture soon failed (Sato, 1973). Hachiro Onuki, the co-founder of the Phoenix Illuminating Gas and Electric Company, started Garden City Farms in 1900 (Walz, 1997). In 1905, a group of 120 Japanese laborers were brought to work in the Salt River Valley’s sugar beet fields but the climate, water laws, and tax laws were not right for sugar beets and this venture too failed (Iwata, 1992; Walz, 1997). In 1906, an Issei named Goto started a chicken farm near Tempe. Onuki’s and Goto’s successes sparked other Issei farmers to begin growing vegetables in the Tempe and Phoenix areas and soon a vegetable exchange was in operation (Iwata, 1992). The number of Japanese American-operated farms in Arizona nearly doubled between 1920 and 1930, and the land farmed by Japanese Americans increased from 3,537 to 16,237 acres (Sato, 1973). Representing only 3% of the total farm operators in the Salt River Valley, Japanese Americans were farming 6% of the lands there (Iwata, 1992). They were the first to ship Salt River Valley lettuce, strawberries, and cantaloupe out of state (August, 1979). Further, Japanese Americans were innovative in terms of how they grew their crops (Walz, 1997). Because of a lack of English language skills by the Issei farmers, they formed the Japanese Association and hired a secretary to deal directly with the produce companies (Walz, 2000).

In addition to agriculture, transportation has long been a key form of economic activity in the Middle Gila River Valley. The valleys were certainly routes of travel and trade for Native Americans and the missionaries that followed them. American trappers also used the Gila River Valley and its tributaries as a transportation corridor (Walker and Bufkin, 1979). By the 1840s, the route following the Gila River was known as the Gila Trail. Kearny’s Army of the West, California gold seekers, various emigrants, and subsequent stage and wagon companies traveled
through the area often stopping to trade for crop surpluses with the Pima and Maricopa villages on the Middle Gila River. An estimated 60,000 gold seekers heading for California passed through the Middle Gila River Valley between 1849-1851 (DeMallie, 1977). The Leach Wagon Road opened to commercial wagon and stage traffic in 1857 following the Gila River to the vicinity of the Pima villages (Berry and Marmaduke, 1982). The Butterfield Overland Stage made regular stops at the Pima and Maricopa villages along the Middle Gila River to purchase corn and other grains (DeMallie, 1977). The Civil War ceased stage and wagon traffic between Arizona and California on the Gila Trail but tiny Fort Barrett was constructed during this time in the vicinity of the Pima villages (Walker and Bufkin, 1979). No other towns or villages were present in the Middle Gila River Valley until after the Civil War. While railroad surveys were made through the area occupied by the Pima villages prior to the Civil War, it was not until 1880 that the Southern Pacific completed construction west of the Sacaton Mountains (Berry and Marmaduke, 1982). Japanese American laborers were employed by the railroads in the area beginning in the 1880s (August, 1979). Further railroad lines were developed in the Middle Gila River Valley between 1891-1920 (Walker and Bufkin, 1979). As of 1940, Arizona highways 87 and 187 cut across the eastern one-half of the Gila River Indian Reservation and through Sacaton (Works Progress Administration, 1940).

On the eve of the evacuation of Japanese Americans to Gila River, Sacaton had a population of 300 and served as the headquarters of the Gila River Indian Reservation (Works Progress Administration, 1940). Following the bombing of Pearl Harbor, Arizona was split into two military exclusion zones—the zone south and west of U.S. highway 60 was a restricted area while the area north and east was a free zone. Those Japanese Americans living in the restricted zone were gathered and sent to a relocation center while those living outside the zone were allowed to remain in their homes (Walz, 2001).

Why this Location?

Arizona was likely chosen as a state in which to locate a relocation center because it lay well inland from the West Coast. At least five Arizona sites were considered for relocation centers—Beardsley near Phoenix, Cortaro Farms near Tucson, Fort Mohave on the Colorado River, the Gila River Indian Reservation, and a site near Parker on the Colorado River. The former three were rejected because they would be either too expensive to build or too close to key military installations (Madden, 1969; Burton et al., 2002). Ultimately, Gila River and the Parker site were chosen as Arizona’s relocation centers. The proposed Gila River Relocation Center site lay entirely on Gila River Indian Reservation lands (Figure 10.3) and was chosen over the objections of the Gila River Indian Tribal Council on 18 March 1942 (Burton et al., 2002). It was not until October 1942 that the Tribal Council signed off on the center, only after the War Relocation Authority (WRA) agreed to develop nearly 9,000 acres (see below) (U.S. National Park Service, n.d.; David DeJong, written communication, 10 April 2007). This agreement reflected U.S. Commissioner of Indian Affairs John Collier’s beliefs that Japanese American labor could be used to improve Indian lands as could the infrastructure created to house the
evacuees. Further, Collier thought that the Indian Service could successfully work with another minority group, the Japanese Americans (Bernstein, 1991).

The Gila River site was advantageous because of open space, availability of Gila River irrigation water, potential for agriculture, and access to highways and railroads. The space became even more of an issue after a planned Cambridge, Nebraska relocation center plan was scrapped, and the intended number of Gila River evacuees was increased from 10,000 to 14,000 (Madden, 1969). While a railroad line came through the Gila River Valley and Arizona highway 89 passed through the eastern edge of the center, the center was sufficiently isolated as to not pose a threat to the surrounding small communities.

Ultimately, about 17,125 acres of the Gila River Indian Reservation were leased from the Bureau of Indian Affairs for a five-year period (Indian Claims Commission, 1971b). Of the total acreage leased by the WRA, nearly 7,000 acres had been leveled, irrigated, and planted with alfalfa in 1935 (Burton et al., 2002). Prior to consideration for a relocation center, those acres were slated to be planted with long-staple cotton in 1943. Another 8,850 acres were considered to be suitable for cultivation while the remaining nearly 1,300 acres were uncultivable (Indian Claims Commission, 1971b). Water to irrigate these lands came from the South Side Canal, which originated from the San Carlos Reservoir behind Coolidge Dam on the upper Gila River (Figure 10.3) (Burton et al., 2002). The WRA agreed to pay $20 acre/year for the cultivated lands and $3.60/acre/year to the San Carlos Irrigation Project for four acre-feet of water annually for the cultivated lands. In addition, the U.S. Government agreed to pay $1 acre/year for the non-cultivable lands. Further, the Government agreed to develop and farm the 8,850 acres of cultivatable, but not yet cultivated, lands. No rent was to be paid on these lands because of the improvements that the Government was required to make. Finally, the contract called for the Government to construct 7.25 miles of U.S. highway 93 through the reservation lands (Indian Claims Commission, 1971b).

**Building Gila River**

The Gila River Relocation Center was expected to take 90 days to complete. A crew of 125 men began construction on 1 May 1942 but the workforce swelled to 1,250 by mid-June. Many of these workers were former area farm hands who were lured to the site by high wages (Weik, 1992). The first group of Japanese American evacuees arriving in July further helped set up the center. While evacuees were arriving from mid-July until mid-October, the center was not finished until 1 December 1942 (Burton et al., 2002).

The Gila River Relocation Center consisted of two camps–Canal Camp (Camp #1) and Butte Camp (Camp #2) (Figure 10.11), each of which was laid out in a rectangular fashion and separated by about three miles of Sonoran Desert. It is unclear why the WRA built two smaller rather than one larger camp at Gila River as two camps led to much duplication of services and difficulties in moving from one to the other (Spencer, 2002). Indeed, the center’s newspaper, the *Gila News-Courier*, treated them as two separate camps with their own identities.
Canal Camp (Figure 10.12 and 10.13) was a 210-acre parcel stretching east-west and lying between the South Side Canal and a large earthen berm designed to prevent ephemeral, flash flood streams from reaching the canal (Burton et al., 2002). Canal Camp was the first of the two camps to open for evacuees (Spencer, 2002). The main portion of the camp had 27 blocks separated by a numbered north-south street system and a lettered east-west street system. A military police compound lay just east of the main portion of the camp. Canal Camp had 404 buildings, approximately 10% of which were used for administrative purposes including offices,
Figure 10.12. Detailed map of Canal Camp, Gila River Relocation Center. Adapted from Burton et al. (2002, p. 63).
military police compound, hospital, warehouses, staff housing, post office, various repair shops, and food packing/preservation plants. The Canal Camp elementary and high schools were located in the middle of the evacuee residential area and included an outdoor stage, auditorium/gymnasium, science laboratory, home economics building, and vocational arts building. School and community athletic fields were located in various vacant blocks and firebreaks (Burton et al., 2002).

Butte Camp occupied 790 acres at the base of Sacaton Butte (Figure 10.15 and 10.16). It had 821 buildings including administrative offices, post office, vehicle repair shops, warehouses, police station, court, staff canteen, staff housing, gas station, various repair shops, motor pool, camouflage net factory, hospital, and fire station. Unlike Canal Camp, the elementary school and high school were separated by a block. However, the Butte Camp schools also included an outdoor amphitheater, auditorium/gymnasium, science laboratory, home economics building, and vocational arts building. School and community athletic fields were located in various vacant
Figure 10.14. Detailed map of the Butte Camp portion of the Gila River Relocation Center. Adapted from Burton et al. (2002, p. 66).
blocks and firebreaks (Burton et al., 2002). Zenimura Field, the finest baseball diamond of any of the WRA relocation centers, was also located in Butte Camp (Nisei Baseball Research Project, n.d.).

Each residential block in Canal and Butte camps had 14 barracks, one mess hall, two rectangular latrine-shower buildings, one laundry building, one ironing building, one community services (i.e., recreation) building, and a 1,000 gallon fuel oil tank (Figures 10.12 and 10.14). The ironing rooms were very rapidly converted to be storage rooms for mess hall vegetables. Each 20 feet by 100 feet barracks consisted of four single-room apartments ranging in size from 20 feet by 24 feet to 20 feet by 28 feet (Madden, 1969; Burton et al., 2002). Evacuee barracks were constructed differently than at other centers, presumably because of the extreme summer heat in south central Arizona. All were sheathed with white, reflective “beaverboard”, a lightweight,
semi-rigid board composed of compressed wood pulp. Each also had a double roof covered with red shingles to act as insulation against the summer heat (Figure 10.16) (Burton et al., 2002). Barracks were elevated 18-24 inches off the ground on wooden posts sitting on concrete footings. The interior of the barracks were not finished thus the wall studs and ceiling rafters were exposed (Madden, 1969). Evaporative (i.e., “swamp”) coolers, while present in many of the buildings of the center, were not installed in barracks unless evacuees purchased them with personal funds (Brown, 2001; Burton et al., 2002). Cool winter nights required that the various center housing and other occupied buildings had to be heated. Natural gas was used to heat the mess halls and hospital while barracks were heated with more abundant fuel oil (Burton et al., 2002). Each of the two residential areas of the center were originally surrounded by a three-strand, barbed wire fence. One guard tower was initially constructed to watch over the center; however it was removed soon after because of a lack of military personnel to staff it. The perimeter fence was also removed by April 1943. Signs were instead posted at the center’s boundaries (Madden, 1969).

Domestic water for the center came from a deep well located just north of the South Side Canal at Canal Camp and a deep well located near the higher of the two easternmost knolls of the Butte Camp. A 250,000 gallon storage tank near the Canal Camp wells and a 300,000 gallon storage tank near the Butte Camp well provided water storage for the camps. Irrigation water was provided by two canals from San Carlos Reservoir behind Coolidge Dam. Electricity for the center came from Coolidge Dam on the Gila River (Madden, 1969; Burton et al., 2002).

Materials and people coming to the center typically arrived by train at Casa Grande then were trucked the approximately 17 miles from there to the center. Because of excess produce subsequently raised at Gila River, a loading and warehouse facility was built at Serape eleven miles north of the center in 1943 to facilitate shipping to other centers (Figure 10.3) (U.S. War Relocation Authority, 1945; Burton et al., 2002).

**Origins of the Evacuees**

Evacuees came from California via the Tulare (4,942), Turlock (3,573), Santa Anita (1,289), Stockton (220), Fresno (174) assembly centers. Five other assembly centers each contributed fewer than 100 evacuees (U.S. Army–Western Defense Command, 1943) (Figure 10.17). Specifically, the evacuees came from Los Angeles (4,952), Fresno (1,972), Santa Barbara (1,797), San Joaquin (815), Solano (695), Contra Costa (588), Ventura (583), Alameda (333), Santa Clara (210), San Luis Obispo (192), San Francisco (191), and Yolo (123) counties. Nineteen other California counties each contributed less than 100 evacuees (U.S. War Relocation Authority, 1946). Another nearly 3,000 came directly to Gila River from their southern San Joaquin Valley homes (Japanese American National Museum, n.d; Burton et al., 2002). Washington, Oregon, and “other states” outside the evacuation zone contributed 52 evacuees. Interestingly, Arizona only contributed 5 evacuees to Gila River with the bulk of its evacuees being sent to Poston on the Colorado River (U.S. War Relocation Authority, 1946). The urban/rural populations of the center was generally equal (Japanese American National Museum, n.d.). Canal Camp evacuees were mostly rural from the San Joaquin Valley and the Sacramento River Delta via the Turlock Assembly Center while Butte Camp was composed of mostly urban evacuees from the Tulare and Santa Anita Assembly Centers (Hansen, 1985; Burton et al., 2002). Overall, the Gila River Relocation Center evacuee population could be characterized as being of a lower economic status (Madden, 1969). As of 1 January 1943, approximately 65% of the evacuees were American citizens (U.S. War Relocation Authority, 1946).

The first trainload of evacuees arrived at Casa Grande and was bused to Gila River on 20 July 1942 after a grueling three-day, two-night ride on the Southern Pacific from Turlock in northern California (U.S. Army–Western Defense Command, 1943; Weik, 1992; Spencer, 2002). The last evacuees to arrive were from Santa Anita in southern California on 27 October 1942 (U.S. Army–Western Defense Command, 1943). With a maximum population of 13,348 reached in late December 1942, Gila River was Arizona’s 4th largest city behind Poston, Tucson, and Phoenix (Staff, 30 September 1942; U.S. War Relocation Authority, 1946).
The situation that the evacuees first entered at Gila River was anything but pleasant. Upon finding that 6,700 evacuees had been squeezed into facilities suitable for harboring 3,000 and that they lacked adequate food, medical, and sanitation facilities in an environment that was “hotter than the hinges of hell” community analyst Robert Spencer noted that “the situation is simply ghastly” (Hansen, 1999, p. 48).
Interaction of Evacuees with South Central Arizona’s Environments

Physical Environment. Water often occurs in extremes in deserts—typically there is far too little water available; occasionally, too much water is present. The hot, arid climate demanded that much water be consumed by people, plants, and livestock. At first, all water used within each of the two camps came from the domestic wells. Subsequently, irrigation ditches were constructed from the South Side Canal into the main parts of Canal and Butte camps in Summer 1943 to irrigate gardens and lawns, and fill ornamental ponds (Staff, 22 July 1943; 3 August 1943; Smith, 1995; Burton et al., 2002). Canal Camp used 500,000 to 1,200,000 gallons of water per day while Butte Camp used 600,000 to 1,500,000 gallons each day (Madden, 1969). Domestic water shortages begin to occur by September 1942 before the administration asked residents to curtail their use of domestic water for irrigation (Staff, 19 September 1942). These shortages occurred throughout the life of the center. In addition to concerns over meeting the needs of evacuees, the administration was concerned about the effects of a water shortage on a fire in the wooden buildings of the camps, especially if faced with high temperatures and afternoon winds (Madden, 1969).

Too much water can also be an issue. Flooding did not occur on the portion of the Gila River that lies adjacent to the former relocation center during the time the relocation center was open (Brazel and Evans, 1984). However, a September 1943 storm dumped 3.3 inches of precipitation over four days including 2.3 inches in one day on the relocation center. The resulting runoff destroyed center irrigation ditches and landscaping, and part of nearby U.S. highway 93 (Staff, 28 September 1943).

Heat was another very noticeable aspect of the center. The positive aspects of the heat were that activities could occur outside throughout much of the year. However, summer temperatures could reached 125°F. In such weather, metal door knobs would get so hot they couldn’t be handled without a handkerchief-covered hand (Girdner and Loftis, 1969). In addition to the evaporative coolers of some buildings, evacuees escaped the heat of summer in cellars excavated beneath their barracks (Burton et al., 2002). The common ponds of the camps’ barracks gardens, combined with the shade of landscaping plants, also likely provided a measure of relief from the heat. Luckily for the evacuees, mean monthly temperatures for the April-September periods in 1942-1945 were slightly cooler than the 1931-1960 average (Western Regional Climate Center, n.d.a).

Although the area is located in a hot desert, winters could be cool to even cold. The first barracks stoves were not installed until nearly one month after the first frost in fall 1942 (Staff, 25 November 1942; Staff, 22 December 1942). Compounding the late installation of stoves and the uninsulated nature of the barracks was the fact that average January and December temperatures were slightly lower during 1942-1945 than those of 1931-1960 (Western Regional Climate Center, n.d.a).
Winds and dust were another issue faced by evacuees. Winds exploited the large cracks left in barracks floors as the green lumber cured in this very dry environment, leaving dust everywhere. Because of this, the floors of the barracks were subsequently covered with a linoleum-like product (Staff, 26 January 1943; Madden, 1969). Evacuee lawns and other plantings, besides providing beauty, also served to reduce dust. Severe wind and dust storms halted outside activities on several occasions often preceding thunder and lightning, and sometimes rain (Staff, 9 January 1943; 7 August 1943; 19 October 1943).

Evacuees interacted with wildlife. Rattlesnakes, gila monsters, tarantulas, doves, desert tortoises, ground squirrels, mice, and scorpions were encountered and sometimes kept as pets by evacuees (Staff, 12 September 1942; 7 October 1942; Girdner and Loftis, 1969).

While the above suggests that the Sonoran Desert of the Gila River Relocation Center was a foreign, stark, and harsh place, some found it beautiful. This was especially true near sunrise or sunset. At Butte Camp, a group of Issei men would go to the top of the one of the hills in the evening and would sing “long songs” (naga-uta), their lilting voices carrying to the camp below (Girdner and Loftis, 1969).

Agriculture. The primary goal of the agricultural program was to feed the residents of the center. Second, excess agricultural produce was to be preserved at the center or transferred to the other centers. After food crop production, next in declining importance were animal feed crops, seed crops, and war crops (U.S. War Relocation Authority, 1944). It was hoped that evacuees who worked in agriculture prior to coming to Gila River would embrace the center’s agricultural program. Finally, those evacuees working in the agricultural program gained experience that could aid them in relocating from the camp, and in their lives after relocation (U.S. War Relocation Authority, 1945). Because of these positive aspects of agriculture, a large proportion of the center’s lands were initially dedicated to agricultural enterprises.

Of the approximately 17,125 acres of the Gila River Relocation Center, about 7,000 acres had been cultivated and irrigated as alfalfa pasture prior to its establishment (Burton et al., 2002). Because of seven years of cropping with nitrogen-fixing alfalfa, soils were in excellent condition to support the WRA agricultural operations (U.S. War Relocation Authority, 1945). Therefore, the agricultural program focused on these 7,000 acres from fall 1942 through mid-1945 (Figure 10.18). Only 40 acres of the cultivatable 8,850 acres near Butte Camp were developed for dairy pasture. The WRA decided not to expand the agricultural program into these lands because such development may have endangered other nearby water users’ water availability (Indian Claims Commission, 1971b). It is also likely that the Japanese American labor force was not sufficient by 1944 to farm these lands.

The total cultivated acreage was split into 8 unit farms, each of which were managed by a separate crew of evacuees. Soon after evacuees began arriving at Gila River, some of the alfalfa
pasture was plowed under to make room for various truck crops. Because the lands were otherwise ready for farming, only farm equipment and labor had to be obtained before the program could begin in earnest; thus, the farm operation got off to a quick start. The remainder continued as alfalfa pasture for leasees. Planting occurred in fall 1942, and each spring and fall thereafter (U.S. War Relocation Authority, 1945). Radishes, the first truck crop raised at the center, reached the mess hall tables by 26 September 1942, little over two months after the first evacuees arrived (Staff, 26 September 1942). Ultimately, 48 varieties of produce were grown at Gila River over the parts of four years the farm was in operation (Table 10.1). One 320 acre unit alone grew 22 varieties of vegetables (Staff, 2 February 1943)! The long growing season ensured not only variety but also fresh vegetables nearly year-round. It also resulted in high annual productivity per acre on the farmlands (Table 10.2; Figure 10.19). The greatest amount
Table 10.1. Crops and livestock raised at the Gila River Relocation Center, 1942-1945. Data from U.S. War Relocation Authority (1945).

<table>
<thead>
<tr>
<th>Produce</th>
<th>Produce (continued)</th>
<th>Feed Crops</th>
<th>Livestock</th>
</tr>
</thead>
<tbody>
<tr>
<td>beans (mung)</td>
<td>onions (dry)</td>
<td>alfalfa</td>
<td>cattle (beef)</td>
</tr>
<tr>
<td>beans (string)</td>
<td>onions (green)</td>
<td>barley</td>
<td>cattle (dairy)</td>
</tr>
<tr>
<td>beans (tepery)</td>
<td>parsley</td>
<td>field corn</td>
<td>chickens</td>
</tr>
<tr>
<td>beets</td>
<td>peanuts</td>
<td>Sudan grass</td>
<td>hogs</td>
</tr>
<tr>
<td>broccoli</td>
<td>Persian melons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cabbage</td>
<td>peppers (chili)</td>
<td>azuki</td>
<td></td>
</tr>
<tr>
<td>cantaloupe</td>
<td>potatoes (Irish)</td>
<td>beans (lima)</td>
<td>nappa</td>
</tr>
<tr>
<td>carrots</td>
<td>beets (table)</td>
<td>radishes</td>
<td></td>
</tr>
<tr>
<td>casaba</td>
<td>beans (soy)</td>
<td>sesame</td>
<td></td>
</tr>
<tr>
<td>cauliflower</td>
<td>potatoes (sweet)</td>
<td>broccoli</td>
<td></td>
</tr>
<tr>
<td>celery</td>
<td>pumpkin (Japanese)</td>
<td>cabbage</td>
<td>shingiku</td>
</tr>
<tr>
<td>corn (sweet)</td>
<td>radishes (red)</td>
<td>carrots</td>
<td></td>
</tr>
<tr>
<td>cucumber</td>
<td>radishes (white)</td>
<td>squash</td>
<td></td>
</tr>
<tr>
<td>cucumber (Armen.)</td>
<td>shingiku</td>
<td>cantaloupe</td>
<td>spinach</td>
</tr>
<tr>
<td>daikon</td>
<td>shiru uri</td>
<td>carrots</td>
<td></td>
</tr>
<tr>
<td>eggplants</td>
<td>spinach</td>
<td>cauliflower</td>
<td>sunflower</td>
</tr>
<tr>
<td>endive</td>
<td>squash (banana)</td>
<td>celery</td>
<td></td>
</tr>
<tr>
<td>garlic</td>
<td>squash (hubbard)</td>
<td>corn</td>
<td></td>
</tr>
<tr>
<td>gobo</td>
<td>squash (Ital. summer)</td>
<td>cucumber</td>
<td></td>
</tr>
<tr>
<td>habucha (tea)</td>
<td>strawberries</td>
<td>cucumber (Armen.)</td>
<td>War Crops</td>
</tr>
<tr>
<td>honeydew melons</td>
<td>Swish chard</td>
<td>daikon</td>
<td>castor beans</td>
</tr>
<tr>
<td>lettuce</td>
<td>tomato</td>
<td>garlic</td>
<td>cotton</td>
</tr>
<tr>
<td>mustard green</td>
<td>turnips</td>
<td>goma</td>
<td>flax</td>
</tr>
<tr>
<td>nappa</td>
<td>watermelon</td>
<td>lettuce</td>
<td></td>
</tr>
</tbody>
</table>
of produce was grown in 1944 (nearly 15,000,000 pounds) on less acreage (1,436 acres) than the 1943 growing season (1,692 acres) (Table 10.2). The large producers in terms of tonnage were cabbage, carrots, watermelons, nappa, daikon, beets, dry onions, and lettuce (Figure 10.19). To further extend the growing season, celery, tomatoes, eggplants, peppers, and sweet potatoes were started in hot beds before transferring to the nearby fields. Unlike many of the other centers, Gila River did not have a root cellar in which to store produce, presumably because produce could be grown nearly year round. However, produce was dried at a camp dehydrator (e.g., herb tea and daikon) or canned (e.g., tomatoes and sweet potatoes) (U.S. War Relocation Authority, 1945). Produce not consumed at the center was packed at a center facility and shipped to other centers from the Serape railroad siding (Figure 10.3).

Four different feed crops were grown and harvested (Table 10.2) or pastured for camp livestock. At least 30 different seed crops were also raised here (Table 10.1) for use in the center as well as transfer to other centers. War crops including flax, cotton, and castor beans were raised on 150 acres to assist in the war effort (U.S. War Relocation Authority, 1945) (Table 10.1). The castor bean experiment was soon abandoned when farmers outside the center complained about competition (Girdner and Loftis, 1969). Also unique to the center were the flowers grown for all types of camp events (U.S. War Relocation Authority, 1945). While no mention of manuring is made in the literature, livestock manure was likely used as a soil amendment in the various farm fields. Soils were rejuvenated through crop rotation—e.g., those lands that remained in alfalfa during the initial years of the camp’s agricultural program were shifted to truck crops in fall 1944 or spring 1945. At the completion of the crop program by July 1945, all truck crop lands were re-seeded to alfalfa (U.S. War Relocation Authority, 1945).

Until the center started its own livestock operation, the roughly 6,500 remaining acres of cultivated lands were rented to local farmers (Burton et al., 2002). Chickens, hogs, beef cattle, and dairy cows were added in 1943. Because of the heat, chickens were raised in double-roofed houses (like the barracks in the center) that provided the necessary cooling ventilation for poultry to survive the heat of south central Arizona (Goerke-Shrode, 2001). The hot, dry climate worked well for hogs, especially when a mobile, well ventilated shade shelter was constructed. The beef operation migrated toward Brahma-cross steers as they were able to gain weight in the summer heat. Hogs and steers were killed and butchered at a slaughterhouse in Phoenix, then returned to the camp for consumption (U.S. War Relocation Authority, 1945). The livestock program was very successful in helping feed the center despite having few evacuees who had prior experience in this enterprise (Madden, 1969). By the end of 1943, the livestock program was supplying at least 60 hogs and 60 beef as well as tens of chickens, hundreds of dozens of eggs, and hundreds of gallons of milk to the center’s mess halls each week (Figure 10.20) (Madden, 1969). Maximum livestock production was reached in 1945 when nearly 5,700 chickens, approximately 2,200 hogs, and over 1,800 beef were delivered to center mess halls (Table 10.3). In addition, over 112,500 dozens of eggs and 79,000 gallons of milk were produced in 1945 (U.S. War Relocation Authority, 1945).
Table 10.2. Produce, feed crop, seed crop, and war crop yields, Gila River Relocation Center, 1942-1945. Data from War Relocation Authority (1945b).

<table>
<thead>
<tr>
<th></th>
<th>1942</th>
<th>1943</th>
<th>1944</th>
<th>1945</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Produce</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Acres Harvested</td>
<td>404</td>
<td>1,692</td>
<td>1,436</td>
<td>902</td>
<td>4,434</td>
</tr>
<tr>
<td>Total Production (lbs)</td>
<td>1,757,777</td>
<td>9,945,295</td>
<td>14,863,900</td>
<td>6,169,565</td>
<td>32,736,537</td>
</tr>
<tr>
<td>Eaten at Center (lbs)</td>
<td>1,019,596</td>
<td>6,732,327</td>
<td>9,300,370</td>
<td>4,802,421</td>
<td>21,854,714</td>
</tr>
<tr>
<td>Shipped to Centers (lbs)</td>
<td>738,181</td>
<td>3,122,383</td>
<td>5,563,530</td>
<td>1,367,144</td>
<td>10,791,238</td>
</tr>
<tr>
<td>Total Market Value ($)</td>
<td>?</td>
<td>$209,047</td>
<td>?</td>
<td>?</td>
<td>&gt;$209,047</td>
</tr>
<tr>
<td><strong>Feed Crops</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Total Acres Harvested</td>
<td>0</td>
<td>1,259</td>
<td>1,320</td>
<td>520</td>
<td>3,099</td>
</tr>
<tr>
<td>Total Production (lbs)</td>
<td>0</td>
<td>3,117,000</td>
<td>2,115,250</td>
<td>1,009,300</td>
<td>6,241,550</td>
</tr>
<tr>
<td>Fed at Center (lbs)</td>
<td>0</td>
<td>3,117,000</td>
<td>2,115,250</td>
<td>1,009,300</td>
<td>6,241,550</td>
</tr>
<tr>
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</tr>
<tr>
<td>Market Value ($)</td>
<td>0</td>
<td>?</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td><strong>Seed Crops</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Total Acres Harvested</td>
<td>0</td>
<td>55</td>
<td>81</td>
<td>?</td>
<td>&gt;136</td>
</tr>
<tr>
<td>Total Production (lbs)</td>
<td>0</td>
<td>14,209</td>
<td>?</td>
<td>13,699</td>
<td>&gt;27,908</td>
</tr>
<tr>
<td>Used at Center (lbs)</td>
<td>0</td>
<td>14,209</td>
<td>?</td>
<td>?</td>
<td>&gt;14,209</td>
</tr>
<tr>
<td>Shipped to Centers (lbs)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Total Market Value ($)</td>
<td>0</td>
<td>?</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td><strong>War Crops</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Acres Harvested</td>
<td>0</td>
<td>106</td>
<td>106</td>
<td>0</td>
<td>212</td>
</tr>
<tr>
<td>Total Production (lbs)</td>
<td>0</td>
<td>39,500</td>
<td>34,842</td>
<td>0</td>
<td>74,342</td>
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<tr>
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<td>0</td>
<td>?</td>
<td>?</td>
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</tbody>
</table>

Gila River was the primary food producer of the eight western Japanese American relocation centers. The percentage of Gila River’s produce shipped to the other centers ranged from 29% in 1945 to 72% in 1942 (Table 10.2). Stated differently, approximately 20% of all food consumed at the ten relocation centers was raised at Gila River (Staff, 28 August 1943; Burton et al., 2002).

The farming operation was also the chief employer of the center employing approximately 1,000 men and women in the 1943-1944 farm season (Burton et al., 2002). Evacuee employment on the center farm, like all other work is the center, was voluntary. Evacuee pay ranged from $12/month for new workers or apprentices to $16/month for ordinary workers not in the lowest
category to $19/month for supervisors, professionals, or those involved in extremely hard labor (Madden, 1969).

Despite its many successes, problems hampered the Gila River agricultural operation. Numerous articles in the *Gila News-Courier* indicate that a lack of farm labor was a frequent issue, probably as a result of low pay for hard work. The muddy nature of late summer/early fall irrigation water...
Table 10.3. Livestock yields, Gila River Relocation Center, 1942-1945. Data from U.S. War Relocation Authority (1945).

<table>
<thead>
<tr>
<th></th>
<th>1942</th>
<th>1943</th>
<th>1944</th>
<th>1945</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beef Cattle</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Animals Butchered</td>
<td>0</td>
<td>536</td>
<td>1,285</td>
<td>1,835</td>
<td>3,656</td>
</tr>
<tr>
<td>Total Dressed Weight (lbs)</td>
<td>0</td>
<td>232,624</td>
<td>542,270</td>
<td>590,870</td>
<td>1,365,764</td>
</tr>
<tr>
<td>Market Value ($)</td>
<td>0</td>
<td>$41,896</td>
<td>$94,897</td>
<td>$106,357</td>
<td>$243,150</td>
</tr>
<tr>
<td>Total Animals Transferred</td>
<td>0</td>
<td>0</td>
<td>650</td>
<td>1,290</td>
<td>1,940</td>
</tr>
<tr>
<td>Live Weight (lbs)</td>
<td>0</td>
<td>0</td>
<td>283,400</td>
<td>609,654</td>
<td>893,054</td>
</tr>
<tr>
<td>Market Value ($)</td>
<td>0</td>
<td>0</td>
<td>$50,729</td>
<td>$109,738</td>
<td>$160,467</td>
</tr>
<tr>
<td><strong>Chickens</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Chickens Butchered</td>
<td>0</td>
<td>26</td>
<td>3,083</td>
<td>5,669</td>
<td>8,778</td>
</tr>
<tr>
<td>Meat Total Weight (lbs)</td>
<td>0</td>
<td>78</td>
<td>10,791</td>
<td>19,842</td>
<td>30,711</td>
</tr>
<tr>
<td>Market Value ($)</td>
<td>0</td>
<td>$21</td>
<td>$3,129</td>
<td>$5,754</td>
<td>$8,904</td>
</tr>
<tr>
<td>Eggs (dozen)</td>
<td>0</td>
<td>3,821</td>
<td>59,775</td>
<td>112,563</td>
<td>176,159</td>
</tr>
<tr>
<td>Market Value ($)</td>
<td>0</td>
<td>$1,720</td>
<td>$23,312</td>
<td>$50,631</td>
<td>$75,663</td>
</tr>
<tr>
<td><strong>Dairy Cattle</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Gallons Produced</td>
<td>0</td>
<td>22,703</td>
<td>57,406</td>
<td>79,173</td>
<td>159,282</td>
</tr>
<tr>
<td>Market Value ($)</td>
<td>0</td>
<td>$6,357</td>
<td>$19,518</td>
<td>$31,669</td>
<td>$57,544</td>
</tr>
<tr>
<td><strong>Hogs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Hogs Butchered</td>
<td>0</td>
<td>477</td>
<td>1,583</td>
<td>2,204</td>
<td>4,264</td>
</tr>
<tr>
<td>Total Dressed Weight (lbs)</td>
<td>0</td>
<td>90,630</td>
<td>322,932</td>
<td>429,780</td>
<td>843,342</td>
</tr>
<tr>
<td>Market Value ($)</td>
<td>0</td>
<td>$19,479</td>
<td>$62,972</td>
<td>$85,956</td>
<td>$168,407</td>
</tr>
</tbody>
</table>

Following summer rains was detrimental to new plantings as well as livestock watering. Gophers were a constant problem because of their tunneling impacts on irrigation ditches. Further, trespassing Native American livestock frequently damaged crops as did a grasshopper invasion in fall 1944 and spring 1945 (U.S. War Relocation Authority, 1945). Finally, the intense summer heat affected poultry as well as crop growth (Madden, 1969).
Business and Industry. Businesses within the center were operated by an evacuee-run Community Cooperative. This Cooperative included general, department, dry goods, shoe and clothing stores as well as fish market, barber shops, beauty parlors, optical shops, laundries, dry cleaners, shoe repair shops, and electrical repair shops (see various issues of the Gila News-Courier). Arizona legislators, responding to constituent’s fears of economic competition and their desires to discourage evacuees from settling in Arizona, enacted a law that prohibited business transactions with any persons “whose movements were restricted by law.” This law was subsequently struck down by the Maricopa County Superior Court. The court’s decision was subsequently upheld by the Arizona State Supreme Court. The Arizona Corporation Commission, after issuing an operating license to the Rivers Cooperative, reversed its decision. This reversal was presumably a political decision based on public fears and racism. It took two months, a public hearing, and federal authorities to quiet Arizonans fear before the Cooperative again got its operating license (Caruso, 1973).

Industry at Gila River included a camouflage net factory, a model ship building shop, furniture repair and manufacture shops, tofu plant, and bean sprout facility. The camouflage net factory was operated on a Government contract by Southern California Glass Company and employed 500 evacuees during its five months of operation (Burton et al., 2002). In those five months, approximately 80 million ft$^2$ of camouflage netting was produced for the war effort (Madden, 1969). Production was high largely because evacuee workers were paid a higher base wage than wages paid to the evacuees by the WRA plus they received bonuses for high production (Tamir et al, 1993). Another shop built model ships to be used as training aids for the U.S. Navy. The model ship shop operated from March 1943 to January 1944, ultimately creating over 600 scale model ships (Madden, 1969). After the ship factory was closed in May 1944, it was converted into a furniture repair and manufacture facility. New furniture built at the facility was primarily used in the center schools (Tamir et al, 1993). Tofu was manufactured and bean sprouts were grown by center crews in sufficient quantities to meet all of the needs of the center (Staff, 30 November 1943; 15 January 1944; Tamir et al., 1993).

Landscaping and Gardening. Evacuees planted lawns, trees, and gardens for beauty, shade, and cooling in the harsh environment. Further, they constructed numerous concrete-lined garden ponds. One Butte Camp garden included a pond filled with carp, catfish, and medaka (i.e., Japanese killifish) surrounded by rocks and cactus. The entire area was illuminated by two Japanese rock lanterns (Staff, 11 November 1942). Small irrigation canals were constructed from the South Side Canal into the main parts of Canal and Butte camps in summer 1943 to irrigate these gardens and lawns, and fill the ponds (Staff, 22 July 1943; Staff, 3 August 1943; Smith, 1995; Burton et al., 2002). Other gardens took advantage of the native vegetation of the area. One such garden was composed of various cacti transplanted from around the center combined with a traditional Japanese lantern and a trellis. Others built ornate entry ways into their barracks apartments, often linked to barracks gardens (Eaton, 1952). Picnic areas were constructed throughout the camps. By 1944, the center boasted 25 acres of lawn, 4,949 ft$^2$ of flowers, 6,884 shade trees, and 3,800 ornamental shrubs. Some seeds were provided by the WRA while others came from evacuees and various individuals. Nurseries in the agricultural
program likely provided some of the plants for these gardens. Many trees and shrubs also came from Casa Grande, Mesa and Phoenix while cottonwoods were taken from the Gila River floodplain (Madden, 1969). It was probable that the landscaping, combined with the white painted barracks with red roofs, attracted First Lady Eleanor Roosevelt to visit Gila River in Spring 1943 (Girdner and Loftis, 1969).

**Education.** The schools in each camp of the Gila River Relocation Center were housed in standard barracks buildings within blocks. The schools were initially plagued by poor facilities, inadequate equipment and supplies, and large classes. Classrooms were small and lacked ceilings. This was remedied by the 1943-1944 school year. The science laboratories, home economics, and shop buildings were added at each camp’s schools by the winter of 1943-44. Auditoriums/gymnasiums were added at each camp by fall 1944. Classrooms were also initially furniture-less and even lacked heaters for part of the first winter. Textbooks were absent or in very short supply as were items like typewriters. As a result, typing was taught using cardboard keyboards. As at other centers, recruiting and retention of teachers was a constant issue, especially with pay higher at outside schools. Compounding the teacher shortage was the fact that the Arizona Governor threatened teachers that he would refuse them teaching certificates if they chose to teach at the Gila River schools (Lynn Galvin, written communication, 9 May 2007). Perhaps the biggest issue facing educators at Gila River was the low morale associated with the initial poor facilities (Madden, 1969).

School administrators and teachers helped resolve these inadequacies by holding students to high academic standards. Likewise, student evacuee parents took great pride and pinned their hopes on their student children. The Gila River Relocation Center school program followed the curricula of other Arizona schools. High School enrollment averaged 1,573 students while elementary school enrollment averaged 1,329 students during the three years the schools operated (Madden, 1969). Of the nearly 900 high school seniors who graduated there, 22% (approximately 200) continued their educations after high school (Caruso, 1973).

The center’s education program benefitted from teachers from nearby schools who visited the center’s schools. Public libraries and private individuals donated books and other learning materials. Faculty from Arizona State Teachers College in Tempe were loaned to the center to teach college classes and to supervise evacuee student teachers. Unfortunately, the University of Arizona, led by President Alfred Atkinson, was not giving of its resources. Atkinson stated that “We are at war and these people are our enemies. It is fine to be idealistic and helpful during times of peace, but these people stabbed us in the back” (Caruso, 1973).

In addition to K-12 education opportunities, an adult education program also existed at Canal and Butte camps. Various issues of the *Gila News-Courier* show that this popular program included classes ranging from Americanization to costume design to mathematics to science.

**Recreation.** A variety of community-sponsored programs provided recreation opportunities for Gila River evacuees. Some of these were more culturally Japanese in nature (see *Culture and Arts* section below) while others were more American in their leaning. These included Boy
Scouts, Girl Scouts, YMCA, and YWCA. Scout troops traveled outside the center for outings (Staff, 3 October 1944).

The pages of the Gila News-Courier reveal that a variety of sports were played at the school and community levels at Gila River. Among these were basketball, baseball, football, golf, softball, tennis, volleyball, and weightlifting. At one time, 22 community baseball teams existed in the center, and each had its own baseball field (Madden, 1969). These teams played each other as well as other relocation center teams, and local teams (see various sports pages of Gila News-Courier; Staff, 13 April 1943; 11 July 1944). Japanese American baseball legend Kenichi Zenimura acted as player-coach on various teams at Gila River including the Gila All-Stars and led the clandestine construction of 6,000 seat Zenimura Field (Figure 10.14). Zenimura even recruited school children to clear the playing field of rocks so players would have a smooth playing surface. According to Zenimura’s son, Howard, who was a teenager at the time, building the park gave evacuees a sense of community and kept evacuee youth out of trouble (Young, 2005; Lynn Galvin, written communication, 9 May 2007).

Other activities included movies, dances, amateur shows, model airplane contests, garden competitions, pet shows, fashion shows, baby shows, and festivals. Movies, talent and fashion shows were held at amphitheaters at Butte and Canal camps (Madden, 1969). The Butte Camp amphitheater was especially unique in that it utilized the natural topography of Sacaton Butte on the west side of the camp (Figure 10.14). No mention is made of center swimming pools; however, youth swam in the irrigation canals of the camp (Girdner and Loftis, 1969).

The Canal and Butte camps schools each had a library that occupied an entire barracks. Community libraries were also housed in recreation halls. As of 1945, the combined holdings of the Gila River libraries were over 5,600 books and an extensive magazine collection (Madden, 1969).

Culture and Art. The culture of Gila River, as at other relocation centers, was purposefully American. This was seen in the language, dress, housing, meals, recreation, and business interactions. However, Japanese cultural influences were inevitable and seen throughout the center. Issei often conversed in Japanese. Buddhism had a strong following in the camp and included traditional ceremonies including the Obon (i.e., festival to honor the dead) (Staff, 17 July 1943). Sumo wrestling (Figure 10.21) and judo were practiced. Various groups within the center encouraged Japanese dance and the reading of Japanese literature (Madden, 1969).

In addition to the art involved in barracks gardens and landscaping, Gila River evacuees hunted Kobu for their artistic qualities. Kobu are the gnarled natural wood growths of the tree roots, trunks, or even branches of that are revealed after bark and dead wood has been removed and the wood is rubbed to a high sheen. Kobu were held and admired as well as used more practically as paper weights and doorstops (Eaton, 1952).

Faith and Spirituality. Various Saturday editions of the Gila News-Courier show at least five churches present within the confines of the Gila River Relocation Center. These included non-
denominational Christian, Seventh Day Adventist, and Buddhist churches in each of the two camps. Christian services were given in English and Japanese versions. Over time, the members of the Christian churches in the center declined, partially as the result of one prominent Christian minister who spoke in favor of young men volunteering for the U.S. armed forces. He, and by association, other Christians were considered “dogs” thus friends of the administration (Okihiro, 1984). Another reason for the decline of Christians over time is that they tended to relocate to the outside more than the Buddhists (Smith, 1995). More than 50% of the evacuees were Buddhists (Madden, 1969) (Figure 10.22). When asked what contribution Buddhism makes to America, the typical answer by Gila River Buddhists was democracy. “The Lord Buddha believed all men to be...spiritual equals. He attempted to break down the caste system of India...Buddhism disregards race” (Okihiro, 1984). The only affront to religious freedom in the center was that the practice of the Shinto faith was forbidden (Spencer, 2002).

Health. Gila River Relocation Center had two health care facilities—a hospital in Butte Camp and a clinic at Canal Camp—providing a total of 274 beds (Figures 10.12 and 10.14). These facilities provided general medicine, surgery, obstetrics, pharmacy, and dentistry services (Madden, 1969).

Special tuberculosis wards were established for those tuberculosis-positive evacuees who were placed at Gila River because of the dry heat (Weglyn, 1996). Unfortunately, the facilities were not complete until late September 1942, and during the life of the camp, were chronically understaffed. Health issues at the center included “Valley Fever” in early 1943 (Cates, 1980).

An outbreak of food poisoning also hit the center hard in September 1943, hospitalizing 35 evacuees and sickening many others (Staff, 7 September 1943).

**Government.** Community government in the center was modeled after small community governments outside the center—i.e., Canal and Butte camps each had their own Community Councils elected by the evacuee members of the camps. In addition, each block had a Block Manager who dealt with day to day issues (Cates, 1980).

Community government was beset with problems from the start. The presence of Block Managers gave the impression that sufficient government existed. Further, regulations against Issei serving on the Community Council and coercive tactics of the administration initially sparked little interest among evacuees in their community government (Cates, 1980). However, permanent Community Councils were elected in fall 1943 to enact and enforce the laws of the camp. All laws and enforcement of the laws had to be approved by the Project Director and had to be in line with WRA policy. Among the various commissions established by the council was the Judicial Commission that acted as judge and jury in terms of law breakers. As in other centers, the community council was caught in the middle between the general populace of the evacuees and the administration. When the council was successful, the general populace suspected them of bending to the will of the administration. At the same time, the Council, as literal prisoners of the camp, had very different world views and goals than did the administration. EuroAmerican staff members also saw the Community Council as an impediment to what they were trying to accomplish (Madden, 1969).

**Community.** Overall, Gila River was considered a generally quiet camp in terms of internal unrest. However, a true sense of community was not easily attained. A variety of factors led this lack of community and associated community problems in the center.

Problems at Gila River began with facilities that were insufficient in number and degree of completion to adequately serve all of the incoming evacuees (Madden, 1969). Festering problems came with the evacuees from the assembly centers including differences between the urban-rural populations, the Issei, *Nissei* (i.e., second generation Japanese Americans born in the U.S.), and *Kibei* (i.e., second generation Japanese Americans born in the U.S. but educated in Japan) groups, and Buddhists versus Christians (Hansen, 1985). The natural leaders of the Japanese communities prior to the bombing of Pearl Harbor were the Issei. The Issei, as non-citizens, were not allowed to vote in relocation center matters. This left a leadership void as the Nisei and Kibei were often too young to have sufficient experience to effectively lead (Spencer, 2002). The Butte Camp hospital was another source of internal fighting because of inequities in pay and prestige between evacuee and civilian personnel (Madden, 1969). Further, the far greater pay at the camouflage net factory compared to the pay for other camp jobs also led to conflict within the center (Hansen, 1985). The dynamic nature of the center’s population as family members seasonally left or permanently relocated further countered attempts at community-building.
The “loyalty questionnaire” (Appendix C) and draft registration caused unrest and further eroded a sense of community (Spencer, 2002). Twenty-eight evacuees who were identified by the administration as ringleaders in encouraging other evacuees to vote “no-no” on questions 27 and 28 of the loyalty questionnaire were quickly arrested and removed from the camp (Cates, 1980). Apparently, the arrests had little effect on the evacuees responses to the questionnaire—i.e., 1,582 Gila River evacuees answered “no-no”. This number tied Manzanar with the highest “no-no” votes of any of the relocation centers (Smith, 1995). Widespread unrest within the center declined after the “no-no” respondents to the loyalty questionnaire were removed from the center to either Tule Lake or repatriated to Japan.

The physical separation of Canal Camp from Butte Camp prevented any sort of cumulative sense of community. The presence of military personnel between Butte and Canal camps, combined with the 3.5 mile distance between camps, also prevented interactions (Spencer, 2002).

**Interaction with Surrounding Areas**

*The Outside World.* Much suggests that Arizona wanted little to do with the Japanese Americans at Gila River. As early as March 1942, Arizona Governor Sidney Osborn protested that Arizona should not be used as a “dumping ground” for “enemy aliens” (Caruso, 1973).

While the state’s agricultural community saw Gila River’s Japanese Americans as a panacea for their wartime labor woes, many of the cotton farmers were angered when the construction of the relocation center enhanced the farm labor shortage. It further angered local farmers when only a small percentage of Japanese Americans chose to work in the area’s cotton fields because they had to be accompanied by the military, were paid low wages, and were inexperienced in cotton picking (Caruso, 1973). Gila River evacuees on seasonal leaves encountered animosity in south central Arizona towns (Cates, 1980).

Arizona Senator McFarland publicly tried to work out an agreement to prevent Gila River’s and Poston’s evacuees from relocating to Arizona (Staff, 19 June 1943). Further, Arizona did not set up an office to assist evacuees in locating jobs in Arizona (Madden, 1969).

Despite these early reactions to the Japanese Americans by public officials, positive interactions apparently occurred between evacuees and those living on the outside. Local Pimas and Maricopas from the Gila River Indian Reservation assisted a group of evacuees led by Kenichiro Zenimura in building Zenimura Field (Figure 7.14). Pimas and Maricopas played baseball with the Japanese Americans, and also watched games at the ballpark (Nisei Baseball Research Project, n.d.; Young, 2005). Pimas worked in the construction of the center, at the camouflage net factory, and in various positions for the WRA within the center (Tamir et al, 1993). Evacuees also encountered members of the Gila River Indian Reservation when having maintenance performed on center vehicles at the Indian Agency in Sacaton, (Madden, 1969). Other accounts suggest that relations between the local Native Americans and the Japanese Americans were at times strained (David DeJong, written communication, 10 April 2007).
Arizona State Teachers College (now Arizona State University) in Tempe provided teacher trainers for under-qualified evacuees teaching in the center’s schools (Madden, 1969). The pages of the *Gila News-Courier* reveal that Gila River sports teams played several teams on the outside including those from Casa Grande, Coolidge, Glendale, Mesa, Phoenix, and Tucson.

In addition to the local, very short-term departures from the center mentioned above, evacuees could leave the center on short-term, seasonal, and indefinite leaves. Short-term leaves ranged from several days to a few weeks and were typically for personal business or medical issues. Seasonal leaves were granted to evacuees for seasonal agricultural employment. The purpose of indefinite leaves was to permanently depart the centers for relocation to the “outside world,” join the armed forces, be interned in a Department of Justice Internment Camp, be committed to an institution, or be repatriated to Japan (U.S. War Relocation Authority, 1946).

Long-term departure or “relocation” was encouraged from the start. Gila River had a relocation commission composed of evacuees and staff members who encouraged and otherwise assisted evacuees in relocating to the outside world (Smith, 1995). Various editions of the *Gila News-Courier* carried letters from evacuees who had successfully relocated to various areas, typically east of Gila River. The newspaper also listed those relocating and their destinations, and it frequently carried articles about farms and businesses that wanted evacuees. Teachers at the center were recruited from all over the nation thus putting evacuees in contact with people from a wide variety of places (Madden, 1969). Presumably, this was done to enhance the relocation process. Ninety-two evacuees relocated during 1942 (Figure 10.23). The first to relocate from the center were college students who began to depart by mid-September 1942 (Staff, 16 September 1942). Approximately 150 students from Gila River were ultimately accepted at colleges around the country. Outside churches often helped students make this jump from the center. In fact, 24 of the 150 students accepted by colleges were associated with the Episcopalian congregation at the center (Smith, 1995). In 1943, 1,897 departed while 2,739 more departed in 1944, and 9,569 departed in 1945 (Figure 10.23). Interestingly, relocations peaked in the warm season months in 1943 (May-September) and 1944 (March-September) suggesting that the oppressive heat of the center may have played a role in pushing evacuees out of the center. The pages of the *Gila News-Courier* show that Gila River evacuees relocated to 35 states and the territory of Hawaii (Figure 10.24). Preferred destinations were upper Midwestern cities including Chicago, Minneapolis-St. Paul, Detroit, and Cleveland.

Gila River ranked fourth out of the ten relocation centers in terms of numbers of military volunteers. A total of 487 Gila River evacuees volunteered or were drafted into the military. The center had no Selective Service violations. Seventy-seven of the Gilans were casualties of war including 16 killed, 60 wounded, and one missing in action (U.S. War Relocation Authority, 1946).

*Other Relocation Centers.* Gila River interacted with other relocation centers primarily in the transfer of evacuees from one center to another, by trading agricultural crops, and through competition between center baseball teams.

503
A total of 2,005 Gila River evacuees were transferred to Tule Lake in October 1943 and May 1944 because they or members of their families answered “no” to questions 27 and 28 on the loyalty questionnaire (Appendix C). Seventy-one of the Gila River evacuees who answered “no” to the loyalty questionnaire were repatriated to Japan in September 1943. Sixteen evacuees were also sent to the Leupp, Arizona Isolation Center. Gila River received only four Tuleans in November 1943 and another 2,412 evacuees as transfers from other centers. Among these were 2,076 evacuees from the Jerome Relocation Center when it closed in June 1944 (Staff, 15 June 1944; U.S. War Relocation Authority, 1946).

It was determined early on that Gila River was to supply a significant portion of the food consumed in the other relocation centers. The center sent out its first shipment of turnips, beets, and squash to Poston in early November 1942 (Staff, 7 November 1942). By January 1943, Gila River had sent train carloads of vegetables to all of the relocation centers (Staff, 12 December 1942; Staff, 14 January 1943). Approximately 300 train carloads of produce were shipped to the other centers over the life of the Gila River center (U.S. War Relocation Authority, 1945b). In addition to various produce shipped, the center also sent tomato and pepper plants from the Gila nursery and livestock from the livestock operation to other centers (Staff, 6 May 1943; U.S. War...
Figure 10.24. Geography of Gila River indefinite leaves (i.e., relocations), July 1942-November 1945. Data from relocation sections of various issues of *Gila News-Courier*. 
Relocation Authority, 1945). Despite its highly successful agricultural program, Gila River was unable to supply all of its produce needs. As a result, the center received surplus lettuce, nappa, and turnips from Tule Lake as early as October 1942 (Staff, 10 October 1942).

Gila River also interacted with other relocation centers through baseball. Center baseball teams entertained squads from Poston in July 1944 and Amache in August 1944. A Gila River team also traveled to Heart Mountain in September of the same year (Staff, 11 July 1944; Staff, 30 August; Staff, 9 September 1944).

Closing Gila River and Another Relocation

Public Proclamation #21 on 17 December 1944 ended the West Coast Exclusion Order that had been in effect since 1942. Gila River’s first California-bound Japanese Americans departed soon after (Staff, 23 December 1944).

In December 1944, the Gila River Relocation Center administration announced that it would close the center by 15 November 1945 (Madden, 1969). As of 1 January 1945, 9,550 evacuees remained in the center (Figure 10.25). On 1 June, the center’s population was still 8,319. The pace of relocations increased after that. By VJ (i.e., Victory over Japan) day on 14 August, 1944, the center had approximately 7,000 residents. Canal Camp was closed on 28 September 1945 while Butte Camp closed on 10 November 1945 (Burton et al., 2002).

Figure 10.25. Resident population, including evacuees on short term and seasonal leave, Gila River Relocation Center. Data from U.S. War Relocation Authority (1946, p. 18).
Impacts of Gila River on Today’s Southern Arizona Landscape

Evacuee Dispersion. The 1950 census only showed two Japanese Americans in Pinal County as compared to 0 in 1940 suggesting that few evacuees remained in the immediate area of the relocation center after its closure. However, the Japanese population of the adjacent four counties increased by 197 (36%) over the 1940 total. Most of this increase and the overall Japanese American population of 752 was centered in Maricopa County (U.S. Bureau of the Census, 1943; 1952); no other adjacent county had more than 19 Japanese Americans at that time. These data suggest that a significant number of Japanese Americans did stay in south central Arizona following the closure of Gila River Relocation Center, and that Maricopa County, likely because of its strong Japanese roots, again served as the center of Japanese American population in the state in the years immediately following World War II. Over 800 Japanese American evacuees relocated to Arizona in their first move out of the relocation centers (U.S. War Relocation Authority, 1946). Because of the location of Gila River and Poston in Arizona, presumably most of these 818 came from these two centers. The 1950 census showed that Arizona’s Japanese American population had declined by nearly 40% from its 1940 peak—i.e., 1,264 in 1940 to 780 in 1950 indicating that some of those initially relocating in Arizona later moved on prior to the 1950 census, with many likely heading back to the West Coast (U.S. Bureau of Census, 1943; 1952).

Land Dispersion. Following closure of the center in November 1945, the land reverted back to the Gila River Indian Reservation. All leases for the approximately 17,125 acres of Gila River Indian Reservation lands were formally terminated in 1947 (Indian Claims Commission, 1971b).

Infrastructure Dispersion. By December 1945, the center’s buildings were allocated and moved to various educational institutions around Arizona. Of particular note, the City of Mesa purchased the Butte High School Auditorium. Barracks, as well as various other property, were auctioned in August 1946. Sealed bids were taken until March 1947 on remaining buildings and utilities (Burton et al., 2002). Additionally, center buildings were sold to local Pimas and Maricopas for $1 each (Comeaux, 1981). Indian war veterans obtained some of the barracks as well (Tamir et al., 1993). One barracks ended up in Phoenix where it temporarily served as the Arizona Buddhist Temple after the original temple was destroyed by fire (Anonymous, n.d.). Once the buildings were gone, the U.S. Bureau of Land Management refused to further restore the site to its original condition because such restoration was not specified in the contract between the U.S. Government and the Gila River Indian Reservation (Indian Claims Commission, 1971b).

Remains of Gila River. Burton et al. (2002) describe in detail the nature of the Gila River Relocation Center as of about 2000 where much evidence remains of the main portions of Canal and Butte camps. Further, I visited the former relocation center in December 2002. Canal Camp is the most preserved with road network, concrete slabs of various buildings, concrete pier blocks from evacuee barracks (Figure 10.28), landscaping, irrigation ditches, and the sewage treatment plant intact. Much also remains at Butte Camp but erosion has obliterated some of the roads and preparation for agriculture at one time resulted in the bulldozing of some of the concrete pads.
Figure 10.26. Barracks concrete pier blocks amidst creosote bushes of Butte Camp, Gila River Relocation Center. Sacaton Butte in background. Author photograph, December 2002.

into large rubble piles (Figure 10.27). Some concrete pads at both camps have been torn up, presumably in search of cast iron (Scott Russell, written communication, 19 April 2007).

Of particular interest are depressions and landscaping within the barracks areas, and remains of irrigation infrastructure in each of the camps. Depressions within the perimeters of barrack pier blocks indicate the former presence of cellars beneath the barracks (Figure 10.28). The cellars were excavated as places for adults and children to lounge during the heat of the days (Lynn Galvin, written communication, 9 May 2007). The evidence of landscaping is literally everywhere in the residential portions of each of the camps. Numerous rock and/or concrete pools remain from evacuee landscaping efforts (Figure 10.29). Rocks in a variety of sizes, shapes, and sizes often surround entire barracks and along with concrete, may serve as barracks entryways (Figure 10.30). Much of the rock appears to be granite from the surrounding hills and mountains. Tamarisk trees planted by the evacuees still survive in the camps. They are most evident at Canal Camp where they still grow in rows. Unlined irrigation canals, complete with diversion boxes and boards, are still evident along many of the streets in Canal Camp hinting at the importance of water to the center landscaping efforts. The abundance of irrigation canals at Canal Camp as compared to those seen at Butte Camp suggest either that less irrigation water
Figure 10.27. Bulldozed concrete slabs, Butte Camp, Gila River Relocation Center. Author photograph, December 2002.

Figure 10.28. Depression within the perimeter of a former barracks indicating the presence of a cellar, Butte Camp, Gila River Relocation Center. Author photograph, December 2002.
Figure 10.29. Remains of concrete-lined, evacuee-constructed garden pond at Canal Camp, Gila River Relocation Center. Note the link of the pond to the camp irrigation system. Also, note the post-camp growth of creosote bush. Yellow 5 inch by 8 inch field notebook for scale. Author photograph, December 2002.

Figure 10.30. View of remains of native stone entryway into evacuee barracks, Canal Camp, Gila River Relocation Center. Yellow 5 inch by 8 inch field notebook for scale. Author photograph, December 2002.
was available at Butte Camp or subsequent erosion has been more effective in obliterating the Butte Camp canals. It seems most likely that the latter is true.

Despite the ample evidence of each of the camps at Gila River, there is much to be said here for the tenacity of nature in an arid setting. Both sites are again covered with native vegetation and both show much evidence of post-center erosion (Figures 10.31). Further, desert pavement and microbiotic soil crusts have formed at the each of the camps. The desert pavement was likely forming as the soil surfaces were initially disturbed by construction in May 1942. The microbiotic crusts have formed, even in such high use areas such as former baseball fields since the center was closed in 1945 and disturbances essentially ended (Figure 10.32).

Unlike the other western relocation centers, only a few Gila River Relocation Center buildings are present on the lands surrounding the former relocation center (Figure 10.33). It is not clear why this is so as one would expect that the generally impoverished population there would have had ample uses for them. Further, it seems likely that few of the former relocation center buildings have survived the suburban sprawl that has spread south from the Phoenix metropolitan area to the boundary of the Gila River Indian Reservation.

Figure 10.31. A nickpoint formed by headward recession of an ephemeral channel during previous storm runoff at Butte Camp, Gila River Relocation Center. Yellow 5 inch by 8 inch field notebook for scale. Author photograph, December 2002.
Figure 10.32. Microbiotic crust as evidenced by dark areas of soil surface and creosote bush on former baseball field, Canal Camp, Gila River Relocation Center. View from near pitcher’s mound toward backstop. Yellow 5 inch by 8 inch field notebook for scale. Author photograph, December 2002.

Figure 10.33. Part of a Gila River Relocation Center barracks used as a home on the Gila River Indian Reservation. Author photograph, December 2002.
Few interpretive opportunities currently exist for the Gila River Relocation Center. This is unfortunate because of the abundant remains at each of the two camps of the relocation center. The Gila River Indian Reservation Cultural Center includes an interior exhibit and an exterior display pertaining to the relocation center. Access to the site is currently restricted to those who have obtained a permit. Memorial markers are present at each of the camps describing and showing the camps. The Gila River Relocation Center is not listed on the National Register of Historic Places because the tribe views such a designation as a threat to their sovereignty. This is understandable given the fact that the Gila River Indian Reservation peoples did not want the relocation center on their lands in the first place.

**Arizona’s Gila River Indian Community Today.** In 1971, the Gila River Indian Community (GRIC) brought suits against the U.S. Government to recover fair compensation for the U.S. Government’s use of the GRIC lands from 1942-1945 (Indian Claims Commission, 1971a). The Indian Claims Commission agreed that the U.S. Government should compensate the GRIC for not developing the 8,850 acres of land and for not restoring the lands occupied by Canal and Butte Camps (Indian Claims Commission, 1971c; 1971d). Over $1.5 million in damages were subsequently awarded to the Gila River Indian Community (Indian Claims Commission, 1976).

The approximately 17,125 acres that were the Gila River Relocation Center are now part of, or adjacent to, Gila River Farms on Gila River Indian Community lands. Gila River Farms began in 1968 and is a wholly owned subsidiary of the Gila River Indian Reservation. The farms encompass approximately 15,000 acres that grow cotton, alfalfa, wheat, barley, oranges, grapefruit, tangelos, lemons, tangerines, melons, and olives (Figure 7.34). Fish are also raised on the farm (Gila River Indian Community, n.d.a; Robert Stone, 20 December 2002, oral communication). Gila River Farm lands were terraced into 40 acre parcels in 1985 to enable flood irrigation (Robert Stone, 20 December 2002, oral communication). Because of this dramatic change in topography and surface features, it is likely that little remains of the relocation center farming operation in those areas now farmed.

The Gila River Indian Community covers 372,000 acres (about 581 mi²) (Arizona Department of Commerce, n.d.). While still struggling with the economic and social fallout of the decline in water resources, hence the decline in agriculture, that began in the 1870s, the Gila River Indian Community’s fortunes are again on the rise. Agriculture as well as industrial and business parks, golf courses, resorts, and gaming are all playing a role in this economic resurgence (Arizona Department of Commerce, n.d.). The Gila River Water Settlement Act of 2004 more than triples the amount of water available to the community (Gila River Indian Community, n.d.b) paving the way for irrigated agriculture to again be a primary economic activity of the Pimas and Maricopas. As of 1999 the Gila River Indian Community population was 15,084, a tremendous increase over the 1990 population of 9,540, and unemployment had declined from 23% to 20% (Arizona Department of Commerce, n.d.).

As of 2005, the estimated population of Pinal County was 229,549, a 27.9% increase since 2000. The population density of the county is 33.5 persons/mi², close to the statewide average of 45.2
persons/mile². Approximately 59% of the county residents are Caucasians. Latinos, at nearly 30% of the population, have a significant impact on the race and ethnicity in the county. Native Americans make-up another nearly 7.5% of the population. Asians, including Japanese Americans, make up less than 1% of the population (U.S. Census Bureau, n.d.).

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