CHAPTER 8
MANZANAR

Introduction

The Manzanar Relocation Center, initially referred to as the “Owens Valley Reception Center”, was located at about 36°44’ N latitude and 118°09’W longitude, and at about 3,900 feet elevation in east-central California’s Inyo County (Figure 8.1). Independence lay about six miles north and Lone Pine approximately ten miles south along U.S. highway 395. Los Angeles is about 225 miles to the south and Las Vegas approximately 230 miles to the southeast. The relocation center was named after Manzanar, a turn-of-the-century fruit town at the site that disappeared after the City of Los Angeles purchased its land and water. The Los Angeles Aqueduct lies about a mile to the east.

The Works Progress Administration (1939, p. 517-518), on the eve of World War II, described this area as:

> This section of US 395 penetrates a land of contrasts—cool crests and burning lowlands, fertile agricultural regions and untamed deserts. It is a land where Indians made a last stand against the invading white man, where bandits sought refuge from early vigilante retribution; a land of fortunes—past and present—in gold, silver, tungsten, marble, soda, and borax; and a land esteemed by sportsmen because of scores of lakes and streams abounding with trout and forests alive with game. The highway follows the irregular base of the towering Sierra Nevada, past the highest peak in any of the States—Mount Whitney—at the western approach to Death Valley, the Nation’s lowest, and hottest, area.

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

Physical Setting

Physiography, Geology and Landforms. The Manzanar Relocation Center lay at the boundary of the Great Basin section of the Basin and Range physiographic province and the Sierra Nevada section of the Cascade-Sierra Mountains (Fenneman, 1931) (Figure 8.2). 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.
Figure 8.1. Inyo County, California and adjacent counties. Adapted from American Automobile Association California Roadmap (1995).
Figure 8.2. Manzanar and the Great Basin within the Basin and Range physiographic province. Map adapted from Fenneman (1931, Plate 1).
(Fenneman, 1931). The Sierra Nevada portion of the Cascade-Sierra Mountains is an approximately 400 mile long, north-northwest oriented, asymmetrical mountain range with a gentle west face and an abrupt east face (Fenneman, 1931). Manzanar lay in the north-northwest trending Owens Valley and in the shadow of the nearby Sierra Nevada Range. The Inyo Mountains are immediately east and the White Mountains lie to the northeast (Figure 8.3). Elevations over the former relocation center range from about 4,265 feet on the western boundary to approximately 3,800 feet on the eastern boundary. The gradient over these lands is about 170 feet/mile. However, nearby Mount Williamson towers to 14,375 feet in the Sierra Nevada Range while 13 miles to the northeast, the Owens River lies at about 3,660 feet. Nearby Mount Inyo in the Inyo Range rises to just over 11,100 feet.

The geology of the area ranges from bedrock mountains to recent fill in the lowlands. The Sierra Nevada Range in the vicinity of Manzanar is composed of Mesozoic (i.e., approximately 250-65 million years ago) intrusive igneous rocks including granodiorite and granite, and a small amount of metavolcanic (i.e., metamorphosed volcanic) rock (Moore, 1981; Stone et al., 2000) (Figure 8.4). The Alabama Hills, just south of Manzanar, mostly consists of Mesozoic volcanic tuff (i.e., volcanic ash that has hardened to form rock). Across Owens Valley, the Inyo Mountains are composed of Paleozoic (i.e., about 550-250 million years ago) sedimentary and metamorphic rocks that were intruded by Mesozoic plutons and covered by Mesozoic lava flows. Both mountain ranges are characterized by steep topography (Figure 8.5). Lying downslope of the exposed bedrock of the Sierra Nevada Range are late Cenozoic (i.e., about the last five million years) stream-deposited alluvium and slope process-deposited colluvium in the form of massive, gently sloping, coarse-textured, coalescing alluvial fans (Figures 8.4 and 8.5). The bulk of the Manzanar Relocation Center sits on younger, but now inactive, coarse-textured alluvial fan deposits at the base of the piedmont (i.e., gently sloping surface at the base of a mountain range). Much of the sediment of these fans likely has its origins in the glaciers that occupied the high portions of the watersheds above Manzanar (Stone et al., 2000). The Owens Valley floor is mantled with low relief, fine-grained, late Cenozoic paleo-Lake Owens deposits, the predecessor to contemporary Owens Lake (Figure 8.6). Paleo-Lake Owens, at its greatest depth of about 260 feet, extended upvalley of Independence to an elevation of 3,805 feet between 27,000 and 15,300 years before present (yr B.P.) (Bacon et al., 2006). At its highstand, this lake overflowed into a series of paleolake basins to the south and east (Gale, 1914). Paleolake deposits have been incised by the recent Owens River. Recent wind transported eolian sand sheets blanket the shore features and deposits of paleo-Lake Owens, especially on the east side of the valley.

Two Cenozoic fault zones have visibly altered the landscape of the area. The Sierra Nevada Frontal Fault Zone serves as the general boundary between bedrock and more recent deposits along the east face of the Sierra Nevada and has played a major role in creating the topographic contrasts in the area (Figure 8.5) (Stone et al., 2000). Up to 9,840 feet of vertical displacement is evident along this fault zone (Beanland and Clark, 1994). As a result of this faulting, Owens Valley can be considered a complex graben (i.e., block dropped by faulting) while the adjacent mountain ranges are each horst (i.e., block uplifted by faulting) (Hollett et al., 1991). The Owens Valley Fault Zone runs just east of the former center (Figure 8.4). The 1872 Lone Pine
Figure 8.3. Cumulative historical map of the Owens Valley area, including the Manzanar Relocation Center. Adapted from Mariposa, Fresno, and Death Valley 1:250,000 U.S. Geological Survey topographic maps.
Figure 8.4. Geology of the Manzanar Relocation Center, California and vicinity. Adapted from Stone et al. (2000).
Figure 8.5. Topographic map of Manzanar Relocation Center, California and vicinity. Adapted from U.S. Geological Survey Mount Whitney, California 1:100,000-scale topographic map.
Figure 8.6. Late Pleistocene Owens Lake and Owens River in relation to other paleo-lakes and paleo-floods in the Great Basin, Western U.S. Adapted from Williams and Bedinger (1984).
earthquake that occurred along the Owens Valley Fault Zone registered a Magnitude 8 on the Richter scale (Stone et al., 2000). Lone Pine’s adobe and brick structures were devastated by this “great quake” killing 27 residents, fully 10% of the town’s population. Most of the earthquake’s slip was horizontal and dextral (i.e., right lateral), amounting to as much as 33 feet in Lone Pine. Approximately 3-7 feet of vertical offset occurred near Manzanar (see Plates 1 and 2 in Beanland and Clark, 1994).

Weather and Climate. The middle latitude, intermediate elevation, east of the Sierra Nevada-setting leads to hot, dry summers and cool to cold, moist winters. The climate of the area is classified under the Koppen system as a cold desert (BWk).

The mid-latitude setting results in a systematic change in sun angles and distinct temperature patterns throughout the year (Figure 8.7). The continental, leeward location east of the Sierra Nevada Range means clear skies for much of the year thus enhancing the daily temperature range. The intermediate elevation decreases temperatures in all seasons, as compared to other nearby, lower elevation settings. The 1931-1960 average January temperature at Independence was about 39°F while the average July temperature was 80°F (Figure 8.7). The mean annual temperature during the same period was nearly 59°F (Western Regional Climate Center, n.d.a). The growing season (i.e., last 32°F killing frost of spring to the first killing frost of the fall) at Independence five out of ten years is 210 days extending from 9 April to 2 November (Western Regional Climate Center, n.d.a).

Annual precipitation was approximately 4.6 inches/year in Independence (Figure 8.7) during the period 1931-1960 hence the moniker “Land of Little Rain” (Austin, 1950; Western Regional Climate Center, n.d.a). Average precipitation did not exceed 1.1 inches in any month during this period. The dominance of high barometric pressure (i.e., Pacific High), position in the lee of the Sierra Nevada Range, and location approximately 180 miles inland of the Pacific Ocean causes the overall dry conditions of the area. The seasonality of the precipitation (i.e., 81% of the precipitation falls from October through March) results from the shifting of the Pacific High. The weakening and equatorward shifting of the Pacific High allows mid-latitude cyclones to penetrate the area in the winter. Summers are dry because of the dominance of the Pacific High over the area thus shifting storm tracks to the north (Western Regional Climate Center, n.d.b). While annual precipitation is generally low, Independence has experienced significant variability in its precipitation record over the same period—a high of 10.2 inches/year in 1945 and a low of 1.8 inches in 1953 (Western Regional Climate Center, n.d.a). Precipitation also changes markedly with elevation in the vicinity of Manzanar. Independence received 4.6 inches/year during the 1931-1960 period; however, it is likely that high elevations of the Sierra Nevada Range just 10-15 miles west received 20-25 inches/year. Bishop, located about 30 miles to the north, averages about 13 thunderstorms/year, with most occurring in July (Tallyn, 2002). Annual snowfall averaged approximately nine inches/year at Independence during the 1931-1944 period. Like overall precipitation, annual snowfall totals range widely—e.g., from no snowfall in 1931 and 1934 to nearly 21 inches in 1933 (Western Regional Climate Center, n.d.a). Three significant droughts occurred during the 1931-1960 period—1928-1937, 1943-1951, and 1959-
Figure 8.7. Independence, California climograph, 1931-1960. Data from Western Regional Climate Center (n.d.a).

Various accounts mention the frequent and often strong winds of Owens Valley that generally follow the long axis of the valley, flowing either north or south (Hollett et al., 1991). Winds result from barometric pressure gradients that shift with the passage of fronts and cyclones through the seasons.

Soils. The soils of the former Manzanar Relocation Center are a function of the five soil forming factors—i.e., parent material, topography, climate, biota, and time. Parent materials are nearly all alluvium associated with alluvial fans and fan terraces formed at the base of the Sierra Nevada Range. Soils range from sand to clay textures but tend toward coarser textures with ample gravels. Poorly developed entisols (e.g., Inyo Series) form where sandy parent material predominates (Figure 8.8). All are deep (>60 inches) and most are well drained. Soil pH ranges from slightly acid to strongly alkaline, with most soils tending toward alkaline as expected in a semi-arid environment. The native desert scrub vegetation of the area means that little organic matter accumulated atop or within the soils except in moist areas. Organic-rich Mollisols (Dehy, Conway and Morey series) and histosols (Rindge Series) formed in those areas where sufficient water accumulates to develop more lush vegetation. Other entisols (Cartago and Goodale series) may reflect the lack of time for soil development while aridisols (Lubkin, Reinhakel, Spainhower, Tinemaha, and Winnedumah series) are remnants of older alluvial fan surfaces that have had sufficient time for soil development (Tallyn, 2002). Such variety in soil formation is characteristic of alluvial fan surfaces.

All of the soils of the Manzanar Relocation Center site are Land Capability Classification (LCC) VI or VII soils thus fit in the category of “Land Limited in Use—Generally Not Suited to Cultivation.” The LCC VI soils have severe limitations that make them generally unsuitable for cultivation and limit their use primarily to pasture. These include the Cartago, Conway, Lubkin, Spainhower, and Tinemaha series, and their associated complexes. These soils are limited by excessive erosion or water. The LCC VII soils have very severe limitations that make them unsuitable for cultivation and restricted to grazing, woodland, and wildlife. These include the Dehy, Goodale, Inyo, Morey, Reinhakel, Winnedumah series and their associated complexes. These soils are limited by excessive erosion, excessive water, and problems in the rooting zone including coarse texture (Tallyn, 2002; U.S. Natural Resources Conservation Service, n.d., Part 6.22). Based on these soil characteristics, it is surprising that agriculture has occurred at the site over time (see below).

Water. Manzanar Relocation Center was situated in the Owens River Watershed, a hydrologically closed basin (i.e., surface water terminates in an inland basin rather than the ocean) drainage system in historical times. The Owens River originates along the east face of the Sierra Nevada Range above Crowley Reservoir, and flows south-southeast paralleling the Sierras and the White and Inyo mountains to the east. It is a low gradient stream that meanders along the
Figure 8.8. Soils of the Manzanar Relocation Center, California and vicinity. Adapted from Tallyn (2002).
bottom of the Owens Valley but is pushed to the east because of the extensive alluvial fans from
the east face of the Sierra Nevada Range. Prior to early 20th century upstream irrigation and
water removal by the City of Los Angeles, the river terminated in Owens Lake. At that time,
Owens Lake’s surface area was greater than 100 mi² with a depth of more than 20 feet. Since the
water diversions, evaporation exceeds Owens River flow to the basin floor in all but very wet
years so Owens Lake is now best thought of as a *playa* (i.e., seasonally wet basin) (Hollett et al.,
1991). The 1931-1960 annual discharge of the Owens River at Big Pine shows generally below
average discharge in 1931-1936 and generally higher than average discharge from 1946-1960
(Figure 8.9). The years between 1936 and 1946 displayed more variability including extremely
high discharge in 1937 and 1938, and two of the lower discharge years on record.

Numerous tributary streams flow out of the Sierra Nevada toward the Owens River. At
Manzanar, four named tributaries flow out of the Sierra Nevada Range—Shepherd, Bairs, George,
and Hogback creeks (Figure 8.5). Shepherd, George and Hogback creeks are perennial while
Bairs is intermittent. Characteristic of alluvial fans, all have *distributaries* that branch on the
upper surface, thus distributing stream flow to different parts of the fans. According to the
topographic maps of the area, only Shepherd Creek persists to the Owens River channel. The

Figure 8.9. Mean annual discharge for the Owens River at Big Pine, California. Data from
http://nwis.waterdata.usgs.gov/nwis/annual.calendar_year/.
Flooding on these streams is likely a winter storm season phenomenon as well as being associated with spring snowmelt events (Paulson et al., 1991).

Groundwater levels are generally near the surface in the Owens River Valley. In 1984, groundwater others are intercepted by the Los Angeles Aqueduct, the Stevens Canal, or the porous sediments at the alluvial fans’ lower ends. Levels ranged from 20-70 feet below the surface at Manzanar. Ground water in Owens Valley is generally of excellent quality. Specific conductance (i.e., a measure of the amount of salts dissolved in water) ranged from 180-192 micromhos. These values fall well within acceptable levels for public supply (Hollett et al., 1991).

**Biota.** The Manzanar Relocation Center lay in the Intermountain Semi-Desert and Desert Province near its boundary with the American Semi-Desert and Desert (Bailey, 1994) (Figure 8.10). Vegetation patterns in the area are a function of climate and associated soil moisture, soil chemistry, and human land uses. Big sagebrush (*Artemisia tridentata*) is the dominant xerophyte (i.e., desert plant) shrub of the area and may occur with antelope bitterbrush (*Purshia tridentata*), shadscale (*Atriplex concertifolia*), rabbitbrush (*Chrysothamnus* spp.), wild rose (*Rosa woodsii*), and spiny hopsage (*Atriplex spinosa*). In areas with high concentrations of soil salts, halophytes (i.e, salt tolerant plants) such as greasewood (*Sarcobatus vermiculatis*) and various saltbushes (*Atriplex* spp.) are more common (Bailey, 1995; U.S. National Park Service, n.d.a).

Mammals of this province include mule deer (*Odocoileus hemionus*), ground squirrels (*Spermophilus* spp.), jackrabbits (*Lepus* spp.), kangaroo mice (*Microdipodops* spp.), and wood rats (*Neotoma* spp.). Predators such as kit foxes (*Vulpes macrotis*), mountain lions (*Puma concolor*), bobcats (*Lynx rufus*) and badger (*Taxidea taxus*) may be found here. The area is also home to a variety of bird life including burrowing owls (*Athene cunicularia*), American kestrel (*Falco sparverius*), golden eagle (*Aquila chrysaetos*), ferruginous hawk (*Buteo regalis*), various other western hawks, and numerous songbirds (Bailey, 1995; U.S. National Park Service, n.d.b).

**Human Setting**

**Race and Ethnicity.** Owens Valley has seen a variety of races and ethnic groups over time. These have included Native Americans, Caucasians (primarily from the Midwestern U.S. and northern Europe), Mexicans, Chinese, and Japanese.

East-central California (including the Owens River Valley) lies in the Great Basin Culture Area (Waldman, 2000). Native Americans have occupied Owens Valley for at least the past 5,500 years. Since the time of EuroAmerican contact, the 1,000-2,000 Native Americans have been characterized separately as “Owens Valley Paiute” because of their unique, semi-permanent dwellings, sociopolitical organization and interactions, and irrigated agriculture (Liljeblad and Fowler, 1986). Tensions between Owens Valley Paiute and EuroAmericans mounted as growing communities devoured the mountain forests for lumber, the valley meadows for stock feed, and the wildlife on which the Native Americans depended (Unrau, 1996a). By winter 1861-1862, the Owens Valley Paiute resorted to raids on cattle herds to satisfy their hunger. The U.S. Army was
Figure 8.10. Ecoregion map showing Manzanar's location on the boundary of the American Semi-Desert and Desert and Intermountain Semi-Desert and Desert ecoregion provinces. Adapted from Bailey (1995, Foldout Map).
called in and established Camp Independence near present-day Independence to protect the white settlers from the Owens Valley Paiute (Wehrey, 2006). Ensuing conflict and the military’s “scorched earth” policy of destroying Indian homes and food supplies led to the surrender and subsequent removal of about 1,000 Owens Valley Paiute in spring and summer 1863 to the San Sebastian Indian Reservation near Fort Tejon in California’s southern San Joaquin Valley. Poor conditions on the reservation led many of the Owens Valley Paiute to escape and return to the Owens Valley. Sporadic attacks against the whites occurred until the military re-established Camp Independence soon after 1864 (Unrau, 1996a). By 1870, approximately 1,150 Owens Valley Paiute lived in the valley on the margins of the white settlements working for whites in a variety of capacities including farming, ranching, and mining (Sauder, 1990; Unrau, 1996a). The 356 acre Fort Independence Reservation near Independence was established in 1915 and enlarged in 1916 (Van Horn, 2001; Wehrey, 2006). Three other small Indian Reservations were established at each of the other Owens Valley towns in 1937–Lone Pine Indian Reservation, Big Pine Indian Reservation, and Bishop Indian Reservation (Van Horn, 2001). By the early 1930s, the Owens Valley Paiute lived in each of the towns of the area and worked on nearby ranches and highway crews. They continued to hunt, gather pine nuts, and various seeds. Other than some traditional arts and crafts, as well as shaman and herbal-based medicine, Paiute culture had essentially disappeared by the 1930s. An Indian Service census recorded 970 Owens Valley Paiute in 1930 (Steward, 1933).

Owens Valley apparently did not feel the direct influence of the Spaniards or their successors, the Mexicans, prior to the 20th century. In 1834, Joseph Walker led a beaver trapping expedition through Owens Valley becoming the first Caucasian to travel through the area (Lawton et al., 1976). Walker likely traveled through the valley again in 1843 as he led an emigrant party west from northwestern Nevada over Walker Pass and into Southern California (Lawton et al., 1976). Most of the early EuroAmerican farmers of Owens Valley were from the Midwest, Middle Atlantic, and New England states. British, Germans, and Canadians were also prominent among the early immigrants to the valley (Sauder, 1990). Basque sheep herders were present in the vicinity of Bishop and, to a lesser extent, Big Pine, as sheep grazing increased in the valley (Brown, 1977).

Mexicans came to the area in search of gold after the 1849 gold rush (Brown, 1977). Many worked for the salt mining companies on Owens Lake and lived at Cartago in the 1930s (Salas, 2006). A few Mexican families were living in Lone Pine prior to World War II (Branson, 1977). Chinese followed the Mexicans into Owens Valley mining gold, especially in the White Mountains (Brown, 1977). Chinese miners worked at Cerro Gordo east of Owens Lake (Figure 8.3) (Branson, 1977). Chinese also worked as cooks at area hotels and restaurants, and on the railroads of the valley (Kelley, 1977). Independence even had a Chinatown (Fausel, 2006).

California’s Japanese population grew rapidly over time from 33 in 1870 to 94,456 in 1930, then dropped to 92,717 in 1940 (Figure 8.11). The population of Inyo and adjacent Fresno, Kern, Mono, San Bernadino, and Tulare counties, California as well as adjoining Clark, Esmerelda, and Nye counties, Nevada generally mirrored the California trend (Figure 8.11). However, when
considering Inyo County alone, it is clear that Japanese Americans were relatively foreign to the inhabitants of Owens Valley prior to the opening of Manzanar in March 1942. The U.S. Census shows no Japanese Americans in Inyo County until 1910 when 41 were identified. Eighty-two Japanese were present in 1920, 20 in 1930 and only 1 in 1940 (U.S. Bureau of the Census, 1913; 1922; 1932a; 1943a). Several Japanese worked in a Bishop hotel around the turn of the century and several Japanese gardeners lived and worked in Bishop at about the time of World War I (Bell, 1977; Brierly, 1977). A Japanese man was also a section foreman at the railroad station near Independence prior to World War II (Kelley, 1977).

**Economic Geography.** The pre-World War II economic geography of the Owens Valley and Manzanar centered on hunting and gathering, agriculture, military, mining, tourism, and transportation. All of these activities, in one way or another, depended on the ready availability of water.
Hunting, fishing, and gathering was practiced by the Owens Valley Paiute who lived seasonally in Owens Valley proper but whose range of influence stretched from the Owens Valley floor to the high Sierra, Inyo, and White mountains. Deer and mountain sheep were hunted in the mountains. Fishing of native suckers, pupfish, and minnows in the Owens River and its tributaries also played a role in their economy. Gathering played a much larger role in their local economies and included roots and bulbs, seeds (e.g., Indian ricegrass), and berries from across the area. Brine fly pupae and larvae were gathered from the shores of saline Owens Lake, and pinyon nuts, acorns, and caterpillars of the pandora moth were collected from the mountain forests and woodlands (Lawton et al., 1976; Liljeblad and Fowler, 1986).

The first agriculturalists of the valley were also the Owens Valley Paiute. It is likely that their agricultural patterns originated in situ, independent of other Native American influences and well before the arrival of EuroAmericans (Lawton et al., 1976). In the Owens Valley Paiute agricultural system, hydrophytic (i.e., water-loving) native species were irrigated in those areas that were naturally wet (Liljeblad and Fowler, 1986). The plants irrigated included wild hyacinth (Dichelostemma pulchella) and yellow nut-grass (Cyperus esculentus L.) (Lawton et al., 1976). Irrigation occurred via diversion dams on the tributary creeks emanating from the Sierra Nevada and ditches necessary to convey the waters from the creeks to the fields (Steward, 1930). Native Americans irrigated and harvested plots every other year, likely to reduce competition from other species and to increase the numbers and sizes of the wild hyacinth and yellow nut-grass tubers (Steward, 1933). The size of the irrigated plots suggests that agriculture played a significant role in the diets of the Native Americans. Ten well-defined areas of past Native American irrigation are located in the 57-mile stretch of Owens Valley between Rock Creek north of Bishop southward to Independence Creek at Independence. All are found at 4,000-5,000 feet elevation at the eastern base of the Sierra Nevada Range, and most occur north of Big Pine. The approximately 2,000 Native American occupants and the thirty permanent villages scattered from Round Valley in the north to Owens Lake in the south made this valley one of the most densely populated in the region, likely reflecting early agriculture (Lawton et al., 1976).

Mining indirectly resulted in perhaps the largest land use changes in Owens Valley since the shrinking of paleo-Lake Owens to Holocene levels (Lawton et al., 1976). Gold and silver discoveries north of Owens Valley in 1859-1860, as well as several subsequent prospects in the Inyo Range, attracted a stream of miners and others determined to “strike it rich” (Sauder, 1995; Unrau, 1996a). It was those peripherally associated with mining who directly caused most of the changes—i.e., the influx of ranchers and farmers who provided much of the food of the mining camps but displaced the Owens Valley Paiute as they grew that food. Independence originated in 1861 as a trading post to serve those traveling to the mines. Lone Pine formed two years later (Hoover et al., 1966). Nearly all of Owens Valley’s early mining camps were located in or at the base of the White or Inyo Mountains. Mining began at Cerro Gordo east of Owens Lake in 1865 and operated continuously until 1877 (Figure 8.3). The yield of approximately $17,000,000 in silver, made this the richest silver mining district in California history (Unrau, 1996a; Wehrey, 2006). The decline of Cerro Gordo and the closure of Camp Independence in the late 1870s ended a period of relative economic prosperity in the Owens Valley (Unrau, 1996a). Mining of
the various salts associated with the Owens Lake bed began in 1885 and have included sodium carbonate (i.e., “soda ash”), trona, and borax over time (Bateman et al., 1978).

Contemporary agriculture started in Owens Valley with cattle and rapidly shifted to include crops. As stated above, this was a response to the needs of mining camps in the area. Cattle were driven from southern California over Walker Pass and up Owens Valley to the mining camps beginning in 1861 (Sauder, 1995). To avoid the long trek from southern California and to take advantage of the local grazing opportunities, ranches soon sprang up in Owens Valley. Samuel Bishop established the first stock ranch near the town that now bears his name in summer 1861, and within several months, Owens Valley’s ranch numbers had swelled to nearly a dozen (Chalfant, 1933; McGrath, 1984). Bishop thus grew to serve the ranchers and farmers as well as miners and tourists of the area (Works Progress Administration, 1939). At least one ranch developed in the Lone Pine area during this time. A drought during the period 1862-1864 forced stockmen to develop a system of transhumance whereby they trailed large flocks of sheep and herds of cattle through the Owens Valley each spring en route to the Mono Basin and the high summer pastures of the Sierra Nevada Range before returning to their lowland farms west of the Sierra Nevada Range for the winter months (Unrau, 1996a).

Farming soon followed the cattle to the area. The Midwestern U.S. transplants to the area brought a three-crop rotation to the lands. Corn and hay were fed to livestock while wheat was sold for their cash crop along with cattle in nearby towns and mining camps. Over time, the cropping system changed to alfalfa each year on some plots while other plots had a two-crop rotation of corn and small grains (Sauder, 1990). The more permanent settlers and settlements associated with farming required more government (Sauder, 1995). Inyo County thus formed in 1866 with Independence as its county seat (Chalfant, 1933). Conflicts between farmers and stockmen in the 1870s were resolved generally in favor of the farmers by 1875 when stockmen were deemed responsible for cattle-related destruction of fenced or unfenced farm property year round (Sauder, 1990). Just prior to the start of World War II, approximately 20-30 cattle ranches operated in the vicinity of Lone Pine (Brown, 1977).

Early on, agriculture between George and Shepherd creeks was largely controlled by the Shepherd family (Figure 8.5). By the late 1880s, John Shepherd had 1,300 acres of land (including a large portion of what later became the Manzanar Relocation Center) and 66% of the water rights of Shepherd Creek. The Shepherd agricultural empire included cattle, sheep, fruit (e.g., apples, pears, peaches, apricots, nectarines, plums, and cherries), corn, wheat, and hay. By 1893, 28 families lived on properties in the vicinity of George and Shepherd creeks. In 1905, John Shepherd sold his 1,300 acre Shepherd Ranch to the George Chaffey family, who set out to develop an irrigation colony. The resulting Owens Valley Improvement Company platted a subdivision (Manzanar Irrigated Farms) within which they laid out a townsite (Manzanar) and, by 1910, installed a water system adjacent to the highway that would later be known as US 395. The Spanish name “Manzanar” (meaning apple orchard or apple grove) was chosen because apples were a reasonable crop for the climate of the area and the completion of the Southern Pacific “Jawbone” spur line from Mojave up the west side of Owens Lake to Owenyo in 1913 provided growers with a ready transportation link to southern California (Figure 8.3) (Unrau,
Lots at Manzanar were sold beginning in 1910. Over time, all facets of a small town began to develop including a school, community hall, garage, lumber yard, blacksmith shop, store, post office, cannery and apple packinghouse (Unrau, 1996a; Roddy, 2006). By 1912, 20,000 apple trees had been planted at Manzanar. The Manzanar Fruit and Canners Association was incorporated in summer 1918 to deal with preserving, packing, handling, and selling the fruits and vegetables raised at the site. In 1920, 203 people lived at Manzanar and the adjacent George Creek settlements (Unrau, 1996a). While Manzanar fruit was prized for its size and quality, late spring frosts in three out of every five years damaged crops (Roddy, 2006). Because of this, most the owners of Manzanar lands were happy to sell when the City of Los Angeles came to Owens Valley to secure land and water rights in the early to mid-1920s. Despite the City of Los Angeles’ purchase of Manzanar and its water, the City maintained and operated the orchards until 1933 (Taylor, 2006). Even in the late 1920s, 20-30 families were living at or near Manzanar. However, by the eve of World War II, only one family remained. Few, if any, houses remained at that time on the Manzanar property but hardy orchard trees still grew there (Zediker, 2006).

Water is the bond that ties most, if not all, of Owens Valley’s economic activities together. Farms and ranches developed on the well-watered alluvial fans at the base of the Sierra Nevada Range. All four primary EuroAmerican communities in Owens Valley developed on major streams emanating from the Sierra Nevada. Interestingly, all four were located on the former irrigated fields of the Owens Valley Paiute. Most of the discharge of the tributary streams exiting the Sierra Nevada had been appropriated by farmers by the late 1870s. The Desert Land Act of 1877 gave title to 640 acres of irrigable land to farmers who brought a portion of these lands under irrigation within three years. By 1901, Owens River water was diverted through nearly 200 miles of irrigation canals and ditches, most of which were located in the north end of the valley. Southern Owens Valley irrigation systems grew more slowly because of less water draining from the southern Sierra Nevada Range thus fewer farmers were present to work cooperatively in its subjugation (Sauder, 1995).

The next major change in Owens Valley land use occurred early in the 20th century. At the transition from the 19th to the 20th century, Los Angeles’ population was growing at a phenomenal rate,—i.e., doubling between 1890 and 1900, and expected to triple by 1910 (Wehrey, 2006). City leaders realized that it would need additional water supplies to keep up with its population growth. Realizing the amount of water available in Owens Valley and that an aqueduct could carry water from there 225 miles south Los Angeles, the City began purchasing land and water rights to those lands in Owens Valley in the first decade of the 20th century. Los Angeles’ efforts were supported by Progressive U.S. President Theodore Roosevelt and his administration. The aqueduct was completed in 1913, transporting water to the San Fernando Valley just north of Los Angeles, where it was initially used to irrigate farmlands because of insufficient domestic or industrial needs for it. A drought in the early 1920s, combined with continued rapid population growth in Los Angeles, put the City of Los Angeles back in the water acquisition business in the northern Owens Valley. This later period of acquisition caused much more concern among Valley residents, and anger and violence toward the City since its quest for water was dividing communities and neighbors. The financial collapse of the only banks in the
Owens Valley effectively ended opposition to the City because Valley residents no longer had money to hold out. By 1933, the City of Los Angeles owned 95% of all Owens Valley farmland, and 85% of all town property (Reisner, 1993; Unrau, 1996a).

Owens Valley has long served as a transportation corridor between the towering Sierra Nevada Range to the west, and the Basin Ranges to the east. Native Americans likely used Owens Valley as a transportation corridor. The valley was an early route of travel for fur trappers and subsequent immigrants, each using Walker Pass as the exit point to Southern California (Lawton et al., 1976). By the late 1850s and early 1860s the Valley had become a great “thoroughfare” to gold mining boom towns in the Eastern Sierra Nevada Range (Chalfant, 1933). A main stagecoach road and Wells Fargo offices were located throughout the Owens Valley by 1880 (Beck and Haase, 1974). The Carson and Colorado Railroad, a narrow gauge affectionately referred to as “Slim Princess”, was constructed southward from Carson City, Nevada to dead end at Keeler, on the east side of Owens Lake, in 1883 (Figure 8.3) (Bateman et al., 1978). In 1913, the Southern Pacific completed the “Jawbone” spur line to haul construction materials for the Los Angeles Aqueduct (Unrau, 1996a; Roddy, 2006). Thus, southern Owens Valley was served by two railroads beginning in 1913. U.S. highway 395 was paved through the valley by 1931 (Cooper, 2006).

Tourism has long played a key role in the economic geography of Owens Valley. Tourism especially took off when road paving was complete from Los Angeles through the Owens Valley (Hopkins, 1977). In 1940, one million tourists traveled through the valley bound for points north on US 395 or to horse pack, hike, fish or hunt in the Sierras (Works Progress Administration, 1939; Wehrey, 2006). The movie industry, loosely associated with tourism, has been a mainstay in the Alabama Hills north and west of Lone Pine area since before 1920 (Figure 8.3). Approximately 150 films, most of which were westerns, were made there between 1919 and 1989, and included famous actors and actresses such as Lucille Ball, Humphrey Bogart, Clark Gable, Steve McQueen, Gregory Peck, John Wayne, and Shelley Winters (Holland, 1990).

Four primary but small communities developed in the Owens Valley–Bishop (population 1,159), Big Pine (population 200), Independence (population 408), and Lone Pine (population 360) as of 1939 (Works Progress Administration, 1939) (Figure 8.1). Lone Pine, with its mix of Americans, Asians, Chileans, French, Indians, Mexicans, and Swiss in 1873, was probably the most racially diverse of the Owens Valley towns (Unrau, 1996a). On the eve of World War II, cattle ranching, along with tourism and mining, were the main economic activities helping keep Lone Pine afloat. Independence had long depended on government as the county seat and as the regional office for Los Angeles Department of Power and Water (Brown, 1977).

Why this Location?

Initially, the U.S. Army wanted to place all West Coast Japanese evacuees in Owens Valley. However, the City of Los Angeles balked at this plan because of the huge amount of water required for such an undertaking (Ewan, 2000).
Figure 8.12. View west at Manzanar with the towering Sierra Nevada Range in the background. Also, notice dust over center. Dorothea Lange photograph, July 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 78, Section C, WRA # -838, War Relocation Authority Photographs of Japanese American Evacuation and Resettlement, Series 8: Manzanar Relocation Center, Manzanar, California.

The proposed 6,000 acre Manzanar Relocation Center site lay entirely on City of Los Angeles lands (U.S. Army–Western Defense Command, 1943) (Figure 8.12). The U.S. Army Corps of Engineers chose the site in late February because of its distance from any vital defense projects, relative inaccessibility, and its “general geography” after considering at least three other sites in Owens Valley including the south end of Owens Lake, at Bishop, and on the east side of the valley (Brown, 1977, p. 27; Unrau, 1996a). Manzanar included ample relatively level ground and available water from tributary streams emanating from the Sierra Nevada Range. Soon after news of the Army’s decision to locate a relocation center at Manzanar leaked out, the City of Los Angeles and residents of the various communities of the Owens Valley were in an uproar. Los Angeles officials were concerned for the safety of the Los Angeles Aqueduct against perceived threats of sabotage. Army General John DeWitt assured the City of Los Angeles that the U.S. military would make take adequate provision to protect the water in the Los Angeles Aqueduct. A Declaration of Taking granted the Western Defense Command legal right to lease the land from the City of Los Angeles during the wartime emergency. Winning over the residents of
Owens Valley was another matter. The Inyo County Board of Supervisors was upset that they were not consulted prior to site selection. Other residents did not want Japanese Americans and they did not want a prison camp there. Only after editorials in the local newspapers espoused patriotism and after promises from the Wartime Civilian Control Authority (WCCA) that the Japanese would undertake a series of public works projects for the benefit of the valley did the valley resident’s clamor fade (Unrau, 1996a).

**Building Manzanar**

Land clearing and utility ditch excavation began on 15 March 1942 and building construction initiated two days later. Approximately 600 men worked 10 hours a day to complete the center. Portions of the center were deemed sufficiently complete to welcome the first trainload of 400 evacuees on 1 April (Unrau, 1996).

The 540 acre main area consisted of 67 blocks, 36 of which were residential while the remaining were for staff housing, administration, warehouses, garages, hospitals, and firebreaks (Figures 8.13 and 8.14). Rather than being aligned to True North, the blocks and associated roads paralleled U.S. highway 395. Roads throughout the main developed area were paved or oiled. East-west roads were numbered while north-south roads were lettered. The central developed area was surrounded by a five-strand, barbed wire fence punctuated by eight guard towers (Burton et al., 2002).

Each residential block in Manzanar consisted of 14 barracks, one mess hall, two latrine-shower buildings, one laundry building, one ironing building, one community services (i.e., recreation) building, and a fuel oil tank, and served approximately 250 evacuees (Figure 8.14) (Houston and Houston, 1973; Burton et al, 2002). Each 20 feet by 100 feet barracks consisted of four to six single-room apartments ranging in size from 16 feet by 20 feet, 20 feet by 20 feet, and 24 feet by 20 feet (Unrau, 1996a; Burton et al., 2002; R. Potashin, 4 June 2007, written communication). Evacuee barracks, mess halls, and recreation halls were elevated off the ground on concrete piers, framed in wood, sheathed with boards, and covered with black tarpaper. The latrine-shower, laundry, and ironing buildings all sat on concrete slabs (Armor and Wright, 1988; Unrau, 1996a; Burton et al., 2002). Eventually, evacuees covered the inside walls of the barracks with gypsum board and the floors with a linoleum-like product (Houston and Houston, 1973; Unrau, 1996a). The WCCA, and subsequently the War Relocation Authority (WRA), provided cots, straw-filled mattresses, three U.S. Army blankets, and an oil heating stove for each evacuee apartment (Houston and Houston, 1973; Armor and Wright, 1988). All other furniture needed to be made or purchased by the evacuees. As a comparison, staff housing at Manzanar was painted, air conditioned, and had indoor plumbing and refrigerators (Commission on Wartime Relocation and Internment of Citizens, 1982).

Domestic water was diverted from the main branch of Shepherd Creek and stored in a 540,000 gallon reservoir on a distributary channel about 0.5 mile northwest of the main part of camp. Water was chlorinated en route to the reservoir. This dependence on surface rather than ground water resulted in water shortages in the dry season (Staff, 16 October 1943). Irrigation water
Figure 8.13. Overall map of the Manzanar Relocation Center. Adapted from Burton et al. (2002, p. 164).
Figure 8.14. Detailed map of main part of Manzanar Relocation Center. Adapted from Burton et al. (2002, p. 165).
came from streams emanating from the Sierra Nevada Range and from two wells in the camp (Unrau, 1996a).

Materials coming to the center typically arrived by train at Lone Pine. Six evacuees worked there to offload material and arrange transport to Manzanar (Burton et al., 2002).

**Origins of the Evacuees**

Evacuees came primarily from California’s Los Angeles (8,828), Sacramento (370), and San Joaquin (178) counties (Figure 8.15). Another 21 California counties contributed 414 evacuees. Alaska, Arizona, Oregon, Washington, and “other states” away from the West Coast added 248 evacuees with 226 of these coming from Washington’s Kitsap County (i.e., Bainbridge Island) (U.S. War Relocation Authority, 1946). Most evacuees came directly from Los Angeles County to Manzanar because of its 21 March-1 June 1942 role as an Assembly Center (U.S. Army–Western Defense Command, 1943). Others moved directly from Stockton, California (Burton et al., 2002). The Santa Anita Assembly Center provided 128 evacuees. Fresno, Pomona, Puyallup, Tanforan, Tulare, and Turlock sent another 190 evacuees (U.S. Army–Western Defense Command, 1943).

An interesting aspect of Manzanar’s population was the inclusion of all Japanese American orphans who were living in the restricted zone at the time of mandatory evacuation. This included even those orphans who were one-half Japanese living in Caucasian homes or those who were as little as 1/32nd Japanese (Burton et al., 2002). Japanese American orphans came primarily from three orphanages—Shonien (also known as the Japanese Children’s Home of Southern California) in the Los Angeles area, the Catholic Maryknoll Home in the Los Angeles area, and the Salvation Army Japanese Children’s Home in San Francisco. Sadly, some of the orphans who came to live at the Manzanar Children’s Village were orphaned by FBI arrests of their widowed fathers. Eventually, 101 Japanese American orphans were housed at the Manzanar Children’s Village (Nobe, 1999).

Because of the influence of Los Angeles County, the overall evacuee population of the center was mostly urban (Japanese American National Museum, n.d.). As of 1 January 1943, nearly 65% of Manzanar’s evacuees were U.S. citizens (U.S. War Relocation Authority, 1946).

The first evacuees arrived at Manzanar on 21 March 1942 (U.S. War Relocation Authority, 1946). These early voluntary evacuees traveled to Manzanar in personal automobiles as well as by bus and train to help get the center in shape for the reception of many more evacuees to come (Unrau, 1996a). Subsequent evacuees mostly traveled by train to Lone Pine, then were bused to Manzanar (Figure 8.16) (Aigner, 1977). The main body of evacuees began arriving on 1 April 1942 (Unrau, 1996a). The last to arrive was a small contingent from the Santa Anita Assembly Center in late October 1942 (U.S. Army–Western Defense Command, 1943). With a maximum population of 10,046 reached in late September 1942, Manzanar was the largest city between Los Angeles and Reno, and the fifth largest of the relocation centers (U.S. War Relocation Authority,
Figure 8.15. The Western United States origins of Japanese Americans evacuated to the Manzanar Relocation Center in March-October 1942. Data from U.S. Army–Western Defense Command, (1943, p. 381, 383) and U.S. War Relocation Authority (1946, p. 61-66).
1946; Wehrey, 2006). Manzanar’s peak population was approximately 2,000 more than the entire population of the Owens Valley (Vent and Vent, 1972)!

**Interation of Evacuees with East Central California’s Environments**

*Physical Environment.* The most frequent comments about the physical environment of Manzanar were the windy and dusty conditions. One evacuee described her arrival as:

> It was late afternoon. The first thing I saw was a yellow swirl across a blurred, reddish setting sun. The bus was being pelted by what sounded like splattering rain. It wasn’t rain. This was my first look at something I would soon know very well, a billowing flurry of dust and sand churned up by the wind through Owens Valley.

Houston and Houston (1973, p. 14)
Another evacuee similarly described his arrival at Manzanar:

Well, we left about 9:00 a.m. from Venice with a line of buses and we got there about dusk. We got there right in the middle of one of those windstorms that were very common in Manzanar. The dust was blowing so hard you couldn’t see more than about fifteen feet ahead. At the arrival of the buses, people would come out to meet us. They had friends coming in on them. Everybody that was out there had goggles on to protect their eyes from the dust, so they looked like a bunch of monsters from another world or something. It was a very eerie feeling to get into a place under conditions like that.

Fukasawa (1991, p. 236-237)

Judging from articles in the center’s newspaper, the Manzanar Free Press, severe winds and associated duststorms were most frequent from March through June. Winds were so severe that they ripped the roof off a latrine, and in another event, damaged over 50 center roofs (Staff, 5 June 1943; Staff, 16 May 1945). To combat the dust problem, evacuees nailed tin can lids over knot holes and lath over the shrinkage cracks in the barracks (Houston and Houston, 1973). The linoleum-like flooring that was installed in late summer and fall 1942 was very effective in reducing the amount of dust entering the barracks. Evacuees planted lawns around the barracks to help keep down the dust (Staff, 12 August 1942). Further, the USDA-Soil Conservation Service developed a plan to plant 21,000 trees and 25,000 shrubs as a way to anchor the soils as well as reduce wind speeds in the vicinity of the camp (Ewan, 2000).

Cold was another issue to be dealt with at the center. The nearly 4,000 feet elevation resulted in low temperatures, especially in late fall, winter, and early spring. Cold winds also descended the valleys of the Sierra bringing low temperatures and wind chill. Oil stoves were installed in the barracks to ward off the cold, and World War I army surplus clothing was provided to evacuees. Later, a clothing alterations shop was established, partially to make the old U.S. Army clothing better fit the evacuees (Houston and Houston, 1973). Luckily for evacuees who were not used to cold conditions, slightly warmer October-March temperatures occurred during 1942-1945 as compared to the 1931-1960 climate normal (Western Regional Climate Data Center, n.d.a).

Heat is mentioned in the various literature of the camp but does not seem to have been the problem that dust and cold were. Some evacuees constructed cellars beneath barracks likely in which to keep cool in the hot summers (Burton et al., 2002). The common “garden ponds” of the camps, combined with the shade of landscaped plants, also provided a measure of relief from the summer heat. Luckily, evacuees faced mean monthly temperatures for warm seasons in 1942-1945 that were slightly cooler than the 1931-1960 average (Western Regional Climate Data Center, n.d.a).

The relocation center experienced overall slightly wetter conditions than normal during its four years of operation. However, precipitation showed tremendous variability even during this brief period with 8.7 inches of precipitation in 1943 and only 2.5 inches in 1944 (Western Regional
Climate Data Center, n.d.a). Snowfall during the center’s existence was also quite variable ranging from 2.9 inches in 1942 (but none in the last one-half of 1942 when the evacuees were at Manzanar) to nearly 16 inches in 1944 (Western Regional Climate Center, n.d.a). Evacuees received the first snow of the center’s existence (and perhaps the first snowfall for many evacuees) in December 1943 (Staff, 8 December 1943). Approximately 15 inches of snow fell in one storm in February 1944 (Staff, 26 February 1944).

While the above suggests that Owens Valley was a foreign, harsh, and sometimes stark, place, others found it beautiful. This was especially true regarding the views of the mountains at sunrise or sunset (Houston and Houston, 1973). One evacuee stated “We arrived at Manzanar in the early morning, before sunrise. Beautiful. All pink. The mountains around there were all pink. So beautiful” (Takamura, 1987).

Agriculture. The dual goals of the Manzanar agricultural program were to feed the camp and to provide meaningful employment opportunities for evacuees (McConnell and Hill, 1946). To accomplish this, land had to be cleared and leveled, and irrigation diversions, canals and ditches needed to be constructed before irrigated agriculture could take place. Ultimately, Manzanar farmlands and livestock areas were arrayed to the north and south of the main part of center (Figure 8.17).

The Manzanar agricultural program consisted of crops grown for direct human consumption, hogs, chickens, and beef cattle, and feed crops for the livestock (Figure 8.18). Twenty-nine different types of produce were grown on a total of 870 acres over three growing seasons (Tables 8.1 and 8.2). These crops were chosen based on the need for well-balanced diets and food value per pound of vegetables (McConnell and Hill, 1946). Manzanar’s climate and soils seemed especially conducive to root crops resulting in high yields and high quality (Unrau, 1996b). Onions, beets, potatoes, radishes, turnips, and nappa were successful as were cabbage, cucumbers, eggplant, melons, peppers, squash, string beans, and tomatoes (McConnell and Hill, 1946). In addition, approximately 7,000 pounds of bean sprouts were grown by the industrial section of the center each month (Unrau, 1996b). Victory gardens in the firebreaks within the main part of the center, and apples and pears gleaned from remnants of old Manzanar orchards further supplemented Manzanar’s agricultural production (Burton et al., 2002). Overall, the produce portion of the agricultural program was “very successful” (McConnell and Hill, 1946, p. 16). Approximately 80% of the vegetables used in its mess halls came from the center’s farms (Unrau, 1996b). This was advantageous because Manzanar vegetables were less expensive, fresher, and of the types that the Japanese evacuees would readily eat (McConnell and Hill, 1946). The center shipped nearly 11% (by weight) of the vegetables raised there to other relocation centers including carrots to Tule Lake and Poston, and honeydew melons and watermelons to Tule Lake (Unrau, 1996b). Manzanar tomatoes were so plentiful in October 1943 that 14 tons were sold to the Anaheim Cannery (Staff, 13 October 1943).

However, Manzanar’s agricultural program was initially hampered by disagreements between the City of Los Angeles and the WRA over how water and fertilizers were used, and how City water was priced for use on the center’s farm lands (Unrau, 1996b). Farm equipment was also initially
Figure 8.17. Agricultural lands of the Manzanar Relocation Center. Adapted from Burton et al. (2002, p. 170).
in short supply, and labor problems plagued the agricultural program in its early months, particularly because of the requirement that evacuee farm laborers be escorted to and from the agricultural fields by Caucasians (McConnell and Hill, 1946). Finally, the hot, dry summers were not conducive to crops like lettuce, peas, dry beans, and sweet potatoes, and alkaline soils on some of the center’s lands were also a problem (Unrau, 1996b).

The livestock program consisted of beef cattle, chickens, and hogs (Table 8.1). Chickens were raised for eggs and meat on alfalfa, milo corn, wheat, and barley raised and milled at the center beginning in 1943 (Tables 8.1, 8.2 and 8.3). As this provided only about 50% of the grain feed needs of the center’s poultry operation, feed wheat and barley were shipped in from other relocation centers (McConnell and Hill, 1946; Unrau, 1996b). At peak production, nearly 6,900 chickens were butchered in 1944 and over 60,000 dozens of eggs were produced in 1945 (Table 8.3). The poultry operation was terminated in November 1945 just prior to the closure of the

<table>
<thead>
<tr>
<th>Produce</th>
<th>Produce (cont)</th>
<th>Feed Crops</th>
<th>Livestock</th>
</tr>
</thead>
<tbody>
<tr>
<td>asparagus</td>
<td>onions (dry)</td>
<td>alfalfa</td>
<td>beef cattle</td>
</tr>
<tr>
<td>bean sprouts</td>
<td>onions (green)</td>
<td>barley</td>
<td>chickens</td>
</tr>
<tr>
<td>beans (dry)</td>
<td>peas</td>
<td>milo corn?</td>
<td>hogs</td>
</tr>
<tr>
<td>beans (string)</td>
<td>peppers</td>
<td>milo</td>
<td></td>
</tr>
<tr>
<td>beets</td>
<td>potatoes (Irish)</td>
<td>wheat</td>
<td></td>
</tr>
<tr>
<td>cabbage</td>
<td>potatoes (sweet)</td>
<td>corn beans</td>
<td></td>
</tr>
<tr>
<td>carrots</td>
<td>radishes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cucumbers</td>
<td>sage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>daikon</td>
<td>squash</td>
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<td></td>
</tr>
<tr>
<td>eggplant</td>
<td>spinach</td>
<td></td>
<td></td>
</tr>
<tr>
<td>gobo</td>
<td>tomatoes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>honey dew melons</td>
<td>turnips</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kaboucha</td>
<td>uri</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lettuce</td>
<td>watermelon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>nappa</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hog production began in fall 1943 and continued until the close of the center in November 1945 (McConnell and Hill, 1946). Production was delayed because the City of Los Angeles would not allow the center to raise hogs for fear of water pollution. It was not until after the U.S. Government obtained the lands from the City via condemnation that the center was able to raise hogs. Just over 2,000 hogs cumulatively weighing nearly 400,000 pounds were delivered to the center’s mess halls after being raised on mess hall kitchen “garbage” and camp-grown feed crops (McConnell and Hill, 1946) (Table 8.3). The beef cattle operation began in late fall 1943 but was terminated a year later after the realization that the herd could not be maintained in the condition necessary for slaughtering without additions to the alfalfa and corn feed crops raised. Such additions were not possible because of a shortage of irrigation water in the summer months (McConnell and Hill, 1946). As a result, only 361 beef cattle were raised totaling nearly 140,000 pounds dressed weight in 1944 (Table 8.3).
Table 8.2. Produce and feed crops raised at Manzanar Relocation Center, 1942-1945. Data (including farm product values) from McConnell and Hill (1946).

<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>120</td>
<td>440</td>
<td>310</td>
<td>0</td>
<td>870</td>
</tr>
<tr>
<td>Total Production (lbs)</td>
<td>1,434,000</td>
<td>3,332,647</td>
<td>2,980,554</td>
<td>0</td>
<td>7,747,201</td>
</tr>
<tr>
<td>Consumed at Center (lbs)</td>
<td>1,276,890</td>
<td>3,181,272</td>
<td>2,801,079</td>
<td>0</td>
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<tr>
<td>Shipped to Centers (lbs)</td>
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<td>151,375</td>
<td>179,475</td>
<td>0</td>
<td>847,960</td>
</tr>
<tr>
<td>Sold on Market (lbs)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Shrinkage &amp; spoilage</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Market Value ($)</td>
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<td>$105,967</td>
<td>$67,765</td>
<td>0</td>
<td>$217,228</td>
</tr>
<tr>
<td><strong>Feed Crops</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Acres Harvested</td>
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<td>110</td>
<td>45</td>
<td>0</td>
<td>155</td>
</tr>
<tr>
<td>Total Production (lbs)</td>
<td>0</td>
<td>242,000</td>
<td>186,000</td>
<td>0</td>
<td>428,000</td>
</tr>
<tr>
<td>Fed at Center (lbs)</td>
<td>0</td>
<td>242,000</td>
<td>186,000</td>
<td>0</td>
<td>428,000</td>
</tr>
<tr>
<td>Shipped to Centers</td>
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</tr>
<tr>
<td>Sold on Market (lbs)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Market Value ($)</td>
<td>0</td>
<td>$2,420</td>
<td>$2,130</td>
<td>0</td>
<td>$4,550</td>
</tr>
</tbody>
</table>

Guayule, a plant used to produce latex for rubber, was experimentally grown at Manzanar beginning in spring 1942 as a way to enhance the scientific understanding of the plant and provide educational opportunities for evacuees. Scientists experimented by propagating guayule from cuttings, hybridization, and processing the plants for rubber extraction (Unrau, 1996).

Manzanar agriculturalists engaged in several unique practices to deal with environmental issues. The over-abundance of rabbits was addressed through the acquisition of five greyhounds and afghans (Staff, 20 March 1943). Evacuees dealt with the persistent Owens Valley winds by planting barley windbreaks (Staff, 12 June 1943; Unrau, 1996b).

**Business and Industry.** Manzanar included a wide variety of Consumer Cooperative businesses located in barracks and recreation buildings of the center’s evacuee blocks. Stores included
Table 8.3. Livestock raised at Manzanar Relocation Center, 1942-1945. Data (including farm product values) from McConnell and Hill (1946).

<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 Butchered</td>
<td>0</td>
<td>0</td>
<td>361</td>
<td>0</td>
<td>361</td>
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<tr>
<td>Dressed Weight (lbs)</td>
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<td>0</td>
<td>139,505</td>
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<tr>
<td>Market Value ($)</td>
<td>0</td>
<td>0</td>
<td>$23,560</td>
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<td>$23,560</td>
</tr>
<tr>
<td><strong>Chickens</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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general, gift, canteen, flower, and sporting goods stores, and a fish market. Service-oriented businesses included a beauty parlor, barber shop, movie theater, check cashing service, mail order service, shoe repair shop, sewing/dressmaking, watch repair, laundry services, and photography studio (Unrau, 1996b).

Initially, the WRA had ambitious plans for industry at Manzanar. These were toned down after the December 1942 riot (see below) when the WRA reconsidered its plans and saw a burgeoning industrial program as a disincentive to evacuee relocation (Unrau, 1996b). Industry at Manzanar included a camouflage net factory, mattress factory, furniture factory, garment factory (Figure 8.19), food processing unit, and shoyu and tofu plant. Most of the industrial operations were located on the south end of the relocation center (Figure 8.13). Because labor unions complained about unfair labor practices, most of Manzanar’s industry was focused on internal use. A notable exception was the camouflage net factory that operated on a contract from the U.S. Army to the Southern California Glass Company. It was a major source of conflict within the center because
employees were limited to U.S. citizens (i.e., only *Nisei*—second generation Japanese born in the U.S.—and *Kibei*—i.e., second generation Japanese born in the U.S. but educated in Japan) and because of disparities in work hours and pay rates as compared to other center employees. After six months of sporadic operation punctuated by protests and shut downs, the factory closed in December 1942 (Unrau, 1992a). A mattress factory operated in part of the old camouflage net factory after its closure. The employees of this factory produced over 4,000 mattresses before closing when the center had all it needed (Unrau, 1996b; Burton et al., 2002). A garment factory began operation in summer 1942 producing a variety of clothing that was needed by the evacuees at Manzanar and other relocation centers, and that could not be readily obtained on the open market. The main items sewn were hospital uniforms, overalls, coveralls, dresses, blouses, and shirts. A furniture shop built office furniture (including desks, chairs, and filing cabinets), baby
furniture for the Children’s Village, and school furniture. Additionally, the shop made Christmas toys from scrap lumber and sold them in the Manzanar Cooperative Enterprises stores. A clothing alterations shop operated from 1943 until the center closed, altering clothing obtained from outside sources that was too large for the evacuees. A typewriter repair center and a domestic sewing machine repair center operated beginning in early 1943 while a sign shop operated from early 1943 until spring 1944 (Unrau, 1996b).

Food processing plants also operated at Manzanar. Approximately 1,500 gallons of shoyu (i.e., a type of soy sauce) was produced each month at a better quality and lower cost than could be obtained from the outside. Approximately 12,500 pounds of tofu (i.e., soybean curd) were produced each month. Miso (i.e., a rich, salty, soybean-based condiment) was also produced at the center. Surplus vegetables were pickled (especially root crops) or dehydrated (especially peas, beans, carrots, and turnips) (Unrau, 1996b). Mulberry tea was dried on a small scale (Girdner and Loftis, 1969). A 26 feet by 100 feet root cellar was located west of the factory area in which Irish potatoes, onions, winter squash, sweet potatoes, carrots, turnips, and cabbage were successfully stored (Figure 8.13) (Burton et al., 2002). Many of the individuals employed in the industrial section were able to relocate with the skills learned or honed while in the industrial section (Unrau, 1996b).

Landscaping and Gardening. Gardening in Manzanar consisted of victory gardens as well as ornamental gardens. Here, as elsewhere, garden creation and the act of gardening helped evacuees deal with the trauma of incarceration. The resulting gardens helped buffer the evacuees from the often harsh environments of the centers and created a more habitable environment. Gardening was also a way to lay claim to those spaces that otherwise the WRA may have controlled. Garden construction, and associated material collection, was also a way for evacuees to shed some of the WRA’s control by leaving the center, however briefly, to collect materials for gardens. Further, gardening was a way for the Japanese, especially the Issei (first generation Japanese Americans born in Japan), to stay in touch with their Japanese traditions. Taken to the extreme, gardening at Manzanar was an act of defiance. In fact, the riot that broke on 6 December 1942 began in Block 22, the site of the beautiful mess hall garden that fused ancient Japanese garden design with the frontier west, pre-World War II Los Angeles, and the environment of Manzanar (Tamura, 2004). A main player in that riot, Harry Ueno, initiated the construction of the first garden pool of the center near the Block 22 mess hall (Ueno, 1986).

WRA officials encouraged evacuees to plant lawns to hold down the readily erodible soils. Evacuees went well beyond this in creating numerous ornamental gardens and landscaping that graced Manzanar as at no other relocation center (Figure 8.20). This was likely because Manzanar incarcerated the largest number of urban landscape professionals of any of the centers, and such professionals tended to create more elaborate gardens than did rural Japanese. Further, the location of Manzanar in the Owens Valley where ample raw materials could be had within a short distance of the center favored the creation of ornamental gardens. Parks, block or mess hall gardens, and personal gardens were the resulting varieties of ornamental gardens in the center, and were often inspired by Japanese gardening traditions. Most were located in the open areas adjacent to barracks or in firebreaks separating the residential blocks (Tamura, 2004). These
gardens typically included concrete-lined ponds, waterfalls, walkways, and bridges (Burton et al., 2002). Ornamental gardens were enhanced by the transfer of plants with evacuees when they came to Manzanar, and by the development of a lath house nursery in which to start and nurture young plants. The *Manzanar Free Press* initiated a “Best Garden Contest” as a way to promote ornamental Japanese gardens (Tamura, 2004).

Evacuees also constructed public parks, including ponds and gardens, at various places in and around Manzanar (Figure 8.13) (Burton et al., 2002). Merritt Park (also previously known as Rose Park and Pleasure Park), in the northwestern portion of the center, included over 100 species of flowers, two small lakes, a waterfall, a bridge, and a Japanese tea house. Cherry Park and North Park were also located in the northwestern portion of Manzanar. Parks south of the main portion of the center were used with restrictions once rules were relaxed about travel outside the main center. Some of the parks were constructed from the ground up while others built on existing features such as trees remaining from the earlier ranches of the area (Burton et al., 2002).

Manzanar’s victory gardens were typically planted in the firebreaks between residential blocks (Figure 8.21) and often were bordered by flowers. A large plot was typically set aside in each
firebreak, and within this plot, each family or individual was allotted space for a victory garden. Irrigation for these plots required cooperation in its development and operation. Approximately 200 individuals or families were involved with victory gardens at Manzanar and it was an especially rewarding activity for the older Issei of the center. The vegetable crops of the victory gardens were either enjoyed within the family groups or were donated to the mess halls (Unrau, 1996).

**Education.** Manzanar offered a K-12 course curriculum with an elementary school and a high school (Unrau, 1996b). Initially, the school system was a mess—i.e., classes for the various grades were taught all over the center, teachers were volunteers, and equipment and supplies were in very short supply (Houston and Houston, 1973). The December 1942 riot resulted in an approximately one month closure of the school until conditions within the center had stabilized. This break allowed the administration to resolve some of the negative issues surrounding the schools (Unrau, 1996b). By the 1943-1944 school year, the high school was consolidated into two blocks and the elementary school occupied one block. The equipment and supplies issue had largely been resolved by then as well (Houston and Houston, 1973).

Figure 8.21. Victory gardener and her 10 feet by 50 feet garden plot, Manzanar Relocation Center. Dorothea Lange photograph, July 1942. Courtesy of the Bancroft Library, University of California, Berkeley. Volume 21, Section C, WRA # C-686, War Relocation Authority Photographs of Japanese American Evacuation and Resettlement, Series 8: Manzanar Relocation Center, Manzanar, California.
The adult education program was designed to meet the needs of four audiences: 1) those who wanted to learn English; 2) those who wished to earn junior college credits; 3) those who desired personal development; and 4) those who wanted to become more employable. Despite military registration, seasonal leaves, and relocation, the adult education program continued to enroll students in a variety of subjects into early 1945 (Unrau, 1996b).

Recreation. Center recreation occurred in a variety of forms—gardening (see above), sports, scouting, music, movies, dance, arts and crafts, reading, and various children’s activities (Unrau, 1996). Basketball courts, baseball and softball diamonds, and tennis courts were scattered throughout the residential blocks. Some blocks had playground equipment (Burton et al., 2002). The center newspaper, the Manzanar Free Press, dedicated an entire page in each 4-6 page issue to center sports. Local baseball, basketball, football, wrestling, track and field, and volleyball teams all appeared in these issues. A nine hole sand golf course was constructed southwest of the center (Unrau, 1996a. Scouting, glee clubs, movies and traveling shows were also common in the center. Evacuees could participate in a variety of music and dance activities (Houston and Houston, 1973). An outdoor theater was built for movies (Unrau, 1996b). Bands including the “Sierra Stars” (hillbilly music) and the “Jive Bombers” (big band dance music) formed among the evacuees but unlike those at some other centers, these apparently did not leave the confines of Manzanar (Houston and Houston, 1973). The Manzanar library system had a main library plus four branch libraries throughout center (Commission on Wartime Relocation and Internment of Civilians, 1982). An area around Bairs Creek (west of the main portion of the center) (Figure 8.13) became a popular picnic area as evacuees developed the area with landscaping and walks, bridges, and fireplaces (Unrau, 1996a). Evacuees also swam and fished the streams in and near the center (Figure 8.22).

Culture and Art. As in other relocation centers, the culture of Manzanar was decidedly American. This was seen in language, dress, housing, meals, recreation, and business interactions. It could also be seen in the pages of the Manzanar High School Year Book (Gentile, 1988). However, Japanese traditions were also evident throughout the center. Buddhism had a strong following in the center including traditional ceremonies such as Hana Matsuri (i.e., the flower festival commemorating the birth of Buddha) (Staff, 8 April 1944). Traditional Japanese baths were constructed and used in the center (Takamura, 1987). Evacuees made mochi (i.e., rice cakes) during the winter holiday season serving it early in the New Year (Staff, 1 January 1943). Traditional Japanese sports such as judo and kendo (i.e., martial art of Japanese fencing) were also practiced in the center. In fact, a judo building was located between Blocks 10 and 16, and a kendo platform was between Blocks 10 and 11 (Burton et al., 2002) (Figure 8.14).

Art flourished in the center, perhaps because of the need for beauty in the dry landscape. Traditional needlework was practiced as was artificial flower creation and arrangement (Figure 8.23) (Houston and Houston, 1973). Manzanar gardeners also grew flowers, some of which ended up in exhibitions at the center. Other arts included stonework and landscaping with the ample raw stone materials from the area (Figure 8.19) (Eaton, 1952).
Faith and Spirituality. Various editions of the *Manzanar Free Press* show that at least three different churches were present within the confines of Manzanar. These included Buddhist, Protestant, and Catholic congregations. Buddhists and Christians celebrated traditional events while in Manzanar. A well-admired priest who lived among the evacuees within the center helped convert many evacuees to Catholicism (Houston and Houston, 1973).
Health. Health was a key issue, especially early on in the history of Manzanar. Evacuees were sickened with fevers and vomiting by the numerous immunizations they received upon entry to the center. The food also initially made evacuees sick, especially with diarrhea known as the “Manzanar Runs” (Houston and Houston, 1973). Health care facilities and the personnel to deal with such issues were also initially limited at Manzanar. However, a 250 bed hospital was completed in July 1942 in the northwest corner of the main portion of the center (Figure 8.14). The 19 building hospital group included general, obstetrical, and isolation wards, as well as x-ray and surgical facilities, a pharmacy, an ear, nose, and throat clinic, and an outpatient clinic. Staffing over time also appears to have improved to the point that is was adequate to meet the needs of the evacuees (Unrau, 1996a).

Government. Government at Manzanar was unsettled, especially during the center’s first year of existence. Government centered on the residential blocks, each of which was composed of about
250 evacuees. Temporary Block Leaders were initially selected by the WCCA, and subsequently elected by evacuees to serve as a Community Council. All evacuees 21 years of age or older, including non-U.S. citizens, were eligible to vote and to be elected. It was the job of Block Leaders to handle the day-to-day affairs of the evacuee blocks. Soon after the management of the camp changed to the hands of the WRA, non-citizens were barred from voting or being elected to the council. Because of this change and the fact that the administration had the final say on all laws and regulations governing the center, frustration increased among the evacuees. The failure of the center administration to listen to the Block Leaders further widened the split between evacuees and administration. In December 1942, evacuees failed to support a camp charter because of further discontent with the administration, and camp governance reached a stalemate (Unrau, 1996a).

In January 1943, Project Director Merritt set out to resolve the issue by first recognizing the importance of the Issei elders in center governance. Merritt even went so far as to appoint a respected Issei to serve as the chairman of the Block Managers. Because of Merritt’s efforts and the spontaneous formation of a Peace Committee comprised of evacuees, a new spirit of cooperation that arose in the days following the December 1942 riot (see below) resulted in a center government that proved to be effective in promoting peace, goodwill, and Americanization (Unrau, 1996b).

Community. Next to Tule Lake, Manzanar was likely the most tumultuous relocation center. This may have been the result of the close proximity of some of the key Japanese American Citizens League (JACL) members with those who had been treated especially poorly during the evacuation–e.g., the Terminal Island, California residents who had been given 48 hours to evacuate (Weglyn, 1996).

Early signs of unrest showed in August 1942 when a group of young men called a meeting to discuss the WRA’s ruling that Kibei could not leave the center on seasonal leaves to work in neighboring states. The meeting quickly became heated when the Nisei attending were verbally attacked for their collective roles in the evacuation, conditions in the center, and collaboration with center administration. At this meeting, the Kibei also verbally attacked the Manzanar Citizens Federation, a group with similar values as the JACL. This so-called “Kibei Meeting” so angered center administrators that they prohibited the use of Japanese language in public gatherings. Another result of the meeting was harassment and intimidation of Nisei who were intending to run for political office within the blocks during late summer and fall (Spicer, 1969). Violence occurred on 6 December 1942 when Fred Tayama, a JACL leader who was suspected of being a Government informant, was assaulted. The outspoken leader of the Kitchen Workers Union, Henry Ueno, was arrested for the assault. The arrest occurred after Ueno had accused the administration of pilfering sugar and meat from the mess halls. During a mass meeting of Issei and Kibei in the aftermath of Ueno’s arrest, a blacklist was created consisting of the Nisei who were suspected of being government informants. An even larger rally of the more extreme members of the anti-JACL, anti-administration center element called for retribution and the immediate release of Henry Ueno. The crowd headed toward the center jail where it ran into a large group of military police. Evacuees threw rocks, sand, and insults at the troops. When the
crowd would not disperse as asked, the commander in charge of the troops ordered tear gas shot into the crowd. In the ensuing confusion, some of the evacuees ran toward the troops. A driverless truck was also released by the several evacuees and it headed into the group of soldiers. The soldiers fired at the evacuees and the truck. One evacuee was killed instantly, another died later, and another nine were injured. Martial law was soon declared and in effect for the next two weeks during which many of the evacuees refused to work. Sixteen instigators of the uprising were sent to a Citizen Isolation Center near Moab, Utah. Those 65 evacuees who were targeted by the Issei and Kibei and suspected of being informants were removed from Manzanar and briefly placed at the Cow Creek Camp in Death Valley, California before being released to the outside world (Figure 8.3) (Weglyn, 1996). The Manzanar Riot, while a tragedy, did ultimately help clear the air between evacuees and the administration, and helped lead the way to reasonable relations between the groups. With Nisei and Kibei leaders removed from camp, the Issei became the primary leaders. A single community organization resulted, elected by the people of each block without regards for citizenship and with direct access to the administration (Spicer, 1969).

The February 1943 registration program also caused problems within the Manzanar community. The initial wording of question 28 on the “loyalty questionnaire” (Appendix C) resulted in confusion and ultimately negative responses by the evacuees. Initially, nearly 62% of those 17 years of age or older answered “no” to question 28. Because of the segregation ramifications of the loyalty questionnaire (see below), the administration was allowed to reword the question, and those who had already completed registration were recalled to again answer it. Even with this rewording, 59% answered “no” or with qualifications to question 28 (Unrau, 1996b). A variety of reasons were put forth for the relatively low “yes” vote on question 28 including the possible link of the question’s response to army service, belief that there was no future for evacuees in America, bitterness associated with the evacuation and with the Manzanar riot, family pressure, fear of loss of any Japanese citizenship rights, pressure from gangs within the center, and a misunderstanding of the question.

Interaction with Surrounding Areas

The Outside World. The evacuees of Manzanar appear to have had little contact with local residents, likely because of their location within the military exclusion zone. Local residents had mixed reactions to the Japanese Americans in the area ranging from welcoming them because of their perceived economic impact on the area to ambivalence to outright disdain (Brown, 1977).

The economic impact of the center on local towns was especially felt during construction and during its early stages of operation. Many locals were hired and paid good wages to build the center. Economic impacts also occurred following the completion of construction. Evacuees were initially allowed to shop in Lone Pine under guard and did so without problems until locals complained and petitioned the WRA to stop the practice (Hopkins, 1977; Salas, 2006; Wehrey, 2006). Another example of an economic interaction occurred with the center newspaper. The Manzanar Free Press was printed three times a week by the Chalfant Press in Bishop thus accounting for about 25% of Chalfant Press’ overall business (Cooper, 2006). Likely because of
Manzanar’s location within the military exclusion area, it appears that local residents did not hire Japanese Americans for labor needs while Manzanar was in operation (Hopkins, 1977).

Early on, when evacuees played baseball on Sundays with the center construction crew, locals would come and watch (Kelley, 1977). A center football team played a team from Big Pine at Manzanar (R. Potashin, 19 June 2007, oral communication). Manzanar also hosted social gatherings and fairs, and invited locals to these events (Miller, 1977a). Manzanar doctors covered for civilian doctors in their absence, and locals sought out evacuee dentists (Branson, 1977; Pedneau, 1977). Evacuees would sneak through the perimeter fence at night to go outside the camp to fish the streams flowing from the Sierra Nevada until daybreak before slipping back into camp (Zischank, 2006). Locals had positive encounters with these fishers (Harry, 1977). Evacuees also went into the mountains with trucks to gather rocks and trees for their barracks and mess hall gardens (Zischank, 2006). Later, they were allowed to depart the main portion of the center, with permission, for picnics and even camping (Houston and Houston, 1973).

Local EuroAmericans also reacted negatively toward the Japanese. The general attitude seemed to be one of anger against the Japanese Americans for the Pearl Harbor “sneak attack” and anger at the U.S. Government for building Manzanar without any discussion with the community. On the other hand, few residents were scared of the Japanese Americans, especially once they realized that they would be kept under guard within a fenced camp (Aigner, 1977). Several residents complained that wartime rationing of precious foodstuffs did not appear to extend to Manzanar Japanese Americans (Gillespie, 1977). Local businesses, despite the potential to benefit, were probably the most negative toward the evacuees. A Japanese American soldier, home on furlough and dressed in full army uniform, was refused service by a Lone Pine barber who said “We don’t take any damn Japs here” (Cragen, 1977, p. 164). The Lone Pine bakery owner wouldn’t sell baked goods to those who wanted to take the goods to their evacuee friends at the center (Miller, 1977b).

Evacuees could depart 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).

Manzanar evacuees began to depart the center on seasonal agricultural leaves to Idaho in June 1942 (Staff, 9 June 1942). Despite rumors of racism, discrimination, low wages, and substandard housing in the seasonal leave settings, just over 1,000 Manzanar evacuees departed the center for Idaho and Montana sugar beet work in fall 1942 (Unrau, 1996b). Seasonal agricultural leaves continued for evacuees through fall 1944 with Idaho, Montana, and Oregon serving as the key destination states (Heath, 1946).

Relocation from the center was encouraged early on; however, relocation was generally slow in the first years of the center. Only 98 evacuees departed in 1942 (U.S. War Relocation Authority,
1946). Among these were three students who headed to the University of Nebraska in early fall 1942 (Staff, 1 October 1942). Monthly relocations approached or exceeded 100 only in April, May, and June, 1943 (Figure 8.24). It was not again until April 1944 that monthly relocations neared this number. Beginning in April 1944, however, and continuing until the center closed in November 1945, only three months had less than 100 relocations. Over 960 departed in 1943, 1,288 more departed in 1944, and 5,396 departed in 1945 (U.S. War Relocation Authority, 1946). The pace of relocation increased in the spring of each year suggesting that employment opportunities or perhaps the pervasive winds may have helped drive evacuees out of center. Manzanar evacuees relocated to 40 states in the U.S. with Chicago, New York, Denver, Salt Lake City, Milwaukee, Cleveland, Minneapolis-St. Paul, St. Louis, and Philadelphia being the preferred cities (Heath, 1946; see various issues of the Manzanar Free Press for city destinations) (Figure 8.25).

Over 170 evacuees from Manzanar served in the U.S. armed forces during World War II. Of these, 42 volunteered and 132 were inducted. Of these, 17 (10%) were war casualties with three dead and 14 wounded in action. Despite the controversy that surrounded registration and the “loyalty questionnaire”, Manzanar had no Selective Service violations (U.S. War Relocation Authority, 1946). Many of the Manzanar evacuees who joined or were drafted into the U.S. armed forces became members of the highly decorated 442nd Regimental Combat Team that

Figure 8.24. Indefinite leaves (i.e., long-term departures or relocations), Manzanar Relocation Center, May 1942-November 1945. Data from U.S. War Relocation Authority (1946, p. 37).
Figure 8.25. Geography of Manzanar indefinite leaves (i.e., relocations), May 1942-November 1945. Data from Heath (1946, p. 50).
served with distinction in the European theater of operations while others served in the Military Intelligence Service where they were vital to the ultimate success of the U.S. in the Pacific (Unrau, 1996b).

Other Relocation Centers. Interactions between Manzanar and the other relocation centers were quite limited. Manzanar sent surplus agricultural crops to Poston and Tule Lake on at least several occasions (Unrau, 1996b). It does not appear that Manzanar athletic teams played other relocation center teams.

Manzanar transferred 290 segregees to Tule Lake Relocation Center in October 1943 and 1,875 in February 1944 because they or members of their families answered “no” to questions 27 and 28 on the “loyalty questionnaire” (Appendix C). However, unlike most other centers, Manzanar did not receive any “loyal” Tuleans in return. Thirteen Manzanar residents who answered “no” to the “loyalty questionnaire” were repatriated to Japan in September 1943. Twenty-seven Manzanar evacuees were sent to the Moab, Utah and subsequently the Leupp, Arizona Isolation Center because of their roles in the December 1942 riot (U.S. War Relocation Authority, 1946).

Closing Manzanar and Another Relocation

Public Proclamation #21 on 17 December 1944 ended the West Coast Exclusion Order that had been in effect since 1942. Soon after, WRA Director Dillon Myer announced that all relocation centers would close by the end of 1945 (Staff, 17 February 1945). On 1 January 1945, Manzanar’s population was nearly 5,600 evacuees (Figure 8.26). By 1 June, it had declined by about 950 evacuees, and on VJ (i.e., Victory over Japan) day in mid-August, the population was about 3,700. In its final 52 days, 3,312 evacuees departed the center (Figure 8.24). Manzanar officially closed ahead of schedule on 21 November 1945 (War Relocation Authority, 1946).

Impacts of Manzanar on Today’s East-Central California Landscape

Evacuee Dispersion. The 1950 census shows no persons of Japanese descent in Inyo County as compared to one in 1940 (U.S. Bureau of the Census, 1943a; 1952a). This may, in part, reflect the fact that the Owens Valley was a very foreign place for the largely urban population of Manzanar. It may also reflect the City of Los Angeles’ ownership thus little land or water was available for new housing in Owens Valley (Brierly, 1977). These data are backed up by Bell (1977) who recalls no Japanese Americans living in the immediate area of Manzanar after the center’s closure. The cumulative Japanese American population of Inyo as well as adjoining California and Nevada counties declined by about 6% to 6,960 between 1940 and 1950 (Figure 8.11). The Japanese American population of all adjoining counties except Fresno and Nye counties declined during the period, and only Fresno showed a significant increase in persons of Japanese descent (U.S. Bureau of the Census, 1952a; 1952b). These data suggest that relocation did play a role in affecting the ethnic makeup of the area. Overall, California’s Japanese American population declined by 7,760 (approximately 8.5%) between 1940 and 1950, reflecting relocations to states east of the military exclusion zones and repatriation to Japan (Figure 8.11) (U.S. Bureau of the Census, 1943a; 1952a).
Figure 8.26. Resident population, including evacuees on short term and seasonal leave, Manzanar Relocation Center. Data from U.S. War Relocation Authority (1946, p. 18).

Land Dispersion. Following closure of the center, most of the land and all of the water rights were returned to the City of Los Angeles (Wehrey, 2006).

Infrastructure Dispersion. The U.S. War Assets Administration initially handled the salvage of the Manzanar’s buildings and various equipment (Burton et al., 2002). Twenty-five former staff housing buildings remained on a 19 acre portion of the former camp under a 5 year lease with the City of Los Angeles where they were used for a war veterans housing project until at least August 1948 (Unrau, 1996b; Burton et al., 2002; Wehrey, 2006). The auditorium was leased to the Independence Veterans of Foreign Wars until 1951. The Inyo County Road Department used the structure until it was purchased by the National Park Service in 1996 (Burton et al., 2002). Buildings were transferred to various government agencies, sold to military veterans, or sold to the general public in summer and fall 1946. Many of the buildings purchased by the general public left in the form of stacks of boards. However, it seems likely that many of the 60 barracks purchased by Independence and Lone Pine veterans were kept intact for transport to those nearby towns. All remaining buildings (approximately 560) and all concrete structures protruding above the ground surface were cleared from the site in late fall 1946 and winter 1947 (Unrau, 1996).

Remains of Manzanar. Burton et al. (2002) describe in detail the nature of Manzanar as of about 2000 where much evidence remains of the center. Further, I visited the former center in
December 2002 at a time of distinct change in the site’s management. While only three of the original more than 800 Manzanar buildings remained on site, much of the ground-level infrastructure was still in place (Burton et al. 2002). Roads, sidewalks, foundations, concrete piers, concrete slabs (Figure 8.27), manholes, gardens (Figure 8.28), irrigation ditches (Figure 8.29), and relocation center-era trash remains on the site. In fact, remnants of the early 20th century Manzanar orchards still remain (Figure 8.30). However, rills (a small channel measured in inches) and arroyos (a larger channel measured in feet characteristic of drylands), especially in the western portions of the center (hence higher on the alluvial fans), have eroded into many of the center’s roads in the years since 1945 (Figure 8.31).

At least 14 former relocation center buildings were moved to nearby Independence and Lone Pine (Burton et al., 2002). My reconnaissance in December 2002 suggests that many Manzanar buildings are in these communities where they have been used as houses, various outbuildings, churches, club buildings, and motels (Figure 8.32).

The recently opened U.S. National Park Service Manzanar Interpretive Center is located in the former relocation center auditorium. Located west of the central portion of the center, the relocation center cemetery is the site each April for the Manzanar Pilgrimage (Figure 8.33) (Burton et al., 2002). The Eastern California Museum in Independence has an impressive collection of documents, photographs, and artifacts related to Manzanar.

Figure 8.27. Block 25 latrine and mess hall concrete slabs remaining at Manzanar Relocation Center. View west toward partially snow-covered Inyo Range. Author photograph, December 2002.
Figure 8.28. Block 34 mess hall garden, Manzanar Relocation Center. View northeast toward Inyo Range. Author photograph, December 2002.

Figure 8.29. Remains of irrigation ditch in farm lands just north of main portion of Manzanar Relocation Center. Note partially buried boards that were used to divert water into furrows. Eight inch by five inch yellow field notebook for scale. Author photograph, December 2002.
Figure 8.30. Rows of early 20th century fruit trees remaining in the northwestern portion of Manzanar Relocation Center. Sierra Nevada Range in background. Author photograph, December 2002.

Figure 8.31. Post-war headward erosion into center roadbed in northwestern portion of Manzanar Relocation Center. View east toward Inyo Range. White Author photograph, December 2002.
Southern Owens Valley and Manzanar Today. The years immediately following the closure of Manzanar were relatively quiet in Owens Valley. Agriculture continued with over 100 farms and ranches on more than 300,000 acres of valley land in 1960. However, the City of Los Angeles’ insatiable desire for water resulted in the completion of a second aqueduct in the southern end of the valley in 1970. With much of this water provided by increased groundwater pumping, valley residents were very concerned about the potential effects of pumping on valley groundwater levels. A subsequent lawsuit filed by Inyo County accusing the City of Los Angeles of failing to comply with the California Environmental Quality Act led to approximately 20 years of litigation. The controversial Long Term Water Agreement of 1991 called for joint Los Angeles/Inyo County management of Owens Valley groundwater pumping. This agreement has failed to solve many of the problems associated with groundwater pumping and re-watering of the lower Owens River. Los Angeles’ removal of Owens Valley water also greatly enhanced the issue of blowing dust from the Owens Lake basin (Wehrey, 2006). Owens Lake, now a playa, provides 6% of all of the dust emitted in the U.S. each year. Because of the health hazard of the minuscule PM-10 particulates, the City of Los Angeles now needs to reduce the amount of sodium, silicon, sulfate, and arsenic-laced dust blowing off the playa (Ewan, 2000). A 1998 Memorandum of Agreement between the City of Los Angeles and the Great Basin Unified Air Pollution Control District imposed a 2006 deadline by which the City needed to meet federal air quality standards (Wehrey, 2006; Great Basin Unified Air Pollution Control District, n.d.). In December 2006, the Great Basin Unified Air Pollution Control District and City of Los Angeles reached an agreement on what additional steps the City needed to do to reduce air pollution to acceptable levels (Great Basin Unified Air Pollution Control District, n.d.).

The economy of the area increasingly depends on tourism, especially snow skiing. In 2003, a record 3 million people traveled through the valley. In addition, the movie business continues to be an important player in the economy of the valley (Wehrey, 2006). The economic basis of Lone Pine is now primarily tourism and secondarily cattle ranching (Ewan, 2000).

As of 2000, the population of Inyo County was 17,945, a 1.8% decline since 1990 (U.S. Census Bureau, n.d.). With 92% of the county federally owned and another 4% in City of Los Angeles ownership, it is likely that population growth will be negligible or slow in the coming years (Wehrey, 2006). Amazingly, the City of Los Angeles Department of Water and Power now boasts that its water and land grab of the early 20th century preserved Owens Valley from the rampant population growth experienced throughout much of California (Ewan, 2000)!

Manzanar lay forgotten for several decades following its closure in late November 1945. Erosion and subsequent deposition by streams and by sheetwash from up fan took a toll on the remains of the camp (Figure 8.34). In 1969, a group of former Manzanar evacuees held the first Manzanar Pilgrimage (Embrey, 2001). Increasing interest in its preservation led to designation as a California Historic Landmark in 1972 and placement on the National Register of Historic Places in 1976 (U.S. National Park Service, 2001). The compromise wording on the plaque
Figure 8.32. Former Manzanar barracks converted into Budget Inn Motel, Lone Pine, California. Author photograph, December 2002.

Figure 8.33. Cemetery monument, northwestern portion of Manzanar Relocation Center. View toward cloud-shrouded Sierra Nevada Range. Author photograph, December 2002.
commemorating the 1972 Historic Landmark designation was controversial to some (Garrett and Larson, 1977; Embrey, 2001):

In the early part of World War II, 110,000 persons of Japanese ancestry were interned in relocation centers by Executive Order 9066 issued on February 19, 1942. Manzanar, the first of ten such concentration camps, was bounded by barbed wire and guard towers, confining 10,000 persons, the majority being American citizens. May injustices and humiliation suffered here as a result of hysteria, racism, and economic exploitation never emerge again.

By the 1980s, the National Park Service had inventoried all ten relocation centers and found that Manzanar was the best preserved. In 1985, it was designated a National Historic Landmark and established as the Manzanar National Historic Site in 1992. The site is to be managed as a “cultural landscape based on the World War II relocation center period” (U.S. National Park Service, 2001). Like the earlier wording on the plaque, all did not initially agree with the National Historic Site designation. However, locals eventually bought into the proposal because of the potential tourist dollars that could come to the area (Alisa Lynch, oral communication, 16 December 2002). The Owens Lake Paiute resented the establishment of a Manzanar National Historic Site when the Japanese were only “wronged” in the valley for three and one-half years as opposed to the decades of injustices they have endured. War veterans also saw the honoring of Japanese as a slap in the face against those who fought the Japanese Imperial Army in World War II (Ewan, 2000).

The preferred alternative of the 1996 General Management Plan for the Manzanar National Historic Site proposed to highlight the Japanese American relocation theme, and secondarily, Native American habitation and use and early Anglo-American settlement and use as a compromise to complaints from various groups. The plan proposed to preserve existing center features as well as add one or more barracks and various block support structures (e.g., latrine, mess hall and laundry building) within a demonstration block. The center would again be surrounded by a perimeter fence, and one guard tower would be reconstructed along that fence (U.S. National Park Service, 1996). The City of Los Angeles officially turned over 814 acres to the National Park Service at the 1997 Manzanar Pilgrimage in trade for land elsewhere (Embrey, 2001; U.S. National Park Service, n.d.). The Manzanar Committee, a citizen’s advocacy group, celebrated the 30th anniversary of the Manzanar Pilgrimage in April 1998 (Embrey, 2001). A $5.2 million remodel of the former center auditorium initiated in April 2002 resulted in the historic site’s visitor center in April 2004 (Figure 8.34) (U.S. National Park Service, 2006a). A relatively intact mess hall located in nearby Bishop was obtained and hauled to the site in December 2002 to be part of the demonstration block mentioned above (U.S. National Park Service, 2006b). In September 2005, a guard tower was reconstructed along the east side of Manzanar’s perimeter (U.S. National Park Service, 2006c).

The National Park Service’s initial foray into Japanese American relocation at Manzanar raises issues about the role of the agency in shaping America’s social conscience—i.e., should the agency be the source of social conscience or the caretaker of social conscience—especially
regarding the sites of shameful episodes of our Nation’s past termed “sites of shame” (Rancourt, 1993; Winks, 1994; Hays, 2003).

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Figure 8.34. Former auditorium undergoing extensive renovation, Manzanar Relocation Center. View northeast with Inyo Range in background. Author photograph, December 2002.

References


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