Delta Narratives:
Saving the Historical and Cultural Heritage of
The Sacramento-San Joaquin Delta
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A Report to the Delta Protection Commission
Prepared by the Center for California Studies
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Cover Photo: Sign installed by Discover the Delta; art by Marty Stanley; Photo taken by Philip Garone.
Executive Summary

From August 2014 through July 2015, the Delta Narratives project, on contract to the Delta Protection Commission, addressed two questions. First, in what ways does the historical experience of the Sacramento-San Joaquin Delta contribute to an understanding of key themes in regional and American history? Second, how might Delta stories gain wider appreciation within the region, throughout Northern California, and among people in the rest of California and beyond?

Scholars on the project team documented ways the history of the Delta illustrates trends in land management and reclamation, technological shifts in transportation and agriculture, the impact of ethnicity and labor specialization on community building, and finally, the shifting visioning of America's promise and fall from grace by artists and writers in response to the intense cultivation of the Delta and the conditions which workers there endured. Their essays testify to the intrinsic value of Delta stories and to the additional perspectives they bring to regional and national history.

With these essays in hand, the project team investigated the current infrastructure for the preservation and dissemination of historical and cultural information in the Delta. It created a directory of institutions committed to promoting Delta stories. In order to stimulate conversations between these stakeholders, the team organized two workshops at which the scholars and archivists shared insights and invited commentary and conversation. Subsequently, with the support of the Center for California Studies at Sacramento State University, a conference entitled “More than H2O: Saving the History and Culture of the Sacramento-San Joaquin Delta” presented findings and discussed strategies with an audience of state and local stakeholders. Delta Narratives culminated with a conference organized around an American Assembly model. The conference generated a list of suggestions for further action regarding the recognition, preservation, and dissemination of Delta stories.

High on the list of initiatives were adequate mapping of historically significant locations, an organization that would draw together the many cultural and historical groups in the Delta toward common action, the initiation of annual Delta Days to celebrate the region, and the creation of educational materials including web applications (apps), and a website devoted to the region.
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A: Summaries and Full Texts of of the Four Scholarly Essays

“Managing the Garden: Agriculture, Reclamation, and Restoration in the Sacramento-San Joaquin Delta,”
Philip Garone, CSU Stanislaus

“Building Communities in the Sacramento-San Joaquin Delta: Economics and Ethnicity,”
Jennifer Helzer, CSU Stanislaus

“Stitching a River Culture: Trade, Transportation and Communication in the Sacramento-San Joaquin Delta,”
William Swagerty, University of the Pacific
Reuben Smith, University of the Pacific

“Literature and Visual Arts of the Delta, 1849-1975,
Gregg Camfield, UC Merced

B: Description of Delta Narratives

Summary of Delta Narratives Project
Delta Narratives, Project Team
Project Process and Outcomes, Memo to DPC
March Workshops with Delta Cultural Organizations
Delta Narratives Meeting with Museum Representatives, Archivists and Historians, April 11, 2015
Agenda and Participants, Policy Conference June 17, 2015
Agenda, Participants, and Action Steps, Workshop, July 16, 2015

C: Directory of Delta Historical and Cultural Organizations

D: Delta Narratives Primary Resources prepared by Michael Wurtz and project team to indicate significant archival resources available for future research. This is in additional to the bibliographic citations contained in the essays by the four scholars above.
Introduction: Delta Narratives, Final Report

The Bay Area, Sacramento, and Stockton have a "back lot": the Sacramento-San Joaquin Delta. These days the Delta is most often considered a reservoir or a habitat. Major roads run around its rim, policymakers debate channels to move its water toward its periphery. Although it has at times been referred to as "the heart of California" because of its centrality and rich natural endowment, its history and culture have been neglected. The Delta is a place that few know for its human stories.

However, the area is rich in narratives, and the experiences of Delta communities enhance one's understanding of California and American history. The San Joaquin and Sacramento Rivers supported one of the densest concentrations of Native Americans on the continent at the time of Spanish exploration; it has been estimated that Native Americans lived in the Delta for 8 to 10,000 years before Europeans arrived. The imprint of every stage in California’s history is visible along its shores: the fur-bearing animals that attracted trappers and traders, the ports of call for those rushing for gold, the transportation and reclamation technology that made farming successful, the factories built near its coal reserves to construct ships and process the area’s agricultural bounty, and the communities created by diverse immigrant groups whose labor fueled the Delta’s cyclical economic success. This 1,000-mile-long water network that connects its man-made “islands” generated a culture that attracted the attention of 19th century intellectuals like Josiah Royce, and continues to stimulate new generations of writers and artists. Its unique lifestyle, rich water and resources, and abundant fish and bird populations also provide recreation for over 200,000 annually. Each generation, each immigrant population, and each industry has given voice to different visions of the Delta.

These varied perceptions have led to divergent and at times conflicting relationships with the natural environment. The Delta itself has responded with a history of flooding, fluctuating populations of fish and birds, saltwater intrusion, and silting. Given its isolation from major interstate highways and its low lying and shifting ecosystems, the Delta has resisted the recent and rapid suburban development stimulated by the several metropolitan areas that surround it (San Francisco Bay Area, Sacramento, and Stockton). It remains somewhat suspended in time and dependent on a unique, if fragile, ecological niche. Though Delta stories speak to significant topics in American history, these narratives await systematic collection, presentation, and contrast with national trends.
Defining the Delta

Delta Narratives is a preliminary step toward correcting this neglect. The project assembled a team of scholars, museum professionals, and archivists to research ways that the Delta experience relates to regional and national history, to survey the resources of the cultural and historical organizations that currently serve the Delta, and to suggest strategies for increasing awareness of Delta narratives.

The first result of this project was a suggestion that the Delta be represented by new maps, maps that conceptualize its historical and cultural heritage.

Currently, mapping the Delta focuses on environmental and land management. It has become State policy to divide the Delta into a primary and a secondary zone. The primary zone is particularly environmentally sensitive, whereas the secondary zone can support human development where certain regulations are observed.

This map focuses on future practice rather than past usage. As such it does not emphasize the human settlements, past and present, or the alternate transit routes through the Delta. Furthermore, it does not encompass all of the territory that has been historically linked by the settlement patterns of those who have called the Delta home. What follows is a revised mapping, which attempts to address these issues. It does not, however, locate significant Native American sites, a challenge for future investigation. While atlases of Delta maps exist, they emphasize geological and agricultural data; what is needed is an atlas on historical principals. Specifically, such a collection of maps needs to bring together the shifting patterns of waterways, the changing patterns of land ownership, the succession of crops, transit routes (ferries, roads, rail, bridges, etc.), and urbanized areas. It could also usefully highlight events, as Rebecca Solnit’s *Infinite City: a San Francisco Atlas* does.

Since the location of the Delta by any definition is unknown to many, including those whose communities share its boundaries, the development of maps that include historical and cultural material is an important first step to making Delta Narratives available to wider publics.

Three of the challenges in mobilizing access to Delta stories are immediately apparent from the map below. First, much of the Delta is rural and without significant urban settlements. In fact, San Joaquin County, which has jurisdiction of the largest segment of the Delta, does not benefit from any urbanized centers, though parts of Stockton are technically in the legal Delta. Second,
those urban settlements that do exist are divided between Solano, Sacramento, Yolo, and Contra Costa Counties. Although they were easily linked when boat travel predominated, they are not effectively linked by roads. As a result of the Delta’s rural environment and isolated urban centers, Delta narratives have not been always widely known and shared even among its residents. Third, the Delta was once tied by transit routes and profitable economic relationships to the triangle of cities that surround it: San Francisco, Sacramento, and Stockton as well as to the Mother Lode. These ties have atrophied and, with them, communication networks between the Delta and what one might designate as its "rim land."

Alison McNally, Assistant Professor Geography CSU Stanislaus, Delta Protection Commission.
Significant Themes in Delta History

Kevin Starr, historian and former California State Librarian, has made the case that California is the site of a particularly intense pursuit of the American Dream. Three aspects of that pursuit manifest themselves with particular clarity in the Sacramento-San Joaquin Delta and have been elaborated in essays by the Delta Narrative scholars.

First, this region is an exemplar of the American experience with nature. The literary historian Leo Marx summed this national experience with the phrase, “machine in the garden.” The Delta was a garden carefully tended by Native Americans when the Spanish explorers first glimpsed it in the late 18th century. The trappers and traders who made French Camp, near Stockton, their home base praised the richness of the Delta’s flora and fauna. However, when the Gold Rush stimulated migrations to the Delta and the federal government encouraged land reclamation, the machine had its way with the Delta garden.

Philip Garone follows this story in detail in his essay, “Managing the Garden: Agriculture, Reclamation, and Restoration in the Sacramento San Joaquin Delta.” To increase agricultural productivity, beginning in the second half of the nineteenth century a complex system of levees was constructed in the Delta, creating new islands for cultivation and habitation. However, flooding and salinity intrusion during periods of drought continued to be a threat to agriculture and community life. These concerns and statewide demands for water resulted in new and ambitious reclamation projects undertaken by both the state and federal governments during the 1930s and 1960s. As a consequence of these projects, the Delta has been "reorganized" by pumps and aqueducts to provide water for the southwestern portion of the Central Valley and metropolitan Southern California.

In the struggle to re-allocate this resource between growing cities and expanding farms, the environment of the Delta has been threatened. Environmentalists have identified unique habitats, some of which could provide an opportunity for citizens to learn more about nature’s secrets if they are preserved and appropriately managed. Since the waterways also support recreation, including boating, hunting and fishing, the recreational community and the tourists that they attract have become increasingly engaged in conversations about the region. One result has been the creation of a series of preserves in the Delta region, attempts to respond to dislocations caused by reclamation. Thus, the narrative is a
complex one of dramatic restructuring of a garden and of attempts to respond to the environmental changes human intervention has precipitated.

*Another aspect of the impact of machines on the Delta's garden is told by William Swagerty and Reuben Smith in their essay, “Stitching a River Culture: Trade, Transportation and Communication in the Sacramento San Joaquin Delta.”* By the mid-19th century, steam powered water transport tamed the region, creating docks and warehouses. The garden was also restructured as bridges carrying trains and trucks increasingly replaced boats to facilitate the movement of people and goods. Factories rose and fell, processing agricultural goods and building farm machines. The key technological changes here were based on the advent of electricity and the internal combustion engine. The result was innovation, including tractors and specialty boats required to exploit the Delta environs to move resources and products from place to place and to provide for recreation. In fact, in the early 20th century, the Delta and its surrounding cities (San Francisco, Stockton, and Sacramento) evolved a "silicon valley" in the service of agriculture, inventing and refining equipment later used worldwide for planting, harvesting, packing, and transporting a wide range of crops.

Yet another aspect of California’s commitment to the American Dream emerges from the Delta’s attraction for immigrants from the East and from other nations hoping for a life free from the restrictions of more traditional societies. Scholars are increasingly interested in beginning the immigrant story before the arrival of Europeans in North America. Charles Mann has popularized this perspective in his book, *1491: New Revelations of the Americas before Columbus*. The Delta has a rich story to tell in this regard. Archaeologists have concluded that California’s first human settlers arrived in the Delta at least 8,000 years ago. Distinctive spear points associated with these settlers have been found throughout the Delta region. Between 4,000
and 5,000 years ago, something changed, making the Delta area hospitable for a second wave of native immigrants, ancestors of the Miwok-speaking people who later spread from the Delta to the Sierra foothills and the Pacific Coast. The demography and distribution of indigenous peoples across North America has a Delta sub-story rich in artifacts and significance. Spanish settlers began to arrive in the late 18th century; they utilized the Delta primarily as a recruiting area for laborers to support their colonial expansion. This was to change in the middle of the 19th century. As historian James Holliday has written, in 1849 the world rushed in to find gold in California and the rushing continued thereafter in search of the fertile soil necessary to strike it rich in agriculture. Delta towns have established immigrant communities of Portuguese, Italians, Sikhs, Filipinos, Japanese, Chinese, and Mexicans to name only the most prominent groups. Some, for example the Chinese in the community of Locke, successfully reconstructed their homeland in miniature on the Delta shores. However, for others, the pursuit of the American dream was not without intergroup tensions; the Delta was the site of the last segregated schools in California.

As Jennifer Helzer demonstrates in her essay, “Building Communities in the Sacramento San Joaquin Delta: Economics and Ethnicity,” the founding of communities in the Delta has roots in the economic orientation of immigrants. Many came to the Delta with specialized skills; they and their communities remained only as long as there was economic demand for their skills. Thereafter, they moved on, leaving ghost towns or communities of reduced vitality. Thus, community building was linked to the demands for labor. In some case, laborers bypassed Delta communities altogether, living in rim cities like Stockton and Sacramento. In all cases, labor conditions and demand called the tune.

A third aspect of the American Dream is the opportunity for social and cultural mobility. America has been envisioned in Biblical imagery as a place where God has made a good life possible but also where the weaknesses of human endeavor are prophesized. The reality of the Delta experience has provided writers and artists the opportunity to test that hypothesis. As Gregg Camfield notes in his essay, “Literature and Visual Arts of the Delta, 1849-1975,” 19th and early 20th century writers showed California as an El Dorado where Anglos in particular could find riches. As one moves into the 20th century, others, like Jack London, see great struggle in California, but also great material for the imagination and for adventure. Mid-20th century poets like William Everson have praised the subtle natural elegance of the landscape even after reclamation. Joan Didion, however, captures the dark side of pursuing the
American Dream, writing about the dependence of the Delta on monolithic financial structures outside the control of local residents. A striking contrast between viewing the Delta as promised land and finding there a prophetic warning of human abuse is manifest by comparing two paintings, one by John Ross Key in 1860 and a second by Wayne Thiebaud in 2000.

As a locus in the imagination, the Delta has evolved from Native Americans who envisioned the Delta as an ideal place to live their lives as part of the natural order and where they could harvest nature’s bounty.

For the Spanish it was a place of danger, dominated by native warriors and swampy terrain. It was avoided except to collect necessary laborers. For the miners of 1849, the Delta was a water highway. Later innovative farmers envisioned it as a place where a utopian farm life could be created by the use of modern machinery and reclamation. However, there was sufficient land available in the Delta that others conceptualized it as a place of escape, a hideout, a place to drop out of the modern world. Closer to our time, the Delta is envisioned as a place where nature's dominance has been restored.
To be sure, many of these visions remain alive in the Delta imagination, and they deserve further investigation and elaboration. Delta narratives can increase the understanding of the history of environmental management, of agricultural technology, of ethnic communities, of labor, and of the elaboration of Biblical themes in America. As the scholars' essays make clear, these stories connect directly to regional and national narratives that define America. These stories can also be aggregated into themes on which partnerships among cultural organizations in the Delta and beyond can be built.
Historical and Cultural Organizations of the Delta

The keepers of these and other Delta stories are a collection of close to 40 institutions with a variety of missions and resources. They do not have a history of cooperation or coordination, but each has developed loyal volunteers and delivered significant service to mostly local communities.

The region is host to three significant history and cultural museums and a university archive with considerable depth in Delta history. The Haggin Museum in Stockton, the San Joaquin Historical Society and Museum, the Center for Sacramento History, and the University of the Pacific Holt-Atherton Special Collections have been active participants in the Delta Narratives project. They are fully committed to foregrounding Delta stories.

In addition, the region has eight additional museums. Five are dedicated to a particular city or region (Antioch, Pittsburg, Benicia, Rio Vista, and East Contra Costa). The rest focus on a particular topic (railroads, science, and the dredging industry). There are also at least five historical societies not directly connected to a museum or building, but collect materials and promote historical literacy.

Much of the social capital mobilized for historical and cultural awareness is focused on specific locations, either parkland or structures. The State of California has nine park sites and an archive in Sacramento, many of which have Delta connections. In the Delta itself, there are at least twelve operative state parks, including the Chinese Boardinghouse in Locke and the Fisher-Hanlon House in Benicia. The Consumes River Conservancy and San Joaquin County have parks with historical materials from the region. There are two sites serviced by the National Park Service: the John Muir House and Stone Lakes National Wildlife Refuge. Finally, there are a number of buildings that are preserved and opened to the public through the efforts of volunteer organizations, for example, the Rea House, the McFarland Ranch, the Bing Kong Tong Building, and the Hill House.

Although these centers of activity have been significant, they only begin to touch the surface of the places and artifacts of historical significance in the region. For example, there is no site presenting Native American patterns of life except for limited displays at the Haggin and the San Joaquin County Historical museums. Recently “The built historical resources evaluation report for the Bay Delta Conservation Plan project” (2012) reported on the eligibility of the 667 structures built in the Delta region before 1968 for inclusion on the California or National Historic Register. Of the 667 identified, 240 could not be surveyed and so remain of possible historic value. Of the remaining 427 structures, 25 were deemed significant enough to merit recognition. However, only seven are currently so recognized. In other words, the Delta has at least 18 sites already evaluated as of national and state significance, but that lack the appropriate protections and presentations to wider publics.
Surprisingly, the Delta has yet to develop a gateway or gateways through which visitors can enter and receive information about its historical and cultural treasures. An attempt has been made to create such a point of entry on Highway 12 near Rio Vista, but the Discover the Delta initiative has stalled due to a lack of funding. At this time, therefore, there is no central point for the distribution of materials or where an introduction to the region is available. Further, since the entire Delta region is not served well by the current road system, multiple gateways would be required if all the major routes into the region are to be serviced. It would also be necessary for the three historic "gateway" cities of San Francisco, Sacramento, and Stockton to embrace their geographic proximity and connection to the Delta, and participate in the effort to introduce their citizens and their visitors to the Delta region.
Strategies for Dissemination of Delta Stories

The Delta Narratives project set out to document the historical and cultural themes that tie the experience of the Delta to regional and national history. Given the significance of these ties, the project identified strategic initiatives with would make greater numbers of people aware of Delta stories. This second phase of the project began with discussions among museum professionals from the Haggin Museum, the Center for Sacramento History, the San Joaquin County Historical Society and Museum, the University of the Pacific Holt-Atherton Special Collections, and visiting historians from Sacramento and San Francisco State Universities.

The group focused on projects that could help visitors interpret the Delta by themselves. The first suggestion was the development of a web application (app) because it could assist Delta institutions in communicating with young and family oriented audiences as well as appeal to today’s tech-savvy tourists. A second suggestion was to create uniform historical markers throughout the Delta, with some oral history component offered at each one. Should gateways be designated, a film, an interactive map showing alternative tour routes, and a detailed written guide might be offered to orient visitors.

The group realized the challenges of exhibits in the Delta. Few, if any, cultural and historical organizations have adequate exhibition space even for traveling shows. However, it might be possible for an exhibit to be displayed over multiple venues and be supported by larger institutions located in Stockton, Lodi, and Sacramento as well as smaller Delta institutions. Exhibitions could vary by theme and venue and be offered on designated dates where transportation and advertising would be arranged. These efforts might be particularly attractive if they featured oral histories or reconstructed narratives of the actual actors in the historical events to be highlighted.

Additional initiatives might focus on schools and curriculum. One idea would be a specialized website with materials to supplement curriculum. The website could include primary source materials so the Delta could become the focus of academic research. Here as well as with other initiatives, the diversity of stories available should be highlighted in order to apply to different audiences. Especially useful might be the inclusion of a variety of ethnic stories, and accounts of new technologies and agricultural innovations.

Following the meeting of museum professionals, Delta Narratives structured an American Assembly program in which a wide variety of Delta stakeholders were challenged to address ways to better promote partnership around Delta stories, to increase the appreciation of Delta stories in communities in Northern California, and to stimulate interest in Delta history and culture throughout California and beyond. The 40-plus stakeholders divided into three groups, each group responsible to brainstorm and then evaluate solutions. At the end of the day, all three groups brought their top results to the group as a whole, which voted on those they found most compelling.
The group that focused on internal Delta cooperation suggested two preliminary steps, the preparation of a digital map of significant historical and cultural sites and the creation of a comprehensive directory of cultural institutions, completing the work already begun by the Delta Narratives Project (see Directory of Cultural and Historical Organizations in the Appendix). The group also suggested reviving boat and bus tours of the Delta for residents as well as visitors so that its full extent could be experienced. They stressed that it was critical to involve youth from afar as well as local citizens. In both cases, those attempting to stimulate their interest would be expected to identify a truly common purpose and attempt to meet people on their own terms and in their own environment.

The group focusing on the relationship between the Delta and surrounding communities argued that the Delta's cultural groups, once they have come together, should coordinate with affinity groups beyond the Delta in an attempt to educate the citizenry of these communities beyond the Delta’s borders. As these networks learn to cooperate they could target youth and families in these areas. They should design appealing tours and outings that would be easy to execute.

Such initiatives should involve private business to the greatest extent possible. They should be accompanied by public relations campaigns that explain the significance of Delta stories and why coming to the Delta is crucial to understanding them. One idea would be a campaign that stresses visiting the Delta before its treasures are damaged further. On a more positive note, it can be argued that the Delta echoes California history; to experience the Delta is to experience the evolution of California.

In order to accomplish such a strategy, the group suggested approaching three key collaborators: Sacramento State students and faculty, sites in the Bay Area and Mother Lode that have special historic ties to sites in the Delta, and the chambers of commerce in the Delta and surrounding communities, especially Stockton, San Francisco and Sacramento. This group championed the creation of a central clearinghouse for information on the Delta that could be accessed online and at key locations in the Delta. They also considered creating a K-12 curriculum that would integrate Delta narratives into the California story. To stimulate initial visits to the Delta, the group suggested creating Delta Days to encourage visitors to sample a variety of sites.

The group charged with considering links between Delta history and the state and beyond, urged the creation of an on-going central organization to promote education, research, exhibits, and travel through the Delta. It would be an independent organization, but one willing to cooperate with state agencies. Members of this group were generally in favor of a National Heritage Area (NHA) but divided over whether the organization they were suggesting should advocate the NHA before Congress.

The group believed that visitors must see the Delta to appreciate it truly and have the benefit of interpretations by specialists. For example, this group would have trips planned with experts on
such topics as fishing, birding, ethnic communities, and so forth. In addition, they hoped the creation of sophisticated school and college curricula would stimulate an appetite for later visits.

Running though all three groups was the need to mobilize Delta groups into a continuing organization for the promotion of culture and history. They also believe that people must see the Delta to appreciate its cultural riches and that working to integrate Delta stories into primary, secondary, and college curricula could create an appetite for visiting it. Finally, they agree with the museum professionals that the creation of a website and/or web application (app) would help to attract people, particularly the young, to Delta narratives. All three groups believed that whatever strategies were adopted should pay particular attention to the young in the hope that they will help sustain the distribution of Delta Stories to the next generation.

The conference participants did not underestimate the challenges in attempting to build on such strategies. Transportation around the Delta is difficult; the area does not have a strong information technology infrastructure; and Internet, Wi-Fi and cell phone access are underdeveloped. Furthermore, there are currently only limited places for one to stay or to find a meal. The Delta is without a comprehensive hospitality plan. The area is also under multiple governmental jurisdictions, making any coordinated action difficult, and lacks large or commodious buildings for exhibitions, performances and meetings. In addition, it has long promoted escape from neighbors, from visitors from rim land cities, and from strangers of any sort. Finally, the conversations and resources within the Delta today focus on the quality and quantity of water, leaving little room for other subjects.
Action Steps

What then should be the next steps? Clearly some form of Delta-wide organization is a top priority. However, it is difficult to create such a group without a clear focus and challenge at hand. Three possible projects emerged from these discussions: the creation of an app/website/digital maps for the Delta, the integration of Delta Stories into California's educational curriculum and the organizing of regular Delta Days to announce the region’s historical and cultural riches. In each case, the four topics that the scholars expanded upon could play a key role in defining the content of these outcomes. Of course, these projects will require leadership, institutional commitments, and funding. They would also benefit by the inclusion of scholars from other educational and cultural institutions like the Oakland Museum, UC Davis, UC Berkeley and CSU East Bay as well as interested groups in the Bay Area and possibly, the Mother Lode. To recruit additional partners in the Delta and beyond, it may be strategic to make the securing of funding a first priority.
A Summary of Four Scholarly Essays

Managing the Garden: Agriculture, Reclamation, and Restoration in the Sacramento-San Joaquin Delta
Philip Garone, California State University Stanislaus

“Managing the Garden” provides a broad environmental history of the Delta, exploring land and water use in the region from before European contact in 1769 to the beginning of the twenty-first century. The bulk of the emphasis lies, first, on the physical and ecological transformation of the Delta during the late eighteenth and early nineteenth century from a tidal wetland partially protected by natural levees and rich in natural resources to a reclaimed, intensively cultivated, highly engineered agricultural landscape, and, second, on more recent environmental conditions in the Delta, including water quality issues and the restoration of wetlands around the region’s margins.

From Geological Origins to Statehood: Geologically, the Delta is a relatively recent creation. Warming temperatures at the beginning of the Holocene Epoch (11,700 B.P. to the present) caused glaciers to melt and sea levels to rise, creating over thousands of years the historical Delta. Native Americans—primarily the Nisenan, Plains Miwok, Northern Valley Yokuts, Bay Miwok, and Patwin—lived in the Delta, harvested its resources, and altered its environment for at least the past 6,000 years. The world of the indigenous people of California was altered by Spanish exploration, which began with the 1769 expedition of Gaspar de Portolá and Franciscan priest Junípero Serra. Increasingly belligerent relations with the Indians of the Delta ultimately precluded the establishment of Spanish missions in the region. Nevertheless, the Mexican government tried to stabilize the interior, under the 1824 General Law of Colonization, through a series of land grants, including several around the periphery of the Delta, although not in the frequently flooded lands of its interior. Malaria reached the Central Valley, including the Delta, in late 1832, following in the wake of British fur trappers entering California from Oregon. At least 20,000 Native Americans died on the river systems of the Central Valley, from Red Bluff in the north to Tulare Lake in the south, in 1833 alone, and the Native American population in the affected parts of the valley may have been reduced by as much as 75 percent between 1833 and 1846, following successive outbreaks. In addition to the toll it took on Native Americans, the introduction of malaria into the Central Valley was important because it provided an additional incentive to drain and reclaim the wetlands of the Delta and lower Sacramento and San Joaquin rivers, and thus to begin the transformation of the Delta from a wetland region rich in plant and animal resources to an agricultural garden in the new Golden State.

Reclamation: On September 28, 1850, Congress passed the Swamp and Overflowed Lands Act to allow for the transfer of much of the public domain that was swamp land to the states, and hence expedite its reclamation. Under the Act, 2,193,965 acres of swamp land would ultimately be deeded to California, including nearly 500,000 acres within the Delta. In 1861 California initiated a short-lived experiment with coordinated reclamation, providing for the organization of reclamation districts (called “swamp land districts” at that time) and creating the State Board of Swamp Land Commissioners to oversee them. The abolition of the Board of Swamp Land Commissioners in April 1866—after mixed success—and the removal in 1868 of acreage restrictions on swampland purchases marked the triumph of localism over centralized planning for both reclamation and flood control. Between 1868 and 1871, nearly 800,000 acres of California’s swamp lands—virtually all of the state’s remaining tracts—passed into private hands, with the five Delta counties of Contra Costa, Sacramento, San Joaquin, Solano, and Yolo accounting for almost 300,000 acres of that total. Most of the initial work of reclaiming the Delta islands and low-lying tracts was carried out by
Chinese laborers, who were often recruited from Chinatown boarding houses in Sacramento, Stockton, and San Francisco. Sherman Island and Twitchell Island were the sites of the earliest large-scale reclamation in the central Delta, and the early 1870s witnessed reclamation projects throughout much of the Delta’s peat lands. However, the fragile peat levee systems constructed in the central Delta during the 1860s and 1870s were largely destroyed or replaced by new and stronger levees formed from clays and alluvial material dredged from the channels by long-boom clamshell dredges, which evolved from early floating mechanical dredges that had been developed for harbor work in San Francisco Bay. Between 1860 and 1930, more than 440,000 acres were reclaimed in the Delta. There were ecological consequences to this transformation. Wetland vegetation in the Delta all but disappeared and the dense concentrations of wildlife that had thrived in and around the tules vanished with them. The Delta’s wetlands, which had once provided sustenance for Native Americans and habitat for millions of waterfowl, were converted into agricultural fields, orchards, and pastures.

Agriculture: Potatoes, beans, orchard crops (especially pears), asparagus, sugar beets, wheat, barley, corn, and alfalfa hay were each important components of the Delta’s agricultural economy for at least some portion of the main reclamation period from approximately 1860 to 1930. By about 1880, Delta agriculture had divided roughly across ethnic lines. Grains, orchards, and livestock were tended by American-born settlers, while garden or truck farming remained largely in the hands of Chinese, Italian, and Portuguese tenant farmers. Potatoes, often grown in rotation with beans, were usually the first crop planted on newly reclaimed peat soils; during the late nineteenth century, asparagus became the most profitable vegetable in the Delta, and acreage expanded rapidly. The development and proliferation of asparagus canneries in and around the Delta beginning in 1892 dramatically increased demand and accelerated the expansion of the crop. By the mid-1920s canning companies were located at Isleton, Walnut Grove, Rio Vista, Ryde, Sacramento, Antioch, and Pittsburg, as well as Oakland and San Francisco. Filipino laborers carried out much of the work of harvesting the asparagus, which required considerable skill and precision in cutting. Sugar beets became commercially important during the WWI era, when sugar shortages encouraged greater production. Acreages would increase dramatically in the 1920s, especially on the mineral soils along the Sacramento River and in the Yolo Basin. Other crops were ascendant at the end of the reclamation period, including tomatoes, which became increasingly important for the canny industry.

Salmon Fishery: The Delta’s water resources, especially its chinook salmon (*Oncorhynchus tshawytscha*), were exploited during the reclamation era on an increasingly industrial scale. The presence of four salmon runs—spring, fall, late fall, and winter—gave rise during the last third of the nineteenth century to a thriving fishery and a cannery industry. Much of the labor of harvesting the fish was carried out by Italian, Greek, Portuguese, and Spanish immigrants. Rio Vista emerged as the main landing station, and the salmon fishery brought significant wealth to the town through the 1880s. Overharvesting and siltation of the rivers, resulting from hydraulic mining, led to the decline of the fishery, and the last Sacramento River cannery closed in 1919.

Water Quality Issues: The entire Delta ecosystem has been affected by California’s two most massive water projects, the federal Central Valley Project (CVP), the construction of which began in the 1930s, and the State Water Project (SWP), begun a generation later, in the 1960s. Part of the rationale for the CVP was to regulate flows of the Sacramento River to protect the Delta from salinity intrusion during droughts and periods of low flow, but both projects also created an infrastructure to transport fresh water from the Sacramento Valley through the Delta to the San Joaquin Valley to enable irrigation. Diversions south of the Delta have led to prolonged problems with declining water quality and fish populations and led in part to the passage of the Delta Protection Act 1992, which created the Delta Protection Commission. The following year, the U.S. Fish and Wildlife Service and the California Fish and Game Commission declared the Delta smelt (*Hypomesus transpacificus*), a native fish endemic to the San Francisco Bay-Delta Estuary, an
endangered species. The listing heightened federal and state responsibility for Delta water quality and led to the signing of the Bay-Delta Accord in 1994, prompting the creation of CALFED, an interagency program designed to address four issues crucial to the long-term restoration and management of the Bay-Delta estuary: ecosystem restoration, water supply reliability, water quality, and levee rehabilitation. CALFED's shortcomings led to a new approach. In 2009, the state legislature passed the Delta Reform Act, which created a Delta Stewardship Council and charged it with achieving the co-equal goals of protecting, restoring, and enhancing the Delta ecosystem and creating a more reliable water supply for the state. The Bay Delta Conservation Plan (BDCP) aimed to create a comprehensive habitat conservation and management plan to protect the Delta ecosystem while also maintaining export of water by the CVP and SWP, but became mired in acrimonious debate over its proposed “Water Conveyance Facility,” otherwise known as the Delta Tunnels. In April 2015, the state proposed dividing the conveyance facility and habitat restoration measures into two separate efforts: California WaterFix and California EcoRestore.

**Restoration Successes:** The creation, during the last decades of the twentieth century, of the Cosumnes River Preserve (1987), Stone Lakes National Wildlife Refuge (1994), and Yolo Bypass Wildlife Area (1997) marks the culmination of a century of changing attitudes toward wetlands and the wildlife they support, including the migratory waterfowl of the Pacific Flyway. Costly crop depredations by waterfowl had provided the incentive for the Delta region’s first refuges—Joice Island (1932) and Grizzly Island (1950), near Suisun Marsh—which were designed primarily as feeding grounds to keep hungry birds away from the Central Valley’s rice fields. In more recent years, the goals of conservation and restoration have expanded to include more species and a variety of ecosystems. Since the Nature Conservancy formally dedicated the Cosumnes River Preserve, the preserve has grown to more than 50,000 acres of permanent and seasonal wetlands as well as private agricultural and grazing lands that are managed in wildlife-compatible ways to attract wintering waterfowl. Over the years the mission as well as the size of the preserve has expanded and now includes floodplain restoration, which is of particular importance for native fish species, including the Chinook salmon and Sacramento splittail. The Stone Lakes National Wildlife Refuge protects a rich mosaic of habitats in the Stone Lakes Basin from the pressures of urban development sprawling south of Sacramento. The Yolo Bypass Wildlife Area is managed by the California Department of Fish and Wildlife to be completely compatible with the bypass’s flood control function, even as it is restored to the wetland habitat for Pacific Flyway ducks, geese, and shorebirds that it had been prior to reclamation. Other Delta area refuges include the White Slough and Hill Slough wildlife areas and the Woodbridge Ecological Reserve, also known as the Isenberg Sandhill Crane Reserve, which provides habitat for greater and lesser sandhill cranes, the former of which are listed as a threatened species in California. Together, these various refuges, created through efforts of nonprofit conservation organizations and the state and federal governments, have restored relatively small but ecologically important parts of the Delta, and although these refuges are managed landscapes, they offer a glimpse of the Delta and its abundance of wildlife in a time before reclamation.

**Conclusion:** Today, after more than a century and a half of reclamation and development, the Delta remains a “garden,” supporting over one hundred crops on some 500,000 acres of agricultural land. But, despite its tremendous agricultural bounty, the Delta is also much more than a garden. Among its many land uses, the Delta now includes a variety of types of protected lands, including some on which agriculture is managed to be compatible with wildlife. At the same time, the Delta lies at the epicenter of disputes over water allocation and distribution, and suffers from a prolonged decline in the quality of the water in its channels and in the ability of its aquatic ecosystem to support life. All of these accomplishments and challenges point to a robust, yet still fragile, contemporary Delta.
“Stitching a River Culture” explores three themes in the history of the California Delta: trade, communication, and transportation. Heretofore these three subjects have received scant attention, save the history of steamboating and recreational uses of the Delta in recent times. The purpose of the larger narrative is to provide museums, archives, and historical societies with a basic framework that includes these three themes in the context of the larger subjects of agriculture, various kinds of technologies, town building, and reclamation. This narrative begins before Spanish exploration and contact with Native peoples in the last quarter of the eighteenth century and includes the following eras: Spanish, Mexican, Gold Rush, and post-statehood—to around 1960, only two decades later.

**Within the Delta, towns were slow to develop.** However, on the periphery of the Delta, three major cities formed points of a “V” for communication. Other narratives in this series also introduce Native peoples and habitats of the Delta. A common theme is the radical transformation of both the human and physical landscape. Native peoples and their villages were essentially gone even by the time of the Gold Rush. A century later, native vegetation and the natural flow of waters of the Delta had been altered. Native birds and animals had been drastically reduced. The area had been converted into a rich farming landscape with high levees bordering the reduced number of waterways. The Delta’s development began in the 1850’s, with reclamation in full swing, trade and transportation. Beginning in 1849, beyond the immediate Delta, San Francisco played the central role between the outside world and the Mother Lode region. San Francisco and adjacent Bay-area towns benefitted from business, manufacturing and passenger traffic. Because of Sacramento’s and Stockton’s importance to the gold fields, the Delta benefitted from these two additional major hubs, still important to the region today.

**These two interior cities became small-scale manufacturing centers specializing in wheels, wagons, boats, and agricultural equipment.** They were also collection and distribution points for mail, freight, newspapers, and overland stage traffic. To these, telegraphic messaging was added in 1853. Later on telephone service was added along with increased speed on the water for business as well as pleasure craft. Delta towns such as Rio Vista, Isleton, and Walnut Grove had their own service centers and some developed their own newspapers.

**Early transportation was by boat rather than overland.** By the mid-1850s the steamboat was ubiquitous. Its operations complemented the overland transportation by freight wagons into the foothills and Sierra. In the Delta proper, long distance travel by wagon was nearly impossible prior to levee construction, which provided surfaces for hard road beds. Reclamation was first done by hand labor, largely Chinese, using peat soils common in the Delta. But peat is porous and did not make strong levees. But as technology developed—especially steam driven machinery—substantial dredging and draining were undertaken in a very short length of time. As in other arenas of American industrial history, steam-power, followed by the electric age, allowed larger devices—especially pumps—to be used. Steam-powered equipment from water pumps to dredges, harvesters, and tractors constituted a major technological shift, of which the Delta provided an ideal testing ground.

**A parallel and interrelated change was true for crops.** As the difficult process of clearing the tule commenced, farming that had included some grain growing and cattle raising began to give way to vegetable and orchard production, dependent on hand labor supplied principally by laborers representing diverse ethnic backgrounds. These garden crops were sold locally and were highly sought after. Roads were necessary to get this produce to the slough and river landings, increasingly common throughout the Delta. The need to cross those waterways required ferries, and later moveable bridges to allow unobstructed boat traffic. Generally, the costs involved for
production on the Delta meant that large capital sums were required. Therefore, much of the acreage involved resulted in larger landholdings, often absentee ownership by wealthy investors, and fewer small-holdings. Yet, by the 1880s, pears became an important fruit crop, often farmed by small-holders. With the advent of the refrigerated rail car, pears and other crops could be shipped east with little spoilage. At the same time, safe and inexpensive canning of fruits and vegetables was developed, and canneries were built in many places in the Delta.

**Beginning in the first decade of the twentieth century large tractors and advanced agricultural machinery allowed substantial farming operations to expand and new crops to be introduced.** In 1909, along the east side of the Sacramento River, a railroad was built to compete with the steamboats, and in 1929 a rail line was completed on the west side as well. In the first two decades of the twentieth century large-scale crops included potatoes, corn, beans, celery, asparagus, onions, and by the mid-1920s sugar beets.

Commercial fishing and preservation, especially of salmon, date back to the 1850s on the Sacramento River, and for several decades were important industries. But by century’s end, commercial fishing was mostly gone. Even so, the waters of the Delta continued to provide sport fishermen with bounty. By then, the invention and the improvement of the internal combustion engine supplanted the steam engine for commercial shipping, and, in the form of the outboard motor, provided the sport fisherman and recreational boater a dependable means of cruising the Delta.

**The internal combustion engine represented a second major technological transition,** one that changed patterns of trade and transportation. The motor car, truck and bus were introduced as early as the 1910’s. Trucking became increasingly important starting in the 1920’s, and eventually replaced both the steamboat and the railroad as the primary means of transport. With the advent of the refrigerated truck, after the 1950’s fresh produce could be loaded in the fields and sent long distances. Canneries moved out of the Delta, paved highways were built, and new larger and stronger bridges were constructed.

**In the later twentieth century many of the Delta’s crops differed from earlier agricultural periods.** So also a different mode of transport had wrought many changes, and as a result the Delta presented a quite different appearance even from half a century earlier. It also had developed an important and large recreational industry to add to its agricultural wealth. These two activities, of substantial importance to the economy of California, assured the Delta of a prominent place in California’s agriculture and tourism industries.

**Building Communities – Economics & Ethnicity**
Jennifer Helzer, California State University, Stanislaus

The theme of this Delta Narrative is Building Communities: Economics and Ethnicity. The essay focuses on the primary zone of the Delta, comprising the “Delta proper” towns. When appropriate, cities and towns outside the primary zone are included in the discussion because they are relevant to the topic at hand. The narrative is divided into three sections. The first section focuses on initial settlement in the Delta, starting with the earliest indigenous inhabitants. It traces the arrival of subsequent immigrant groups and how communities were built around ethnic bonds and the economic needs of an emerging agricultural region. It also covers the early experience of Delta residents, emphasizing themes of human-environment interaction, emerging settlement patterns, and early community development.

**In the 1850s, powerful economic, political and social forces precipitated momentous change in the Delta region of California: 1) the California Gold Rush, 2) levee construction and agricultural development, and 3) the migration and settlement of domestic, European and Asian cultural groups.** The great migration linked to California’s Gold Rush is purported to be the largest movement of people to a single area on the North American continent. Other areas have
comparable numbers associated with their frontier migration, but California’s distinctiveness lies in the rapidity and uneven pattern of settlement over the land. Moreover, the region's settlement and was complicated by Hispanic colonizers and topographic features that restricted movement into, and settlement of, certain areas.

The Delta was an important crossroads location during the post-Gold Rush period and the inhabitable lands of the Sacramento and San Joaquin valleys proved enticing to settlers. Diverse cultures forged distinct communities during the Delta’s land reclamation phase and subsequent agricultural development. While this might seem to exemplify familiar themes in our country’s past, the small family farm that once characterized so much of agricultural development in North America has not epitomized rural life in the Delta; instead corporate farming and agribusiness has significantly shaped the region’s history.

Since its early colonization, the effective settlement and development of the region has depended on the labor of both indigenous and subsequent newcomer groups. The second section of the narrative emphasizes the labor history of the Delta and how the work of different ethnic groups impacted the development of the region. It draws particular attention to how the nature of agricultural labor in the Delta hindered development and the growth of community in the region. Immigrant labor in reclamation, tenant farming and patterns of ethnic specialization in agriculture, along with discriminatory and exclusionary activities associated with work and settlement are important themes in this section. In the post-Gold Rush era, Chinese laborers were among the first newcomers to arrive in the Delta and the narrative highlights their contributions to levee construction, orchard work, and potato, onion and asparagus farming. The discussion also addresses the impact of exclusionary laws and how these policies led to the spatial isolation of Chinese in the Delta and the development of Chinatowns.

By the late 1800s, a second wave of settlers arrived in the region to meet the demand for agricultural workers. The Japanese moved into farming in great numbers and quickly progressed to secure long-term leases to grow high-value crops. They made important contributions to large-scale agricultural operations including potato farming and cannery work. Their success often made them the target of discriminatory policies including the establishment of segregated schools in the Delta, and ultimately resulted in their forced relocation and incarceration during World War II in response to Executive Order 9066.

Southern Europeans also began to arrive in the Delta region in the late 1880s. Italians made significant contributions to truck farming and cherry-growing. They were also important innovators of mechanized farming equipment and they developed important labeling and packaging advances that allowed for the export of quality produce to the world market. Portuguese from the Azores were involved in reclamation activities in the northern Delta. Their efforts led to the creation of the Lisbon District and the manufacturing of the first clamshell dredger.

Filipinos played a major role in Delta farming and the urban life of Stockton. In the 1920s, their migration to California gained strength and Stockton was a primary destination. They made up ninety percent of the asparagus harvesters in the Delta and worked under some of the most difficult farm labor conditions in the country. Filipinos used Stockton as a base, as they moved from one labor camp to another throughout the year. Filipinos were systematically exploited and faced many forms of mistreatment including deplorable living conditions, and corrupt hiring and payroll practices. They responded with resistance and became instrumental in the farm labor movement, creating highly influential ethnic organizations.

Punjabi Sikhs immigrated also arrived in the Delta in the early 1900s. The region resembled their Punjabi homeland in northern India and they found work in the Delta’s orchard and field crops and eventually expanded into leasing farmland. Sikhs also settled in Stockton where they built the first Sikh temple in the United States.

The Delta was also a major focus of migration for Mexican laborers associated with the bracero farm labor recruiting system. The Delta region is considered the epicenter of bracero
program which was initially driven by the demand for agricultural laborers to harvest sugar beets and orchard crops in the region. Lobbying efforts by growers helped to extend the program after the war ended.

**The third and final section addresses the notion of the Delta as a refuge for short-term, transient settlement, recreation and respite.** In some cases, ethnic communities were too small to become viable communities, while other transitory settlement efforts represent urban dwellers seeking isolation or retreat into Delta hideaways. Throughout the narrative, community vignettes illustrate how these three themes played out to shape the Delta’s identity including its legacy towns, enduring ethnic landscapes and economic imprints.

Throughout history the Delta has been a crossroads, a place of environmental change and agricultural fortune, and a destination for newcomers. It is a place *in between*, exceptionally endowed by nature, location and cultural heritage. Flanked by the urban fringes of both the Bay Area and Central Valley, the region faces development and population pressures from all sides, and commuters and city dwellers alike seek refuge on its back roads and in its quiet communities. The region’s unique rural landscape has multiple meanings. It can be interpreted as symbolic of prosperity and success, and it can equally reveal labor conflict, inequality and exclusion.

**Literature and Visual Arts of the Delta, 1849-1975**
Gregg Camfield, University of California, Merced

This survey begins in one of the most popular of American genres, the travel narrative, with Bayard Taylor’s *Eldorado: Adventures in the Path of Empire* (1850). Taylor’s book begins the entire tradition of the literature of California as promised—or at least golden—land. Dispatched in 1849 by Horace Greeley to write correspondence from the California gold fields for the *New York Tribune*, Bayard Taylor (1825-1878) spent about four months in California. His book describes the settling of California in Romantic and nationalistic terms, seeing California as the next step in a providential Anglo-American empire straddling the continent. The Delta and Delta towns occupy a very small portion of Taylor’s output, but he does specifically celebrate this area’s economic and cultural potential. Regarding the economy, he sees Stockton and Sacramento as crucial to supplying the mines, and in the organization of a proto-government in Stockton, Taylor articulates a nationalist idea of “American” superiority, suggesting that the influx of U.S. born immigrants turned anarchy into incipient law.

At about the same time, George Horatio Derby (1823-1861) published parody travel narratives under the pen names “Squibob” and “John Phoenix. Derby, a West Point graduate who served in the Army’s topographical corps, was stationed in California in the immediate aftermath of the Mexican-American War through the 1850s. During these years, he wrote humorous sketches, some of which address the rivalries of California towns that were vying for commercial and political power. His sketches describe the travels of a wide-eyed innocent, whose enthusiasm ironically conveys comic criticism of San Francisco’s rivals. “Squibob in Benicia,” and “Squibob in Sonoma,” (October 1850), convey Derby’s false praise of Benicia in the civic campaign for San Francisco supremacy.

Given the dominance of local-color regionalism in American literature of the last half of the nineteenth century, there is a surprising paucity of Delta tales from 1860-1890. As far as I can tell, Bret Harte (1836-1902), who built his career as a local colorist primarily of the California gold fields, is the only late-nineteenth-century regionalist who wrote anything even tangentially related to the Delta. His “The Legend of Monte Diablo” (*Atlantic Monthly*, 1863), casts a glance from the crest of Mount Diablo, over the Delta, to the Sierra Nevada. Harte’s tale presents a prophetic vision of a racial succession, from Native American, to Spanish, to Anglo-Saxon, through the eyes of a Spanish priest. The complex ironies, given Harte’s own vexed relationship to American culture, are
difficult to read, but I suspect that Harte’s contemporaries read the tale through a single turn of irony, seeing it as a validation of a triumphant Protestant empire.

Much deeper and more direct in its moral vision, though once again only tangentially touching on the Delta, is Josiah Royce’s social realist novel, *The Feud of Oakfield Creek: A Tale of California* (1887). Royce moved the Mussel Slough Tragedy to the south side of Suisun Bay, and postulated the battle not merely as one between competing visions of land rights, but between competing ideologies about America’s destiny. Royce’s version of the affair compresses stories of individual moral shortcomings into a much larger historical frame, personalizing history in order to insist on the fundamentally ethical challenge each person still must consider even as larger historical forces shape lives.

*Jack London* (1876-1916), who so often wrote out of his personal experiences, treats the Delta in which he spent much time in two books: *Tales of the Fish Patrol* (1906), a book of adventures stories for the juvenile market, and *The Valley of the Moon* (1913), his visionary novel of California’s agricultural reclamation. Both are bizarre books in that they manifest London’s puzzling mixture of utopian ideology, Spencerian “social-Darwinism,” socialism, and a pure love of money.

From before World War I to the nineteen sixties, the only significant literary figure I have found who treats the delta is William Everson, the Sacramento-born poet whose nature writings are very much in a sacramental tradition. The dearth of literature from the 1930s through 1950s frankly surprises me. The area was growing in importance and population, and this was a period in which American literature was really taking off, both commercially and artistically. The 1960s and 1970s mark a turn in literature that treats the Delta in four ways. First, there is more of it. Second, while still mostly in the prophetic tradition, it is mostly skeptical of millennial promises. Third, it embraces, rather than spurns, the multi-cultural heritage of the area. Fourth, some of it is truly focused on the region, not merely with a tangential glance, but considering the communities of the area as worthy of treatment in their own rights.

*Joan Didion* (1934—) is, so far, the most significant chronicler of Delta life. Like Taylor and Royce, she is concerned primarily to understand California as an extreme example of an American frame of mind, but unlike the other writers I’ve discussed, she often sets entire works in the Delta. She does not treat the Delta merely as a place to pass through or as a backwater that is only of interest in contrast to something else. She sees it as essentially Californian and uses it to exemplify large questions of cultural identity, heritage, and prospects. Several of Didion’s essays, particularly “Notes of a Native Daughter,” and “Holy Water,” capture some of the importance of the Delta to California as both place and idea. These two essays capture her two dominant moods: melancholia over what she sees as the failure of California’s dominant ideology, and enthusiasm over the plain energy that goes into that ideology. Didion’s first novel, *Run River* (1963), flows in the melancholic channel. Structurally and thematically, it is an answer to Royce’s *The Feud of Oakfield Creek*. Both build against a mythology of a heroic frontier past, but while Royce depicts this heroism as complicated, Didion depicts it as compromised.

*Fat City* (1969), by Leonard Gardner (1933—), makes a fitting companion piece to Didion’s novel. While Didion’s story treats the lives of wealthy landowners, Gardner looks at the lives of the itinerant laborers who work the land and of the working class city dwellers whose lives are nonetheless shaped by the agricultural community that surrounds Stockton. While these two writers cover the social class spectrum, they both show people who are remarkably incapable of self-reflection. While Didion blames the lapse on a large-scale cultural mythos that derailed effective introspection, Gardner looks at dreams that are more narrowly defined by immediate material needs. Gardner creates characters who have a sense of longing, but their horizons are limited to fantasies of escape having to do with alcohol, sex, money, and—to the extent that they see boxing as their way “out” of menial work—fame. The narrative follows two boxers on different trajectories: one is trying to make a comeback, the other is trying simply to make it. The first fails, finding his
life slipping further from his control, barely holding his life together by doing daily field work, and finally surrendering to alcoholism. For the other, younger fighter, boxing serves as an idealized outlet to frustrations with work and family. Yet the parallel structure suggests that the younger man’s dreams are unlikely to serve him for very long.

**Ernesto Galarza’s Barrio Boy (1971)** provides a refreshing counterpoint. Galarza (1905-1984), broadly known for his practical work as a labor organizer and civil rights activist, has a significant literary reputation for his memoir, primarily of childhood in Sacramento. Coming from a man who had dedicated his life to fighting exploitation and racism, Galarza’s memoirs are unexpectedly humorous, optimistic, and supportive of ideals of citizenship that derive more from the Enlightenment than from the prophetic tradition. Most 20th-century American literature that addresses racial discrimination does so in the prophetic strain, and usually focuses on moral and civic lapses. *Barrio Boy* certainly does chronicle the complexities of racial identity in the Sacramento of Galarza’s childhood, but Galarza emphasizes the capacity of the public school he attended to build a multi-cultural democracy.

Also addressing the multi-cultural complexity of the area is **The Woman Warrior: A Memoir of a Girlhood among Ghosts (1970)**, the breakthrough book for Maxine Hong Kingston (1940- ). Kingston’s memoirs are particularly literary, enriched both by techniques developed in the so-called “New Journalism” of the 1960s and by literary traditions taken from Chinese folk culture. While the tension Kingston describes between old and new countries is a thematic long since developed by ethnic writers of America’s eastern cities (especially by Irish- and Jewish-American writers), Kingston complicates it with a feminist overlay that arises both from the feminist movement of the 1970s and from the conflicting gender expectations developed in the two cultures.

**Visual Arts**

Lithographs, wood cuts, and engravings are by far the most common art of the Delta, at least by the standards of availability and accessibility. Many examples are available through the Online Archive of California. These prints fall into four broad categories: fine art, illustrations, promotional art, and commercial art. In the fine art category are lithographs and chromo-lithographs. These, like art prints today, were essential to the development of artistic interests in American culture. They were printed as copies of canonical works of European art and also taken from contemporary works. As such they both educated Americans in the artistic traditions of Europe and provided livelihoods for American artists. Some of these are quite fine; others are fairly crude cuttings of genre paintings and sketches, such as the ever-popular depictions of ships and of shipwrecks. Several of these are specifically of Delta vessels.

The second most widely available are prints that were designed to promote various delta towns and cities. These come in two general types: birds-eye and water-front views. They occupy a mid-point between fine art and purely commercial art. The most readily available are purely commercial prints that decorated fruit and vegetable crates. Growers probably would have been astonished that the art they commissioned to grace fruit and vegetable packing crates would be considered valuable as history, no less as art. To my eye, they are worthy of both. As art, they occupy a lovely liminal space between branding (as in stock branding), caricature, and still life.

I was also able to find a few examples of one-of-a-kind paintings and sketches, though a thorough inventory of local museums would undoubtedly be necessary to give a good sense of how artists have depicted the Delta. Among the unusual pieces I found are several sketches **C.E. Grunsky (1855-19-34)**, a civil engineer, born in San Joaquin County, employed for much of his life by the City of San Francisco. He toured the Delta in 1878 to survey possible water supplies for the city. During that survey, he made a number of lovely pencil sketches of the Delta and one ghastly oil painting on canvas. In each, the artist includes his surveying team’s houseboat in the foreground. These are not available on-line, but are, I think, worth considering for Delta exhibits as they show a trained engineer’s drafting abilities in depicting a land and waterscape rarely captured.
Managing the Garden: Agriculture, Reclamation, and Restoration in the Sacramento-San Joaquin Delta

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Managing the Garden: Agriculture, Reclamation, and Restoration in the Sacramento-San Joaquin Delta

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Abstract

This paper examines land and water use in the Delta from before European contact in 1769 to the beginning of the twenty-first century. The focus lies, first, on the ecological transformation of the region during the late eighteenth and early nineteenth century from a tidal wetland to an engineered, reclaimed agricultural landscape, as well as on some of the individuals most responsible for that transformation and, second, on more recent environmental conditions in the Delta, especially water quality issues, and on the restoration of wetlands around the Delta’s margins. This paper begins with the Delta’s geological origins, and then discusses how Native Americans used and modified the land, and accounts for the activities of Spanish, Mexican, and early Anglo explorers in the region, as well as the consequences of those activities for indigenous peoples. It then traces the various stages of Delta reclamation from the time of California statehood, beginning with Swamp and Overflowed Lands Act of 1850. It examines the challenges of levee building, which was carried out at first by hand largely by Chinese laborers, and later by mechanized equipment, most notably clamshell dredges. Once reclaimed, Delta mineral and peat soils yielded a wide variety of agricultural products, including potatoes, grains, asparagus, sugar beets, and orchard fruits, among others, which are discussed in some detail. This paper also examines the history of salmon fishing and canning in the Delta before turning more broadly to the twentieth-century federal and state water projects that have affected the Sacramento and San Joaquin rivers in different ways and that at various times have both improved and degraded water quality in the Delta. It concludes by coming full circle to late-twentieth century conservation efforts that have aimed to restore parts of the Delta and that have led to the creation of a variety of state, federal, and other protected lands, primarily along the Delta’s fringes, even while the heart of the Delta continues to grapple with seemingly intractable issues of water quality and water conveyance.

The Sacramento-San Joaquin Delta is one of the most ecologically altered landscapes in California. Modern methods of reclamation have transformed the Delta from a tidal wetland partially protected by natural levees and rich in natural resources to an intensively cultivated, highly engineered agricultural landscape. According to the Delta Protection Act of 1959, the legal boundaries of the Sacramento-San Joaquin Delta encompass 738,000 acres, including its
primary and secondary zones, which extend approximately 24 miles from east to west and 48 miles from north to south, and are bounded, roughly, by the cities of Sacramento to the north, Stockton to the east, Tracy to the south, and Antioch to the west.¹ The legal Delta comprises parts of Sacramento, San Joaquin, Contra Costa, Solano, and Yolo counties, with the major portion lying within San Joaquin County. The boundaries used for this “Delta Narratives” project, which reflect a greater Delta cultural area, are more expansive, however, and extend further along the Delta margins and also include Suisun Bay and its shoreline. [See Map 1, p. 73, for the waterways, islands and tracts, and cities of the Delta, many of which are discussed in this paper.]

Historical Geography

Geologically, the Delta is a relatively recent creation. Warming temperatures at the beginning of the Holocene Epoch, approximately 11,700 years ago, caused glaciers to melt and sea levels to rise, creating over thousands of years the historical Delta. By 10,000 B.P. (before present) the Pacific Ocean advanced eastward from the edge of the Farallon Islands through the Golden Gate; it soon flooded the valleys that became San Francisco Bay, and by 6,000 B.P. exerted tidal influence through the Delta. The advancing ocean backed the Sacramento and San Joaquin rivers out of their channels, creating a labyrinth of hundreds of miles of sloughs and dozens of low-lying islands. By 4,000 B.P. the Delta resembled its early nineteenth-century visage. The rate of sea level rise decreased dramatically by that time (from approximately 20 mm/yr. to 1–2 mm/yr.), and the rate of sedimentation in the Delta matched the slowing rate of

submergence. Most land in the Delta was close to mean sea level, and wetland vegetation, partially decomposing over thousands of years, formed layers of peat up to 60 feet thick in the central Delta and thinner layers toward the inland fringes, which have been subject to tidal influences for a much shorter time.\textsuperscript{2} The fertile peat soils of the Delta would prove to be an enticing target for reclamation in the years after California statehood.

**Native American Land Use in the Delta**

Definite evidence for the presence of indigenous people in California dates to 9,000–10,000 years B.P.—part of the overall migration from Siberia to North America, either across the former Beringian landmass or via a coastal route, or both—and Native Americans lived in the Delta, harvested its resources, and altered its environment for at least the past 6,000 years, antedating the tidal development of the region caused by rising sea levels.\textsuperscript{3} Of an estimated pre-contact Native American population of approximately 310,000 for all of California, approximately 160,000 lived in the densely populated Sacramento and San Joaquin valleys, including the Delta. For the Delta itself, a population in the range of 10,000 individuals has been claimed, but that estimate may be too low, as it is based on overall population estimates for


\textsuperscript{3} For a useful treatment of the more recent coastal migration theory, see Jon M. Erlandson and Todd J. Braje, “From Asia to the Americas by Boat? Paleogeography, Paleocology, and Stemmed Points of the Northwest Pacific,” *Quaternary International*, no. 239 (2011).
California that were later revised dramatically upward. Native Americans of the Delta were divided among five linguistic groupings, all within the Penutian language stock. The Nisenan occupied the far northeastern part of the Delta, occupying lands to the east of the Sacramento River between the Cosumnes and American rivers (as well as territory to the north beyond the Delta margins). The Plains Miwok occupied both banks of the Sacramento River from just below Sacramento to Rio Vista as well as much of the eastern Delta from the Cosumnes River to the Mokelumne River. The territory of the Northern Valley Yokuts included the southern Delta, defined here as the region south of the Mokelumne River (and beyond into the San Joaquin Valley, to the great bend of the San Joaquin River). The Bay Miwok occupied the far western portion of the Delta from Rio Vista to the southern shore of Suisun Bay (and as far south as Mt. Diablo). The Patwin occupied the extreme northwestern portion of the Delta from west of the Montezuma Hills, to the north shore of Suisun Bay, and beyond to the northeastern tip of San Pablo Bay (as well as far into the Sacramento Valley to the north).

Native American villages are usually associated with low mounds, ranging in height from 6 inches to more than 7 feet above the surrounding land surface. The mounds, which may be 300 or more feet in diameter, are assumed to be natural rises on or near the banks of major watercourses that were enlarged by the gradual accumulation of midden and that may have also

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been intentionally modified. Indigenous people in the Delta region did not practice agriculture, but they harvested a variety of food sources, including acorns, grasses and forbs, and various wetland plants, as well as shellfish, including freshwater clams and mussels; fish, including chinook salmon and sturgeon; waterfowl; and large game, including deer, pronghorn antelope, and elk. Native Americans capitalized on the Delta’s waterways and wetlands in a variety of ways. The Plains Miwok, for example, captured fish using four distinct kinds of nets, and also caught sturgeon with hook and line, and salmon with two-pronged harpoons. Salmon was a particularly important resource for Native Americans in the Sacramento-San Joaquin River system, and recent estimates of indigenous consumption of salmon in the Central Valley range from 8.5 million pounds to 11 million pounds annually, depending on population estimates used. The latter figure indicates that Native American harvests of salmon may have equaled or even exceeded that of the Euro-American commercial fishing industry during the late nineteenth-century, by which time factors in addition to harvest operated to reduce salmon production, as discussed later in the paper. Native Americans were efficient hunters of waterfowl as well. Again using the Miwok as an example, abundant ducks and other waterfowl that inhabited the Delta’s wetlands were harvested with nets, either by pulling a net over the birds while they were feeding, or quickly raising a net in the path of groups of low-flying birds.

In addition to harvesting plant and animal resources, indigenous people in the Delta modified their environment in important ways, including the practice of vegeculture (which,

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7 West and Welch, “Draft Interim CALFED Cultural Resources of the Sacramento-San Joaquin Delta,” 7–9.
unlike agriculture, does not entail intentional planting) and, likely, the use of fire. Vegecultural practices included pruning plants while leaving the vegetative reproductive structures intact, and harvesting by seedbeating, which ensured that at least some seed fell at the source for future germination.\(^\text{10}\) The use of anthropogenic fire in the Delta, while not as well documented as for interior valleys and coastal regions, including the San Francisco Bay area, is suggested in several accounts from the late eighteenth and mid-nineteenth centuries, including the diary of Father Pedro Font, a member of Juan Bautista de Anza’s 1776 exploratory party, who refers to “ashes of the burned tule” in the vicinity of Byron, although the intentionality of the ash-producing fire cannot be determined.\(^\text{11}\) Despite the paucity of evidence for fire in the Delta, it is known that Central Valley inhabitants used fire widely to manage game, stimulate the production of food crops, decrease insect pests, and facilitate food gathering.\(^\text{12}\) The Wukchumni Yokuts of the San Joaquin Valley, for example, burned freshwater marshes to provide space for emergent plants that served as animal forage, and to promote the growth of tules, the long, straight stalks of which provided an important building material, including rafts known as tule balsas. Regular burning cleared out old growth that would otherwise have choked marshlands, and allowed space for waterfowl movement and nesting and enhanced wetland habitat for wildlife in general.\(^\text{13}\)


\(^{13}\) M. Kat Anderson, Michael G. Barbour, and Valerie Whitworth, “A World of Balance and Plenty: Land, Plants, Animals, and Humans in a Pre-European California,” in Contested Eden:
Early Explorations, Punitive Expeditions, and Land Grants

The world of the indigenous people of California was altered by Spanish exploration, beginning with the 1769 expedition of Gaspar de Portolá and Franciscan priest Junípero Serra, which intended to establish the new colony of Alta California, construct a network of missions and presidios (forts), and, overall, fortify the northern frontier of New Spain. The first documented European discovery of the Delta occurred three years later when an exploratory party out of Monterey led by Captain Pedro Fages and Father Juan Crespi, traveling eastward from the Carquinez Strait, reached Suisun Bay and recognized the junction of the Sacramento and San Joaquin rivers beyond. In 1776, when Juan Bautista de Anza and Father Pedro Font travelled through the region, they continued further east, skirting the southwest portion of the Delta. The Spanish returned to the Delta during the period 1806–1812, seeking possible mission sites. Expeditions led by Gabriel Moraga in 1806, 1808, and 1810 crossed and named the San Joaquin River, visited the lower Stanislaus and Calaveras rivers, and surveyed the plains to the southwest of the Delta.\(^\text{14}\)

Increasingly belligerent relations with the Native Americans of the Delta ultimately precluded the establishment of Spanish missions in the interior. Spanish expeditions became increasingly punitive in character, as the Spanish attempted to capture Native American fugitives from the missions and to reclaim the livestock that mission fugitives had taken. In 1813, José

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Argüello led the first punitive expedition into the interior, to capture runaway neophytes (converts) from the Mission San José. Entering the Delta, the Spaniards:

…gained no decision because of the difficulties of the terrain, where it was necessary in places to walk in water up to the knees. The Indians were much favored by very close thickets in which they could hide. Although they were dislodged from that place, the river was very near and they all jumped in to swim, some crossing to the opposite island, others hiding in the dense tule swamps where they could not be followed. For this reason it was not possible to capture anyone.15

An 1817 expedition led by José Argüello’s son, Luis, and Father Narciso Durán explored the lower Sacramento River as far north as a point between the present Clarksburg and Freeport, then returned downriver past Grand Island, eventually also following the North Fork of the Mokelumne River to the San Joaquin River.16 By this time the Spanish had gained a fairly comprehensive understanding of the geography of the Delta, and, while no further attempts were made to site a mission in the region, punitive expeditions continued throughout the Spanish and, after 1821, Mexican periods. Spanish and then Mexican authorities faced increasingly militant Plains Miwok and Northern Yokut forces, who had stolen horses from the missions and learned to fight effectively on horseback.17

The Delta thus served as both a source of natural resources and as a place of refuge for Native Americans. For the Spanish and their Mexican successors, the Delta represented a lost opportunity to colonize the interior and to subjugate the Native inhabitants. Nevertheless, the Mexican government had tried to stabilize the interior, under the 1824 General Law of

Colonization, through a series of land grants, including several around the periphery of the Delta, although not in the frequently flooded lands of its interior. The earliest grant in the Delta vicinity dates to 1835, when Jose Noriega received the Los Meganos ranch, located near Mt. Diablo in what is now Contra Costa County. In 1837 Noriega sold the ranch to Dr. John Marsh, the first naturalized Californian to take up residence in the region. In 1839 the Los Medanos ranch was established on the mainland at the western edge of the Delta, fronting the San Joaquin River to the north. In 1839, John Sutter, a Swiss émigré who would come to play a central role in the geopolitics of the interior, occupied New Helvetia at the location of present day Sacramento, and received title to the grant in 1841, when he became a Mexican citizen. Two grants were designated in 1843 at the southern extremity of the Delta: El Pescadero along the west side of the San Joaquin River, and, adjacent and just to the north, Paso del Pescadero along the upper reaches of Old River, a branch of the lower San Joaquin. These grants appear to have derived their names from the Spanish name for Old River, Río del Pescadero, translated as “River of the Place of Plentiful Fish,” in recognition of the abundant salmon found in the river.\(^{18}\) In 1844, John Bidwell, who had arrived in California as a member of the Bidwell-Bartleson party, and who would later make his fortune in the Gold Rush and found the city of Chico, received Los Ulpinos, a grant on the western side of the Sacramento River below Cache Slough.\(^{19}\) In the same year, just beyond the eastern margins of the Delta, the Sanjon de los Moquelumnes grant, lying to the south of the Cosumnes River and extending to the Mokelumne River, was established as well, but does not appear to have been occupied. Also in 1844, the Rancho Campo del los

\(^{18}\) Yoshiyama, “A History of Salmon and People in the Central Valley Region of California,” 207–208.

Franceses, located mostly south of the Calaveras River and east of the San Joaquin River, was granted to Guillermo Gulnac, who sold his interest to Charles M. Weber in 1845. Weber first settled on the grant in 1847 and laid out a town, which he called Tuleburg, in 1849, quickly renaming it Stockton after Commodore Robert F. Stockton, hero of the Mexican-American War.20

**Fur Trappers and Malaria**

Simultaneous to the growing resistance by Native Americans and the issuance of the Mexican land grants, British, American and Russian (from Fort Ross) fur trappers were penetrating the Delta region. Two immediate consequences of the activities of the fur trappers were the destruction of populations of fur-bearing mammals, primarily beaver and freshwater otter, and the introduction of malaria, the latter of which would have long-term consequences for the history of the Delta and the Central Valley as a whole. The first of the trappers to arrive was Jedediah Smith, who entered California in 1826 through the Mojave Desert and followed the Old Spanish Trail via Cajon Pass to Mission San Gabriel. After meeting with Governor José Maria Echeandia in San Diego, and receiving an order to leave California via the route he had come, Smith instead proceeded northward over Tejon Pass and into the San Joaquin Valley. He reached the vicinity of the Mokelumne and Cosumnes rivers in May 1827, before leaving most of his company behind and returning briefly to Utah, becoming the first Anglo to cross the Sierra

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20 John Thompson, “The Settlement Geography of the Sacramento-San Joaquin Delta, California” (Ph.D. Dissertation, Stanford University, 1957), 112–122; Beck and Haase, *Historical Atlas of California*, 28–30. In Hispanic California, grants were generally measured in leagues; a single league measured 4,428.4 acres. The dimensions of the grants discussed in the text are as follows: Los Meganos, 13,316 acres; Los Medanos, 8,859 acres; New Helvetia, 48,839 acres; El Pescadero 35,446 acres; Paso del Pescadero 35,546 acres; Los Ulpinos, 17,726 acres; Sanjon de los Moquelumnes, 35,508 acres; and Rancho Campo del los Franceses, 48,747 acres.
Nevada from west to east. In 1828 Smith rejoined his company in the Delta, where beavers were numerous in the rivers and swamps. The party then journeyed northward to Oregon via the Sacramento Valley and California’s North Coast, ultimately reaching the Hudson’s Bay Company outpost at Fort Vancouver, located just north of the Columbia River. Acting upon Smith’s positive reports of the large quantity of beavers in the Delta region, the Hudson Bay Company sent two trapping parties into the Central Valley between 1828 and 1830. One party, under Alexander Roderick McLeod, advanced as far south as Stockton, while a second party, under Peter Skene Ogden, trapped along the lower San Joaquin River to its mouth. John Work’s Hudson’s Bay Company expedition of 1832–1833, recounted in his detailed journal, spent the summer of 1833 trapping along the lower Sacramento and San Joaquin rivers, reaching as far south as the Stanislaus River. This expedition coincided with that of an American, Ewing Young, but both parties achieved only limited success. By this time furs had already become scarce, Native Americans were often hostile and stole horses frequently, mosquitoes were troublesome, and malaria had entered the region.

Malaria reached the Central Valley in late 1832, following in the wake of British fur trappers entering California from Oregon, where an outbreak had begun along the Columbia River in 1830. The epidemic expanded from the head of the valley, first down the Sacramento River to the Sacramento-San Joaquin Delta and then up the San Joaquin River. Numerous accounts from the period point to the extent and the severity of the epidemic, citing the classic malarial symptoms of fever and ague. The first mention of the malaria epidemic that would

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22 “The Settlement Geography of the Sacramento-San Joaquin Delta, California,” 103–104.
23 Alice Bay Maloney, ed., Fur Brigade to the Bonaventura: John Work’s California Expedition, 1832–1833, for the Hudson’s Bay Company (San Francisco: California Historical Society, 1945), xix.
ravage the Native American population of the Central Valley, including the Delta, appears in an entry of John Work’s journal for December 2, 1832, in which he noted: “There appears to be some sickness resembling an ague prevailing among [the natives]” in the vicinity of the Feather River in the northern Sacramento Valley. This is the first mention in the journal of disease in the Central Valley. After journeying as far south as the San Joaquin portion of the Delta, Work’s party returned northward in 1833. Passing through the Sacramento Valley in the vicinity of the Feather River once again, fever struck members of the party in late July. On August 1, Work recorded that: “A great many of the Indians are sick[,] some of them with the fever.” From August 6 to 19, the trapping party appears to have witnessed the most severe effects of the epidemic. In the entry for August 6 Work observed that: “The villages which were so populous and swarming with inhabitants when we passed that way in Jany or Febry [sic] last seem now almost deserted & have a desolate appearance. The few wretched Indians who remain…are lying apparently scarcely able to move.” Only after the party climbed northward out of the valley floor did Work report on August 19 that the “Indians…don’t appear to be sick like those below.”

Colonel J. J. Warner, a member of Ewing Young’s expedition, provides greater detail for the epidemic, as well as a touch of pathos:

In the fall of 1832 there were a number of Indian villages on King’s [sic] River, between its mouth and the mountains; also on the San Joaquin River from the base of the mountains down to, and some distance below, the great slough…. [M]any of these villages contained from fifty to
one hundred dwellings….The banks of the Sacramento River, in its whole course through the valley, were studded with Indian villages….

On our return, late in the summer of 1833 we found the valleys depopulated. From the head of the Sacramento to the great bend and slough of the San Joaquin, we did not see more than six or eight Indians; while large numbers of their skulls and dead bodies were to be seen under almost every shade-tree near water, where the uninhabited and deserted villages had been converted into graveyards; and, on the San Joaquin River, in the immediate neighborhood of the larger class of villages, which, in the preceding year, were the abodes of a large number of those Indians, we found not only graves, but the vestiges of a funeral pyre.28

According to Sherburne Cooke, who was the first to argue persuasively that this horrific epidemic was in fact malaria, at least 20,000 Native Americans died on the river systems of the Central Valley, from Red Bluff in the north to Tulare Lake in the south, in 1833 alone, and the Native American population in the affected parts of the valley may have been reduced by as much as seventy-five percent between 1833 and 1846, in the wake of successive outbreaks.29 Such profound depopulation reduced survivors’ resistance to the wave of white settlers who arrived in the valley during the Gold Rush and appropriated Native American territory, precipitating the final collapse of independent Delta cultures and mirroring statewide trends.30 The indigenous population of California plummeted in the decade of 1845 to 1855, from approximately 150,000 to 50,000.31 As historian Albert Hurtado has shown, during that brief period the labor of surviving Native Americans was in demand for agriculture and mining, but beginning in the 1850s many of the remaining Native Americans were driven onto reservations away from economically valuable areas, including the Central Valley.32

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31 Cook, “Historical Demography,” 93.
32 Hurtado, Indian Survival on the California Frontier.
In addition to the toll it took on Native Americans, the introduction of malaria into the Central Valley was important because it provided an additional incentive to drain and reclaim the wetlands of the Delta and lower Sacramento and San Joaquin rivers, and thus to begin the transformation of the Delta from a wetland region rich in natural resources to an agricultural garden. Although the cause of malaria was not yet known—it was thought to originate from miasma, an imagined unhealthy gas associated with swamp land—the disease weighed heavily on the minds of nineteenth-century settlers in the Delta and Central Valley as a whole. It would not be until the close of the nineteenth century that the true cause of the disease—the presence in red blood cells of parasitic protozoa of the genus *Plasmodium*—was discovered. In 1897 Sir Ronald Ross published his proof that malaria is transmitted by mosquitoes, and the following year Giovanni Battista Grassi demonstrated that *Plasmodium* completes the sexual reproductive phase of its life cycle only in the *Anopheles* mosquito.33 The groundbreaking discovery of the life cycle of *Plasmodium* proved that malaria is transmitted from humans to mosquitoes and back to humans; hence any person suffering from malaria is capable of introducing the disease into any locale in which *Anopheles* mosquitoes are present.34 Because mosquito larvae develop in stagnant water, once malaria was introduced into the Delta and the surrounding Central Valley in the 1830s, the poorly drained wetlands of the region remained associated with high malaria endemicity. As late as 1883, the records of the Central Pacific Railroad Hospital indicate that of the 2,525 railroad employees admitted that year, 1,200 were treated for “fevers, malarial.”35

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not surprising that malaria incidence did not begin to measurably decline until after 1880, when the pace of wetland reclamation accelerated.\textsuperscript{36} In this way the Delta mirrored conditions in other regions of the country that suffered from high malaria endemicity, most notably the lower Mississippi Valley. In California the groundwork for reclamation was laid in the same year as California statehood, with the passage of the federal Swamp and Overflowed Lands Act of 1850.

**The Delta Landscape and the Swamp and Overflowed Lands Act**

The pre-reclamation Delta formed a heterogeneous landscape, not simply an estuarine marsh defined by impenetrable stands of vegetation. The “tule” lands, or freshwater tide lands, were indeed dominated by bulrush thickets but also by grasses, the latter of which supported livestock grazing, especially in the San Joaquin part of the Delta, by the 1860s. The higher lands along the island margins and on scattered mounds in the central Delta supported shrubs, predominately willows. Along the major rivers, and especially the Sacramento River, high natural levees formed by depositions from overbank flows supported a woodland of oak, sycamore, alder, walnut, and cottonwood, along with a dense understory of diverse species, including bunchgrasses, willows, and thickets of blackberry and wild rose. Vegetation in the bottomlands of the streams that entered the Delta was similar to that of the levees, and the land in between the streams was characterized by extensive plains. North of the Calaveras River, the

plains consisted of grassy woodland of evergreen and deciduous oaks, but south of the river the
plains stretched nearly treeless southward to the Stanislaus River.  

The natural levees of the Delta’s rivers decreased in width and height as the rivers
approached the central Delta, adding to the challenge of reclamation. Along the Sacramento
River, levees of ten feet near Freeport declined to seven or eight feet at upper Andrus Island; by
Sherman Island, near the mouth of the river, levees stood only one or two feet above mean high
tide. A similar situation existed along the Mokelumne River, where levees along Tyler and
Staten islands deceased from seven or eight feet at their northern end to about two feet at their
southern end. Levees along the Delta segment of the San Joaquin River and its main
distributaries, Middle River and Old River, were generally less developed than those along the
Sacramento and the Mokelumne rivers, and hence reclamation would proceed more slowly there.
Throughout much of the central Delta, tidal waters either overtopped natural levees or penetrated
them through numerous, branching sloughs to reach interior marshes. High tides twice daily
covered the bowl-like interior of many islands with six to twelve inches of water, while
approximately two feet of water covered the islands during ordinary flood stages of the rivers.
Winter rains and spring snowmelt from the Sierra Nevada regularly flooded the Central Valley
prior to its reclamation, and great volumes of water originating from overflow of the Sacramento

37 Thompson, “The Settlement Geography of the Sacramento-San Joaquin Delta, California,”
51–55; “Discovering and Rediscovering the Fragility of Levees and Land in the Sacramento-San
Joaquin Delta, 1870–1879 and Today,” 4–6. The historical ecology of the pre-reclamation Delta
has been painstakingly researched and compiled by the San Francisco Estuary Institute-Aquatic
Science Center. See note 2, supra. The Center for Sacramento History in Sacramento, California,
holds drawings of the undeveloped, pre-reclamation Delta waterways, including a “Chart of the
Sacramento River from Suisun City to the American River by Cadwalader Ringgold, 1850.” The
Holt-Atherton Special Collections at the University of the Pacific Library, Stockton, California,
contains approximately 50 historical maps of the Sacramento-San Joaquin Delta, beginning
around the mid-nineteenth century. Many of these maps may be viewed online at
and San Joaquin rivers and their tributaries entered the Delta from the north, east, and south. One of the great reclamation challenges would be to tame the floodwaters that entered the Delta from the north through the Yolo Basin via Cache Slough. Grand, Brannan, lower Andrus, and Twitchell islands were regularly flooded by this deluge, and the flood waters continued southward across the Delta to join the San Joaquin River.\footnote{John Thompson, “Early Reclamation and Abandonment of the Central Sacramento-San Joaquin Delta,” \textit{Sacramento History: Journal of the Sacramento County Historical Society} VI, no. 1–4 (2006): 46.} Flooding in this part of the Delta was further compounded by the fact that flood discharges from Cache Slough backed up the mouth of Steamboat Slough, and prevented it from relieving flood flows upstream on the Sacramento River.\footnote{Letter from Dr. W. M. Ryer, n.d., in E. E. Tucker, California State Engineering Department, “Field Notes,” Bk. 91, 22–24. Tucker’s field notes, filed in 1879, are a valuable source of information for reclamation during the 1860s and 1870s. The seven notebooks include his direct observations, and reports and letters from numerous prominent figures in Delta reclamation. They contain material on 22 islands and tracts, some of which had been organized into one or more of 21 Swamp Land Districts, extending from Joice Island (north of Suisun Bay) in the west to Rough and Ready Island in the east, and the Runyon District (now the Pierson District) in the north to Union Island in the south. The book numbers (89–95) and page numbers cited herein are those of a typescript of the original notebooks. Copy held at the California Lands Commission Archives, Sacramento, California. Subsequent citations are made as Tucker.}

Natural levees provided a foundation for the construction of the earliest artificial levees. By 1852–53, levees had been raised in several locations, including Merritt Island, the east bank of the Mokelumne River upstream of the river’s fork, the east bank of the Sacramento River, upper Tyler and Grand islands, and near the mouth of the Calaveras River. Between 1855 and 1861, more levees were constructed on Grand Island, along the eastern bank of the Sacramento River as far south as Brannan Island, on Sherman Island, and, in the southern portion of the Delta, on Roberts and Union islands. Levees also appeared near the mouth of Marsh Creek,
located about nine miles east of Antioch, and along the east bank of the San Joaquin River south of French Camp Slough.\(^40\)

In 1861, reclamation of the diverse Delta landscape entered a more coordinated phase, with the creation of the State Board of Swamp Land Commissioners. The preconditions for the creation of the Swamp Land Commission and subsequent reclamation efforts must be understood in a national context. The prevailing nineteenth-century view of wetlands (then generally referred to as “swamp lands”) was that they represented an obstacle to cultivation, settlement, and the fulfillment of America’s Manifest Destiny. Draining and reclaiming such lands, perfecting what was perceived as an imperfect nature, was a national imperative, and in 1849 Congress passed the first Swamp Land Act, in which it granted to the state of Louisiana “the whole of those swamp and overflowed lands which may be or are found to be unfit for cultivation.”\(^41\) On September 28, 1850, Congress broadened this program of reclamation via the Swamp and Overflowed Lands Act, which extended the federal land grant to twelve additional states, including California, all of which encompassed extensive wetlands.\(^42\) After considerable controversy between the state and federal governments over what truly constituted swamp land—a controversy exacerbated because of the seasonality of flooding in parts of California, especially along the lower Sacramento and San Joaquin rivers, where lands that flooded during the winter and spring tended to be dry by summer and fall—the federal government ultimately

\(^{40}\) Thompson, “The Settlement Geography of the Sacramento-San Joaquin Delta, California,” 211–213.

\(^{41}\) 9 Stat. 352.

\(^{42}\) 9 Stat 519. The additional states were Alabama, Arkansas, Florida, Illinois, Indiana, Iowa, Michigan, Mississippi, Missouri, Ohio, and Wisconsin.
deeded 2,193,965 acres of swamp land to California, including nearly 500,000 acres within the Delta.\(^{43}\)

California struggled with devising an orderly plan for disposing of the federal swamp land grant. In 1855 the legislature passed the state’s first act providing for the sale of swamp and overflowed lands. The act authorized county surveyors to survey tracts of land upon the application of anyone desiring to purchase them, and also provided for the filing and recording of the surveys with the state surveyor general. The price was one dollar per acre, and individuals were limited to 320 acres.\(^{44}\) In 1858, a State Land Office was finally established, and a new act provided that all revenues received from swamp land purchases be placed in a state swamp land fund.\(^{45}\) The 1858 act was amended the following year, increasing the maximum land purchase from 320 to 640 acres.\(^{46}\) In order to provide for actually reclaiming the lands purchased, in 1861 the California legislature passed “An act to provide for the Reclamation and Segregation of Swamp and Overflowed, and Salt Marsh and Tide, Lands, donated to the State of California by Act of Congress.”\(^{47}\) For the next five years, California conducted a short-lived experiment with coordinated reclamation. The 1861 law provided for the organization of reclamation districts (called “swamp land districts” at that time) and created the State Board of Swamp Land Commissioners to oversee them. Upon petition of the purchasers of one-third of a tract of swamp and overflowed land, the commissioners were to appoint an engineer to plan its reclamation;

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\(^{44}\) 1855 *Statutes of California* ch. 151.

\(^{45}\) 1858 *Statutes of California* ch. 235.

\(^{46}\) 1859 *Statutes of California* ch. 314.

\(^{47}\) 1861 *Statutes of California* ch. 352.
however, the 1861 act provided no method by which lands could be reclaimed if the cost of reclamation exceeded the one dollar per acre purchase price. Hence, upon the recommendation of the Swamp Land Commission in its first report to the legislature in December 1861, the following year the legislature granted county boards of supervisors the power to levy assessments for the completion of reclamation in the districts, which were then to be set aside by the state in a special swamp land fund for each district.48

Although a legal framework for reclaiming the swamp lands was now in place, the Swamp Land Commission faced a number of daunting challenges. The knowledge, expertise, and technology necessary for effective flood control—and hence effective reclamation—were almost completely lacking. The flood of the winter of 1861–1862, the greatest in recorded California history, brought the problem into sharp relief.49 Many opposed the strategy of the Commission’s engineers, who continued to argue for the closing off of sloughs, which would otherwise have provided natural outlets for surging rivers and hence reduced the likelihood of catastrophic floods.50 Despite opposition to its engineering methods, by late 1865, fifty-four reclamation districts had been recognized, fourteen of which had advanced to the point that monies received into the state Swamp Land Fund had been separately appropriated for

reclamation; surveys were underway in thirteen others.\textsuperscript{51} Many of these more active districts were located in or adjacent to the Delta and included District No. 1, the American Basin; District No. 2, the Sacramento Basin; District No. 3, Grand Island; District No. 4, Tyler Island; District No. 5, located between the Mokelumne River and Sycamore Slough; District No. 7, located between the Sacramento River and Cache and Linda sloughs; District No. 8, Andrus Island; District No. 17, stretching for ten miles along the east side of the San Joaquin River above Stockton; District No. 38, Staten Island; District No. 39, along the right bank of the Cosumnes River; District No. 41, “the eastern portion of an island…formed by Miner, Sutter, Cache, and Merritt sloughs” (apparently Ryer Island); and District No. 46, located slightly north and west of District No. 17.\textsuperscript{52} Of these districts, only District No. 3 and District No. 17 remain active in their original configuration.\textsuperscript{53}

Some reclamation progress was indeed achieved during these early years. District No. 18, the Yolo Basin, encompassing 164,318 acres west of the Sacramento River in Yolo and Solano counties, had succeeded by 1864 in constructing a twenty-five-mile drainage canal to facilitate flood runoff. In the Delta itself, ten miles of levees were built on Ryer Island in 1865, and beginning in 1861 and continuing through 1872, Grand Island was reclaimed with a six-foot levee. Work proceeded on Andrus, Brannan, Tyler, and Staten islands as well, but was not

\textsuperscript{51} California Board of Swamp Land Commissioners, “Report of the Board of Swamp Land Commissioners, for the Years 1864 and 1865” (Appendix to Journals of Senate and Assembly of the Sixteenth Session of the Legislature of the State of California. Vol. II, 1865–1866), 3.

\textsuperscript{52} California Department of Public Works, “Bulletin No. 37. Financial and General Data Pertaining to Irrigation, Reclamation and Other Public Districts in California,” 115–118.

\textsuperscript{53} The San Joaquin County Historical Museum, located in Micke Grove Regional Park in Lodi, California, holds archival records of various early reclamation districts, and as of 2015 was developing an exhibition, “The Delta Water Path,” containing interpretative panels on reclamation and irrigation, as well as immigrant farm workers.
completed until the 1870s. Despite being able to report a modicum of progress, the Swamp Land Commission continued to face criticism. Attempts to reclaim the American Basin, between the Sacramento and American rivers, and adjacent to the capital at Sacramento, faltered, and by 1866, facing unexpectedly high costs of reclamation, many of the districts had sunk deeply into debt. Responding to these problems, and to a wide range of critics, in April 1866 the state legislature abolished the Board of Swamp Land Commissioners, granting all the swamp and overflowed lands belonging to state, as well as the funds raised from the sale of those lands, to the individual counties. Centralized, statewide reclamation was thus abandoned and authority devolved to the individual county boards of supervisors. This new arrangement would only last two years, however; reclamation was further localized in 1868, when the legislature placed the authority to plan and construct levees in the hands of the boards of trustees of each reclamation district. The county boards of supervisors lost their authority to evaluate and rule upon the plans of the individual reclamation districts, and taxes collected from the districts were now to be placed in county treasuries rather than in the state treasury. This law, known as the Green Act after its primary proponent, Will S. Green of Colusa County, marked the triumph of localism over centralized planning for flood control and reclamation.

The Green Act contained no limitation on the number of acres of swamp and overflowed lands that an individual could purchase. From one perspective, the act addressed the problem that under the previous acreage restrictions sales were generally limited to the higher and more easily

55 1865–1866 Statutes of California ch. 570.
reclaimed lands. In order to reclaim the deep tule lands, such as those of the central Delta, larger capitalized efforts would be necessary, and the Green Act was intended to encourage such efforts. From another perspective, however, the act opened the floodgates to widespread land speculation. Between 1868 and 1871, nearly 800,000 acres of California’s swamp lands—virtually all of the state’s remaining tracts—passed into private hands, with the five Delta counties of Contra Costa, Sacramento, San Joaquin, Solano, and Yolo accounting for almost 300,000 acres of that total.57 By far, the largest purchaser was George D. Roberts, a San Francisco mining speculator, who acquired 81,681 acres of swamp land in tracts extending from the Yolo Basin in the north to Union Island in the south Delta.58 In 1869 Roberts and fellow San Francisco investors founded the Tide Land Reclamation Company to develop these lands, applying corporate principles and vast capital to the project. Combined with his personal holdings, Roberts amassed approximately 250,000 acres of swamp land in the Yolo Basin, the Delta, and Suisun Bay, nearly ten percent of all the privately owned swamp land in the state.59 The Tide Land Reclamation Company initially sought revenue from enclosing a tract within a

57 California State Joint Committee on Public and State Lands, “Report of the Joint Committee to Inquire into and Report upon the Condition of the Public and State Lands Lying within the Limits of the State” (Appendix to the Journals of Senate and Assembly of the Nineteenth Session of the Legislature of the State of California, Vol. 2, 1872), 61; California State Surveyor-General, “Statistical Report of the Surveyor-General of California, for the Years 1869, 1870, and 1871” (Appendix to Journals of Senate and Assembly of the Nineteenth Session of the Legislature of the State of California, 1871–1872), 6–7.

58 California State Joint Committee on Public and State Lands, “Report of the Joint Committee to Inquire into and Report upon the Condition of the Public and State Lands Lying within the Limits of the State,” 62–64.

59 Matthew Morse Booker, Down by the Bay: San Francisco’s History between the Tides (Berkeley and Los Angeles: University of California Press, 2013), 86–87; Thompson, “The Settlement Geography of the Sacramento-San Joaquin Delta, California,” 201.
levee system and then selling it, rather than actually farming the land. Nevertheless, the company continued to own land in the Delta until the early 1900s.  

The Tide Land Reclamation Company was the largest operator during the early years of large-scale Delta reclamation, but was certainly not the only substantial one. The Glasgow-California Land and Reclamation Company was largely owned by Morton C. Fisher, who served until 1877 as its managing director. Individually and through his company, Fisher owned or controlled 55,000 acres on Roberts Island, title to which had passed from Robert’s Tide Land Reclamation Company to Joel Parker Whitney, who in turn sold out in 1876 to the Glasgow-California Land and Reclamation Company. In addition to the large reclamation companies, individual landowners played a significant role in early Delta reclamation. These included General Thomas H. Williams, who owned property throughout the Delta, including most of the 45,000 acres of Union Island; partners James Ben Ali Haggin and Lloyd Tevis, who owned the majority of Staten Island; and the Sargent brothers, led by Roswell C. Sargent, who gained possession of almost all of the land south of the Mokelumne River to Potato and White sloughs. These large land development companies and landowners were responsible for the early reclamation of much of the San Joaquin portion of the Delta.

The First Decades of Large-Scale Reclamation

62 William D. Rogers, “The Delta Story” (second in series of twenty-four), Stockton Record, July 4, 1951; William D. Rogers, “The Delta Story” (seventh in series of twenty-four), Stockton Record, July 9, 1951; Thompson & West, History of San Joaquin County, California (Oakland, California, 1879; repr., 1968), 43–45.
Levees constructed for the reclamation of the Delta served different purposes based on location. Those that were raised above the natural sedimentary banks of the major rivers were expected to protect against all but the highest flood stages, while the levees constructed around the low-lying peat islands of the central Delta, which would prove to be the most difficult part of the Delta to reclaim, were intended primarily to protect the interior of the islands from intrusion by tidal water. One consequence of the differences in Delta topography was that while few people inhabited the islands of the central Delta, by the 1870s the lands adjacent to the Sacramento River downstream of Sacramento were both populated and prosperous. Truck and dairy operations were established in the vicinity of Freeport and west across the river in the Lisbon District. Orchards, fields, and gardens flourished along the river from north of Courtland to south of Walnut Grove. Fruit trees thrived in the well-drained soils adjacent to the river, but fared poorly in the Delta’s peat soils. Early orchards included stone fruits such as peach, nectarine, and plum, as well as apples and pears, but by the 1870s and 1880s alluviation—caused by the debris generated from hydraulic mining in the foothills of the Sierra Nevada—had elevated the bed of the Sacramento River, thereby raising the water table and reducing the quality and quantity of the stone fruits. Pears, particularly the Bartlett variety, proved more tolerant of the higher water table and assumed greater importance relative to the stone fruits.

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63 Thompson, “Discovering and Rediscovering the Fragility of Levees and Land in the Sacramento-San Joaquin Delta, 1870–1879 and Today,” 11.
64 Hydraulic mining was conducted in California from 1853 until the environmentally destructive practice was effectively ended in 1884 by the decision in Woodruff v. North Bloomfield Gravel Mining Company, 18 F. 753 (9th Cir. 1884).
South and east of the productive Sacramento River lands—and the region’s new commercial center of Isleton, established by Dr. Josiah Poole in 1874—lay the peat islands and tracts. Work began there in earnest after the passage of the Green Act, at which time “the process of enclosing, burning, and planting the tule lands progressed rapidly.”66 Much of the labor of reclaiming the Delta islands was carried out by Chinese laborers, who were often recruited from Chinatown boarding houses in Sacramento, Stockton, and San Francisco. The majority of them had immigrated during and after the Gold Rush from the Pearl River Delta or its periphery in Kwangtung Province in southeastern China; they were brought to the Delta not to farm but to carry out the difficult work of reclamation for white landowners.67 The quantity of labor required, and the number of laborers employed, were staggering. Chinese laborers working for the Tide Land Reclamation Company alone had reclaimed thirty to forty thousand acres of the company’s land by 1876, at which time Roberts had no less than 3,000 Chinese workers employed in levee building. Working in an era before mechanical dredges, under harsh conditions and with minimal pay, Chinese men using shovels and wheelbarrows manually “dammed sloughs, cut drainage ditches, built floodgates, and piled up levees.”68 The hand-constructed levees in the tule lands encircled entire islands and were usually eight to twenty feet wide at the base, four to six feet high, and three to six feet wide at the crown.69 Construction of the early Delta levees was hard-won, as peat proved to be a difficult material for levee-building.

69 Thompson, “Discovering and Rediscovering the Fragility of Levees and Land in the Sacramento-San Joaquin Delta, 1870–1879 and Today,” 11.
Historical geographer John Thompson thoroughly describes the challenges that this organic soil posed:

The reclaimers learned that peat would compress and subside; that it would develop fissures due to compression stress, and shrinkage cracks while drying out; and that the drying levees would bend and float with a rising tide or freshet. The organic matter which comprised so much of the bulk of the levees would decompose into a duff, and fire would turn it into ash. Peat levees might slump from undercutting by waves or with the destabilizing of foundations by extremes of tides. Whatever the behavior of peat, however, it seemed unpredictable.  

The early reclamation of these problematic peat soils would not have been possible without the efforts of the Chinese workers, many of whom remained as laborers and as tenant farmers on the land they had reclaimed. Nowhere in California was the influence of the Chinese felt more than in the Delta, where they settled in the communities of Walnut Grove, Isleton, Courtland, and Rio Vista, and later founded the town of Locke.

In order to cultivate reclaimed land, it first needed to be cleared. Burning was the accepted method of removing the tule vegetation of the swamp lands, not only because it produced a fertile seedbed, but also because it was believed to prevent miasma. Burning of the tules commenced in the fall, after the tops of the plants had died and the sod was driest. They could first be mowed or rolled to ensure more thorough destruction. An early history of Contra Costa County describes the process: “The rollers are heavily weighted, double, ten feet in diameter, and are pushed into the tules [italics in original] by four horses, a man steering their course by means of a rudder wheel. The land is then plowed up in deep, wide furrows, and the roots of the weeds burned out.”  

Once the seedbed had been prepared by these methods, reclaimers often planted first potatoes and then beans, harvesting two crops during the first year. Despite the often spectacular yields, the burning of peat had several disadvantages. Fires did not
always burn evenly, sometimes penetrating too deeply, sometimes dangerously penetrating into the peat levees themselves, and other times leaving targeted areas unburned. Once dried and exposed to oxygen, peat naturally decomposes through oxidation and subsides; burning further contributed to subsidence of the land, rendering it more difficult to maintain drainage over time. It would not be until the late 1870s that drainage pumps were introduced to the Delta, first making an appearance at Ryde, on Grand Island, in 1876.

Attempts were made during the early reclamation years to use horse-drawn plows and scrapers as an alternative to human labor, but both horses and mechanical equipment often bogged down in the soft peat soils, even when special “tule shoes” (akin to the principle of snowshoes) were devised for the horses. This problem would lead, a generation later, to the development of the Caterpillar tractor. To prevent miring in the soft soils, tractor wheels had become ever wider and higher until they reached a width of 18 feet and a height of 12 feet. Still, they were not completely effective. In 1904 Benjamin Holt, president of the Holt Manufacturing Company, which he had incorporated in 1892 as the successor to the Stockton Wheel Company, first added a caterpillar tread to a tractor. In 1906, after replacing the steam engine and boiler of earlier models with a gasoline engine, Holt sold his first Caterpillar tractor, which would soon revolutionize farming, not only throughout the Delta, but throughout the United States and the world.

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73 “The Settlement Geography of the Sacramento-San Joaquin Delta, California,” 277.
74 The Center for Sacramento History in Sacramento, California, as part of its UC Davis Agricultural Engineering Collection, houses a Fresno scraper (ca. 1900) used in earth-moving projects for reclamation and road-building.
75 William D. Rogers, “The Delta Story” (eleventh in series of twenty-four), Stockton Record, July 13, 1951; Thompson, “The Settlement Geography of the Sacramento-San Joaquin Delta, California,” 260–263. The Haggin Museum and Archive in Stockton, California, holds the Holt
Sherman Island and Twitchell Island were the sites of the earliest large-scale reclamation in the central Delta. During 1868–69, Swamp Land Districts Nos. 50 and 54 enclosed 14,000 acres on Sherman Island with over 40 miles of levees at a cost of $80,000. To carry out this task, Chinese laborers constructed and emplaced 250,000 cubic yards of peat blocks. The levees were widest and highest on the north shore along the Sacramento River, and smallest adjacent to Mayberry Slough, which at that time “was not dammed, the owners thinking it best to leave it open to facilitate the shipment of their crops; the slough was broad and deep and navigable almost to its head.” In 1869, one thousand acres of the island’s peat interior was burned and seeded in wheat and barley. By 1871 the majority of the island was farmed and potatoes and onions were harvested as well. Land that had cost $1.25 an acre, once reclaimed sold for $30 an acre in 1869 and $75 an acre in 1870. Such speculative profits were short-lived, however. On Sherman Island, as well as throughout much of the Delta, levee breeches were common. A high river stage on the Sacramento in January 1872 caused a major breech below Horseshoe Bend, flooding the island and eventually breaking through the levee on the opposite side, along the San Joaquin River. Drainage and recovery were made more difficult by land subsidence. Burning and oxidation had already lowered much of the island’s surface by two to three feet and in places by as much as five to six feet, making gravity drainage through tide gates impossible in some areas. The westernmost part of the island, below Mayberry Slough, lay at the junction of the Sacramento and San Joaquin rivers and flooded frequently and, in 1878, catastrophically. Efforts to reclaim this portion of the island would ultimately prove unsuccessful, and today it remains flooded as the Lower Sherman Island Wildlife Area. The remainder of the island suffered

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Manufacturing Company Archives and displays numerous artifacts from the reclamation era, including a Holt ‘75’ tractor.

76 Tucker, Bk. 91, 8.
repeated levee failures, and channels (which were called “cracks”) opened up as water flowed
under the levees and into the interior. In 1879 a crack broke through a levee and widened to 30
feet; tides flowed in and out of the island through the crack, and water depth was measured at up
to 32 feet. As a result of such calamities, by the early 1880s much of the initial investment in
reclamation and agriculture on Sherman Island was lost. The eastern, and larger, part of the
island would not be reclaimed again until 1896, when long-boom clamshell dredges completed
the task.

On Twitchell Island, located immediately to the north and east of Sherman Island,
reclamation began in 1869. Originally organized as Swamp Land District No. 56 in 1866, much
of the land was subsequently acquired by B. F. Mauldin, who had purchased nearly 11,000 acres
of swamp land in the years following the passage of the Green Act. Mauldin sold 2,400 acres
of the island to George D. Roberts, whose Tide Land Reclamation Company constructed a levee
system around the island in 1869–70, recruiting at least 235 Chinese laborers for the project,
before selling the land in 1870 for $68,000 and realizing up to a $40,000 profit. The first wheat
harvest yielded 40,000 bushels on 1,200 acres. The crop, which cost about $1,600 to seed, sold
for $67,000, demonstrating the nearly unlimited profits that the fertile Delta soils could provide.
However, serious troubles began in 1872, when the island was flooded, destroying that year’s
crop. Flooding incidents repeated in each of the next three years, and the flood of 1875 drowned
800 sheep and other livestock, at which time the owners abandoned the island. Like Sherman
Island, Twitchell was not reclaimed again for many years, and then only with the use of long-

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77 Tucker, Bk. 93, 12–13.
78 Thompson, “Early Reclamation and Abandonment of the Central Sacramento-San Joaquin
79 California State Joint Committee on Public and State Lands, “Report of the Joint Committee to
Inquire into and Report upon the Condition of the Public and State Lands Lying within the
Limits of the State,” 63.
boom clamshell dredges. The eastern part of the island began to be reclaimed in 1894, and the western part a decade later, although occasional flooding continued.\footnote{Thompson, “Early Reclamation and Abandonment of the Central Sacramento-San Joaquin Delta,” 54–58; Thompson and Dutra, The Tule Breakers: The Story of the California Dredge, 22.}

The early 1870s witnessed reclamation projects throughout much of the Delta’s peat lands. Webb Tract was leveed in 1870, and Bradford, Bacon, and Bouldin islands were enclosed by 1871.\footnote{Bacon Island had formed the northernmost part of Union Island until it was separated by a ditch in 1870. Tucker, Bk. 89, 10–11. Victoria and Woodward islands were also originally part of Union Island.} Newly enclosed land was at times leased to San Joaquin Valley cattle and sheep ranchers for some time before it was planted. Bradford Island is one such example; it was leased for two years to the cattle barons Henry Miller and Charles Lux as a stock range.\footnote{Tucker, Bk. 89, 15.} During 1871–1872, the Tide Land Reclamation Company constructed levees on the southernmost portions of Brannan and Andrus islands. Mandeville and Venice islands were leveed in 1872 and Jersey Island in 1872–73. Work resumed on Staten Island in 1873, and Bethel Island was enclosed by 1875 and lower Roberts Island by 1876 or 1877. This levee system, averaging thirty feet wide at the base, ten to fifteen feet high, and five feet wide at the crown, was far more massive than the levees of the previous decade, and enclosed a total of approximately 100 square miles. Despite their large dimensions, the levees still could not effectively protect against flooding, and many of the islands were abandoned shortly after they had been reclaimed. Webb Tract and Mandeville islands were abandoned in 1874, and lower Brannan and Andrus islands were partially or completely inundated repeatedly between 1878 and 1886.\footnote{Thompson, “Early Reclamation and Abandonment of the Central Sacramento-San Joaquin Delta,” 59–66.}

The impact and consequences of flooding differed depending on location in the Delta. On northern Brannan Island, on Andrus Island above Isleton, and on bank lands upstream to...
Sacramento and along the Mokelumne and San Joaquin Rivers, floods were destructive but recovery was possible. In the low-lying islands at the center of the Delta, however, the bowl-shaped and subsiding interiors of the islands could not easily be drained after flooding, even at great expense, and much of this terrain was abandoned by the late 1870s. The peat levee systems constructed in the central Delta during the 1860s and 1870s were largely destroyed or replaced by the 1890s. Those that did not succumb to tides or waves were buried under new and stronger levees formed from clays and alluvial material dredged from the channels by long-boom clamshell dredges, which had been an impossible feat for laborers working with shovels or even early ditchers and dredges.

**Clamshell Dredges and Effective Reclamation**

The dredges that were used for levee building in the Delta and throughout the Central Valley evolved from early floating mechanical dredges that had been developed for harbor work in San Francisco Bay during the 1850s. Four main types of dredges were used in the valley during the late nineteenth and early twentieth centuries: dipper dredges, hydraulic pipeline dredges, bucket-ladder or endless-chain dredges, and clamshell dredges. The first successful use of dredges in the Delta dates to 1875, when Joel Parker Whitney used dipper dredges to reclaim the southern portion of Roberts Island, which he had purchased from the Tide Land Reclamation Company. Named *Samson* and *Goliath*, these dredges utilized a steam shovel mounted to a dipper arm, but had a limited reach of only 55 feet for the placement of material. This problem would ultimately be resolved by the clamshell dredge, which proved the most effective of the

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85 “Early Reclamation and Abandonment of the Central Sacramento-San Joaquin Delta,” 43.
dredge types. As its name suggests, this dredge was fitted with a single bucket composed of a pair of hinged shells that closed around the material to be excavated and emplaced. The clamshell bucket was suspended from a movable boom, supported by an A-frame. Over time the length of the boom and the capacity of the bucket increased steadily, although the size of the bucket was also related to the type of soil; smaller buckets with clean cutting edges and short tonglike arms were adequate for lighter peat soils, while heavier clay soils required larger buckets with steel teeth and longer arms for greater leverage. Clamshell dredges were first used in the Sacramento-San Joaquin Delta no later than 1879, where they were employed in the Lisbon District and on Bouldin Island, and from 1882 to 1893 in the Isleton District on Andrus Island. They were equipped with booms of 80 to 90 feet and buckets ranging from one and a half to two cubic yards in capacity.

The success of these first projects increased interest in the use of dredges for levee construction, and between 1885 and 1895 seventeen clamshell dredges were introduced into the channels of the lower Sacramento, Mokelumne, and San Joaquin rivers. Booms grew longer, and the length increased to 100–130 feet during the 1880s and to over 200 feet during the 1910s, reaching 242 feet in 1917 on the dredge Neptune. By 1895 the dredges were large enough to handle buckets of 3 cubic yards, and in the years before World War I were massive enough to accommodate buckets of 6 cubic yards. The most important attribute of the long boom was that a dredge so equipped could dig in a channel at a considerable distance beyond the outside of an extant levee, thus extracting alluvial and mineral soils— which made for more stable levees than the interior peat soils—while at the same time not excavating so close to the levee itself as to

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undermine it. Ironically, hydraulic mining debris, which caused many environmental problems, from increasing flood incidents by raising river beds to burying the spawning grounds of salmon, provided a good portion of the material dredged from the channels to build these effective levees.  

The machinery for a substantial number of the clamshell dredges that finally reclaimed the Delta was built locally, by the Stockton Iron Works, which was established in 1868 and eventually specialized in this type of dredge. Over the course of three decades beginning in 1885, the company produced more than 30 clamshell dredges and over 600 dredge and ditcher buckets, which were so ubiquitous and successful that they became synonymous with the California dredge and the Stockton bucket.  

Names given to many of the dredges are evocative of locales throughout the Delta, and testify to their importance in reclaiming the region. During the 1880s and 1890s clamshell dredges appointed with the names Staten Island, Mokelumne, Jersey Island, Andrus Island, Ryer Island, Calaveras, Merritt Island, Roberts Island, Grand Island, District 17, and Rough and Ready all entered service. Other dredges (of various kinds) were named more fancifully as Samson, Goliath, Atlas, and Hercules, a reflection not only of their size, but also of the monumental task they were carrying out. By 1920, they had succeeded in reclaiming nearly the entire Delta, including the difficult peat lands of the central region, rendering agriculture possible

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90 Booker, *Down by the Bay: San Francisco’s History between the Tides*, 93.
92 *The Tule Breakers: The Story of the California Dredge*, 140.
on a large scale. Between 1870 and 1920, the years of peak reclamation, some 402,000 acres were reclaimed. Adding 15,000 acres of early reclamation between 1860 and 1870, and another 24,000 acres of late reclamation between 1920 and 1930, the cumulative total reaches 441,000 acres.\(^9_3\)

Even with the success of the clamshell dredges, levee failure would remain an ever-present threat in much of the Delta in subsequent years. Most breaches have been repaired, although there have been a few notable exceptions in which reclaimed land has been permanently lost. A 1928 storm collapsed a levee on reclaimed land north of Oakley, and the drowned tract was declared to be once again part of the San Joaquin River. Today it is abutted by the Big Break Regional Shoreline, part of the East Bay Regional Park District.\(^9_4\) Similarly, Franks Tract in the central Delta was flooded in 1936 and 1938 and reclamation efforts were then abandoned. The submerged land is now managed for boating and fishing as Franks Tract State Recreation Area.\(^9_5\)

Dredges also made it possible to finally achieve effective flood control in the Sacramento Valley, which had been an elusive goal since the Gold Rush. Dozens of clamshell and other dredges were utilized from the 1910s through the early 1920s to complete the Sacramento Flood Control Project, an engineering feat on an unprecedented scale in the state at that time. This

\(^9_4\) \url{http://www.ebparks.org/parks/big_break}. In addition to viewing the exhibits in the Visitor Center, as part of the park’s Delta Discovery Experience visitors may walk a 1,200-square-foot landscape model of the Delta watershed, and view a dredge bucket and collapsed dredge barge near the pier.  
project channeled Sacramento River floodwaters through the Sacramento Valley’s Sutter and Yolo basins via a system of weirs and bypasses until those waters rejoined the river far downstream, just above Rio Vista, thus protecting both towns and agriculture in the Sacramento Valley as well as the Delta. The Sacramento Flood Control Project, made possible by the state Flood Control Act of 1911—which created a State Reclamation Board to oversee the valley’s reclamation—and the federal Flood Control Act of 1917, protects the Sacramento Valley and adjacent parts of the Delta to this day.\(^96\)

There were ecological consequences to this transformation, of course. Wetland vegetation in the Delta and in the Sacramento Valley’s natural flood basins all but disappeared and the dense concentrations of wildlife that had thrived in and around the tules vanished with them. The Delta’s wetlands, which had once provided habitat for millions of waterfowl, were converted into fields of potatoes, beans, wheat, barley, celery, onions, asparagus, corn, and orchard crops.\(^97\) It would not be until the last decades of the twentieth century, after a cultural sea change in attitudes about the natural world had taken place, that some of these wetlands—primarily along the Delta’s margins—would be restored.

In the late nineteenth century it appeared that Suisun Marsh, a 140-square-mile wetland on the north shore of Suisun Bay, would follow the same trajectory as the Delta, its wetlands

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\(^96\) For more detail on the use of dredges to reclaim the Sacramento Valley flood basins, see Thompson and Dutra, *The Tule Breakers: The Story of the California Dredge*, 284–304. For more detail on the political history that led to the Sacramento Flood Control Project, see Kelley, *Battling the Inland Sea: American Political Culture, Public Policy, & the Sacramento Valley, 1850–1986*, 273–293. In 1913, the state amended the 1911 Flood Control Act to unite the entire region of the Central Valley that was subject to flooding within a single Sacramento and San Joaquin Drainage District, which encompassed the Sacramento Valley, the Delta, and the lower San Joaquin Valley. 1913 *Statutes of California* ch. 170.

\(^97\) It is not possible to generate a precise estimate of waterfowl numbers in the era before reclamation. However, a broad range may be extrapolated. See discussion of the Pacific Flyway later in this paper.
leveed, drained, and converted to agriculture. Suisun Marsh had been hunted by waterfowlers from at least the 1860s, and the marsh became much more accessible from the San Francisco Bay Area following the completion in 1879 of a Central Pacific Railroad line (later operated by the Southern Pacific) that extended from Benicia, across the marsh, to Suisun City. Facilitated by railroad access, the first duck clubs were established in the western portion of the marsh, beginning in 1879. However, mirroring developments in the Delta, much of the marsh was diked and reclaimed for agriculture; the reclamation efforts began in the 1870s and generally proceeded from east to west. Dairy farms and cattle ranches were established first, followed by wheat, potatoes, and asparagus. Success was fleeting. Lying further west than the Delta, Suisun Marsh was more susceptible to salt water moving inland with the tides, and in dry years salt water moved up the sloughs. Agriculture faltered, and within a few decades many of the islands were intentionally reflooded within the dikes that had been constructed during reclamation, now to be managed as freshwater wetlands for the benefit of ducks and duck clubs, at least 380 of which have existed in the marsh at one time or another since 1879.

Salinity issues would eventually become important in the Delta as well, as upstream diversions for agriculture on the Sacramento and San Joaquin rivers, combined with drought, reduced the total flow through the Delta and hence allowed salt water to advance inland through

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Delta channels, affecting agriculture on the westernmost islands. Unlike in Suisun Marsh, agriculture did not fail in the Delta, and the salinity problem ultimately would be at least partially addressed by the Central Valley Project, discussed later in this paper.

The Evolution of Delta Agriculture

Delta agriculture experienced several phases as the popularity of different crops rose and fell, and new crops and processing methods were introduced. During the first decades of reclamation, potatoes, beans, and onions were the staple crops, although a variety of other vegetables and grains were harvested as well. By the early 1880s, the Delta was producing more than a million bushels of wheat and barley each year. During this era of peak wheat production in the Delta, which paralleled the wheat boom in California as a whole, the Southern Pacific and Central Pacific railroads collected the wheat harvest from throughout the Central Valley and delivered it to waiting ships in San Francisco Bay and in the Carquinez Strait at Port Costa, the busiest wheat-shipping point in California at that time. The ships then carried the wheat around the world, especially to China, Australia, and Great Britain.

Irrigated agriculture became common in the Delta during the 1870s, although it had been practiced earlier. Flood irrigation, with water delivered at high tide through tidal gates and removed at low tide through drainage ditches, was initially the most common method, but this

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100 William D. Rogers, “The Delta Story” (eighth in series of twenty-four), Stockton Record, July 10, 1951.
system worked poorly on low-lying islands, and by the end of the decade began to be replaced by subirrigation. This method involves raising the water table by filling a system of unlined head ditches and small lateral ditches (“spud ditches”). First utilized for potatoes and beans or to encourage a volunteer hay crop, subirrigation gradually became the standard method for all crops grown.\(^{102}\) In addition to field crops and grains, fruit-growing and dairying were also present in the 1870s, but these enterprises did not receive greater emphasis until the end of the decade. By that time, Delta agriculture had divided roughly across ethnic lines. While grains, orchards, and livestock were tended by American-born settlers, garden or truck farming remained largely in the hands of Chinese, Italian, and Portuguese tenant farmers. The Chinese also specialized in row crops, including potatoes. Truck farming remained the predominant activity throughout the late nineteenth century from the Freeport-Clarksburg area to Sacramento, from Stockton westward to the San Joaquin River, and at the margin of the Delta east of Antioch. The list of garden crops that were harvested is extensive: asparagus, cabbage, carrots, cauliflower, celery, lettuce, green onions, radishes, spinach, turnips, and table beets in January and February; green peas, string beans, summer squash, cucumbers, new potatoes, and new onions in March and April; and tomatoes, green corn, and other summer vegetables after May and June. Most of the Delta’s produce was traded in Bay Area cities.\(^{103}\)

During the first quarter of the twentieth century, perishable crops transitioned to more extensive field agriculture. During the first decade of the century, barley, which had replaced


\(^{103}\) Thompson, “The Settlement Geography of the Sacramento-San Joaquin Delta, California,” 309–311, 325–328.
wheat as the major winter grain crop, was the most extensive crop in area, but potatoes were the most valuable, followed by beans and asparagus. Other crops included onions, field corn, celery, sugar beets, sweet potatoes, flax and flaxseed, wheat, alfalfa, and rye. Animal husbandry, practiced from the earliest years of reclamation, would permanently decline in the Delta by the mid-1920s, but dairying remained important throughout much of this period, particularly in the San Joaquin Delta. In the Sacramento Delta, Bartlett pear orchards along the levees of the Sacramento River reached peak production. Processing and marketing methods were evolving at this time as well. Fruit and vegetable canneries had been introduced by the turn of the century, and marketing became more sophisticated as trade names and product standards were adopted.104

During the second quarter of the century, the most important crops in acreage were winter grains (primarily barley), asparagus, field corn, and alfalfa. Together, they occupied well over half of the acreage cultivated, although sugar beets, much of which was processed in or near the Delta, also grew in importance. By mid-century, asparagus and tomatoes were the most important cannery crops, but pears had declined in importance. The original staple trio of potatoes, beans, and onions were also declining, while feed crops, most of which were consumed by livestock in central California, were increasing.105

Changing market forces during the span of the reclamation period, ranging from extra-regional competition to demands of the cannery trade, largely determined the ratio at which Delta crops were grown. Potatoes, beans, orchard crops (especially pears), asparagus, sugar beets, wheat, barley, and alfalfa hay were each important components of the Delta’s agricultural economy for at least some portion of the period from approximately 1860 to 1930. Other crops were ascendant at the end of this period. Tomatoes, which fare better on mineral soils than peat

soils, had been cultivated in small quantities as a fresh market crop since the mid-nineteenth century. They were raised for canning beginning in the early twentieth century, but became important for this purpose on an industrial scale after 1935, when Tillie Weisberg, in partnership with Italian canning executives, opened the first Delta tomato cannery in Stockton.106 This plant was the first of several that would be established over the next few decades to process the harvest of expanding tomato acreage in San Joaquin and Yolo counties.

While an encyclopedic survey of each of the major Delta crops is not possible within the confines of this paper, several of them merit more detailed treatment. Potatoes and asparagus have been signature crops in the Delta, and, together, their widespread cultivation—with asparagus gradually replacing potatoes—spans the entire period. They are also associated with new marketing techniques and, in the case of asparagus, with the introduction of vegetable canneries to the Delta. Sugar beets were only grown on a large scale from the early twentieth century, but this crop is also an important part of the Delta’s agricultural history because of its association with refineries in the region.

Potatoes—often grown in rotation with beans—were usually the first crop planted on newly reclaimed peat soils, and served as a major cash crop from the late 1860s, approximately at the beginning of large-scale reclamation, until the 1930s, when competition from Idaho and elsewhere altered market conditions. Grand Island was known for its potatoes by the 1870s, and Bouldin, Andrus, and Staten islands had large acreages at that time as well. Plantings could be extensive; in 1900 the majority of Tyler and Victoria islands were planted to the crop. By the turn of the century, the older potato districts in the Sacramento Delta were in decline, and

106 “Italian Canners Step into the American Picture.” Western Canner and Packer 27, no. 5 (1935): 13–14. The Haggin Museum and Archive in Stockton, California, holds Tillie Lewis’s industrial archives and artifacts such as the company’s earliest vacuum pan, made in Italy and used to make tomato paste.
emphasis switched to the newly reclaimed land of the San Joaquin Delta. Potato varieties shifted over time as well, most notably in the 1890s, when the Burbank variety replaced the Early Rose. Over time, however, potatoes would diminish in importance as emphasis switched to asparagus. By mid-century, the potato-growing area of the Delta was limited to Bacon and McDonald islands and a few additional tracts to the north and east. 107

Several influential individuals are associated with the success of potato cultivation in the Delta, including Chinese immigrant Chin Lung and Japanese immigrant George Shima. Chin Lung arrived in California in the early 1880s—close to the time of the passage of the Chinese Exclusion Act of 1882—and would become known as the Chinese “Potato King.” Among the first Chinese to lease land in the Delta, from 1898 to 1924 he accumulated extensive leased properties on which he hired Chinese laborers to grow potatoes as well as beans, asparagus, onions, hay, and grain. He employed approximately 500 Chinese laborers each year to cultivate and harvest his crops, and mastered the tasks associated with large-scale tenant farming: negotiating leases, recruiting labor, housing and provisioning large numbers of laborers, and setting up distribution networks. In 1912, one year before the California legislature passed the Alien Land Law, which prohibited “aliens ineligible for citizenship” (defined as Japanese, Chinese, Koreans, Filipinos, and other East Asians) from owning land or possessing leases longer than three years, Chin Lung purchased an 1,100-acre tract northwest of Stockton. He named it the Sing Kee Tract, after a rice-importing firm that he had worked for when he first arrived in San Francisco. Despite the heavy Chinese presence in the Delta that dates back almost to the Gold Rush, this tract remains the only one of Chinese provenance. Chin Lung’s career in California ended in 1924, effectively thwarted by the more restrictive 1920 Alien Land Law,

which explicitly prohibited ineligible aliens from leasing land in their children’s name. When his leases expired in 1924, Chin Lung left the state for Oregon, eventually returning to China.  

The better-known Japanese “Potato King,” George Shima, was born as Kinji Ushijima in Kurume, on the island of Kyushu. He arrived in San Francisco in 1889 and by the end of that year had relocated to the Delta, where he quickly advanced from farm worker to labor contractor to independent farmer. By 1899 Shima had begun to experiment with potato cultivation and was reclaiming 400 acres on Bradford Island before relocating to the flood-prone islands and tracts in the lower Delta northwest of Stockton, above the San Joaquin River. Shima worked closely with Lee Phillips, a Los Angeles capitalist who formed California Delta Farms in 1906, the holdings of which expanded to 42,000 acres and included the Jones Tract, King Island, Bacon Island, Bouldin Island, the Rindge Tract, and islands in Contra Costa County to the west. The company obtained unreclaimed land, leveed it, and leased it to Shima to be cleared and planted to potatoes. To improve yields and quality, Shima consulted with agricultural experts at Stanford University and the University of California at Berkeley regarding seeds and planting and harvesting techniques. Shima became the largest potato grower in California, and in 1910 began purchasing, rather than leasing, Delta farmland; his first purchase was an 800-acre parcel northwest of Stockton on what is now known as the Shima Tract. However, his reputation as the “Potato King”—with operations extending from San Francisco to Los Angeles—is at least as
much ascribable to his production and marketing innovations.\footnote{113} He is reportedly the first grower to wash potatoes before sacking them for shipment; to grade potatoes for sale by quality; and to sell potatoes under a trademark, using red bags. He also introduced the practice of growing potatoes on the same land for only three consecutive years to protect the crop from fungus that proliferated in the soil. Shima’s innovations nevertheless offered him no more protection than Chin Lung from the xenophobic policies of the day, and until his death in 1926 he too was subject to the Alien Land Laws, which were primarily intended to target the large number of prospering Japanese agriculturists in California at that time.\footnote{114}

The potato was so spectacularly successful in the Delta that the Stockton Chamber of Commerce inaugurated an annual Potato Day Festival, the first of which was held on October 18, 1924; Luther Burbank was among the honored guests.\footnote{115} In that year, Frederick H. Rindge established the world record for potato production, harvesting 57,752 pounds of Burbank potatoes to the acre on the Rindge Tract, breaking the highest previous documented record of 53,760 pounds, held by Great Britain. The new record was announced with great fanfare at the Potato Day Festival.\footnote{116}

\footnote{114}William D. Rogers, “The Delta Story” (third in series of twenty-four), \emph{Stockton Record}, July 4, 1951.
\footnote{115}Letter from Luther Burbank to A. C. Oullahan, July 21, 1924, MSS 194: Oullahan Family Papers, Holt-Atherton Special Collections, University of the Pacific, Stockton, California.
\footnote{116}“Frederick H. Rindge—Scientific Farmer,” \emph{Bryon Times}, Tenth Development Edition, 1926–1927, 186; Potato Day records, MS 39, Underhill Collection, Box 1, Folder 1, San Joaquin County Historical Society and Museum; “Governor and Many Noted Men See Luther Burbank’s Creation Win New Laurels, \emph{Stockton Independent}, Oct. 19, 1924. A few years earlier, the Rindge Tract had been noted for the high quality of different crop, hemp (which did not become illegal in the United States until 1937). In text and photos, the \emph{Byron Times} praised the 4,000 acres of the tract dedicated to hemp production in 1917. “F. H. Rindge’s Model 4,000-Acre Tract,” \emph{Byron Times}, Sixth Booster Edition, 1918, 108.
During the late nineteenth century, asparagus became the most profitable vegetable in the Delta and acreage expanded rapidly, often at the expense of potatoes. Asparagus shipments from the Stockton area were consigned to San Francisco produce houses by the 1880s, and farmers near Sacramento were realizing healthy profits as well.\textsuperscript{117} The development and proliferation of canneries in and around the Delta beginning in 1892 dramatically increased demand, driving up prices and accelerating the expansion of the crop. In that year Robert Hickmott built the Delta’s first successful cannery on Bouldin Island, where he also raised the crop.\textsuperscript{118} Railroads made possible the expansion of the asparagus market and in August 1900, the Hickmott Cannery shipped the first trainload of canned asparagus to an eastern market, sending at least twenty carloads to New York.\textsuperscript{119} Other canneries appeared in short order after Hickmott. In 1899 the Golden State Asparagus Company constructed a cannery on Grand Island, soon planted 1,700 acres to asparagus on Andrus Island, and in 1904 moved its cannery to Isleton. The California Fruit Canners’ Association opened a plant at Vorden, about three miles above Walnut Grove, and the Libby, McNeill & Libby Company of Chicago leased a plant in Pittsburg, and then constructed its own plant in 1907 at Isleton.\textsuperscript{120} The canning companies owned most of the asparagus acreage, but they also purchased from independent growers, and during the first years of the century were paying up to $60 per ton for asparagus destined for their canneries, nearly triple the $20 per ton that fresh asparagus commanded.\textsuperscript{121} In 1915 canneries purchased

\textsuperscript{117} Thompson, “The Settlement Geography of the Sacramento-San Joaquin Delta, California,” 340.
\textsuperscript{119} William D. Rogers, “The Delta Story” (ninth in series of twenty-four), \textit{Stockton Record}, July 11, 1951.
\textsuperscript{121} Thompson, “The Settlement Geography of the Sacramento-San Joaquin Delta, California,” 341–342.
approximately 66.6 percent of the all asparagus grown in the Sacramento Delta, or just under 40 million pounds.\textsuperscript{122} By the mid-1920s canning companies were located at Isleton, Walnut Grove, Rio Vista, Ryde, Sacramento, Antioch, and Pittsburg, as well as Oakland and San Francisco.\textsuperscript{123} The canning process did not completely supersede the sale and marketing of fresh asparagus, however. Refrigerated railroad cars, or “reefers,” became far more commonplace after the turn of the century, and made it possible to ship fresh, rather than canned, asparagus—as well as other fresh Delta produce—throughout the country.\textsuperscript{124}

By the mid-1920s, ninety percent of all the asparagus grown in the United States was produced in the Delta and each spring hundreds of cars of fresh asparagus were shipped daily to points east.\textsuperscript{125} As Stockton had done in 1924 with its Potato Day Festival, Isleton inaugurated an annual Asparagus Festival the following year, held on April 18 and 19.\textsuperscript{126} The work of actually harvesting the asparagus, which required considerable skill and precision in cutting, was largely carried out during this period by Filipino laborers, who had begun to replace Chinese and Japanese workers after the Spanish-American War had opened up immigration opportunities for them. Following the passage of the Philippines Independence Act in 1934, however, immigration

\textsuperscript{126} “Festival for Asparagus Is Isleton Plan,” \textit{Stockton Independent}, March 31, 1925.
from the Philippines was severely restricted (to 50 admissions per year) and the Filipinos would gradually be replaced in subsequent decades by Mexican workers.  

The older asparagus districts in the Sacramento Delta, including the Pierson District and Grand, Twitchell, Andrus, Bouldin, and Jersey islands, began to decline in productivity by 1924, at which time eighty-four percent of the Delta’s 52,600 asparagus acres was located in that region. A combination of the limited commercial life of asparagus-producing fields, the difficulty of replanting because of the fungal disease known as fusarium wilt, and limited opportunities for expansion because of the relatively high cost of land all contributed to this reversal of fortune. Within three decades, paralleling this decline, all of the canneries along the Sacramento River in the old centers of Walnut Grove, Isleton, and Rio Vista would cease operations. Production shifted to the San Joaquin Delta during the 1930s, and by the mid-1940s the peat lands of that region had become the Delta’s major asparagus producing area, with significant acreage on Union, Victoria, and Lower Roberts islands, and the Fabian, Clifton Court, Byron, Wright, and Shima tracts. By 1952, ninety-five percent of the Delta’s asparagus acreage was located in the San Joaquin Delta, a significant reversal from just a quarter-century earlier.

The development of physical infrastructure, such as the canneries that helped promote asparagus, also led to increased production of other Delta crops, including sugar beets. The first sugar beet refinery was established in Isleton as early as 1876, although the crop did not become commercially important until the WWI era, when sugar shortages encouraged greater production. During the war years, the Spreckels Company established a refinery near the Delta at Manteca,

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and the Pacific Sugar Company constructed a plant north of Tracy.\textsuperscript{129} In the north Delta, sugar beets became a principal crop in the Clarksburg area after 1920, when the Alameda Sugar Company (predecessor of the Holly Sugar Company) contracted with local farmers to grow them. In the late 1920s, 2,600 acres were planted to the crop in the neighboring Lisbon District alone.\textsuperscript{130} Acreages would increase dramatically after the Amalgamated Sugar Company moved its Smithfield, Utah, refinery to Clarksburg in 1934, encouraging further development of sugar beets on the mineral soils along the Sacramento River and in the Yolo Basin.\textsuperscript{131} When Congress passed the Sugar Act of 1935, which set quotas, standards for fertilization and rotation, and wage rates for the sugar industry, production accelerated still further, and in 1936 reached nearly 42,000 acres in Yolo County. The following year, the American Crystal Sugar Company took over and enlarged the Clarksburg plant, which remained in operation under various owners until 1993.\textsuperscript{132} Rising costs of production and increased competition from overseas and other regions of the U.S. contributed to the closure of additional California sugar refineries, including the Spreckels Sugar Plant in Manteca in 1996, and sugar beet production in the Delta plummeted. In 2000, renovations began to convert the Clarksburg plant into a multi-tasting-room venue and wine production facility. The venue, renamed the Old Sugar Mill, opened to the public in 2005.

\textsuperscript{129} “The Settlement Geography of the Sacramento-San Joaquin Delta, California,” 354.
\textsuperscript{131} Photos of the plant’s reconstruction may be found at the Clarksburg Public Library, Clarksburg, California.
\textsuperscript{132} Shipley Walters, \textit{Clarksburg: Delta Community} (Woodland, California: Yolo County Historical Society, 1988), 36.
Salmon Fisheries and Canneries

The ways in which people made a living off the land through agriculture were not the only aspects of life in the Delta that evolved over the century or so from the Gold Rush to the completion of reclamation. The Delta’s water resources, especially its chinook salmon (*Oncorhynchus tshawytscha*), were also exploited during this era on an increasingly industrial scale. Salmon are anadromous fish; after hatching in rivers, they spend most of their adult lives at sea, and then return to those same rivers in mass migrations, called runs, to spawn. The presence of four salmon runs—spring, fall, late fall, and winter—gave rise during the last third of the nineteenth century to a thriving fishery and a cannery industry, before the fishery collapsed dramatically by 1900. Nearly a century later, when conservationist impulses were ascendant, concern over threatened salmon runs would give rise to important restoration measures for the Delta’s rivers and floodplains.

By the early 1850s, some five dozen boats were already fishing the Sacramento River for salmon from its confluence with the American River to its outlet into Suisun Bay. Capital for this enterprise came largely from New England entrepreneurs, although Italian immigrant fishermen have also been credited with the earliest establishment of the commercial fishery around 1850. Much of the labor of harvesting the fish was carried out by Italian, Greek, Portuguese, and Spanish immigrants. Rio Vista emerged as the main landing station, and the salmon fishery brought significant wealth to the town through the 1880s. In 1864, William Hume opened the first cannery on the Sacramento River, on a scow moored on the west bank across from Sacramento. Local demand for the canned product was not yet extensive, however, as fresh

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salmon was still readily available in the San Francisco Bay area, so in 1867, when a market for canned salmon was developing in Australia, the firm of Hume, Hapgood, and Company relocated to the Columbia River, which contained bigger runs.134

Canneries reappeared on the Sacramento River in the mid-1870s, and the industry grew rapidly after 1878, in response to rising prices and heavier fish runs. Unlike the fishermen themselves, most of the cannery workers were Chinese laborers working under American or European supervisors. By 1883, more than 1,500 boats were serving 21 canneries operating on the river, the highest number of canneries recorded. Collectively, the canneries packed 123,000 cases of salmon harvested from the lower Sacramento and San Joaquin rivers. But by then the runs were already declining; the peak production had occurred the previous year, when 19 canneries packed 200,000 cases.135 Overfishing was one cause of the decline. The excessive number of gill nets in the water had not allowed an adequate number of salmon to survive the journey upstream to spawn. But if Native Americans harvested similar quantities of salmon, presumably for generations, as scholars have argued, then overfishing alone could not have been the main cause of the decline. Instead, overharvesting combined with destruction of the salmon’s spawning beds by the deposition of sediment from hydraulic mining appears to account for the diminishment of the runs. As the California Fish Commission noted in 1880:

The numbers of salmon that could have been taken in this [Sacramento] river, before the greater part of their spawning beds had been destroyed by sediment from the gold mines, can never be known. It is the testimony of all the pioneer miners that every tributary of the Sacramento, at the

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commencement of mining, was, in the season, filled with this fish, hurrying and struggling as if to reach the very sources of these streams. ¹³⁶

The 1884 court decision that effectively ended hydraulic mining in California, Woodruff v. North Bloomfield Gravel Mining Company, was predicated on damage to property resulting from the exacerbation of flooding and from debris flows, but indirectly the decision aided salmon in the long run by improving spawning conditions. Nevertheless, it would take several decades for the smothering sediment to be flushed downstream, and yields from the river fishery continued to decline, although not completely linearly, until the last Sacramento River cannery closed in 1919. By that time, the commercial salmon fishing industry was already relocating to coastal waters, and ocean trolling methods gradually replaced gillnet fishing on the rivers. At the end of the 1957 season, nearly four decades after the demise of the Delta salmon cannery industry, the state legislature officially terminated commercial gillnet fishing in the Sacramento-San Joaquin Delta. ¹³⁷

**Water Projects and Water Quality in the Delta**

Salmon populations, and ultimately the entire Delta ecosystem, would be affected by California’s two most massive water projects, the federal Central Valley Project, the construction of which began in the 1930s, and the State Water Project, begun a generation later, in the 1960s. Much has been published on the genesis, realization, and consequences of these projects, and it is


beyond the scope of this paper to replicate that history here. However, a brief account of water
development in the Central Valley, placed in national context, will set the stage for subsequent
water quality problems in the Delta, and for late-twentieth century restoration efforts.

The Central Valley Project would bring water for irrigation from the relatively moist
Sacramento Valley through the Delta to the more arid San Joaquin Valley, while also providing
enhanced flood control for the Sacramento Valley and regulation of saltwater intrusion into the
Delta. The project marked the culmination of a decades-long drive for the coordinated
development of water resources in California and for federal involvement in irrigation projects in
the arid lands of the American West. The earliest irrigation works in the Central Valley were
constructed on a small scale by individual farmers and, by the 1870s, by private irrigation
companies. In response to fears that water in the valley would become monopolized by such
firms, in 1887 the state legislature passed the Wright Act, named after C. C. Wright, a Modesto
lawyer who drafted the bill. The act created irrigation districts, which were modeled
administratively on the reclamation districts first established a generation earlier. The Wright
Act achieved some success, but the majority of the early districts failed, and Californians
increasingly looked toward the federal government to develop irrigation projects. They were
aided by events at the national level. Drought on the Great Plains during the 1890s had led to a

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138 The literature on the Central Valley Project is vast. Documents from various government
agencies, including the California Division of Engineering and Irrigation, California Division of
Water Resources, California Department of Water Resources, and the U.S. Bureau of
Reclamation account for many of the primary sources. Secondary sources that cover this topic in
great detail include Norris Hundley, Jr., *The Great Thirst: Californians and Water: A History*,
Revised ed. (Berkeley and Los Angeles: University of California Press, 2001); Garone, *The Fall
and Rise of the Wetlands of California’s Great Central Valley.*

139 1887 *Statutes of California* ch. 34; Donald J. Pisani, *From the Family Farm to Agribusiness:
The Irrigation Crusade in California and the West, 1850–1931* (Berkeley and Los Angeles:
national irrigation crusade, the leaders of which called for an expansion of federal responsibility from the improvement of navigation and flood control to irrigation as well.\textsuperscript{140}

Responding to this pressing demand, in 1902 Congress passed and President Theodore Roosevelt signed the Newlands Reclamation Act, which created the Reclamation Service (renamed the Bureau of Reclamation in 1923) and applied to sixteen western states and territories, including California. The act established a “reclamation fund” for collecting monies received from the sale and disposal of public lands; the funds were to be used for the surveying of arid and semiarid lands, and for the storage, diversion, and development of waters for the reclamation of that land.\textsuperscript{141} In this case reclamation took on a different shade of meaning from that of draining water \textit{from} the Delta’s swampy islands and tracts. Under the Newlands Act, reclamation would mean bringing water \textit{to} arid land. These two sides of reclamation nevertheless shared a common goal; the end result would be to make agriculture possible in places where it had not been possible before. Thirty-five years after the passage of the Newlands Act, the Bureau of Reclamation would become the agency tasked with the construction of the federal Central Valley Project, which began as the California State Water Plan.

Beginning in the early 1910s, California moved toward developing a truly comprehensive unified water plan for managing irrigation, reclamation, water storage, flood control, drainage, and municipal water supplies. Local conditions in the Delta provided one of the driving forces behind this effort. As part of the Sacramento-San Joaquin River drainage, the Delta is affected by


\textsuperscript{141} 32 \textit{Stat.} 388. The Reclamation Act applied to the 13 states of California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming, and the territories of Oklahoma (admitted to statehood in 1907) and Arizona and New Mexico (both admitted to statehood in 1912). Texas was included in the Reclamation Act in 1906.
changes in water use along those rivers. In the Sacramento Valley the commercial production of rice began in 1912 and the industry expanded rapidly, increasing the demand for irrigation water.\textsuperscript{142} In only four years, from 1915 to 1919, irrigation diversions of Sacramento River water doubled from 1.15 million acre-feet to 2.30 million acre-feet.\textsuperscript{143} These diversions drastically reduced the inflow of the Sacramento River to the Delta, and Delta and Suisun Bay water users alike blamed the rice producers in the Sacramento Valley for the increasing penetration of ocean salinity that resulted. When this situation coincided with a serious drought in 1920, which exacerbated the salinity problem, the Delta city of Antioch and ninety-seven Delta landowners filed suit against upstream irrigators in Alameda Superior Court, which granted an injunction against upstream diversions, only to be overturned by the state supreme court.\textsuperscript{144} Although the Antioch suit was ultimately unsuccessful, this important case prompted the state Division of Engineering and Irrigation and its successor, the Division of Water Resources, to search for a solution to the salinity problem, which by 1931 became officially known as the State Water Plan.

Throughout the 1920s Delta farmers continued to press the state for a solution to their fresh water shortages. They called attention to the fact that saltwater intrusion into Delta channels negatively affected Delta agriculture in two significant ways, either rendering irrigation impossible because of the high salt content in the water, or damaging soils and crops as salt water penetrated through porous levees. They called for either a physical saltwater barrier in the Carquinez Strait, between Suisun and San Pablo bays—an idea under serious consideration at the time, but one that state engineers ultimately found to be too problematic—or for a storage dam

\textsuperscript{142} Jack H. Willson, ed. \textit{Rice in California} (Richvale, California: Butte County Rice Growers Association, 1979), 50.


\textsuperscript{144} \textit{Town of Antioch v. Williams Irrigation District}, 188 Cal. 451 (1922)
on the Sacramento River to provide minimum downstream flows. Severe drought expedited the realization of the state’s plan. In 1931, when the flow of the Sacramento River past the city of Sacramento fell briefly to zero, tidal salinity with a chloride concentration at or above 1000 ppm (the generally accepted upper limit for irrigation) spread over ninety percent of the Delta, reaching as far inland as Stockton, the greatest extent ever recorded. Finally, in August 1933 the state legislature passed the Central Valley Project Act to bring the State Water Plan to fruition. The act was welcomed by Delta residents, who believed that the project would secure the future of agriculture not only in the Delta, but throughout the Central Valley. However, having passed the Central Valley Project Act during the height of the Depression, California was unable to finance the project and appealed to the federal government for assistance. Congress responded and in 1935 authorized its initial construction by the U.S. Army Corps of Engineers under its authority for maintenance and improvement of navigation. Shortly thereafter President Roosevelt approved it as a reclamation project, and in 1937 Congress reauthorized the project, now to be constructed by the U.S. Bureau of Reclamation.

The Central Valley Project called for a dam on the upper Sacramento River—the future Shasta Dam—to regulate the river’s flows to control salinity problems in the Delta; store water for irrigation in the Sacramento Valley; and provide enhanced flood control, improvement of navigation, and generation of hydroelectric power. In the San Joaquin Valley, a dam on the San

147 1933 *Statutes of California* ch. 1042.
Joaquin River at Friant would capture the river’s flow, almost the full volume of which would then be diverted to irrigate the eastern side of the valley via the 36-mile-long Madera Canal and 152-mile-long Friant-Kern Canal. As a result of these diversions to the north and south, respectively, the river’s average annual flow of nearly 1.8 million acre-feet—measured at Friant—would be reduced to a trickle below the dam, quickly destroying the San Joaquin River’s once impressive salmon runs, the southernmost on the Pacific Coast of the Americas. In contrast, Shasta Dam blocked only the upper third of the Sacramento River and the river was not diverted out of its channel below the dam, thus proving far less detrimental to that river’s salmon runs.

Before the completion of Friant Dam in the early 1940s, salmon runs in the San Joaquin River still exceeded 80,000 fish despite the hindrance of two smaller downstream dams that had been constructed by Miller and Lux during the late nineteenth century. With Friant Dam in place, San Joaquin River salmon would be largely gone by the late 1940s. At that time, few people, other than sportsmen and the landowners who would be directly affected by the dewatering of the river, protested the river’s impending demise.\footnote{The landowners filed suit against the Bureau of Reclamation and other defendants in 1947 over the legality of the taking of their water rights to the river. The case, \textit{Rank v. Krug}, which the landowners ultimately lost, would be litigated for the following 16 years. See \textit{Rank et al. v. Krug et al.}, 90 F. Supp. 773 (S.D. Cal. 1950); \textit{Rank et al. v. Krug et al.}, 142 F. Supp. 1 (S.D. Cal. 1956). The figure of 1.8 million acre-feet is from the 1956 decision, which reported that from 1897 to 1944, the average annual flow of the San Joaquin River at Friant was 1,797,260 acre-feet.} A new canal would be constructed to deliver “substitute” water from the Delta to the lower San Joaquin River at the great bend of the river near Mendota—where the river turns from west to north and begins its journey down the center of the San Joaquin Valley toward the Delta—for irrigating cropland in the lower San Joaquin Valley. Even with this Delta-Mendota Canal in place, the 59-mile stretch of the river from Mendota upstream to Friant Dam was left with little water, and, within this reach, the 23 miles...
directly above Mendota were completely dewatered. Salmon cannot swim up a dry river channel and even if they could, they would then have faced a 319-foot-high concrete dam.

More than a half century would pass before attitudes toward wild rivers and the fish and other fauna and flora they support changed enough to set in motion a process to restore the San Joaquin River. A 1988 lawsuit against the Bureau of Reclamation spearheaded by the Natural Resources Defense Council would lead, sixteen years later, to U.S. District Court Judge Lawrence K. Karlton’s ruling against the Bureau. This momentous 2004 decision required the agency to maintain adequate water in the San Joaquin River below Friant Dam to sustain the river’s fish populations.151 Two years later the parties reached an agreement, ending the protracted legal dispute, and leading to the passage in 2009 of the San Joaquin River Restoration Settlement Act, signed by President Obama on March 30 of that year. The act required substantial river channel improvements and sufficient releases from Friant Dam to sustain naturally reproducing spring-run and fall-run Chinook salmon and other fish populations from the dam downstream to the confluence with the Merced River, the San Joaquin River’s first major tributary.152 The first water releases, called interim flows, began in 2009, and in March 2010, as interim flows approached 1,000 cubic feet per second (cfs), the San Joaquin River filled its historical channels below Friant Dam and flowed continuously to San Francisco Bay for the

151 *Natural Resources Defense Council v. Patterson (Patterson II)*, 333 F. Supp. 2d 906 (E.D. Cal. 2004). The ruling was based primarily on California’s *Fish and Game Code* section 5937, which required that “The owner of any dam shall allow sufficient water at all times to pass through the fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam to keep in good condition any fish that may be planted or exist below the dam.”

152 Stipulation of Settlement, September 13, 2006, in *Natural Resources Defense Council v. Rodgers*, CV-S-88-1658 LKK/GGH (E.D. Cal.). The San Joaquin River Restoration Settlement Act was part of a landmark wilderness bill, the Omnibus Public Land Management Act, Public Law 111-11, that set aside more than two million acres in nine states.
first time in more than six decades.\textsuperscript{153} Despite political resistance and drought conditions, the most ambitious restoration project in California history is proceeding.\textsuperscript{154}

The Central Valley Project thus yielded mixed results for the valley’s rivers and for the Delta. It regulated the flow of the Sacramento River at Shasta Dam and thus protected the Delta from salinity intrusion, but it also reengineered and nearly obliterated the San Joaquin River, destroying its salmon runs in the process, a consequence only now undergoing remediation. In addition, the project’s Delta-Mendota Canal established a precedent for water transfers across the Delta from the Sacramento Valley to the San Joaquin Valley. The magnitude of those transfers, and the problems for the Delta associated with them, would increase dramatically after the 1960s, when the State Water Project—this time truly a state project—was constructed.

The State Water Project was the manifestation of part of the California Water Plan, “a comprehensive master plan for the control, protection, conservation, distribution, and utilization of the waters of California,” which the California Department of Water Resources developed over the decade from 1947 to 1957.\textsuperscript{155} The State Water Project was launched after the legislature passed the Water Resources Development Bond Act (also known as the Burns-Porter Act) in 1959 and California voters narrowly approved it the following year. The project would dam the Feather River at Oroville and transport part of the flow of that river, mingled with that of the Sacramento River, across the Delta and into the new California Aqueduct, to provide fresh water to the west side of the San Joaquin Valley and beyond to the cities of Southern California.\textsuperscript{156} Water first reached the San Joaquin Valley in 1968, and crossed the Tehachapi Mountains in

\textsuperscript{154} See the San Joaquin River Restoration Program website, at \url{http://restoresjr.net/index.html}.
\textsuperscript{156} 1959 \textit{Statutes of California} ch. 1762.
1971. Increased diversions through the Delta led to a number of problems, including salinity intrusion and declining overall water quality. In addition, the enormous pumps in the south Delta below the Clifton Court Forebay that lift water into the California Aqueduct and the Delta-Mendota Canal are powerful enough to reverse the direction of flow in some Delta channels. Fish were drawn into the pumps, where they were killed. During times of low river flow and drought, saline water advances far enough inland to be drawn into the aqueduct and the canal, requiring temporary shutdown of the pumps to avoid potentially contaminating water supplies for the San Joaquin Valley and Southern California.

In truth, the salinity problem had re-emerged even before the California Aqueduct began transporting water southward, a result of increased consumption of fresh water by Delta communities and farms, as well as reduced runoff to the Delta from the tributaries of the San Joaquin River, the flows of which were increasingly transported by aqueducts to rapidly growing Bay Area cities. To address this problem, in 1965 federal and state agencies proposed as the long-planned second phase of the State Water Project a Peripheral Canal to transport fresh water from the Sacramento River around the Delta to the intakes of the Delta-Mendota Canal and California Aqueduct. This unlined, 43-mile-long canal would swing in an arc beginning on the Sacramento River fifteen miles below Sacramento, near Hood, then skirt the eastern margins of the Delta, and finally curve westward to the pumping plants on the southern edge of the Delta. The Peripheral Canal pitted Delta residents— who were not confident that the canal offered the Delta adequate water quality protection and who feared that the canal would result in a water

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158 *The Great Thirst: Californians and Water: A History*, 314. Fish-salvage techniques, including the construction of fish-collection facilities, have since been implemented near both pumping plants to reduce losses.
159 The Harvey O. Banks Pumping Plant serves the California Aqueduct and the C.W. “Bill” Jones Pumping Plant (formerly the Tracy Pumping Plant) serves the Delta-Mendota Canal.
“grab” by the southern part of the state—against residents of the San Joaquin Valley and Southern California. After fifteen years of north-south tensions over the canal, in 1980 the Peripheral Canal bill passed the state legislature, only to be overturned in 1982 in a statewide referendum by a sixty-three percent majority.\textsuperscript{160}

Little progress was made on water quality issues in the Delta during the 1980s, but the 1990s began with greater promise. In 1992 Congress passed the Central Valley Project Improvement Act (CVPIA), which, among its many provisions, required operation of the Central Valley Project to include protective measures for the Delta and Suisun Marsh.\textsuperscript{161} That same year witnessed the passage by the California legislature of the Delta Protection Act, which created the Delta Protection Commission and declared that “the Sacramento-San Joaquin Delta is a natural resource of statewide, national, and international significance, containing irreplaceable resources, and it is the policy of the state to recognize, preserve, and protect those resources of the delta [sic] for the use and enjoyment of current and future generations.”\textsuperscript{162} The following year, the U.S. Fish and Wildlife Service and the California Fish and Game Commission declared the Delta smelt (\textit{Hypomesus transpacificus}) an endangered species. A small (2–3 inch) native fish endemic to the San Francisco Bay-Delta Estuary, the environmentally sensitive smelt is considered an indicator species for the condition of the Delta ecosystem. The listing heightened federal and state responsibility for Delta water quality and led to the signing of the Bay-Delta Accord in 1994, prompting the creation of CALFED, an interagency program designed to address four

\textsuperscript{160} Hundley, \textit{The Great Thirst: Californians and Water: A History}, 313–332.
\textsuperscript{161} The CVPIA was passed as Title 34 of the Reclamation Projects Authorization and Adjustment Act of 1992, Public Law 102-575, 106 \textit{Stat.} 4706.
\textsuperscript{162} The Delta Protection Act is incorporated into the \textit{California Public Resources Code}, Sections 29700–29716; quotation at 29701.
issues crucial to the long-term restoration and management of the Bay-Delta estuary: ecosystem restoration, water supply reliability, water quality, and levee rehabilitation.163

While CALFED achieved some success with ecosystem restoration efforts in areas upstream from the Delta, it proved less capable of ameliorating water quality conditions in the Delta itself. The decline of the Delta ecosystem is a complex problem and cannot be attributed to one single cause; rather, a combination of invasive species, water pollution from toxic chemicals, and excessive water exports are to blame.164 During the CALFED decade (mid-1990s to mid-2000s) conditions in the Delta continued to deteriorate and fish populations, including that of the endangered Delta smelt as well as salmon and steelhead, declined. State Water Project exports increased sharply under CALFED, and the program’s competing goals and lack of effective mechanisms to carry out its charge led to its demise.165

The state adopted a new approach in 2007 when Governor Arnold Schwarzenegger convened a Delta Vision Blue Ribbon Task Force to recommend institutional changes that would allow California to more effectively manage the state’s competing water interests. The Task Force called on the legislature to create a new governance structure capable of working toward the “co-equal goals” of protecting, restoring, and enhancing the Delta ecosystem and creating a more reliable water supply for the state.166 In 2009, the state legislature passed the Delta Reform Act, which created a Delta Stewardship Council and charged it with achieving the co-equal

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165 Ellen Hanak et al., Managing California’s Water: From Conflict to Reconciliation (San Francisco: Public Policy Institute of California, 2011), 63–64.
goals. Concurrently, the Bay Delta Conservation Plan (BDCP), initiated in 2006, began to be negotiated by federal and state water managers and regulators, local water users, water exporters, and environmental interests. The BDCP aimed to create a comprehensive habitat conservation and management plan to protect the Delta ecosystem while also maintaining export of water by the State Water Project and Central Valley Project, but became mired in acrimonious debate over its proposed “Water Conveyance Facility,” otherwise known as the Delta Tunnels, the latest plan to convey Sacramento River water south of the Delta. In April 2015, the administration of Governor Jerry Brown separated achievement of the co-equal goals into two new initiatives, renaming the tunnels portion of the BDCP the California Water Fix, and placing habitat restoration under California Eco-Restore, a move which will almost certainly face legal challenges. Meanwhile, as 2015 marked California’s fourth year of drought, Delta and Suisun Bay fish populations continue to plummet, and the California Department of Fish and Wildlife has reported that, in its 2014 annual fall survey, pelagic (open water) fish, including the Delta smelt, striped bass, longfin smelt, threadfin shad, and American shad, were indexed at or near their lowest levels since surveys began in 1967.

167 S.B. X7 1 (2009).
169 David Siders and Phillip Reese, “Jerry Brown’s Revised Water Tunnels Plan Adds Political Problems,” Sacramento Bee, April 30, 2015. The most vocal group that has opposed the Tunnels Plan is “Restore the Delta.” This organization of Delta landowners and their advocates has produced a documentary, Bridge Over Troubled Waters (narrated by Ed Begley, Jr.), prepared responses to the Bay Delta Conservation Plan, and documented Delta issues since 2009. The group also maintains a repository of hundreds of photographs. See the “Restore the Delta” website at www.restorethedelta.org.
170 Steven Slater, Environmental Scientist, Region 3, California Department of Fish and Wildlife, to Scott Wilson, Regional Manager, Region 3, California Department of Fish and Wildlife, Memorandum: “Fall Midwater Trawl 2014 Annual Fish Abundance Summary,” January 7, 2015. Indexing is based on extensive sampling, the results of which are used to estimate abundance.
Wetland Protection and Restoration

While the complexity of the Delta’s ecosystem and the large number of competing stakeholders have thus far caused recovery efforts for the Delta’s waterways to falter, significant progress has been achieved in wetland protection and restoration along the margins of the Delta. The creation, during the last decades of the twentieth century, of the Cosumnes River Preserve, Stone Lakes National Wildlife Refuge, and Yolo Bypass Wildlife Area is the culmination of a century of changing attitudes toward wetlands and the waterfowl and other wildlife they support. At the foundation of this story is the early twentieth-century discovery of the Pacific Flyway, and of the Central Valley’s importance for its maintenance.

The Pacific Flyway is the westernmost of the four great North American transcontinental flyways for migratory waterfowl and other avian species. The flyway stretches from the arctic and subarctic regions of Alaska and western Canada, across the western United States, to western Mexico and beyond. For millions of years migratory waterfowl of the flyway have bred in the far North, during the short arctic summer, and then migrated southward during the fall to overwinter in places with more moderate climates, only to return to northern latitudes during the spring and repeat the cycle of life. The maintenance of this annual migration depends on the condition of both the northern breeding grounds and the southern wintering grounds. The primary wintering grounds for the Pacific Flyway are located in the Central Valley of California, including the Delta and Suisun Marsh. Although the valley’s estimated four million acres of permanent and seasonal wetlands at the time of statehood were reduced to only several hundred thousand acres by the mid-twentieth century—primarily because of conversion to agriculture—the valley still supports an astonishing sixty percent of all the wintering waterfowl of the Pacific Flyway.

171 The three additional flyways, from west to east, are the Central Flyway, Mississippi Flyway, and Atlantic Flyway.
total population of which has averaged about 6.6 million birds since record-keeping began in 1955. This local abundance of waterfowl accounts for their importance to Native Americans during the pre-contact era as well as the proliferation of waterfowl hunting clubs in Suisun Marsh and the Delta during the late nineteenth century, as discussed earlier in this paper.

During the first half of the twentieth century, waterfowl faced three major threats in the wetland wintering grounds of the Central Valley. Illegal market hunting was rampant, resulting in the slaughter of many thousands of birds annually. Avian diseases, especially botulism, claimed the lives of many birds that were increasingly concentrated on fewer and smaller remaining wetlands. As more and more of the valley’s wetlands were eliminated, birds faced shortages of natural foods and increasingly took advantage of the valley’s croplands, especially the rice fields in the Sacramento Valley. This last problem—costly crop depredations—would lead to the establishment of the Central Valley’s first refuges, which were designed primarily as feeding grounds to keep the hungry birds away from the fields. Between 1929 and 1932, utilizing revenues from hunting license fees, California acquired land for four state waterfowl refuges, one of which was located in the greater Delta region. Joice Island Waterfowl Refuge, purchased in 1932, was a natural tidal wetland on the northern edge of Suisun Marsh, between Suisun and Montezuma sloughs. The 1,100-acre refuge provided important habitat for waterfowl

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173 For greater detail on these threats on the wintering grounds, see Garone, The Fall and Rise of the Wetlands of California’s Great Central Valley, 142–150.
and helped hold them in the marsh, away from the Central Valley, until after the rice harvest.174

This first step toward wetland protection for waterfowl in the Central Valley was followed in 1937 by the creation of the valley’s first federal refuge, the Sacramento National Wildlife Refuge, located in Glenn and Colusa counties.175 In 1947, the California legislature passed the Wildlife Conservation Act, which created the Wildlife Conservation Board and charged it with identifying lands and waters suitable for the preservation, protection, and restoration of wildlife, and allocating funds for their purchase.176 Based on their dearth of wetlands, nearly all of which had been reclaimed and converted to agriculture, the Wildlife Conservation Board identified the Sacramento and San Joaquin valleys and the Suisun Bay-Delta region as those portions of the state most in need of additional areas for wintering waterfowl.177 The board’s funds made it possible to create three new protected areas, called waterfowl management areas, one of which was again in Suisun Marsh, the 8,600-acre Grizzly Island Waterfowl Management Area, created in 1950.178 Joice Island would later be incorporated into this refuge, as the Joice Island Unit of the renamed Grizzly Island Wildlife Area.

The succession of state protected-area designations from waterfowl refuge, to waterfowl management area, to wildlife area is meaningful. Hunting was banned on the first state refuges (as it would be on the first national wildlife refuges), so they truly were waterfowl “refuges.”

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174 The other three refuges were the 3,000-acre Los Banos Waterfowl Refuge, purchased in 1929; the 2,540-acre Gray Lodge Waterfowl Refuge, purchased in 1931; and the 1,100-acre Imperial Waterfowl Refuge, purchased in 1932.
175 The original name of the Sacramento National Wildlife Refuge was the Sacramento Migratory Waterfowl Refuge.
176 1947 Statutes of California ch. 1325.
177 Seth Gordon, “California’s Fish and Game Program: Report to the Wildlife Conservation Board” (Sacramento: The Senate of the State of California, 1950), 154.
178 The other two waterfowl management areas were the 8,500-acre Mendota Waterfowl Management Area, created in 1954; and the 5,600-acre Wister Unit, also created in 1954 as an addition to the Imperial Waterfowl Refuge, which had since been renamed as the Imperial Waterfowl Management Area.
When hunters demanded access to the refuges, which were being supported almost entirely by their fees, parts of the refuges were opened to sport hunting, and hence they became waterfowl “management areas.” By around 1970, these refuges were redesignated as “wildlife areas,” reflecting a more expansive notion of conservation that had moved beyond a singular focus on waterfowl to other species of birds and other animals as well. One illustrative example of this more inclusive notion of conservation is the work of the Central Valley Joint Venture (CVJV). The CVJV, established in 1988, is one of nearly twenty collaborative efforts between government agencies and private conservation organizations in the United States that were formed to implement the North American Waterfowl Management Plan, a 1986 agreement between the United States and Canada (and, in 1994, Mexico) to promote waterfowl conservation and habitat protection.\(^{179}\) The CVJV has expanded beyond its initial objective of protecting, restoring, and enhancing wetlands for the benefit of waterfowl and currently works to protect all wetland-dependent birds, including shorebirds, other waterbirds, and riparian songbirds. Recognition of the value of agricultural lands for wildlife has led to an emphasis on deferred tillage, which increases the amount of waste grain available to birds by delaying the deep plowing of fields after harvest, and, especially, on winter flooding of harvested fields, which increases access to agricultural food resources as well as aquatic invertebrates.\(^{180}\) Even more broadly, by the late twentieth century refuges and preserves in the Central Valley would include protection of entire ecosystems, with all their biodiversity. These transitions are


\(^{180}\) Central Valley Joint Venture, “Central Valley Joint Venture Implementation Plan – Conserving Bird Habitat” (Central Valley Joint Venture, 2006), 15.
illustrative of a profound shift in the way humans have perceived their relationship to the natural world. They also provide context for the protected areas that have been created in and around the Delta in recent years.

In 1984 the Nature Conservancy purchased a conservation easement on 85 acres of riparian oak forest along the lower Cosumnes River above its junction with the Mokelumne River, at the eastern edge of the Delta. After acquiring 1,400 additional acres, the Nature Conservancy formally dedicated the Cosumnes River Preserve in 1987. Since then this preserve along the last undammed river flowing out of the Sierra Nevada—now managed by many partners—has grown to more than 50,000 acres of permanent and seasonal wetlands as well as private agricultural and grazing lands that are managed in wildlife-compatible ways to attract wintering waterfowl.¹⁸¹ Over the years the mission as well as the size of the preserve has expanded and now includes floodplain restoration. Accidental and intentional breaching of levees on the preserve has resulted in a proliferation of cottonwood and willow trees and has demonstrated that the restoration of flood regimes is a cost-effective means to accelerate habitat restoration. Recent studies of the Cosumnes River floodplain have found that it is of particular importance for native fish species, including the Chinook salmon and Sacramento splittail. Juvenile salmon experience higher growth rates in the floodplain than in adjacent river habitats, while the splittail is dependent for successful spawning on the vegetation found in the floodplain. These and other native fish species have developed the ability to find their way off the floodplain before receding waters disconnect it from the river, and in this way they benefit from the

temporary floodplain habitat but avoid fatal stranding. The Cosumnes River Preserve is thus managed as a natural floodplain, not only for the protection and restoration of riparian habitat and of wintering habitat for migratory waterfowl and other waterbirds of the Pacific Flyway, but also for the protection of endangered species of native fish. The striking success of the preserve has shown that agriculture and grazing can be compatible with habitat restoration and floodplain management.

A few miles to the northwest of the Cosumnes River Preserve lies one of the newer additions to the National Wildlife Refuge System, the Stone Lakes National Wildlife Refuge, officially established in 1994, although many years in the making. Located about ten miles south of downtown Sacramento between Courtland to the west and Interstate 5 to the east, the refuge is contained within the Beach Lakes-Stone Lakes Basin and historically was a mecca for wildlife, including migratory birds, elk, pronghorn, and grizzly bears. Development pressure from the greater Sacramento metropolitan area led to efforts to protect the Stone Lakes Basin floodplain, and in the early 1970s the State of California and the County of Sacramento purchased approximately 2,600 acres and managed them within their respective park systems. By the 1980s, discussion of creating a national wildlife refuge in the basin gained traction; a refuge could serve as a buffer from urban encroachment and could potentially provide a link to the Cosumnes River Preserve. From 1990 to 1992 the U.S. Fish and Wildlife Service coordinated a

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public planning process that resulted in an approved refuge boundary of up to 17,600 acres. The refuge was then dedicated upon the first land acquisition two years later, and has grown to include 6,500 acres owned or managed by the Fish and Wildlife Service and an additional 5,000 acres owned by Sacramento County and several state agencies.\footnote{http://www.fws.gov/refuge/Stone_Lakes/about.html; “Reviving Central Valley Wetlands: Upper Beach Lake Wildlife Enhancement and the Beach Lake Mitigation Bank,” in \textit{Sustainable Uses of Water: California Success Stories}, ed. Lisa Owens-Viani, Arlene K. Wong, and Peter H. Gleick (Oakland, California: Pacific Institute for Studies in Development, Environment, and Society, 1999), 224–225.} Composed of a rich mosaic of habitats, including wetlands, vernal pools, grasslands, valley oak woodlands, and riparian forests, the refuge nonetheless faces a number of challenges. Developers have purchased some of the lands within the approved refuge boundaries, and the rapidly growing city of Elk Grove abuts the refuge’s border, threatening its water quality. As a result of these threats, in the mid-2000s the National Wildlife Refuge Association rated the Stone Lakes National Wildlife Refuge among the top six threatened refuges in the country.\footnote{National Wildlife Refuge Association, “State of the System: An Annual Report on the Threats to the National Wildlife Refuge System” (Washington, D.C.: National Wildlife Refuge Association, 2005), 9.}

Along the northwest fringes of the Delta, between the cities of Davis and Sacramento, wetland protection has also been achieved, despite proximity to urban areas. In 1997, President Bill Clinton formally dedicated the new 3,700-acre Yolo Bypass Wildlife Area, located within the Yolo Bypass in the shadow of Sacramento’s skyline. For the past century, the nearly 60,000-acre leveed Yolo Bypass, constructed during the 1910s as part of the Sacramento Flood Control Project, has served to channel Sacramento Valley winter floodwaters through the Yolo Basin and past the city of Sacramento. Constructed by the U.S. Army Corps of Engineers and Ducks Unlimited, the Yolo Bypass Wildlife Area is managed by the California Department of Fish and Wildlife to be completely compatible with the bypass’s flood control function, even as it is
restored to the wetland habitat for Pacific Flyway ducks, geese, and shorebirds that it had been prior to reclamation. The wildlife area was expanded in 2001 to approximately 16,000 acres with the purchase, approved by the California Wildlife Conservation Board, of more than 12,000 additional acres, including a 10,000-acre cattle ranch studded with vernal pools. The new parcels increased the ecological diversity of the Yolo Bypass Wildlife Area, which includes permanent and seasonal wetlands, vernal pool grasslands, riparian forests, and managed agricultural lands.\textsuperscript{186} In addition, the Yolo Bypass seasonal floodplain—much like the Cosumnes River floodplain—has been found to support juvenile Chinook salmon and spawning Sacramento splittail, as well as 13 other native fish species and 42 fish species in total.\textsuperscript{187} Here, as elsewhere in the Central Valley, wetlands, once drained and reclaimed as an obstacle to development, are proving compatible with other land uses, including the maintenance of California’s hydraulic infrastructure.

The Cosumnes River Preserve, Stone Lakes National Wildlife Refuge, and Yolo Bypass Wildlife Area are the largest and perhaps the best known protected areas in the Delta region, but there are others as well. The Woodbridge Ecological Reserve, also known as the Isenberg Sandhill Crane Reserve, encompasses several hundred acres located along Woodbridge Road in the eastern Delta between Hog and Sycamore sloughs. As its name suggests, the reserve provides habitat for greater sandhill cranes, which are listed as a threatened species in California, as well as lesser sandhill cranes. The White Slough Wildlife Area adds 880 protected acres just to the

\textsuperscript{186} http://yolobasin.org/about-wildlife-area/; Peter J. Hayes, “Yolo Bypass Wildlife Area: Birth of a Wintering Waterfowl Wildland,” \textit{Outdoor California} 60, no. 1 (1999); Dave Feliz, “Yolo Fly By,” ibid. 65, no. 5 (2004). In 1999, the original 3,700-acre parcel of the Yolo Bypass Wildlife Area was renamed the Vic Fazio Wildlife Area, after California congressman Victor H. Fazio, who lobbied for its creation.

south of the Woodbridge Ecological Reserve, and at the western extreme of the Delta region the Hill Slough Wildlife Area protects over 1,700 acres just north of the Grizzly Island Wildlife Area, discussed earlier. Together, these various refuges, created through efforts of nonprofit conservation organizations and the state and federal governments, have restored relatively small but ecologically important parts of the Delta, and although these refuges are managed landscapes, they offer a glimpse of the Delta and its abundance of wildlife in a time before reclamation.

Conclusion

Today, after more than a century and a half of reclamation and development, the Delta remains a “garden,” supporting over one hundred crops on some 500,000 acres of agricultural land, and generating hundreds of millions of dollars in annual farm revenue. The balance of crops has continued to shift, as it always has, and in 2012 the top ten crops in acreage were corn, alfalfa, wheat, wine grapes, processing tomatoes, safflower, asparagus, almonds, rice, and oats. But, despite its tremendous agricultural bounty, the Delta is also much more than a garden. Among its many land uses, the Delta now includes a variety of types of protected lands, including some on which agriculture is managed to be compatible with wildlife. Even as small parts of the region have been restored to some semblance of the pre-reclamation era, maintaining them requires direct human intervention, and that reality points to just how highly engineered the entire Delta has become. Profoundly affected by the consequences of the Central Valley Project and State Water Project, the Delta lies at the epicenter of disputes over water allocation and distribution, and suffers from a prolonged decline in the quality of the water in its channels and

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188 [http://ucanr.edu/sites/deltacrops/](http://ucanr.edu/sites/deltacrops/)
in the ability of its aquatic ecosystem to support life. All of these accomplishments and challenges point to a robust, yet still fragile, contemporary Delta. The Delta’s complex history, from its Native American inhabitants, Spanish explorers, and Mexican land-grant recipients to its contemporary residents—a history studded by wealthy land reclaimers and poor immigrant agricultural laborers, by fishermen and cannery workers, and by many other individuals who contributed to its evolution and development—deserves to be studied and commemorated, as this environmental history has attempted to do. And most of all, because of its rich history, its vibrant economy, and its ecological importance, the Delta needs to be protected.
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Stitching a River Culture: Trade, Communication and Transportation to 1960

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Stitching a River Culture: 
Communication, Trade and Transportation to 1960
An essay by William R. Swagerty & Reuben W. Smith
The Delta Narratives Project
Delta Protection Commission, State of California
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California’s Delta

California’s Delta is a unique environment, created by the natural drainage of the state’s Sierra Nevada range into the Central Valley, which in turn delivers the runoff of rain and snowmelt into river basins that meander and spill into sloughs, bays, and ultimately the Pacific Ocean. According to environmental historian Philip Garone, “Rising sea levels between six thousand and seven thousand years ago impeded the flow of the lower reaches of the Sacramento and San Joaquin rivers, creating a labyrinthine network of hundreds of miles of sloughs surrounding nearly one hundred low-lying islands—the historic Delta.”¹ Today, the original 738,000 acres of the Delta are among the most engineered lands in the state; and yet, they still have environmental, social, and economic attributes that merit recognition and protection. By the State of California Delta Protection Commission’s own introductory definition:

The Primary Zone of the Sacramento San Joaquin Delta (Delta) includes approximately 500,000 acres of waterways, levees and farmed lands extending over portions of five counties: Solano, Yolo, Sacramento, San Joaquin and Contra Costa. The rich peat soil in the central Delta and the mineral soils in the higher elevations support a strong agricultural economy. The Delta lands currently have access to the 1,000 miles of rivers and sloughs lacing the region. These waterways provide habitat for many aquatic species and the uplands provide year-round and seasonal habitat for amphibians, reptiles, mammals, and birds, including several rare and endangered species. The area is extremely popular for many types of recreation including fishing, boating, hunting, wildlife viewing, water-skiing, swimming, hiking, and biking.²

http://www.delta.ca.gov/res/docs/plan/Delta_Map_Exhibit.pdf
The following essay’s purpose is to introduce the history of the Delta, focusing on trade, communication and transportation from aboriginal times up to around 1960. The essay touches on economics, technology and reclamation history in the context of settlement geography and transportation.

**Native Peoples of the Delta at Contact**

On the eve of description by Spanish explorers and colonizers, California’s San Joaquin-Sacramento River Delta was home to several thousand Native inhabitants. While one main language stock characterized the entire Central California region, speakers of Penutian stock were subdivided into four language families, three of which peopled lands adjacent to the waters directly on the Delta or rivers flowing into the natural basins which came to be called the California Delta. To the south, Yokutsan was spoken by the northernmost of the Yokut (properly *yokoch* meaning “people” or “person”) with the Chulamni and Lakisamne inhabiting and using resources primarily within the “secondary zone,” and to a lesser extent the “primary zone” as defined by the Delta Protection Commission. Representing only two of fifty or more distinct groups generically described by anthropologists as Yokut, the entire culture stretched 250 miles from the mouth of the San Joaquin south to Tehachapi Pass and across 100 miles of the Central Valley, and is thought to have counted 70,000 or more prior to the arrival of Spanish missionaries and the communicable diseases they brought with them. Yokut-expert William J. Wallace provides context for Yokut traditional range in this area:

> Generally speaking, Northern Yokuts territory extended from near where the San Joaquin makes a big bend northward to a line midway between the Calaveras and Mokelumne rivers. . . .The sluggish San Joaquin River, with its maze of channels, often abandoned to become sloughs, formed the core of the Northern Yokuts homeland.”

Scattered along the San Joaquin and its tributaries in a narrow strip that allowed for maximum utilization of resources and easy access for watercraft, in 1800 the population was not dense at ten or so persons per square mile, but comparable to much of California, in itself the largest aboriginal population of any culture area north of Mexico at around 310,000, with an estimated 76,100

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in the Sacramento Valley and 83,800 in the San Joaquin Valley, making the latter the densest population in all of aboriginal California, and the two combined over half of all California Native people circa 1800.\(^6\)

To their north Utian-speakers included the Interior or Eastern Miwok, subdivided into two divisions: Bay Miwok and Plains Miwok. Around 2500 BC, in what archaeologists describe as the “Utian radiation,” the Miwok-pressed westward from the lower Sacramento Valley through Delta lands, gradually reaching Point Reyes and Bodega Bay by 3300 BP, then moving down into Marin County between 2000 and 1000 BC, and to the south side of San Pablo Bay between 2000 and 200 BC.\(^7\) By the eighteenth century, the Bay Miwok occupied the heartland of the Delta from modern-day Rio Vista to south of Walnut Grove and including Mount Diablo, while the Plains Miwok lived north of modern Stockton but just south of Sacramento along the Mokelumne, Cosumnes and Sacramento rivers and their feeders. Their presence in the Delta was especially prominent on both sides of the Sacramento River from Rio Vista to Freeport—prime real estate to this day.\(^8\)

Richard Levy has identified thirty-one separate Eastern Miwok “tribelets,” a term often used in distinguishing California groups from other American Indian socio-political “tribes” such as the Navajo of Arizona or the Arapaho of Colorado. This is because the normal pattern was autonomous villages that had no compelling need for political or military alliance under one leader or a confederated polity. Nor did they need to farm to be fully self-sufficient if not affluent by their own standards.\(^9\) In “Rethinking California Indians,” Kent Lightfoot and Otis Parrish put it thus:

> The truth is, the people of California have always been a little bit different—moving to the beat of a different drum. California Indians, in particular, have always been the exception to the rule. These Pacific Coast people do not fit any of the classic anthropological models devised to explain the evolutionary progression from simple, mobile hunter-gatherers to larger, sedentary, and more complex agrarian societies. . . . Although technically they are hunter-gatherers, many Native California


\(^7\) Michael J. Moratto, *California Archaeology* (Orlando, FL: Academic Press, 1984), 280-81, map a 280.


\(^9\) Levy, Ibid.
communities exhibited traits more typically associated with well-developed agrarian societies. That is, they enjoyed sizeable population densities, had relatively sedentary villages, amassed significant quantities of stored foods and goods, and maintained complex political religious organizations.¹⁰

Yet a third group, also Penutian in language-stock, the Patwin, lived on the Delta, occupying the southern portion of the Sacramento River Valley, from modern Princeton in the north (between Sutter Buttes and Chico) to San Pablo and Suisun bays in the south, and including the site of modern Benicia. Prior to the 1830s, their numbers were significant at an estimated 12,500, but by the time of first description in the early nineteenth century, their population had decreased appreciably to below 1,000 living in ten villages in the southern part of Patwin territory and within the greater Delta region. A major malaria epidemic, possibly coupled with measles, swept through northern California between 1830 and 1833, thinning populations by fifty percent or more and leaving much of the Patwin and their neighbors’ former habitat uninhabited by the time Mexican and American settlers arrived to occupy their lands.¹¹

Prior to that demographic disaster, Native peoples of the Delta thrived in their watery environment, literally living off of the land without the need, or interest in agriculture. They managed the land to enhance the production of plant and animal resources through prescribed fire, selective harvesting, pruning and coppicing selected plants, removing debris around preferred food-producing trees, and removing unwanted plants around those with medicinal or edible value, a process Euro-Americans term “weeding.” In addition, important anchors in the diet included acorns (made into a form of bread as well as a liquefied soup through a labor-intensive process of leaching of tannic acid); other nuts such as buckeye; seeds, berries, and roots; fish (especially salmon during annual seasonal runs up rivers), and near-shore fish including Pacific cabezon, herring, rockfish, trout, sturgeon, and suckers); non-migratory birds such as the American Coot, Cormorant, and ducks (especially Mallards and the Ruddy Duck); migratory birds, notably the Canada Goose, and even the California Condor; small game (especially rabbits, squirrels and beaver); and occasionally larger game such as Black-tailed deer, elk, and pronghorn. Considered both a delicacy and a survival food, the larvae of insects especially

¹⁰ Also see Kent G. Lightfoot and Otis Parrish, California Indians and Their Environment: An Introduction (Berkeley: University of California Press, 2009), 2-13, at 3.
wasps and yellowjackets, was collected and usually roasted before being consumed; while other terrestrial invertebrates such as grasshoppers, caterpillars, and army worms were eaten whole.\textsuperscript{12}

Located on an eco-tone between two major geomorphic provinces, the Delta provided marine resources as well as fresh-water resources to its inhabitants. While most of the Delta’s Native peoples lived in the Central Valley and Sierra Nevada Province, they benefitted from easy traveling, harvesting, and bartering with those villagers closer to the East Bay and San Francisco Bay itself, a region designated as the Central Coast Province.\textsuperscript{13} The relatively-richer groups along the bays had access to precious sea shells, which served as “Indian money” throughout the region and beyond, well into the Great Basin and Southwest. Abalone, clams, Olive Snail (olivella) and dentalium shells, usually in the form of shell beads, were worn as personal adornment, but also served as a person’s bank when commodities were not available for trade or barter. Certain shell beads were signs of prestige or inherited positions of rank or authority and were hand-made and strung into necklaces, bracelets and pendants.\textsuperscript{14}

A commonality between the Central Coast and western sections of the Central Valley province was the ever-present tule plant (\textit{Schoenoplectus} spp.). Also called “bulrush,” tules were harvested to make balsa-like watercraft as well as domed structures, the ubiquitous common house-type of the Delta, especially used during summer months. Winter structures more typically were made of the bark of redwood if close enough to the coast; or more commonly tule (both thatched and matted) within the Delta itself and throughout the Central Valley and Sierra Nevada Province.\textsuperscript{15}

As a result of the ebb and flow of tides and periodic flooding, architecture of the Delta proper was less permanent than that of the Central Valley and


Sierra foothills, but similarities are found in extended nuclear family dwellings as the most typical domicile (mostly round and made of tule and/or bark); sweathouses, summer shade shelters, granaries, menstrual huts, and semi-subterranean ceremonial houses, usually circular with packed-earth roofs over roof frames and stringers, held up by four massive poles in the center—thus, the “roundhouse” still found on Rancherias and reservations today. With elevations seldom higher than ten to fifteen feet above sea level, more permanent villages and especially structures requiring intensive labor and maintenance were placed on the highest ground available, usually “mound-like” in appearance leading to cartographic representation of abandoned Native sites as “Indian mounds” on historic Delta maps.16

The term, “mounds” has a long pedigree in North American prehistory. Unlike the residential and burial mounds of the Hopewell-Adena and Mississippian cultures of eastern America, or the shell-mounds of the California coast, mounds in California’s Central Valley and Delta country signify more subtle elevations—some natural, most man-made as evidenced in soil coloration and strata. In their 1929 survey of the archaeology of the northern San Joaquin Valley, Schenck and Dawson explain:

All the mounds of our area are low with very gently sloping sides. Many are no more than six inches high, while the highest is recorded as five feet. In all cases the actual height is hard to determine. The mounds have weathered down, and sometimes the ground of the base has been filled in. But principally it is almost impossible to tell how much is natural and how much has been added by man.17

The purpose of the mounds was both as residence and burial chamber with villages typically forming an elliptical mound along or near a natural streambed or slough and burying their dead near their residences. Ninety-two of these mound-sites could still be identified in the Stockton-Lodi area alone when the University of California conducted its surveys between 1925 and 1929. By then, many others existed, but throughout Delta country, most had been plowed, pillaged, or otherwise compromised.18

Diets within the Delta itself paralleled those on its borders with the exception of more dependency on fresh-water plants, fish, and smaller game. Communal hunts employing nets were common for rabbits and squirrels, and

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17 Schenck and Dawson, “Archaeology of the Northern San Joaquin Valley,” 317.

when populations of Mule Deer were abundant, they too were driven into traps for slaughter by the entire community. Freshwater clams, mussels, crayfish, lamprey eels, perch, blackfish, chub, and smelt supplemented seasonal harvests of salmon, trout, and suckers. For larger fish, especially salmon and sturgeon, spears, harpoons, and gigs made of deer antler, bone, or sharp bird wings were employed by individuals. For smaller fish, nets made of milkweed and weirs fashioned from willow wickerwork made fishing a relatively easy enterprise when enough people participated to surround schools or to drive fish toward shore from boats or rafts floating mid-channel. Two or more watercraft would hang nets between each other or between boats and shoreline until fish had literally been circled and pushed ashore.¹⁹

For both bay-oriented and river-dependent Delta peoples, another commonality was dependence on fiber technology beyond shelter, watercraft, and granary construction. Essential to the good life on the Delta, basket making and weaving of all types of grass- and wicker-ware were hallmarks of every tribelet and village. Weaving took many forms, from the utilitarian burden baskets and winnowing trays; to cooking baskets, to fish weirs and small animal traps; to duck decoys; to cradleboards for infants and children’s toys; to ceremonial and gift baskets; to women’s hats and other articles of clothing. In short, basket making made this enterprise the pride of every family, as well as a necessity to continue life as it had evolved by the year 1800. Some individuals were good enough at the enterprise to have potable containers made of fiber, canteens of their day. Most were not but managed to excel at making rodent- and insect-resistant containers for storage of foods across entire seasons and to keep families supplied with the essentials.²⁰

**Spanish Probes and Incursions (1772-1821)**

The relative peaceful world of Delta peoples was not abruptly interrupted as in other parts of California where Franciscan missionaries and secular agents of New Spain built missions, presidios and a few towns, corralling Native peoples behind walled complexes to both save their souls and reap their labor. But pressure mounted as coastal groups came under direct Spanish rule. In 1772 Pedro Fages, one of the original founders of Mission San Diego de Alcalá, entered the San Joaquin Valley from the south and also explored San Francisco Bay from west to east. As the first European to enter and describe both the Central Valley and the Delta, Fages, accompanied by Fray

Juan Crespi and a small party, made their way around San Pablo Bay to “a ribbon of water”—Carquinez Strait. Near present-day Richmond they contacted several Indian rancherias, small villages inhabited by friendly Castanoan-speakers,21 whose “balsas” (rafts) of tule easily navigated the strait to the south shore. They met near modern Martinez. Father Crespi described the people as “very mild heathen[s], with pleasant faces, and of fair complexion, bearded and white, all with long hair which they tied with twine.” Climbing a spur of Mount Diablo, the explorers observed the head of Suisun Bay and the junction of the Sacramento and San Joaquin rivers, recording the land “as level as the palm of a hand.”22 Proceeding to near modern Antioch, Crespi named the river that converged with the Sacramento after Saint Francis in order that this saint might “intercede with his Divine Majesty for the conversion of all the immense body of heathen that no doubt must be on the banks of the great stream, which seems must be the largest that has been discovered in New Spain.”23

But that was not to be; at least not in the immediate future. Three years later a surveying party under José Cañizares and Juan Bautista Aguirre charted San Pablo Bay and Carquinez Strait, contacting one village containing more than 400 inhabitants with a fleet of “balsa, or better canoes of tule boats,” large enough to hold four men, who rowed with double-ended oars.24 Yet another Spanish party entered the Delta in April, 1776, this one under Juan Bautista de Anza with Pedro Font as priest. Trade and barter characterized yet more peaceable encounters with groups that do not appear to have suffered epidemic disease up to that point or coercion to visit Spanish settlements. Tobacco (smoked in elk or deer antler horn pipes) was especially prized in the region, as well as old clothing, beads, and anything metal, especially fishhooks. Font’s diary contains many references to the abundant fishery in Delta waters. Salmon and tanned animal pelts were given in reciprocity. His account, like that of Fages before him also records wildlife, especially mule deer, but also bears, mountain lions, and wolves. Font

21 Karkin and Chochenyo tribelets of the Castanoan language family resided on the southern shores of Carquinez Strait whereas Penutian-speaking villages of Patwin lived to their north, obviously traveling back and forth across the water to trade and socialize. See Richard Levy, “Costanoan,” in California, ed. Heizer, HNAI, Vol. 8:485-95.
24 José Cañizares, “Plano del Puerto de San Francisco,” copy of original in the Bancroft Library, as cited by Cutter, “Spanish Exploration,” 11-12. This is often referenced as the “Ayala Map” in that Juan Manuel de Ayala of the Royal Navy was the official cartographer on the mother ship sent into the various bays to survey and chart. The map was redrawn in 1776 with places added. See Neal Harlow, The Maps of San Francisco Bay from the Spanish Discovery in 1769 to the American Occupation (San Francisco: The Book Club of California, 1950), Map 4, opposite page 38.
described the confluence at Mare Island (Vallejo) but questioned that he was actually seeing two rivers converge, writing “we began to doubt whether it is a river, or instead an inlet arm, since we perceived scarcely any current in it, and if there were any flow to be seen, it is apparently upward.”25 Although Fages and Font disagreed on water courses and sources of river systems, it was clear by 1776 that the Delta was not suitable for anything but waterborne transportation. Land routes were difficult at best; impassible at worst with tule thickets and brush, as well as muck and mud in the extensive marshlands.26 De Anza wisely did not retrace his path overland but made a wide circuitous arc through Patterson Pass and the east edge of the Livermore Valley to return to Monterey, but not before describing the view across the Delta from modern Willow Pass near present-day Concord. He observed:

Looking eastward, we saw a large and very long, snowy mountain range upon the other side of the plain and some thirty leagues away, white from its summit to its skirts, running crosswise from south-southeast to north-northwest . . . . Turning westward, we could see along the course of the river the hills that we had been leaving behind us as we traveled, and in among which the gathered waters shot in or entered . . . . Looking back northward, we saw that between the snowy range and the low hills northwest on the other side of the river, there is a great emptiness of horizon with no end to be seen to it . . . a boundless plain . . . in which can be seen nothing except water in branches, tule rush marshes, and flat land without mountains or hills standing out anywhere in all this wide portion of the world’s extent.27

Several more reconnaissance parties entered the Delta before the close of the eighteenth century, with more intrusions in the first two decades of the new century. In 1804, by Royal orders, California was divided into two provinces—Antigua (or Baja) and Nueva (or Alta) California. The governor, José Joaquin de Arrillaga, moved from Loreto to Monterey, and ordered a new campaign of exploration of the interior. The presidios throughout Nueva California, and especially Monterey, were reinforced in anticipation of troubles

26 For a map showing these early probes and reconnaissance expeditions see Warren A. Beck and Ynez D. Haase, Historical Atlas of California (Norman: University of Oklahoma Press, 1974), Plate 17, “First Spanish Expeditions—the Bay.” For Font’s actual map and a reconstruction of the positions that Fages (1772) and Font (1776) independently viewed the Delta from hills see Font, Journal, ed. Brown, Fig. 5, 17, 18, pp. 64, 225, 226.
with apostates and gentiles (non-converts) in the interior, as well as potential encroachment on Spanish territory by Russians to the north. In 1805, an event fifteen or so miles east of Mission San José at an Indian settlement sounded an alarm throughout the north. During a visit by a priest to check on sick neophytes in the village, a fight erupted and the officer in charge was killed, the priest and another soldier were badly wounded, and three neophytes (new converts) were slain. In retaliation, the governor sent a contingent of thirty-four soldiers and settlers against the village, killing eleven and taking thirty captive, mostly women.

Beginning in 1806, José Joaquin Moraga, comandante of Presidio San Francisco, organized a number of *entradas* under the command of his son, Gabriel Moraga, who was promoted to lieutenant during the course of these forays. Influenced by Spanish-Indian relations to the south, which were starting to see larger numbers of neophytes desert the missions and organize resistance in their homelands, Bay-area authorities became more aggressive in bringing back apostates, called *cimarrones* (meaning runaways) by their captors. Labor was in increasingly high demand for missions San Carlos Borromeo (f. 1770), San Francisco (or Dolores [f. 1776]), Santa Clara (f. 1777), San José (f. 1797), and San Miguel (f. 1797). Lt. Moraga, on one of his forty-six documented forays, left Mission San Miguel Arcangel in April, 1806 with twenty-four men and a *remuda* of nearly two hundred horses. The party penetrated the interior by “eighty or ninety leagues” as far as the “Sierra Nevada,” which were covered in snow. He reported back, arriving at Mission

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28 The presidial force at Monterey, besides the officers, consisted of fifty-seven men until 1805, when it was increased to eighty-two men and an additional artillery detachment of seven men. Bancroft calculated the entire population of northern California in 1805 as “about 550” *gente de razon* (literally “people of reason” or Spaniards and mestizos), with a neophyte population of 5,130 (*History of California*, 2:141-42).


30 Gabriel Moraga looms large in Delta and Central Valley history for his role in exploration and Indian relations. His birthdate is unknown. He enlisted in 1784 and was promoted to corporal in 1788 in the Monterey presidio. From 1800 to 1806 he was sergeant in the same company; and was then transferred to San Francisco as alféréz (ensign). In 1811 he was made brevet lieutenant for his gallantry in a battle with the Indians on the Strait of Carquinez and promoted to full lieutenant in 1818. See Bancroft, *History of California*, 2:571n33.

31 Much of what is known about Spanish reconnaissance during 1805-1806 is secondary information gathered by a German physician who accompanied Nikolai Petrovich Rezanof, Chamberlain of the Russian American Company, who sought help in California to relieve a starving Russian colony in Alaska. The Russians reached San Francisco in April, 1806 and were treated kindly but with great suspicion. Georg Heinrich von Langsdorff interviewed many Spanish officers and settlers, later publishing his account as *Voyages and Travels in Various Parts of the World, during the years 1803, 1804, 1805, 1806, and 1807*. 2 vols. (London: 1813); reprinted as *Narrative of the Rezanov Voyage to Nueva California in 1806*, trans. By Thomas C. Russell (San Francisco: Private press of T. C. Russell, 1927). He wrote: “Every year military expeditions are sent out to obtain a more exact knowledge of the interior of the country, with a view, if possible, of establishing by degrees a land communication between Santa Fé [New Mexico] and the north-west coast of America. While I was at the mission of St. Joseph [San José] April 1806 thirteen
San José short half his horses and two men, killed by Indians. Although details are sparse on this trip, relations with Indians, if ever good, had soured in California's Central Valley.\textsuperscript{32}

By the time Moraga returned to Monterey, California’s governor had launched a series of exploratory probes into the Central Valley. The first of these was led by Lieutenant Luis Argüello from Presidio San Francisco. Twenty-five men, including Father José Antonio Uria set out in May, 1806, bound for the Coast Range to bring back new converts and geographic information. According to diarists on the expedition and another foreigner’s account published much later, Argüello explored the Sacramento River along the west side of the valley for seventy-to-eighty leagues looking for a suitable site for a new mission, but was discouraged and no mission site was determined.\textsuperscript{33}

Moraga was apparently sent on a parallel expedition with instructions “to keep ‘to the other side of the river [San Joaquin] to the eastward’ of the land explored by the other expedition.”\textsuperscript{34} It was on that trip that Moraga is credited by nineteenth century historian H. H. Bancroft with naming the Río San Joaquin, “at a date not given,” but before September, 1806, citing mission archival evidence.\textsuperscript{35} For the next four years, Spanish expeditions continued to probe the San Joaquin and Sacramento valleys, never establishing a mission east of San José. Trade was incidental to efforts designed to recruit converts and return runaways back to home missions. No major roads like El Camino Real were identified or designated, although Moraga and others undoubtedly retraced their own routes, often following game and Indian trails. Moraga continued to look for apostates in the interior for the next decade.\textsuperscript{36} In 1810 he


\textsuperscript{33} Bancroft reports this on the basis of Frederick W. Beechey’s Narrative of a Voyage to the Pacific and Bering’s Strait (1831), Vol. 2, p. 5. See History of California 2:46n4. Cutter, “Spanish Exploration,” provides additional documentation from members of the expedition, noting “Doubtless the, Argüello’s expedition had followed the west side of the valley” (p. 62).


\textsuperscript{35} Bancroft, History of California, 2:47n6 (citing Arch. Sta. B, MS, iv. 5).

\textsuperscript{36} Moraga’s 1820 “hoja de servicios” (record of service) connects him with forty-six expeditions, ten of which involved battles with Indians. He died in 1823 and is buried at the Santa Barbara Mission (Bancroft, Ibid., 571n33).
crossed the Carquinez Strait, ferrying his horses across and most likely using a ship’s launch as well as balsa rafts, native-made. Another “boat party” followed in 1811, led by two priests—Ramón Abella and Buenaventura Fortuni. According to Richard Dillon, who has reconstructed this expedition, the party camped on Brown’s Island at an old Indian fishing station then passed several deserted Indian villages as they followed Old River to the middle branch of the San Joaquin, proceeding upstream to the largest fishing village of the Passasimas, which contained around 900 people at the time. Dillon surmises:

They found that several villages had been hastily vacated upon their approach to the San Joaquin’s Seven Mile Slough, which they followed to Three Mile Slough and the Sacramento River at the head of Sherman Island. . . . Descending the Sacramento past banks overgrown with walnut trees with wild grapevines, they spied wary natives. All were fearful of the strangers because of a rumor sweeping the Delta by ‘tule telegraph’ that the Spanish had killed off the Cholbones. Villages of a thousand people were totally deserted.  

In 1813 José Argüello led a punitive raid on a large village somewhere within Delta waters. Two forces of soldiers, one from San Francisco; the other from San José bolstered with100 Indian auxiliaries (neophytes) met warriors representing four villages on an island near the confluence of the Sacramento and San Joaquin, giving battle “for three hours.” The official record in the Provincial State Papers notes: “The enemy was left badly beaten and adequately punished for his boldness, for the battle was very costly, and in the action a considerable number were killed. On our part only one of the Indian auxiliaries died, a man named Julio.”

Another expedition, led by Lt. Don Luis Argüello with two priests aboard, left San Francisco in 1817 in the launch San Rafael bound for the same area. Encountering gale-force winds, the launch snapped its mizzenmast in waters off of today’s Port Chicago, but managed to regroup after a very uncomfortable night. They found the site of the 1813 battle but the village had been abandoned. A nearby village contained “seven souls amongst the old, the sick, and the infants,” who were baptized before the party pressed on. A site identified with the Notótemnes “who have already become Christians at San José” and who “used to live almost in the center of the tule region” was

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uninhabited by 1817. Further on, along the Calaveras probably within present-day Stockton, they met the Passasimas, who had been contacted by fathers Arbella and Fortuni six years before. Father Duran recorded that they “came out to receive us in a peaceful manner, which is not surprising, because they have been at the mission many times, and some of them have been baptized.” Other groups living on the mainland on the fringe of the Delta remained unconverted and “painted and armed, with an aspect of war.” Conflict was avoided but Father Duran opined that they would be difficult to convert in that “they reach to the slope of the Sierra Nevada” but are reachable “by horseback, if, perchance, it should be necessary to do so.”

As they headed back to San Francisco, the padre noted:

There is this difference between the Sacramento and San Joaquin; the latter carries less volume of water, although in some places it is wider, and in all that part which we have travelled there is nothing but tule, without a tree under which the navigator may find shade, nor a stick of firewood with which to warm himself; whereas the Sacramento, when it is not flooded, has dry land on both banks covered with poplar groves . . . .

Pressures to come into missions and fear of being forced to do so presented Delta Indians few choices at the end of the Spanish period. Sadly, despite good intentions on the part of many Spanish friars, the mission experience was negative for the vast majority of those who experienced conversion or confinement as non-neophytes. By 1820, as Sherburne F. Cook has put it, the area north of the Merced River (Yokuts-Miwok territory) and particularly the delta of the San Joaquin and Sacramento rivers, “had been almost completely swept of its native population.”

The names of many whole tribes have been lost and the exact locations of many others are now almost impossible to ascertain. Of village names only those few are known to us which were preserved, often by chance, in the mission records and accounts of expeditions.

During the remaining years of Spanish rule, officials were preoccupied with Russian incursions into Bodega Bay in search of sea otter pelts and sealskins (1806–41) and the unauthorized settlement at Fort Rossiya (Ross) in 1812. They also met American whalers who occasionally stopped to provision ships, take sea otters, and hunt game along the coast. Even before Mexican
Independence, because of these encroachments, plans were made to establish an additional mission with a military presence as a northern outpost. Thus, San Francisco Solano or Mission Sonoma was completed by 1823, well to the north of the Delta, but arguably as a northern point of a triangle that included Delta lands and waters, with missions San Rafael and San Francisco de Asís to the southwest and Mission San José to the south and a bit east.43

**Mexican period developments (1821-1848)**

Alta California had been a neglected province during Spanish rule, but it was never completely without resources from the Crown and the Viceroy of New Spain. Trade was strictly regulated with very little interaction with fellow Europeans, leaving an isolated Spanish and mixed-blood (mestizo) population at the mercy of officials in San Blas to the south, which served as the main port for contact with Alta California. At the end of the Spanish period, the entire province of Alta California housed a mere 3,270 colonists, 700 of whom were soldiers.44 Beginning in 1822, the economic climate changed. Californians were torn between loyalties to the Crown and to the newly independent Republic of Mexico, but most agreed that trade with the outside world was both welcome and necessary to move forward. Americans, Russians, English, French, and other nationals entered Mexican California by sea and by land introducing new consumer goods, as well as trade goods that had been successful with Native peoples elsewhere. As in other “fur trade” areas of North America, fur pelts were in high demand, and eagerly swapped where available, but the largest items of exchange with outsiders were cow hides and tallow. Called by Yankee traders “California bank notes,” the majority of hides came from ranches established through generous grants of land by Mexican governors. Demand for hides was driven by the need for leather in the newly-industrializing American Northeast and England, where belts powering machinery depended on good cowhide. Tallow provided grease and candles. More than six million hides and seven thousand tons of tallow were exported from California between 1826 and 1848.45

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44 Most of these “colonists” were not Spaniards and only a handful had been born in Spain. Most were mestizo who had been born in either Mexico or in California itself. See discussion in Steven W. Hackel, “Land, Labor, and Production: The Colonial Economy of Spanish and Mexican California,” in *Contested Eden: California before the Gold Rush*, ed. Ramón Gutiérrez and Richard J. Orsi (Berkeley: University of California Press, in association with the California Historical Society, 1998), 111-146. On numbers see Irving B. Richman, *California under Spain and Mexico, 1535-1847* (New York: Cooper Square, [c. 1911] 1965), 226.
Beginning in 1826, the central Mexican government decided to secularize the Franciscan mission lands. The concept was altruistic: granting Indians who had converted to Christianity their own lands around mission complexes and thus encouraging them to integrate into the California economy. The process ended subsidy of the missionary effort and simultaneously privatized lands once controlled by the Church. By 1840, all except San Carlos Borromeo (Carmel) had undergone this transition. Carmel remained under Franciscan oversight. The policy backfired. Very few Natives stayed on their own lands. Many became laborers on newly-granted estates given to favorite families by Mexican governors. Returning to the Delta or the valleys or the Sierra was not a good option by the late 1830s, as populations had diminished and most of these Mission Indians did not speak their own native tongue after two or more generations as converted neophytes. From this point on, these survivors often identified as Mexican-Californians or as Indian “vaqueros” (cowboys).46

Between 1824 and 1848, ten million acres or about ten percent of the surface area of California was deeded to individuals, including sixty-six women, mostly widowed. Approximately one-third of all grants went to settlers with non-Spanish surnames, most of them Americans or British, with a small number of continental Europeans as well. A few of these land grants fell within the Delta but most were on its periphery. Eight fell within future Sacramento County, five within future Solano County, four within future San Joaquin County, and over a dozen between Alameda and Contra Costa counties on or adjacent to Delta lands.47 While a few grants to foreigners were not affirmed in the U.S. Court of Claims after statehood, most were retained.

The best known are associated with Charles Weber and John Sutter, both born in Germany. The former acquired the area where French Camp and Stockton would be located, while the latter’s land included where Sacramento City and Coloma developed. The Cosumnes grant to Englishman William Hartnell was yet a third on the eastern edge of the Delta. While the region around the Bay was in high demand and very competitive, most of the Delta was not requested nor assigned due to seasonal inundation and isolation. Also, most Bay Area Mexicans and newly-nationalized foreigners continued to fear Indians in the interior.

Not so José Noriega, who settled within Delta lands even before receiving a land grant in 1835. Putting in a truck garden to feed his family and other workers, who also served as a small army, Noriega’s Los Meganos ranch was four-leagues and almost square from the base of Mount Diablo to the San

46 Secularization is best described in detail by Richman, *California under Spain and Mexico*, Ch. 12-14.
Two years into his grant, Noriega sold his land to Doctor John Marsh, a native of Massachusetts and a graduate of Harvard, who had some training in medicine. He also spent time in the 1820s and 1830s as an Indian agent and army officer in Minnesota and Wisconsin. Marsh had come to California to escape arrest for selling guns to the very Indians he was charged with pacifying. California was the perfect safety valve. Once settled at Los Meganos, he traded his medical services for cattle and horses, also taking furs and hides in barter. Indians found him a fair trader and did not harass his operation, and Marsh befriended most of the earliest foreign emigrants including Bidwell and Weber, amassed a small fortune from cattle and built a stone castle on his land, but his relations with his own vaqueros and neighboring Mexican-Californians soured over prices and wages. In 1856, some of his own workers bushwhacked and murdered him. The ranch had already attracted other families, some Mexican, some Anglo, but its orientation was always more toward San Jose than the Delta.

In reality, while relations between Californios and Anglos were tenuous at best, Indians constituted little threat. Their numbers plummeted during the Mexican era, especially in the years 1830 to 1833 when measles and especially malaria spread, reducing the population by half. The small amount of trade and traffic with Native peoples that had taken place during Spanish times is hardly detectable in the documentary record in the final years of Mexican rule. Despite demographic decline, raids by Miwoks and Yokuts, who had adopted the horse into their daily lives, increased throughout the 1830s. In order to reduce attacks on towns, ranches and missions, punitive expeditions were sent deep into the San Joaquin Valley, skirting the Delta. Any Native who resisted assignment to mission labor or whose people were suspected of stealing livestock--especially horses--were subject to enslavement, if not death. Conceivably, some native Delta communities survived, but little is known about them since most had vanished by American takeover in 1848.

Delta lands were not totally avoided by parties traveling in the region, but there were no permanent ranches or settlements within. In the mid-1820s, American fur trappers under Jedediah S. Smith became the first documented interlopers to pass through the Delta as they traversed the Central Valley and crossed the Sierra from west to east. Hudson’s Bay Company trappers followed

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49 George D. Lyman, John Marsh, Pioneer: The Life Story of a Trail Blazer on Six Frontiers (New York: Charles Scribners, 1930), 179-80 (warrant for arrest); 319-23 (murder of). Today Marsh’s large house and part of Los Meganos is a California State Park.
in 1828, naming a lake within present-day Stockton’s city limits “McLeod’s Lake” (after the leader of the brigade, Alexander Roderick McLeod) and eventually trapping as far south as the Stanislaus River. Within two years, as annual brigades of traders returned, a seasonal camp was established where modern French Camp now stands. Entire families traveled from Fort Vancouver in Washington to California’s San Joaquin River to harvest beaver, returning with large numbers of pelts between 1833 and 1841.\footnote{On the Hudson’s Bay Company in the valley see Alice Bay Maloney, “John Work of the Hudson’s Bay Company: Leader of the California Brigade, 1832-33,” \textit{California Historical Society Quarterly} 22 (2) June, 1943:97-109; and her edited “Fur Brigade to the Bonaventura: John Work’s California Expedition of 1832-33,” \textit{California Historical Society Quarterly} 22(3) (Sept. 1943:193-222); 22(4) (Dec. 1943):323-48; 23(1) (March, 1944):19-40; 23(2) (June, 1944):123-46.}

Foreigners were mere visitors during Spanish times, with only twenty documented as living in the province in 1821. During the 1830s, and especially after the Secularization Act of 1833, foreigners increasingly found California not only a suitable place to do business, but many converted to Catholicism (as required) in order to apply for citizenship, which in turn qualified them to own land. In 1830, the foreign population was 120 and a decade later, 380. By 1845, 680 of the 7,400 non-Indian residents had come from countries other than Mexico.\footnote{Hackel, “Land, Labor, and Production,” 136.}

Captain John Sutter of the Swiss Guard had grand schemes to make the edge of California’s Delta an agricultural paradise for fellow Europeans and American emigrants, naming his empire “New Helvetia,” or New Switzerland. His land grants from the Mexican government in 1839 provided the soil upon which he built his famous fort in what became Sacramento, as well as the footing for his sawmill in Coloma, the site of the 1848 discovery of gold on the American River. Sutter also acquired the remaining inventory at Fort Ross in 1841, transporting goods and equipment, including cannon to Sutter’s Fort using the same fleet of boats that he had acquired in 1839 through Yerba Buena merchants Spear and Hinkley: the schooner \textit{Isabella}, a yacht that once belonged to King Kamehameha of the “Sandwich Islands” (Hawaii), and a small pinnace, to which he added a Russian schooner, which he renamed the \textit{Sacramento}.\footnote{Thor Severson, \textit{Sacramento, An Illustrated History: 1839 to 1874, from Sutter’s Fort to Capital City} (San Francisco: California Historical Society, 1973), 30-34.}

His friendship with Charles Weber resulted in a parallel development to the south.\footnote{There are many biographies of Sutter but the best is Albert Hurtado, \textit{John Sutter: A Life on the American Frontier} (Norman: University of Oklahoma Press, 2006).} Weber arrived in 1841 as part of the Bidwell-Bartleson Party, the first wagon train on what became known as The California Trail. In 1844, Weber became a Mexican citizen and partnered with naturalized citizen William
(Guillermo) Gulnac. The two secured an eleven square league grant containing 48,747 acres on the San Joaquin River. A year later, Weber bought out Gulnac for “179 pesos, one hundred in silver and seventy-nine in gold.” Weber encouraged friends and trappers to join him on his land, moving livestock to his grant, and erecting a few crude shelters made of tule, giving rise by locals to reference the settlement as “Tuleburg” (also “Tuleburgh”). In 1847, Weber made a treaty with the local Yokuts under José Jesús, whose people still had a presence between the Stanislaus and Calaveras rivers, with a main village between French Camp Slough and the Stanislaus and a settlement in Stockton itself along the Calaveras. According to George C. Tinkham, Jesús had once been a neophyte at Mission San José, but had rebelled and had driven off more than a thousand head of horses into the Central Valley. Weber is reported to have told the chief “that they were not coming to injure nor rob, but as friends to aid and benefit his tribe. . . .” Looking back in his 1923 history, Tinkham recalled: “When Captain Weber located on the Campo de los Franceses he sent for José Jesus and made a treaty with his tribe to keep peace with the white man, and never afterward did José Jesus or any of his tribe violate that treaty.” Historian George Hammond notes, “It was Weber’s custom to lavish gifts on Chief José Jesús and to use him as intermediary in negotiations with his people.” Weber did not name his settlement after his Yokut friend; rather, he chose Commodore Robert Stockton, who never visited his namesake city.

In the meantime, Americans living in California had been pushing for American governmental presence in an increasingly confusing, if not divisive Mexican California. The first American military officers to enter California were part of the U. S. Exploring Expedition (1838-42) under Lt. Charles Wilkes, USN. An overland detachment under Lt. George Emmons with civilian artists and naturalists, traveled from Fort Vancouver to the Bay Area in 1841, collecting scientific data, as well as surveying, sketching and painting en route. The party followed the Sacramento River, charting its depths from present-day Colusa to the Golden Gate. Although these charts and drawings (many in color)

56 Gulnac was a New Yorker who immigrated first to Baja California where he married Isabel Ceseña and arrived with his family to San Francisco in 1833. He became a citizen in 1834 and acquired land within San Francisco by 1838. He and Weber partnered in business for a short time. Through Sutter, Gulnac and Weber were grantees of Campo de los Franceses (French Camp). Gulnac died in 1851. See Bancroft, History of California 3:771-72.
60 This was one of the first place-names in California not Spanish or Native American in origin.
were not published immediately, American military and civilian officials learned much from Wilkes’ 1841 map, which was made available to the public in 1858. In the meantime, Wilkes’ scientific reports and specimens became the basis for the natural history collections of the Smithsonian Institution, founded in 1846.\(^{61}\)

The expeditions of John Charles Frémont between 1843 and 1846 highlight diplomatic intrigue, as well as official American interest on the part of the James K. Polk Administration in a port on the west coast. Frémont’s routes are now well known and correspond with some of the earliest wagon roads in northern California. None of these crossed the Delta proper but roughly followed the Sacramento from present-day Redding to Sutter’s Fort, on to the Calaveras and San Joaquin, eventually crossing Tehachapi Pass into southern California. Like other American and foreigners’ accounts, Frémont’s journal has positive and negative descriptions of California and its peoples. Published in 1846, Frémont included a map of his route, but on it one finds no indicated roads. He wrote this of the Calaveras section of the valley:

On the 26\(^{\text{th}}\) [of March, 1844] we halted at the Arroyo de las Calaveras (Skull creek), a tributary to the San Joaquin—the previous two streams entering the bay between the San Joaquin and Sacramento rivers. This place is beautiful, with open groves of oak, and a grassy sward beneath, with many plants in bloom; some varieties of which seem to love the shade of the trees, and grow there in close small fields. Near the river, and replacing the grass, are great quantities of ammole (soap plant), the leaves of which are used in California for making, among other things, mats for saddle cloths. A vine with a small white flower (melothria?) called here yerba buena, and which, from its abundances gives name to an island and town in the bay, was to-day very frequent on our road—sometimes running on the ground or climbing the trees.

The next day, as the party continued south along the San Joaquin, Frémont recorded: “Over much of this extent, the vegetation was sparse; the surface showing plainly the action of water, which, in the season of flood, the Joaquin spreads over the valley.”\(^ {62}\)

\(^{61}\) Harlow, Maps of San Francisco Bay, Map 24, opposite page 72.

\(^{62}\) John C. Frémont, Narrative of the Exploring Expedition to the Rocky Mountains, in the Year 1842; and to Oregon and North California, in the Years 1843-4 (New York: D. Appleton & Co., 1846), 153. Frémont’s map was incorporated into a number of 1846 maps for political as well as informational reasons. One of the most widely distributed was S. Augustus Mitchell, “A New Map of Texas, Oregon and California (Philadelphia, 1846). Copy in possession of the author. Charles Preuss, official cartographer of the Frémont expeditions, produced his own cumulative map in 1848 with all of Frémont’s California expeditions. For reproduction see Derek Hayes, Historical Atlas of California with Original Maps (Berkeley: University of California Press, 2007), Map 162, p. 78.
Impressed by California’s prospects and given orders that have never been fully documented to spy if not encroach on Mexican territory, Frémont returned in 1845. On June 10, 1846, a small group of Americans gathered in Sonoma to foment the infamous Bear Flag Revolt against Mexican authority. War between the U.S. had already been declared, but Californians did not learn of that until the arrival of a naval squad under John Sloat in early July. The Bear Flaggers joined Frémont’s force and eventually California was seized from Mexican authorities. The Treaty of Guadalupe-Hidalgo in 1848, which ended the Mexican War, guaranteed Mexican citizens civil rights and titles to their property, but after gold was discovered and many lands (including those of Sutter) were overrun by Argonauts, soldiers, and settlers in the frenzy that followed, these promises were largely forgotten. Ironically, Mexican citizens had more difficulty than foreigners retaining their own land grants in the legal transition following statehood. The grant to Weber was affirmed and Stockton grew as a supply point for the southern mines, but Sutter’s settlements were preempted and squatted upon by trespassers, pressuring him to abandon his fort, farm and sawmill. For the rest of his life Sutter filed petitions to Congress for reparations, which he never received.

Meanwhile the greater Sacramento Valley was like a vertical chessboard of large ranches, most hugging the main river or its tributaries in a contest to amass as much land as possible before the demographic surge, combined with generous public land laws, more democratically distributed lands to California’s newcomers. An 1851 map in Spanish vividly illustrates this as one follows holdings from the north end of Sacramento County to south of Stockton in San Joaquin County. The surnames alone speak to the demographic and ethnic shift by then. In the far north we see Dye, Bolden, Thomas, Merett [Merrett], Lassen, Kayser, Farwell, Hensley, Osie, Dutton, and DeHames appear along with Soto, Rodriguez and Mareño. Closer to New Helvetia: Knight, Gordon, Sinclair, Grimes, Leidsdorff, Dedman [Dedmond], Belamy, and Wolfskill; and between Sacramento and Stockton: Earnest, Sheldon,

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65 Raymond W. Hillman and Leonard A. Covello, *Cities & Towns of San Joaquin County since 1847* (Fresno: Panorama West Books, 1985), 3-5.

66 Hurtado, *John Sutter*, Ch. 16ff.
Chamberlain, Hartnell and Smith. Weber’s land remains identified as “Rancho de Gulnack” [Gulnac].

Public Land Policy in California after 1850

Four major United States public land laws impacted Delta development. The Pre-emption Act of September 4, 1841; the act of September 28, 1850, known as Swamp Lands (or Arkansas) Act which granted California 2,200,000 acres of overflowed or swamp lands for the purpose of reclaiming such lands “by means of levees and drains.” The state, in turn, could transfer to individual citizens up to 160 acres provided they drained the land “for improvements.” A third act of March 3, 1853 granted 5,500,000 acres for the establishment of public schools. Finally, the Morrill Land Grant Act of July 2, 1862 gave the state 150,000 acres for setting up “colleges for the cultivation of agriculture and mechanical science and arts.” Altogether, California received almost 8,500,000 acres from the federal government, cumulatively making it one of the largest grants in American history from the public domain.

Early Transportation during the American Period

Even the El Camino Real or Royal Highway connecting the missions relied on pack animals and carretas (two-wheeled carts), not two-axle wagons. Slow and cumbersome, carretas were normally pulled by one or two oxen or mules. They often bogged down in soft terrain, but could be repaired en route by almost anyone with basic mechanical skills due to their all-wooden construction, including wheels and axle. The inventory of Fort Ross purchased by John Sutter included “five four-wheel carts” and “ten two-wheel carts,” equipment useful for farming, carting between dock and settlement, and mining operations.

Despite the practicality of the two-wheeled cart, Americans were determined to use the vehicle that had become standard in the settling of the Midwest—the covered box wagon and other variants of freight wagons, easy to build where dimensional lumber from hardwood forests was readily available and skilled wheelwrights could be found. Beginning with the Bidwell-

67 “Mapa, Valle del Sacramento, 1851, updated 1853,” Holt-Atherton Special Collections, University of the Pacific Library [brackets mine]. Also see Marschner, California: A Snapshot in Time: 1850, 260-73.
Bartleson party in 1841, overland parties using these Conestoga-style wagons attempted to reach California carrying people and their personal goods. The Bidwell-Bartleson’s group of thirty-one men, one woman and one child made it to Sacramento with their mules and oxen, but abandoned their nine wagons in Nevada. Other parties followed their courageous, if risky example, blazing the California Trail. The strategy involved leaving the Oregon Trail at either South Pass (Wyoming) or Fort Hall (Idaho) and cutting southwest across the Great Basin to the Humboldt River or Carson Lake and Lake Tahoe before crossing the Sierra and down to Sacramento.

Until 1846, few wagons made it; most were left on the eastern slope of the Sierra if they made it at all into California. In 1846, Lansford Hastings claimed that a cutoff subsequently named for him was feasible, as long as water was conserved and timing was near-perfect to cross both the desert and the Sierra before heavy snowfalls. Difficult at best, emigrants who chose this route faced heavy odds due to the sparse rainfall in Nevada generally and the alkali lake beds or sinks that had to be crossed. The Forty Mile Desert northeast of Lake Tahoe challenged all. The desert was actually 70 by 150 miles with an annual rainfall of only five inches. The well-known ill fate of the Donner Party, who used Hastings’ Cutoff in 1846, stands out as exceptional. Even so, in 1850 one observer counted the victims as he traveled through this section of desert noting over 1,000 dead mules, 5,000 horses, 3,500 cattle and oxen carcasses and 953 emigrant graves.71

Overcoming obstacles and logistics, hundreds of wagons made it to California. According to H. H. Bancroft, at the close of 1849, an estimated 39,000 people arrived by sea, of which about 23,000 were Americans, and 42,000 overland, of which 9,000 were from Mexico, 8,000 coming through New Mexico, and 25,000 by way of the South Pass and Humboldt River: “Of this number a few thousand, especially Mexicans, returned the same year, leaving a population that approached 95,000.”72 Travelers who crowded the California Trail in 1849 alone have been described by one author as “a stream of wagons, handcarts, men on mules and horses, men on foot. . . . They were from all


72 Bancroft, *History of California*, 6:159. J. S. Holliday counts 32,000 on the California Trail in 1849, noting “some 8,000—the rear of the vast migration—had not reached the Humboldt until September, even late September. Fearful of Sierra snowstorms, they believed reports of a new route called Lassen’s Cutoff, which promised to save many miles by leading directly west, into the gold region. Too late they realized the ‘cut-off’ veered to the north, finally to the Oregon border—and to disaster. Caught in the first storms of winter, these cut-off victims cast away everything they had lugged across the continent and fled for their lives, most of them reduced to only a rifle and a blanket.” They ended up at Lassen’s ranch in the northern Sacramento Valley, not the gold region. See *Rush for Riches: Gold Fever and the Making of California* (Berkeley: University of California Press and the Oakland Museum of California, 1999), 111.
walks of life, scholars and professional men as well as vagabonds and jailbirds.” To this day, most California historical societies, including those within the Delta, boast one or more of these “pioneer wagons” which were integrated into the economy, some becoming family heirlooms.

The Gold Rush dramatically increased the demand for all sorts of wheeled devices including wheelbarrows supplied by Studebaker of Placerville, as well as wagons, coaches, and trammels (water wheels) to lift and divert water along placer mining streams. To meet this demand, coach and wagon-builders in the Bay area dis-assembled abandoned ships and used decking and hulls to build vehicles. Most were transported by boat to landings in Sacramento or Stockton. The Delta itself was too marshy, especially during the spring runoff, and lacked enough higher ground to build any wagon roads. Little had changed since 1772 when Fages and Font independently described the watery swamp that seemed endless. Ranches on the edge of the Delta had rough trails practically unmarked. As transportation-historian O. O. Winther once put it, “There were no roads to speak of—merely trails connecting one settlement or rancho with another.” An 1848 map prepared by former American consul Thomas Larkin, based on John Bidwell’s survey of the Delta and Central Valley shows the ranches and impassible estuaries, as well as “Road to San Joachin” from “New Helvetia.” The only road on the map, it connects Sutter’s domain with that of Weber, providing the rough boundaries of a number of other ranches in between, all bearing Anglo surnames.

When the Gold Rush began, not one stagecoach operated in California. In the autumn of 1849, John Whistman converted an old French omnibus driven by mules into the first stage between San Francisco and San Jose—a nine hour ride that was never described as “first class.” Because people were willing to pay thirty-two dollars or two ounces of gold for a one-way passage, he soon had competition. Auckley & Maurison charged the same but had a better

74 San Joaquin Historical Society has a splendid example.
75 Thomas E. Bonsall, More Than They Promised: The Studebaker Story (Palo Alto: Stanford University Press, 2000). John Mohler Studebaker came to the Gold Rush in 1853, but decided he could do better blacksmithing than placer mining. He opened his business in Placerville that year, making wheelbarrows for miner. He returned to his native Indiana in 1858 where he and his brothers continued making wheeled vehicles in the form of ammunition wagons for the Union Army and from that civilian wagons, carriages and eventually automobiles. Between 1897 and 1907, the Studebaker Company built over one million wagons. See David Snead, “A Different Studebaker,” Wheels that Won the West, June 25, 2014. Retrieved 18 Dec., 2014. Also Floyd Clymer, Treasury of Early American Automobiles, 1877-1925 (New York: Bonanza, MCML), 60; and Office of Historic Preservation, California State Parks, California Historical Landmarks (Sacramento: California State Parks, 1996), Landmark 142, p. 43.
76 Oscar Osburn Winther, Via Western Express & Stagecoach (Stanford: Stanford University Press, 1945), 2.
77 “Map of the Valley of the Sacramento including the Gold Region,” (Boston: T. Wiley, Jr., 1848), reproduced in Hayes, Historical Atlas of California, map 180, p. 89.
coach and faster horses. In 1850, Whistman sold out to Warren Hall and Jared Crandall who had experience with stagecoaches in Mexico. By May, 1851, Hall & Crandall were the most popular, having reduced the fare by fifty percent. They also enjoyed a government contract to carry the mail between the two cities with a subsidy of $6,000 per annum. Even with this financial success, they sold out in 1853 to Dillon, Hedge and Company, which by then had operations in other parts of California. Hall & Crandall turned over operations on 300 miles of California “roads.”

Sacramento’s story of early stage coach transportation is similar to San Francisco. The first to attempt a line, James Birch and Frank Stevens, hailed from New England where both had driven coaches. In September, 1849 they opened their business using an old ranch wagon drawn by four Mexican broncs. The line ran to Mormon Island (Folsom) at a cost of thirty-two dollars. By February, 1850, the company had expanded service to Coloma. Like Hall & Crandall, their break came in 1851 with a government contract to carry mail, making runs into the Mother Lode as far as Nevada City and down to Stockton by year’s end. By 1853, twelve stage companies competed for business in Sacramento alone.

Stockton’s first passenger service began in 1850 when E. S. Holden added passenger service to his freighting operations between Weber’s city and Sonora. A year later, the Telegraph Stage Line from Sacramento, owned by Birch and Stevens, reached Stockton and competed with three other concerns. A total of seven stages operated from Stockton into the Sierra mining towns by the mid-1850s. As competition grew stiffer, a number of owners got together and merged, forming the California Stage Company on January 1, 1854. Capitalized at $1 million, James Birch was chosen president with headquarters at the Orleans Hotel in Sacramento. Inventory included 750 horses and enough coaches, harnesses and drivers to service a 450-mile territory.

Even with these improvements after statehood, getting from one point to another in California’s interior by land remained difficult and especially in Delta country. In 1849, Lt. George Derby of the Topographical Engineers was assigned duty in California to survey and map the Sacramento Valley concentrating on the Bear and Yuba rivers; this to help miners but also to

78 Winther, Via Western Express & Stagecoach, 5-6.
79 Mormon Island was the site of the second major discovery of gold after Coloma. Members of the Mormon Battalion discovered gold while hunting deer in March, 1848. Around 150 Mormons flocked to the site, which had a population of 2,500 in 1853. Fire destroyed the town in 1856 and it was never rebuilt. Folsom Lake covered the remains of the town in 1955. California Historic Landmarks, No. 569, p. 45.
80 V. Covert Martin, with R. Coke Wood and Leon Bush, Stockton Album through the Years (Stockton, CA: Simard Printing Co., 1959), 69, 71.
81 Winther, Via Western Express & Stagecoach, 7-12.
protect Indians from miners and to establish a reservation. His report, published that same year contains a map that shows a wagon road west of Sacramento toward Benicia, skirting the northwest edge of the Delta. Remarkably, by 1850, maps and charts became available of the route between the San Francisco Bay area and Sacramento by water. One map, completed by an officer in the U. S. Navy, shows the depths, as well as what later would be termed “sloughs” of the Sacramento River drainage. Even with better maps and nautical charts, the Delta claimed boats that hit snags and obstacles in the murky waters. From the point of view of river pilots, merchants sending freight, and passengers going both directions, the Delta was a floating hazard through which to pass, not a comfortable place to stop or to make a living.

**Water Transportation, 1847-1860**

Californios were not without watercraft, but large sailing vessels seem to have been confined to the major bays. On the Delta, diaries and official reports mention many launches, skiffs, and smaller rowboats, but few if any masted craft. Sailing upriver and tacking in narrow channels was slow and tedious. When the first sailing vessel appeared near modern Sacramento is uncertain. The first documented sailboat dates to 1839 when John Sutter landed at Sacramento. Other sailing vessels followed and would be used in decades to come, but by 1850 the steamboat had supplanted sailing craft for commercial traffic. Steamboats would remain the principal mode of transportation in the Delta into the twentieth century.

The first steamboat to reach Sacramento had been acquired from the Russians by William A. Leidesdorff. The thirty-seven foot side-wheeler *Sitka* arrived in 1847, carried in pieces from old Fort Ross to San Francisco, where it was put back together. The harbormaster in San Francisco recorded 782 ships arriving between March 26 and December 29, 1849, some destined to head upriver. Several artists show steamboats and multi-mast vessels in

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83 Cadwalader Ringgold, Cmdr. USN, “Chart of the Sacramento River from Suisun City to the American River, California” (1850), Center for Sacramento History, City of Sacramento; reproduced in in Hayes, *Historical Atlas of California*, map 188, pp. 97-98. Ringgold was a superb technical draftsman but has “Suisun” located where Rio Vista would be settled.


Sacramento in the year 1849. One could have been the side-wheeler *Pioneer*, which had been built in Benicia in 1849. Another possibility is the *Lady Washington*, which was “assembled” at Sutter’s Embarcadero and launched on August 9, 1849, becoming the first steamboat to navigate the American River to Coloma. An 1850 daguerreotype of Sacramento, the earliest of its kind, shows the side-wheeler *New World*. This vessel, as well as another deep water vessel named the *Senator*, had traveled from New York around the horn bringing Argonauts. Two of the 1,521 ships that entered San Francisco Bay that year went into service between San Francisco and Sacramento. The *Senator*’s pilot, Lt. James Blair, USN, took the vessel upriver on its first voyage, later organizing the Sutter Iron Works at Rincon Point in San Francisco. This company’s sole purpose was to set up hulls and engines of steamboats which had been shipped from the east coast in knockdown form, an ingenious and practical way to avoid iron-work manufacture and construction from scratch in California.

Cadwalader Ringgold, USN, sketched a variety of vessel types on the river and especially at Sacramento City in 1850. These included sloops, catches, yawls, and schooners. The wharf was crowded with side-wheel steamboats, as well as barges and sailing craft, which carried staples and dry goods as well as miners and the tools they required. One-way passage from San Francisco to Sacramento cost $30, while freight on goods averaged $50 per ton. An 1850 advertisement by Warren & Co. includes flour, fruit, sugar, provisions, clothing, “and many choice goods including cigars, mining tools, etc.” The cost of flour and beef doubled between the two destinations, with flour at $16 a hundredweight and cattle at $30 a head on the Bay; and $35 per hundred pounds and $70 a head upriver. Harbormaster records for Sacramento show month-by-month arrivals beginning in 1851. The ledger for December 1, 1851 shows 4 “Brigs,” 20 “Schooners,” 9 “Sloops,” 11 “Barges,” 44 “Sail Vessels,” and 21 “Steamers,” a total of 30,446 tons for the month of November.

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92 Ringgold sketches, as found in Severson, *Sacramento*, 50-53; and in
93 Neasham and Henley, *City of the Plain*, p. 67.
months later, the ledger includes 1 “Brig”, 18 “Schooners,” 11 “Sloops,” 30 “Sail Vessels,” and 23 “Steamers” for the month of July, 1852, a total of 32,525 tons, or a slight increase.95 By 1853, there were six first class steamships providing service between San Francisco and Sacramento. Incorporated in 1854, the California Steam Navigation Company was never a monopoly but soon came to dominate shipping along this corridor buying up every steamer that became available. The company’s ships included Confidence, Colusa, New World, Helen Hensley, Antelope, Governor Dana, and Sam Soule. Sacramento’s wharfs and its two dedicated steamboat landings were abuzz with activity as the Gold Rush ran its course, peaking in 1854, but continuing to draw miners to decade’s end.96

Weber’s Stockton experienced similar activity. Between 1845 and 1847, Weber made several trips overland to San Jose, bringing back 1,000 head of cattle in 1847. By 1848 he had purchased a thirty-eight foot sailing sloop, the Maria, which served his needs for communication, freight, and trade between Stockton and San Francisco.97 Captain Sutter, the first side-wheeler on the San Joaquin, made it upriver in 1849 followed by the Sagamore in 1850. The latter experienced the fate of many steamboats when her boilers exploded and destroyed her the same year.98 Lt. George Derby arrived with his topographical engineers in July, 1849, describing Stockton as seen from the Old River landing as “... one wooden building (a large shop belonging to Mr. Wehre [Weber]) the other tenements being large tents made by stitching cloth over heavy frames, but there were about a dozen vessels lying at the bank, barques, brigs, & schooners, most of which are metamorphosed into shops or groceries.”99

By 1852, six steamers, most high pressure side-wheelers, were in regular service between Stockton and San Francisco. These included the American

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96 Philip Pezzaglia, Towns of the Sacramento River Delta (Charleston, SC: Arcadia, 2013), 10. According to Tinkham, History of San Joaquin County, the company was incorporated on March 1, 1854 with a capital value of $2 million. It remained the largest transportation company in California until the completion of the Central Pacific Railroad (p. 87). “Official Map of the City of Sacramento, California compiled from actual surveys by W. S. Watson, Civil Engineer, 1854” shows the two distinct steamboat landings. The map is on the wall of the Center for Sacramento History, City of Sacramento.
97 Nicholas P. Hardeman, Harbor of the Heartlands: A History of the Inland Seaport of Stockton, California from the Gold Rush to 1985 (Stockton: Holt-Atherton Center for Western Studies, University of the Pacific, 1986), 17; also Tinkham, History of San Joaquin County, 85.
Eagle, H. T. Clay, Stockton, and Jenny Lind.\textsuperscript{100} Three left daily on the overnight trip and mail was brought to and from the Bay six days a week.\textsuperscript{101} Stockton also had its own shipbuilding operation at Lindsey Point on McLeod Lake, where S. H. Davis and William Emerson made wooden-hulled vessels, but most vessels came from the east coast.\textsuperscript{102}

The story of the S. B. Wheeler illustrates the flurry of activity in transferring tonnage of shipping from the Atlantic to the Pacific during the early years of the Gold Rush. A 120-foot stern-wheeler, the boat was built in St. Stephens, New Brunswick expressly for the California trade. Once the hull was completed, another ship under construction, the sailing bark \textit{Fanny}, was launched open-hulled from the stocks and immediately sunk. The \textit{S. B. Wheeler} was floated over the immersed \textit{Fanny}, then the latter was re-floated and the engine and upper works of the steamer were placed in the double hulled sailing vessel, bound for California. Once in the Golden State, the \textit{S. B. Wheeler} plied the waters between Stockton and San Francisco until sold to a Mexican firm.\textsuperscript{103}

In an effort to compete with the California Steam Navigation Company and to lower freight and passenger rates, Stocktonians met in December, 1854 to form a joint-stock venture, Merchants’ Steamboat Company. Short the capital needed to purchase a first-class steamboat at around $80,000, the investors settled on a contract with the owner of the \textit{Willamette}, pledging that the sixty-five anti-monopoly shareholders would use the vessel. California Steam immediately cut their rates in half to undermine the competition. It worked. Within three months, the \textit{Willamette} ceased operations and the Merchants’ Steamboat Company folded. Rates returned to the pre-1855 schedule not to be challenged for the rest of the decade.\textsuperscript{104}

By 1859, California had its own ship building works on San Francisco Bay for steamers as well as sailing craft. The “State Register” reported “three steamers and six sail vessels on the stocks intended for the bay and river trade.”\textsuperscript{105} Clearly watercraft had become the main mode of transportation, at least as far as Sacramento and Stockton.\textsuperscript{106}

\textsuperscript{100} Hardeman, \textit{Harbor of the Heartlands}, 20. The Stockton and the \textit{American Eagle} both exploded within eighteen hours of each other on October 19, 1853. See Tinkham, \textit{History of San Joaquin County}, 86.
\textsuperscript{102} Davis, \textit{Stockton}, 38.
\textsuperscript{103} MacMullen, \textit{Paddle-Wheel Days}, 15.
\textsuperscript{104} Tinkham, \textit{History of San Joaquin County}, 88-89.
\textsuperscript{105} \textit{The State Register and Year Book of Facts for the year 1859} (San Francisco: Henry G. Langley and Samuel A. Morison, 1859), 308.
\textsuperscript{106} Severson, \textit{Sacramento}, 87.
Overland transportation

To service the mines in the Mother Lode, overland transportation was required. Settlements at Jackson, Mokelumne Hill, Angels Camp, Murphys, Sonora, Columbia and Mariposa survived because of supply from Stockton, whose merchants used “mountain freighters,” large rugged wagons that required multiple teams of draft animals. Stockton alone had more than a dozen blacksmith and wagon shops by 1852, as well as individuals listed in the city director that year as “wheelwright.” According to one authority, William P. Miller made the first freight wagon in Stockton in 1852 out of a ship’s rudder and named it “Texas Ranger.” His factory at Channel and California Streets made larger wagons called the “Stocktonian” which were twenty-eight feet long, eight feet high and five feet wide. The wagon weighed 5,000 pounds and cost $1,000. Another early wagon maker was Anderson & Clark at the corner of California Street and Weber Avenue. M. P. Henderson specialized in “20 mule team” wagons such as those used to haul borax from Death Valley, while John H. Tucker made wagons for the Butterfield Stage Company beginning in 1858 with rear wheels six feet, four inches in diameter to carry as much as four tons of freight.

Even though the Delta did not attract gold miners, the latter’s prospects of succeeding depended on the goods and information brought by the transportation companies that navigated through Delta waters between San Francisco and the two inland ports servicing the northern and southern mines, respectively. Supply and repair also depended on the vehicles and the mechanics that serviced them in the larger urban enclaves.

An 1852 map accompanying the Stockton Directory for that year shows a number of crude roads, but none going directly into the Delta. That same year the Court of Sessions acted on an 1850 State Assembly bill that

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108 Davis, Stockton, 37-38.
111 The Court of Sessions was created on April 11, 1850 by the California State Legislature. Its purpose: (1) to make such order respecting the property of the county as they deemed expedient; (2) to examine and settle all accounts chargeable against the county and to direct the raising of money therefor by taxation on property, real and personal; (3) to audit the accounts of all officers having the care, management, collection and disbursement of any money belonging to the county; (4) to have control and management of public roads, turnpikes, ferries, canals, roads and bridges within the county; (5) to divide the county into townships and create new townships, etc; (6) to establish and maintain election precincts; (7) to control and manage the property of the county; (8) to sell and convey any property belonging to the county; (9) to cause to be erected and furnished a courthouse, jail and other
authorized roads to be surveyed and laid to reach ferry landings for river crossings and to link federal forts within the state. Mariposa Road and Lower Sacramento Road through San Joaquin County are examples of these. Muddy all winter and chalked with dry dust all summer, these “government roads” were main routes, supplemented with make-shift paths between ranches and farms, hamlets and the few towns. “Good roads” would have to wait until the late 1860s and 1870s. During the muddiest season, the French Camp Road with a sandy loam base became an alternative to the Mariposa Road’s adobe base. The road headed south from Stockton by way of the old gathering spot of the Hudson’s Bay Company trappers, then on to present-day Manteca, crossing the Stanislaus River southwest of present-day Ripon. Because of this road, “French Camp became an important staging and freighting center,” according to Janice Marschner, who adds: “Boats landed at the end of French Camp Slough to unload their goods bound for the Southern Mines.”

Meanwhile, in 1856 the California Assembly petitioned the U. S. Senate for a federal wagon road that would connect Sacramento with the Mississippi Valley. Editors of the Stockton Argus and the Sacramento Daily Union joined the memorial, the Argus writing:

Let wagon roads be made through the State to Utah . . . It is very rare that an agriculturalist can be met with who did not migrate to this State by land, bringing with them stock. Railroads cannot benefit this class of emigrants as the cost of transportation could not be made by a company to meet their means. . . .

Debate in Congress over a southern versus a central route for a railroad as well a federal wagon road stalled the project, which ultimately was approved in 1857 with two routes—one that would enter California to the north; the other to the south near San Diego.

**Communications and the rise of “Express” companies**

The demand for communication with the outside world prompted entrepreneurship in news reporting as early as April, 1849, when Edward C. public buildings, and keep them in repair; (10) to do all things necessary to discharge their powers and jurisdiction. See J. W. Wooldridge, *History of the Sacramento Valley, California*. 3 vols. (Chicago: Pioneer Historical Publishing Co., 1931), 1:273-74. In time the Court of Sessions was replaced by county Board of Supervisors, which remain today. From its beginnings in 1850, San Joaquin County Board of Supervisors began keeping careful records of road projects, records from which are on file at SJHS in Micke Grove filed as “Road Description Book, 1850-1898,” and “Road Index, No. 1.” Thanks to Leigh Johnsen, archivist.

Kemble, a partner in San Francisco’s newspaper, *Alta California*, headed to Sacramento with a box of old type, several reams of paper, and a press, determined to publish his own *Placer Times*. Kemble’s paper reported on August 2, “The ‘Regular Mail’ is a regular humbug, is stuck in the mud half the time, and might as well be the other half. . . . We understand that the Postmaster [in San Francisco] cannot afford to employ clerks.”115 Between 1849 and 1858, over fifty newspapers were founded in Sacramento, and of these, all but two failed leaving the *Sacramento Daily Union* (1851) and the *Sacramento Bee* (1857) as major competitors at decade’s end.116

Communication between depositors and banks also posed logistical problems. Even before the Gold Rush, in 1847 Charles L. Cady established the first express service in California by carrying letters from San Francisco to Sutter’s Fort at twenty-five cents apiece. Entrepreneurial miners tired of trudging in cold water and mud followed Cady’s example, becoming “expressmen,” collecting mail and delivering it, along with gold dust to Sacramento, Stockton and San Francisco at a customary charge of between $1.00 and $2.50 for mail, and five percent of gold for delivery of gold nuggets and dust. Perhaps the most successful was Alexander H. Todd, who carried letters to Sacramento and various mining camps for one ounce of dust, worth sixteen dollars. Todd had two thousand clients on his list.117 More than two hundred expressmen are known to have been operating by the early 1850s. They made deposits on behalf of their clients at Adams & Company Express beginning in December, 1849 and, after 1852, Wells Fargo & Company, both New-York based. Eventually Wells Fargo eclipsed Adams, becoming the largest banking operation in California by 1855.118 The story of these express companies and of the banking industry is tangential to the story of the Delta, but important in the context of moving people, as well as information and money between the mining districts, the interior towns, and the port of San Francisco.

Moving money and mail were one thing, moving people an entirely different logistic and social problem. According to J. M. Guinn, a turn-of-the-century curator at the Historical Society of Southern California and author of a massive one volume history of the state published in 1906:

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115 *Alta California* (Sacramento), August 2, 1849, as quoted by Holliday, *Rush for Riches*, 129.
The first stage line was established between Sacramento and Mormon Island [now Folsom Lake] in September, 1849. . . . Sacramento was the great distributing point for the mines and was also the center from which radiated numerous stage lines. In 1853 a dozen lines were owned there and the total capital invested in staging was estimated at $335,000. There were lines running to Coloma, Nevada [City], Placerville, Georgetown, Yankee Jim’s, Jackson, Stockton, Shasta and Auburn. In 1851 Stockton had seven daily stages.\textsuperscript{119}

In 1854 the California Stage Company was formed as a merger of several lines. By decade’s end, the consortium controlled five-sixths of the state’s business. Meanwhile, Wells Fargo expanded operations, moving headquarters from Sacramento to San Francisco in 1854 to be at the financial hub of the state. By 1856, Wells Fargo operated eighty offices; two years later—ninety-eight. In the early 1860s, Wells Fargo had become the largest business in the state and carried more gold and silver than people as operations expanded into Nevada’s Comstock Lode.\textsuperscript{120}

In 1858 Stockton was declared the terminus of a postal route, officially named the Stockton, Albuquerque and Kansas City Mail. The contract went to Jacob Hall and called for monthly delivery which took fifty-five days one-way with a six-mule team pulling a stage from Stockton along the Mariposa Road, through the Central Valley to Fort Tejon and on through New Mexico Territory to Kansas City via the route that would later become the Santa Fe Railroad’s standard route to California. At a cost to the government of $80,000 and receipts of around $1,225.00, this mail route was doomed from the start and only lasted from October, 1858 to June, 1859.\textsuperscript{121}

On the eve of the completion of the transcontinental railroad in 1869, stage coach and express companies were synonymous terms. Another mail route connecting California with the east is associated with New Yorker John Butterfield, who had been a business associate with both Henry Wells and William Fargo, forming a parent company, American Express in 1850, out of which emerged several companies, most notably Wells Fargo & Co. and Butterfield Overland Mail Co. The latter won the government contract to carry the mail from St. Louis to San Francisco, entering California to the south at Fort Yuma, then crossing the Mohave Desert to Cahuenga and Tejon passes and on to the Bay via the Central Valley and Pacheco Pass. Operations of this

\textsuperscript{121} Martin, et al., \textit{Stockton Album}, 69, 71.
2,750 mile route began in September, 1858, with fares at $200 for the twenty-five day ride with five fellow passengers and bundles of mail at three cents per each half ounce. Like the Pony Express, which only lasted eighteen months (from April, 1860 to October, 1861), Butterfield Overland was doomed by telegraph service after 1861, but it was an important step in connecting California with the eastern United States.122

**Telegraph** service commenced on October 24, 1853, less than ten years after its invention, with service between San Francisco, Sacramento, Stockton, San Jose and Marysville. It extended from Stockton to Sonora in 1854. Authorized as a franchise by the State Assembly, New Yorkers Oliver E. Allen & Clark Burnham won the contract for fifteen years but were unable to finish the project due to the San Francisco fire of 1852 which destroyed much of the equipment of the California Telegraph Company. Reorganized as the California State Telegraph Company with capitalization of $300,000, the new private concern met its schedule. A minimum fee of two dollars was charged from Stockton to San Francisco, with an additional seventy-five cents per word beyond ten. Sacramento to Stockton cost one dollar for the first ten words, with forty cents per word thereafter.123 Benicia and Martinez were joined by telegraph in 1859. The Pacific Telegraph Act followed in 1860 with a goal of connecting the Pacific with the Atlantic. Four companies shared an annual subsidy of $40,000 and joined in the effort connecting San Francisco with the east via Sacramento, Salt Lake City, South Pass (Wyoming), Omaha, Cedar Rapids and Chicago, avoiding the South in the midst of the American Civil War. The transcontinental line’s first transmission between Chief Justice Stephen J. Field of the California Supreme Court and President Lincoln on October 24, 1861 marked the beginning of a new commercial era on the West Coast and the end of the Pony Express.124

**Newspapers and magazines** continued to provide the average resident of the Delta with most of the information he or she obtained from the outside world well into the twentieth century. As noted previously, early Sacramento had over fifty newspapers, but only the *Daily Union* (1851-1994) and *Daily Morning Bee* (1857-1987) survived into the 1860s, changing to an evening paper as *The Sacramento Bee*. Like other newspapers of the day, these publications

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carried a political point-of-view, as well as general news, financial reports on prices of gold and silver, literary pieces, obituaries, and advertisements.

One faction of landless Sacramentans had an organ in the Settlers’ and Miners’ Tribune for a few years beginning in 1850. And there was the weekly California Farmer and Journal of Useful Sciences, which moved to Sacramento from San Francisco in 1855 only to move back to the Bay several years later. Several papers tried to find markets in the 1860s without much success. The Daily Democrat Standard (June, 1860) died that same fall after the elections. The Evening Post tried to take over that October as a Republican voice, but it too only lasted less than a year, closing in September, 1861. The Sacramento Daily Record began as an evening paper in 1867, taking enough business from its main competitor, The Daily Union, that owners decided to merge in 1875 as the Sacramento Daily Record-Union. By 1890, one compiler of Sacramento County history claimed that the “total number of deceased publications, about seventy-five; of living, eight.”

Yolo County, which started out statehood in 1852 with a population of 1,440, 1,016 of whom were citizens of the United States over twenty-one years in age, had its own newspapers beginning in 1867 with the Yolo Democrat which espoused the political party as named, published in the county seat of Woodland. The Yolo Weekly Mail followed in 1868, Republican in association. Most businessmen subscribed to “city” papers. In 1870 the leading paper by subscribers was the Sacramento Union with the San Francisco Chronicle second. The Sacramento Record and the Bee also had a large circulation in the county. Business firms relied on the San Francisco Bulletin and the Call of San Francisco for shipping and mercantile reports, while farmers relied on the Weekly Union.

Stockton’s newspaper history includes fifty-eight titles in the data base of the California Historical Society in San Francisco. Of these, The Stockton Weekly Times was first with an issue printed on March 16, 1850 consisting of eight pages on successes in the Sonoran mines and advertisements for goods, mostly food items. A rival weekly newspaper, the Stockton Journal, was also

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125 Hon. Winfield J. Davis, An Illustrated History of Sacramento County (Chicago: The Lewis Publishing Co., 1890), “The Press,” 80-97, at 95. Interestingly, the leather binding of this tome has embossed in gold, “Pen Pictures from the Garden of the World,” but that is not in the official title.
126 Illustrated Atlas and History of Yolo County, Cal., containing History of California from 1513 to 1850 and History of Yolo County from 1825 to 1880 (San Francisco: De Pue & Company, 1879), 35.
started later in 1850 and expanded into a semi-weekly. As in Sacramento, several papers expressing Northern and Southern loyalties and Republican, Whig and Democratic Party affiliations, vied for readership, many lasting only months. One was the Democratic *Stockton Evening Post*, which started in the spring of 1854, followed that June by the *Stockton Daily Argus* which at first identified with the Know Nothings and then supported John Fremont as the first Republican candidate for President in the fall of 1854, switching to supporting Democrats by 1858, and joined by the *Stockton Daily Gazette* from 1864 to 1869 which was pro-Southern. The *Stockton Daily Independent* provided Republicans and non-secessionists a voice throughout the American Civil War. By war’s end, Stockton had a “neutral” paper in the *Daily Evening Herald*, which began circulation in July, 1865. Suffragettes had their own paper after 1873 when Mrs. Laura De Force Gordon began a semi-literary paper, *The Daily Leader*, moving it to Sacramento to be in the thick of state politics.129

The *Stockton Daily Record* had its beginnings with the *Commercial Record*, a free weekly paid by advertising, first issue released in 1875. Twenty years later, in 1895, The *Record* was reborn as a daily and has continued ever since. Pro-Republican in its beginning, it was boycotted by many who objected to its censorship of advertisements that promoted tobacco, liquor, “manicure parlor,” “fortune teller,” lottery promotion, and patent medicines. One of the first newspapers in California to use rolled paper, by 1905 the machinery could literally “roll out” 6,000 eight-page papers per hour, printed and folded, increasing to 48,000 papers per hour by 1922.130

Other towns of the Delta with early newspapers include two in Benicia: The *California Gazette* (1851) and the *Solano-County Herald* (1855), four in Rio Vista: *Rio Vista Enterprise* (1877), *The River News* (1895), *Sacramento River News* (1890) and the *Weekly Rio Vista Gleaner* (n.d.).

**“Rimlanders,” Squatters, and Town-Builders, 1850-1915**

During the 1840s, a small number of families, some moving off of Mexican land grants, others up from San Francisco and San Jose, attempted to farm wheat and run cattle on the edges of the Delta. These earliest of farmers, and most notably those who resided in the Sutter Basin (north of Sacramento across the river from Knight’s Landing), came to be called “rim landers” (also rimlanders [one word]). After the passage of the Swamp Lands (Arkansas) Act of 1850, a few of these families purchased the lands upon which most had

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130 Tinkham, *History of San Joaquin County*, 204-05.
squatted or pre-empted, providing precedent for others who purchased lands “on the rim” of islands, sloughs, and the rivers themselves.\textsuperscript{131}

On the west bank of the Sacramento stretching for twenty miles from present-day West Sacramento to Merritt Island, Flemish citizen Jan Lows deSwart (John Schwartz) convinced the Mexican governor with John Sutter’s help to grant him 13,000 acres of land in 1845. Rancho Nueva Flandria was only one mile wide, but offered many possibilities given its river orientation. Schwartz and his brother George developed what was known locally as the Salmon Fishery by employing local Patwin Indians to catch, dry, and pickle salmon. They also ranched and raised vegetables and melons, finding a lucrative market for their produce and fish during the Gold Rush. Bayard Taylor arrived in 1849 as a reporter sent by newspaperman Horace Greeley. He passed through Nueva Flandria noting, “Before reaching the town of Sutter, we passed a ranch, the produce of which, in vegetables alone, was said to have returned the owner—a German by the name of Schwartz--$25,000 during the season.”\textsuperscript{132} Swartz accommodated James McDowell and his family on his land grant, selling him at least one acre (possibly as many as 600) to build a cabin in what became the town of Washington. McDowell became an early casualty of the Gold Rush, dying from a gunshot wound in a barroom brawl after he stabbed two men, both of whom survived. Earlier that day, probably in a drunken stupor, he sold one-third of his property to William W. Warner for one dollar. In 1853 the Schwartz family lost title to the large land grant when the U. S. Board of Land Commissions refused to pass title to John’s brother George. Of interest to transportation history of the Delta, although the Schwartz clan lost the land, Warner built a successful ferry from the west side of the Sacramento to the mouth of the American River (Warner’s Ferry). In addition, the widow, Margaret McDowell successfully platted her inherited land into what became the town of Washington (changed in 1914 to Broderick, and now incorporated into West Sacramento).\textsuperscript{133}

Her town showed great promise, attracting a resident population of around 300 in 1850. Prospects improved further when the county seat of Yolo County moved to Washington from Fremont in 1851. However, floods cursed the town and by 1862 the county seat was moved to Woodland. In the

\textsuperscript{131} It is unclear where the term, “rimlander” originated. It is used by several authors including Joseph A. McGowan, History of the Sacramento Valley. 3 vols. (New York: Lewis Historical Publishing, 1961), 2:175; Lura Francis, “The Historic Delta,” The Pacific Historian 23(1) Spring 1979:45-57, at 49; Walters, Clarksburg, 21; Garone, Fall and Rise, 97.

\textsuperscript{132} Shipley Walters, West Sacramento: The Roots of a New City (Woodland, CA: Yolo County Historical Society, 1987), 8; Bayard Taylor, Eldorado: Adventures in the Path of Empire (Berkeley and Santa Clara, CA: Heyday Books and Santa Clara University, c. 1850, 2000), 175-76.

\textsuperscript{133} Walters, West Sacramento, 10-11.
meantime, the California Steam Navigation Company gave Washington a boost in 1859 when the company built a shipyard where riverboats could be built and repaired. This remained Washington’s most important business and remained in operation almost one hundred years. By 1870, the dream of eclipsing Sacramento for business and rail transportation faded with completion of the Central Pacific’s holding, the California Pacific Railroad, which ran from Davisville (Davis) north to Woodland and Knights Landing and Marysville, and east from Davisville to Sacramento, bypassing Washington. 134

Squatters on public and private lands have a long pedigree in American history. In the early years of the Gold Rush, many who emigrated from states with U. S. Land Offices expected to find the same opportunities for acquiring small parcels at practical prices, or for no money at all if no government had been established, a process called “pre-emption,” which allowed occupancy, then payment later at the minimum price. In California, these gold- and land-seekers faced an insoluble problem as they literally trespassed on the large land grants that had been doled out during Mexican times to around 800 estate owners controlling or claiming fourteen million acres of land. Sutter alone claimed twenty-two leagues, most of which became the object of squatters and land speculators, both groups refusing to recognize the legality of Mexican-era grants. Overrunning John Sutter’s New Helvetia, squatters faced speculators in a stand-off during the spring and summer of 1850 as the latter tried to evict squatters from unfenced, un-platted lands in and around the city. Armed to the teeth, both sides appealed for a legal and judicial solution, but a riot broke out on the night of August 14, leaving eight dead, including the city’s assessor and several squatters, with six wounded, including Sacramento’s first mayor, Hardin Bigelow, who lived but never fully recovered. Peace followed but neither side was satisfied and many issues over legal title to Sutter’s former domain remained unresolved.135

Town building within the Delta commenced at the beginning of the Gold Rush but was hampered by lack of roads and the topography, coupled with hydrology. Approximately 320,000 acres lay within the estimated mean pre-reclamation tidal basin. More than half of this “swamp” was inundated at high tide. An additional 205,000 acres were subject to river flooding. Prior to heavy siltation of the Sacramento River, primarily the result of hydraulic mining operations, it was not uncommon to have a two foot tide at Sacramento’s wharf. Thus, some of the lower waters of the Delta experienced saline intrusion, especially in late summer and fall. This meant the only plausible

134 Walters, West Sacramento, 13, 15.
town-sites were the highest ground on old Indian village sites or burial mounds; or, alternatively, the highest natural levee points above the river, at best fifteen feet above sea level. Eventually settlements on the various natural islands defied logic and nature and many failed as a result of a false calculation that they were above flood level. Others succeeded, but not without epochs of flood and cycles of rebuilding or relocating.136

According to the special State Census of 1852, California’s population had increased from 117,000 (not counting Indians or Chinese) in 1850 to 264,000 two years later, of which only 22,000 were women. San Joaquin County had 5,029 people, 3,582 of them white males; 987 white females. Less than half the population were citizens of the United States over twenty-one years of age. Sixty male and twenty-one female “Negroes” are listed, as well as 168 male and 211 “domesticated Indians.” Foreign residents accounted for 650 of the male population with 299 foreigners listed as female.137

Within the Delta, towns were slow to develop. However, on the periphery of the Delta, three major cities formed points of a “V” for communication, trade and transportation. Beyond the immediate Delta, beginning in 1849, San Francisco played the central role between the outside world and the Mother Lode region. San Francisco and adjacent Bay-area towns benefitted from business, manufacturing and passenger traffic. Because of Sacramento’s and Stockton’s importance to the gold fields, the Delta benefitted from these two additional major hubs, still important to the region today.

**Sacramento City’s** government was established on October 1, 1849 and chartered by the California Legislature the following February. The excitement and energy that brought thousands through the city en route to the gold fields did not stop Mother Nature from reminding early Sacramentans that their town was a floodplain. On January 8, 1850 the first of many floods in the official city’s history inundated most of the embarcadero area, shutting down trade with the mines for ten days as merchants dug out and dried out their goods.138

Another followed in March prompting the building of the first levee along the banks of the river northward from Suttersville (two miles south of downtown Sacramento). Only three feet high and six wide, it only delayed disasters to

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138 Neasham, et al., *City of the Plain*, 32 (Proclamation of October 1, 1849); 41 (floods and levee); Severson, *Sacramento*, 66 (charter granted); 72-73 (flood of January 8). The Legislature honored a request in 1851 to drop “City” from Sacramento’s official name.
come, but set a useful precedent and recognition of Mayor Bigelow, the levee’s largest advocate.\textsuperscript{139} In later years the street levels would be raised, resting above the original ground-level buildings of 1850.\textsuperscript{140} One account of early Sacramento by Frances Semple is telling of the consequences of nature and men overrunning a small space in the first full year of the Gold Rush:

When I first saw Sacramento it was an apparently endless sweep of small tents, not a frame building anywhere in sight. That was in 1850. It was a terrifying place. I was frightened. Men were gambling on all sides. They were shooting and cursing and yelling. The noise and uproar were awful.\textsuperscript{141}

Fires as well as floods plagued early Sacramento. On April 4, 1850 a fire destroyed eight buildings on Front Street between J and K Streets. Another followed in November, destroying four of the city’s largest hotels. In 1852, flood and fire returned in the spring and fall respectively. The fire alone consumed an estimated $10 million in property south of J Street. Defiant and determined to keep the city moving forward, by December, 1852, 761 buildings had been rebuilt, but another flood swept the very section of rebirth in January, 1853. Finally, by 1856 city fathers concluded that they needed to view their city as another Venice with levees, dikes, planked streets, a backup water system above ground, and a Mutual Hook and Ladder Company, the first volunteer fire department in the state.\textsuperscript{142}

Stockton was incorporated on July 23, 1850. Weber donated a block of land for Court House Square, and streets, levees, and public squares to the City of Stockton in August, 1850, officially deeding it to the city in February, 1852.\textsuperscript{143} He reserved for himself and his heirs “parcels of the different sloughs, channels and bayous or creeks, contained within the limits of the city of Stockton,” not fully confident that city government would put his donated lands to “proper use.” Mother Nature showed Weber and his fellow Stocktonians how precarious building a town barely above sea level could be. In 1851 Stockton received nearly eighteen inches of rain. In 1852: 27.4 inches. In the spring of that year, the Calaveras flooded most of the town, washing away buildings and many improvements including the Main Street Bridge and causing at least $25,000 in damage.\textsuperscript{144}

\textsuperscript{139} Severson, \textit{Sacramento}, 72-73.
\textsuperscript{140} A few of these remain and are visible today in tours of basements in Old Sacramento.
\textsuperscript{141} Frances Semple, as quoted by Sabine Goerke-Shrode, “Benicia was known as the ‘Athens of California,’” Historical Articles of Solano County Online Database, May 10, 2008. Accessed May 1, 2015.
\textsuperscript{142} Neasham, et al., \textit{City of the Plain}, 41; Severson, \textit{Sacramento}, 73.
\textsuperscript{143} Davis, \textit{Stockton}, 35.
\textsuperscript{144} Tinkham, \textit{History of San Joaquin County}, 120; Davis, \textit{Stockton}, 37-39.
The town endured, rebuilding and growing. A second flood in 1862 was worse. According to pioneer historian George Tinkham, writing in 1880, “the entire county was two feet under water for two weeks.” The positive outcome of this “disaster” was deposition of “rich sediment . . . one-to-three inches deep,” adding value to lands after they dried out. In between annual “freshets,” which “are the means of fertilizing the valley and making it productive,” another flood occurred in 1872, submerging half of Stockton, but by 1880 Tinkham boasted, “floods are now an event of the past, as the city is graded above the highest water ever known.”

By act of the California Legislature, the original twenty-seven counties were created in early 1850. Shortly thereafter, several important towns on the Delta became official U. S. post offices. Martinez, Benicia, Sacramento and Stockton were joined by Smith’s Landing (Antioch) and Walnut Grove in 1850. Eight years later, in 1858, Los Brazos del Rio (Rio Vista) had its own post office, followed by Freeport (1862), Black Diamond (1868 [changed to Pittsburg in 1911]), Courtland (1872), Isleton (1874), Clarksburg (1876), Ryde (1892/93), Hood (1912), and Locke (1915).

Other towns of the Delta:

**Benicia** was founded in 1847 and named for Doña Francisca Benicia, wife of General Mariano Guadalupe Vallejo. Before the Gold Rush, the town had twenty homes and was the north ferry terminal on Carquinez Strait. In 1849 the U. S. Army established the Benicia Barracks, the first in Anglo-California. It soon became home to the Mathew Turner Shipyards. Benicia and Monterey became the first incorporated cities in California and Benicia served as state capital for thirteen months from 1853 to 1854. Benicia has many firsts including the first ferry in the Bay area (1847); first steamboat built by Americans in California (1849); first public school in California (1849); first railroad ferry west of the Mississippi River (1879); and the first auto-ferry boat in the world, the *Charles Van Damme* (1916).

**Martinez** is named for Don Ignacio Martinez, who received a land grant of 17,000 acres from the Mexican government in 1842. Within the grant, at the mouth of what would later be named Alhambra Creek, Robert Semple built a ferry landing in 1847 which crossed Carquinez Strait from Benicia, which he helped to found. The first regular ferry service in the Bay area, in 1849, the Martinez-Benicia ferry became an essential route to the gold fields. Martinez

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147 Compiled from a list provided by Margit Aramburu to W. Swagerty.
grew rapidly and was declared the county seat of Contra Costa County in 1851.\textsuperscript{149} The town and adjacent lush Arroyo del Hambre (Hungry Valley) attracted orchardists and farmers such as John and Louisiana Strentzel, who arrived as emigrants via Texas in 1853, establishing a medical practice as well as acreage in a variety of fruit and nut crops. The Strentzels’ property absorbed some of Martinez’s land grant, including the main ranch house built of adobe. It eventually encompassed 2,665 acres including rangelands and the nearby Briones Hills. Dr. Strentzel organized the Alhambra Chapter of the National Grange of the Patrons of Husbandry, forming a cooperative and thus breaking the control of wharf and warehouse facilities in Martinez by two of California’s largest companies.\textsuperscript{150}

In 1880, naturalist John Muir joined the Strentzel family as husband to daughter Louie. Louisiana Muir is credited with changing the name of the valley to Alhambra after the citadel of the Moorish rulers of Spain. Other early Martinez agriculturalists include John Swett and James Borland. In addition to the agricultural richness of the area, Martinez became an active port and also a center of fishing. Produce was easily transported by water to wholesale and retail markets in Oakland and San Francisco. In the 1870s, Italian and Portuguese families pioneered several wineries in the area and established themselves in the fishing industry. The DiMaggio family is an example of the latter, producing not only fish, but the famous baseball slugger as well.\textsuperscript{151}

Where the two rivers officially form the physical delta, Capt. George Washington Kimball landed his ship on September 16, 1850. His passengers, a group of around forty New Englanders, disembarked where J. H. and W. W. Smith had built a landing the previous year. By 1851, the settlers adopted the name Antioch. A favorite mooring locale during the age of sail, Antioch’s waterfront became temporary home to many vessels waiting for cargo or delayed by weather. Fresh water coming downstream helped destroy saltwater barnacles and wood-boring worms, making the stopover well worth the time for many ship captains.\textsuperscript{152}

The town grew very slowly due to problems with water quality. Saline tidal water infiltrated shallow wells. Citizens tried dikes, water wheels, windmills and a reservoir, but were largely unsuccessful because of brackish and germ-infested water. The problem was solved only after deep wells were dug and a 30,000 gallon tank was built by the Empire Railroad in the 1870s.

\textsuperscript{150} Carol A. Jensen, \textit{Maritime Contra Costa County} (Charleston, SC: Arcadia, 2014), 59.
\textsuperscript{152} Jensen, Maritime Contra Costa County, 46.
Antioch takes pride in several firsts for Contra Costa County. It was first to incorporate as a city; first to have a union (consolidated) high school; and is among the first to have a Carnegie Library. Eventually Antioch would become the third largest city in Contra Costa County.\footnote{Charles Bohakel, Phyllis Hiebert, Elizabeth Rimbault, and Carole Ann Davis, \textit{Antioch} (Charleston, SC: Arcadia, 2005), 16, 19.}

South of Antioch, what became the \textbf{Byron Hot Springs} was first described by Spanish explorers in 1773. Initial efforts in the early 1860s by the Risdon family to extract salts from the springs were not economically practical, but they saw potential in the recreational and therapeutic value of the springs, establishing a resort by 1865 and buildings in the decade that followed. In 1878, the town of \textit{Byron} itself was established. By 1880, the resort was very attractive and the Southern Pacific Railroad serviced it with a passenger stop. Promoters continued to advertise the Byron area well into the 1920s as the heart of California’s Edenic Delta through a biannual publication known as the \textit{Byron Times}.\footnote{Carol A. Jensen and the East Contra Costa Historical Society, \textit{Byron Hot Springs} (Charleston, SC: Arcadia, 2006).}

\textbf{Port Costa} was developed in 1878 as the southern terminus of the Central Pacific (Southern Pacific) Railroad, connecting the main line between Sacramento and San Francisco with water passage by rail-ferry between Benicia and Port Costa beginning in 1879. The original train ferry, called the \textit{Solano} was the largest ferry in the world. It could take two locomotives and thirty-six freight cars or twenty-four passenger cars on a single passage. As many as thirty trains per day used this route. The \textit{Solano} continued to operate into the 1940s, but was replaced in 1930 by the railroad bridge that stands today. This transition brought economic hardship in the midst of the Great Depression to Port Costa. Nearby \textit{Crockett} was once part of Rancho El Pinole. Named for Joseph B. Crockett, a judge on the California Supreme Court, the town is best known for its C & H Sugar refinery, which was established in 1867. The name was changed to Crockett in 1883 when a post office opened.\footnote{John V. Robinson and Veronica Crane, \textit{Port Costa} (Charleston, SC: Arcadia, 2007).} From Crockett to Richmond, several major industries would build plants along the Strait. These include Selby Smelting and Lead, Union Oil Works, Diamond Oil Works, Hercules Powder Company, Santa Fe Car Works, Reynolds Manufacturing Company, Stauffer Chemical Company, and California Wine Company.\footnote{Carol A. Jensen and East Contra Costa Historical Society, \textit{Maritime Contra Cost County} (Charleston, SC: Arcadia, 2014), 30-31.}

\textbf{Walnut Grove} was named by its founder, John Wesley Sharp, for the native trees he found at the juncture of the Georgiana Slough and the
 Sacramento River. A native of New York, Sharp tried gold mining in the Coloma district during 1849, but looked south for better opportunity. In 1850, Sharp scouted out lands along the Sacramento that were eligible under the 1850 Swamp Land Act. A blacksmith by trade, Sharp acquired 160 acres, built a wharf, making the eventual town an important transportation stop along the Sacramento. He donated land for the first school, as well as the site for the later California Transportation Company’s landing.\textsuperscript{157} Walnut Grove grew slowly but by the 1870s had established a reputation as the general supply center for the adjacent islands (especially Andrus, Grand, and Tyler) and as a salmon and fruit processing hub.\textsuperscript{158}

**Rio Vista** followed Walnut Grove as an official post office in 1858. Three years earlier, Colonel Nathan H. Davis had acquired 17,752 acres of John Bidwell’s’ Los Ulpinos Mexican land grant, naming it Los Brazos del Rio because three Delta water branches met at this site. Following a flood in 1862, the original settlement and its 150 residents had to relocate. Joseph Bruning, a native of Oldenburg, Germany, stepped up and donated land to establish a new Rio Vista nearby. One early settler, Robert C. Carter, Jr. had immigrated to the United States from London in 1841, later settling in San Francisco during the early Gold Rush. He moved to Rio Vista in 1859 where he established the first salmon cannery on the West Coast only to see it destroyed during the flood of 1862. Persevering, Carter rebuilt the cannery on Bruning’s donated land, as well as a tin shop which provided cans for competitors as well as his own operation. Bruning organized the first hook-and-ladder company in Rio Vista in 1871 and supervised the completion of the first water company, the Rio Vista Water Works, in 1875.\textsuperscript{159}

**Montezuma House** is a location at the confluence of the Sacramento and San Joaquin Rivers in Solano County 1.25 miles east of Collinsville. Beginning in 1846, Montezuma House was Lansford W. Hastings’ residence for a short time. Hastings was an Ohio lawyer who came to California in 1843, subsequently providing overlanders with his *Emigrants’ Guide to Oregon and California* (1845). Although Hastings never traveled the “Hastings Cut Off” that bears his name, he had a two-sentence description of the short cut in his guide, misleading many to believe it was an easy passage through the Wasatch Range and the salt flats of western Utah. In an effort to establish a Mormon colony, Hastings built a four-room adobe. Known as *Hasting’s House*, it was

\textsuperscript{157} Pezzaglia, *Towns of the Sacramento River Delta*, 55.

\textsuperscript{158} Kathleen Graham Hutchinson, “Walnut Grove, 1850-1970,” *Sacramento River Delta Historical Society Newsletter* 24(1) June 2004:2. This is part one of a five-part series in this newsletter.

abandoned by the early 1850s and reoccupied in 1852 by John and Charles Knox, who sheathed it in wood. The Stratton family bought it in 1890 and in 1972 it was listed on the National Register of Historic Places. It is one of the oldest structures in Solano County and appears on Ringgold’s 1850 chart as “Montezuma House.” Hastings also established one of the earliest ferries on the Sacramento-San Joaquin Rivers, taking passengers and freight across to City of New-York-of-the-Pacific on the Contra Costa County side.

Established in 1849 on the old Rancho Los Medanos, Col. J. D. Stevenson of the Mexican War’s New York Volunteers honored his home town with this name, but after coal was discovered near Mount Diablo in 1852, the name was changed to Black Diamond after the Black Diamond Coal Mining Company. Later, two railroads were built from the coal fields to Black Diamond and to Pittsburg Landing (respectively), where the Pittsburg Coal Company had its wharf. The two railroads, one standard gauge (Black Diamond Railroad), the other standard-and-narrow gauge (Black Diamond Coal and Railroad Company) began operations in 1868 running about six miles each. Black Diamond Railroad was abandoned in 1884. The other line continued to operate until 1923. According to Carol Jensen, in 1870 half of the 8,500 people of Contra Costa County lived in the coal mining towns on the northeast flank of Mount Diablo. But the quality of the coal was poor and the industry struggled. In 1911, Black Diamond was renamed Pittsburg.

The location was ideal for canning operations, manufacturing, and transfer of cargoes. Salmon, caught in the ocean as well as the Delta, were processed in Black Diamond, making it the salmon canning center of California from 1880 to 1920. The F. E. Booth Cannery employed 400 people in 1910. Other canners included Paladine Fish Company, King Morse Canning, Pioneer Canning Company, Sacramento River Packers, and San Joaquin Fish Company. The S & C Packers Association was a cooperative operation of independent fishing boats. Pittsburg resupplied many sailors, including author

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Jack London. Nearby Winter Island became known for its houseboat bordellos.\textsuperscript{163}

In addition to the fishing industry, Pittsburg attracted manufacturers. The Columbia Steel Company based in Portland, Oregon, opened a Pittsburg foundry in 1910. In 1920 a rolling mill was added. During the Depression, U. S. Steel absorbed Columbia Steel, retaining its name after 1930. During World War Two, high demand led to an enlarged facility with employment peaking in 1950s at 5,200 employees. By 1970 the mill continued to supply specialized iron and steel pipes, fencing and plated steel cans and remains in operation today.\textsuperscript{164} The Redwood Manufacturing Company (REMCO), which produced wooden water pipes from redwood staves, as well as dimensional lumber, siding, and fencing, also became a major employer in Pittsburg in the early twentieth century. Logs from Sonoma, Humboldt and Marin counties were transported by rail to Petaluma, from which they were boomed/rafted to Pittsburg.\textsuperscript{165} A third major manufacturer, Dow Chemical, opened its first plant outside of the state of Michigan in Pittsburg in 1939, specializing in agricultural products and pesticides, remaining to this day a major contributor to the economy of the Delta and Bay area.\textsuperscript{166}

Across the water from Pittsburg, Collinsville derived its name from C. F. Collins, who settled there in 1856. By 1861, the town boasted a post office, store and a wharf. The following year Collins sold out to S. C. Bradshaw, who changed the name to Newport, promoting the town as a potential railroad center. Bradshaw’s scheme failed and he went bankrupt in 1869. The new owner, Montezuma Hills rancher, E. I. Upham restored the name of Collinsville and turned the town into a Sacramento River shipping point. By 1878, salmon fishing was the main occupation of around 350 residents, many of whom were of Italian heritage. At its height, three saloons, two hotels, a telegraph office, a Wells Fargo express agency, steamboat landings, a school, and three canneries flourished, peaking in 1882. At that time, the combined operations produced 60,000 one-pound cans per day, employing 300 people. As silt and debris from hydraulic mining ruined spawning grounds, the fishery declined with all canneries in the area closed by the end of 1886.\textsuperscript{167}

\textsuperscript{165} Jensen, \textit{Maritime Contra Costa County}, 54-55.
\textsuperscript{166} Dow Chemical Company, Pittsburg. dow.com/pittsburg; website accessed 14 May, 2015.
Suisun City began when Captain Josiah Wing, Jr. of the schooner Ann Sophia purchased the “island” land at the north of that bay and adjoining marshland. The “island” was actually a peninsula at low tide; so a plank-way was built to allow passage. He established a permanent wharf and warehouse and a house for himself. A school was established in 1856 and later a high school in 1875. The town served as a port for the rich Vaca Valley agricultural region which was developing farms and orchards. While the town grew slowly, the port continued its activities on a limited scale after the building of the Central Pacific Railroad between Sacramento and Benicia. The port never became as important as others in that part of the Delta.168

Courtland’s beginnings are associated with Englishman James V. Sims, who came to California after joining the U.S. Army for action in the Mexican War. Good fortune in mining on the American River provided Sims the capital he needed to buy land. Twenty years later, in 1870, he purchased property in the Delta from Frank B. Bates, a fellow forty-niner and established a town the following year, downstream from a Chinese community that had answered the call for farm laborers and levee construction after completion of the Central Pacific in 1869. Serving as business- and social-center for many Chinese families living on nearby farms, Courtland’s Chinatown suffered fire in 1879 and again in 1906.169

Sims named Courtland after his son. Sims was one of the first grape growers on the Delta and experimented in pears. His settlement almost immediately attracted the California Navigation Company, which built a wharf 182 feet by 50 feet to service the community. The town grew throughout the 1870s adding general mercantile stores, blacksmith shops, saloons and hotels.170

Isleton was established in 1874 by Josiah Pool, just five miles upriver from Rio Vista. Pool had served in the Mexican War, arriving in California in 1852 and settling on 164 acres on Andrus Island between 1854 and 1857. Named after George Andrus, the island was first settled in 1852, but little of the land’s 7,000 acres was cultivable prior to reclamation after 1862. In historic times, it has always had buckeye, wild grape, oak and walnut trees along its river banks. Eventually Poole acquired more land closer to Rio Vista but traded it for enough acreage to build a town site on Andrus. He completed

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an elaborate wharf in 1875, large enough to dock steamers. By 1878 Isleton counted two general stores, a hotel, a livery stable and The California Sugar Manufacturing Company, the first of its kind on the Delta using local sugar beets. Floods in 1878 and 1881 destroyed much of Pool’s original town as well as the factory. The town rebuilt and became well known for its canneries, as well as a large Chinatown. Floods, repeated in 1890, 1907, and as recently as 1972, point to the precarious nature of engineered landscapes relying on man-made levees.171

As geographer John Thompson notes, Isleton endured largely because of its strategic location:

The townsite was located about midway along the length of a natural levee that fronted Andrus and Brannan Islands at the Sacramento. It was at the northern end of Jackson Slough, the slightly elevated eastern bank of which afforded a land route towards the San Joaquin River, where San Andreas Landing yet stands. At Isleton the trail intersected the axial road which led to Walnut Grove, Freeport, and Sacramento, and to Rio Vista by way of the Old River Ferry. Eastward from the townsite, across what came to be known as the Isleton District, lay navigable Georgiana Slough, which afforded a small craft a short-cut between Sacramento and Stockton. This route overlapped the waterway which the Mokelumne River provided between New Hope Landing and Stockton. All in all, the site of Isleton had good accessibility. It was more or less centrally located on a sizeable area of leveed land and it was intermediate to San Francisco, Sacramento and Stockton, the principal market towns of northern California.172

Like most Delta communities, Clarksburg’s beginnings go back to the Gold Rush, but it would not become a formal settlement with a post office until 1876. Natural levees along the Sacramento provided incentive to early settlers eager to establish farms, orchards and dairies. But the real incentive came from the federal Swamp Land Acts (1850, 1860), and the State of California’s provisions that allowed individuals to buy swamp or overflowed land for $1.25 per acre if they would “reclaim” (drain) the land within five years. Frederick Babel, a thirty-two year old German was the first to attempt this where Clarksburg stands. In 1861 he acquired 160 acres and moved his family into a newly constructed house, proving that Durham cattle as well as horse breeding could succeed despite all the problems with seasonal inundation. Others

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followed in the 1860s and 1870s to the degree that “by the 1870s, much of the
cheap land in the Delta had been sold, and would-be settlers had to buy land
at higher prices from property-holders,” according to Clarksburg historian
Shipley Walters.\textsuperscript{173}

The town’s namesake was Robert Christopher Clark (1815-1901), an
attorney from Kentucky who came to California in 1853, settling in
Sacramento. A land speculator, Clark never moved into the Delta but bought a
parcel of land in 1856 and owned 600 acres by 1879 where Clarksburg
developed. Part of his land was planted with peach trees, the first on the Delta.
Schools and stores developed even in the 1850s but no permanent post office
provided service until 1876; the nearest one upriver was Freeport, which
received its post office in 1864.\textsuperscript{174}

\textbf{Freeport} had a ferry in 1852, ten years before the town was platted.
Located eight miles south of downtown Sacramento, the town developed as a
railroad town because of a dispute between the City of Sacramento and the
Sacramento Valley Railroad, which owned Freeport Railroad Company. The city
collected a tax on all passengers departing Sacramento whether by road, river,
or rail. The line to Folsom from Sacramento was California’s first railroad and
the earliest on the west coast. It was incorporated in 1852 and began
operations in 1856, with William Tecumseh Sherman as vice president and
Theodore Judah, who later laid out the route of the Central Pacific Railroad as
chief engineer. In addition to avoiding Sacramento altogether when moving
people and goods from the river to Folsom and beyond, this “free port” was
envisioned as an alternative to paying embarcadero fees at the port of
Sacramento itself. Furthermore, Freeport enjoyed an advantage over
Sacramento in that sailing ships avoided the slow arduous passage through
Garcia Bend upstream. These two factors led to a population surge in Freeport
by 1865 with around 400 calling the town home. However, the Central Pacific
Railroad bought the SVRR in 1865, removed the five-foot gauge track the
following year in order to standardize the gauge. It continued to run from
Freeport to Brighton (4.5 miles east-southeast of downtown Sacramento where
CSU Sacramento is located today) through 1870, when it was discontinued,
dooming the town as a transfer point but leaving some homes, businesses, and
the post office until 1920.

Freeport continued to ship grain and to take in produce and milk from
Delta farmers, conveying it to the city. It was especially important to the

\textsuperscript{174} “Freeport,” \textit{SVHS Newsletter 26(2)} December 2006:4-5.
Portuguese living in the Riverside/Pocket and Lisbon Districts across the river. Today many consider Freeport the beginning of the Delta on Highway 160.  

**Lisbon (Arcade),** located in Yolo County across the Sacramento River just below West Sacramento had an unlikely beginning. Its origins can be traced to an indentured Portuguese Azorean youth named Joseph Souza Nevis, who was bound to a family named Mello, also Azorean. At age thirteen Nevis slipped away as a stowaway on an American whaling vessel, retaining the name Mello, which the captain of the vessel converted to Miller. Thus Joseph Miller arrived in California in 1849 and headed to the gold fields. By 1856 he had married into an Italian family and had purchased 186 acres of swamp land on Babel Slough west of Freeport in an area where other Portuguese from the Azores soon formed a community, facilitated by Joao Da Souto (John Soto). Soto arrived in 1853 and started out modestly, buying 37.2 acres in 1862 in what became the Lisbon District. The following year he sent for his future wife, Frances Dutra, a thirteen-year-old minor whose family would become an important player in the reclamation and conversion of Delta lands from wetlands to farmlands. By 1870 Lisbon had a school teaching English to Portuguese-speakers and by 1880, the census recorded 218 “Portuguese” living in Merritt Township, forty percent of the population of the area. Thirty-eight percent of all Portuguese living in Sacramento County resided in the Riverside/Pocket and Lisbon District, giving rise to its reputation as “Little Portugal,” or “Portuguese Bend,” which stretched as far as Clarksburg. Most were farmers, but fifteen families’ primary income came from fishing. Some of the more important Azorean Portuguese families included the Dutras, Silva, Machado, and Simas (changed to Seamas).  

The division of land into long-lots, similar to the French system using measures in **arpents** along the St. Lawrence, around Detroit, and in Louisiana, makes the land-holdings unique in California history. Each family on the Sacramento had riverine frontage, with a long strip of land running diagonally away from the river. Typical house construction was two-stories with kitchen and pantry on the ground floor and bedrooms and living quarters above, an architectural pattern still visible in the Delta today and in historic downtown Sacramento. Wisely, a rowboat was usually tied to the house in case of flood. A typical family long lot contained orchards as well as truck crops, chickens, and

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dairy cows. Houses were built of wood, although local clay in the Riverside area proved excellent for bricks. Northern California’s first brickworks dates to 1854 when the Sacramento Brick Company opened its kilns, supplying Old Sacramento and San Francisco.  

**Ryde** is an unincorporated town on Grand Island, 1.5 miles downriver from Walnut Grove, named for the town on the Isle of Wight where Gen. Thomas Hansford Williams was born. Williams and partner David Bixler acquired 2,000 acres of the island’s 17,000 acres in the early 1870s, reclaiming land but suffering flooding in 1878, 1879 and 1881, resulting in losses. Following Williams’ death in 1885, in 1891 W. A. Kesner purchased forty acres from the Williams estate and built a hotel and saloon, petitioning for a post office, which was established in 1892/93. A series of hotels built in succession after 1886 on the same footprint gave Ryde a reputation as a quiet and private retreat for movie stars, U. S. presidents, and others of note. When the post office was established in 1893, the town was formally named Ryde.  

**Hood** began as “Richland” in 1860 for the purpose of shipping grain. Within twenty years, as crops shifted from grain to fruit, Richland declined but was renamed in 1909 by William Hood, a Civil War veteran, who saw a future on the newly-built Sacramento Southern Railroad. A depot was built with a spur down to the wharf where a large packing shed was constructed to service fruit producers, especially the California Fruit Exchange and Stillwater Orchards. A hotel, hardware store, grocery store, church and post office (1912) operated in the town.  

Every Delta town had a section called “Chinatown,” by Anglo-American settlers, but only **Locke** (not to be confused with Lockeford in San Joaquin County) continues to be associated with an ongoing architecture and history unique among Delta towns associated with the Chinese experience. A mile north of Walnut Grove, Locke (originally Lockeport) was built by and for the Chinese. And until recently it was inhabited almost exclusively by the Chinese, who referred to it as “Lockee,” meaning happy living. Chinese entered the Delta as early as the 1860s and were the primary laborers not only for the railroad

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177 Carol Gregory, *Sacramento’s Greenhaven/Pocket Area* (Charleston, SC: Arcadia, 2001), 17-18; 51 (long lot system).


grades and tunnels of the Central Pacific, but also the levees of the Delta. Using traditional techniques that had worked in China’s Pearl River Delta, where most of the immigrants had lived, workers helped reclaim an estimated 250,000 acres of Delta land. Among the more important of these innovations was use of the tule shoe, an oversized horseshoe fitted with wire over a horse’s hoof to distribute weight on soft, marshy or peaty soils.  

Locke was built on the property of George Locke. In 1912, three Chinese businessmen negotiated with Locke to construct a saloon, a boarding house and a gambling hall near the Southern Pacific’s packing shed. Fearing Japanese and Chinese success in agriculture, in 1913 the State Assembly passed the Alien Land Act (Webb-Haney Act) which forbade ownership or long term lease of lands by non-citizens living in California. This impacted all Delta towns, but especially Locke. Walnut Grove lost its Chinatown to fire in 1915. Chinese-American businessmen negotiated with Alex Brown, Walnut Grove’s bank owner, to add seven more buildings in Locke, six of them stores and a second gambling hall, the social center of Chinese communities. The U.S. opened a post office that same year. A permanent population of around 400 made this an important ethnic as well as social and economic center for the Chinese, with up to 1,000 workers entering the town and the nearby orchards during harvest and packing season.

Several other “forgotten” Delta towns include Vorden, just two miles upstream from Locke, which was originally Trask’s Landing (1868). Onisbo, was named for an Indian leader by Armstead Runyon in 1849. Located opposite the head of Steamboat Slough, Onsibo had a post office in 1853 and added a school in 1860 but Walnut Grove and especially Courtland’s growth brought an end to Onsibo in 1867. Also established in 1849, Webster was located on the eastern bank of the Sacramento around ten miles from Sacramento and near Freeport. Also shown on maps as “Russian Embarcadero,” it never developed. Paintersville, immediately south of Courtland, dates back to 1854 when Levi Painter purchased 123 acres on the banks of the Sacramento. Warehouses and a general store, along with a hotel and a saloon once comforted travelers. The Paintersville Bridge across the river is all that remains. Emmaton, six miles south of Rio Vista was founded in 1871 by J. M. Upham. As with most attempts at town building, the essentials were all there: a wharf, a general store, and warehouses. Emmaton was totally

181 Tom, et al., Locke, 8 (origin of Chinese); 17 (acres reclaimed by Chinese); 19 (tule shoe).
182 Tom, et al., Locke, 41.
destroyed during the winter floods of 1878, never to rebuild, save some packing sheds.\footnote{Pezzaglia, \textit{Towns of the Sacramento Delta}, 85.}

The history of town building in the Delta remained as it had been in the beginning. Two important urban enclaves—Sacramento and Stockton—grew as destinations in trade from the San Francisco Bay area. Both developed as markets and supply points, first for the Gold Rush, and later for agriculture within the Central Valley. Both also became manufacturing and transportation repair centers. The 1950 federal census listed Sacramento at 137,372, with Stockton at 70,853. Pittsburg, Martinez, Antioch, and Benicia developed as significant towns, oriented toward the Bay Area, not California’s interior valleys. Within the Delta itself, many small towns with colorful histories emerged, some enduring, others declining. Because of location and access by water and eventually by paved roads, Rio Vista and Walnut Grove remained the Delta’s most important interior towns. By the early 1920s, Rio Vista was advertised as the “Capital and Largest of the River Cities.”\footnote{H. T. Hammond, editor, “Rio Vista—In the Sacramento Delta,” \textit{Byron Times Eighth Booster Edition} (1922-1923), 81. Courtesy of the Haggin Museum of Stockton.} Nevertheless, even by 1950, Rio Vista had a population of only 1,831 and Walnut Grove a population fewer than 1,000.\footnote{U.S. Census, 1950, California. Pittsburg (12,763), Martinez (8,268), Benicia (7,284).}

It is useful to note that during the nineteenth century most of the state of California’s population resided north of Santa Barbara. The contrast between 1850 and 1910 is striking.\footnote{“Compendium of the Seventh to Fourteenth Censuses, California,” in Donald B. Robertson, \textit{Encyclopedia of Western Railroad History, Vol. 4 (California)} (Caldwell, ID: Caxton Printers, 1998), 12-13.}

\begin{table}[h]
\begin{tabular}{|l|c|c|c|}
\hline
Town & 1850 & 1880 & 1910 \\
\hline
San Francisco & 34,776 & 233,959 & 416,912 \\
Oakland & no census & 35,144 & 150,174 \\
Sacramento & 6,820 & 21,420 & 44,696 \\
Stockton & no census & 10,282 & 26,253 \\
Rio Vista & no census & 1,232 & 884 \\
Los Angeles & 1,610 & 11,183 & 319,198 \\
San Diego & no census & 2,637 & 39,578 \\
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\textbf{Levee roads, ferries and bridges}

The era of early Delta reclamation began in the 1850s and is discussed by Philip Garone both in his book and as a separate essay in the series of Delta Narratives.\footnote{Garone, \textit{The Fall and Rise of California’s Central Valley} (2011).} Prior to Garone, John Thompson spent much of his early academic career analyzing the settlement geography and its relationship to

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technologies. Thompson’s “reclamation sequence” begins with individual settlers and entrepreneurs pooling interests to construct low dams or earth barriers. That changed between 1861 and 1866 when reclamation districts were formed.188

One of the earliest efforts was on Grand Island where Reuben Kerchevel hand-built a protective levee, constructed of blocks of peat. This method, which utilized local labor, was soon judged insufficient because of water saturation of the peat barriers, requiring intensive maintenance. Twitchell Island’s reclamation story parallels that of Grand.189 Out of the process of building up earth structures, the tops or crowns of levees (natural and man-made) became roads.

Northern San Joaquin County and the part of Sacramento County within the Delta have dozens of roads named for family surnames. The most important of these as transportation corridors led to ferries and a few bridges. Earliest bridges and ferries were private, not public, designed to collect tolls. As the value of the economy grew with more tax dollars devoted to internal improvements, most of these private entrepreneurial operations were assumed by county and state agencies.

San Joaquin County’s earliest toll bridge spanned the Calaveras at Leach & Frost Ranch in 1854, probably near the present-day campus of the University of the Pacific. So successful, farmers and freighters pooled money and purchased it, opening it as a free bridge the following year.190 In 1852 Jeremiah H. Woods established a ferry across the Mokelumne River at Wood’s Ferry hoping to outshine Stockton by making his site the seat of the new county, the head of navigation to San Francisco, and the main junction between Stockton and Sacramento. Six years later he built a toll road at the same location, changing the name to Woodbridge, gateway between Sacramento and Stockton along Lower Sacramento Road, charging one dollar for two horses and wagon and fifty cents for each additional pair of animals. Costing $1,000, Woods took in an estimated $9,000 the first year, platted the town in 1859, but lost the bridge in the floods of 1862. Rebuilt the next year, local farmers formed a cooperative and opened it to the public free of charge.191

An alternative route to the mines as well as to the Capital from Stockton was through Lockeford. Known originally as Laird’s Ferry (1849) and then

190 Charles I. Leach came west from Wisconsin in 1853, settling in San Joaquin County in 1854. Tinkham, History of San Joaquin County, 471.
191 Tinkham, History of San Joaquin County, 96 (bridges), 294-95 (Woodbridge); California Historical Landmarks, No.163, p. 227.
Staples Ferry (1850), Dr. Dean J. Locke and his brother Elmer ran the ferry at Locke’s Ford from 1851 until a bridge was built by the Locke family to draw business to the town in 1859. Known as Upper Sacramento Road, this was a much better route between Sacramento and Stockton in winter because of the swamps and flooding of the Cosumnes north of Woodbridge where Cosumnes Wildlife Refuge would be established in the twentieth century. Another ferry on the Mokulumne was Benedict’s, which lasted twenty years from 1850 to 1870.

Other ferries with associated roads to them include Murphys (1850-1870 [now Murphys Road]) and Durham’s Ferry Road (1860-1883 [now Airport Way]). The latter, along with Johnson’s Ferry, Garwood’s Ferry, and Slocum’s Ferry crossed the San Joaquin prior to 1870, while Murphy’s, Taylor’s (1850-1890), and Burney’s (1850-1870) crossed the Stanislaus. Davis and Atherton built a ferry across the Calaveras during the Weber Era which operated from 1850 to 1870. The only new ferries on the San Joaquin between 1870 and 1885 were Lindstrom’s (1880-1900), Frewert’s (1880-1900), and Naglee’s, the last on Old River, a tributary of the San Joaquin near Moss Landing.

Until the 1880s, most of the ferries connecting islands and providing river crossings were rowboats. Small steamboats brought animals and bulk goods, including lumber, furniture, and agricultural tools into the Delta well into the railroad era, and by the 1880s cable ferries replaced man-powered boats. An early cable ferry, and the oldest in San Joaquin County, was known as Moss Ferry on a former channel of the San Joaquin River near present-day Mossdale Bridge along Interstate-5. Built by Joan Doak and Jacob Bonsell, it began as a yawl in 1848 but soon evolved into a flat barge pulled with a rope from bank-to-bank. On the direct road from Sacramento through Stockton to San Jose and Oakland, “there was no other way to reach the coast overland,” according to George Tinkham, writing in 1923. The ferry owners made a killing, charging $1 per pedestrian, $3 per horse, and $8 for a wagon with team. Hiram Scott bought Doak’s interest in the business in 1852 and Bonsell died the same year, leaving his widow his share. She remarried and it became known as Sheperd’s Ferry for a time after her new husband, prior to sale to William Moss in 1856. Moss operated it until 1890.

In the Delta, the story was similar. An early way to cross the Sacramento River from Yolo County was by ferry. Dairymen Jerome Davis and Peter McGregor took advantage of the tule-covered land on the west bank of the

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192 California Historic Landmarks, No. 365, p. 228.
193 Tinkham, History of San Joaquin County, 96 (bridges), 292 (Lockeford); Robert Angermeier, “San Joaquin County Ferries,” San Joaquin Historian (Micke Grove) 4(4) October 1968, 1-4.
194 Tinkham, History of San Joaquin County, 93; Angermeier, “San Joaquin County Ferries,” 1-4.
Sacramento. Davis established the first dairy in the county in 1849, operating a private ferry. He sold his ferry franchise to Hoag and Carlyle in 1850. McGregor started his dairy in 1852. With milk selling for one dollar a quart in Sacramento, he needed a quick way to get his product to market so he built a ferry near his farm where Linden Road meets River Road today.195

By 1852, small independent ferrymen faced competition with the more substantial Freeport Ferry. Most early ferries were rowed, but the Freeport Ferry crossing the Sacramento was unique. In 1852, George C. Jackson built the ferry, which was a flat-bottom affair for transporting animals, vehicles and cargo, with a skiff or rowboat attached for passengers. Jackson placed a bell on each side of the river for communication during fog or inclement weather. He charged $2 to $3 for teams, depending on number of horses; $1.50 for a buggy; $.50 each for stock; $1.00 per ton for sacks and bales; and $.25 for passengers. John Soto purchased the ferry in 1876, hiring his own Azorean neighbors. His relative, Antone Soto ran the west bank slip for the ferry, where he kept a saloon and a barber shop. The Soto family eventually sold the ferry to Sacramento County in the early twentieth century and it ceased operation once the Freeport Bridge was completed in 1929.196

Other ferries on the upper end of the Delta included the Dubois Ferry, established in 1894 and the Hadley Ferry, which began operating in 1897. Both crossed from the Lisbon District to the Pocket area north of Freeport. Hadley Ferry was at the strategic Garcia Landing in the Pocket. Hadley sold out to J. H. Glide, who in turn transferred the ferry to Sacramento and Yolo County authorities in 1903. As “public” property, it set a precedent for free ferries, reducing ferry traffic to the south in Freeport for the Soto family.197

In Walnut Grove’s history, Sperry Dye operated a rowboat to Andrus Island and Tyler Island crossing the head of Georgiana Slough. John Sharp operated a ferry across the Sacramento River. Miller’s Ferry crossed the north fork of the Mokulumne where Giusti’s Restaurant is now located on the Walnut Grove Thornton Road, while a ferry at New Hope crossed the south fork. Cable ferries replaced rowboats by 1880.198 Fares at Walnut Grove in 1886 were ten cents for a pedestrian, twenty-five cents for horse and rider; and the same for wagon or buggy with horse. By the late nineteenth century, the Triangle Ferry connected Rio Vista, Grand Island and Brannan Island. Others included the Isleton Ferry, as well as the Howard Landing Ferry and the Ryer Ferry, both of

195 Walters, West Sacramento, 14.
which survive today, operated by Caltrans. The Webb Tract Ferry is operated by the County of Sacramento. 199

Bridges replaced most of the ferries by 1930. The first bridge from Sacramento across to Yolo County was a wooden truss swing-span toll bridge completed in 1858 at a cost of $60,000. It spanned 800 feet and was replaced in 1870 with a stronger bridge that accommodated railroad traffic, and again in 1911 by the even stronger I Street Bridge at the same location. Almost immediately it put several ferries out of business as tolls were less than ferry passage. Passengers could cross for five cents; a loaded wagon paid $1.25. It also hurt the local economy of Washington as ferries closed and floods continued. And, as noted earlier, the bridge routed traffic north of the main part of Washington, insuring further decline as freight and passenger traffic bypassed the town. 200

As a result of the nature of the Delta’s waters, several types of bridges were required: pivot, swing, bascule (hinged on each bank with a counterweight), and lift. In 1906 the first pivot bridge was built across the Sacramento linking upper Grand Island near the head of Steamboat Slough to the Pierson District. The first bascule drawbridge west of the Mississippi River opened at Walnut Grove in 1916. Designed and built by the Straus Bascule Bridge Company of Chicago, three additional Straus bridges were added across the Sacramento: Rio Vista in 1919, Isleton in 1923, and Paintersville, also in 1923. The following year the Steamboat Landing Bridge connected Sutter and Grand Islands. 201

The Little Potato Slough Bridge was originally built as a swing bridge in 1927 and rebuilt as a high-arch bridge in 1991, carrying traffic on California 12 from the mainland onto Bouldin Island. Leaving Bouldin Island, westbound California 12 crosses the Mokelumne River on a 1942 swing bridge. When large boats and ships approach the bridge, the bridge can swing open to allow passage. The Rio Vista Bridge was modified during World War II with a combination of new and old spans. In 1967, an Italian freighter missed the open lift span of the bridge and struck the stationary section of the bridge adjacent to the east tower, shutting the bridge for nearly a month. Renamed in

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200 Walters, West Sacramento, 15.

1998 for a vice-mayor of Rio Vista, the Helen Madere Bridge, it is the largest lift bridge on the Delta.\(^{202}\)

Antioch had a privately-owned highway lightweight lift bridge, built in 1926, able to accommodate cars but not heavy trucks at speed. Called the “Gateway to the Netherlands of America,” this was the first toll bridge on San Francisco Bay and important enough for the state of California to acquire in 1940.\(^{203}\) In 1930, the Southern Pacific built its own lift-span bridge across Carquinez Strait between Benicia and Martinez. Interstate 680 parallels this today. To cross the river at Sacramento, the Southern Pacific built the I Street Bridge in 1911. The same year, the M Street Bridge was completed as a highway bridge and two years later the Sacramento Northern laid track to also use the bridge. By the 1930s, the city needed a better conduit.\(^{204}\) The result was Tower Bridge, completed in December, 1935 with four lanes for motor vehicle traffic and a large center lane for trains. The first vertical lift bridge in the California Highway System, the towers rise 160 feet and the entire structure is visible for miles, originally painted silver but changed to gold in the 1970s and designed in the 1930s Streamline Moderne style. The Freeport Bridge, built in 1929, allowed traffic to cross the river below Sacramento without need for a ferry. Snodgrass Slough Bridge followed in 1931 and Sutter Slough Bridge in 1939 giving Delta residents direct and faster travel without having to wait for ferries.\(^{205}\)

**Agriculture and transportation**

As reclamation proceeded, agricultural crops changed. In the beginning the earliest settlers grew an annual wheat crop on the rim of the Delta. On the Weber Grant alone, by 1854, 40,000 acres were in cultivation, producing 1,600,000 bushels of grain, much of it barley to feed horses and mules in the mining districts. In the words of one early historian, “under their [miners’] feet was a wealth in cereals which was in twenty years far to exceed the wealth of the gold mines.” As land increased in value from $5 per acre in 1851 to as much as $30 per acre in 1860, Stockton became the “grain depot of the valley” just as the railroad arrived to transport it.\(^{206}\)


\(^{204}\) West Sacramento Historical Society, *Port of Sacramento* (Charleston, SC: Arcadia, 20-21 (photo of bridges spanning the river).

\(^{205}\) “Photo albums of bridge construction projects,” Margaret Deterding Collection 1984/154/052-57, Archives, Center for Sacramento History, City of Sacramento; “Bridges over the Sacramento River” website; also SacTowerBridge.org website. Retrieved 6 January 2015; California Department of Transportation, Caltrans Structure Maintenance and Investigations, October 1, 2001

Although wheat was California’s second gold rush, it does not grow well in marshy environments. From 1850 to 1880, in the first phase of Delta agriculture, farmers concentrated on potatoes, onions, beans, and a variety of perishable green produce, marketing it locally. Cattle foraged in the swamps during summers. The establishment of irrigation districts gave farmers more options. These included growing grain, hay, and eventually many other field crops. In 1871, a decade into the creation of the first reclamation districts, Sacramento County conducted a swamp land survey to determine which crops could be grown profitably on the Delta. They concluded that “the experiment of raising rice upon swamp land has been made in our county with gratifying success.” Despite this optimism, rice never became an important crop in the Delta.

Orchards and dairying were added after 1880. Chinese, Italian and Portuguese immigrants were identified with garden or truck farming, whereas American-born settlers tended to engage in grain, orchards, and livestock.

An example of specialized ethnic truck farming is Rough and Ready Island, directly west of Stockton. In 1852 the island was deemed important enough to commence reclamation, but that process took two decades and considerable outlay of capital. By the 1870s, a handful of Italian sharecroppers and their hired hands worked several properties on the island, raising tomatoes, peppers, eggplants, some asparagus and other truck crops. Twelve acres of deciduous orchards and vine as well as a few acres of alfalfa were farmed at the eastern end of the island. Produce was in such demand that around $1,000 of fruit and vegetables per week went to market in Stockton and San Francisco by the mid-1870s. Inventories from 1879 show that the island was shared with cultivators who raised field crops of barley, potatoes, corn, and beans on the lower back slopes and in the reclaimed back swamps. As John Thompson has noted, “The relationship of truck gardens to island peripheries and of field agriculture to the lower land was established early” on Rough and Ready as well as Roberts, Sherman and other islands of the Delta.

After 1900 the specialty crops familiar to most Californians became iconic with Delta agriculture. These included asparagus, celery, tomatoes, and sugar beets. Barley replaced wheat as the major winter grain crop, and Bartlett

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207 Bound ledger, Sacramento County Public Works Department, Swamp Land Survey District, Minutes of January 4, 1871 to March 3, 1890. See January, 1871. Archives, Center for Sacramento History, City of Sacramento.
pears became symbolic with Sacramento River Delta prosperity. Prior to the introduction of the electric motors and the internal combustion engine, draft animals, namely horses and mules, consumed large quantities of feed. As Ann Norton Greene notes, going “horseless” was not an overnight transition. Alfalfa began to replace seasonal hay as an important crop, cut for city livery trade and for large ranches raising beef cattle:

Although crop acreage and value figures are unavailable for the decade 1900-10, barley occupied the most extensive area, while potatoes were the most valuable crop. After potatoes, beans and asparagus were the most valuable row crops. Onions, field corn, celery, sugar beets, sweet potatoes, flax and flaxseed wheat, alfalfa, and rye were among the secondary crops of the decade.

One Delta promotional publication, printed by the Lodi Herald in 1904, claimed that the New Hope and Terminus reclamation lands produced “sixty bushels of barley to the acre and enormous crops of beans and potatoes. . . . The great asparagus fields are situated nearby.” Raising the rhetorical question, “why has [sic] the large wheat farms of the Delta Lands been cut up into small farms [?],” the editor responded, “why devote your attention to wheat production upon land worth $100 to $140 an acre, good rich lands, which will yield from $75 to $150 per acre in vines and fruits, when if planted to grain, would only net good interest on a valuation of $50 per acre.”

In the decade that followed, the relative standing of intensively farmed field crops remained about the same. In 1916, barley was grown on 120,000 acres east of the San Joaquin Old River and the North Fork of the Mokulumne. Beans and potatoes were grown on around 40,000 and 30,000 acres respectively. Four thousand acres in onions and 3,000 in sugar beets, as well as 3,500 in field corn and 1,000 in celery round out the list.

The sugar beet (Beta vulgaris), a root vegetable originally from the Mediterranean, is in the same family as Swiss chard and beetroot. It was

209 Thompson, “Settlement Geography,” 312, citing Stanley W. Cosby, “Delta History Notes,” manuscript from the 1930s. Stanley was as student of soil science at U. C. Berkeley in the 1930s; also, Stockton Weekly Independent March 25, 1898.


211 Thompson, “Settlement Geography,” 313. The 1906 California State Agricultural Society report lists the following crops by value for San Joaquin County: potatoes ($1,000,000); beans ($300,000); and asparagus ($160,000), 313n12.


introduced into California around 1870. A factory at Brighton (within metropolitan Sacramento) opened in 1871, producing sugar for two years and molasses for two years beyond that. It closed in 1876. Another early but unsuccessful factory was built in 1877 near Isleton, but it too closed shortly after opening. Failures were attributable to several possibilities including unwise choice of soils and soggy conditions, but more likely, disease, especially the leaf-hopper, a problem not solved until around 1910. Commercial success is associated with Claus Spreckels, the “Sugar King” of Hawaii who brought a German sugar beet processing plant to Watsonville in 1888. The Spreckels Sugar Company was among the early supporters of scientific research, which led to varieties of sugar beets less susceptible to disease.214

In the latter half of the nineteenth century, the demand for sugar outstripped the availability of cane sugar. In Europe, attempts to extract sugar from various plants resulted in the rise of the sugar beet. By 1900, the industrialized world demanded sweets, especially in drinks, candies, and in canned goods.215 Whereas per capita consumption of sugar had been less than two percent of diet in 1800, a century later it was fourteen percent.216 During the Gold Rush, Italian-born chocolatier Domenico Ghirardelli proved that money could be made selling sweets to miners and their families. Shops first in Stockton and later in San Francisco specialized in conversion of cocoa beans into cocoa butter, and from butter to sweets with the addition of sugar. With the invention of milk chocolate in Switzerland in 1876, chocolate sales soared and its price came down as a result of larger supplies of cocoa, industrial production of chocolate products, especially candy bars, and increased disposable income among the working class. As Tim Richardson observes, “Chocolate became an everyday purchase, and it was even issued as rations to the German, British and American armies in the 1890s . . . .”217

By 1900 Spreckels, Wrigley, and other giants of the sugar industry met the global need by building large sugar beet factories and using cane sugar where still available. In 1900 fewer than one million hundred pound bags of refined sugar were produced in California. By 1940, the volume increased to eight and a half million bags.218 In 1917, the Alameda Sugar Company

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217 Richardson, Sweets, 217-31, at 229.
218 Table, “Production of Beet Sugar in California, 1870 to 1940,” in Hutchison, ed., California Agriculture, 133.
contracted with farmers in the Holland Tract for exclusive right to purchase beets at $10 per ton. Alameda sold operations to Holly Sugar in 1923.\(^{219}\)

Most of the Delta’s beet production was in its northern districts in 1924, but by 1945, sugar beets were grown intensively throughout both northern and central districts of the Delta.\(^{220}\) The Amalgamated Sugar Company built a 1.5 million dollar refinery at Clarksburg in 1934 during the Great Depression. Sold to the American Crystal Sugar Company of Denver in 1936, it eventually was purchased by the Delta Corporation, closing its doors in the 1980s.\(^{221}\)

The history of the Holland Tract (or District) provides a case in point on the connection between private large-scale development, the rise of sugar beet industry, and its connection to rail transportation. One of the last segments of the Yolo Basin to be reclaimed, in 1913 the Netherlands Farm Company organized Reclamation District No. 999, some 26,150 acres of land between the Sacramento River to the east and the Yolo Bypass to the west. Philip Garone writes:

Thirty miles of levees needed to be built, requiring more than 10 million cubic yards of fill. Facing insurmountable financial difficulties, the Netherlands Farm Company soon transferred the ownership of its lands to the Holland Land Company, which carried out the work between 1916 and 1918. With the completion of the project, almost all of the 58,800 acres of the Yolo Basin that lay between the Sacramento River and the trough of the basin had been reclaimed.\(^{222}\)

Holland Land Company was a private, not a public holding. As such it sold land outright at $226 to $375 an acre or rented farms in pieces of twenty acres or more. H. T. Hammond, Delta booster and publisher of the Byron Times extolled the ethics of Holland Land Company, writing in 1918, “The policy of low rents and long leases has produced splendid results for a new property, and gross crop values amount to nearly $1,500,000. . . .the outlook for the company is bright indeed.”\(^{223}\) By 1920, 15,000 acres had been sold, realizing $4,250,000. A brilliant marketing campaign brought prospective buyers from San Francisco where they were “screened for agricultural capabilities and civic interest.”\(^{224}\) As early as 1921, the Western Pacific Railroad, through its by-then subsidiary railroad, the Sacramento Northern, showed interest in expanding into the Holland Land District from West Sacramento to Clarksburg. It

\(^{219}\) SRDHS Newsletter 19(2) December 1999:3.
\(^{220}\) Thompson, “Settlement Geography,” Appendix, Map Plate F: Sugar Beets.
\(^{221}\) Walters, Clarksburg, 37.
\(^{222}\) Garone, Fall and Rise of the Wetlands, 97.
\(^{224}\) SRDHS Newsletter 19(2) December, 1999:3.
estimated revenues for sugar beets alone at $96,000 or 120,000 tons hauled to Alvarado at $.80 per ton. Other less valuable crops in rank order were alfalfa-hay, hauled to Sacramento and San Francisco at $46,800; asparagus to Los Angeles and beyond at $19,837; potatoes to Stockton at $16,000; orchard fruit and nuts (unspecified) to Sacramento, Oakland and “Transcon[tinental]” at $15,936; onions to Stockton at $8,000; beans to Stockton, Pittsburg and San Francisco at $7,370; and barley to Port Costa and San Francisco at $2,050—a total projected revenue of $211,994.225 By 1924, still probing the possibility of building a line into the Holland Tract, the Holland Land Company provided the railroad with data on production on 25,000 acres, showing an increase in acres from 4,000 in sugar beets in 1923 to 6,000 in 1924; an increase from 2,000 to 3,500 acres in asparagus; an additional 300 acres of orchards from 2,500 to 2,800 acres; and an increase in “Miscellaneous” from 2,000 to 2,200 acres. Alfalfa, onions, and “spuds” remained steady at 3,000, 1,000, and 500 acres respectively, with beans declining precipitously from 8,000 to 5,000 acres and barley down by fifty percent from 2,000 to 1,000 acres.226 A line was built by the Sacramento Northern Railway in 1928 from Riverview in the north reaching Oxford to the south in the Holland District in 1929, with a short spur connection to Clarksburg (see further discussion later in this essay).227

The increase in variety, volume and value of crops throughout the Delta led to the need for local canneries. Salmon came first. During the Gold Rush the salmon industry developed a healthy market but was limited to meet demand due to transportation and preservation issues. According to Philip Pezzaglia, Rio Vista claims the first salmon cannery on the west coast, dating from 1859. Robert C. Carter is credited with this distinction.228 However, the better known “first” is associated with William and George Hume, two enterprising fishermen who caught salmon, sturgeon, catfish, eels, crayfish, and clams in the rivers and sloughs. In 1864, the Humes partnered with Andrew Hapgood, a tinsmith, to open Hapgood, Hume and Company in Sacramento using the cooker-boiler method rather than the traditional salt brining. The operation lasted three years before moving to the more abundant fishery on the Columbia River. Others filled their place. By 1882, twenty fish canneries worked the Sacramento River and San Francisco Bay.229 The

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225 Correspondence, M. Richards, Chief Engineer to Mr. Mitchell, Gen Mgr., S.F-S.R.R. Co., Oakland, Nov. 23, 1921, Western Railway Museum Archives, Rio Vista Junction.
226 “Crops for Holland District, as Obtained from the Secretary’s Office of Holland Land Company,” March 11, 1924, Archives of the Western Railway Museum.
227 Paul C. Trimble, Sacramento Northern Railway (Charleston, SC: Arcadia, 3005).
228 Pezzaglia, Rio Vista, 10.
industry involved 1,200 boats, occupying around 3,000 people between San Francisco, Stockton and Sacramento. The average annual catch during the 1880s was six million pounds of fish. But the technologies that had established California as the Golden State backfired on fisherman as well as farmers.

Silt from hydraulic mining operations upriver precipitated a collapse in the fishery. Although “hydraulicking” was banned by court order in 1884, the damage had been done. An official Army Corps of Engineers report in 1879 found that from 1855 to 1878, the ship channel in San Pablo Bay had narrowed about twenty percent. Furthermore, during the period, 1867 to 1878, 2,000,000 cubic yards had been deposited in the lower three and one-half miles of the Sacramento River and 500,000 yards in the San Joaquin.230 By 1914, it is estimated that more than 800 million cubic yards of mining debris or enough to fill 10,000 football fields to a depth of sixteen feet passed through the Delta, primarily from mining sites along the Sacramento River watershed. Less concerned about fisherman than farmers, in 1880, the state legislature formed the Board of Drainage Commissioners in an attempt to find a solution. The board was to create drainage basin planning districts with the costs borne by a statewide land tax and taxes on hydraulic mining. This action was invalidated by the State Supreme Court the next year so the farmers instituted injunction proceedings against the miners. As one authority notes, “The first of these cases—People v. Gold Run Ditch and Mining Company (July 1881)—is considered a landmark piece of environmental jurisprudence. It invoked the public trust doctrine to impose an injunction on hydraulic mining. A second case, Woodruff v. North Bloomfield Gravel Company (January 1884), also sided with the farmers.”231

By 1934, the Delta was excluded from commercial salmon canning. Only fresh or frozen salmon could be sold. As salmon runs continued to decline and in some cases disappear, the State stepped in and banned all net fishing in the Delta in 1957, followed by a ban of all commercial fishing of salmon in 1958.232

Canneries specializing in fruit and vegetables followed those exclusively canning fish. In 1880 Joseph and William Hunt formed the Hunt Brothers Packing Company in Santa Rosa, producing 30,000 cans of fruits and vegetables in 1890. In 1896 Sussman, Wormser & Company (S & W Fine Foods) was formed in San Francisco, followed by California Packing Company (C.P.C.). Each of these companies impacted the Delta economy. As cans

improved, with the entire top open for filling rather than a small hole that had been literally capped by the “Cox Capper,” quality and safety of products increased. Instead of mush stuffed through a small aperture, products could be preserved closer to appearance off the vine, line, or hoof. The demand for canned goods during World War I accelerated Delta canning operations. In addition to fish (especially salmon), asparagus, tomatoes, and pickles were among the largest items in demand by war’s end. There were two asparagus canneries on Grand Island, two at Isleton, and one each at Vorden and Rio Vista, as well as two in Sacramento and one in Thornton. In 1903, one compiler listed the value of that year’s asparagus pack from the Delta alone at “over 200 carloads” with a value of “about $400,000.” Asparagus production peaked in 1909-1910, at 27,750,000 pounds. By 1924, the old fields were mostly worn out and production shifted south to the San Joaquin area of the Delta which had sixteen percent of the plantings in 1924 and ninety-five percent by 1952. Ten canneries specialized in asparagus in 1936. However, by 1950, none remained in the Delta. Despite the decline in processing, between 1900 and the end of World War II, ninety-five percent of all commercial “grass” in the United States was grown in the Delta: 82,000 acres—both green and prized white asparagus.

The Libby Fruit Company began processing tomatoes at Locke in the early 1920s, competing with Del Monte in Rio Vista. Pratt-Low established a plant at Ryde. Sun Garden National and Bayside labels had plants at Isleton. In 1926, C. P. C. opened the largest all-purpose cannery in the world in Sacramento. Heinz Corporation edged its way into the Delta, producing pickles at Isleton by 1930. According to Kathleen Graham Hutchinson, “In time the canneries followed the produce out of the Delta to the South Bay area: San Leandro, Hayward, Santa Clara and San Jose. Pratt-Low went to San Jose where other canneries were located such as Schukle and Western. Growers also shipped to Gerber, Tillie Lewis, Stokely-Van Camp, Hunt, and Del Monte.” Consolidation of firms, as well as shorter and better truck transportation were factors in the physical relocations. Hutchinson notes that by 2013, many of these same canneries had relocated back in the San Joaquin Valley.

Tillie Lewis Foods of Stockton is an interesting case study. According to San Joaquin Historical Society’s guide to the Tillie Lewis Papers, Tillie Lewis

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233 Martin, comp., *The Delta Lands of California*, 18, 97.
236 Hutchinson, “Early Canning Industry.” Bayside Canning Company was opened in 1906 in Alviso, Santa Clara County by Thomas Chew. By 1921 it was the third largest cannery in the United States with its branch in Isleton. *SDHS Newsletter* 25(2) December 2005:4.
(1904-1977) achieved a stature unequaled by any other businesswoman in the world:

Born Myrtle Ehrlich, she grew up in Brooklyn, New York, where she early married a wholesale grocer and became involved in the wholesale food production and marketing business. Among the goods her husband sold were imported pomodoro tomatoes, which impressed her because of their tangy flavor. The marriage lasted only a short time. After it ended, Tillie Ehrlich began investigating the possibility of growing the pomodoro in America. She arranged a trip to Italy (1934), in the course of which she met Florindo del Gaizo, part owner of a Naples cannery. Del Gaizo taught her about the pomodoro industry and gave her ten thousand dollars to use as the beginning of a fund to acquire appropriate lands and establish a cannery. He later sent her seeds and used machinery, and together the couple formed Flotill Foods Corporation. Tillie Ehrlich selected Stockton, California as the site for the Flotill cannery, which was completed in 1935. The company went into full production the following year. In 1937, Florindo del Gaizo died, after which Ehrlich persuaded the Bank of Stockton to lend her one hundred thousand dollars to buy her partner’s interest. By December 1937, she had paid back the loan and was the sole owner and manager of Flotill Foods. Over the next decade, Ehrlich branched out into other crops, acquired additional canneries, and purchased a can manufacturing plant. During the Korean War, Flotill was the largest supplier of Army C-Rations in the United States, and in 1951 she was named National Business Woman of the Year. With sales nearing twenty million dollars in 1952, Tillie established Tasti-Diet Foods and became one of the earliest marketers of artificially sweetened fruits and soft drinks. By then, she had married labor leader Meyer Lewis. Soon afterward, she changed the name of her company to Tillie Lewis Foods and began to sell shares on the American Stock Exchange (1961). Later, she expanded company facilities even further, adding the Anderson Split Pea Soup line (1962) and eventually merging with Ogden Foods of New York (1966). By 1971, Tillie Lewis Foods had sales of more than ninety million dollars per year.237

Much of Tillie Lewis Foods’ produce came from Delta farmers. The growth in the total California fruit production, which includes the Delta can be seen in the following figures, which Lewis’s company compiled in 1943:238

238 Table, “California Canned Fruit Packs,” Western Canner and Packer Yearbook and Statistical Number (Stockton and Modesto: Flotill Products, Inc., 1943), 108. This unique source is on file at the Sacramento River Delta Historical Society in Walnut Grove.
Pears are the pride of the Delta and have been since orchardists first experimented with fresh fruit production in the 1850s. During that decade, growers in Martinez, including John Swett and John Strentzel, planted many varieties of fruit including peaches, quinces, apples, plums, and figs, enjoying greatest success with Bartletts. By the 1860s, Strentzel was renowned throughout the state for his wines, as well as his plantings. Strentzel’s son-in-law, John Muir, took over the Strentzel nut and fruit ranch in the 1880s, shipping his products from the wharf in Martinez by packet steamer to Bay wholesalers. Pears bruise easily and have a short shelf life. Strentzel packed his pears in carbonized bran, which slowed ripening. Even so, timing was critical in order to get fresh fruit to market without soft or spoiled fruit. In 1897 Muir improved the probability of his pears, apples, figs, and grapes reaching grocers firm and fresh by convincing the San Francisco-Stockton & San Joaquin Valley Railroad (later purchased by the AT&SF) to build a spur through the Strentzel-Muir property with a station stop as it crossed the Alhambra Valley bound for Richmond. Muir Station served this purpose for growers until it burned in 1941.239

For many growers, until refrigeration was common on rail and motor transportation, canning made more economic sense than selling fresh fruit. Still, farmers of the Delta took special interest in promoting fresh pears by the box with colorful and orchard-specific labels.240 Advertising with labels goes back to the nineteenth century. In 1918, Don Francisco published a booklet titled *Labels—Suggestions for the Shipper Who is Seeking to Give His Pack a Worthy and Effective Mark of Identification*. These ideas helped distinguish California produce—both fresh and canned.241 Scenes of Delta farms on labels share Edenic imagery of perfectly ripe fruit with an idyllic background, often a waterscape or flowering orchards. For example, “Pride of the River” brand was George Locke’s personal label. His packing house just north of the town named

240 This aspect of the Delta’s commercial history is a specialty of Jim Dahlberg, founder of the Courtland Pear Fair, dating back to 1972. His annual calendars feature pear labels and are available through the Sacramento River Delta Historical Society in Walnut Grove.
for his family shipped pears and asparagus, using the same label from 1912 to 1938. Three pears in the foreground lead the viewer to see a steamboat on the Sacramento River with a colorful sky. “Vista del Rio Brand” was grown and packed by J. A. DeBack at Courtland in the 1920s. Its imagery features a large Delta farmhouse, fenced yard and both steamboat and canoe on the Sacramento River. Another label, “River Maid Brand,” dates to 1933 when printed for the Darsie and Gamble Ranch on Andrus Island. The label features a Dutch maiden with a basket of pears and a scene from the Netherlands in the background with classic windmill and farm across the river—paradise reclaimed. The label was still in use as late as 1978 by Allstate Packers of Lodi.242 The pear pack for California decreased from a peak of 2,738,839 in 1934 to 1,839,837 in 1941 as more fresh pears made it to market in good shape.243 Between 1929 and 1945, the acreage devoted to pear growing decreased by more than two-thirds.244

Cherries provide an interesting example of the increase in California farm production, much of it coming from the Delta and its periphery. By 1930, California surpassed both Oregon and Washington State in production of canned sweet cherries at 15,690, 9,560 and 9,200 tons respectively. Ten years later, on the eve of World War II, California and Washington State were near equal at around 32,000 tons each, with Oregon at 21,100. In 1940, 13,919 acres of cherries were in production in California with another 1,400 non-bearing acres planted in cherries. Most were the Royal Ann (Napoleon) variety.245 Although these figures include the entire state of California, as one agricultural economist noted in 1946, “Almost all the successful cherry-growing areas adjoin the San Francisco Bay area or feel its influence.” The same authority noted that although cherry production declined throughout most of California between 1925 and 1945, its production increased in San Joaquin County, where the planting doubled.246

Tomatoes incorporated into pork-and-beans, baked beans, and as sauce had become staples during World War I, especially among Americans and the British. By World War II, tomatoes as juice, paste, puree, catsup, sauce and other products increased dramatically. In 1900, California canners produced 266,550 cases of tomato products. At the beginning of the Great War, production was 2.1 million cases. By war’s end in 1918, 5.7 million cases. In

244 Dillon with Simmons, Delta Country, 96.
245 Table, “California Cherry Acreage;” Table, “United States Cherry Production, by Chief States;” Table, “Western Canned Cherry Packs,” Western Canner and Packer Yearbook (1943).
246 Hutchison, California Agriculture, 188-90, at 189.
1940, California produced 13.4 million cases of tomato products; two years later: 16.6 million cases as war production guaranteed markets.\textsuperscript{247} Despite the tomato’s importance to Stockton’s economy and California generally, production on Delta lands was limited to the southernmost and northernmost districts.\textsuperscript{248}

The earliest record of asparagus in California dates to 1852 in Sacramento but was not a market crop until 1875. In 1892 Robert Hickmott built the first asparagus cannery in the United States on Bouldin Island. White asparagus did exceptionally well in Delta light peat soils leading to planting of around 7,000 acres by 1903. A blight that year led to a decrease for the next two years, but from 1906 to 1931 there was a steady increase with a pack of white asparagus of 2,633,000 cases, declining during the Great Depression to around 2,000,000 on average. Green asparagus by contrast was only one-fourth to one-third of the total pack with declining sales as the Depression worsened. Even so, canned asparagus was a Delta hallmark by 1940. The crop that year yielded 3.1 million cases for the United States at large with 2.1 million or two-thirds coming from California. This represented 53.8 tons of the highly-prized vegetable with another 34.7 tons sold fresh at markets.\textsuperscript{249} The \textit{Canners’ League Annual Survey} for 1941 showed 82,504 acres of asparagus in Sacramento and San Joaquin counties, most of it in the Delta. Only 700 acres was grown in other counties, most of it in the Imperial Valley and around Los Angeles. In short, at one time California produced ninety-five percent of the nation’s asparagus, most of it coming out of the Delta.\textsuperscript{250}

Almonds provide a final example of growth. First introduced by Spanish missionaries, many early settlers in the 1840s had several trees. Commercial production is associated with the nurseries of A. P. Smith in Sacramento in 1859. John Bidwell had ninety acres in almonds on his estate at Chico by 1878. A. T. Hatch, a grower in Suisun, is credited with experimenting with several varieties of the tree, two of which became California standards—the “Ne Plus Ultra” and the “Nonpareil.”\textsuperscript{251} While almonds never became an important crop in the Delta itself, Hatch’s pioneering experiments in Suisun led to one of the region’s most important crops. In 1921, 41,184 acres were dedicated to almond orchards in California producing 6,200 tons. By 1942, 79,200 acres


\textsuperscript{248} Thompson, “Settlement Geography,” Appendix, Map Plate A: Truck Crops and Tomatoes.

\textsuperscript{249} Table, “California Asparagus Output,” \textit{Western Canner and Packer Yearbook} (1943), 171.

\textsuperscript{250} Hutchison, \textit{California Agriculture}, 142-43.

\textsuperscript{251} Hutchison, \textit{California Agriculture}, 170-76.
were in almonds, producing 22,000 tons of the nut crop.\textsuperscript{252} By war’s end, over half of California’s almonds were the Nonpareil variety, most of the others serving as pollinizers.\textsuperscript{253}

**Agriculture and technology**

Parallel with advances in the canning industry, several technologies made commercial agriculture in the Delta feasible and profitable most years. In addition to local applications of non-mechanized items such as the tule shoe, the most important of these were (1) steam-powered dredges and pumps; (2) the electrification of the Delta and the introduction of electric motors on pumps, bridges and in factories; (3) rail transportation by steam, electric, and later by diesel-electric; (4) the internal combustion engine and the many applications that came with it, especially bulldozers and backhoes as well as gasoline-powered pumps, cars and trucks; and (5) mechanized planting, diskimg, and harvesting equipment.

Pick up any illustrated history of any aspect of Delta history and three of the more prominent images are of dredges, steamboats and bridges. Mechanical powered earth-moving equipment for levee building was introduced in 1865. Before that all levee-building was done by hand using technology that had changed little in millennia for Chinese laborers. Hand cutting peat was slow and the peat itself porous, so early levees often became saturated and failed. **Dredges and ditchers** began to change this around 1870. A prototype of a steam-powered mechanism, or “steam paddy” was introduced in 1869. Designed to build a mile of levee per day, in reality it averaged only 320 feet of five-foot-high levee. A mechanical “ditcher” came into use in 1871. It cut a four-by-four foot ditch and carried the fill by a chain elevator to the opposite side of the excavation. Floating steam shovels were introduced in Stockton in 1875. The *Samson* and *Goliath* were built for leveeing parts of Roberts Island where horse-drawn equipment could not be employed. The dippers lifted soil from depths of thirty feet and carried the material over a bank at a distance under fifty-five feet from either side of the scow.\textsuperscript{254}

The **clamshell bucket dredge**, introduced in the 1870s, became the most successful levee-building device. It was superior to the steam shovel dredge because of its longer reach and greater flexibility for placing fill.

\textsuperscript{252} Table, “U. S. Packs and Acreage of Nuts;” Table, “California Almond Production,” *Western Canner and Packer Yearbook* (1943) from U.S. Department of Agriculture data.

\textsuperscript{253} Hutchison, *California Agriculture*, 172.

\textsuperscript{254} Thompson, “Settlement Geography,” 265-72. Examples of these technologies are on exhibit and have been interpreted by David Stuart, Director, San Joaquin Historical Society, Micke Grove. Our thanks to Dr. Stuart for a tour of the earth-moving exhibit on 3 February, 2015. His labels for these machines are a valuable interpretive resource for anyone interested in this subject.
Designed by John Ferris, Superintendent of Glasgow California Land Company, and built by the Stockton Iron Works255 in 1878, its first large-scale use was near Clarksburg in the Lisbon District in 1879. An eighty-foot boom was powered by a forty-horsepower steam engine which lifted a two- or three-yard bucket. In time, clamshell dredges increased reach and capacity. By 1900 models with 110 or 120-foot booms were in use; ten years later, 190- to 220-foot models used a bucket with a five-to-six cubic yard capacity. Fifteen of these monster dredges were in use in the 1920s, many of them built in Stockton by the Stockton Iron Works, which dates back to 1868.256 Other companies that designed and/or built dredges for use on the Delta include the Globe Iron Works of Stockton (1858-1912), the Risdon Iron Works of San Francisco (1897-1911), which was absorbed by Union Iron Works, a division of Bethlehem Steel Company. The latter continued to build and service dredges well into the 1960s.257

Of all dredging companies, the Dutra family is best known on the Delta. Since 1878, members of this Azorean family have been engaged in sidedraft clamshell dredging. Born in the Lisbon District, Antone S. Dutra began working as an owner-operator in 1905, building his first dredge, the Mallard, in 1916. Other notable Dutra dredgers include Edward Dutra, who began his career in San Francisco in 1933, establishing his own company in 1955 and founding the Dutra Museum of Dredging in Rio Vista. Today, the Dutra Dredging Company operates around the world repairing levees and deepening channels, harbors, and marinas.258

Horse-powered drainage and irrigation pumps were introduced in the 1870s and by the end of the decade, these pumps were steam-powered. By the end of the century, some of the steam pumps had developed into large capacity pumps moving as much as 38,000 gallons per minute, but costing around $20,000 on average. Smaller volume pumps were promoted for individual farmers, one promoter noting:

The farmer owning his own pumping plant is the most independent man on earth. . . . The cost of establishing a pumping plant including boring well, building pump house, good three-horse power engine and 2 or 2 ½ inch pump, suitable to irrigate five to ten acres will be from about $350

255 Stockton Iron Works was founded in 1868 by G. C. Hyatt and H. Farrington. It manufactured steam engines, mining machinery, saw and grist mill works, agricultural implements, house fronts, and iron and bass castings in addition to dredging equipment. San Joaquin Historical Society, Micke Grove. Label in museum exhibit.


257 Thompson and Dutra, The Tule Breakers, 202-03.

258 Thompson and Dutra, The Tule Breakers, 261; The Dutra Museum of Dredging (pamphlet).
to $375. To irrigate ten to fifteen acres use a five-horse power engine and three-inch pump. To irrigate twenty to thirty acres use a [sic] eight-horse power engine and 3-inch pump.259

By 1905, electric pumps had replaced most steam-powered pumps in the Delta. Where the land was too soft for foundations to place pumps, barges served as platforms on open water.260

**Tracked vehicles** are as important as dredges and pumps in Delta development. In 1883, brothers Benjamin and Charles Holt opened the Stockton Wheel Company, manufacturing harvesters and other devices for farmers. The first experimental steam-traction wheeled engine was built in 1890. According to the company’s own history, in this decade, “. . . most Holt steamers were used for farming. But freighting quickly became a major market for traction engines--especially for transporting lumber, ores, and supplies, where roads were marginal and the cost of animal hauling high.”261

Located at the corner of Church and Aurora streets, in 1892 the company incorporated as Holt Manufacturing Company and continued research on various traction devices, leading in 1904 to a steam-powered machine that moved on self-laying tracks, two feet wide and nine feet long, rather than wheels. Named the “Caterpillar,” it revolutionized construction projects large and small thereafter. In 1908 Holt converted his Caterpillar from steam to gasoline. Soon competitors copied his idea. Holt’s main competition was C. L. Best Tractor Company of San Leandro. In 1925 the two companies merged as Caterpillar Tractor Company, moving operations that same year to be closer to sources of steel in the Midwest at Peoria, Illinois, but retaining dealerships in California. For levee construction and maintenance, as well as clearing land and laying out waterways, the tracked bulldozer and its cousin, the backhoe, became essential tools on the Delta.262

Holt-Best’s competitors in the region included Samson Iron Works. Founded in Stockton in 1898 by John Kroyer, the company started out making centrifugal water pumps for reclamation and irrigation, but soon after began making engines for those pumps. In 1902, Samson Iron Works made its first

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tractor, the Samson Sieve Grip, a three-wheeled vehicle which ran on gasoline. In 1916 the company changed its name to Samson Tractor Company and changed yet again in 1917 to Samson Sieve-Grip Tractor Company. General Motors Corporation purchased the company in 1917 to compete with Ford, which was also building tractors. A distinction of the Sieve-Grip model is its Remy electric governor, an early form of cruise control which kept a steady speed (maximum 3.5 MPH) and allowed the operator to multitask while driving.  

Electrification of Sacramento began in 1885 with steam-powered electric generators, which lit a small portion of the downtown, as well as the Capitol grounds. With completion of Folsom Dam in 1895, hydroelectric power was transmitted twenty-two miles along the nation’s then-longest alternating current corridor to supply Sacramento’s street lights, trolleys and industrial buildings.  

Gas lights provided some illumination of downtown Stockton as early as 1888. Four years later, electric lights were installed. Electricity entered the Delta before 1905, with the construction of lines peaking between 1911 and 1915. Three companies ran power through or alongside the Delta by 1913: Great Western Power Company, Pacific Gas & Electric Company, and American River Electric Power Company. For all, placing poles and transformers proved difficult in the soft peat soils.

Telecommunications in Sacramento date to 1879, only three years after Alexander Graham Bell invented the telephone. The Sunset Telephone Company was first. By 1883 a long distance line connected Sacramento with San Francisco via a relay in Benicia. Two years later copper lines eliminated the need for delayed relay. After 1893 the individual telephone user called to Central where operators connected to the receiver.  

Stockton Telephone Company opened for business in 1881, the tenth telephone office in the state. In 1884 a long distance line was completed from San Francisco to Stockton and later extended to Sacramento and Marysville. The following table shows the growth of telecommunication in Stockton:

<table>
<thead>
<tr>
<th>Year</th>
<th>Subscribers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1882</td>
<td>44</td>
</tr>
<tr>
<td>1890</td>
<td>351</td>
</tr>
</tbody>
</table>

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263 San Joaquin Historical Society exhibit of Samson Sieve Grip 30X, 1918 model. Label by David Stuart, Director.
264 Folsom Powerhouse State Historic Park Brochure (Sacramento: California State Parks, 2002).
266 Thompson, “Settlement Geography,” 281.
268 G. Walter Reed, History of Sacramento County, California with Biographical Sketches (Los Angeles: Historic Record Co., 1923), 236-37.
269 Martin, et al., Stockton Album, 72.
Rail transportation

Steam and electric power were introduced to the Delta soon after these two technologies were available generally. Not so rail transportation. As previously noted, beginning in 1856, the Sacramento Valley Railroad and its successor, the Central Pacific, linked the upper Delta at Freeport to the Capital and the mines via Folsom. Despite completion of the first transcontinental line in 1869, no rail line except the short-lived branch of the Sacramento Valley Railroad from Freeport to Brighton (1856-1866) was built in the Delta until 1906. Steamboats efficiently moved produce as well as people, goods and livestock throughout the peak period of Delta reclamation in the nineteenth century. Furthermore, cost per mile and risk of subsidence and flooding discouraged investors in rail lines to enter the Delta. Enough traffic was needed to convince officials in San Francisco and Sacramento that a rail could succeed in the Delta. Logistical obstacles of transporting canned goods could be easily overcome; however, shipping a fresh pear or bunch of grapes was an entirely different matter.

Early ventilated box cars were introduced throughout the United States prior to the Civil War but were unsatisfactory for shipping fresh produce long distances. Refrigerated cars using blocks of ice were in use on some rail lines in the eastern United States by the 1870s, with Armour Meat Packing pioneering this technology and dominating shipping of perishables by the 1880s up through 1906. Increasingly, grocers and consumers of fruit demanded fresh produce from California in stores and on kitchen tables. The problem was both distance and schedules of rail lines, which often delayed shipments of crated fruit, expecting more freight or experiencing mechanical problems. Steven Stoll has analyzed this problem and concludes, “Fruit required speed and good storage on its way to market, but the railroads provided neither.” He adds, “The only California fruit most retailers had ever seen in the 1880s was expensive and soft. Grocers treated it more like caviar than a common element of diet.”

To overcome this problem and to make shipping profitable for both the producer and the railroads, farmers banded together into cooperatives and investors formed shipping companies for these specialized refrigerated cars. In 1900, the Union Pacific had 758 ventilated fruit cars and 404 ice refrigerator cars. The Southern Pacific had 804 ventilated and 188 ice cars. The Santa Fe had 538 ventilated and 1,032 ice cars.\textsuperscript{272}

In 1906, Congress passed the Hepburn Act which set maximum freight rates, required railroads to seek court relief in disagreements on Interstate Commerce Commission rulings, and made railroads responsible for reasonable icing charges. In addition, all interstate railroads were required to provide refrigerated cars, whether their own or leased and show charges for icing. The act encouraged growers and wholesalers and boosted California’s fruit industry, including Delta farms which shipped produce after 1907 on the Pacific Fruit Express Company (PFE), a joint Union Pacific and Southern Pacific venture that lasted until 1978. In 1919, PFE had 15,970 ice refrigerator cars.\textsuperscript{273}

Sacramento Southern Railroad (SSRR) was incorporated in July, 1903 as a project of the Southern Pacific Railroad, five of whose officers served as its directors. Construction began in 1906 from Sacramento to Freeport. It reached Walnut Grove in 1912 with further extensions to Isleton in 1929 and a three-mile branch to the Golden State Cannery on the Mokulumne River in 1931. The main purpose was to haul fruit and vegetables to the Southern Pacific’s yards in Sacramento and Roseville for shipment across the nation. In March, 1920 the \textit{Southern Pacific Bulletin} boasted of the year-round bounty of the Delta. It stated that the Walnut Grove station alone shipped celery from November to February, asparagus from February to May, fruit from May through September, and seeds from September through November.\textsuperscript{274} The SSRR continued operations until October 10, 1978, facing stiff competition from refrigerated trucks beginning in the 1950s. Rails and ties have all been pulled since, leaving occasional stretches of flattened right-of-way but little other evidence of the energy and scale of this historic operation.\textsuperscript{275}

The other main freight line that penetrated the Delta was the Sacramento Northern (SNRR), which ironically ran further south than the SSRR. Its beginnings date back to two independent electric rail lines. The Northern

\begin{footnotesize}
\textsuperscript{272} White, \textit{The Great Yellow Fleet}, 150.
\textsuperscript{273} Hepburn Act (1906) as summarized by Anthony W. Thompson, Robert J. Church and Bruce H. Jones, \textit{Pacific Fruit Express}, 2d ed. (Berkeley and Wilton, CA: Signature Press, 2000), 6; White, \textit{The Great Yellow Fleet}, 151 (beginning of Pacific Fruit Express), 152 (size of fleet in 1919).
\textsuperscript{275} Hecteman, \textit{Sacramento Southern Railroad}, 9. For a map of the line in 1951 see frontispiece.
\end{footnotesize}
Electric Railway was completed from Chico to Sacramento in 1907, but went bankrupt in 1918, reorganized as the Sacramento Northern Railway. The other electric line was the Oakland, Antioch, and Eastern Railway, completed from Oakland to Sacramento in 1913. It too went bankrupt in 1920 and reemerged as the San Francisco-Sacramento Railroad. In December, 1928, the two merged to become the Sacramento Northern Railroad. Through legal agreements and partnerships, the line actually should be thought of as one that connected the northern Sacramento Valley at Chico with San Francisco via the Oakland Mole (ferry terminal). Stations included Moraga (Saint Mary’s College), Lafayette, Walnut Creek, Concord, Port Chicago, Pittsburgh, and Antioch. At West Pittsburg, a ferry was used to transport the cars over the water to Chipps Island. From there the rail resumed to Montezuma, Rio Vista Junction (west of the town of Rio Vista), Creed, Arcade (Lisbon), and through West Sacramento to downtown. To cross the Sacramento, the line crossed the M-Street Bridge, which was built in 1911 and rebuilt in 1933 and now called Tower Bridge (also Capitol Avenue Bridge) which graces Sacramento’s old town wharf district.276

The Western Pacific Railroad (discussed below), which owned majority interest in the Sacramento Northern, began discussions about building rail service along the west side to Rio Vista through the Holland District (Tract). Construction began in 1928 starting east of the Lisbon Trestle at Riverview next to Arcade. The line was built to a railroad-created end point given the name of Oxford and finished in 1929. It was freight-only and never completed as originally envisioned to Rio Vista. A short branch line was built to the new Amalgamated Sugar Company mill at Clarksburg, which began production in 1934. Journalist and railroad historian Paul Trimble notes, “Of the 10 California interurbans that could be called freight haulers, the average life beyond passenger service was 34 years; on the SN it was 35 years. Of those 10 interurban railways, the average lifespan overall was 57.6 years, while for the SN it was about seven decades.”277

Another railroad that had great potential but a rocky and sordid history is associated with Claus Spreckels, the “sugar king.” In opposition to the Southern Pacific, in 1893 a group of investors organized the San Francisco-Stockton & San Joaquin Valley Railroad, intending to compete with the SP as far as Bakersfield. Funds were raised in earnest to make this a multi-city cooperative. Antioch, San Jose, and Oakland competed with Stockton as a terminal point. Surveying and laying of grade commenced in 1895. Tracks

276 Paul C. Trimble, *Sacramento Northern Railroad* (Charleston, SC: Arcadia, 2005). For a map of the line in 1939 see frontispiece; for a map showing additional modern stations and stops see p. 110.
277 Trimble, *Sacramento Northern Railroad*, 77.
reached Fresno in 1896 from Stockton and, as previously noted, crossed the Alhambra Valley to Richmond through John Muir’s property at Martinez. Three years later, Spreckels sold his majority interest in the road to the Atchison, Topeka and Santa Fe, which had its eyes on the route all the time. Thus the Santa Fe was able to complete a line from Chicago to San Francisco via Richmond Point using stops in California’s Central Valley without having to negotiate rights-of-way and with benefit of both public and private money.278

The Western Pacific Railroad (WPRR) was the last of the transcontinental lines to connect the country and ran along the Delta’s eastern edge between Stockton and Sacramento. The brainchild of a group led by George Gould, son of Gilded Age-entrepreneur Jay Gould, the goal was to connect San Francisco with the East via Salt Lake City where it partnered with the Denver & Rio Grande Western Railroad. Incorporated in 1903, survey work began that summer, with completion of the 1,207.5 miles in August, 1910 at a cost of $60 million. Both a passenger and freight line, WPRR utilized ferry transfer from San Francisco to Oakland, and rail via Niles, Stockton, Sacramento, Oroville and on to Nevada across Beckwourth Pass. Stockton and Sacramento were connected in 1908 with passenger service commencing between Stockton and San Francisco two years later, three trains per day.279 In 1916, the line went bankrupt and was reorganized as the Western Pacific Railroad Corporation. Its roster included 125 locomotives, 54 passenger cars, and 3,390 freight cars in 1917. The new company took advantage of the boom in asparagus production as well as other fresh produce, adding a spur west to Terminous at the junction of the South Fork of the Mokulumne River and Little Potato Slough on Highway 12 west of what is now Interstate 5 in 1927.280

Riverboats brought freight to the landing for loading onto rail cars. The Western Pacific was one of the first lines to convert from steam to all-diesel in the early 1950s. The tracks to Terminous were subsequently abandoned and pulled in the 1960s as a result of competition with trucks. The WPRR was absorbed by the Union Pacific in 1982, which still uses the tracks between Stockton and Sacramento.281

Impact of the internal combustion engine on the Delta

278 Tinkham, History of San Joaquin County, 256.
279 Tinkham, History of San Joaquin County, 256-57.
Road construction and maintenance have always been an engineering challenge on the Delta due to subsidence, periodic flooding, and especially oxidation of peat soils, which creates uneven undulations on road subsurface. As early as 1853, the Sacramento County Board of Supervisors considered improvements on the road south of “Sutter Town” (Sutterville) to get produce to market efficiently. In 1855 a road from Sacramento City to Georgiana Slough was surveyed and Road Districts 16 and 17 were created. The Board of Supervisors’ minutes read:

Commence at the intersection of Y and 28th via Southwick and Kadell’s ranch (an oak tree on the bank of the Sacramento River) thence down the bank of the river to Sharps at Georgiana Slough. Recommend 80 feet wide at commencement to Kadell’s ranch, balance laid out 30 feet wide. 282

Another county road was approved in June of 1860 to circle Grand Island and was opened in January of 1861.283

Other roads followed these, but few were “permanent” and most were impassible during heavy rains. One of the more important developments on the crowns of Delta levees that improved roads was oiling of dirt surfaces, beginning in 1901, from Isleton to Sacramento. In 1914 the Sacramento County Highway Commission proposed forty-one public roads for improvement. These included River Road (37.7 miles), Grand Island West Road (11.9 miles), Grand Island East (16.9 miles), New Hope Road (7.64 miles), Ryde-Howard Road (2.34 miles), Sutter Island Road (6.02 miles), Brannan Island Road (3.88 miles), Twitchell Island Road (1.5 miles), Sherman Island Road (11.2 miles), Jackson Slough Road (1.5 miles), and a few roads providing entrance to the Delta including the Hood-Franklin Road (3.83 miles) and Thornton Road (1.26 miles).284

Concrete paving commenced in 1915 from Stockton to Holt, now part of Highway 4. By then, the “Horseless Age” had commenced and Americans had a fascination if not a love affair with the automobile. In 1910, despite its small population of less than 30,000, “exclusive of Japanese and Chinese,” Stockton car dealers offered Hudson, Chalmers-Detroit, Hupmobile, Thomas Flyer, Lozier, and Rambler-- in addition to the giant--Ford.285 In its September issue of 1916, Sunset Magazine, produced since 1898 as a promotional by the

283 Ibid.
Southern Pacific, published an article titled “What is Home without a Garage?” In it the author argued that “second only in importance to the house itself nowadays is the garage.” Two years later, *Sunset* provided its readers a map of car ownership in the United States with California fifth in the nation in number of automobiles at 301,197 or one to every ten residents. By 1928, in Stockton alone, one could buy a new or used Buick, Cadillac, Chevrolet, Chandler, Chrysler, Dodge, Franklin, Hudson-Essex, Hupmobile, La Salle, Nash, Oldsmobile, Pontiac, Star, Steed-Nash, Whippet, Willys-Knight and Lincoln—in addition to Ford. And if in need of a rental, Hertz “Driveyourself System” was available on East Market Street.

Of greater importance for Delta history would be the number of trucks, which is not given, but the aggregate number of trucks in the United States in 1917 was approximately 325,000. In 1930, 900,000 trucks were reported by the U. S. Department of Agriculture among 30,529,000 American farmers; by 1950 over two million trucks among twenty-three million farmers, whose numbers had declined while the number of vehicles on their properties had escalated. After 1910, the Ford “Model T” and its competitors, especially versions of flatbed trucks, gave Delta farmers a new technology to move goods more efficiently and quickly. By the 1920s, the Delta teemed with trucks. Trucking on the Delta, as in most rural areas of America, “grew like a field of weeds,” writes Stephen B. Goddard. Among his reasons: “entry into the industry took little money or skill, the heavy hand of government had not yet set up standards to keep people out, trucking offered an inherent flexibility of movement railroads could not match, railways had more business than they could handle, Americans were enjoying a technology-driven consumer revolution, and the profile of American cities was changing.”

In time trucks and rails would compete, but during the two decades of 1910 to 1930, some of the truckers’ best customers were the rail lines themselves. Trucks could take fresh produce directly from the farm to the

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railhead or to the cannery, not clogging up loading docks, steamboat landings, warehouses, or rail yards. Independent trucking companies, often attached to filling stations or mechanical garages, were eager to oblige railroads requiring short hauling of freight. As trucks became more mechanically reliable, independents also looked at the long haul as a way to make a better living, defying the conventional wisdom that trucks existed to serve railroads.

Local city directories and fire maps show numerous trucking operations in Stockton, Sacramento, Antioch, and Rio Vista as well as in the smaller towns of the Delta.\textsuperscript{291} Ryde Garage and Machine Shop owned Studebakers while other firms had Internationals and Kleibers.\textsuperscript{292} Some farmers ordered Graham trucks from Detroit; others flatbeds and cargo trucks from Transport Truck Company of Bay City, Michigan.\textsuperscript{293} Auto Car Company made trucks in far-off Pennsylvania. One now at San Joaquin Historical Society Museum was once owned by Henry Finnigan and used in both San Joaquin and Sacramento counties,\textsuperscript{294} but the most common carrier was the Ford. A 1923 Ford flatbed now at the Rio Vista Museum, once hauled milk and ducks to market. A 1924 model at San Joaquin Historical Society, recently restored, probably served similar rural tasks.\textsuperscript{295} Open- and closed-bed vans also carried goods on the Delta as is clear in photographs that survive in the region’s museums and historical societies. But it was the individual farmer, shopkeeper, and delivery agent that kept America’s assembly lines churning out trucks. After discontinuing production of the Model T and Model TT in 1927 (15 million vehicles later!), Ford opened the largest automobile assembly plant on the West Coast at Richmond in 1930 which later produced Jeeps, tanks, and half-tracks.

\textsuperscript{291} Stockton City Directories, 1919-1932, have long lists of automobile repair, servicing, and parts companies, as well as some trucking operations, which increase in number during the decade. Holt-Atherton Special Collections, University of the Pacific Library.
\textsuperscript{292} Kathleen Graham Hutchinson, “Ryde, Part II,” \textit{SRDHS Newsletter} 21(2) December 2001:3. Kleiber trucks as well as Studebakers were used in the Clarksburg area by the Krull Brothers Ranch to load sugar beets. Friends of the Clarksburg Library Digital Photograph Collection, Yolo County Archives, Woodland, photos 1104, 1006.
Paul Kleiber began making trucks in Los Angeles in 1913. By the 1920s five models of the standard Kleiber Motor Truck were available from one-ton chassis to five-ton chassis. His cabs were enclosed but had no doors. He continued to manufacture trucks until 1937, a victim of the Depression. \url{http://www.american-automobiles.com/Kleiber.html} Retrieved 2 Feb., 2015. Also see Albert Mroz, \textit{The Illustrated Encyclopedia of American Trucks and Commercial Vehicles} (Iola, WI: Krause Publications, 1996), 233-34.
\textsuperscript{293} SJCHS in Micke Grove has a 1920 Transport Truck Company 1 ½ ton model once owned by J. E. Handel to load lug boxes in the vineyard. The museum also has a Graham of Detroit truck, date unknown.
\textsuperscript{294} The Auto Car Company started in 1897 in Ardmore, Pennsylvania. SJCHS has a 1922 three-ton dump truck that uses gears, not hydraulics to raise and lower the bed. The company was absorbed by Volvo-White Corporation.
\textsuperscript{295} 1923 Model T Ford Flatbed Pickup owned by Doug and Manuel Machado, purchased from a Chinese man in Isleton around 1930. On exhibit, Rio Vista Museum. The 1924 Model T at SJHS in Micke Grove has a “shop manufactured” cab and wooden bed.
for the Pacific Theater during World War II. \(^{296}\) Much of Ford’s competition came from General Motors from 1919 on. The *Stockton City and County Directory* for that year has a prominent advertisement by E. E. Tremain at 634 E. Market Street for “GMC Gas Motor Trucks.” The 1935 directory includes a Mack International Motor Corporation dealer, one of the first in the area. Since 1918, Mack trucks had established a reputation as durable and capable of heavy loads, sporting the famous “bulldog” as a hood ornament. \(^{297}\)

In 1921, Congress saw wisdom in funding a national program to link all county seats in the country with smooth surface roads. Engineers determined that around seven percent of all roads in the country qualified for subsidies, some 200,000 miles of highway. Eventually many of these “state” roads would be incorporated into the Interstate Highway System. \(^{298}\) Through this program and others, transportation had become important enough on the Delta to warrant paving of its principal roads. The most important is State Highway 160, or the “River Road” from Freeport to Antioch, where it joins State Highway 4, crossing and re-crossing the Sacramento River just south of Courtland at the Paintersville Bridge and again at the Isleton Bridge. Highway 160 began as patchwork sections of Delta roads. In 1922 the Victory Highway Association selected the “Netherlands Route” through what was being promoted locally as the Netherlands of America. It was shorter than the Lincoln Highway route to San Francisco from Sacramento via Stockton and Livermore, passing through the Delta in forty-two miles from Sacramento to Antioch. The Byron Times, a promotional organ published biannually by H. T. Hammond, endorsed the project noting in 1923 that the project would “uncork the Sacramento River Delta and connect with Contra Costa, bringing through these sections a greatly increased travel and result in subdivisions of many island tracts in Contra Costa and Sacramento counties.” \(^{299}\)

By 1927, a motorist could drive on solid concrete pavement from the Capital to the Bay along this route, using bridges and no ferries. \(^{300}\) If not inclined to drive, one could also take a comfortable limousine, that is, a lengthened chassis vehicle with multiple side doors, from the Delta. In that


same year, the Rio Vista Transit Company ran a multi-passenger bus service in handsome vehicles designed and built by Bowman’s of Sacramento. One route left Isleton several times a day, starting at 7:00 A.M., stopping at Rio Vista, Rio Vista Junction, Pittsburg, Bay Point, Oakland, and arriving in San Francisco at 10:30 that same morning. Its counterpart started out from San Francisco at 7:40 A.M., arriving in Isleton at 10:35 A.M. A mid-day and an evening run were also available. The second route to Sacramento left five times a day from Rio Vista, stopping only once at Rio Vista Junction (for passengers and possibly freight), taking around an hour and a half to get to Sacramento. Passengers could buy a daily round-trip ticket, a four-day open ticket, or a special weekend rate transit.\footnote{Rio Vista Transit Company Time Schedule No. 8, Effective May 15, 1927, Rio Vista Museum. Both the schedule and the photo of the Bowman limousine are framed and on display in the museum.} Rio Vista Transit was not unique. A number of companies provided bus and freight service on wheels in the 1920s. River Auto Stage of Sacramento boasted its “comfortable motor stages, careful drivers, courteous service and regular schedule every day in the year.”\footnote{Advertisement, “River Auto Stage,” \textit{Byron (California) Times Ninth Special Booster Edition} (1924-1925), ed. H. T. Hammond. Courtesy of the Haggin Museum of Stockton.} California Transit Company of Stockton guaranteed “dependable service and hourly departures” along the “San Joaquin Valley and Inland Routes.”\footnote{Advertisement, “Travel by Motor Coach, California Transit Company,” \textit{Byron (California) Times Ninth Special Booster Edition} (1924-1925), ed. H. T. Hammond. Courtesy of the Haggin Museum of Stockton.} Pacific Greyhound Lines competed on major roads beginning in the 1920s, but had only one line from Vallejo to Stockton through the Delta and another from San Francisco through Tracy to Manteca. Still, during the Depression the company claimed “Greyhound fares are tuned to modern reduced incomes . . . you’ll arrive at your destination with dollars to spare.”\footnote{Pacific Greyhound Lines advertisement, “This Year Go By Bus,” \textit{Byron Times Fifteenth Development Edition} (1934-1935), ed. Harry Hammond. Courtesy of the Haggin Museum of Stockton.}

Crossing the Delta from east to west, State Highway 12 from Lodi to Fairfield intersects Highway 160 just east of Rio Vista, making it the most important east-west artery on the lower Delta as it cuts across the Terminus Tract, as well as Bouldin, Andrus, and Brannan Islands. Funded by the Bond Act of 1919 and completed in 1921, after the intersection with California 160/River Road, westbound California 12 leaves Brannan Island and crosses the Sacramento River on the Rio Vista Bridge. The bridge is a lift bridge that allows large boats and ships to pass underneath it.

Rail and riverboat freight traffic began diminishing with the growth of trucking and better roads. Truck capacity increased from one-to-two tons at most early in the century to around fifteen tons by the 1930s. A 1932 map of the “Bay Region & Delta Lands” shows how far road-building had progressed.
since 1915, with nearly every modern road completed, save the interstates. The tipping point came in the 1950s with the widespread use of refrigerated tractor-trailers, many capable of hauling twenty-to-thirty tons, which continues to this day and was a factor in the relocation of canneries to the Central Valley and the San Jose area.

**Mechanization in Agriculture**

A number of firms in Sacramento and Stockton manufactured mining equipment from 1850 on. By the mid-1870s, these same companies transitioned to agricultural machines. In 1878, ten firms are listed in the Statistical County Directory for San Joaquin County, all of them in Stockton. These included two windmill factories, five farming device factories, including the Stockton Iron Works that manufactured “steam engines, agricultural implements and architectural designs, machinery in general, and forgings.” Another, the Grangers’ Union of San Joaquin Valley, established in 1874 and located at 280 Main Street, offered a full line of “agricultural implements, wagons, hardware, iron, steel, blacksmith’s tools, belting, rope, paints, oils, etc.” The company’s ad included “Wheeler and Champion Combined Reapers and Mowers, Osburne Self Binding Harvester, Pitts’ Buffalo Separator, Ames and Enright Straw burning Engines,” as well as “Sulky Rakes, Tipping rakes, Scythes, Sneaths [handles], Forks, Hoes, Scoops, Shovels, Etc.: . . . “Everything in fact, and a little more, can be found in the establishment that is usually kept in a first-class hardware store.” Matteson & Williamson patented and manufactured the iron gang plow known as “American Chief,” as well a “new improved header, Stockton Chief.” H. C. Shaw sold the “Stockton Gang Plow,” as well as spring wagons and buggies. Three carriage and wagon companies are also listed in the 1878 directory.

Machines that work well on dry to damp soils do not work well on the Delta. Early efforts to add super-wide wheels and rollers on agricultural equipment experienced mixed success. Not until tracked vehicles were developed was this problem overcome. As has been noted, in 1883, brothers Benjamin and Charles Holt opened the Stockton Wheel Company, manufacturing harvesters and other devices for farmers. The company incorporated as Holt Manufacturing Company in 1892, developed the tracked

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307 *Statistical County Directory of San Joaquin County* (Stockton, CA: D H. Berdine, 1878), 11-18, 242 [brackets ours on Sneaths as handles].
tractor in 1904, patented machines under the name Caterpillar in 1910, and then merged with Best of San Leandro before moving manufacturing operations to Peoria, Illinois in 1925, retaining dealerships as Holt of California.\footnote{http://www.holtca.com/company/company-history Retrieved 7 January, 2015. The Rio Vista Museum has a Best Caterpillar 30 that predates the merger in 1925. Also see Walter Payne, ed., \textit{Benjamin Holt: The Story of the Caterpillar Tractor} (Stockton: University of the Pacific, 1982). The Haggin Museum of Stockton has a permanent Holt exhibit with one of his earliest tracked harvesters, his metal shop, and other family records. The San Joaquin County Historical Society has the largest collection of historical agricultural implements in San Joaquin County.}

Despite advances in steam, gasoline and eventually diesel technology, well into the twentieth century much harvesting on the Delta was done by hand with migrant labor, most of it non-Anglo, and physically demanding. The Delta’s special requirements included not only tracked vehicles but devices specific to crops. Samson Iron Works of Stockton produced the Samson Sieve-Grip Tractor in 1915 at a cost of “only $575.”\footnote{Stockton Iron Works, Engineers, Founders, Machinists: Manufacturers of Dredging Machinery, Catalog No. 13 A (Stockton, CA: Atwood Printing Co., n.d.).} It and other machines were adapted for Delta soils to avoid getting stuck in the muck, literally. All too frequently, tracked vehicles spent much of their time pulling out or towing other equipment mired in mud as shown in historic photographs.\footnote{“Merwin and Yelland Ranch. A tractor towing a mired sugar beet truck,” n.d. (ca. 1930). Friends of the Clarksburg Library Digital Photograph Collection, Yolo County Archives, Woodland. Photo 1176.}

In addition to Holt-Best, advances in machinery for Delta construction projects and farms came from the firm of R. G. LeTourneau. A motorcycle mechanic, in 1911, LeTourneau opened the Superior Garage in Stockton, one of the town’s first full-service automobile dealers and repair shops. It did well until he left for service in World War I, returning to a failed business. Taking a job at Holt, LeTourneau repaired Holt crawler-tractors, adding a Fresno-type scraper. He eventually opened his own business specializing in regrading. His engineering skills led to many technologies in earthmoving that are still used today: use of large low pressure rubber tires, the double-wheel tractor unit, which he patented as the “Tournapull,” electric wheel drive, cable drives for lowering and raising devices (prior to hydraulic drives), and many others. LeTourneau never really competed with Caterpillar until the mid-1940s. He let Caterpillar build machines to which his devices could be attached or pulled. The applications were so successful that during World War II, LeTourneau’s factories across the United States supplied seventy percent of the heavy earthmoving equipment used by the Allied forces in the war.\footnote{R. G. LeTourneau, \textit{Mover of Men and Mountains} (New York: Prentice-Hall, 1960). This autobiography is self-promoting but is validated by at least one author. See Thompson, “Settlement Geography,” 445; also Eric C. Orlemann, \textit{R. G. LeTourneau Heavy Equipment: The Mechanical Drive Era, 1921-1953} (n.p.: Enthusiast Books, 2014). SJCHS has a number of LeTourneau machines on exhibit, interpreted by Director David Stuart.}
Other advances in technology include many tractors imported from other states. These include products from John Deere and others such as the Farmall wheeled tractor, introduced in 1924 by International Harvester. With its short wheel base, the Farmall could make sharper turns than any previous device. With small front wheels and an offset engine and steering, the Farmall was perfect for Delta vegetable growers, nurseries, and landscapers. It competed favorably with Deere’s L and LA models from 1947 to 1964. Other devices specific to the Delta include sugar beet harvesters such as the one in the Rio Vista Museum and machines for wheat, asparagus, grape, and almond farming which can be seen at the San Joaquin Historical Society’s agricultural barns.

**Boat builders, ports, and waterborne transportation, 1900-1950**

Unlike land transportation, technology on the Delta’s waterways did not change much as California entered the twentieth century. Steam-powered vessels continued to ply the Sacramento and San Joaquin Rivers often towing barges. But with the development of the internal combustion engine, recreational boating became more popular and as incomes grew people had more leisure time to spend on the water. Concurrently, relatively inexpensive outboard motors became available for small watercraft. Ole Evinrude of Milwaukee patented his three-horsepower outboard in 1909, manufacturing thousands between 1909 and 1912. ELTO (Evinrude Light Twin Outboard) was a second Evinrude enterprise beginning in 1920, eclipsing the earlier company in profit by 1928. Meanwhile Johnson Outboard Motors, founded in 1922 in Terre Haute, Indiana surpassed all in sales by the decade’s end. On the eve of the Great Depression OMC (Outboard Motor Corporation) was created by the merger of Evinrude (by then owned by Briggs & Stratton), ELTO, and Lockwood Motor Company in 1929.

Fishing, game bird hunting and speed boating, as well as family outings on house boats became popular in the 1920s as motors replaced oars and sails. In Stockton, Theodore (Thode) and Robert (Roy) Stephens began boatbuilding in their backyard in 1902. Their twenty-five foot motor launch, the *Gee Whiz* was their first commission, completed in 1903. For the next two decades the Stephens Brothers made one-of-a-kind motor launches, tugs, and freighters, as well as pleasure craft and mahogany rowboats prior to 1925. In that year they entered the recreational speed boat industry, taking advantage

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of Stockton’s Samson Iron Works, which manufactured marine gasoline engines. A staple of their production was the “Spud Boat,” which sped merchants and brokers who would depart Stockton with price quotes for the various agricultural products of the Delta—often potatoes—and race out to the growers to secure the commodities at the most advantageous price. An example of a Spud Boat “Runabout” is on display at Stockton’s Haggin Museum.\(^{314}\) Fuel for gasoline-powered vessels came from competing sources: Shell Oil had a tank farm on the Yolo side of the Sacramento and Standard Oil had its own facility on the Sacramento side. The Standard Oil refinery at Richmond (now Chevron) dates to 1902. Shell’s Martinez refinery followed in 1915.

As popular as gasoline and later diesel engines were for smaller craft, such engines did not replace the larger steam-powered vessels until later. The Southern Pacific Company owned river boats as well as the better-known railroad line. The *Apache* and *Modoc*, both built in 1880, served the company forty-eight years until both were abandoned in 1928. Passengers and freight were carried on these vessels, manned by crews of ten or more. Other SP boats, all named for American Indian tribes, went into service in the early twentieth century— the *Navajo* in 1909, the *Seminole* in 1911, and the *Iroquois* in 1927. Southern Pacific got out of the river boat business in 1930, selling its last Bay-Delta vessel, the *Navajo*, to the California Transportation Company (CTC).\(^{315}\)

Life aboard these passenger boats could be spartan or luxurious. Two stern wheel steamboats, *Delta King* and *Delta Queen*, built in 1926 by the CTC, survive today and are interesting case studies. Sister ships, their hulls were manufactured in Scotland and the ships completed in Stockton as a “last-gasp effort to stem the tide of increasing automobile use,” notes Paul Trimble.\(^{316}\) Costing around one million dollars each, they featured fine dining, staterooms, a saloon deck (after the end of Prohibition), and a “social hall.” Options included sleeping on deck for $1.80 one-way or $3.00 round trip. Staterooms ranged from an additional $1 to $5. The menu featured a five-course dinner for $.75. A few automobiles could be transported at a reasonable cost, making this option very popular, especially during the summer and on weekends.

They left Sacramento and San Francisco daily at 6:30 P.M., passing each other just below Rio Vista in the night on an overnight run. Despite these amenities and low fares, CTC declared bankruptcy in 1935. The ships were


\(^{316}\) Trimble, *Riverboats of Northern California*, 45.
idled and dry docked, and in the years following were in intermittent service until 1941. They were given new life during World War II, as U.S. Navy vessels. Both Deltas served as emergency hospital transports, barracks, and later as military transport vessels in the Bay-area. Following World War II, the Delta Queen was purchased by Greene Line Steamers and moved to the Mississippi River where she operated until 2008, refurbished with the engines from the Delta King. The latter sat idle until 1998 when it was renovated as a permanently moored hotel on the river in Sacramento. The last paddle-wheel steamer in California carrying freight, the Petaluma, made her last voyage from Petaluma to San Francisco in 1950.317

Because of their luxury and their survival, the twin Deltas are the best known. For example, John G. North’s shipyards in San Francisco, perhaps the most famous, produced many steam vessels operating on the Bay-Delta. Capital City measured 220 feet and was completed in 1910 for the San Francisco-Sacramento run. In 1927 her route was changed: San Francisco to Stockton, and she was renamed the Port of Stockton in 1932. Another North Shipyards vessel, Fort Sutter, joined Capital City in 1912. Near-sister ships, they both had hot running water in their staterooms. Like the Deltas, these two boats remained in service until requisitioned during World War II.318

These were the lucky large boats. Even at the outset of the Great Depression, steamboats were on the decline. Many lined harbors and wharves, idled by labor unrest and increasing use of trucks and automobiles and the increasing use of internal combustion engines on larger boats. A devastating fire across the Sacramento wharf at Broderick in Yolo County on August 28, 1932 destroyed thirteen steamboats and barges. They were not repaired or replaced, nor were they missed, signaling an end to an era.319

During this same period, Stockton’s waterfront was also undergoing substantial changes. Shortly after World War I, city officials sought support for a deep water port. Congress passed the Rivers and Harbors Bill in January, 1927, providing funds for deepening and straightening the channel suitable for ocean-going ships. The first arrived in February, 1933. The Byron Times published the header, “Stockton Acclaimed as a New World Port,” predicting a “new era of commercial, industrial, and business expansion.”320 Almost immediately it was apparent that the channel was not deep enough. Some

317 Stan Garvey, King and Queen of the River: The Legendary Paddle-Steamboats, Delta King and Delta Queen, from Roaring Twenties and New Millennium (Menlo Park: River Heritage Press, 1995, 2004), Ch. 1.
318 Trimble, Riverboats of Northern California, 32-33.
319 West Sacramento Historical Society, Port of Sacramento, 28.
progress was made through a 1937 additional appropriation. As the United States entered World War II, Stockton’s boat builders helped the local economy and the war effort, constructing a total of 125 warships. These included Coast Guard picket boats, tugs, rescue-and-salvage craft, wooden minesweepers and PT boats. In addition to Stephens Brothers, Pollock-Stockton Company, Colberg Company and Guntert & Zimmerman contributed to the aggregate. Pollock-Stockton alone employed 5,000 employees, one-half of the 10,000 workers in Stockton shipyards during the war years. Following the war, in 1950 with passage of the Rivers and Harbors Act, the necessary improvements were made to continue deepening and straightening the channel. Still the eighty-six mile transit between Stockton and San Francisco required seven-to-ten hours and could be an arduous journey, especially in tule fog.\textsuperscript{321}

By 1953 the new port facilities employed more than 1,000 employees with a five million dollar payroll and a new 257-acre industrial park. By 1956, six major industries purchased sites in Stockton: California Packing Corporation, Deere and Company, Johns Manville, Diamond Walnuts, Nik-L-Silver Battery, and Larro-Sperry Feed Mills. Other companies were added in the 1960s.\textsuperscript{322}

In 1949, work began building Sacramento’s deep water port. Grain and rice elevators, warehouses, and a rail line preceded the funding for the deep water channel. Beginning in 1956, a straight channel was dug from just north of Rio Vista to West Sacramento where a turning basin was also constructed. The port was dedicated on July 19, 1963.\textsuperscript{323}

**Trade, Recreation, and Transportation on the Delta after 1950**

Deeping the two inland ports offered the opportunity for the two cities to trade worldwide. At the same time, the ease and speed of overland transportation undermined traditional river transportation. The Eisenhower Administration funded both deep water ports and interstate highways. Interstate-80 was not completed in California until the mid-1960s and Interstate-5 not until the 1970s. However, by the 1960s, in the Delta, highways became the mode of choice for moving people and goods. This spelled the demise of commercial boating on the Delta. Railroads also suffered the loss of shipping fresh produce with the proliferation of large refrigerated tractor-trailers. Canneries and sugar beet mills practically disappeared leaving only some structures still in evidence. Warehouses, wharfs, and pilings became obsolete but some are still visible.

\textsuperscript{321} Hardeman, _Harbor of the Heartland_, Ch. 6, 7, 8; 197 (number of ships and workers during World War II).

\textsuperscript{322} Hardeman, _Harbor of the Heartland_, 198.

\textsuperscript{323} West Sacramento Historical Society, _Port of Sacramento_, 46-49, 91 (dedication, 1963).
The elaborate transportation network that had been built on the Delta served a new clientele by the 1960s as tourists and outdoorsmen discovered the Delta’s unique recreational opportunities. These changes brought to the Delta a new source of income supporting bait-and-tackle stores, marinas, cafes, museums and historical societies. Stockton’s Chamber of Commerce advertised “1,000 Miles of Navigable Fresh Waterways of the San Joaquin Delta,” comparing the Delta to Florida’s Everglades and the waterways of the Canadian province of Ontario.324

Heritage orchards, wineries, and quaint downtown shops, along with historic districts, remain as attractions to this day. Efforts by the California Department of Fish and Wildlife to restore fisheries has been only partially successful, but efforts have been made by federal Environmental Protection Agency listings and its California equivalent to identify several species as threatened or endangered, thus limiting or eliminating sports fishing. The table below reflects that effort:325

### Status of Fish Species in the Sacramento–San Joaquin Delta Watersheds

<table>
<thead>
<tr>
<th>Species</th>
<th>Year</th>
<th>Status</th>
</tr>
</thead>
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<tr>
<td>Sacramento River winter-run Chinook salmon</td>
<td>1989</td>
<td>Endangered (CESA)</td>
</tr>
<tr>
<td>Delta smelt</td>
<td>1993</td>
<td>Threatened (ESA and CESA)</td>
</tr>
<tr>
<td>Sacramento River winter-run Chinook</td>
<td>1994</td>
<td>Reclassified as endangered (ESA)</td>
</tr>
<tr>
<td>Sacramento River drainage spring-run Chinook</td>
<td>1999</td>
<td>Threatened (ESA)</td>
</tr>
<tr>
<td>Sacramento perch</td>
<td>1995</td>
<td>Species of concern (CESA)</td>
</tr>
<tr>
<td>River lamprey</td>
<td>1995</td>
<td>Species of concern (CESA)</td>
</tr>
<tr>
<td>Central Valley steelhead trout</td>
<td>1998</td>
<td>Threatened (ESA)</td>
</tr>
<tr>
<td>Central Valley spring-run Chinook</td>
<td>1999</td>
<td>Threatened (ESA)</td>
</tr>
<tr>
<td>Southern green sturgeon</td>
<td>2006</td>
<td>Threatened (ESA)</td>
</tr>
</tbody>
</table>


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324 Stockton Chamber of Commerce, “1,000 Miles of Navigable Fresh Waterways of the San Joaquin Delta,” pamphlet, n.d., Holt-Atherton Special Collections.
Even with these restrictions and decline in water quality, the Delta provides a fishing outlet for many anglers. Introduction of species not indigenous to California such as the striped bass have given much challenge and pleasure to anglers since 1879 when a barrel of that fish traveled by rail from New Jersey, to be dumped into waters near Martinez. They have thrived ever since. In addition to striped bass, today’s sportsmen target salmon, largemouth bass, smallmouth bass, crappie, bluegill, shad, catfish, crawdads, and sturgeon. An annual October Bass Derby and Water Carnival has been held in Rio Vista since 1933 with a ceremonial gift of a striped bass presented to California’s governor. Bay Point hosts a parallel Sturgeon Derby mid-winter while the Great Isleton Crawdad Fest is held in June followed by a Seafood Festival on the Pittsburg waterfront in September. For many years Walnut Grove hosted a Catfish Jubilee in August. The Delta also accommodates bird enthusiasts, both hunters and watchers.\(^{326}\)

Perhaps of greater importance for leisure time activities are the many marinas that date back to the 1930s. Josephine and Albine Korth started Pirates’ Lair Marina on Andrus Island in 1938. The Perry family began operations at Port Chicago in 1927, moving to Rio Vista in 1939 to open Perry’s Boat Harbor on Andrus Island. Farrar Park on Bethel Island dates back to the 1930s as well, providing swimming as well as a marina. Frank’s Fishing Resort on the same island featured rental of fishing boats as well as a large party boat.\(^{327}\) One look at Franko’s “California Delta Adventure Guide” shows locations of over 100 “Delta Area Marinas, Resorts, Boat Launches & Fishing Piers,” stretching from Vallejo and Martinez on the Bay to West Sacramento to the north and Tracy to the south. Forty yacht clubs are charted and three houseboat rental companies listed.\(^{328}\) And since 1936, the sport of water skiing has been popular on the Delta’s waters, introduced by Stockton snow skiers Ni Orsi, Sr., his sister Elsie, and friend Holly Thorns, who ordered skis from the East. According to Carol Jensen, “They were probably the first water-skiers in California.” Especially after World War II, as household incomes rose and marine products became affordable to the middle class, houseboats, yachts, cruisers, speedboats, and open jet-powered personal watercraft for one or two riders have shared the Delta’s waters with traditional sailing craft,

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\(^{328}\) “Franko’s California Delta Adventure Guide: Complete Map and Guide of the San Joaquin and Sacramento Rivers for Boaters, Fishermen, and Everybody Who Love the California Delta” (n.d.; map in possession of the authors). Also www.frankomaps.com
dories, and rowing shells, as well as wind-surfers and foot-powered paddle-boats. In 1972, Delta boating enthusiast Bob Walters published *Cruising the California Delta*, a primer on the facilities then available. Former editor of *Pacific Motor Boat*, Walters promoted a “messing about in boats” philosophy that he argued perfectly fits the California Delta and the people who love the water, fishing, and the environment. By the end of the twentieth century, more than one hundred marinas and waterside resorts operated in the greater Delta Region.

**Conclusion**

By the mid-twentieth century, the Delta had undergone profound changes since entry by the first non-native persons less than two centuries before. Native peoples and their villages had practically disappeared. Native vegetation and water ways were radically altered. Native birds and animals had been drastically reduced. The area had become a rich farming landscape with high levees bordering the reduced number of waterways. The Delta’s development had begun in Gold Rush days, with reclamation in full swing only two decades later. First transportation was by boat, and shortly thereafter the steamboat was ubiquitous. Reclamation was first done by hand labor, largely Chinese, combined with horse-power, but as technology developed, especially steam driven machinery, substantial progress could be made in a very short length of time. Steam- and then electric-power allowed larger pumps to be used, and the process continued to snowball.

A parallel and interrelated change was true for crops grown. As the difficult process of clearing the tule commenced, crops that had included some grain growing and cattle raising began to give way to vegetable and orchard production, dependent on hand labor supplied principally by foreign groups. Roads became of concern to get this produce to the slough and river landings, which could be found all over the Delta. And the need to cross those waterways required ferries, and later moveable bridges to allow unobstructed boat traffic. The costs involved for production on the Delta meant that large capital sums were required, and therefore much of the acreage involved resulted in large landholdings, and fewer small-holdings. By the last quarter of the nineteenth century pears became an important fruit crop, often farmed by small-holders; with the advent of the refrigerated rail car, pears and other crops could be shipped east with little spoilage. At the same time, safe and inexpensive canning of fruits and vegetables was developed, and canneries began to be built in many places in the Delta. By the end of the nineteenth century large tractors and advanced agricultural machinery allowed substantial farming operations to be carried out, and new crops to be introduced. In the early twentieth century, along the east side of the Sacramento river, a railroad was

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built to compete with the steamboats, and in 1929 a rail line was built on the west side as well. In the earlier twentieth century large scale crops included potatoes and a little later sugar beets. Although commercial fishing was mostly gone by the end of the nineteenth century, the waters of the Delta continued to provide sport fishermen with bounty. And the improvement of the internal combustion engine had not only supplanted the steam engine for commercial shipping, but provided the sport fisherman and recreational boater a dependable means of cruising the Delta.

But the internal combustion engine’s largest effect felt in the Delta was the advent of the truck for transportation of crops. Trucking became increasingly important starting in the 1920’s, and eventually supplanted both the steamboat and the railroad as the primary means of transport. With the advent of the refrigerated truck, after the 1950’s fresh produce could be loaded in the fields and sent long distances. Delta canneries disappeared, paved highways were built, and new larger and stronger bridges constructed.

In the later twentieth century, many of the Delta’s crops differed from earlier times. So also a different mode of transport was used, and the Delta presented a quite different appearance even from the later nineteenth century. It had developed an important and large recreational industry to add to its agricultural wealth. These two sources of income, of substantial importance to the wealth of California, assured the Delta of a prominent place in California’s agriculture and tourism industries.

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Reuben W. Smith is a native Californian. He earned degrees in history at University of California, Berkeley (B.A. 1951; M.A. in Western Americana, 1952); and a doctorate in History and Middle Eastern Studies at Harvard University (1963). He joined the faculty at the University of Chicago in 1963 and from 1970 to 1972, he also served as Dean of Students, Social Sciences Division. Smith came to University of the Pacific as Provost (Dean) of the Cluster Colleges (1972-1974), after which he served as Dean of the Graduate School (1974-1993). He also held a faculty appointment and taught history.
Now emeritus, Smith continues his research, mainly on California history topics, and plays tuba in Midnight Rose, a Dixieland jazz band. He is also a volunteer operator of electric railway equipment at the Western Railway Museum at Rio Vista Junction.
Building Communities – Economics & Ethnicity

Jennifer Helzer, California State University, Stanislaus
**Introduction**

Approaching the Delta from the east, off of Interstate 5, the hurried and harried pace of life gives way to a gradual western sloping landscape of manicured fields. As the morning fog burns away, glimpses of old barns, field equipment, and neatly stacked fruit crates appear alongside the road. As one approaches town, heavy-duty pick-up trucks meet at the four-way stop with their driver motioning for visitors to take the right-of-way. The post office and local coffee shop buzz with morning routines. A tour through the Delta carries visitors along levee roads, across iconic bridges and into culturally rich historic towns. Orchards and row crops expand from levee roads; and farmsteads and stately homes exist alongside ethnic heritage landscapes and new commercial developments. The communities of the Delta are places of the present and the past that are stitched together by a network of railroads, canals and levees, and by the open spaces that link them together. These are the first impressions of the Delta as a place and the start of many questions. What is the meaning of this place, who made this place and how has it changed through time?

In the 1850s, powerful economic, political and social forces precipitated momentous change in the Delta region of California: 1) the California Gold Rush, 2) levee construction and agricultural development, and 3) the migration and settlement of domestic, European and Asian cultural groups. The great migration linked to California’s Gold Rush is purported to be the largest movement of people to a single area on the North American continent. Other areas have comparable numbers associated with their frontier migration, including the land rush into Oklahoma and the settlement of Wisconsin. California’s distinctiveness lies in the rapidity and uneven pattern of settlement over the land. Moreover, the settlement of the state was not uniform and was complicated by Hispanic colonizers and topographic features that restricted movement into, and settlement of, certain areas.¹

The Delta region was one of the early settlement foci associated with the Gold Rush migration and it serves as an ideal microcosm in which to learn about social and economic change in California. In 1860, seventy-five percent of the state’s population was concentrated around San

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Francisco and the interior mining region. As mining declined, most ex-miners moved to the San Francisco region, but also settled areas adjacent to previous population centers. The Delta was an important crossroads location during this period and the inhabitable lands of the Sacramento and San Joaquin valleys proved enticing to post-Gold Rush settlers, as well as newcomers. Diverse cultures forged distinct communities during the Delta’s land reclamation phase and subsequent agricultural development. While this might seem to exemplify familiar themes in our country’s past, the small family farm that once characterized so much of agricultural development in North America has not epitomized rural life in the Delta; instead corporate farming and agribusiness has significantly shaped the region’s history and much like that of the rest of the state. Since its early colonization, the effective settlement and development of the region has depended on the labor of both indigenous and subsequent newcomer groups.

Throughout history the Delta has been a crossroads, a place of environmental change and agricultural fortune, and a destination for newcomers. The Delta is a place in between, exceptionally endowed by nature, location and cultural heritage. Flanked by the urban fringes of both the Bay Area and Central Valley, the region faces development and population pressures from all sides, and commuters and city dwellers alike seek refuge on its back roads and in its quiet communities. The Delta region is a palimpsest landscape that is layered with elements from different cultural groups and economic activities originating from both modern and historical periods. The region’s unique rural landscape has multiple meanings. It can be interpreted as symbolic of prosperity and success, and it can equally reveal labor conflict, inequality and exclusion.

The theme of this Delta Narrative is Building Communities: Economics and Ethnicity. The narrative is divided into three sections. The first section focuses on initial settlement in the Delta, starting with the earliest indigenous inhabitants. It traces the arrival of subsequent immigrant groups and how communities were built around ethnic bonds and the economic needs of an emerging agricultural region. It also covers the early experience of Delta residents, emphasizing themes of human-environment interaction, emerging settlement patterns, and early community development. The second section emphasizes the labor history of the Delta and how the work of different ethnic groups impacted the development of the region. It draws particular attention to how the nature of agricultural labor in the Delta hindered development and the growth of community in the region. Immigrant labor in reclamation, tenant farming and patterns of ethnic specialization in agriculture, along with discriminatory and exclusionary activities associated with work and settlement are important themes in this section. The third and final section addresses the notion of the Delta as a refuge for short-term, transient settlement, recreation and respite. In some cases, ethnic communities were too small to

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2 Hornbeck, California Patterns, 66-67.
become viable communities, while other transitory settlement efforts represent urban dwellers seeking isolation or retreat into Delta hideaways. Throughout the narrative, community vignettes illustrate how these three themes played out to shape the Delta’s identity including its legacy towns, enduring ethnic landscapes and economic imprints.

I. EARLY INHABITANTS AND HUMAN IMPRINTS

The Sacramento-San Joaquin Delta is one of California’s unique cultural and environmental regions. Typical of many river deltas, the Sacramento-San Joaquin Delta is an evolutionary product of running water and erosion, sediment transport, and deposition. The Delta’s uniqueness, however, derives from its atypical inverted river delta type where the sediment from the Sacramento and San Joaquin drainage system fills the area of river confluence rather than exiting and dropping its sediment load into the bay. The accumulation of sediments behind the narrow Carquinez Strait led to the formation of low-lying peat islands and natural levees. Features such as braided and meandering streams, undercut banks, and oxbow lakes are common to the Sacramento-San Joaquin Delta and they provided a unique environmental setting for the region’s earliest inhabitants.

Population estimates for California’s pre-contact Native peoples range from 133,000 to 705,000, and Cook’s estimate of 310,000 is frequently cited as a baseline figure. More recent work by William Preston suggests that transmission of Old World diseases arrived well before the Mission period colonial expansion that devastated traditional California Indian societies. If true, then the pre-contact population of California is much higher. Native California communities in the Central Valley were based on triblet organization. Within an aggregate of villages, groups owned land and were politically independent, usually sharing the same languages with one or more neighboring triblets. Within these large “Indian towns” craft specialists could devote time to basketry, tool-making and hunting. In the smaller communities of 50 or 100 persons, extended families were self-sufficient in these production activities. Community life was also reflected in construction of family dwellings. Northern Valley Yokut dwellings were lightly built structures covered with tule stalks that had been woven into mats.

Radiocarbon dates from archeological sites indicate a thriving hunting and gathering Native American culture utilizing the rich Delta ecosystem as early as 2500 B.C. There was no food shortage for Delta region dwellers. Villages were typically located near diverse and abundant food resources including fish, mussels, waterfowl, antelope, deer, elk, rabbits and other game.

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as well as seed-bearing grasses, cattail roots, acorns, berries and other plants providing year-round food supplies.⁶

In addition to abundant food resources, inhabitants utilized the diverse environment of the Delta to create various items including the use of tules and reeds for basket and mat weaving. Tules and small willow and cottonwood branches were lashed together to construct shelters, rafts and hunting traps. According to reports by early explorers, the Delta region supported a native population of between 3,000 and 15,000 with individual villages containing 200 residents, and at least one settlement numbering over 1000 inhabitants. Before European settlement, Native peoples took advantage of the unique Delta lands by locating their villages along major river courses, favoring sites on the natural levees or low knolls above the floodplain. Settlements occurred on mounds six inches to five feet above the surrounding plain.⁷ For example, a Patwin Indian settlement was sited at the head of Jackson Slough (present day Isleton) along the Sacramento River.⁸ Similarly, Northern Yokuts clustered along the narrow strip of land bordering the San Joaquin and its main tributaries. Their settlements reached a population density of over ten persons per square mile, equal to any aboriginal group in California.⁹ A concentration of middens east of the Delta in the vicinity of the Cosumnes, Mokelumne, and Calaveras Rivers attests to a much greater population density. The location held diverse food-producing situations such as tidal swamp, river bottomland, oak-studded grassy plains, and wooded Sierra foothills.

Comparatively few Indians lived on the thinly wooded and water-short plains to the west of the Delta, although exceptionally large villages were evident in the Sherman and Staten Island vicinity; their location suggesting they served as a place of refuge. The Delta was an important hiding place for Indians escaping from Spanish missions in the Bay Area. The region was also a refuge for Indians from villages which the Spanish relied on for their workforce. These hideouts along the San Joaquin River provided key retreat locations for Indians fleeing their Spanish pursuers. During the colonial era, land grantees were not interested in developing the tidal swamps of the Delta and the region became an important survival area as settlement elsewhere gained momentum.¹⁰ In time, the region’s subsequent newcomers would follow the dominant settlement pattern first established by the Delta’s native peoples, concentrating their activities on the natural levees which provided an elevational advantage from the flood basins.

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Newcomers in the Delta

Spanish colonization efforts in California began in 1769 with the focus of establishing permanent settlement that included a network of presidios, missions and pueblos. Colonists weighed several factors when selecting a mission site. Favorable local conditions included an adequate water supply, a high native population and travel distance to existing colonial settlements. Beginning in 1772, the Spanish sent several exploratory parties to the Sacramento Valley and the Delta, but no suitable sites were found. Over time, the Franciscan effort to create an ideal Spanish society met with mixed results. The costs associated with sustaining the northernmost mission lands, especially the difficulty of securing a permanent indigenous labor force, led officials to increasingly concentrate on the more successful southern settlements.11

The neglect of the northern missions and interior Delta hinterlands created a refuge for indigenous residents and those fleeing the harsh conditions of mission life elsewhere. Spanish missionaries continued their reconnaissance efforts as late as 1811 and even though they found large Native villages in the Delta region, the establishment of a mission failed to happen.12

Spanish colonization most directly impacted California’s southern and central coastal tribes and resulted in rapid population decline among indigenous people through disease, malnutrition and harsh treatment. Indirectly, the introduction of agriculture created sedentary lives among many indigenous groups and permanently removed others from tribal lands. The introduction of exotic plants such as wheat, maize and barley, along with the expansion of mission livestock including cattle and sheep competed with and in some cases replaced the local food supply that hunter-gatherer groups depended upon for sustenance. Finally, the establishment of settlement nuclei that included missions, civilian communities (pueblos) and military presence (presidios) created a network of towns and centralized locations that were linked together by the 600-mile El Camino Real. In order to facilitate travel between the various settlements, missions were established approximately 30 miles apart, or roughly a day’s ride on horseback. In the northern zone of this colonization effort, the Spanish were most attentive to consolidating their position in the immediate vicinity of San Francisco Bay and they had comparatively little interest in the interior Delta lands. Over time, the Spanish settlement strategy not only utilized indigenous labor to colonize California, but their development further pressed the state’s native population to seek refuge in this isolated area of the state.13 In the Delta, these areas of indigenous retreat created a reservoir of labor that imprinted the region throughout the Spanish colonization period and during the subsequent development of the area.

Under Mexican rule, mission lands were confiscated and given out as private ranches. During this period, large areas of land were privatized and granted as ranchos to Mexican nationals.

11 Hornbeck, California Patterns, 42-47.
13 Hornbeck, California Patterns, 50-55.
and eventually to naturalized European and American settlers. In the period 1821-1846, more than one-fifth of the 473 land grants in Alta California went to people with Anglo surnames. A major concentration of Anglo ranchers developed in the Sacramento Valley and by the late 1840s the region had become the nucleus of an Anglo ranching system. The region’s greatest resource for cattle ranching was its flora. Most prized were the “California prairies” that were concentrated in the Central Valley. The poorly drained “tule lands” of the Delta region were arguably the most sought after because they combined marsh grasses with wet areas for cattle during the dry season. What started as a Hispanicized nucleus of cattle ranching became an Anglo-Californian cattle boom after 1848, when the Gold Rush mines provided for the first time a local market for beef.\textsuperscript{14}

The negative treatment of Native Californians continued unabated during this era with indigenous labor put to work on large rancho landholdings. Cheap land and “free” indigenous labor made ranching hugely profitable and subsequently transformed California’s economy into one focused on the hide and tallow trade. Diseases such as small pox, scarlet fever and a devastating malaria epidemic in the early 1830s were now reaching Native peoples in the interior of California. The export trade associated with the ranching economy also led to increased activity in California seaports, which opened the region’s isolated port cities to the wider world.\textsuperscript{15} By 1846, starvation, epidemics, relocation and forced labor had all but decimated Native Californians. It is estimated that the population of Native Californians was reduced by ninety percent. California came under the control of the United States in 1846 and gold was discovered at Sutter’s Mill two years later. After millennia of processes that resulted in great ecological diversity and stable Native adaptations to the environment, the Delta moved into an era of ever-quickening social change, environmental disorder, and increased human impact on the landscape.

On the eve of the California Gold Rush, Delta visitors and newcomers to Northern California had traversed, explored, mapped and in some cases settled permanently. An Anglo-California ranching system developed in the Sacramento Valley and would soon become the focus of the state’s cattle boom. At the global scale, California was still an outpost, relatively unknown and heavily reliant on agricultural and lumber supplies from Oregon, as well as shiploads of goods from eastern cities. Over time, new ranch owners in the Sacramento Valley became increasingly independent and tired of depending on outsiders for supplies. The time was ripe for the residents of California to produce their own agricultural products and develop the region’s economic potential. As the region’s population increased over the years, especially after the Gold-Rush-induced stampede began in earnest, the Delta not only became the

\textsuperscript{15} Hornbeck, \textit{California Patterns}, 58-59;
primary gateway to the goldfields, but an area of potential economic development. The California Gold Rush quickened the pace of agricultural production and economic expansion in the region. Gold-seekers and those disillusioned with mining quickly realized that new economic opportunities and fortunes were to be found in the soil rather than the mines.

**Emerging Settlement Patterns & Agricultural Development**

Prior to the reclamation of the Delta, the majority of farmland in San Joaquin and Sacramento counties was mostly devoted to grain farming over the production of other crops. In particular, wheat and barley could tolerate the region’s summer drought and the absence of irrigation. Moreover, long hot valley summers produced a durable type of wheat that could last the long months of transport to European markets. Wheat was easy to plant on the rich flat lands of the valley and it required almost no care during the growing season. In addition to ideal growing conditions, demand for wheat was enhanced by better transportation including increased wagon, steamboat and barge traffic. In 1869, almost half of the land under cultivation in San Joaquin County was planted in wheat. By 1883, the county claimed the largest wheat crop in the world.\(^{16}\) Most of the grains grown in California were shipped to European destinations, setting a pattern of integration into global markets that characterizes the state’s agriculture to the present.\(^{17}\) In the 1860s, the coming of the steamship offered the potential to supply grain to Europe. The impact was especially noticeable in the late 1870s when California was undergoing a wheat bonanza, while yields were miserable in northwest Europe. Closer market integration that resulted from cheap California grain also negatively impacted the peripheral areas of Europe by threatening the livelihoods of grain farmers and other local industries.\(^{18}\)

Several key factors influenced early agricultural patterns and settlement in Northern California and the Delta including the desire for good soil, the availability of a ready water and wood supply, and access to markets. Settlers also preferred tree-covered areas believing that treeless plains were an indicator of poor soil quality and inferior agricultural land. Taken together, these factors encouraged farmers to choose land along rivers and streams over the region’s vast plains.\(^{19}\) Similar to their indigenous predecessors, farmers selected a riparian settlement pattern on the higher natural levees that bordered the Sacramento River. They also selected sites near the Delta apex where mainland fragments benefited from deep water access, firm ground, and modest timber resources. The short-lived Mormon settlement of New Hope near


\(^{17}\) California’s wheat bonanza created competition for traditional Mediterranean exporters, a development that would also be repeated in the Delta’s transition to fruit cultivation.


the Montezuma Hills is a case in point. The original settlement lacked timber and was abandoned for a more favorable location on the lower Stanislaus River. The new site called “New Hope,” supported a dozen or so colonists who built log houses and constructed a sawmill. The colony was abandoned in fall 1847 when the settlers were called back to Salt Lake City.20 The settlements along the San Joaquin River and its tributaries, like their northern counterparts, also had the advantage of being near good trade and navigation centers including Stockton, French Camp and Antioch.

**Transport-Focused Settlement - Landings, Gateways, and Water Routes**

The Delta’s earliest towns share the distinction of being important points of convergence and transfer for gold-seeking Argonauts. By the mid-nineteenth century, Delta farmers were also laying down the settlement roots that would eventually become the foundation for more extensive and intensive agricultural development. Transportation nodes and preferred trade routes emerged favoring those sites where goods could be off-loaded and carried by mule and ox teams to the goldfields. Key river crossings, gateway sites and transport systems were also integral to the development of the Delta region and are discussed at length in a separate Delta Narrative.

**Stockton**

The establishment of Stockton coincided with the rush for gold. German immigrant, Charles Weber founded Stockton and he commissioned a square mile townsite in 1849-49, including the street pattern, parks, and town lots, just prior to the Gold Rush-induced surge of development. The town, once known as Tuleberg, was considered to be on the very edge of frontier development where few would venture. By mid-1849, Stockton was thriving and warehouses, dwellings, and commercial developments began to fill the townsite. By May 1850, Stockton’s residents may have numbered 2,400, with an additional “floating” or transient population of 2,000. The growing town became an important “goods-forwarding” site although winter rains often hampered transport efforts.21

Stockton is distinguished by several “firsts.” The early survey of the town gave Stockton the distinction of being the first planned community in California. The City of Stockton, the name bestowed in honor of Commodore Robert F. Stockton, was the first in the state to be given a name that was not of Spanish or Native American origin.22

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22 Hillman and Covello, *Cities & Towns of San Joaquin County*, 3.
French Camp

French Camp holds the distinction of having the longest history in San Joaquin County. The area’s first homes built by white settlers were temporary shelters established for trappers, and were the precursor to later permanent settlement. French Camp, originally settled by French-Canadian fur trappers and the southernmost campsite of the Oregon-California trail, was also identified as an important transportation node. The small hamlet had the advantage of high banks and porous soils allowing transport to and from the mines throughout the year including the winter season. French Camp was also well connected by trails to San Joaquin Crossing and by steamer to Stockton. During the early 1850s, the town saw regular passenger and freight service and by 1853, two hotels took in lodgers 100 at a time.23

Beginning in the 1920s, Japanese immigrants became established in French Camp. A community of seventy-five families established a Japanese truck-farming co-op alongside the Southern Pacific tracks that became known as the “Salad Bowl of the Valley.” French Camp also has the only Chinese cemetery in the region. In 1959, the small community was recognized as California State Historical Landmark due to its long and diverse history.24

San Joaquin Crossing

Another key transport site, San Joaquin Crossing, was established to accommodate travel between San Jose and the gold fields. A lucrative ferry service developed along this section of the river between French Camp and San Joaquin City. Sheep rancher, Henry C. Banta, ran an inn that catered to travelers who traversed the ten to fifteen mile dry, treeless plain from the direction of Mount Diablo. Travelers coming from French Camp about 10 miles to the northeast also utilized the crossing.25

Freeport

Freeport is one of the oldest communities in the Delta. It was established as a railroad town so that businessmen could avoid paying taxes as they shipped freight and passengers from the Bay Area to Sacramento and on to the Gold Rush region. A ten-mile line was built from the Brighton Station on the Sacramento Valley Railroad to a “free port” which became the town of Freeport. In the early years, the town boasted a population of 400, but declined after the Central Pacific Railroad purchased the line and removed the track to eliminate competition.26

23 Hillman and Covello, Cities & Towns of San Joaquin County, 131; Thompson, “Settlement Geography,” 147.
24 Hillman and Covello, Cities & Towns of San Joaquin County, 3.
26 Pezzaglia, Towns of the Sacramento River Delta, 123-127.
In the late 1800s, the Freeport-Clarksburg region was one of three major truck-farming areas. The two other areas where truck-farming predominated were in the Stockton vicinity, and east of Antioch on the margins of the Delta. The truck-gardens of Freeport-Clarksburg were operated by Italian, Portuguese, Chinese, French, German, and domestic migrants. Over time, Southern Europeans became the primary operators of small farms. Sacramento was the main recipient of commercial produce from the region.27

Freeport annexed into City of Sacramento in 2013 and is designated a Special Planning District and will retain its “delta river town” identity.28 Today, the development of a new transportation corridor promises to reshape the rural environs and farmlands surrounding the city. A major public works project is currently underway that will extend Cosumnes River Boulevard to Interstate 5 and create a new interchange at Freeport. The construction paves the way for large-scale residential and commercial development including the thousand-home Delta Shores project.

**Antioch**

Another key access point to the Delta was recognized by the Smith brothers, William and Joseph, who founded Smith’s Landing in December 1849. In order to secure establishment of the new town, the Smith’s recruited potential residents by offering them newly surveyed lots. Gardens, a windmill irrigation system, and protection for livestock were important developments in this emerging village. Smith’s Landing was eventually renamed Antioch and it became a significant gateway settlement, maintaining regular trade in surplus produce and hay with San Francisco.29 From its early beginnings, Antioch has been a place of successful commercial activity. Its commercial identity started with brick making plant in 1852 and sheep raising served as a primary activity for many years.30

Antioch is located on the western end of the San Joaquin-Sacramento Delta. Its strategic location as an outlet to the rest of the world made the city important in the Delta’s early communication and transportation history. The site of the early city boasted three miles of frontage on the San Joaquin River that was forty-feet deep and nearly a mile wide. Trade with San Francisco was established early and the discovery of mineral resources including coal in the hills south of Antioch (1859) and copper ore (1863) added to the city’s importance as an early industrial center. Interestingly, sand mined from the Antioch Dunes was used to make bricks which helped San Francisco rebuild following the 1906 earthquake. The Antioch Lumber

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28 Section 17.448.010 Sacramento City Code accessed 30 April, 2015, [http://www.qcode.us/codes/sacramento/?view=desktop&topic=17-iv-17_448](http://www.qcode.us/codes/sacramento/?view=desktop&topic=17-iv-17_448).
30 George Emanuels, California’s Contra Costa County (Fresno, CA: Panorama West Books, 1986), 212
Company is one of the oldest in the region and the town’s wharf played a pivotal role in handling large scale lumber and mill products. The city also played a lead role in agricultural expansion by shipping the Delta’s fruits and vegetables to world markets. Chinese and Italian gardeners leased land east of Antioch. Their produce supplied the short-lived coal-mining communities of Nortonville, Sommersville and Judsonville and was also shipped to San Francisco’s markets.

In the early 1900s, beaches and bootlegging were important aspects of Antioch’s early identity and ties to the Delta. Oak Grove Beach was a popular gathering spot for Italians who held their Sons of Italy celebrations there. In 1919, the Eighteenth Amendment, commonly referred to as the Volstead Act, prohibited the manufacturing, sale and distribution of liquor. For many, the Act resulted in a money-making venture. Italians and other groups who had a tradition of winemaking built stills in their basements and barns and began producing and distributing illicit alcoholic beverages throughout the Delta.

Antioch was also an important transportation and industrial hub during the first half of the 1900s. Passengers and freight were ferried on modern propeller-driven boats, with connections to Rio Vista, Stockton and Sacramento. The Jarvis brother established ship-building at Smith’s Point prior to their plant becoming the Fulton Shipyards in 1924. During World War II, the navy commissioned twenty-seven vessels from Fulton.

Taken together, these early transport-focused cities share an outward focus of supporting regional development and linkages to areas outside the Delta including transit to and from both the gold-bearing region, and to the emerging population centers of Sacramento and San Francisco. Over time, they would also help to establish the Delta as a destination for commercial, mainly agricultural development, although Antioch is an important exception to this “Delta rule.” By contrast, other early towns were more focused on their own development and an internal delta identity. These early “legacy towns” were established along the northern riverbanks with residences and fields clustering near present-day Clarksburg, eastern Sutter Island, and north Grand Island. As mentioned earlier, the south Delta offered settlers fewer attractive sites. The marginal lands south and west of Stockton suffered from a poor and insufficient water supply, and the southern Delta islands were lower in elevation and didn’t possess sufficient tree-cover that settlers preferred.

33 Hohlmayer, Looking Back, 149, 199.
34 Emanuels, California’s Contra Costa County, 219.
35 Thompson, “Settlement Geography,” 139-142.
Delta-oriented, or legacy towns, were established shortly after the first settlement in the region. The geographical location of Delta towns included a combination of favorable factors such as siting on natural levees, access to waterborne traffic, and acting as a trans-shipment point. These factors facilitated the establishment of steamboat landings, along with wharves and packing houses that often became the heart of the early business districts. Delta towns were also influenced by the changing configurations of levee construction, transportation technology and agricultural production. Over time, they developed distinct functions and cultural patterns linked to these developments. Delta-oriented towns initially benefitted from serving as collection and distribution centers. Over time, flooding, fire and competition from better located sites challenged existing towns. Shifting settlement patterns and new configurations emerged both between and within communities. Some towns were able to capitalize on the advantages of certain sites, while others declined. Today, interests in historic preservation and agritourism may bring new life to the Delta’s legacy towns and offer new opportunities to farms and ranch lands.

**Walnut Grove**

In 1850, New York native John Wesley Sharp used the recently passed Federal Swamp and Overflow Act to acquire the land that would eventually become Walnut Grove. Sharp built a wharf to enhance the town’s location and new settlers gradually arrived and expanded the settlement. Walnut Grove is the only river town south of Red Bluff to occupy both sides of the river. At first, Walnut Grove’s location was well-suited to facilitate local travel. The town was initially connected by ferry until a bridge was built to connect the two commercial halves. In the late 1870s, the town added a hotel, covered wharf and warehouses and it became an important midway shipping point between Tyler and Andrus islands. In the 1920s, the right bank (Clampett Tract) was the preferred location for the town’s prosperous residents. Such clusters of homes were given the name “Asparagus Row” or belonging to members of the “pearistocracy.” Over time, Walnut Grove boasted a diverse mix of commercial and cultural establishments including canneries, a theatre, and several European-style hotels.

Walnut Grove’s Chinese settlement was established in the mid-1870s, initially including residents from both the Sze Yup and Zhongshan districts of China’s Guangdong Province. Walnut Grove’s first Chinese settlement was built on stilts overhanging the Sacramento River. After several fires, the settlement was relocated to the landside of the town. By the early 1900s, Walnut Grove supported the largest Chinatown in the Delta comprised of two distinct

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Helzer, 13

residential groups that identified themselves along socio-linguistic lines. Hailing from different homeland districts, they spoke different dialects. This cultural cleavage was further reinforced by membership in voluntary associations or tongs which provided support for new immigrants and whose leaders often played influential roles in the community. In Walnut Grove, the Zhongshan outnumbered the Sze Yup in total population and registered 400 active members in their Bing Kong Tong. Each dialect group occupied separate areas of town, and when a fire erupted in 1915 destroying nearly 100 homes and businesses, the split between the two communities became solidified with the Zhongshan choosing to relocate and build a new Chinatown in Locke, one mile north of Walnut Grove. The Sze Yup rebuilt Walnut Grove’s Chinatown along with Japanese residents who created their own district just north of the Chinese settlement.

A second fire in 1937 destroyed much of Walnut Grove’s Chinatown and today the majority of buildings in the Chinese district date from the post-1937 era. Several buildings represent blend of Chinese influence combined with the Art Moderne style that emerged in the 1930s. Building exteriors blend colorful Chinese embellishments with the curving forms and horizontal lines of the Modernist style. The Chinese Freemason Hall is a prominent landmark from the period, built on the site of a former joss house that was lost to fire. Other important landmarks include several businesses owned by Alex Brown and other family members, the Walnut Grove Buddhist Church, Kawamura’s Barber Shop, and Hayashi’s Market. The following sites are listed on the National Register of Historic Places: the Walnut Grove Chinese-American District, the Walnut Grove Japanese-American District, the Walnut Grove Commercial/Residential District, and the Walnut Grove Gakuen Hall. The Sacramento River Delta Historical Society in collaboration with the Walnut Grove Chamber of Commerce has produced a heritage walking tour of the town sights.

Today, Walnut Grove has evolved into three recognizable sections. The main business section is located on the high ridge of the levee, facing Highway 160 that connects to Sacramento. The second and lower area behind the levee is the old town. It includes some commercial activities, and both historic Asian-American districts. The third area lies across the main bridge and

40 The name on the register, an image, listing date, city or town associated with the historic place and geographic coordinates came be found at: http://en.wikipedia.org/wiki/National_Register_of_Historic_Places_listings_in_California.
Clarksburg

Clarksburg, situated on the southern tail of Yolo County, was founded by Judge Robert Clark in 1849 (some sources say 1856). The town is centrally located between the Holland (Netherlands) Tract, the Lisbon District and Merritt Island. The people of Clarksburg were often referred to as “rim landers” because the town was built on a natural levee situated between Sutter Slough and Elk Slough. Many early residents also lived on houseboats or homes built on stilts. Large numbers of Azoreans Portuguese farmers and fishers settled in the Lisbon District. The Azoreans proved to be excellent fisher-folk, achieving commercial success in salmon fishing until the 1950s when fishing on the Sacramento River became highly regulated. Dairying was an important economic activity in the area with more than ten dairies supplying urban markets in Sacramento and San Francisco. Such developments helped to solidify specific groups to the area and in the case of the Azorean Portuguese, they eventually established their own schools near Clarksburg. Holland Union Gakuen, one of the few remaining Japanese language schools in the Delta, is also located in Clarksburg. Plans to preserve and redevelop this historic site are currently underway.42

In 1912, drainage of a large tract of land west of Clarksburg by the Netherlands Farms Company established the 25,000 acres of land that investors hoped would produce sugar beets. When the sugar tariff resulted in the collapse of the market, the investment group reorganized and added an additional 3,000 acres to complete and rename the newly developed land the “Holland Tract.” In the 1920s, Clarksburg was considered a model town when the Holland Land Company took control of the reclamation district and subdivided 15,000 acres into smaller units. The new properties were sold to buyers who had been prescreened for their “agricultural ability and “civic responsibility.”43

After 1920, sugar beets were introduced again to the area and became the area’s primary crop. Early photographs show heaping mounds of beets at Clarksburg’s “beet dump” in preparation for transfer onto barges. A sugar refinery was built in the mid-1930s. The “sugar beet factory” as it was locally known, processed local beets and those shipped from outside the area. The “beet factory” closed in 1993.

Recent surveys conducted in the region suggested that the Holland Tract would make a good wine growing region. It received recognition as a certified American Viticulture Area (AVA) in

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1984 producing over 25 wine grape varietals. The Old Sugar Mill is currently being converted into a showcase facility for multiple wineries and related events.  

**Courtland**

London native, James V. Sims is credited with the founding of Courtland in 1870, naming the new town after his son. The Courtland wharf was important to fruit shipments from nearby pear ranches and after 1900, the town also benefited from the asparagus boom. Early photographs show a bustling community complete with social halls, grocery stores, a bank, a service station and the iconic Courtland Market, one of the most recognized buildings in town.  

The most northern Chinese settlement in the Delta is located in Courtland. It was established before 1870, located just upstream from the Courtland Wharf. Because of its unique “waterside” placement, the community was built on stilts adjacent to the levee, projecting out over the Sacramento River. A fire destroyed the Chinatown in 1879 and it was rebuilt only to be burned down again in 1930. The Chinese rebuilt once again, this time moving their community to the land-side of the levee on Courtland’s north end. Though small in size, Courtland’s Chinatown served a large Chinese population, with many living on surrounding farms that used the settlement as their primary commercial center. Early maps of the town indicate that the Chinese quarter consisted of restaurants, grocery stores, lodging houses and a pool room.  

One prominent Courtland native, Chauncey L. Chew, opened a general merchandise store in Chinatown dealing in dry goods, hardware and automotive parts. During the harvest season, he was a labor contractor for workers from the Bay Area and he was instrumental starting a Chinese school in Courtland. Today, Courtland’s small commercial center includes Chinese architecture and an outdoor museum featuring farming equipment from Chan’s Diversified Farms. The town’s Pear Fair is held in the summer and is a celebration of the annual Bartlett Pear harvest and the town’s unique character and rural lifestyle. As previously mentioned, several Delta communities operated separate schools for Chinese and Japanese children including the Courtland Bates Oriental School.

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Gold Rush Settlement

During the early years of Gold Rush, settlement in the Delta was profoundly shaped by site and situation. The sites of several Delta settlements were determined based on the physical landscape and the unique environmental setting on which each town was built. In the Delta, fertile soils and high levees along with plentiful water and timber resources were key factors in the establishment of early settlements. Newcomers were also drawn to the Delta’s geographical situation or a settlement’s location relative to the surrounding area and regional population centers. The locations of the towns mentioned above offered accessibility including important crossroads and bridging centers for both overland and river transport routes.

The advantages of site and situation are not evenly distributed across the Delta region and therefore some locations were favored over others for settlement. Those areas with the right combination of resources and access became the focus of settlement in the post-Gold Rush era. The next phase of development in the Delta involved massive modification of the environment including the construction of hundreds of miles of levees. The reclamation of the Delta marshlands began in earnest as gold mining declined and the economic growth of the state became more focused on agriculture. The region, once a place of marginal commercial interest during the Gold Rush, faced enormous change thanks to the pace of rural development.

II. IMPACT OF AGRICULTURAL DEVELOPMENT - ETHNIC EXPERIENCE & LABOR HISTORY IN THE DELTA

By the mid-1850s, the Delta’s nascent settlements, travel routes and transportation linkages enhanced the region’s potential for agricultural production. In order to realize that potential, the physical landscape of the Delta would undergo a colossal transformation, turning 500,000 acres of marshland into one of the state’s most productive agricultural areas. The details of this massive modification of the environment are covered in a separate Delta Narrative. Draining the Delta’s wetlands and making the land suitable for crop production required a labor force to construct levees, cut drainage ditches, clear the land, and break-up the sod for cultivation. The building of levees was a monumental undertaking, requiring the backbreaking labor of new immigrants.

The transformation of the Delta into cultivatable fields and the subsequent planting, harvesting and processing of crops depended upon vast numbers of mobile, seasonal, and inexpensive workers. The Chinese filled early demand in the fields, but with the impact of the Chinese exclusion laws in the late 1800s, they were replaced by Japanese immigrants. By the 1920s, add Filipinos and Mexican Braceros. While the labor was welcome and necessary for the success of agribusiness, permanent settlement by diverse ethnic groups was not. Additional newcomers from Europe did not face the same levels of discrimination, which influenced the communities they built in the Delta. The stories of ethnic settlement and place-making are
detailed below and generally follow the sequence of their arrival in the region. Community vignettes are also included to illustrate the significant contributions that diverse ethnic groups made in this rural refuge and the varieties of ethnic experience in the Delta.

**Chinese Settlement in the Delta**

The first newcomers to arrive on the scene were Chinese laborers, many recently departed from California’s mining districts or from construction work on the Transcontinental Railroad. This first phase of reclamation, from the early 1850s to the early 1880s, coincided with the completion of the Transcontinental Railroad in 1869, which sent thousands of Chinese laborers into the workforce.\(^{49}\) In rural northern California, a population shift of Chinese was well underway with concentrations of settlers relocating to townships along the Delta portion of the Sacramento River. Stockton’s early Chinatowns, like those of Sacramento, would also serve as important recruitment centers for the next stage of development in the Delta.

As the gateway to the southern Mother Lode, Stockton was an important early destination for large numbers of Chinese laborers looking for work. Commonly referred to as *Sam Fow* or “third city” in the Cantonese dialect, Stockton supported three unique Chinatowns that reflected the diverse backgrounds of Chinese settlers. The Zhongshan (formerly known as Heungshan or Xiangshan) hailed from the east banks of the Pearl River Delta (Guangdong Province) and dominated the Channel Street enclave, Stockton’s first Chinese settlement. The location of the settlement was ideal for meeting incoming and outgoing vessels at the docks, and, over time, the enclave featured wood-framed hotels, restaurants and a joss temple. The Zhongshan shared their neighborhood with other early immigrant groups including Germans who built their social institutions adjacent to the Chinese quarter. A second Chinese enclave was established south of the Channel Street quarter on Washington Street between Eldorado and Hunter Streets. Recently arrived Sze Yup from Guangdon’s Toishan District (Xinhui, Taishan, Kaiping and Enping) settled in the Washington Street area. In addition to coming from different areas of China, the new residents spoke a different dialect than their Zhongshan counterparts. The Washington enclave also developed a multicultural character that included recent immigrant arrivals from northern Italy. A third settlement developed along the south bank of Mormon Slough. Initially starting as a squatter settlement for Chinese fisherman, it soon grew into a thriving commercial center with truck farms, laundries, and fish-drying services.\(^{50}\)

**Chinese Contributions to Reclamation**

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While the contributions of Chinese immigrants in mining and railroad construction are widely known, their role in the development of rural California and reclamation of the Delta is not. By 1860, Chinese were already engaged in a range of occupations in rural California, often in support of mining activities. In Sacramento and San Joaquin counties for example, diverse occupations included laundrymen, cooks, servants, and truck farming. By 1870, Chinese immigrants earned a living in light manufacturing or, agriculture and were also hired as common laborers to construct and maintain the levees, roads, ditches and bridges in the Delta.51

Initially, individual Delta landowners were the first to undertake reclamation projects. These early efforts included small-scale projects in select areas. In 1861, a new policy of reclamation was adopted, which gave the state responsibility for projects. During this period of state control, reclamation districts formed by local landowners were created and acreage limits were imposed on individual landowners. By 1868, reclamation matters were transferred to county governments and the acreage limits were dropped. The removal of acreage controls encouraged land agents and corporations funded with outside capital to secure large tracts of swamp land in the Delta.52 These developments had implications for the size and skill of the labor force that would need to be mobilized to pursue reclamation projects.  

As mentioned earlier, the Chinese immigrated to California from Guangdong Province in southern China. The Zhongshan and Sze Yup Chinese immigrants were representative of unique village districts in Pearl River Delta, a region that shares similar characteristics with California’s Delta environment. Even though California-bound immigrants were divided by language, with each group speaking a native regional dialect that was unintelligible to the other, they likely shared a common knowledge of and experience with agricultural production in the Chinese countryside.53 The amazing skill and determination of Chinese laborers had already been demonstrated by their work on the Transcontinental Railroad and in the California mines. The Chinese work ethic, when combined with their familiarity of delta environments, provided the perfect opportunity for land developers in the California Delta to launch large-scale reclamation projects. Both individual landowners and land-reclamation corporations utilized a system of contract labor to hire Chinese laborers. The employer negotiated directly with Chinese bosses who were skillful middlemen able to connect labor supply with labor demand. Their entrepreneurial services included putting together work crews, providing transportation, supplying room and board, and overseeing the general working conditions and

terms of employment. In 1869, the numbers of unemployed railroad workers and recent immigrants in Stockton were growing, thus many were willing to follow a Chinese boss who found them work and spoke their dialect.

Delta landowner Reuben Kercheval is thought to be the first person to hire Chinese laborers for swamp land reclamation. After a brief stint in the gold country, Kercheval joined his uncle who had previously settled in Courtland and selected a 320 acre tract on the northern edge of Grand Island. Kercheval hired a work crew consisting of Chinese, Hawaiians and California Indians. They constructed twelve miles of levees measuring thirteen feet at the base and three feet across.  

Like Kercheval, Pietre Justus van Loben Sels (also known as P. J.) settled in the Delta in the mid-1870s. Van Loben Sels was put in charge of reclaiming several thousand acres owned by the San Francisco Savings Union following his marriage to the daughter of the bank’s president. He used a Chinese labor contractor to obtain levee builders. The work crew hired their own cooks, constructed their own makeshift camps and tended to the horses that were often used for reclamation projects. Before the introduction of dredgers and mechanical earth-moving equipment, Chinese laborers removed peat soils using hand tools and wheelbarrows. They are also credited with the invention of “tule shoes” which were large ski-like woven mats that were attached to the horses’ hoofs to prevent them from sinking or getting bogged down in the mud.

The most extensive use of Chinese labor to reclaim delta lands is associated with the Tide Land Reclamation Company. The elimination of acreage limits in 1868 prompted George D. Roberts, President of the Tide Land Reclamation Company, to acquire large tracts of land. On average, Chinese laborers were paid a dollar a day. Profits gained from Chinese labor on the 40,000 acres of reclaimed land owned by the company are estimated between $1,000,000 and $2,000,000. Overall, the Chinese are estimated to have reclaimed at least 88,000 acres of Delta land between 1860 and 1880. This is an area roughly equivalent to 80,000 football fields, or more than twice the area of the present-day City of Stockton. Total Delta restoration by the Chinese is estimated to be 538,000 acres of agricultural land, or approximately 16 percent.

Chinese Tenant Farmers and Agricultural Specialization in the Delta

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54 Chan, Bitter-Sweet Soil, 176.
55 Chan, Bitter-Sweet Soil, 177.
57 Thompson, “Settlement Geography,” 262-263.
58 Chan, Bitter-Sweet Soil, 178-185.
By 1870, reclamation of the Delta swamp lands was largely complete and thousands of acres were diked and drained by intricate systems of levees, floodgates and flumes. Farm tenancy, a longtime practice by Chinese settlers in the Delta since the early 1860s, became more pronounced. Land tenancy and sharecropping became institutionalized in the region because Delta farmers had never shown much interest in subdividing and selling reclaimed lands and they had little desire to live in the Delta. Under the crop share system, owners selected the crops to be grown, while the tenant grew the crops on contract and received a share of the crop. Over time, the system resulted in a high degree of agricultural specialization with each crop linked to a particular group of immigrant farmers. Early on, the Chinese were the principal tenant farmers in the Delta specializing in orchard work, and raising potatoes and onions. The pattern of crop specialization was especially pronounced among the two Chinese immigrant groups. The Zhongshan followed a familiar practice from their South China homeland district and became orchard workers in the northern Delta region stretching from Courtland to Isleton. Further downstream near Rio Vista, the Sze Yup concentrated their efforts on potato and onion farming. Sze Yup tenants also maintained potato patches on islands in the south Delta as soon as the land was ready for cultivation. Even before land reclamation was complete, they farmed land along the San Joaquin River side of Roberts Island and in areas near Rough and Ready Island just west of the Stockton harbor.

By 1880, the Chinese are estimated to have supplied one-third of the state’s agricultural workforce. In large measure, they are credited with transforming California from wheat and ranching to an agricultural cornucopia of diversified crops. It has been suggested that this massive makeover of the state’s agricultural landscape would not have been possible, and certainly delayed by decades, if not for the ingenuity and specialized skills of Chinese immigrants. The Chinese impact in the Delta is reflected in the changing pattern and diversity of crops through time. In the early period (1860-79), nearly fifty percent of farms operated by Chinese tenants focused on fruit and vegetable cultivation. Grain and hay accounted for sixteen percent of farm production and potatoes, onions and beans were each grown on only five percent of farms. For the next two decades, potato production continued to increase, but the percentage of vegetable and fruit growing along with hay, declined.

These shifting production numbers reflect larger geographical patterns in Chinese tenant farming and settlement in the region. In the early years, their efforts were focused on the narrow “fruit belt” found along the banks of the Sacramento River. Here, the fertile soils of the

61 Arreola, “Chinese Role,” 8-9; Minnick, Samfow, 69-70.
62 Carey McWilliams, Brothers Under the Skin (Boston: Little, Brown, and Co., 1946), 67-70.
63 Chan, Bitter-Sweet Soil, 195, Table 18.
natural levees supported stone fruit orchards until pear cultivation was found to be better adapted to the local soil conditions. By contrast, the peat islands located in the central and southern portions of the Delta have low natural levees and much of the land was at or below sea level and thus subject to twice daily tidal inundation. These conditions were unsuitable for orchard crops, but highly conducive to potato and onion cultivation. Potato farming was found to be a lucrative endeavor for the Delta Chinese. Sucheng Chan’s detailed analysis of the region’s agricultural manuscript censuses shows that over one-third of Chinese farmers in the Delta were producing 15,000 bushels (375 tons) of potatoes in 1880. A Chinese tenant farmer named Ah Yet was one of the largest growers, producing 40,000 bushels (1000 tons) on 250 acres of land. Chinese immigrants in the Delta became specialists in potato farming because they were able to succeed where others could not. Chinese were considered “tule farmers” a name given to tenants who farmed the back swamps located in the center of islands in the south Delta. Working behind the levees, the rich peat soils could produce a double-crop of potato plantings in February and June. The potato crop was prone to disease that was alleviated through crop rotation. As a result, Chinese tenants had to move from one field to another to produce a healthy crop. While this would be considered a burden by most farm owners, Chinese settlers who were prevented from owning land were willing to put up with the physical hardships of tule farming because of the financial rewards.

In the late 1890s, Chinese played a major role in the success of the Delta’s asparagus crop. Although the Chinese were not familiar with the new crop, they soon became experts and the number of laborers swelled in the asparagus fields. In 1894, the Hickmott Company built the first “gras,” (asparagus) cannery on Bouldin Island and Chinese became the primary workforce in the new plant. During the canning season from mid-March to mid-June, hundreds of Chinese workers migrated to the island’s canneries, turning out over 600 cases of canned asparagus every day. To accommodate the asparagus boom, new canneries were eventually built in Isleton, Walnut Grove, and Courtland and Chinese were involved in every aspect of production, from cultivation to canning. By the 1920s, Chinese entrepreneurs had become cannery owners, operating two major sites in Isleton, the Bayside Canning Company and the National Cannery. The Chinese-owned canneries specialized in asparagus, tomatoes and fruit and in later years they supported a diverse work force of Italian, Portuguese and Japanese workers.

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64 Chan, Bitter-Sweet Soil, 195-196.
65 Chan, Bitter-Sweet Soil, 212-213.
67 Chan, Bitter-Sweet Soil, 223-224.
68 Minnick, Samfow, 84-86.
Chinese laborers, tenant farmers and cannery workers were critical to the early development of the Delta and the region’s agricultural economy and emerging towns. They played a pivotal role in land reclamation and agriculture. Their enormous contribution paved the way for future economic development and settlement in the region.

In the early 1880s, exclusionary laws and policies primarily directed towards Chinese, along with new developments in agriculture, led to an increasing demand for agricultural workers. The result was the widespread migration and settlement of new immigrants representing ethnic groups from Asia and Europe. During the late-nineteenth and early-twentieth centuries, Japanese, Portuguese, Italian, Filipino and Sikh newcomers became important contributors to the Delta’s rural landscape and economy.

The California Legislature and California Supreme Court were among the first to enact anti-Chinese laws. In 1852, the Foreign Miner’s Tax was expanded to target the Chinese. Two years later, the state court prohibited the Chinese from testifying against whites, and by 1860 they were barred from public schools in California. In 1872, the California Legislature barred Chinese from owning real estate and by 1879 they were also excluded from employment in state and local public works projects. Continuous pressure by anti-Chinese organizations and labor unions led the United States Congress to pass the 1882 Chinese Exclusion Act. For the first time in America’s history, the government excluded a specific group based on nationality or race. The new law barred Chinese laborers from immigrating for ten years. In 1888, Congress passed the Scott Act, which barred Chinese laborers from re-entering the United States. Taken together the Chinese Exclusion Act and the Scott Act effectively immobilized the Chinese community and froze them in place. Many who supported the laws hoped that it would raise wages; however, the unintended outcome in California was a labor shortage, especially in the Delta where the economy was increasingly dependent on an experienced agricultural workforce. The impact of anti-Chinese legislation excluded new Chinese immigration, and over time, restricted the agricultural labor supply and prevented economic growth in the Delta’s agricultural sector. These exclusionary laws created a labor vacuum in the region and farm operators turned to other immigrant groups to fill the void. By the 1890s, newcomers were drawn to the Delta from all corners of the globe including northern Italians, Portuguese from the Azores Islands and Sikhs from the Punjab region of northern India. Furthermore, and despite anti-Asian sentiment, Japanese and Filipinos were also among the new arrivals. As exclusionary laws decreased the supply of agricultural workers, labor became

more essential for Delta farmers who were ramping-up agricultural production and investing in new crops like asparagus and sugar beets, resulting in increased labor demand.

### Building Communities & Second Wave Settlement

Levee construction and tenant farming had led a large number of Chinese to the Delta and farming convinced many to stay. Due to the growing number of Chinese residents in the region and the need to provide them with goods and services, Chinatowns were founded from Freeport to Rio Vista. By 1880, crop specialization resulted in localized concentrations of Chinese in the Delta. The Zhongshan settled along the Sacramento River in the “fruit belt” near Courtland, while the Sze Yup “potato kings” established their communities down river near Rio Vista.\(^70\) Like the Chinese, newcomers also found their niche in the Delta. While Chinese populations were declining in the rest of the state, the Delta provided a unique refuge where they were able to sustain livelihoods and rural enclaves. The diversification of crops in the Delta meant that Chinese men could work in farming in a variety of crops throughout the year. Weeding, pruning, harvesting, as well as repair work on the farm and on the levees gave them ample work and allowed Chinese residents to stay in the region. Chinese populations in Delta counties like San Joaquin and Contra Costa actually increased significantly after 1900. Cannery work also provided Chinese with long-term employment. They did much of the “floor work” usually reserved for white women including cutting, pitting and sorting fruit. Many were also employed in Isleton’s large asparagus processing plants where they often earned higher wages than other agricultural workers, which allowed some to settle in relatively stable communities.\(^71\)

### Locke – America’s Rural Chinese-American Community

As previously mentioned, Chinese laborers from the Zhongshan district established the town of Locke in the early 20\(^\text{th}\) century. The new settlers were adult male immigrants who had been recently displaced when fire devastated their community in nearby Walnut Grove. The town is named for local pear farmer, George Locke who leased the new residents nine acres of land just north of Walnut Grove to build their new community.\(^72\)

The Locke Historic District, listed on the National Register of Historic Places in 1971, is the most complete example of Chinese-American rural community in the United States. The town itself has a unique layout with some of the buildings having two street level entrances; one at the top

\(^{71}\) Richard Steven Street, *Beasts of the Field: A Narrative History of California Farmworkers, 1769-1913* (Stanford University Press, 2004): 401. The author provides a detailed account of asparagus processing and working conditions in canneries. See notes on page 792.
of the levee and the other at the base. Narrow wooden alleys connect the town’s three main streets with River and Main Streets constituting the commercial core. As was typical of all Chinatowns in the Delta, the Chinese built two-story wooden-frame buildings. The second floor was often the residence and the first story was the store. Locke was a lively hub of activity in the 1920s, supporting a permanent population of around six-hundred residents. On the weekends, the population would swell closer to a thousand with field workers coming into town from the surrounding agricultural camps. Locke had a post office, a flour mill, a movie theater, restaurants, speakeasies, opium dens, and a gambling house. Today, the town’s packing shed is a boathouse and the Dai Loy Museum is housed in the former gambling hall. One of the more famous destinations is “Al the Wop’s” saloon and steakhouse where visitors can mingle with residents and sample the local cuisine. Locke is also home to the Chinese School, established in 1915. The building was funded by the Kuomintang (Chinese Nationalist Party) and was originally used as a meeting place for Kuomintang members. A bust commemorating the Chinese revolutionary leader, Dr. Sun Yat-sen is located in front of the school.73

**Japanese Contributions to the Delta**

Changing economic and political conditions, military conscription and the enticement by emigration companies encouraged young Japanese men to leave rural southern Japan for America. Many early immigrants worked in Hawaii’s sugar and pineapple plantations before coming to the mainland, settling primarily in West Coast regions. Entering America through Pacific Rim ports like San Francisco, first generation *Issei* men found employment opportunities in agriculture throughout the state.74 Many started out as field hands, eventually becoming *keiyaku-nin* or a field foreman who supervised crews and helped to ensure the quality of the harvest.

Over time, a *keiyaku-nin* was able to utilize their position to secure long-term leases, grow high-value crops and earn a handsome profit. By the turn of the century, Japanese farmers were an important element of California’s agricultural economy. One of the most celebrated of all *keiyaku-nin* to become a farmer was Kinji Ushijima, also known as George Shima. Shima worked as a field hand near Stockton and after a number of years eventually became a successful *keiyaku-nin* and was soon after able to purchase fifteen acres of unimproved lowlands in the Delta. Once the land was reclaimed, he planted potatoes, asparagus, and onions. The potato crop produced high yields in the rich peat soil, earning Shima enough profit


Helzer, 25
to expand his farming operation. With the help of an army of laborers, he eventually reclaimed more than 100,000 acres in the Delta and was commonly referred to in the press as the Potato King. The agricultural expansion that Shima was able to achieve was built on the labor of six-hundred multinational workers. Approximately fifty percent were Japanese, thirty percent East Indian/Sikh, and twenty percent Mexican and other groups. These ethnic immigrant farm laborers lived in Shima’s camps. In the early 1900s, twelve camps were constructed on Bacon Island, a primary location of Shima’s farming ventures. The structures are still intact and constitute the Bacon Island Rural Historic District. In 1993, the district became eligible for the National Register of Historic Places (NRHP) listing at the state level.

While Shima is arguably the most famous Japanese farmer in the Delta, and perhaps in the state, his experience represents a path many Japanese took into agriculture. Between 1900 and 1910, many moved into farming in great numbers and California’s Japanese population expanded from 10,151 to 41,356. At that time, more than half of all Japanese in the United States lived in California. By 1920, the number of Japanese in the state climbed to nearly 72,000 or sixty-five percent of the total in the United States. In Sacramento and San Joaquin counties, the number of Japanese foreign born was 5,800 and 4,345 respectively, among the highest in the Central Valley.

In addition to farming, Japanese also filled the labor demand in the new canneries being built in the Delta. They often settled within existing Chinatowns before establishing their own sections of town. Over time, towns like Walnut Grove and Isleton became commercial, religious and cultural hubs for growing numbers of Japanese residents in the Delta. The growing population of Japanese immigrants, first as laborers and then as successful commercial farmers, stimulated an anti-Japanese nativist movement in California. Japanese immigrants were seen as incapable of assimilation and so numerous that they had the potential to overrun the state. To appease Californians who were calling for an end to Japanese immigration, a Gentlemen’s Agreement (1907) was reached between the United States and the Japanese government whereby Japan would stop issuing passports for immigration to the U.S. Since the agreement did not apply to women, the result was an increase, rather than a decrease of the Japanese population in California.

75 California Department of Parks and Recreation, *Five Views*, 164; Richard Steven Street, *Beasts of the Field*, 514-516.
76 Cultural Studies Office - Division of Environmental Analysis, “A Historical Context and Archaeological Research Design for Work Camp Properties in California” (California Department of Transportation, 2013), 70.
77 Maeda, *Changing Dreams and Treasured Memories*, 41.
In order to circumvent the anti-immigration laws, Japanese immigrants developed a picture bride system that allowed Japanese men in the United States to find wives from overseas in order to start families. A matchmaker in Japan would “match” the photo-portraits of Japanese bachelors in the United States to potential brides in Japan. Once the matchmaker found a suitable match, they were married and the bride is sent on a one-way trip to start her new family life in the United States. The picture bride system had precedent in Japan where arranged marriages were common and matches were based on careful consideration of socioeconomic status and family background. In America, the system did not always work in the same way. Upon arrival, brides often found out that the young looking photo of her bachelor husband was in reality a much older man. Newly arrived picture brides lacked the resources to make the return trip back to Japan and doing so would have brought shame to her family. The picture bride system resulted in considerable social mobility as well as family formation for the Japanese community.\(^7^9\)

Japanese farmers are credited with high-quality standards and effective practices that created California’s successful large-scale agricultural operations. Despite their work ethic and many contributions, the Japanese were criticized for their success in agriculture and their spatial concentration in rural California made them targets of discriminatory actions. As their numbers increased, there was concern that they were controlling the best farmland in the state. A map of Oriental Land Occupation, produced in 1920 showed that a high concentration of land in Northern California, and especially in the Delta, was owned or leased by Asian and South Asian Americans (Chinese, Japanese and Hindus). That same year, California law prohibited Japanese from owning or leasing land. The “Oriental Land” map provided a snapshot of the multiethnic character of the Central Valley, although the distribution of other immigrants groups including Italians and Portuguese was not included on the map, the assumption being that the clustering of European ethnic farmers was not a concern.\(^8^0\)

Emboldened by anti-Japanese agitation, a state political code was amended in 1921 to allow for the establishment of separate schools for Indian, Chinese, Japanese, and Mongolian children. Such discriminatory policies were common in Delta school districts. Courtland, Isleton and Walnut Grove each practiced de facto segregation prior to the adoption of state sponsored segregation in 1921. Some California communities found ways to limit discriminatory school measures, but that was not the case for the children of Asian families in Delta communities. Separate schools for Chinese and Japanese children in the communities listed above remained in operation until the start of World War II.\(^8^1\) The Courtland Bates Oriental School site was

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\(^7^9\) California Department of Parks and Recreation, *Five Views*, 162-163.

\(^8^0\) Robin Datel, “Picturing the Central Valley through Maps,” in *Picturing California’s Other Landscape: The Great Central Valley* (Berkeley, CA: Heydey Books, 1999), 100.

\(^8^1\) Mindy Minnick, *Samfow*, 265-266.
converted into an elementary school while the former sites in Walnut Grove and Isleton are currently vacant.\textsuperscript{82}

Japanese fought against discrimination and sought social justice and economic equality on many levels. Japanese farmworkers routinely organized work stoppages just before harvest. Throughout the state, they repeatedly walked off the job and earned a reputation for being disloyal and cocky. Landowners, who had initially welcomed Japanese farmworkers to replace Chinese workers, now strongly opposed them and sought to recruit their replacement. By the 1930s, Filipino field workers outnumbered their Japanese counterparts.\textsuperscript{83}

Executive Order 9066 (EO 9066), issued February 19, 1942, was the most widespread discriminatory act perpetuated on Japanese Americans. Enforcement of EO 9066, led to the forced relocation and incarceration of more than 110,000 people of Japanese ancestry, the majority of whom lived on the West Coast. Fairgrounds, labor camps and rodeo grounds throughout California’s Central Valley were converted into temporary assembly centers, including the Stockton fairgrounds, where Japanese-Americans awaited relocation to large permanent concentration camps being built in the interior desert and swamp regions of the United States. In spring 1942, Japanese families living throughout the Delta were evacuated to assembly centers and in some cases sent directly to the camps. For example, Issei and Nisei who were living in the Clarksburg area were forced to board trucks in Freeport and were then sent directly to the Tule Lake facility in northeastern California. Others were assembled in Courtland and sent by train to the assembly center in Turlock, eventually ending up at the Gila River camp in Arizona. Many Japanese-Americans lost their homes, their land and their family possessions. Some eventually returned to the Delta; most did not. Walnut Grove’s Japanese community fared better than some because the local bank honored loans and local people took care of their property during internment.\textsuperscript{84}

\textit{Isleton}

Mexican War veteran, Joseph Poole founded Isleton in 1874. By 1880, he had added a drugstore, a harness shop, a hotel and a livery stable. He also built a landing and a wharf, and also served as the town’s postmaster. Isleton has experienced cycles of boom-and-bust including a short-lived sugar beet processing plant. Once the Southern Railroad arrived, the town began to prosper with the coming of the asparagus boom and the establishment of three large canneries during the 1920s and 1930s. The canneries needed a large labor force so workers fueled Isleton’s commercial expansion. Asian cannery workers made up a large portion

\textsuperscript{82} California Department of Parks and Recreation, \textit{Five Views}, 170-171, 96.
\textsuperscript{83} Sucheng Chan, \textit{Asian Californians} (San Francisco: MTL/Boyd & Fraser, 1991), 81-62.
of the workforce and overtime established their own residential sections of town. The Chinese section included gambling houses, a notions store and an Oriental School, while the Japanese area featured an eclectic mix of hotels, pool halls, fish markets, a laundry and a movie hall. Isleton’s lively Japantown also attracted touring Kabuki groups and sumo wrestlers.\textsuperscript{85} The two distinct ethnic commercial districts share Isleton’s Main Street and in 1991, both were added to the National Register of Historic Places (NRHP). The two block area includes over fifty buildings the majority of which are included in the NRHP’s designation. This large number of historical structures, as well as the architectural style of the buildings, especially the pressed tin siding, adds to the uniqueness of Isleton’s multi-ethnic Asian streetscape. In recognition of the town’s unique Asian heritage, the Isleton Asian Celebration (formerly Chinese New Year) is held on the first Saturday of March.

Asparagus is closely connected to the Delta region where it was first planted in 1852. By the early 1900s, trainloads of asparagus were headed east and the market expanded considerably in California. The Delta region, and the Isleton area in particular, has the ideal combination of soil (high organic matter and slightly saline) and sun – not too hot - that is perfect for asparagus production.\textsuperscript{86} In 1906, the Bayside Cannery was founded in Isleton by Sai Yen Chew. His son, Thomas Foon Chew, took over the operation after his father’s death and developed a method for canning asparagus. By the early 1930s, the business was the third largest cannery in the world, earning Chew the title of “Asparagus King.”\textsuperscript{87}

\begin{section}{New Atlantic and Pacific Immigration to the Delta}

\subsection*{Italian Migration and Settlement}

Southern Europeans began arriving in large numbers in the late 1880s, just in time to lessen the labor crisis created by the anti-Chinese movement. Northern Italians from the regions of Liguria, Lombardia, and Toscana along with Portuguese from the Azores Islands worked for fellow countrymen who acted as employment brokers or padrones. Rural ethnic enclaves often resulted from this system since padrones connected farmworkers to landowners in specific agricultural districts and new immigrants preferred to stick together.\textsuperscript{88} This second-wave of

\textsuperscript{86} Paul F. Starrs and Peter Goin, \textit{Field Guide to California Agriculture} (Berkeley, University of California Press, 2010), 274.
\textsuperscript{87} Lawrence, et al, \textit{Locke and the Sacramento Delta Towns}, 117, 121.
migration from Europe was not unique to California; however, the rural destinations they selected, coupled with the agricultural activities in the Delta, created opportunities that were not found elsewhere. While their countrymen held factory jobs in the East and Midwest, California provided opportunities to work in an expanding agricultural sector.

Italians first entered California during the 1850s as a result of the impact of the Gold Rush. Examples of early pioneers include Domenico Ghirardelli, founder of Ghirardelli Chocolate who arrived in 1849 by way of Peru. Ghirardelli amassed his fortune selling sweets and other goods to miners. His business venture began in Stockton and he eventually moved to San Francisco after a fire destroyed his shop. The Italian population grew rapidly during the next several decades and by 1890 they had become numerically significant in the state. Most notable was their concentration in the northern half of the state.89

By 1900, Italian settlement grew from two initial core areas, centered in the Sierra Nevada and Bay Area, to a secondary zone of valley districts including San Joaquin County. As their numbers increased, they played a central role in commercialized agriculture and food-processing, and distinguished themselves as market gardeners and truck farmers in the Central Valley.90 In the Delta region, they clustered near Stockton and in the north Delta community of Freeport, which both provided a market for their produce. For example, Luigi Paravagna, a Genoese from Rapallo (near Genoa) arrived in San Francisco in 1849. He subsequently moved to the Delta, eventually becoming a seed and vegetable grower in Freeport. Immigrant letters telling of great opportunity in America convinced Joseph Papini to join family members in the Freeport area. He along with his uncle Giuseppe Gastaldi worked in the “Italian Gardens” and then sold their produce in Sacramento. Truck farmers grew a variety of crops throughout the year in order to maintain an ongoing cash flow. They introduced new varieties of Mediterranean crops from their Italian homelands resulting in the rich diversity of produce that the region is known for today. Italians led the way in the cultivation of olives, olive oil production and the consumption of olive oil, which has always been a key ingredient in Italian cooking.91 Italian immigrants were also known to maintain orchards and dairy herds near Freeport and Clarksburg.92 Some Italians also attempted to raise silkworms, which was a

common occupation in their homeland.\(^93\) Italian gardens often required irrigation, especially during the summer drought season. An “Italian Windmill” was therefore a common sight on early Italian homesteads because so many Italian truck farmers used them to irrigate their crops. These wooden windmills were built by the Davis Regulating Windmill Company of Stockton.\(^94\)

Early market gardeners often lacked the required capital needed to own property, so they rented land, often forming partnerships with others from the same region of Italy. They had a strong preference for hiring workers from their home districts and over time, specific northern Italian regional groups like the Toscani and Genoese came to dominate different aspects of market gardening and distribution. Italians also worked as field laborers and cannery workers throughout the state. Recognizing the potential of new refrigeration and other food preservation technologies, some Italian entrepreneurs shifted to highly mechanized large-scale farming.\(^95\) The ability to invest in such operations was supported by the Bank of Italy which later became the Bank of America. The bank was established by Amadeo Peter “A. P.” Giannini, whose initial success in banking was tied to making small loans to Italians. He created a network of branch banks throughout the state, including one in Stockton.\(^96\)

Northern Italians predominated in Northern California. In addition to their agricultural knowledge, many were highly skilled in the building trades—talents that served them well in new environments. Once the first Italian pioneers were in place, they sent for family members and encouraged friends from their native villages to join them. Over time, family ties and village clustering became the building blocks of permanent communities. Nowhere was the connection between Italian roots and California regions stronger than in state’s agricultural sector. Many Italian immigrants were skilled agriculturalists in their homeland and their knowledge and skills were well-adapted to the familiar environments they encountered in the San Joaquin Valley. Italians dominated the market in a few key crops. The Solari family, for example, was among the first to establish successful cherry and plum ranches. Cherry-growing had been an important crop in Italy, which led the world in exports in the early 1900s. The Solaris were also instrumental in building ties among area farmers with the creation of the San Joaquin Cherry Growers organization (1935). Italians were among the largest producers in the county and they developed important value-added packaging, as well as marketing methods.

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\(^{94}\) Clark, Italians of San Joaquin County, 8, 120.


like the adoption of fruit labels. Brightly colored growers labels were affixed to all shipping containers and often included Italian surnames along with the locations of production (Linden, Stockton, Lodi and San Joaquin). Both the people and the place became synonymous with the production of high quality produce.97 Tomatoes were another important crop in the Stockton area. The Cortopassis and Lagorias began producing canned tomatoes and tomato products in the 1940s. Italian families were also pioneers in farm machinery like the mechanized tomato harvester. They also owned and operated many of Stockton’s early grocery stores and delis procuring much of their produce from Italian wholesalers.98

Italian clubs and organizations also helped Italian immigrants to establish social alliances and build community identity. The Italian Gardeners Society was established in 1902 as a mutual aid society, initially providing health and death benefits to farmers. In later years, the Society formed the San Joaquin Marketing Association (1922) and built the Growers Market as a response to Stockton City Ordinance No. 811. The Ordinance banned the selling of produce from street stands, wagons or vehicles, the very foundation that supported Italian growers and their agricultural businesses.99

Italian families also established restaurants and other commercial operations to serve a growing population. The Giusti brothers, Egisto, Paolo, Morro, and Pietro migrated from Lucca, Italy to America in the 1880s and eventually settled in the Walnut Grove area around 1900. They farmed land on Staten Island, Brannan Island and Sherman Island, near Isleton and Rio Vista. They established the area’s first saloon at Walker Landing and also opened the first hotel in Ryde. In the early 1900s, they moved the business to its present location on Tyler Island where it was known as Miller’s Ferry Saloon. Today, Giusti’s is a common stop for locals and visitors alike with third and fourth generation family members running the business.100

The imprint of Italian settlement is primarily focused on the Delta region in the economic sectors of the distribution and marketing of the commercial agricultural products, both throughout the state, and to eastern markets. Early inroads to truck-farming, family support, financial backing from fellow-countrymen, and help from mutual-aid societies were among the factors that allowed Italians to invest in and profit from agricultural operations. These activities allowed them to build viable communities in the population centers of Sacramento and Stockton, and in farming communities on the periphery of the inner Delta communities. Their

98 Bengiveno, “California Italian American Project.”
99 Clark, Italians of San Joaquin County, 88.
contributions were important to the overall regional economy and their efforts helped to establish the region as one of America’s leading agricultural areas.

**Azorean Portuguese**

Portuguese also took up residence in the Delta. The majority (95 percent) migrated from the Azores, an island archipelago of nine distinct islands that lies approximately 700 miles west of Portugal. Most Portuguese are from only five of the nine islands of the Azores—Pico, Fayal, Flores, San Jorge and Terceira. In the San Joaquin Valley, immigrants from Terceira, San Jorge and Pico are in the majority. Azoreans faced many hardships that led to emigration from their island homelands, including high birthrates, lack of available land for farming and economic adversity stemming from a decline in prices for exported goods. Additionally, several natural disasters, as well as military conscription spurred immigration to America. The spatial patterning of Portuguese immigrants is unique among European settler groups in California due to their preference for settling in rural areas and their reluctance to join other immigrant groups in the state’s growing cities. In fact, the Portuguese preference to live on rural farms was four times that of other national origin groups in 1930 and six times greater in 1960. In the Delta, the Portuguese were instrumental in reclamation activities around Clarksburg and Freeport, including the creation of the Lisbon District and the manufacturing of the first clamshell dredger.

For the Portuguese in the Delta, community identity and cultural renewal were centered on participation in the annual *Festa do Espirito Santo* (Festival of the Holy Spirit) and commonly referred to as simply the *festa*. Traditionally held on Trinity Sunday, eight weeks after Easter, Portuguese from throughout northern California would converge in Freeport and then ride the Soto Ferry to the historic Portuguese IDES (Irmandade di Espirito Divino) Hall. The *festa* celebration lasted several days and included free servings of *sopas e carne* (Azorean beef stew ladled over mint bread), a processional of floats, bands and queens dressed in handmade capes and gowns representing St. Isabel. Delta farmers would also come together for traditional

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103 Graves, “Immigrants in Agriculture,” xv.
dances or *chamarritas* at the Portuguese Hall or gather for traditional hog butchering to make *linguica* and other cured meats.\(^{106}\)

In order to maintain their traditions and culture, the Portuguese established their own public school districts in the Delta, one of the very few ethnic-operated schools in the state. The Lisbon School District was located five miles north of Clarksburg near the bottom of the levee on Glide Ranch. It began as a one room schoolhouse serving students through sixth grade and later expanded up to eighth grade. Most of the children walked to school on unpaved levee roads, although some from the Pocket District on the east side of the river used rowboats or crossed by ferry. The Lisbon School District remained in operation until 1923. The District’s two schools, Upper Lisbon and Lower Lisbon, mainly served Portuguese students; however, small numbers of Italian and Japanese students were also enrolled.\(^{107}\)

**Filipino Community Making in the Delta**

Filipino immigration began in 1898 when Spain ceded possession of the Philippines to the United States in the aftermath of the Spanish-American War. The first immigrants were students who benefited from a government-sponsored scholarship program that encouraged them to pursue higher education in the U.S. From 1907 to the early 1920s, Hawaiian sugar growers heavily recruited Filipino laborers and by 1919, over 28,000 had immigrated to the islands. On the mainland their labor was also in high demand, especially after the passage of the Immigration Act of 1924, which aimed to restrict immigration to the United States from non-white nations. The Act created a quota system which permitted entry of high numbers of immigrants from Northern European countries, but severely decreased the number of entries from the rest of the world. Chinese, Japanese and Asian Indians were effectively barred from entering the U.S. as they belonged to the “Asiatic Barred Zone” where the maximum number allowed to immigrate was fifty a year. The Philippines were not included in the “barred zone” because the islands were an American possession, which made Filipinos U.S. nationals and allowed them to travel any place under U.S. control.\(^{108}\)

By 1920, Filipino migration to the mainland had picked-up momentum. Starting with only four hundred in 1910, their numbers increased to 5,600 in 1920 and a decade later swelled to 40,000. California was the main focus of immigration with the Filipino population rising from five in 1920, to 30,500 in 1930. More often than not, Stockton was the primary destination for Filipinos arriving in San Francisco, and they became the successor agricultural labor force to the Japanese in the Delta. Newly arrived immigrants would often pool their resources to hire a taxi for $75 to make the trip to Stockton, which initially served as a gathering center for Filipino

\(^{107}\) Holmes and D’Alessandro, *Portuguese Pioneers*, 124-133.  
workers and agricultural laborers.\textsuperscript{109} The majority of immigrants arriving in Stockton were from the Ilocos region on the northern island of Luzon. A smaller group of Visayan immigrants came from the central islands of Cebu, Panay, Leyte, and Bohol. All of the sending areas had high population densities and emigrants were typically drawn from lower-middle-class families of small landowners and tenant farmers.\textsuperscript{110} Upon their arrival in Stockton they shared a rural background based on subsistence farming, but also reflected the diversity of dialects and distinctive cultures from their island homelands.

Filipinos played a major role in Delta farming and the urban life of Stockton. The city became an important settlement node and cultural hub for Filipinos as they moved from one West Coast labor site to another. More than half of all Filipinos in the United States worked in agriculture, and in California this often meant the cultivation and harvest of asparagus. They tended to stay together as group working under the direction of a labor contractor. In some cases growers preferred to mix different ethnic workers into crews speaking different languages in order to hinder mutual understanding that could lead to strikes during the harvest season. During the height of asparagus season, it’s estimated that ninety percent (6,000 workers) of the harvesters were Filipinos.\textsuperscript{111} Laborers would move from camp to camp, starting in January with asparagus picking, and then move on to row crops throughout the Central Valley and Central Coast. They used ferries and small boats to travel from one island to another to labor on farms and then return to temporary living quarters in Delta work camps. Filipinos harvested a wide variety of crops and often faced tiresome, backbreaking work conditions. They planted cauliflower seedlings, cut asparagus, and chopped spinach, all requiring bent over “stoop labor.” It was common to have gangs of 300 asparagus cutters descend on the fields before dawn, attaching flashlights to their heads in order to see and be able to gather the tender shoots. The conditions were especially difficult in the Delta where choking dust from the peat soils created unhealthy and unbearable conditions for laborers.\textsuperscript{112} When the asparagus harvest ended in late June, thousands of Filipino workers headed for employment in Alaska’s salmon canneries while their families stayed behind in Stockton. Returning in August, workers could find jobs harvesting grapes, berries and other fruits. The fall season was often a period of unemployment, although some could find work in sugar beet harvesting, grape


\textsuperscript{111} Lorraine Jacobs Crouchett, \textit{Filipinos in California} (Cerrito, CA: Downey Place, 1982), 36.

pruning and celery cultivation. Second generation immigrants recall that “The growing and harvesting season of the farm crops orchestrated the rhythm of our lives.”

Many observers have pointed out that Filipinos were assigned the lowest position in the racial hierarchy of farm laborers. In 1935, Carey McWilliams wrote that “With the exception of the Mexican, the Filipino has been the most viciously exploited of any of the various races recruited by California agriculturalists to make up their vast army of ‘cheap labor.’” The systematic exploitation and mistreatment of Filipino workers took many forms including low wages, poor working and living conditions, and corrupt hiring and payroll practices by farmers and labor contractors. In order to improve working conditions and settle labor disputes, Filipino field workers increasingly formed unions, especially after 1930. Similar to Japanese workers, Filipinos staged work slowdowns and strikes, and they fought head to head with police and armed guards to protect their jobs. They gained a reputation for labor militancy by responding in equal measure to attacks by vigilante mobs that threatened workers in the fields and in their bunkhouse living quarters. Over time, the response to intimidation and threats of violence resulted in growing resistance and sense of solidarity among Filipino workers that became an important aspect of their identity. According to Filipino scholar Dawn Malabon, militant Filipino farm labor unions in the San Joaquin Delta gave rise to highly organized ethnic organizations that created a vibrant community and street culture in Stockton’s Little Manila.

**Punjabi Sikhs**

In the early 1900s, Sikhs emigrated from the Punjab region of northwest India. The first migrants were largely male and many came from agricultural backgrounds. The Sikh community branched out in California becoming important farmers in both the Sacramento and Imperial Valleys. The Sacramento Valley resembled their Punjabi homeland and they found work in familiar agricultural conditions. Similar to other groups, the Sikhs developed a referral network where members of the community acted as labor contractors, recruiting their countrymen for the harvest season.

They eventually left Imperial County and settled in Stockton where they constructed the first Sikh temple (gurdwara) in the United States in 1912. Stockton’s gurdwara was the center for Punjabi social and political life in the region. It served as a focal point for language and culture, an employment information center, and a religious sanctuary. Until 1947, the Stockton temple was the only Sikh worship and community center in the United States. Since then, nearly fifty

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113 Quoted in Malabon, *Little Manila is in the Heart*, 71.
115 Malabon, *Little Manila is in the Heart*, 70, 95-98
116 Malabon, *Little Manila is in the Heart*, 100.
117 Interestingly, a replica of this historic Stockton landmark was featured on a Sikh float in the 2015 Tournament of Roses Parade in Pasadena, California.
gurdwaras have been established throughout the state, but the Sikh temple in Stockton remains a place of special significance for Sikhs on the West Coast.  

An interesting aspect of Sikh settlement in California is family life and the ethnicity of spouses for Punjabi immigrants. In southern California, ninety-three percent of Punjabis were married to Hispanic wives. In the northern counties including Sacramento and San Joaquin, the percentage of Hispanic wives was just above fifty percent. Semi-arranged marriages were apparently common where sisters and perhaps a mother of the same family married into the same Punjabi community, or married into Sikh farming partnerships. Additional research is needed to understand the impact of these unique biethnic household arrangements and their impact on communities in the Delta region.

Sikh newcomers gained considerable attention from Sacramento Valley almond ranchers for their orchard work and they gained a foothold in the celery, bean and potato fields near Holt, just west of Stockton. They were also hired to work on farms in Isleton, often replacing Japanese workers. Much like the Japanese, Sikh field hands eventually advanced from performing wage labor for others to leasing farmland for themselves, and they ultimately thrived in the Central Valley.

**Mexican Migration and the Bracero Experience**

By the 1920s, farmers in the Delta faced new challenges in identifying reliable labor resources. The Chinese had mostly vanished and European immigration was being curtailed. Filipinos, Japanese and Punjabis had focused their attention on specialty crops. Moreover, the Mexican government made efforts to restrict an early immigration program due to the discrimination experienced by Mexican workers. During this early period, Mexican labor in California is often characterized as resulting from “drift migration” where over time migrants made their way from the borderlands to central California. Prior to 1940, these migration flows resulted in the formation of relatively reliable labor pools of Mexican workers and stable communities or colonias were eventually established outside small and large cities throughout the Central Valley and Delta region. The 1940 Census enumerated the Spanish-speaking population of California at 416,000 that included a well-established Mexican immigrant presence in the orchards and beet fields of the Delta.

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An important shift away from drift migration occurred after 1940. Facing the economic and social upheaval associated with the Great Depression, the loss of workers to World War II industries and services, and the evacuation and relocation of Japanese, California farmers argued for the need of a reliable, inexpensive labor force to maintain their vast agricultural holdings. The new industries devoted to shipbuilding, aircraft, steel and oil refining were drawing workers away from Central Valley fields and into the factories. The promise of higher wages in San Francisco, Vallejo and San Diego enticed thousands to seek new lives and left few options for growers to find labor to maintain the fields and harvest the crops. They favored a managed response to the labor shortages they were experiencing and they preferred a temporary guestworker-type of Mexican immigration program.\textsuperscript{122} Growers argued that "normal" workers rejected seasonal farm jobs and that they could not attract domestic workers by raising wages because the price of farm goods was set by the market. Migrant workers from the southern states were thought to be belligerent, so growers had additional reason to look elsewhere.\textsuperscript{123}

By contrast, there was a perception that Mexican farm laborers were a docile workforce and like “homing pigeons” would return to Mexico at the end of the work season and therefore not create the social problems associated with previous immigrant workers. The perspective of California farmers can be gleaned from the remarks of a Chamber of Commerce spokesperson’s testimony to Congress in 1926:

“We, gentlemen, are just as anxious as you are not to build the civilization of California or any other western district upon a Mexican foundation. We take him because there is nothing else available. We have gone east, west, north, and south and he is the only man-power available to us." The Farm Bureau asserted that "California's specialized agriculture [requires] a kind of labor able to meet the requirements of hard, stoop, hand labor, and to work under the sometimes less advantageous conditions of heat, sun, dust, winds, and isolation."\textsuperscript{124}

On August 4, 1942 the United States signed a temporary intergovernmental agreement that allowed for the use of Mexican agricultural labor on United States farms. The first installment of the program, officially known as the Mexican Farm Labor Program and commonly referred to as the Bracero Program, led to the arrival of 500 Braceros in Stockton to harvest sugar beets on September 29, 1942. Braceros or field laborers, literally those who work using their arms, faced a myriad of injustices and abuses including substandard housing, discrimination, unfulfilled contract agreements, and being cheated out of wages.

Perhaps the most representative icon of the wrongs practiced on Mexican field laborers was the short-handled hoe, “\textit{El cortito},” the short one. The hoe measured twelve to eighteen long and required the farmworker to bend and stoop all day while weeding rows of sugar beets.

\textsuperscript{122} Galarza, "\textit{Merchants of Labor},” 32.
\textsuperscript{123} Galarza, "\textit{Merchants of Labor},” 43.
\textsuperscript{124} Rural Migration News, “\textit{Braceros: History, Compensation},” volume 12, number 2 (April 2006).
Bent-over work was brutal and El cortito, also known as el brazo del diablo, "the devil’s arm" led to lifelong, debilitating back injuries for farmworkers and it played a key role in the United Farm Workers efforts to demand better working conditions. The growers of the California claimed el cortito was a necessary tool because it provided control and accuracy for the worker and that using it protected the plants from damage. Oddly, the agricultural community in 48 other states never saw reason to utilize it. The short-handled hoe was finally banned for use in California in 1975.125

The Delta has a rich cultural heritage and social history. The Gold Rush, subsequent agricultural development and governmental policies profoundly shaped domestic and foreign immigration to California. The combination of the region’s physical and geographical attributes eventually led people of many different nationalities and ethnic backgrounds to transform the Delta into one of the world’s most productive agricultural regions. The Delta has brought together a complex mix of social classes and ethnic groups that combined to play a central role in the region’s historical and economic development. The Delta is also a place of transient labor and settlement shaped by discrimination. It’s a place where we have a lesson to learn about labor, agriculture and economic development in the future.

The Delta’s ethnic communities share a tale of sequential occupancy, but on two tracts, one led to prosperity and community, while the other provided few options and pathways towards advancement. Native Americans sought refuge in the Delta and succumbed to disease followed by resource competition with Spanish colonizers and Anglo settlers. Subsequent settlers were initially drawn to the Delta’s promise of agricultural development and employment, but groups experienced differential access to agricultural employment, owning land, and building family and community. Some overcame barriers and were able to establish settlement enclaves with the Chinese and Japanese living quarters and commercial districts in several Delta towns offering the best examples. The groups that thrived and built cohesive communities often did so because of their perceived whiteness and the presence of family. European groups for example did not face the same levels of discrimination and were able to enjoy higher levels of prosperity in the region. Seasonal work was rule in the Delta and it forced many to leave the region for long periods of time and did little to enhance long-term community-building in the Delta. Some ethnic groups dedicated themselves to specialized crops which allowed for economic mobility and the establishment of small communities. The lack of family support or even the ability to form families due to miscegenation laws often hindered community formation. The Sikhs and Japanese found unique ways to circumvent these policies and create communities despite these barriers, but in the end few stayed in the region. The means of agricultural production were not good for grafting a long-term, sustainable presence of

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workers, the primary population in the Delta. In most cases people simply left the region when their work was done.

III. RECREATION & REFUGE COMMUNITIES

The Delta is primarily a place of work and agricultural production, but it also shares a long tradition as a place of refuge for city-dwellers. The tranquil setting of the Delta and its proximity to major populations centers in the Bay Area and the Central Valley have drawn people to “dawdle,” temporarily dwell, and even hideout in the region. The phenomenon seems to have taken hold during the first half of the 1900s when resort communities first began to appear in the Delta. Fisherman, retirees, boating enthusiasts and other sportsmen communities have since colonized the Delta’s islands and sloughs with cabins, cottages, boat docks and marinas. Pleasure craft ply the deeper channels and often appear to be “permanent” summertime residences. There are numerous resorts and facilities where vacationers can rent boats and other equipment, but many, with the exception of those located in Rio Vista and Stockton are not well-known to the public. There has not been a concerted effort to publicize the recreational opportunities in the region, and there are few hotels for overnight stay.  

Boat camping is somewhat unique way of life on the Delta. Many boat campers “camp wild,” by finding isolated spots to pitch their tents. Camping is also available in formal campgrounds where families and boat campers have built camaraderie and community over the years. The Delta offers a tranquil setting along with places of privacy that are tucked away among the fields, farm roads and levees. Erle Stanley Gardener, the best-selling detective novelist and creator of the popular Perry Mason television series, frequented Delta waters and stated that “the minute you have left the dock you have arrived at your destination.” The Delta is still a place to hide and still a place of nature amid the “big-bucks” farming territory. The community vignettes that follow include some representations of past and current places of refuge.

Ryde

Many of the original farmers in Ryde, an unincorporated community upstream of Isleton, came from the Azores, settling in the lower half of Grand Island. Portuguese surnames including Cunha, Bettencourt and Souza are still common in this area today. The memoirs of early residents tell a story of pioneering farm efforts and resilience. In the early 1900s, Joseph Silva

128 Schell, Dawdling, 14.
Vieira moved his family from San Jorge Island in the Azores to Rio Vista where he operated the Dewey Saloon. In 1905, he leased fifty acres on Andrus Island and hired Japanese field hands to cultivate asparagus. In 1931, Vieira’s daughter Josephine and her husband Albine Korth also purchased land on the island for an asparagus farm. The location of their property at the confluence of the San Joaquin and Mokelumne Rivers proved to be an ideal location for a marina and in 1938, the Korth’s started a small recreational facility that eventually became the Pirate’s Lair Resort. Today the facility includes a mobile home park, boat berths and a marina. It’s now managed by third generation members of the Korth family.130

Ryde is perhaps best known as the “speakeasy hamlet.” From 1918 to 1933, Prohibition created a lucrative, underground bootleg industry for the isolated town. The focus of activity was the basement “speak” of the Ryde Hotel and its secret tunnel, which were both raided several times and finally closed down. Today, the Ryde Hotel is a popular roadhouse and bar and is still operation as a hotel.131

The Isleton Cajun and Blues Festival (formerly known as the Crawdad Festival), is held on Father’s Day Weekend. The Festival’s artists, schedule of events, cuisine and event promotion and branding explore themes of Acadian culture and connections between the “Bayou of the West” and the Mississippi Delta. Perhaps the more important association between the two delta regions is their recent environmental history: the 1972 levee break that submerged more than half of Isleton under floodwaters; and Hurricane Katrina (2005) that submerged large areas of New Orleans and the surrounding hinterlands.

Resort landings and popular fishing spots are common in the region; however, the potential for expanding recreational use is hampered by erosion along the levee roads and subsidence of the islands beneath the weight of the levees.132

**Rio Vista**

Rio Vista traces its early beginnings to John Bidwell’s Los Ulpinos Mexican land grant. The town was established by Col. Nathan H. Davis who purchased the site from Bidwell for $400. Situated halfway between San Francisco and Sacramento, the settlement was important for shipping supplies and miners to and from the goldfields. In 1858, a daily steamer service was established between San Francisco and Sacramento. Rio Vista was ideally suited as the main port of call along the route, and residents benefitted from the trade and exchange that had to be routed through the town’s landing. In the mid-1800s, salmon fishing and salmon canning

131 Dillon, *Delta Country*, 111.
were important local industries. The town was swept away by high water in 1861/62 and rebuilt on higher ground at its present location.\textsuperscript{133}

In later years, the Del Monte Company established a large asparagus cannery in Rio Vista and the town was also well-known among Hollywood film producers whose film crews shot scenes for motion pictures from 1914 to 2012. In 1918, a bridge was built connecting Rio Vista to Brannan Island, which helped to establish Rio Vista as the main trading center for residents of the lower Delta region. An Army base operated south of town from 1911 to 1992 and was originally used to house or moor equipment, including large suction barges used to dredge, deepen and straighten the Sacramento River. In later years, the base was used for storing and maintaining Army harbor craft and during the Vietnam War, the main function was to prepare amphibious vehicles for shipment to Vietnam. The base currently remains closed to the public.\textsuperscript{134} Part of the former Army base is a Coast Guard Station and the remainder now belongs to the City of Rio Vista which has plans for public uses and a research facility.\textsuperscript{135} Today, the City of Rio Vista continues to benefit from its strategic gateway location and the development of energy resources including the Rio Vista Gas Field (the largest in the state and among top fifteen in the United States) and renewable wind turbine projects. It also supports a successful sports fisherman trade and other recreational water sports.\textsuperscript{136}

The cultural heritage of Rio Vista is evident in the city’s Chinatown. The settlement was established in 1870 and residents are mostly from the Sze Yap region of China. It lies at the north end of Front Street and is bordered by Sacramento Street at the south end. Rio Vista’s Portuguese heritage is apparent in the annual Holy Ghost \textit{Festa}. The first \textit{Festa} was held in 1899, the same year that the Rio Vista-Isleton Portuguese Club was founded. The celebration is a tribute to Queen Isabel of Portugal, in honor of the generosity she showed to the poor. Portuguese queens from surrounding Delta communities, who represent St. Isabel by carrying the Holy Spirit crown, are a prominent feature of Rio Vista’s \textit{Festa}, as are the flags and banners that represent the local Portuguese Club.

Rio Vista is a major sport fishing center. In early October, the city hosts a nationally recognized Bass Derby. The town’s first Bass Derby was held in 1933 and it is the oldest event of this kind on the West Coast.

\textsuperscript{135} The Army base was designated as a Redevelopment Area in 2010.
\textsuperscript{136} Hayden, \textit{Guidebook to the Sacramento Delta Country}, 30-33; Pezzaglia, \textit{Towns of the Sacramento River Delta}, 11-32.
**Holt**

By the late 1890s, railway lines were creating new water-rail connections and settlement nodes. Holt, eight miles west of Stockton, was one such location. The new spur tracks linking Delta landings to the main rail network were important to farmers on nearby Roberts Island, Union Island, as well as those living on Upper and Lower Jones tracts who wanted to transport their Delta crops to market. In its day, Holt was a bustling place with a hotel, speakeasies and bordellos.137 This bustling hamlet was even featured in a Sunset Home Seekers Bureau publication extolling Holt as the largest town in the San Joaquin Delta. Its advantageous location along the Borden Highway, the first paved road in the Delta, reinforced the town’s importance. Holt also was a center for early innovation in the region. In 1904, the first successful test of the Caterpillar track-powered vehicle occurred in Holt. “Scientific” farmers experimented with Red Milo Maize and found hemp to be a viable crop in the area. Early dairyman, John DeCarli, introduced Ladino clover to milk production and also developed new technologies for piping milk from dairies into tankers.138

A large number of agricultural laborers were employed in the Holt area and not surprisingly, the town became an entertainment mecca. There were gambling houses, illegal stills, and girls from Stockton arriving by train in the late afternoon. Holt also displayed an early multiethnic character that included Chinese and Japanese sections of town. By 1917, the local school included students with Japanese, Mexican, Portuguese and Italian heritage.139

**Terminous**

Terminous owes its founding to a water-rail connection point, located at the confluence of Potato Slough and the Mokelumne River. The town earned its name as the end of the road into the Delta. It was an especially important trans-shipment point for asparagus from Bouldin Island where the first test fields of the crop were planted. The town became the focus of vegetables barged in from a wide area for washing trimming and crating. At the height of the season, it’s estimated that 350 laborers were on hand to process the region’s agricultural bounty with a majority of workers living in Terminous’s “box car city.” The “city” was made up of de-wheeled wooden box cars set up on old railroad ties. By the late 1930s, the town’s freight business was made obsolete by the introduction of refrigerated trucks and smaller packing sheds distributed throughout the area.140 Terminous has made the successful transition from an agricultural-based economy to recreation and tourism. Many of the town’s original

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139 Hillman and Covello, *Cities & Towns of San Joaquin County*, 213-14.
140 Minnick, *Samfow*, 83-84; Hayden, *Guidebook to the Sacramento Delta*, 96; Hillman and Covello, *Cities & Towns of San Joaquin County*, 227
waterfront warehouses have been recycled as boat storage facilities and the former Box Car City has been replaced by camp sites and a mobile home park near a large marina.

**Richland/Hood**

The town of Richland was established in 1860, primarily as a shipping site for grain. A railroad spur connected the Hood train station to the wharf where the California Fruit Exchange operated a large packing shed. At its height, Richland boasted a hotel, grocery store, church and post office, but the hamlet fell into decline by 1880. The town was resurrected in 1909 and renamed Hood. By the 1920s, the town was being promoted as a real estate venture and as a Dutch-inspired tourist destination—the “Netherlands of America.” The early Hood Hotel featured Dutch architecture, but was eventually lost to fire. As evidenced by early maps listing the surnames of property owners, many current residents still own and farm the same land as their ancestors.

Today, Hood has about 100 households, a post office, a small commercial area and a park. An old Stillwater Orchards packing shed is zoned for light industry and is currently used to sell antiques and support other commercial activities.

**Gone but Not Forgotten Communities**

**Collinsville**

In 1859, C.J. Collins settled north of Antioch on the banks of the Sacramento River where it merges with the San Joaquin River. He surveyed the town plat, built a wharf and store and eventually sold the property to S.C. Bradshaw in 1867. Bradshaw apparently devised a promotional scam to sell lots (many underwater) to potential buyers. The con-game failed and Emory Upham purchased much of the land in 1869. Upham expanded the docks and wharf area and established a telegraph, hotels, saloons and a salmon cannery. Much of the town was built on stilts and was flourishing by the 1870s. The town’s early economy was largely tied to commercial fishing and canning. The Hume brothers, William and George, had already established a salmon cannery at Broderick on the Sacramento River in 1864. Their cannery closed two years later, but the trade was taken up by Italians and Greeks who established over twenty commercial fishing camps along the Sacramento River during the late nineteenth century. Italians, who primarily harvested salmon and striped bass, dominated the fishing grounds around Collinsville. Intense ethnic rivalries were common among fisherman and often

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took place when one group encroached on the other’s “drifts” and traditional fishing grounds along the river.\textsuperscript{142}

Following the decline of the fishing industry, Collinsville began to fade. Plans to build a PG&E nuclear electric facility and a Dow Chemical plant failed to materialize. The town lacks the transportation infrastructure enjoyed by neighboring communities and its location on the north side of the river separates it from Contra Costa County’s urbanized development in Antioch, Pittsburg and Bay Point. Today, Collinsville has about twenty small houses and is surrounded by agricultural land and protected Suisun Marsh lands. A largely undeveloped parcel on the west of the dredged channel is zoned for water dependent industrial land use.

\textit{Vorden}

At the end of the nineteenth-century, the increase in asparagus production led to the establishment of canneries throughout the Delta. The California Fruit Canners Association and Del Monte established operations in Trask’s Landing (Vorden). The cannery was eventually closed and the post office was consolidated with the one in Locke. Rico Simoni, an Italian immigrant from Lucca, settled in Vorden and became the primary owner-operator of the town’s commercial district. He established a saloon in 1898 and by 1913, he and his family built a grocery store, hotel and pole barn. The town was founded by Charles F. Trask, a Massachusetts native, and originally known as Trask’s Landing. In 1890, Delta resident P.J. van Loben Sels renamed the town Vorden, the same as his native town in the Netherlands.\textsuperscript{143} Today, Vorden is zoned for agriculture and only a few houses and farm support facilities remain.

\textit{Paintersville}

Paintersville was founded as a landing on the east bank of the Sacramento River, in 1852, by Levi Painter. Painter is famous for devising a unique method of burying money entrusted to him by the townspeople. He established the first “post hole bank” by burying coins and gold dust late at night. His midnight banking scheme involved slipping out to one of his key post holes where he would pull the post and deposit the gold or coin in a can or jar.\textsuperscript{144} By 1900, Paintersville counted a grocery store, saloon and clothing store selling work clothes. In the

ensuing decades a few houses were built nearby, and Greek and Portuguese fisherman pursued commercial salmon fishing and lived in small arks or houseboats downstream from the town.\textsuperscript{145}

The Paintersville Bridge, a double leaf bascule counter-weight bridge, was built in 1920 by the Strauss Bascule Bridge Company of Chicago. The Strauss Company also designed the San Francisco’s Golden Gate Bridge.\textsuperscript{146} Currently, Paintersville has five parcels for houses and a large parcel zoned for light industrial use that contains warehouses, containers, and stored boats and other vehicles.

**Concluding Remarks**

For most of its recent history, the Sacramento-San Joaquin Delta has been managed and molded to fit human desires and visions of economic progress. A combination of investment capital, technology and labor made it possible to convert a wilderness into a garden. As a result, the major human imprints consist of massive earthworks including levees and altered channels; even the delta soils have been completely transformed. The Delta has also shaped human settlement, livelihoods and community relations. It is an ideal place to witness the tension of people trying to control and adjust to nature, while learning to build viable communities.

At the heart of this environmental and economic transformation was the cross-cultural migration and settlement of newcomers. The Delta was a meeting ground where peoples of the Asian Pacific Rim interacted with Atlantic-based settler groups. Land reclamation and the diversification of the Delta’s agricultural economy depended on a permanent and sometimes mobile workforce that involved both skilled and unskilled laborers. These newcomers worked the land, became entrepreneurs, and built lasting communities. Their rural experiences of economic success, social exclusion and celebrations of ethnic solidarity are recorded in the ethnic businesses, segregated schools and cultural heritage festivals of the Delta.

The Sacramento-San Joaquin Delta is a unique rural region and its landscapes tell many stories of settlement, ethnic experience and community building. Over time, the succession of immigrants and economic transitions have humanized the landscape and created a unique sense of place. Presently, new ideas to preserve natural landscapes, promote cultural heritage sites, and increase recreation and tourism suggest new visions of life and landscape for the Delta. Undoubtedly, the record of environmental transformation, agricultural development and cultural change depicted in the rural landscapes will continue to form the basis of the new economic functions that will factor into the future of the Delta’s communities and the region as a whole.


\textsuperscript{146} *SRDHS Newsletter*, “Transportation,” (June 2000), 4, accessed 17 January 2015.
Selected References


Literature and Visual Arts of the Delta, 1849-1975

Gregg Camfield, University of California, Merced
A Narrative of Delta Narratives

Stories matter. Contemporary neuroscience fairly certainly supports our basic intuition that individual human beings construct their identities out of stories,¹ and what is true for individuals is also true, though usually in a more complex way, for cultures. To make the point through an unusually straightforward example, the story of Manifest Destiny had an interesting variant, which can be summed up in the slogan, “rain follows the plow.” The slogan captures an interesting story, one that sees the yeoman farmer heading into the “Great American Desert,” breaking up the sod, planting “civilized” crops, and finding that God shed his grace in rain on the newly opened fields. This variant of a story of God providing for his chosen people did not account for the fact that the western prairies were semi-arid, and, while a series of wet years might support farms, the long term climactic patterns could not sustain the kinds of agriculture known in the much moister east. Still, when those settlers who took advantage of the Enlarged Homestead Act of 1909 to settle in the drier uplands of Oklahoma found that they were able to thrive for several years, they believed their story. What was there to disbelieve? A long drought that began in 1930 put most of these farmers on the road not only to destitution, but also to other states.² California’s Delta towns would have a different population if this story of providential rainfall hadn’t first moved so many people to Oklahoma. This brief story of a story merely exemplifies a much larger pattern not just of how human beings selectively interpret their lives by way of narrative arcs, but how these narratives shape human action. We try to make sense of the past by telling its story; in the process, we shape our present and our future.

The task of telling the other stories in our collection presents a great challenge, not just because the time scale, cultural variety, and economic variability of the region make it difficult to assemble the

¹ The scholarly literature on the subject is substantial. For an accessible account, see Oliver Sacks, “The Lost Mariner,” in The Man Who Mistook His Wife for a Hat, and Other Clinical Tales (New York: Touchstone Books, 1985).
material into coherent narratives, but also because the material is so voluminous as to require radical excision. It is much simpler to tell the story of stories, here, in part because most of the human stories of the time when the Delta was home to human cultures are lost, and also because those we have fit remarkably neatly into a pattern that has dominated much of the English language literature of the United States.

First, a word on what is lost: while we now have print records of many of the stories of the native peoples of the North American continent, these stories were not meant for print. Oral narratives are fundamentally different from print narratives in two ways. For one, insofar as oral stories are meant as cultural records, they are structured around verse and music. Not only are verse and music the oldest and among the most powerful mnemonic devices known to human beings, they also manifest cultural ritual and practice—they are sacred. Stories in this sense are not an epiphenomenon on top of the medium, to be translated at will. Oral narrative is embedded in performance and faith. Any merely literary translation privileges a modern ideal of narrative structure. I can think of no better accounting for this difference than Barre Toelken’s introduction to Barry Lopez’s *Giving Birth to Thunder, Sleeping with his Daughter: Coyote Builds North America*:

Lopez has approached the job [of conveying Coyote stories in print] in the only way I can see as defensible: it does not pretend to be an “Indian book.” It does not provide the original language, the ritual detail, the full context; in short, it does not give away or betray the magic of the actual storytelling event. Instead, the stores are retold in a way that is both faithful to native concepts of Coyote and how his stories should go, and phrased for an audience that reads
without listening, for whom literature is studied and reflected upon, for whom Coyote is an imaginary but interesting protagonist. ³

Were we to follow Toelken’s advice, we would have to discount pretty much every account of Native stories on record, though I think he overstates the case, in part because translation is a kind of transmission, and as such it alters the available range of stories available to the recipient culture, even if this is an act of appropriation and is only partial. Oral literature from many traditions has had an impact on written literature. Indeed, it is likely that Native traditions made their way into printed literature in English as early as the 18th century, especially in humor. But with one exception, that of George Derby’s comic works, none of this influence is even speculatively identifiable in the extant literature of the Delta.

Second, much oral literature—especially that which is not connected to sacred rituals—is situational. Any folkloric narrative can serve multiple purposes depending on context. The same story can be used as amusement in one context, as a didactic instrument in another, as social commentary in a third, and so forth. Print freezes narrative, and while that permanence does not also freeze meaning, it does cut down the number of social cues by which a reader can discern authorial purposes. In this respect, print narrative depends much more fully on traditions not just of performance, but also of interpretation. The current practice of literary interpretation in the West is based on Biblical exegesis, supplemented profoundly by the study and interpretation of “the classics” of Rome and Greece. These exegetical practices tend to be structured around a few dominant patterns. A widely shared understanding of those patterns enables readers to pigeon-hole stories, to “read without listening.” Yet those patterns also allow gifted writers to expand meaning over time and space, to use variations on themes and patterns to deepen meaning. It is not really, as Toelken suggests, that one kind of story is

better than another, just that they are fundamentally different, and as such, it is beyond difficult to capture oral narratives from the deep human history of the Delta in any but the most superficial way.

Thus, this study will focus on the printed literature that deals with the Delta, and that means the English language literature that blossomed in the U.S. as a primary medium by which the world tried to understand and shape “American” culture. As this overall project accounts for the Delta’s history, this particular piece of the study ends with 1971, with the publication of *Barrio Boy*. Any study of history that approaches the present has to justify the marker between the historical and the contemporary. Indeed, it is not obvious why I draw the line in 1971 when three of my writers—Joan Didion, Leonard Gardner, and Maxine Hong Kingston—are alive as I write. The youngest of these was born before the U.S. entered World War II, and as such, each came of age at the end of a remarkable era in which print literature was at the center of American culture. A long, steady history of broadened literacy in the English speaking world made a number of advances in print technology economically viable over the course of the 19th and 20th centuries, from the development of inexpensive paper, steam presses, “stereotyping” and then typesetting machines, and inexpensive transit to get books, newspapers and magazines to market. Each of these made print cheaper and more accessible, in turn broadening incentives to expand literacy. By 1850, print was still the first and only mass medium, with emphasis on *mass*, reaching into every corner of the U.S. By 1890, publishing had grown into the United States’ third largest industry, behind steel and transportation, and popular authors, such as Mark Twain, defined the very idea of celebrity. Yet as early as the 1930s with the development of the “talky,” the motion picture industry began shifting popular culture away from print, and the development of radio and then television moved narrative from print to more traditional modes that combine visual and aural
components. By the 1970s, readership in the U.S. was dropping significantly,⁴ and print culture once again became a marker of the educational and economic elites. So Galarza’s memoir of an active political and academic life, built as much on education as on politics, provides a fitting end point for this discussion.

The Delta in Literature v. the Literature of the Delta

The most obvious feature of the English-language literature of the Sacramento/San Joaquin Delta region is how little there is. The river system of Central California has occupied a practical centrality to the development of California, serving as a major transportation corridor, as a conduit for fresh water both for agricultural and urban use, and as an incredibly fertile agricultural region. Many similar areas in the U.S. and around the world are cultural and literary centers. By analogy, one could expect the development of literature reflecting the area, instead of the area nearly disappearing in the cultural shadow of San Francisco.

William T. Sherman suggests that San Francisco become the anchor city of the west over Benicia merely because the city fathers of Yerba Buena were better at marketing:

Foreseeing, as he thought, the growth of a great city somewhere on the Bay of San Francisco, he [Dr. Semple] selected Carquinez Straits as its location, and obtained from General Vallejo a title to a league of land, on condition of building up a city thereon to bear the name of Vallejo’s wife. This was Francisca Benicia; accordingly, the new city was named “Francisca.” At this time, the town near the mouth of the bay was known universally as Yerba Buena; but that name was not known abroad, although San Francisco was familiar to the whole civilized world. Now, some of the chief men of Yerba Buena, Folsom, Howard, Leidesdorf, and others, knowing the

⁴ See the National Endowment for the Arts’ report Reading at Risk (http://arts.gov/publications/reading-risk-survey-literary-reading-america-0, 2012) which captures the increasingly rapid decline of literary reading in the U.S. over the past fifty years.
importance of a name, saw their danger, and, by some action of the ayuntamiento, or town
council, changed the name of Yerba Buena to “San Francisco.” Dr. Semple was outraged at their
changing the name to one so like his of Francisca, and he in turn changed his town to the other
name of Mrs. Vallejo, viz., “Benicia;” and Benicia it has remained to this day. I am convinced that
this little circumstance was big with consequences. That Benicia has the best natural site for a
commercial city, I am, satisfied; and had half the money and half the labor since bestowed upon
San Francisco been expended at Benicia, we should have at this day a city of palaces on the
Carquinez Straits. The name of “San Francisco,” however, fixed the city where it now is; for
every ship in 1848-'49, which cleared from any part of the world, knew the name of San
Francisco, but not Yerba Buena or Benicia; and, accordingly, ships consigned to California came
pouring in with their contents, and were anchored in front of Yerba Buena, the first town.5

Can such a simple explanation hold water?

Probably not, but it is not worth dismissing out of hand, at least insofar as stories often shape
action and the earliest well-known English language publications that deal with the Delta, a few of the
sketches of George Horatio Derby (1823-1861), promote San Francisco. Derby, a West Point graduate
who served in the Army’s topographical corps, was stationed in California in the immediate aftermath of
the Mexican-American War through the 1850s. As a topographical engineer, he toured much of the
state, mapping in particular the greater San Francisco Bay area and portions of the central valley as well
as the harbor of San Diego. In his spare time, of which he apparently had much, he wrote humorous
sketches for many California newspapers, and these sketches, republished in New York, made him far
more celebrated as a humorist than as a geographer. His best known sketches softly satirize the

technological sublime, that quasi-religious progressivism that has been one of the persistent cultural
forces in the U.S. from the time of Benjamin Franklin.

Like most comic journalists of his day, he embedded sketches of wider interest in
correspondence that addressed intensely local concerns, among them, the rivalries of California towns
that were vying for commercial and political power. Derby was a partisan of San Francisco over San
Jose, Sonoma, Sacramento, and Benicia. His sketches, under the pen name “Squibob,” describe the
travels of a wide-eyed innocent, whose enthusiasm ironically conveys comic criticism of San Francisco’s
rivals. “Squibob in Benicia,” and “Squibob in Sonoma,” (October 1850), convey Derby’s false praise of
Benicia in the civic campaign for San Francisco supremacy:

As I shouldered my carpet bag, and stepped upon the wharf among the dense crowd of four
individuals that were there assembled, and gazing upon the mighty city whose glimmering
lights, feebly discernible through the Benician darkness, extended over an area of five acres, an
overpowering sense of the grandeur and majesty of the great rival of San Francisco affected
me.6

The next morning, surveying the town from his hotel window, he descries

No less than forty-two wooden houses, many of them two stories in height . . . But there isn’t a
tree in all Benicia. “There was one,” said the guide, “last year—only four miles from here, but
they chopped it down for firewood for the ‘post.’ Alas, why didn’t the woodman spare that
tree?” The dwelling of one individual pleased me indescribably—he had painted it a vivid green!
Imaginative being. He evidently tried to fancy it a tree, and in the enjoyment of this sweet

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6 “Squibob in Benicia, October 1850, reprinted in Poenixiana: or Sketches and Burlesques (New York, D. Appleton,
1855), p. 79.
illusion, had reclined beneath its grateful shade, secured from the rays of the burning sun, and in the full enjoyment of rural felicity even among the crowded streets of this great metropolis.\(^7\)

Five years later, under his new pen name of “John Phoenix,” Derby shifts to direct criticism in the sketch “Phoenix at Benicia” (10 June, 1855):

Benicia is not a Paradise. Indeed, I am inclined to think that had Adam and Eve been originally placed here, the human race would never have been propagated. It is my impression that the heat, and the wind, and some other little Benician accidents, would have been too much for them. It would have puzzled them, moreover, to disobey their instructions; for there is no Tree of Knowledge, or any other kind in Benicia; but if they had managed this, what in the absence of fig-leaves, would they have done for clothing? Maybe tule would have answered the purpose—there’s plenty of that.

Who would wish to move to Benicia after hearing a pun like that?

For whatever reasons, despite early promotion of Benicia, Sacramento, and Stockton, and despite the fact that Sacramento became the state’s capital, San Francisco became the state’s cultural center. This is not to say, then, that there is no literature about the Delta region. The Delta does figure in a fairly large number of works, though it rarely figures centrally. More often, the Delta figures episodically in works that treat broader California themes. I will not treat these exhaustively. The number of travelers’ accounts of time in California is extensive, and Delta locations often figure briefly in these narratives. One can find a good online collection through the Library of Congress website, in a digital collection titled “California As I Saw It: First-Person Narratives of California’s Early Years, 1849-

\(^7\) *Ibid*, p 81.
Instead, I will confine my discussion to those few texts that connected broadly to a contemporary audience, to posterity, or to both.

In my study of the literature of the Delta—or of California as a whole for that matter—I find it surprising that one of the first influential writers in English, George Derby, wrote almost wholly out of the neo-Classical tradition of satire. Derby’s playful inversions reveal a happy skepticism of religion, of science and technology, of politics, of economics—in short, of most of the elements of the “American Dream” as a providential narrative. My survey ends with my other neo-classical writer, Ernesto Galarza.

The middle is dominated by the prophetic mode, derived from the Judeo-Christian tradition. While a preponderance of U.S. literature follows in a Judeo-Christian prophetic mode, California literature is even more relentlessly prophetic than that of the eastern U.S. That does not mean that this literature is all singing the same tune, only that the patterns are derived substantially from one tradition. That tradition, however, has common narrative arcs, common tropes, common images, common characters, that seem on the surface to be diametrically opposed. On one hand is the literature of promise, the passage of a chosen people through difficulty in order to make a better life in a land of milk and honey. On the other, is the literature of the Jeremiad, a castigation of the chosen people for falling away from law, duty, and grace. What is common to both is the idea of a chosen people. At the beginning of the period under discussion, the idea of a chosen people had come to compound a religious community with a racial community. By the end, this kind of racialized promise is under explicit challenge. The long arc of the Delta story, parallels a similarly long arc in California and U.S. literature. The story of our stories, then, tries to answer a question asked by J. Hector St. Jean de Crevecoeur in 1782, “What is an

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8 [http://memory.loc.gov/ammem/cbhtml/cbednote.html](http://memory.loc.gov/ammem/cbhtml/cbednote.html).

9 Wallace Stegner, in “Coming of Age: The End of the Beginning,” (1990) disagrees, asserting that the distance between California and the East enabled Californians to shed the influence of Europe on California literature. I find little evidence of such a radical break, in part because, by 1850, print enabled culture to spread beyond physical boundaries at a rate much faster than ever before in human history. The first truly well-known California writer, Bret Harte, is basically Dickens manqué.
American? Better, how does an American act in a dialectic between being chosen as and choosing to be American, between a fatalistic and an active version of the American dream.

Bayard Taylor’s *Eldorado: Adventures in the Path of Empire* (1850) begins the entire tradition of the literature of California as promised—or at least golden—land. Dispatched in June of 1849 by Horace Greeley to write correspondence from the California gold fields for the New York *Tribune*, Bayard Taylor (1825-1878) spent about four months from late August in San Francisco, crossing the Delta several times to get to the gold fields, and reporting from the Constitutional Convention in Monterrey. Taylor was already a noted man of letters when Greeley sent him West. He had published a volume of poetry and a very popular narrative of travels in Europe. (As one of Greeley’s most celebrated writers, Taylor was quite central to American letters, writing poetry, fiction, literary criticism, and travel narratives.) As journalist, Taylor was engaged almost immediately in the typical journalistic task of “boosterism,” reporting for his Eastern audience on the prospects for the growth of American commerce to the west. But he also had a more capacious interest in the events, seeing the settling of California in imperial terms, not just as “Eldorado,” a fabled city of wealth in the Spanish tradition, but as “Adventures in the Path of Empire,” seeing California as the next step in a providential Anglo-American empire straddling the continent, if not the hemisphere, or, indeed, the world.

The Delta and Delta towns occupy a very small portion of Taylor’s overall output, but he does specifically celebrate this area’s economic and cultural potential. Regarding Stockton, for example, he writes of his second visit:

I found Stockton more bustling and prosperous than ever. The limits of its canvas streets had greatly enlarged during my week of absence, and the crowd on the levee would not disgrace a much larger place at home. Launches were arriving and departing daily for and from San

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10 The title of the most influential chapter from *Letters from an American Farmer*, 1782. Widely available in print and electronic form.
Francisco, and the number of mule-trains, wagons, etc., on their way to the various mines with freight and supplies kept up a life of activity truly amazing. Stockton was first laid out by Mr. Weaver [sic.], who emigrated to the country seven years before, and obtained a grant of eleven square leagues for the Government, on condition that he would obtain settlers for the whole of it within a specified time. In planning the town of Stockton, he displayed a great deal of shrewd business tact, the sale of lots having brought him upwards of $500,000. A great disadvantage of the location is the sloughs by which it is surrounded, which, in the wet season, render the roads next to impassable. There seems, however, to be no other central point so well adapted for supplying the rich district between the Mokelumne and the Tuolumne, and Stockton will evidently continue to grow with a sure and gradual growth. (81) 11

This description of his second visit to Stockton includes a substantial discussion of law and order as it was evolving in the dynamic growth of the gold rush. Taylor’s discussion builds very much on a nationalist idea of “American” superiority, suggesting that the influx of U.S. born immigrants turned anarchy into incipient law. Implicit is the mythology of a providential order arising from the influx of a chosen people.

Both times Taylor passed through Stockton he was on mule-back; his trip through Sacramento, hurried in order to be able to tour the “northern” mines before the rainy season prevented easy travel, began by boat. His description, then of the Delta per se is included in his chapter “Sacramento River and City,” in which he describes the quick development and improvement of river navigation, speaking explicitly of the difficulties of travel on the Bay, which he describes as having “waves . . . little less violent than in the Pacific” (175). He discusses briefly the relative commercial and military value of various cities and towns from San Francisco through the Delta. Describing the efforts of some speculators to

11 Page numbers are from the 2000 Heyday Press edition. The text is readily available in both print and electronically.
create a major city—ponderously named New York of the Pacific—east of Benicia on the south shore of the Suisun Bay, Taylor accurately estimates the early growth of the most important cities of the Delta:

There will never be a large town there, for the simple reason that there is no possible cause why there should be one. Stockton and Sacramento City supply the mines; San Francisco takes the commerce; Benicia the agricultural produce, with a fair share of the inland trade; and this Gotham-of-the-West, I fear, must continue to belie its title.

Indeed, New York of the Pacific did fail, though it was resurrected with the discovery of coal on Mount Diablo. The current city of Pittsburg arose on the site to supply the Black Diamond mine.

On the whole, the rivers and the Delta towns do not figure prominently in Taylor’s book, with its focus more broadly on long term agricultural, commercial, and mining prospects of the entire state, with his primary focus being on San Francisco. That said, the story he tells is substantially a celebration of the Americanization of California, a tale told very much in keeping with a providential mythology. Not dismissing the excesses of California “society,” he finally judges it as governed by an “energy [that] did not run at random; it was in the end directed by an enlightened experience, and that instinct of Right which is the strength and security of a self-governed people” (249).

Bret Harte (1836-1902), who built his career as a local colorist primarily of the California gold fields (where, incidentally, he spent very little time), certainly played on a kind of sacred mythology of California, though his chronic irony makes it difficult to know if he even remotely believed in this mythology. I can think of none of his stories that treat the Delta centrally, but one of his slipperier tales, “The Legend of Monte Diablo” (Atlantic Monthly, 1863) casts a glance from the crest of Mount Diablo, over the Delta, to the Sierra Nevada.12 Copying tone and thematics from Washington Irving’s Sketchbook of Geoffrey Crayon, with an allusory gesture to Hawthorne’s “Young Goodman Brown,”

12 Readily available online. See http://www.gutenberg.org/files/6373/6373-h/6373-h.htm#2H_4_0145.
Harte’s tale presents a prophetic vision of a racial succession, from Native American, to Spanish, to Anglo-Saxon, through the eyes of a Spanish priest. The complex ironies, given Harte’s own vexed relationship to American culture, are difficult to read, but I suspect that Harte’s contemporaries read the tale through a single turn of irony, seeing it as a validation of a triumphant Protestant, Anglo-Saxon empire.

Much deeper and more direct in its moral vision, though once again only tangentially touching on the Delta, is Josiah Royce’s novel, The Feud of Oakfield Creek: A Tale of California (1887). Royce moved the Mussel Slough Tragedy to the alluvial plain on the south side of Suisun Bay, and postulated the battle not merely as one between competing visions of land rights, but between competing ideologies about America’s destiny. Royce was a philosophical Idealist, who began his career as a philosopher with the 1885 publication of The Religious Aspect of Philosophy and whose second book, California: A Study of American Character: From the Conquest in 1846 to the Second Vigilance Committee in San Francisco (1886) demonstrated his deep interest in the meaning of history, very much in tune with his interest in Hegel. In part because his work as a historian was not well received in California, and in part because he believed that fiction was an excellent medium by which to examine ethical questions, Royce turned his hand to writing historical fiction, very much in the tradition of social realism that was advocated and developed by William Dean Howells.

Disputes over land titles began immediately after the founding of the California Republic, and the competition between those who saw squatting as part of the mythology of American conquest and those who held legal title to land, played out nearly to the end of the century. One of the most politically vexed of these competitions was over the way railroads were built, with the federal government granting a checkerboard of land titles along railroad routes as a way to subsidize the construction of fundamental infrastructure for settlement without having to lay out any funds. Into

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these lands settlers flowed, often lured by the railroad companies’ vague promises of favorable terms for the sale of the land in the future. When that future arrived, prices were often bones of contention, and in the case of the Mussel Slough affair, the contention reached a pitch of violence in which six men were killed and five were sent to jail, though given light sentences.

Royce’s version of the affair compresses stories of individual moral shortcomings into a much larger historical frame, personalizing history in order to insist on the fundamentally ethical challenge each person still must consider even as larger historical forces shape lives. Specifically, it’s the story of two families, that of Alonzo Eldon and his son Tom and of Alf Escott and his children. The Escotts are educated idealists; the elder Eldon is a stereotypical Yankee pragmatist, excellent at business, respectful of education as a useful ornament but unwilling to put time into it. These are, in Royce’s vision, flip sides of the same American coin, playing in their creative opposition into the tragic dynamism of American culture. Putting American history into the struggle between these two families is part of Royce’s extension of, or rather argument with, Hegelian metaphysics to incorporate more traditionally Christian ideas of personal freedom consonant with divine order. As such, Royce’s narrative engages the deeper Calvinist narratives that often framed American literature, even as he engaged late nineteenth-century ideas of racial change. He challenged the progressivist narrative with hints of a traditional narrative of declension, as, for example, when he describes one of the main characters, Tom Eldon, as physically and morally weaker than his pioneering father, Alonzo Eldon:

As the two stood together one saw a living example of the quick physical degeneration that has marred so many California pioneer families. This fine rugged form of the father, still so full of many vigor in its every movement, was in the sharpest contrast to the son’s weak and almost serpentine body, with its indolence and its indecision of bearing. (211)
Royce sets up parallel ethical challenges between the two generations, with each Eldon committing a moral wrong against one of the Escotts, though neither is technically breaking any law. Both Eldons represent a laissez-faire individualism; all of the Escotts represent a literate idealism. All are blinded by absolutism even as they find themselves trapped in ignorance framed by prejudice. In this respect, Royce is forwarding his rather complex justification of the existence of God through the inadequacy of our understanding. His proof is rather philosophically complex, and his skills as a novelist make the argument more than a bit difficult to discern. Not surprisingly, Royce committed himself to philosophy after the publication of this novel. Not that important in its own right, Royce’s novel and his history of California significantly influenced Joan Didion, who is likely to be considered finally as the most important Delta writer of the twentieth century.

It is worth comparing Royce’s novel to a better known fictionalization of the Mussel Slough affair, *The Octopus: A Story of California* (1901), by Frank Norris (1870-1902).¹⁴ The Delta makes its cameo appearance at the end, when the wheat grown in the southern San Joaquin Valley is embarked on ships at Port Costa, bound for India. Norris’s novel disagrees with Royce’s version of personal ethics, favoring an impersonal version of historical destiny. That is, the impersonal force of nature in Norris’s fatalistic naturalism is the atheist’s version of the impersonal predestination of Calvinism; in both, human beings are subject to great power that has the future planned. In this respect, even ostensibly “scientific” writers of the turn of the century follow the deep patterns of the prophetic tradition.

Jack London (1876-1916), who so often wrote out of his personal experiences, treats the Delta in which he spent much time in two books: *Tales of the Fish Patrol* (1906), a book of adventure stories for the juvenile market, and *The Valley of the Moon* (1913), his visionary novel of California’s agricultural

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¹⁴ New York: Doubleday, 1901. Republications are readily available in print or online. See [http://www.gutenberg.org/ebooks/268](http://www.gutenberg.org/ebooks/268).
reclamation. Both are inconsistent, difficult to interpret books in that they manifest London’s puzzling mixture of utopian ideology, Spencerian “social-Darwinism,” socialism, and a pure love of money. *Tales* fictionalizes some of London’s own youthful experiences, both as a poacher and as a member of the “fish patrol,” i.e., a maritime game warden enforcing fishing laws. The tales are all told from the point of view of a well-connected and thoroughly respectable youth who is out for summertime adventures, getting a glimpse of the extra-legal activities of the multi-cultural world of the lower Delta and the upper Bay. His boat is ostensibly based out of Benicia, and some of the adventures take an easterly tack into the Delta. Granting that the market required a veneer of respectability so that it would not have served London well to have made his hero one of the poachers, these stories are profoundly at odds with London’s ostensible socialism, demonstrating remarkably little sympathy for the working men whose livelihoods depended on the catch. The adventures are more about humans catching humans, and in that respect they show a worship of power. In particular, these stories insist on the superiority of Anglo-Americans over the numerous recent immigrants, and especially over the Chinese. What almost redeems these stories is London’s obvious love of sailing and of the water itself. There are hints, here, of a Romantic sensibility, a proto-environmentalism that is of a piece with his late-life pose as an agricultural reformer.

In *Valley*, both the racist Spencerian and the agricultural reformer merge in a tale of proletarian redemption. A sprawling, episodic novel, it traces the peregrinations of Billy Roberts and Saxon Brown from their working-class jobs in Oakland through a tour of California from Carmel in the South to Sonoma in the north. They have turned their back on a proletarian urban existence in search of an agrarian alternative, wanting “land of their own” to homestead. During their travels, they run into “Jack Hastings,” presumably a figure for the author, who takes them aboard his yacht for a tour of the Delta.

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15 *Tales of the Fish Patrol* (New York: Macmillan, 1905; available online at [http://www.jacklondons.net/talesFishpatrol.html](http://www.jacklondons.net/talesFishpatrol.html)). *Valley of the Moon* (New York: Macmillan, 1913; readily available online).
This section is dominated by London’s sermons on sustainable agriculture, with pointed references to the ways in which the Delta farms are extremely lucrative. While much of this section is set up as a contrast to what London intended to do on his own Glen Ellen farm, he grudgingly praises the work ethic and business savvy of the non-Anglo-Saxon farmers who have turned a swamp into a number of booming businesses. Yet the fact that his protagonists are both “pure” Anglo-Saxon is their greatest claim to importance. Oddly, the fact that they are out-competed by “immigrants” doesn’t seem to bother London, who somehow seems to believe in the ultimate triumph of his preferred race. In a sense, London’s racialism, while of a piece with turn of the century beliefs, harkens back to an idea of Anglo-Saxons as a chosen people. While as an atheist London disclaimed any belief in a providence, his racial ideas coded a providential narrative. Moreover, his socialism connected him to the working-class millennialism common to the movement (See Bellamy, Looking Backward, 1888, which Mark Twain mockingly called “the last and best of all the bibles”). Toward the end of his career when he abandoned active work as a socialist, London turned instead to a utopian agrarianism. In both respects, London’s work is basically in the tradition of the Jeremiad.

From before World War I to the nineteen sixties, the only significant literary figure I have found who treats the Delta is William Everson, the Sacramento-born poet whose nature writings are very much in a sacramental tradition. After that, we jump to a truly minor literature, three books by Earle Stanley Gardner (1889-1970) in which he describes house boating in the Delta. Paradoxically celebrating the technology of his new houseboats and his pleasant retreat into nature, he does capture a modern high-tech idea of camping, turning nature into a television set to be watched with enjoyment from a comfortable chair.

The dearth of literature from the 1930s through 1950s frankly surprises me. The area was growing in importance and population, and this was a period in which American literature bloomed, both commercially and artistically. The 1960s and 1970s mark a turn in literature that treats the Delta
in four ways. First, there is more of it. Second, while still mostly in the prophetic tradition, it is mostly skeptical of millennial promises. Third, it challenges the fundamental racism of so much of the early work. Fourth, some of it is truly focused on the region, not merely with a tangential glance, but considering the communities of the area as worthy of treatment in their own rights.

Joan Didion (1934- ) is, so far, the most significant chronicler of Delta life. The pattern of her treatment of the Delta fits the pattern described above, in that she is concerned primarily to understand California as an extreme example of an American frame of mind, but unlike the other writers I've discussed, she often sets entire works—several essays and one novel—in the Delta. She does not treat the Delta merely as a place to pass through or as a backwater that is of interest only in contrast to something else. She sees it as essentially Californian, and can use it to exemplify large questions of cultural identity, heritage, and prospects. I can think of no writers who are more self-consciously and explicitly aware of the two sides of the prophetic tradition, playing the mythos of heroic sacrifice against what she finally sees as tawdry and self-deluding ends. While the tenor of her work is decidedly skeptical of any providential value in the American experience, she definitely captures the power of the mythos, and responds emotionally to the Jeremiad strain, albeit without the implicit promise that suffering has redemptive meaning.

Didion’s best writing, I think, is in the familiar essay, either in the shorter form published in magazines, or in the book-length form of memoir. In the essay “Notes of a Native Daughter,” Didion’s title refers to one of the most influential essays of the 1950s, James Baldwin’s “Notes of a Native Son,” in which Baldwin calls attention to the essential Americaness of African-Americans at the same time he reveals the profound personal and cultural damage done by racial bigotry. Didion’s reference, in an essay written in 1965, speaks of the cultural ferment of the Civil Rights movement, the anti-war movement, and the sense of both change and doom of the 60s.
It is characteristic of Californians to speak grandly of the past as if it had simultaneously begun, tabula rasa, and reached a happy ending on the day the wagons started west... Such a view of history casts a certain melancholia over those who participate in it; my own childhood was suffused with the conviction that we had long outlived our finest hour. In fact, that is what I want to tell you about: what it is like to come from a place like Sacramento. If I could make you understand that, I could make you understand California and perhaps something else besides, for Sacramento is California, and California is a place in which a boom mentality and a sense of Chekhovian loss meet in uneasy suspension.\textsuperscript{16}

While this melancholia is perhaps the dominant mood of Didion’s oeuvre, she is capable of enthusiasm, too, most notably over the movie industry, but also over the technological wonder of the state and federal water projects, to which her famous essay “Holy Water,” (from 1979 just outside of my historical cutoff) attests. Again, the Delta is central, not merely tangential, to understanding California.

Didion’s first novel, \textit{Run River} (1963), captures her dominant motifs.\textsuperscript{17} Structurally and thematically, it is an answer to Royce’s \textit{The Feud of Oakfield Creek}. Both build against a mythology of a heroic frontier past, but while Royce gives a complicated version of this heroism, Didion gives a compromised version, focusing on the cannibalism of the Donner Party. In Royce’s novel, the Delta is peripheral to a San Francisco story; Didion makes San Francisco the periphery to Sacramento. Royce builds his plot around a loveless marriage that is challenged when Tom Eldon’s wife meets a man whom she can truly love, but the love is never consummated. Didion creates a loveless marriage that is betrayed in consummation so frequently as to be numbing. Both end in a gunfight precipitated by jealousy but complicated by the feelings generated over land ownership and speculation. Royce


\textsuperscript{17} As a new writer, she published the first edition in New York through an obscure publisher, I. Oblensky, in 1963. The readily available reprint is published by Vintage, 1994.
challenges a simple providential narrative in order to invest daily affairs with the dignity of moral choice. Didion challenges a simple providential narrative by suggesting such a myth in fact evacuates life of any morality or meaning whatsoever. It is easy to see why she titled her first collection of essays “Slouching Towards Bethlehem;” to her, things fall apart. I think the energy of her negative viewpoint, the gusto of her Jeremiad sans hope, stems from the degree to which she once invested in the optimistic side of the prophetic promise. She could only see the “dead end” of the “golden dream” because she understood the compelling beauty of that dream in the first place.

Fat City (1969), by Leonard Gardner, makes a fitting companion piece to Didion’s novel. While Didion’s story treats the lives of wealthy landowners, Gardner looks at the lives of the itinerant laborers who work the land and at the working class city dwellers whose lives are nonetheless shaped by the agricultural community that surrounds Stockton. While these two writers cover the social class spectrum, they both show people who are remarkably incapable of self-reflection. While Didion blames the lapse on a large-scale cultural mythos that derails effective introspection, Gardner looks at dreams that are more narrowly defined. In particular, his main characters struggle with immediate material needs. Gardner creates characters who have a sense of longing, but their horizons are limited to fantasies of escape having to do with alcohol, sex, money, and—to the extent that they see boxing as their way “out” of menial work—fame. Gardner’s plot is really quite simple. He follows two boxers on different trajectories: one is trying to make a comeback, the other is trying simply to make it. The first fails, finding his life slipping further from his control, barely holding his life together by doing daily field work, and finally surrendering to alcoholism. The other, younger fighter, is clearly never going to become rich and famous, and his desire for sexual congress leads him into marriage far before he is ready. In his case, boxing serves as an outlet that is unlikely ever to take him far, but at least seems to

18 New York: Vintage.
give him some basic balance. Yet the parallel structure suggests that the younger man’s dreams are unlikely to serve him for very long.

Gardner’s book was both extremely well received by critics and reached a very wide public, though most know the story through the film, rather than through the book. Published just a year later, *The Woman Warrior: Memoir of a Girlhood among Ghosts* (1970), the breakthrough book for Maxine Hong Kingston (1940- ), has been even more successful among critics, becoming widely taught in colleges, but is not as well known in the broader public.\(^{19}\) Here we see the cultural shift away from literature toward other media, even though Kingston, like Didion before her, is a practitioner of a creative non-fiction, a literary mode that has maintained cachet relatively well. While memoirs have never been held to journalistic standards of accuracy, Kingston’s are particularly literary, enriched both by techniques developed in the so-called “New Journalism” of the 1960s and by literary traditions taken from Chinese folk culture. In could also be characterized as an example of a *Sturm und Drang* story of adolescence. In one sense, the pressure Kingston describes derives substantially from the conflicting demands and attractions of Chinese and “American” culture. While the tension between old and new countries is a thematic long since developed by ethnic writers of America’s eastern cities (especially by Irish- and Jewish-American writers), Kingston complicates it with a feminist overlay that arises both from second-wave feminism and from the conflicting gender expectations developed in the two cultures. Insofar as the book is a product of the 1960s and follows in the grooves of ethnic literature, it fits the patterns of the Jeremiad, even though the cultural mélange that is the book’s subject is at least half outside of the prophetic tradition. That Kingston’s book can be described in these terms shows, in part, how powerful these patterns are in shaping publishers’, as well as writers’, expectations.

\(^{19}\) New York: Knopf.
After so long in the Slough of Despond, I’m glad to turn to the work of Ernesto Galarza (1905-1984), whose *Barrio Boy* (1971) provides a refreshing counterpoint. Galarza is best known for his practical work as a labor organizer and civil rights activist. In literary circles, he is known for his memoir, which primarily describes his childhood, first in Mexico, then, after his family fled Mexico during the Revolution, in Sacramento. Coming from a man who had dedicated his life to fighting exploitation and racism, Galarza’s memoirs are unexpectedly humorous, optimistic, and supportive of ideals of citizenship that derive more from Enlightenment neo-classicism than from the prophetic tradition. I say unexpectedly because most 20th-century American literature that addresses racial discrimination does so in the prophetic strain and usually focuses on moral and civic lapses. *Barrio Boy* certainly does chronicle the complexities of racial identity in the Sacramento of Galarza’s childhood. But he emphasizes the capacity of the public school he attended to build a multi-cultural democracy. He describes a school system—or at least a few teachers—who saw an American future not in a racial or religious idea of having been chosen, but rather as a deliberate act of civic engagement, an exercise designed to make from many a national union, but one that respects differences. Through a persistent and playful optimism, he not only advocates, he also celebrates cultural pluralism.

**Graphic Art**

I cast my net fairly wide in seeking graphic art, considering one-of-a-kind art works, mass produced art (such as lithographs), and commercial art. The challenge of combing collections was beyond the time I had, so I think of this survey as preliminary (Native American art, particularly Delta basketry, is worthy of serious attention, but is beyond the scope of this essay. See, however, the attached bibliography which could serve as a beginning point such attention)

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20 *Notre Dame*: Notre Dame University Press.
Lithographs, wood cuts, and engravings are by far the most common art of the Delta, at least by the standard that it is widely available and accessible (many are available through the Online Archive of California). I begin with a print taken from one of Bayard Taylor’s sketches, which he made to accompany his written report of his time in California, which was lithographed by Sarony & Major, and published by George Putnam.

(http://oac.cdlib.org/ark:/13030/tf6290108k/?layout=metadata&brand=oac4):

The metadata for this print is a bit confusing; it is unclear if this was included in the first edition of Eldorado, in an 1857 edition, or published separately. If included, it would have been tipped in separately and sold only in a limited number of volumes.

For some of the earliest of Delta prints, archives have remarkably little information, as with this illustration of the Carquinez Straights, held by the Bancroft Library (available at
Prints like this one were meant to be ornamental; many others served more complex purposes, such as the numerous birds-eye or waterfront views of various Delta towns and cities, each of which was meant as much to promote these towns as to depict them. Consider this one of Stockton, ca. 1895

(http://oac.cdlib.org/ark:/13030/tf0r29n9j7/?brand=oac4):
This was published by the Dakin Publishing Company about 1895. Dakin of San Francisco ultimately was known for publishing fire insurance maps well into the 1960s. This early work is more promotional than functional.

A similar, though earlier, map of Sacramento was published Britton & Rey, lithographers, about 1857, from the drawing by George Holbrook Baker (1827-1906) (again, Bancroft Library, [http://oac.cdlib.org/ark:/13030/tf98701257/?brand=oac4](http://oac.cdlib.org/ark:/13030/tf98701257/?brand=oac4)). As best I can discover, Britton and Rey were 49ers who retired from prospecting to return to their trade in San Francisco ([http://www.edanHughes.com/biography.cfm?ArtistID=92](http://www.edanHughes.com/biography.cfm?ArtistID=92)). Baker was another 49er who relocated to San Francisco, where he worked successfully in journalism, especially as an illustrator ([http://art.famsf.org/george-holbrook-baker](http://art.famsf.org/george-holbrook-baker)): 
I also found a large number of waterfront images of various Delta towns. While they give a more intimate sense of a city, when one sees a number of them, they blur. The bird’s eye views do a better job of capturing what is unique about a city or town.

The next image is a composite of six prints of the Bay and River area. Only one of these is a conventional landscape. The others were narrow horizontal sketches of particular points on the waterway. Were these intended as navigation aids? It’s hard to believe they would be purchased as
ornaments or as efforts to boost commerce. This URL, 
http://oac.cdlib.org/ark:/13030/tf9870126r/?layout=metadata&brand=oac4, has the metadata of the 
entire group as one illustration, even though it is a collage of six distinct prints. (I saw two of them as 
separate prints in the Bancroft.)
The following chromolithograph of Mount Diablo, by John Ross Key (1832-1920) and published by L. Prang & Co. (active 1868-ca. 1873), on the other hand, obviously was intended to be ornamental (http://oac.cdlib.org/ark:/13030/tf9q2nb8pc/?brand=oac4).

Chromolithographs, like art prints today, were essential to the development of artistic interests in American culture. They were printed as copies of canonical works of European art and also taken from contemporary works. As such they both educated Americans in the artistic traditions of Europe and provided livelihoods for American artists.

Not all lithographs sold and purchased as art were chromos, nor were they all worthy of the exalted title of fine art. Among the ones I found that are nonetheless interesting is one of explosions of two ships in the Delta, “Explosion of the American Eagle/on the San Joaquin River, 25 Miles below Stockton Oct 8/1853 “Explosion of the Steamer Stockton/on Suisson Bay, Oct 18, 1853,” published by Britton and Rey, 1853 (http://oac.cdlib.org/ark:/13030/tf0m3nb3bb/?layout=metadata&brand=oac4). Shipwrecks were a favorite subject of all the arts in nineteenth-century America, allowing for moralizing
on the transitory nature of human life, human weakness in the face of greater powers, the sinfulness of relying on our human skills and knowledge, and all of that kind of thing, all while taking pleasure in death and destruction (while writing this, I’m hearing in my mind the Henry Clay Work Song, “When The ‘Evening Star’ Went Down”). Shipwrecks were the nineteenth-century equivalent of television news:
One-of-a-kind works:

I’ve found relatively few of these that are readily accessible, and even fewer that are very good. This oil painting, for example, is fairly typical of an American genre of ship paintings, but it is not particularly distinguished (http://oac.cdlib.org/ark:/13030/tf7489p4q3/?layout=metadata&brand=oac4):

Housed in the Bancroft as part of the Honeywell Collection, there is no information available about the artist. The painting is of the “Chrysopolis,” and is dated ca 1860.

I was able to find some amateur art in the Bancroft collected with the papers of C.E. Grunsky (1855-19-34), a civil engineer, born in San Joaquin County, employed for much of his life by the City of San Francisco. He toured the Delta in 1878 to survey possible water supplies for the city. During that survey, he made a number of lovely pencil sketches of the Delta, one in colored pencil, and one ghastly oil painting on canvas. In each, the artist includes his surveying team’s houseboat in the foreground. These are not available on line, but are, I think, worth considering for Delta exhibits as they show a trained engineer’s drafting abilities in depicting a land and waterscape rarely captured.
Commercial Art:

Growers probably would have been astonished that the art they commissioned to grace fruit and vegetable packing crates would be considered valuable as history, no less as art. To my eye, they are worthy of both. As art, they occupy a lovely liminal space between branding (as in stock branding), caricature,
and still-life

I took all three of these images from this commercial web-site:

http://www.thelabelman.com/product_info.php?products_id=144&osCsid=084204475de27d15612fbb0

The existence of such a site speaks to the popularity of crate labels as a collectable art form. There is nothing uniquely Delta about such labels, though all three of these are taken from Delta farming companies.

Gregg Camfield

University of California, Merced


Roseberry, Viola M. *Illustrated history of Indian baskets and plates made by California Indians and many other tribes: All of the baskets shown in this souvenir are on exhibition in the Lassen County exhibit at the 1915 Panama-Pacific-International Exposition, and are the property of T. A. Roseberry, Susanville*. Berkeley, CA: California Indian Library Collections, 1994.


Possible Delta Indian Basket Repositories in Northern California

Bancroft Library, University of California Berkley

C. Hart Merriam collection, University of California Davis

CA State Parks Statewide Museum Collection Center

Native America - Cantor Arts Center at Stanford University

Sate Indian Museum
Summary of Delta Narratives Project

Delta Narratives is a project to showcase the Delta’s place in history. With funding from the Delta Protection Commission, Professor Emeritus Robert Benedetti, former Delta Protection Commission Executive Director Margit Aramburu, and a team of scholars, museum professionals and archivists, have begun the first phase of an ambitious plan to organize cultural and historical exhibits in the Delta. They strive to make Delta narratives, today mostly obscure, widely available to the public.

Local historical societies, museums, and libraries have preserved valuable pieces of the Delta story. The Delta Narratives project aims to create a way for these pieces to be interrelated, showcasing the Delta region for what it really is - one of the most historically important regions in the United States.

Human beings have occupied the Delta continuously for over ten thousand years. In the mid nineteenth century, the Gold Rush brought thousands from around the world to San Francisco. They crowded the water highway to the rivers and mines. On the way many saw the potential of the Delta's rich soil and it soon became an agricultural destination. With its labyrinth of sloughs and rich wildlife habitats, the Delta later attracted those who would relax or hide out in its byways. Today its significance for California's ecosystem has been recognized and the use of its water hotly debated.

As a first step to recovering the stories that lay behind these events, four scholars are relating Delta narratives to trends in regional and American history. The specific themes they are pursuing include transportation and communication, reclamation and restoration, the building of ethnic and economic communities, and the changing perspectives of writers and visual artists.

The project also brings together museum professionals and archivists who, working with the scholars, will propose a series of exhibition strategies to make scholarly findings come alive and to help the public become aware of the many cultural institutions serving the region. The Delta is one of the most historically important areas in the West, or even the country, and its narratives deserve to be understood and widely shared.

The final report of the project will be a draft plan for enhancing the distribution of Delta Narratives through exhibitions and other joint projects of the several cultural and historical organizations in the region. The plan will be crafted at a conference to be held in the Delta on July 16, 2015, in West Sacramento.
Delta Narratives, Project Team

The Principal Investigator is Steve Boilard, Executive Director, Center for California Studies, Sacramento State University. Margo Lentz, administrative assistant, is a graduate student in the Capital Campus Public History Program at Sacramento State. She is a graduate of Whitman College with a degree in history.

Co-Associate Director Robert Benedetti retired as Executive Director of the Jacoby Center for Public Service and Civic Leadership at the University of the Pacific. He is an adjunct faculty member at the Center for California Studies, Sacramento State University. Dr. Benedetti is a political scientist and former Dean of the College at Pacific. He has served on two state humanities councils and the Federation of State Humanities Councils board.

Co-Associate Director Margit Aramburu is an environmental planner by training and served as the Executive Director of the Delta Protection Commission. She has long experience in the Delta region and with Delta organizations. While Director of the University's Natural Resources Institute (2008-12), she facilitated conferences at Pacific on topics relating to the Delta.

Humanities Scholars

Greg Camfield is a Professor of Literature at UC Merced and a scholar of Mark Twain and nineteenth century American Literature, particularly in the West.

Philip Garone is an environmental historian teaching at California State University Stanislaus. His research focuses on the U.S. West; California, especially the Central Valley and the Delta; and climate change.

Jennifer Helzer is a cultural geographer from California State University Stanislaus. She is the Director of both the Geography Program and the Master of Science in Interdisciplinary Studies - Geospatial Analysis of Human-Environmental Change. Her research has focused on ethnic communities in the Central Valley of California.

Reuben Smith, Emeritus Dean and Professor of History, University of the Pacific, has special expertise in the history of transportation and technology.

William Swagerty is an historian whose research has emphasized environmental history, Western history, and Native American history. He is currently a Professor of History and Director of the John Muir Center at the University of the Pacific.

Archivists

Michael Wurtz is Head of the University of the Pacific's Holt-Atherton Special Collections. He specializes in archival work and historical geography including John Muir and the Giant Sequoia, and the first insane asylum in California located in Stockton.

Dylan McDonald is a Certified Archivist and has worked at the Center for Sacramento History for eleven years. He formerly worked at the Idaho State Archives while earning his MA in History at Boise State University. He teaches the Archives & Manuscripts course in the graduate history program at California State University-Sacramento. Dylan serves on the board of the California Council for the Promotion of History, and studies the history of water use in the American west.

Leigh Johnsen is the archivist and librarian at the San Joaquin County Historical Museum. He holds a doctorate in American history and is a documentary editor, having edited the papers of Salmon P. Chase, Abraham Lincoln's treasury secretary.

Mentor Institution Representatives

Marcia Eymann is the Executive Director of the Sacramento History Museum and the History Manager for the Center for Sacramento History. She previously served at the Oakland Museum.

Tod Ruhstaller is the long serving CEO of the Haggin Museum. His academic background is in anthropology/archaeology and he also serves as the Haggin's Curator of History.

David Stuart is currently the Director of the San Joaquin County Historical Museum. He has worked for the National Park Service as an anthropologist and planner and in higher education. He is knowledgeable in cultural tourism and is experienced in exhibition strategies.
July 31, 2015

To: Blake Roberts, Associate Environmental Planner, Delta Protection Commission
From: Robert Benedetti and Margit Aramburu, Co-Directors Delta Narratives Project
Subject: Completion of Delta Narratives Project One Year Contract-- Project Process and Outcomes

The Delta Narratives Project:

The Delta Narratives Project (Project) was designed to develop research reports on Delta culture and history organized around four themes and an exhibition and presentation plan for multiple venues and in various formats that collectively would give cultural definition to the Sacramento-San Joaquin Delta. The project supports the concept of Delta as Place.

The four themes are:

- Managing the Garden: Agriculture, Reclamation, and Restoration
- Building Community: Economics and Ethnicity
- River Culture: Communication and Transportation
- Visioning the Delta: Writers and Artists

Study Area:

Although scholars were given flexibility in defining the Delta, the study area generally conforms to the Sacramento-San Joaquin Delta National Heritage Area Proposed Boundary--north to Sacramento, south to near Lathrop, and west to Vallejo and Hercules. Even though there are parts of the Primary and Secondary Zones of the Delta not in the Delta National Heritage Area as proposed, these zones in their entirety were accepted as part of the Delta for this analysis. [See attached map]

Contract and Funding:

The Delta Protection Commission (DPC) contracted with Center for California Studies at California State University Sacramento (CSUS), Steve Boilard Director, in the amount of $80,000. CSUS served as the administrator of the contract. The one-year contract ended July 31, 2015.

Delta Narratives Project Process:

The process was conceived as open, inclusive, and measured. Key groups and institutions were solicited and agreed to participate in the process. Scholars with records of research and knowledge in multiple fields were invited to participate. Project managers with knowledge and experience in the Delta region were identified and selected to manage the Project. [See attached list of participants]

The process included regular meetings of the team members—project managers, scholars, archivists and mentor institutions—to provide input and coordination. Meetings with multiple groups and institutions in the Delta and surrounding communities were key to the overall process and provided...
helpful reference information and inspiration for research. The Project included larger, more formal public meetings to share the process and outcomes.

**Delta Narratives Products:**

The Project has produced several products:

- four 60-110 page papers prepared by the scholars;
- a bibliography of resources used to research the multiple topics and prepare the papers;
- a chart of Delta region groups, museums, libraries and archives with descriptions and contact information;
- a list of key items of major historical interest from Delta museums;
- selection of four visual icons selected by the scholars to represent the researched topics; and
- A memo with recommendations on how to inform the Delta, the larger Bay-Delta-watershed region, the State, and the nation about the Delta’s culture and history.

All the products will be made available to the public and interested parties by the DPC through a written report and website.

**Delta Narratives Outreach and Coordination Meetings:**

The Project hosted two workshop meetings—one in Walnut Grove on March 4 and one in Antioch on March 18—to outreach to the region’s historical societies, museums, libraries, and archives. Invitations for both meetings were issued to all Delta museums, historical societies, and archives. At each meeting the overall project and process was described and the four scholars described their topics, research process, and draft outcomes.

A third meeting was held on April 11 at the Center for Sacramento History to convene the archivists and the mentor institutions and solicit ideas about how to pass the newly develop information to the general public, other researchers, and visitors. The groups addressed the audiences that include residents of the Delta, residents of the “rimlands” around the Delta, the State, and the nation. The benefits of a low cost phone and tablet app (application) were discussed to reach younger visitors and families that may not be museum visitors. Other ideas include engaging small museums and historical groups into an overall program, identifying annual themes, making use of common marketing, promoting museums through schools, focusing on different regions (north, south, east, and west), engagement of multiple groups, presenting the story of the Delta people, and making use of oral histories to appeal to modern visitors.

**Delta Narratives Major Workshops:**

On April 17, a special presentation was made on CSUS campus entitled “Delta Narratives: An Introduction to Sacramento-San Joaquin Delta History”. The program included presentations from Steve Boilard, Dr. Benedetti who is the Visiting Scholar at the Center for California Studies, Blake Roberts, DPC staff, and the four scholars/authors (Margit Aramburu presented for Professor Garone). The audience was largely CSUS faculty, staff, and students.

A conference entitled “More that H2O: Saving the History and Culture of the Sacramento-San Joaquin Delta” was held on June 17 in Sacramento, also hosted by the Center for California Studies. In addition to remarks by the Steve Boilard, Blake Roberts, and Dr. Benedetti, the program included two panels.
The morning panel included the scholars (Dr. Benedetti stood in for Professor Helzer) and an afternoon panel moderated by former Senator Patrick Johnston. The panelists included regional coordinator for the National Heritage Area Program, Executive Director of the San Joaquin County Historical Society and Museum, former Senator and former Executive Director of the DPC Michael Machado, and Dr. Jeff Hart—botanist, ecologist, and organic farmer. The topic was the cultural and historical aspect of the Delta and what steps should be taken to preserve this heritage?

A final workshop entitled “Make Delta Narratives Come Alive!” was held on July 16 in West Sacramento using the American Assembly process. A broad invitation was issued to groups, museums, libraries and archives to participate. Three knowledgeable community leaders—former Senator Patrick Johnston, former Senator Michael Machado, and Dr. Jeff Hart—served as discussion leaders. Three groups addressed questions about how to better communicate information about the Delta and its culture and history to the Delta region, to the surrounding rimlands and cities, and to the entire State and the nation. Each group developed a list of recommendations, and the group as a whole ratified those recommendations they found compelling.

Delta Narratives Process Outcomes and Recommendations:

The outcomes of the final meeting serves as the exhibition and presentation plan which situates the Delta’s narratives in regional and national history, links sites of cultural significance, outlines the responsibilities of each exhibition partner and delineates how various audiences will access the information provided. Delta Narratives structured an American Assembly program in which a wide variety of Delta stakeholders were challenged to address ways to better promote partnership around Delta stories, to increase the appreciation of Delta stories in communities in Northern California, and to stimulate interest in Delta history and culture throughout California and beyond. The 40-plus stakeholders divided into three groups, each group responsible for brainstorming and then evaluating solutions. At the end of the day, all three groups brought their top results to the group as a whole, which voted on those they found most compelling.

The group that focused on internal Delta cooperation suggested two preliminary steps, the preparation of a digital map of significant historical and cultural sites and the creation of a comprehensive directory of cultural institutions, completing the work already begun by the Delta Narratives Project (see Directory of Cultural and Historical Organizations in the Appendix). The group also suggested reviving boat and bus tours of the Delta for residents as well as visitors so that its full extent could be experienced. They stressed that it was critical to involve youth from afar as well as local citizens. In both cases, those attempting to stimulate their interest would be expected to identify a truly common purpose and attempt to meet people on their own terms and in their own environment.

The group focusing on the relationship between the Delta and surrounding communities argued that the Delta’s cultural groups, once they have come together, should coordinate with affinity groups beyond the Delta in an attempt to educate the citizenry of these communities beyond the Delta’s borders, targeting youths and families. They should design appealing tours and outings that would be easy to execute, involving private business to the greatest extent possible. They should be accompanied by public relations campaigns that explain the significance of Delta stories and why coming to the Delta is crucial to understanding them. The group suggested approaching three key collaborators: Sacramento State students and faculty, sites in the Bay Area and Mother Lode that have special historic ties to sites in the Delta, and the chambers of commerce in the Delta and surrounding communities, especially
Stockton, San Francisco and Sacramento. This group championed the creation of a central clearinghouse for information on the Delta that could be accessed online and at key locations in the Delta. They also considered creating a K-12 curriculum that would integrate Delta narratives into the California story. To stimulate initial visits to the Delta, the group suggested creating Delta Days to encourage visitors to sample a variety of sites.

The group charged with considering links between Delta history and the state and beyond, urged the creation of an on-going central organization to promote education, research, exhibits, and travel through the Delta. It would be an independent organization, but one willing to cooperate with state agencies. Members of this group were generally in favor of a National Heritage Area (NHA). The group believed that visitors must see the Delta to appreciate it truly and have the benefit of interpretations by specialists. They recommended creation of sophisticated school and college curricula to stimulate visits.

All three groups emphasized the need to mobilize Delta groups into a continuing organization for the promotion of culture and history. They also believe that people must see the Delta to appreciate its cultural riches and that working to integrate Delta stories into primary, secondary, and college curricula could create an appetite for visiting it. Finally, they agree that the creation of a website and/or web application (app) would help to attract people, particularly the young, to Delta narratives. All three groups believed that whatever strategies were adopted should pay particular attention to the young in the hope that they will help sustain the distribution of Delta stories to the next generation.

The conference participants did not underestimate the challenges in attempting to build on such strategies: transportation around the Delta is difficult; the area does not have a strong information technology infrastructure; and Internet, Wi-Fi and cell phone access are underdeveloped. Furthermore, there are currently only limited places to stay or to find a meal. The area is also under multiple governmental jurisdictions, making any coordinated action difficult, and lacks large or commodious buildings for exhibitions, performances and meetings.

Action Steps

What then should be the next steps? Clearly some form of Delta-wide organization is a top priority. However, it is difficult to create such a group without a clear focus and challenge at hand. Three possible projects emerged from these discussions: (1) the creation of an app/website/digital maps for the Delta, (2) the integration of Delta Stories into California’s educational curriculum and (3) the organizing of regular Delta Days to announce the region’s historical and cultural riches. In each case, the four topics that the scholars expanded upon could play a key role in defining the content of these outcomes. Of course, these projects will require leadership, institutional commitments and funding. They would also benefit by the inclusion of scholars from other educational and cultural institutions like the Oakland Museum, UC Davis, UC Berkeley and CSU East Bay as well as interested groups in the Bay Area and possibly, the Mother Lode. To recruit additional partners in the Delta and beyond, it may be strategic to make the securing of funding a first priority.
### Contract Tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Deliverables:</th>
<th>Products:</th>
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<tbody>
<tr>
<td>I. Initial Inventories, ongoing communication and project management</td>
<td></td>
<td>All identified museums, historical groups, archives, libraries were informed about the project and invited to participate—by email and by phone</td>
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<tr>
<td>Build on personal contacts already established with many of the cultural institutions and brief all of them on the project</td>
<td></td>
<td>A chart of all Delta museums, archives, and historical groups was prepared with brief description of program direction and holdings</td>
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<tr>
<td>Collect materials that describe holdings and aspirations of each</td>
<td>Report of holdings and aspirations of cultural and mentor institutions</td>
<td>A chart of all Delta museums, archives, and historical groups was prepared with brief description of program direction and holdings</td>
</tr>
<tr>
<td>Inventory Delta materials and resources available around four themes</td>
<td>Inventory of theme-related materials and resources</td>
<td>See chart described above, overall bibliography, and bibliographies for each paper.</td>
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<tr>
<td>Survey available exhibition facilities</td>
<td>Survey report of available exhibition facilities</td>
<td>All Delta museums, archives and historical groups have been visited and analyzed. The Crocker and Haggin Museums host visiting art displays. The EBRPD Delta Science Center has a small area with rotating display space. Discover the Delta facility has not yet been constructed. Small museums, libraries, archives have permanent exhibits and/or no exhibit space, especially for temporary exhibits. Other spaces available for rent would require a management entity to coordinate permitting, marketing, ticket sales, display installation, docent training, insurance, etc.</td>
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<tr>
<td>Throughout the project, seek the advice of leaders of advocacy organizations, artists, writers, photographers, journalists, scholars, and community members</td>
<td></td>
<td>All Delta museums, archives and historical groups were invited to participate in the process by attending and participating in meetings, by hosting visits from scholars, by reviewing the chart of resources, etc.</td>
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<tr>
<td>Stimulate interaction between the cultural institutions and other participants</td>
<td></td>
<td>Attendance and participation in meetings and workshops has stimulated conversations and interaction between cultural groups, and between those groups and the project participants. Additional research, work, and collaboration is</td>
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<tr>
<td><strong>Provide regular updates, encourage visits to specific sites, and facilitate inquiries for information</strong></td>
<td>Beyond the members of the team who provided information as needed to scholars, DPC included an article in the Fall 2014 Delta Voice about the project, Professors Swagerty and Smith wrote an article about the Delta Narratives project that was published in <em>History News</em>, newsletter of the UOP history department) in the Winter 2015 issue, and Professor Garone wrote an article about the Delta Narratives project that was published in the American Society of Environmental History’s Summer 2015 newsletter.</td>
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<tr>
<td><strong>Share draft reports for input before finalization</strong></td>
<td>Draft reports were circulated to cumulative list of all attendees and all Delta museums, historic groups, and archives prior to finalization.</td>
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<tr>
<td><strong>II. Workshops: Two workshops in or adjacent to the Delta region. Delta cultural institutions will be encouraged to attend at least one of these workshops to interact with the project team to discuss the four themes.</strong></td>
<td><strong>Deliverables:</strong> <strong>Products:</strong></td>
<td></td>
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<tr>
<td>Introduce these groups to each other</td>
<td>Draft and final workshop reports, to include list of participants, review of discussion, and outcomes</td>
<td>Minutes of every meeting and workshop have been prepared. Minutes from each workshop and attendance lists have been prepared and circulated</td>
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<tr>
<td>Generate comment on the potential of each theme to stimulate partnerships</td>
<td>Participants in the workshops were very generous in suggesting topics, themes, and access to archived data and materials to the scholars.</td>
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<tr>
<td>Evaluate potential exhibition sites</td>
<td>The lack of exhibition sites has stimulated discussion of other means of reaching the community, the general public, and tourists. Examples such as special events linking existing museums and displays, development of an APP (application for smart phone or small handheld device), and/or development of educational curriculum were presented as</td>
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### III. Research Reports: Deliverables: Products:

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<tr>
<th>Be of journal article length and reference major narratives that relate to the themes across time, ethnic community, governmental milieu, technological innovation, environmental shifts and economic focus</th>
<th>Four Draft research reports</th>
<th>Draft reports were prepared and circulated among the Delta Narratives Project team members and discussed at a project team meeting. Summaries of the four final research reports and full papers are on the DPC web site.</th>
</tr>
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<tbody>
<tr>
<td>Provide training on exhibition planning</td>
<td>Selection, funding, and implementation of recommended display/education/outreach alternatives would be a future activity. The group of mentor intuitions and archives involved in the Delta Narratives Project would provide rich resources for such future projects.</td>
<td></td>
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<tr>
<td>Identify resources that might ultimately contribute to exhibitions</td>
<td>The group of mentor intuitions and archives involved in the Delta Narratives Project would provide rich resources for such future projects. The many Delta historic groups and museums would also provide diverse and unique resources for future display/outreach/education programs or projects. Each museum was asked to identify its most important items/artifacts. Universities in the Delta “rimlands” including UC Davis, UC Merced, CSU Sacramento, CSU Stanislaus, and University of the Pacific would be fertile providers of academics and students interested in future research and interpretive projects. Potential funding sources are also diverse—many California agencies, industries, and nonprofit groups are actively involved in educating the public about the history and cultural and natural resources of the region, i.e. The Nature Conservancy and others at the Cosumnes Preserve.</td>
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<tr>
<td>Clarify links between the interacting narratives and trends in California, western, and national history</td>
<td>The papers acknowledge the overlapping of the several themes through time and spaces. Authors edited papers to reflect links.</td>
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<tr>
<td>Situate habitats, documents, and artifacts existing in the Delta region within discussion of the themes</td>
<td>The final reports include maps, charts, and illustrations. The bibliographies of each report identify documents used in research of each theme.</td>
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<tr>
<td>Identify potential issues related to interpreting and presenting the themes</td>
<td>The scholars, and the entire Delta narratives team participated in the final workshop which identified issues related to interpreting and presenting the themes.</td>
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<tr>
<td>Indicate where further basic research, including the collection of oral histories should be pursued</td>
<td>The scholars, and the entire Delta narratives team participated in the final workshop which identified issues related to interpreting and presenting the themes.</td>
<td></td>
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<tr>
<td>Where possible identify maps and other visuals to illustrate the interaction of peoples and place</td>
<td>Maps and illustrations are included in the final reports. Iconic images selected by the scholars have been on display at the final workshops.</td>
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**IV. Final Conference to Apply Themes to Multi-Venue Exhibition and Presentation Plan**

**Deliverables:**

An integrative, day-long final conference will be organized to discuss the research reports with representatives of Delta cultural institutions in order to develop a strategy for multi-venue exhibitions and presentations. The conference will invite all potential partners to participate in developing this outline of realistic proposals for a future cooperative effort. The conference will be organized as an American Assembly or similar discussion model such that participants will work in committees to respond to issues raised by the prepared research reports. After each committee has developed its solutions and recommendations, a final plenary session will vote to accept, amend or reject each recommendation.

**Products:**

The one day conference was held July 16, 2015 in the City Hall in West Sacramento. Over 35 participants attended the daylong event. The event was organized as an American Assembly. Each of the four scholars made a brief presentation. Attendees were divided into three groups, each with a leader and a secretary. Each groups was asked to address how best to outreach to the Delta, the larger Bay-Delta area (rimlands), and the State and nation. Each group developed issues and solutions, then prioritized actions. The entire assembly reviewed the materials developed by the three committees, and voted on the recommendations—the votes were: support, neutral, or not significant.
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<th>V. Final Cumulative Statement Report and Plan</th>
<th>Deliverables:</th>
<th>Products:</th>
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<tr>
<td>Approved Committee reports will be assembled into a cumulative statement and exhibition and presentation plan, to be circulated to all participants for comments. The plan will describe a series of exhibitions, presentations and/or initiatives that relate directly to the themes and to materials and artifacts available at area sites. The plan will outline how venues are to be integrated physically and narratively so that a rich and textured exposition is achieved. Several options will be explored including: the design of special presentations at potential partner sites in the region including the space being prepared at the Discover the Delta Foundation site near Rio Vista and the San Joaquin County Museum permanent exhibitions. Among other options to be considered will be traveling exhibits, interactive media display, cultural “trails”, and in-school learning kits.</td>
<td>Draft and final cumulative statement and exhibition and presentation plan reports, assessing resources for exhibitions on major Delta Narratives, in hard copy and posted on line</td>
<td>A report describing the opportunities to distribute the outcomes of the Delta Narratives Project research through traditional means—publication of papers, creation of displays-- and alternatives means such as special events linking existing museums and displays, development of an APP (application for smart phone or handheld device), development of regional website, and/or development of educational curriculum for students is available on the DPC web site. This report makes the argument for further investment in the cultural and historical resources of the Delta and for greater cooperation between Delta cultural organizations in preparing Delta stories for wider publics. In sum, it is a case statement ready for presentation to potential partners who might assist Delta organizations in a campaign to make new audiences aware of the rich Delta heritage.</td>
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</table>

| Plans for themed exhibitions in several venues/formats based on partnerships between local and regional institutions | See above | |
| Presentation to possible partner sites including the Delta Discovery Center | See above | |
**Project Participants:**

**Project Staff:**
- Blake Roberts, Associate Environmental Planner, Delta Protection Commission representative
- Steve Boilard, Director, Center for California Studies, CSUS (Project director)
- Robert Benedetti, Visiting Scholar, Center for California Studies, CSUS (co-director)
- Margit Aramburu, formerly University of the Pacific/Delta Protection Commission (co-director)
- Margo Lentz, graduate student, CSUS

**Scholars:**
- Professor Gregg Camfield, UC Merced, Literature
- Professor Philip Garone, CSU Stanislaus, History
- Professor Jennifer Helzer, CSU Stanislaus, Geography
- Professor William Swagerty, University of the Pacific, History
- Emeritus Dean and Professor Reuben Smith, University of the Pacific, History

**Archivists:**
- Leigh Johnsen, San Joaquin County Historical Museum
- Dylan McDonald, Center for Sacramento History

**Mentor Institutions:**
- Marcia Eymann, Director, Center for Sacramento History
- David Stuart, Director, San Joaquin Historical Museum

**Archivists and Mentor Institutions:**
- Tod Ruhstaller, Haggin Museum
- Michael Wurtz, Holt Atherton Library, University of the Pacific
Workshop Reports: Workshops with Delta Cultural Institutions and Project Team

At each meeting Bob Benedetti presented an overview of the project, Blake Roberts made a brief presentation and each of the four scholars presented their topics, preliminary findings, and areas where assistance was needed. Representatives of the various cultural institutions asked questions, made suggestions to focus research, and described materials available in their archives.

March 4, 2015 Workshop, Location: Walnut Grove Library, Walnut Grove, Sacramento County

Attendees: Dylan McDonald, Center for Sacramento History, Marcia Eymann, Center for Sacramento History, Christopher Smith, Center for Sacramento History, Janet Bennett, Dutra Museum, David Stuart, San Joaquin County Historical Society, Veronica, Center for Sacramento History.

Comments to Authors:

Bill Swagerty and Reuben Smith:

• Include Ironworks from Rio Vista, and Rio Vista Ford Dealership that sold trucks and other equipment to Delta farmers
• San Joaquin Historical Museum is restoring a tomato harvester
• Include a list of graphic-images and maps

Phil Garone:

• Chinese levee laborers from Pearl River area were brought as expert dirt movers, not just general laborers. That group returned to homeland.
• Bucket sizes related to soil type (peat, mineral) not just over time. Different placement and taming techniques used for different soils.
• Pears “worked” in the Delta as they could accommodate “wet feet”, versus other fruit trees
• What are the broader/statewide impacts from reclamation, more upstream flooding?
• What were impacts of hydraulic mining?
• What are the long term impacts of reclamation?
• Reference SF Estuary Institutes research on the Delta
• Reference Battling the Inland Sea
• Address changes over time re: dredging—where, how much, impacts, awareness

Jennifer Helzer:

• Reference: Golden Land, Working Hands
• Address gender of immigrant groups over time
• Address gender of cannery laborers
Describe how and when spouses found for immigrants (Go home? Picture brides?)
Reference literature/diaries of different immigrant groups
Japanese hand plow and short handled hoe in local collections
Address broader story of how and why immigrants came to Delta and what they left behind
Develop map and timeline of immigration from various areas
Address commonalities of immigrants
MA: Need historic census tract maps
Any Southeast Asian immigrants? Or new immigration trends?
Refer to contemporary populations of native peoples

Gregg Camfield:
• Perhaps describe/include performance art (music, theatre, etc.)
• Clarify the purpose of the research and eventual exhibits—who is the audience? What is the end product? Who will visit?
• Perhaps include other print materials, i.e. Chinese newspapers
• Make exhibits relevant to audience—may need to add contemporary issues like Delta tunnels project...
• Need personal stories—what would my life be like if I lived here in a certain time...
• How would literature research be used; if quotes to accompany image, identify image.

March 18, 2015 Workshop: Antioch Historical Museum, Antioch, Contra Costa County
Attendees: Jenna Skinner, Contra Costa Library, Deanna Lechman, Contra Costa Library, Veronica Crane, Port Costa Conservation Society, Linda Clark, Port Costa Historic Archives, Diane Stewart, Port Costa Historic Archives, Dylan McDonald, Center for Sacramento History, Meredith Sarmento, Yolo County Archives, Malissa Knapp, Solano County Library, Rosemarie DiMaggio, Pittsburg Historical Society.

Swagerty and Smith:
• May want to visit Pittsburg High School
• East County Historical Society has information re: John Marsh, and a complete run of The Byron Times
• May want to visit National Park Services’ San Francisco Maritime Library; Delta was “part” of San Francisco Port
• Crocket Museum has information about C&H Sugar
• Pittsburg Historical Society has information about coal mining in hills behind Pittsburg

Garone:
• Port Costa was largest shipping port of grain from Valley to Europe; Historical Society has one ledger of McNear Family
• Records of ferry boats

Helzer:
• Hastings adobe now within wooden house in Montezuma/Collinsville area
• Mormons were solicited to settle in the area
• Other utopian communities: Pt Pleasant, New Hope
• TB asylums?

Camfield:
• Jack London used to sail to Bay View Saloon in Pittsburg
• Check “Octopus”, by Frank Norris
• Consider post cards—San Francisco Bay Area Post Card collection
• Consider Carlton Watkins photographs
• Consider Edward Muybridge photographs
• Consider Ansel Adams photographs
• Check Carnegie Library in Turlock, re Delta information
• Check John Muir papers in Martinez
• Check “Picturesque California”
Meeting Notes
Delta Narratives Meeting with Museum Experts, Archivists, and Historians
Saturday, April 11, 2015

Attendees: Bob Benedetti, Margit Aramburu, Blake Roberts, DPC; Michael Wurtz, UOP; Dave Stuart, San Joaquin County Historical Museum; Tod Ruhstaller, Haggin Museum; Chuck Wallenberg, California Studies at UCB; Brian Aguilar, CSUS; Joe Pltti, History Professor, CSUS; Marcia Eymann, City Historian, City of Sacramento.

Challenge: How to use the four essays to create displays to help educate the public about the Delta. At the end of this contract, there will be opportunity to seek funding for a next phase of the project and a plan for exhibitions.

Audience: The audiences will include: residents of the Delta, residents of the “rim” lands around the Delta; the entire State of California; and the entire nation, particularly if the National Heritage Area project is approved.

- Lodi has determined the largest number of visitors to that area is from the Bay Area and Greater Los Angeles. In addition to wine, visitors are interested in ecotourism.

Concept of an APP:
- Low cost ($10,000) to develop an App
- App must be hosted and updated
- Low demand for Apps with fee; high demand for free Apps.
- Can start small and add more layers
- Reaches a younger audience and families that may not be museum attendees.
- Special walks/tours are of interest to different visitors.
- Can add recreation, historic homes, etc.

Funding Sources for an APP:
- Grant funds might be available.
- May be able to develop income-generating uses that could help fund App hosting and updates.

Exhibits:
- Challenge is to engage small museums and historical groups into the overall program
- Could support partnerships between smaller groups and larger museums
- A different theme could be identified every year and one day set aside and advertised for regional museum visitations
- Could offer a “prize” if people visit multiple sites
- Could offer transportation between locations
- Could promote museum day through schools
- Focus could change each year--north, south, east, west
• Engage multiple groups—museums, archives, historical societies, libraries, parks, other groups -- and seek their knowledge and expertise while creating exhibits
• Visitors are interested in what life was like for certain individuals/groups in different times in the past—the story of the people
• Oral histories can be very appealing to visitors

Other Tools:
• Could develop uniform historic markers; could be linked to App; invite nominations of sites by local groups
• Kiosks could be located at key entry points to the Delta to orient visitors, also at parks and libraries
• Brief film about the Delta—5 minutes standing; 10 minutes seated—could be available at multiple locations
• Book about the history of the Delta; seek assistance and participation of all groups and facilities
• Use “Five key items” identified by groups, museums—create short videos on why they are important and make them available on YouTube, other media
• Create a website

Key Issues:
• Delta as gathering place—from native peoples, on
• Delta was a barrier to mission construction, difficult land to conquer and develop (1776- Pedro Fages)
• Represent Delta from point of view of native peoples as well as of Spanish/Mexicans and “westerners” who arrived from 1800’s on
• Experts believe California was home to 10% of all native peoples living north of Mexico
• The one constant in California history is DIVERSITY—groups, class, race, etc.
• Modern Delta is a human created landscape, a new landscape, a transformation of the land
• Reclamation movement can be linked to modern thinkers and philosophers (Hamiltonian movement, Teddy Roosevelt, etc.)
More Than H2O: Saving The History and Culture of the Sacramento-San Joaquin Delta

Wednesday, June 17th, 2015.
Capitol Event Center (formerly the CSAC Conference Center)
1020 11th Street, 2nd Floor. Sacramento, CA 95814

Free event; lunch provided

Agenda and Speakers for the day:

9:00 Registration
Coffee service

9:30 Introductions
Steve Boilard, Executive Director, Center for California Studies
Blake Roberts, Delta Protection Commission
Dr. Robert Benedetti, 2014-15 Visiting Scholar
Margit Aramburu, Co-Director, Delta Narratives

10:00 Panel of Scholars on Delta Narratives
Managing the Garden: Agriculture, Reclamation, and Restoration in the Sacramento-San Joaquin Delta
Phillip Garone, CSU Stanislaus

Building Communities in the Sacramento-San Joaquin Delta: Economics and Ethnicity
Jennifer Helzer, CSU Stanislaus

Stitching a River Culture: Trade, Transportation and Communication in the Sacramento-San Joaquin Delta
William Swagerty, University of the Pacific
Reuben Smith, University of the Pacific

Writers and Artists in the Sacramento-San Joaquin Delta
Gregg Camfield, University of California, Merced

11:00-11:30 Questions and Comments

11:30-12:15 Lunch Break

12:15 Panel on Sustainability of Delta History and Culture
Introductions and Moderator:
Former State Senator Patrick Johnston, Delta Stewardship Council

Panelists:
Linda Stonier, National Park Service, National Heritage Areas
David Stuart, *San Joaquin County Historical Museum*
Jeff Hart, *Delta Eco Farm*
Former State Senator Mike Machado (ret.), *Sacramento Advocates*

1:05-1:35  **Questions and Comments**

1:35  **Wrap Up**
Dr. Robert Benedetti

All members of the Capital community are welcome to attend.

**June 17, 2015 Attendees:**
In addition to Team and Speakers: Bill Badham, Brett Baker, Ronald Baldwin, Barbara Barrigan-Parrilla, Jennifer Barton, Leslie Batson, David Beckham, Gene Beley, Janet, Bennett, Nicole Bert, Brian Brown, Catherine Caldwell, Ryan Camero, Chris Castagna, Linka Clark, Jessica Clinkenbeard, James Collis, Jay Correia, Barbara Daly, Barbara Damion, Robin Datel, Jessica Davenport, Terry Davis, Meg deCourcy, Joseph DeWolk, Rosemarie DiMaggio, Amy Dominguez-Arms, Johnava Duryea, Joshua Dyck, Kathleen Forrest, Senator Cathleen Galgiani, Jennifer Garrison, Michael George, Daisy Gonzales, Trent Hager, Alison Turner Harvey, Eileen Heaser, Wendy Heaton, Lorie Hodel, Dianne Hyson, Joelle Inman, Debbie James, Mary Kaems, Alexandra Kamel, Donna Kemp, Helen Kerstein, Tim Kohaya, Alejo Kraos-Polk, Gavin Landgraf, John Lightfoot, Marie Liu, Serena Liu, Joseph Luna, William Maxwell, Marian Norris, Eleanor O'Donnell, Brittani Orona, Jennifer Patterson, Jessica Pearson, Laureen Perry, Walt Reid, Allegra Roth, Stephen Routh, Diane Schmidt, Bijaya Shrestha, Lester Snow, Tom Stein back, Tim Stroshane, Anna Swenson, Kim Tanksley, Don Thomas, Catherine Troka, Stina Va, Erik Vink, Linda Wanner, Bill Wells, Joe Zhou, Marty Zimmerman
List of participants for the June 17th meeting, invited to July 16th

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<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Email</th>
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<tbody>
<tr>
<td>Margit</td>
<td>Aramburu</td>
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<tr>
<td>Barbara</td>
<td>Barrigan-Parrilla</td>
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<td>Leslie</td>
<td>Batson</td>
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<td>Bob</td>
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<td>Nicole</td>
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Agenda
Delta Narratives Workshop
July 16, 2015, City Hall, West Sacramento

10:00 Introductions, Robert Benedetti, Co-Director of Delta Narratives

10:10 Short Summaries of Scholar’s Background Essays (5 minutes each)
Managing the Garden: Agriculture, Reclamation, and Restoration in the Sacramento-San Joaquin Delta
Phillip Garone, CSU Stanislaus

Building Communities in the Sacramento-San Joaquin Delta: Economics and Ethnicity
Jennifer Helzer, CSU Stanislaus

Stitching a River Culture: Trade, Transportation and Communication in the Sacramento-San Joaquin Delta
William Swagerty, University of the Pacific
Reuben Smith, University of the Pacific

Writers and Artists in the Sacramento-San Joaquin Delta
Gregg Camfield, University of California, Merced

10:30 Explanation of American Assembly Process and Assignment to Groups, Robert Benedetti and Magit Aramburu, Delta Narrative Co-directors.

Group One: Jeff Hart, Chair
How can organizations within the Delta better partner and coordinate to improve access to its rich historical and cultural heritage?

Group Two: Mike Machado, Chair
How can the Delta Region better share its historical and cultural heritage with the communities immediately beyond its borders in the Bay Area and Central Valley?

Group Three: Pat Johnston, Chair
How can the Delta Region encourage citizens from all of California and beyond to appreciate its cultural and historical heritage, its stories?

10:45 Group Sessions Begin, brainstorming solutions
12:15 Lunch Break
12:45 Group Sessions Resume, priorities and implementation strategies
2:00 Group Sessions Conclude (Chairs and Secretaries prepare presentations)
2:15 Workshop participants assemble in Plenary Session to hear Group Reports
3:00 Workshop adjourns
Participants:
In addition to Team: Patrick Johnston, Delta Stewardship Council; Eileen Leung, Locke Foundation; Janet Bennett, Dutra Museum; Gretchen Louden, Stockton Public Library; Tod Ruhstaller, Haggin Museum; Jeff Hart, Delta EcoFarm; Veronica Crane, Port Costa Conservation Society; Diane Stewart, Port Costa Conservation Society; Gene Beley, Central Valley BSN Times; Lauren Korth, Restore the Delta; Amanda DeWilde, Sacramento Public Library; Linda Stonier, National Park Service; Brett Milligan, UC Davis; David Stuart, San Joaquin CHS; Daniel Huang, Delta Stewardship Council, Leigh Johnsen, San Joaquin CHS; Michael Winter, Sacramento County Planning; Alexander Kraus-Polk, UC Davis; Jenna Skinner, Contra Costa Library; Jahnava Duryea, Delta Science Program; Richard Norgaard, Delta Independent Science Board; Marcia Eymann, Center for Sacramento History; Allan Sarmiento, Welga Filipino American Labor Archives; Carol Jensen, Byron Hot Springs; Galen Kusic, Former Senator Mike Machado; Carol Jensen, Byron Hot Springs; Amanda Bohl, Delta Conservancy
**Action Recommendations by Workshop Participants, July 16th**

Recommendations brought forward by Group One:

**Goal: Protect the people and the place of the Delta through awareness of history and culture**

1. Prepare Digital Map of Delta (high support)
2. Prepare a list of cultural institutions (support)
3. Promote Boat and Bus tours (support)
4. Involve locals, bring them together around a common purpose (support)
5. Get Young People involved (high support).
6. Meet locals on their own terms and places (high support)

Recommendations brought forward by Group Two:

**Goal: Increase understanding of the Delta to adjacent areas**

1. Involve youth, families, and parents
2. Bring history and culture groups together
3. Design appealing tours and outings
4. Involve private sector, for example with the use of boats
5. Stimulate public relations, the where and the why for history and culture

**Implementation:**

1. Get chambers to work together
   a. Invite Sac State students and faculty involved
   b. Possibly expand the region to include Bay Area and Mother Load. (support)
2. Create a central clearing house of information on the Delta
   Including a website and portals into the Delta. (high support)
3. Create curriculum which integrates Delta into history of California,
   a. Create a Delta Days program
   b. Solicit partners to help (high support)
4. Develop public relations campaign, "Visit the Delta before it is Gone
   a. Delta Days for adults and families (high support)

Recommendations brought forward by Group Three:

**It is critical to generate an on-going Central Organization**

a. To provide support for education, research, exhibits, travel
b. It should independent, not a governmental agency, (high support)
Advocate for NHA designation (weak support)

Increase interpretation of the Delta with one and two day trips through the Delta. (Employ many topics like birding, fishing, etc.) (high support) (high support)

Encourage a Delta Curriculum, elementary through graduate school (support)

#
### APPENDIX C: Directory of Delta Historical and Cultural Organizations

<table>
<thead>
<tr>
<th>Area of Focus, Location</th>
<th>Name and Contact Information</th>
<th>Archival Material</th>
<th>Topics of Interest</th>
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<tr>
<td>Deltawide, Stockton</td>
<td>Restore the Delta</td>
<td>Oral histories of current Delta residents</td>
<td>Contemporary history of the Delta</td>
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<td></td>
<td><a href="http://www.restorethedelta.org">www.restorethedelta.org</a></td>
<td>Transcriptions of most of the interviews</td>
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<td></td>
<td>Barbara Barrigan-Parrilla</td>
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<td></td>
<td>209-475-9550</td>
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<tr>
<td></td>
<td>10100 Trinity Parkway, Ste 120, Stockton</td>
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<tr>
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<td><a href="mailto:barbara@restorethedelta.org">barbara@restorethedelta.org</a></td>
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<td>Deltawide, McClellan</td>
<td>California State Parks Archives</td>
<td>Bishop papers, CA dairy industry history, guide to Vallejo family papers, Lewis (Martha J) collection, Empire Mines, Locke Oral Histories</td>
<td>See Capital District, below</td>
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<td>Lola Aguilar, Archivist</td>
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<td><a href="mailto:Department.archives@parks.ca.gov">Department.archives@parks.ca.gov</a></td>
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<tr>
<td></td>
<td>916-263-0779</td>
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<td></td>
<td>State Museum Collection Center</td>
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<tr>
<td></td>
<td>4940 Lang Ave., Suite 100, McClellan</td>
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<td><a href="mailto:info@parks.ca.gov">info@parks.ca.gov</a></td>
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<tr>
<td>Deltawide, Oakley</td>
<td>The Delta Science Center at Big Break, Regional Shoreline Park and Big Break Visitor Center (East Bay Regional Park District)</td>
<td>Natural history displays</td>
<td>Delta natural history</td>
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<td><a href="http://www.deltasciencecenter.org">www.deltasciencecenter.org</a></td>
<td>Touch screen display about people, history, water</td>
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<td>Roni Gehlke, ED</td>
<td>Child and Adult Programs in building</td>
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<td>69 Big Break Road, Oakley</td>
<td>Programs on water/kayaking</td>
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<td>Open: 10-6 every day</td>
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<td>Western Railroad Museum and Visitor Center</td>
<td>Trains</td>
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<td>Allan Fisher, Chair of Archives Dept</td>
<td>Small artifacts (76,000 cataloged items)</td>
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<td>Bay Area Electric Railroad Association archives (files, maps, drawings)</td>
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<td><a href="mailto:info@wrm.org">info@wrm.org</a></td>
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<td>Electric rail lines</td>
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<td>Library/Heritage Information</td>
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| Deltawide, West Sacramento | Delta Protection Commission  
[www.delta.ca.gov](http://www.delta.ca.gov)  
Blake Roberts, Associate Environmental Planner  
916-375-4237  
2101 Stone Blvd, West Sacramento  
[Blake.roberts@delta.ca.gov](mailto:Blake.roberts@delta.ca.gov) | Library  
State and local land use and water documents                                                   | History of land uses in Delta region                                                          |
| Deltawide, West Sacramento | Sacramento-San Joaquin Delta Conservancy  
[www.deltaconservancy.ca.gov](http://www.deltaconservancy.ca.gov)  
Campbell Ingram, Exec Officer  
816-375-2084  
1450 Halyard Drive, Suite 6, West Sacramento  
[Amanda.Bohl@deltaconservancy.ca.gov](mailto:Amanda.Bohl@deltaconservancy.ca.gov) | Heritage  
History  
Waterfronts                                                                                   | Japanese Immigrants in Delta  
Contra Costa Waterfront                           |
| Deltawide               | Capital District State Museum and Historic Parks:  
Capitol Museum  
California State Railroad Museum  
Governor’s Mansion State Historic Park  
Leland Stanford Mansion State Historic Park  
Old Sacramento State Historic Park  
Rafttown 1897 State Historic Park (Jamestown)  
Sutter’s Fort State Historic Park  
State Indian Museum  
Woodland Opera House  
California State Parks lands:  
Brannan Island State Recreation Area: 329 acres (recreation)  
Delta Meadows: 472 acres (dredged channels, old railroad alignments, middens) no improvements  
Stone Lake: 1,090 acres (in federal refuge, see below)  
Benicia State Recreation Area (see below)  
Benicia Capitol State Historic Park  
Cowell Ranch/John Marsh State Historic Park | Landscapes—some manipulated, many similar to pre-1850 landscape                                |
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<td>Gathering information for proposed museum/displays of delta natural resources, history, water, land uses, etc.</td>
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<td>Laura Gregory Lea, ED 916-777-4442</td>
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<td>2510 State Highway 12, Isleton</td>
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<td><a href="mailto:laura@discoverthedelta.org">laura@discoverthedelta.org</a> <a href="mailto:Ken@discoverthedelta.org">Ken@discoverthedelta.org</a></td>
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<td>Deltawide, Walnut Grove</td>
<td>Sacramento River Delta Historical Society</td>
<td>Oral histories Resource books DVDs Transcripts Donated collections Maps</td>
<td>Communities along Sacramento River: Sacramento, Solano and Yolo Counties</td>
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<td></td>
<td>Cathy O’Conner, President Jean Harvie Community Center, 14273 River Road, Walnut Grove</td>
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<td>Deltawide</td>
<td>Delta Regional Foundation</td>
<td>Goal is to raise funds to support and promote cultural and historic preservation, education and events throughout the Delta; support and promote tourism; and support and promote agricultural projects and programs.</td>
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<td></td>
<td><strong><a href="http://www.deltaregionalfoundation.org">www.deltaregionalfoundation.org</a></strong></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>email through web site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contra Costa</td>
<td>Contra Costa County Historical Society History Center</td>
<td>Living archive with records, letters, pictures, maps and books. On-line book store. Historic Resources Inventory, 2010, 65 pages</td>
<td>Countywide</td>
</tr>
<tr>
<td></td>
<td>History Center</td>
<td></td>
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</tr>
<tr>
<td></td>
<td><strong><a href="http://www.cocohistoryorg/center">www.cocohistoryorg/center</a></strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Priscilla Couden, Executive Director 925-229-1042</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>724 Escobar Street, Martinez</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tuesday, Wed, Thursday: 9-4, Third Sat of Month: 10-2, and by appointment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="mailto:info@cocohistory.com">info@cocohistory.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contra Costa, Pleasant Hill</td>
<td>Contra Costa Libraries Jenna Skinner, Collection Development Librarian</td>
<td>Many books in vault: California Delta, Historically Speaking,</td>
<td>Countywide</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td>Location</td>
<td>Museum Name</td>
<td>Address</td>
<td>Contact Information</td>
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<tr>
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<td>--------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Contra Costa, Antioch</td>
<td>Antioch Historical Society Museum</td>
<td>Robert Martin, Pres</td>
<td><a href="mailto:antiochhistoricalsociety@comcast.net">antiochhistoricalsociety@comcast.net</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1500 West 4th Street, Antioch</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Open: Wed and Sat: 1-4, by appt</td>
<td></td>
</tr>
<tr>
<td>Contra Costa, Pittsburg</td>
<td>Pittsburg Historical Society Museum</td>
<td>Rosemarie Di Maggio, Curator</td>
<td><a href="mailto:Rdimaggio38@att.net">Rdimaggio38@att.net</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>515 Railroad Avenue, Pittsburg</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>94565 Open Wed: 1-4; Sat 10-2, by appt</td>
<td></td>
</tr>
<tr>
<td>Contra Costa, Brentwood</td>
<td>East Contra Costa Historical Society and Museum</td>
<td>Ann Wolfe, Historical Researcher</td>
<td><a href="mailto:leightonconstr@aol.com">leightonconstr@aol.com</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kathy Leighton, Resident Historian</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Carol Jenson</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3890 Sellars Ave, Brentwood</td>
<td></td>
</tr>
<tr>
<td>Contra Costa, Port Costa</td>
<td>Port Costa School; Port Costa Conservation</td>
<td>Dee Stewart</td>
<td><a href="mailto:lwstewart@comcast.net">lwstewart@comcast.net</a></td>
</tr>
<tr>
<td></td>
<td>Society; Crockett Community Foundation</td>
<td>PO Box 113, Port Costa, CA 94569</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Location</td>
<td>Address and Contact Information</td>
<td>Description</td>
<td>Notes</td>
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<td>-------------------</td>
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</tbody>
</table>
| Contra Costa, Martinez | John Muir National Historic Site  
www.nps.gov  
Tom Leatherman, General Superintendent  
Kelli English, Interpretation  
925-228-8860, ext 6421  
4204 Alhambra Ave, Martinez  
[email from site only] | House and grounds where John Muir lived 1890-1914  
Photos on line  
Map of Alhambra Valley  
Ag effects on waterways  
Deeds to farmland  
Furnished with original and replica furniture | John Muir Life in late 1800’s-early 1900’s |
| Sacramento, Sacramento | Sacramento City Library  
www.saclibrary.org  
Amanda Graham, Archivist  
828 I Street, Sacramento  
Sacramento Room, Central Library  
Open:  
Sat and Sun: 1-5  
Tuesday 1-8  
Wed and Thurs: 1-6  
(closed Monday and Friday)  
agraham@saclibrary.org | Books on Delta topics  
Reference files  
Maps  
Ephemera | Sacramento History |
| Sacramento, Sacramento | Center for Sacramento History/ Sacramento History Museum  
www.centerforsacramentohistory.org  
Marcia Eymann, City Historian  
551 Sequoia Pacific Blvd, Sacramento  
Open: Wed: 4-7:45, Thursday and Friday: 8:15 to noon  
csh@cityofsacramento.org | ? | Sacramento History |
| Sacramento, Galt | Cosumnes Preserve Visitor Center  
www.nature.org  
The Nature Conservancy  
Harry McQuillen, Manager  
916-684-2816  
13501 Franklin Blvd, Galt  
Trails open daily  
Call for Visitor center hours  
hmcquill@blm.gov | Riparian and flood plain habitat area | Restoration of historic Delta habitat (riparian corridor and flood plain) |
<table>
<thead>
<tr>
<th>Location</th>
<th>Location Details</th>
<th>Details</th>
<th>Details</th>
</tr>
</thead>
</table>
| Sacramento, Elk Grove | Elk Grove Heritage Park and Rhoads School Research Library at the Elk Grove Hotel and Stage Stop Museum, Elk Grove Park  
By appt: 916-685-8115  
[eghs@elkgrovehistoricalsociety.com](mailto:eghs@elkgrovehistoricalsociety.com) | 1850 stage stop  
1853 house  
1884 school  
Research Library with photos, books, family histories, local artifacts  
Newspapers and directories from 1851-1910  
Also school files and registers, emigrant names, cemetery files, court dockets, birth, marriage, census, state militia, “great register of Sacramento County” | Elk Grove area history  
Sacramento County history |
| Sacramento, Elk Grove | Stone Lakes National Wildlife Refuge  
[www.fws.gov](http://www.fws.gov)  
916-775-4421  
1624 Hood-Franklin Road, Elk Grove  
Open: Mon-Fri: 7:30-4  
[stonelakes@fws.gov](mailto:stonelakes@fws.gov) | Wildlife habitat  
Trails  
Walks  
Education  
Paddle tours  
Seasonal waterfowl hunting | Restoration of historic Delta habitat and landscape (flood plain) |
| Sacramento, Locke | California State Parks and Locke Foundation  
[www.locketown.com](http://www.locketown.com)  
Locke Boarding House  
Terry Lopez  
916-988-0205, ext 228  
Open: Tues and Fri: noon-4; Sat and Sun: 11-3  
[lockefoundation@frontiernet.net](mailto:lockefoundation@frontiernet.net) | Historic Structures Report  
Photos  
Chinese History  
Library in Locke Boarding House  
Oral Histories of Locke (Sac State Library) | Locke Chinese Immigration |
| Sacramento, Isleton | Bing Kung Tong Building  
Isleton Brannan Andrus Historical Society  
[www.isletonhistory.org](http://www.isletonhistory.org)  
Chuck Hasz, President  
916-623-5775  
[From website](http://www.isletonhistory.org) | Historical photos  
Artifacts | Isleton Chinese Immigration |
| San Joaquin, Stockton | Stockton-San Joaquin County Public Libraries  
[www.stockton.lib.ca.us](http://www.stockton.lib.ca.us)  
Gretchen Louden, Reference Department | Local History Collection | Stockton  
San Joaquin County |
| San Joaquin, Stockton | The Haggin Museum  
[From website]  
www.hagginmuseum.org  
Tod Ruhstaller, Curator  
209-940-6300  
1201 North Pershing Ave, Stockton  
truhstaller@hagginmuseum.org | Archives | History of Stockton  
San Joaquin County |
|---|---|---|---|
| San Joaquin, Stockton | University of the Pacific Library  
Michael Wurtz  
209-946-2434  
mwurtz@pacific.edu | Holt Atherton Special Collections  
Archives | ? |
| San Joaquin, Lodi | Isenberg Crane Reserve aka Woodbridge Ecological Reserve  
www.dfg.ca.gov/delta/cranetour/  
707-944-5531  
West Woodbridge Road, Lodi  
Open: Oct-Feb for guided tours and crane watching  
[no email] | Manage lands for seasonal habitat for Sandhill cranes | Sandhill cranes |
| San Joaquin, Lodi | Hill House Museum, Lodi Historical Society and Hill House Committee  
www.lodihistory.org  
Janice  
209-608-2778  
826 South Church Street, Lodi  
Open: Sun 1-4, by appt  
andrea@ericneff.com | House and furnishings  
Periodical with local history  
Photos  
Maps | Lodi area history |
| San Joaquin, Lodi | Oak Grove Nature Center  
Aricelly Benvides  
209-953-8814  
11793 North Micke Grove Road, Lodi  
Open: Sat-Sun: noon-4, by appt  
jrexroth@sjgov.org | Displays of pre-1850 Delta wildlife, flora and native peoples | |
| San Joaquin, Lodi | San Joaquin County Historical Museum  
www.sanjoaquinhistory.org | Archival Records, many on line | History of Stockton  
History of San Joaquin |
<table>
<thead>
<tr>
<th>Location</th>
<th>Address</th>
<th>Points of Interest</th>
<th>Website</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Joaquin, Galt</td>
<td>McFarland Living History Ranch</td>
<td>McFarland Living History Ranch Mcfarlandranch.org 209-745-0951 8899 Orr Road, Galt</td>
<td>Mcfarlandranch.org</td>
<td>Re-creation of family life on a ranch in the late 1800’s</td>
</tr>
<tr>
<td>San Joaquin, Galt</td>
<td>Rae House Museum</td>
<td>Jean Oltsman 209-745-0951 204 Oak Ave, Galt</td>
<td><a href="mailto:galthistoricalsociety@gmail.com">galthistoricalsociety@gmail.com</a></td>
<td>Area museum</td>
</tr>
<tr>
<td>Solano, Fairfield</td>
<td>Solano County Libraries</td>
<td>Bonnie Katz, Director Serena Enger, Supervising Librarian 707-784-1500 1150 Kentucky St, Fairfield</td>
<td><a href="mailto:bkatz@solanocounty.com">bkatz@solanocounty.com</a></td>
<td>Fairfield Civic Center Branch: Local history State history monographs Armijo High School yearbooks City directories back to 1915 Many books published over last 200 years</td>
</tr>
<tr>
<td>Solano, Fairfield</td>
<td>Solano County Archives</td>
<td>Leslie Batson 815 Chadbourne Rd, Ste 120, Fairfield 707-434-1101 Tuesday and Friday: 10-2; appointment required</td>
<td><a href="mailto:info@solanocountyarchives.org">info@solanocountyarchives.org</a></td>
<td>Solano County Regional northern California</td>
</tr>
<tr>
<td>Solano, Benicia</td>
<td>Benicia Historical Museum</td>
<td>Elizabeth d’Huart, ED 707-745-5435 2060 Camel Road, Benicia</td>
<td><a href="http://www.benciahistoricalmuseum.org">www.benciahistoricalmuseum.org</a></td>
<td>Online archival holdings 10,000 historical artifacts Photos Objects Clothing</td>
</tr>
<tr>
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<td></td>
<td>beniciahistoricalmuseum.org</td>
<td>Benicia Arsenal State Capitol Benicia Fire</td>
</tr>
<tr>
<td>Area</td>
<td>Location</td>
<td>Contact</td>
<td>Hours</td>
<td>Specials</td>
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<tr>
<td>Benicia</td>
<td>Benicia Capitol State Historic Park, Fischer-Hanlon House (outside only) and Garden</td>
<td><a href="mailto:eliz@beniciahistoricalmuseum.org">eliz@beniciahistoricalmuseum.org</a></td>
<td>Open: Wed-Sun: 1-4</td>
<td>Reconstructed and restored buildings, Period furnishings</td>
</tr>
<tr>
<td>Solano, Benicia</td>
<td><a href="http://www.protectbeniciastateparks.com">www.protectbeniciastateparks.com</a>  707-745-3385  115 West G Street, Benicia</td>
<td><a href="mailto:info@parks.ca.gov">info@parks.ca.gov</a></td>
<td>Open Thurs: 12-4; Fri-Sun: 10-5</td>
<td></td>
</tr>
<tr>
<td>Solano, Rio Vista</td>
<td>Dutra Museum of Dredging</td>
<td><a href="mailto:pdutra@dutragroup.com">pdutra@dutragroup.com</a></td>
<td>Open by appt only</td>
<td>Photos, Log Books, Ledgers, Dredge Models, Engineering drawings</td>
</tr>
<tr>
<td>Solano, Rio Vista</td>
<td>Rio Vista Museum</td>
<td><a href="mailto:pezzaglia@citlink.net">pezzaglia@citlink.net</a></td>
<td>Open Sat-Sun: 1:30-4:30, by appt</td>
<td></td>
</tr>
<tr>
<td>Solano, Vacaville</td>
<td>Vacaville Heritage Council</td>
<td>Publications, Yearbooks, Videos, Maps</td>
<td>7,000 Photographs, Books: local and California History, Referrals to other sources</td>
<td></td>
</tr>
<tr>
<td>Yolo, Woodland</td>
<td>Yolo County Library</td>
<td>References to other sources</td>
<td>Patricia Wong, County Librarian</td>
<td></td>
</tr>
</tbody>
</table>

**References:**
- Photos
- Log Books
- Ledgers
- Dredge Models
- Engineering drawings
- History of sidedraft clam shell dredging
- Role of Dutra Family
- Role of Dutra companies
- Artifacts
- City of Rio Vista
- Privately Owned
- Historic community of Birds Landing
- Publications
- Yearbooks
- Videos
- Maps
- 7,000 Photographs
- Books: local and California History
- Referrals to other sources
| Yolo, Davis | Yolo Basin Wildlife Area/Yolo Flyway Center  
www.yolobasin.org  
Robin Kulakow, ED  
530-756-7248  
45211 County Road 32B, Davis  
Open: Mon-Fri: 8-4  
robin@yolobasin.org | Own and manages lands in partnership with Dept of Fish and Game  
Education programs for students  
Special events | Water flows in Yolo Bypass  
Wildlife in Yolo Bypass |
| Yolo County | Yolo County Archives  
Meredith Sarmento  
530-666-8010  
226 Buckeye Street, Woodland  
Open Tues: 9-1, Thurs: Noon-4, call for appt  
archives@yolocounty.org |  |  |
| Interested Parties: |  |  |  |
| Deltawide | Jane Wagner-Tyack  
League of Women Voters of San Joaquin County  
(209) 365-1986  
(209) 642-5105 (cell)  
JaneTyack@mac.com |  |  |

Updated July 2015
# Delta Narratives Primary Resources

<p>| Title (The name given to the resource by the CREATOR or PUBLISHER.) | Creator (The person(s) or organization(s) primarily responsible for the intellectual content of the resource; the author.) | Subjects (Use sparingly. If desired, use topic headings specific to this project: Communication/Transportation, Communities, Writing and Visual Arts, and Reclamation/Restoration) | Description | Publisher | Contributor (place or places that this resource can be found) | Date | Format (book, manuscript collection, object) | Identifier (local call number, and/or URL) | Coverage (use sparingly, specific places within the Delta) |
|---|---|---|---|---|---|---|---|---|---|---|
| A Demographic Analysis of the Chinese in San Joaquin County, 1850-1920 | Sylvia Sun Minnick | Communities/Agriculture/Reclamation/Transportation | Thesis on the early Chinese immigrants economic impact on San Joaquin County’s agriculture, reclamation and railroad construction projects. | California State University, Sacramento | Center for Sacramento History | 1983 | thesis | Reports - ETHN MIN | |
| A Selected Social Studies Bibliography on Stockton and San Joaquin County (Stockton: Stockton Unified School District, 1991). | Horace A. Spencer | | The statement of purpose is too modest: “to provide elementary teachers in San Joaquin County with a limited selection of resource material in social studies.” Compiled by leading local historian. | San Joaquin County Historical Museum | | 1991 | book | | | Reference |
| Bava, Benjamin Audio Interview | Bava, Benjamin | | Dewey Chambers interview of Benjamin Bava, a San Joaquin Delta farmer and Italian immigrant. | University of the Pacific, Holt-Atherton Special Collections | | 1982 | manuscript collection (1 folder) | Mss2.B181:BAV.A,BENJAMIN.AUDIO INTERVIEW | |
| Before the flood: Misperception of flood risk in the Sacramento-San Joaquin Delta | Jessica Jennette Ludy | | &quot;The goal of this thesis is to answer that very question, &quot;(how) Do residents living behind levees perceive their risk of flooding?&quot; Through a survey, this research elicited resident’s perceptions and factors influencing their perceptions. The results clearly showed that residents were not aware of the true risks of living behind a levee. This thesis assessed the flood risk perception of one sub-sea-level neighborhood in the Sacramento-San Joaquin River Delta in California, results likely applicable more broadly, recognizing the continued urbanization (and re-urbanization) of flood-prone areas across the country. | University of California, Berkeley | | 2009 | thesis | | |
| Bibliography | Delta Protection Commission | | Bibliography | Delta Protection Commission | | 1994 | | | |
| Bibliography of the San Joaquin Sacramento Delta | Hayes, Hugh and Ruse, Tod | | Bibliography of primary and secondary resources available throughout the region concerning the Delta. Also contains list of potential interview subjects. | University of the Pacific, Holt-Atherton Special Collections | | 1967 | book | Special Collections Reference F 868 S173Z Z99 H 41 | |
| Bill Stritzel Collection | Transportation | | Collection of Sacramento River-Delta travel ephemera and objects, includes items from the California Transportation Company, River Lines, Sacramento Transportation Company, and Southern Pacific Company. | Center for Sacramento History | | 1861-1941 | manuscript collection | | |
| Bob McCabe Collection | Robert McCabe | Communities | Job file of architect Bob McCabe on his historic preservation project - the stabilization of Locke, a Community Development Block Grant. Includes drawings and photographs. | Center for Sacramento History | | 1999-2000 | manuscript collection (1 box) | 2002/015/0497.97 | Locke |</p>
<table>
<thead>
<tr>
<th>Title</th>
<th>Creator(s)</th>
<th>Subjects/ (Use sparingly. If desired, use topic headings specific to this project: Communication/Transportation, Communities, Writing and Visual Arts, and Reclamation/Restoration)</th>
<th>Description</th>
<th>Contributor (place or places that this resource can be found)</th>
<th>Date</th>
<th>Format (book, manuscript collection, object)</th>
<th>Identifier (local call number, and/or URL)</th>
<th>Coverage (use sparingly, specific places within the Delta)</th>
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<tbody>
<tr>
<td>Bradford Samuel Crittenden Papers</td>
<td>Thomas Crittenden and Barbara Crittenden Phillips</td>
<td>Reclamation/Restoration</td>
<td>Crittenden owned several Central Valley farms and chaired the Joint Legislative Committee on State Water Problems.</td>
<td>University of the Pacific, Holt-Allerton Special Collections</td>
<td>1915-1955</td>
<td>manuscript collection</td>
<td><a href="http://www.oac.cdlib.org/findaid/ark:/13030/tf5p30109w">http://www.oac.cdlib.org/findaid/ark:/13030/tf5p30109w</a></td>
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<tr>
<td>Carey McWilliams Papers</td>
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<td>Writing and Visual Arts</td>
<td></td>
<td>UCLA Charles E Young Research Library Special Collections</td>
<td>1894-1982</td>
<td>manuscript collection</td>
<td><a href="http://www.oac.cdlib.org/findaid/ark:/13030/tf77f383">http://www.oac.cdlib.org/findaid/ark:/13030/tf77f383</a></td>
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<tr>
<td>City of Sacramento</td>
<td>Punnett Brothers, San Francisco</td>
<td>Transportation</td>
<td>Chart of the Sacramento and San Joaquin Rivers, showing all Landings to Sacramento and Stockton and Roads Leading to them.</td>
<td>Center for Sacramento History</td>
<td>1901</td>
<td>map</td>
<td>1978/003/0002b</td>
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</tr>
<tr>
<td>City of Sacramento, Harbor Master - Records</td>
<td>City of Sacramento, Harbor Master</td>
<td>Transportation/Trade/Industry</td>
<td>Records of the arrivals and departures of sailing vessels, steamers, and barges at the Port of Sacramento City. Included are levee dues, names of vessels and masters, destination, cargo, and tonnage. Arranged chronologically. Content and format vary, all in bound volumes.</td>
<td>Center for Sacramento History</td>
<td>1851-1902</td>
<td>archival collection (11 volumes)</td>
<td><a href="http://www.oac.cdlib.org/findaid/ark:/13030/tf1252378">http://www.oac.cdlib.org/findaid/ark:/13030/tf1252378</a></td>
<td>Sacramento 1868.513 W3</td>
</tr>
<tr>
<td>Cruising the California Delta</td>
<td>Robert E. Walters</td>
<td>Communication/Transportation</td>
<td></td>
<td>M. Freeman Publications</td>
<td>1972</td>
<td>book</td>
<td>Western Americana F866.513 W3</td>
<td></td>
</tr>
<tr>
<td>Delta West, the land and people of the Sacramento-San Joaquin Delta</td>
<td>Roger Minick</td>
<td></td>
<td></td>
<td>Scrimshaw Press</td>
<td>1970</td>
<td>book</td>
<td>Western Americana TallIF866.5173 M86</td>
<td></td>
</tr>
<tr>
<td>Donald Rivett Collection</td>
<td>Donald Rivett</td>
<td>Communities/Recreation</td>
<td>County, State, and Federal reports, EIRs, and maps of Delta. Includes UC Berkeley thesis, &quot;Medical Needs of the People of the Sacramento Delta Area, 1955&quot; on the development of a mobile medical unit to service the rural area.</td>
<td>Center for Sacramento History</td>
<td>1960s-1970s</td>
<td>manuscript collection (1 box)</td>
<td><a href="http://sacramento.oah">http://sacramento.oah</a> past perfect.org/comm385</td>
<td></td>
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Delta Narratives Primary Resources
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<tr>
<th>Title (The name given to the resource by the CREATOR or PUBLISHER.)</th>
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<th>Subjects (Use sparingly. If desired, use topic headings specific to this project: Communication/Transportation, Communities, Writing and Visual Arts, and Reclamation/Restoration)</th>
<th>Description</th>
<th>Publisher</th>
<th>Contributor (place or places that this resource can be found)</th>
<th>Date</th>
<th>Format (book, manuscript collection, object)</th>
<th>Identifier (local call number, and/or URL)</th>
<th>Coverage (use sparingly. specific places within the Delta)</th>
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<tr>
<td><em>Eleanor McClatchy Collection - Cadwalader Ringgold Chart</em></td>
<td>Cadwalader Ringgold</td>
<td>Transportation</td>
<td>&quot;Chart of the Sacramento River from Suisun City to the American River by Cadwalader Ringgold, 1850. Drawings of the undeveloped Delta waterways.&quot;</td>
<td>Center for Sacramento History</td>
<td>1850</td>
<td>manuscript collection</td>
<td>1982/001/0100</td>
<td></td>
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<tr>
<td><em>Envisioning California's Delta as it was</em></td>
<td>KQED Quest</td>
<td></td>
<td>Photographs of agricultural lands on Palm Tract in Contra Costa County, Wheatland in Yuba County, and other locations in California. Photos illustrate land reclamation and agricultural practices in the Delta.</td>
<td>University of the Pacific, Holt-Atherton Special Collections</td>
<td>1905-1915</td>
<td>manuscript collection (25 feet)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Ephraim Dyer Photograph Album</em></td>
<td>Dyer, Ephraim</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td><em>Feasibility Study for a Sacramento-San Joaquin Delta National Heritage Area</em></td>
<td>Delta Protection Commission</td>
<td></td>
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<td>Delta Protection Commission</td>
<td>2012</td>
<td>report</td>
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<td><em>Flood Chronologies and Aftermaths Affecting the Lower Sacramento River, 1878-1909</em></td>
<td>John Thompson</td>
<td>Reclamation/Flooding</td>
<td></td>
<td>Center for Sacramento History</td>
<td>1930</td>
<td>report</td>
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<tr>
<td><em>Hal Schell's guide to cruising California's delta : the delta dawdler's dream tour of this fabulous 1,000-mile waterway</em></td>
<td>Schell, Hal</td>
<td>Transportation</td>
<td>Scrapbooks of articles by and about noted travel adventurer and writer and Stockton native, Harriet Chalmers Adams (1875-1937)</td>
<td>Schell Books</td>
<td>1995</td>
<td>book</td>
<td>Tall F668 .S173 S33 1995</td>
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<td><em>Harriet Chalmers Adams Scrapbooks</em></td>
<td>Adams, Harriet Chalmers</td>
<td></td>
<td></td>
<td>San Joaquin County Historical Museum</td>
<td>ca. 1890-1937</td>
<td>book (six volumes)</td>
<td>Ms 86</td>
<td></td>
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<tr>
<td><em>Harry Alley Collection, 1930-1985</em></td>
<td>Alley, Harry Edward</td>
<td>Communities</td>
<td>Rio Vista municipal newsletters, Rio Vista Superintendent of Schools Newsletters, Letters to the Editor, and various other speeches, writings (fiction and non-fiction), biographical material, and school material.</td>
<td>University of the Pacific, Holt-Atherton Special Collections</td>
<td>1930-1985</td>
<td>manuscript collection (1 foot)</td>
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<tr>
<td><em>History of San Joaquin County, California, with Biographical Sketches (Los Angeles: Historic Record Company, 1923)</em></td>
<td>George H. Tinkham</td>
<td></td>
<td>History of San Joaquin County with biographies of notable contemporaries.</td>
<td>San Joaquin County Historical Museum</td>
<td>1923</td>
<td>book</td>
<td>Reference</td>
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**Delta Narratives Primary Resources**
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<th>Date</th>
<th>Format</th>
<th>Identifier</th>
<th>Coverage (use sparingly, specific places within the Delta)</th>
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<tr>
<td>History of San Joaquin County, California. With illustrations</td>
<td>Early history of San Joaquin County. Includes lithographs of buildings, farms, and landscapes.</td>
<td>San Joaquin County Historical Museum</td>
<td>1879</td>
<td>book</td>
<td>Reference</td>
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<tr>
<td>Illustrated History of San Joaquin County, California (Chicago: Lewis, 1890)</td>
<td>10 images of USGS employees at work along the Sacramento River and Delta.</td>
<td>Center for Sacramento History</td>
<td>1905-1906</td>
<td>photographs</td>
<td>2006/028/108 - 2006/028/118</td>
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<tr>
<td>Isleton Chinese and Japanese Commercial Districts</td>
<td>One 12&quot; by 7&quot; album of photographs and inscribed notes from students of the Isleton Union Grammar School or the Isleton Oriental School to their teacher, Margaret Neumann. The album contains 78 black and white 2 3/4&quot; by 4 1/2&quot; photographs; the images show the students of Chinese and Japanese descent in poses on the school grounds. Three color photographs of an Isleton Reunion, August 4, 1984. One commencement program of the Isleton Union Grammar School; June 6, 1935. Four page list of students taught by Margaret Neumann at the Isleton Union Grammar School and the Isleton Oriental School from 1928 to 1935.</td>
<td>National Parks Service</td>
<td>1935</td>
<td>manuscript collection</td>
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<td>Isleton</td>
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<td>Japanese Alien Land Law Investigation Records</td>
<td>The collection consists of materials related to 19 investigations into Japanese-owned properties and escheat cases that resulted from them. These materials are primarily court documents, evidence, records, and materials gathered during investigations.</td>
<td>University of the Pacific, Holt-Atherton Special Collections</td>
<td>1912-1948</td>
<td>manuscript collection</td>
<td>MSS323</td>
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<td>Locke Historic District</td>
<td>John Zuckerman is an agribusinessman in the Delta. In 1955 the Israeli government invited Zuckerman to advise on a project to reclaim the Huleh Marsh.</td>
<td>University of the Pacific, Holt-Atherton Special Collections</td>
<td>1948-1989</td>
<td>manuscript collection</td>
<td>MSS 214</td>
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<tr>
<td>Locke Historic District</td>
<td>National Parks Service</td>
<td>National Parks Service</td>
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## Delta Narratives Primary Resources

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<th>Format</th>
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<th>Coverage</th>
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<tr>
<td>Locke-Hammond Family Papers</td>
<td>Marcella Thorp Emerick, Kay Thorp and Nancy Hammond</td>
<td>Communities, Communication/Transportation</td>
<td>Family papers, including Delia Locke's Diary from 1895-1922</td>
<td>California State University, Sacramento</td>
<td>University of the Pacific, Holt-Atherton Special Collections</td>
<td>1831-1925</td>
<td>manuscript collection</td>
<td><a href="http://www.oac.cdlib.org/ark:/13030/tf2q2">http://www.oac.cdlib.org/ark:/13030/tf2q2</a></td>
<td>Lockeford</td>
</tr>
<tr>
<td>Maps of the San Joaquin Sacramento Delta</td>
<td></td>
<td></td>
<td>The Delta's environmental, hydrological, agricultural, recreational, historical, and political story is illustrated in these cartographically rich representations of the region.</td>
<td>University of the Pacific, Holt-Atherton Special Collections</td>
<td>University of the Pacific, Holt-Atherton Special Collections</td>
<td>1848-c1980</td>
<td>website</td>
<td><a href="http://digitalcollections.pacific.edu/interlibrarycollections/collection/locke">http://digitalcollections.pacific.edu/interlibrarycollections/collection/locke</a></td>
<td>Stockton and Delta areas</td>
</tr>
<tr>
<td>Maxine Hong Kingston Papers</td>
<td>Maxine Hong Kingston</td>
<td>Writing and Visual Arts</td>
<td>Papers contain typescripts, proofs and galleys, announcements, reviews, and related material for Kingston's books, The Woman Warrior and China Men, as well as other material related to her writing.</td>
<td>The Bancroft Library, University of California, Berkeley</td>
<td>The Bancroft Library, University of California, Berkeley</td>
<td>1952-1999</td>
<td>manuscript collection</td>
<td><a href="http://www.oac.cdlib.org/ark:/13030/tf2x9">http://www.oac.cdlib.org/ark:/13030/tf2x9</a></td>
<td>Sacramento</td>
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<tr>
<td>N.M. Alling Iron Works and Sacramento Delta recreation home movies</td>
<td></td>
<td>Recreation/Industry</td>
<td>These silent, color homemovies show the N.M. Alling Iron Works ship building in West Sacramento; Sacramento River and Delta boating, water skiing, duck hunting, and other recreation scenes.</td>
<td>Center for Sacramento History</td>
<td>Center for Sacramento History</td>
<td>1940-1966</td>
<td>moving-image collection</td>
<td><a href="https://archive.org/details/sacramentostory">https://archive.org/details/sacramentostory</a></td>
<td>West Sacramento</td>
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<tr>
<td>Orlo Hayes Interviews</td>
<td>Orlo Hayes</td>
<td>Agriculture</td>
<td>Orlo Hayes began the family business of growing mint in the San Joaquin Delta Region (1926).</td>
<td>University of the Pacific, Holt-Atherton Special Collections</td>
<td>University of the Pacific, Holt-Atherton Special Collections</td>
<td>1978, 1983</td>
<td>manuscript collection (1 folder)</td>
<td><a href="http://digitalcollections.pacific.edu/interlibrarycollections/collection/deltascript">http://digitalcollections.pacific.edu/interlibrarycollections/collection/deltascript</a></td>
<td>Stockton, principally</td>
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<tr>
<td>Pearl Shaffer Sweet Collection</td>
<td>Pearl Shaffer Sweet</td>
<td>Communities</td>
<td>Sweet maintained scrapbooks on various ethnic minorities in Stockton and Delta areas.</td>
<td>University of the Pacific, Holt-Atherton Special Collections</td>
<td>University of the Pacific, Holt-Atherton Special Collections</td>
<td>1929-1980</td>
<td>collection</td>
<td>MSS252</td>
<td>Stockton</td>
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<tr>
<td>Photographs of Delta</td>
<td></td>
<td>photographs of rivers, floods, levees in the delta</td>
<td></td>
<td>University of the Pacific, Holt-Atherton Special Collections</td>
<td>University of the Pacific, Holt-Atherton Special Collections</td>
<td>1888, 1894</td>
<td>book</td>
<td>F 851 M95</td>
<td>San Joaquin River Delta - Floods, San Joaquin River Delta - Views,</td>
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<tr>
<td>Picturesque California and the Region West of the Rocky Mountains, from Alaska to Mexico</td>
<td>John Muir editor</td>
<td>chapters on the Delta &quot;The Tule Region&quot;</td>
<td>Describes relations between Whites, Chinese, East Indians, Filipinos, Japanese, and Mexicans, as they relate to agriculture. Also discusses specialty crops, as well as local physical geography, farming practices, and economic conditions behind development of specialty crop economy.</td>
<td>University of the Pacific, Holt-Atherton Special Collections</td>
<td>San Joaquin County Historical Museum</td>
<td>1992</td>
<td>book</td>
<td>Reference</td>
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# Delta Narratives Primary Resources

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<th>Subjects (Use sparingly. If desired, use topic headings specific to this project: Communication/Transportation, Communities, Writing and Visual Arts, and Reclamation/Restoration)</th>
<th>Description</th>
<th>Contributor (place or places that this resource can be found)</th>
<th>Date</th>
<th>Format (book, manuscript collection, object)</th>
<th>Identifier (local call number, and/or URL)</th>
<th>Coverage (use sparingly. specific places within the Delta)</th>
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<tr>
<td>Sacramento Bee, Photo Morgue</td>
<td>Sacramento Bee</td>
<td>Transportation</td>
<td>Sacramento Bee</td>
<td>c.1955-2000</td>
<td>photographs</td>
<td>1983/001/SBPM</td>
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<td>Sacramento Bee, Photo Morgue</td>
<td>Sacramento Bee</td>
<td>Communities</td>
<td>Sacramento Bee</td>
<td>c.1955-2000</td>
<td>photographs</td>
<td>1983/001/SBPM</td>
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<td>Sacramento Bee, Photographers Collection</td>
<td>Sacramento Bee staff photographers</td>
<td>Communities/Reclamation/Flooding</td>
<td>Sacramento Bee</td>
<td>c.1955-2000</td>
<td>manuscript collection</td>
<td>1983/001</td>
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<tr>
<td>Sacramento County, Assessor - Assessment Rolls, Map Books, and Indexes</td>
<td>Sacramento County, Assessor</td>
<td>Reclamation</td>
<td>Sacramento County History</td>
<td>1850-1969</td>
<td>archival collection (482 volumes)</td>
<td><a href="http://www.oac.cdlib.org/findaid/ark:/13030/tf3w110524n9sdp0m69t4/">http://www.oac.cdlib.org/findaid/ark:/13030/tf3w110524n9sdp0m69t4/</a></td>
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<td>Sacramento County, Cooperative Agricultural Extension - Administrative Records</td>
<td>Sacramento County, Cooperative Agricultural Extension</td>
<td>Agriculture</td>
<td>Records of crop trials; weekly/monthly/yearly reports of advisors work; department yearly reports; and student term papers. The material documents the efforts of the Coop to support and educate the county's agricultural industry and 4-H clubs; work done in conjunction with UC Davis.</td>
<td>Center for Sacramento History</td>
<td>1918-1975</td>
<td>archival collection (13 boxes)</td>
<td>1979/041 LOC: 23:26-27</td>
<td>Hood, Walnut Grove, Isleton</td>
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<tr>
<td>Sacramento County, Parks and Recreation Department - Commission and Committee Records</td>
<td>Sacramento County, Parks and Recreation Department</td>
<td>Recreation</td>
<td>Records of the County Recreation and Park Commission and advisory committees. Individual files of committees generally contain budgets, correspondence, magazines, minutes, purchase orders, requisitions, and sport fishing regulations. Individual files of the Commission contain agendas and minutes of meetings and packets of papers presented to the Commission. Special reports which are included are: &quot;A Proposal for Flood Control and Recreational Development in the Sacramento-San Joaquin Delta,&quot; May 2, 1966 (22:2) and &quot;Sacramento River Parkway Plan&quot; (27:4). Committee files (18:1-21:3) are arranged alphabetically by name of committee; Commission files (21:4-33:4) are in rough chronological order by date of commission meeting. Includes correspondence about the Delta Master Recreation Plan Inter-County Study Committee and Fish &amp; Game Committee.</td>
<td>Center for Sacramento History</td>
<td>1956-1977</td>
<td>archival collection (34 boxes)</td>
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<td>Sacramento County, Surveyor - Swamp and Overflowed Lands Surveys</td>
<td>Sacramento County, Surveyor</td>
<td>Reclamation</td>
<td>Registers of surveys of swamplands. Information recorded includes survey number, property description, name of person requesting the survey, surveyor's field notes, and signature of surveying official. Arranged in bound volumes by survey number. Index bound into each volume.</td>
<td>Center for Sacramento History</td>
<td>1850-1907</td>
<td>archival collection (5 volumes)</td>
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<td>Sacramento County, Transportation Department - Bridge Tenders Diaries</td>
<td>Sacramento County, Transportation Department</td>
<td>Transportation</td>
<td>Diaries document when bascule and swing-span draw bridges were opened to traffic on the waterways and include Freeport, Georgiana Slough, Isleton, Paintersville, Scondgrass Slough, Steamboat Slough, Three-mile Slough, and Walnut Grove bridges.</td>
<td>Center for Sacramento History</td>
<td>1927-1962</td>
<td>archival collection (11 boxes)</td>
<td>2002/044</td>
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<td>Sacramento County, Transportation Department - County Engineer's Files</td>
<td>Sacramento County, Transportation Department</td>
<td>Transportation</td>
<td>Project files, contracts, and bonds for bridge and road construction. Also petitions to create Road Districts .</td>
<td>Center for Sacramento History</td>
<td>1917-1950</td>
<td>archival collection</td>
<td>2002/097</td>
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<td>Sacramento County, Transportation Department - District Records</td>
<td>Sacramento County, Transportation Department</td>
<td>Reclamation/Transportation</td>
<td>Swampland Survey District and Road District board minutes and surveys.</td>
<td>Center for Sacramento History</td>
<td>1856-1890</td>
<td>archival collection</td>
<td>2003/018</td>
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<td>Sacramento County, Transportation Department - J.C. Boyd Surveyor Records</td>
<td>Sacramento County, Transportation Department</td>
<td>Reclamation</td>
<td>Field note books and maps from surveys conducted throughout the county.</td>
<td>Center for Sacramento History</td>
<td>c.1890-1947</td>
<td>archival collection</td>
<td>2003/018</td>
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<td>Sacramento County, Transportation Department - Specifications and Contracts</td>
<td>Sacramento County, Transportation Department</td>
<td>Transportation</td>
<td>Contracts for road, ferry, and bridge projects.</td>
<td>Center for Sacramento History</td>
<td>1920-1934</td>
<td>archival collection</td>
<td>2002/021</td>
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<tr>
<td>Sacramento San Joaquin Delta atlas</td>
<td>California Dept. of Water Resources</td>
<td></td>
<td>The Sacramento Southern Railroad was born into a famous railroad family and a busy railroad town in July 1903. The mighty Southern Pacific, which controlled the new line from the outset, built south from Sacramento along the eastern bank of the Sacramento River into the delta’s rich farmland area. At its zenith, the line was about 31 miles long, serving the communities of Freeport, Hood, Locke, Walnut Grove, and Isleton. Trains on what became known as the Walnut Grove Branch hauled pears, sugar beets, asparagus and other products from the agricultural region’s packing sheds and canneries. Competition from trucking and damage from flooding took a severe toll on the railroad, and the Southern Pacific largely abandoned it by 1978, but a portion lives on as a labor of love.</td>
<td>Arcadia Publishing</td>
<td>Center for Sacramento History</td>
<td>2009</td>
<td>book</td>
<td>385.097945 H4 Freeport, Hood, Locke, Walnut Grove, Isleton</td>
</tr>
<tr>
<td>Sacramento-San Joaquin Delta Historical Ecology Study</td>
<td>San Francisco Estuary Institute</td>
<td>Transportation/Communities</td>
<td>Forty-one bound volumes of assessment maps, each marked with surveyor’s coordinates. Data in each volume include property boundaries, names of owners, significant landmarks, and assessed value of real property.</td>
<td>San Francisco Estuary Institute</td>
<td>2012</td>
<td>website</td>
<td>G1527.D45 C3 1993 <a href="http://baydeltaoffice.water.ca.gov/DeltaAtlas/index.cfm">http://baydeltaoffice.water.ca.gov/DeltaAtlas/index.cfm</a></td>
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<td>San Joaquin County Assessors' Plat Books</td>
<td>San Joaquin County Assessor</td>
<td></td>
<td>Collection includes information on the vehicles, routes, history, and costs of the ferry system operated by San Joaquin County for the waterways and islands of the previous hit Delta next hit region.</td>
<td>San Joaquin County Historical Museum</td>
<td>1876-1919</td>
<td>bound maps (41 volumes)</td>
<td>GovRec3 Mss2.S154 SAN JOAQUIN COUNTY FERRY SYSTEM <a href="http://www.oac.cdlib.org/findaid/ark:/13030/tf3199n95w/">http://www.oac.cdlib.org/findaid/ark:/13030/tf3199n95w/</a></td>
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<td>San Joaquin County Ferry System</td>
<td>San Joaquin County, California Highway Department</td>
<td>Transportation</td>
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<td>University of the Pacific, Holt-Atherton Special Collections</td>
<td>1954-1956</td>
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<td>Description</td>
<td>Contributor</td>
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<td>San Joaquin County Swamp and Reclamation District Maps and Drawings</td>
<td>San Joaquin County</td>
<td>Reclamation</td>
<td>Maps and drawings related to San Joaquin County reclamation districts</td>
<td>San Joaquin County Historical Museum</td>
<td>1862-1980</td>
<td>images</td>
<td>GovRec4</td>
<td>The San Joaquin Delta collection contains 97 photographic prints taken primarily by Charles A. Bishop circa 1904-1907 documenting various aspects of the reclamation, irrigation, and cultivation processes undertaken in the Middle River area of the San Joaquin Valley. Activities featured in the collection include dredging, pumping, transport by barge of freight and heavy field machinery, field cultivation and harvesting. The collection includes photographs of the Santa Fe Railroad depot area of Middle River; various waterways, canals, marshlands and fields of the vicinity; local residences; immigrant farm laborers; and samples of the yield from the farms. Also included are two photographs of Charles A. Bishop and a reproduction of a magazine article extolling the successes of the land reclamation efforts in the San Joaquin Valley.</td>
</tr>
<tr>
<td>San Joaquin Delta Land Reclamation Photographs</td>
<td>Charles A. Bishop</td>
<td>Reclamation</td>
<td>The San Joaquin Delta collection contains 97 photographic prints taken primarily by Charles A. Bishop circa 1904-1907 documenting various aspects of the reclamation, irrigation, and cultivation processes undertaken in the Middle River area of the San Joaquin Valley.</td>
<td>Bancroft Library; UC Berkeley</td>
<td>1904-1907</td>
<td>photographs</td>
<td><a href="http://www.oac.cdlib.org/findaid/ark:/13030/tf2199n8c6/">http://www.oac.cdlib.org/findaid/ark:/13030/tf2199n8c6/</a></td>
<td>The San Joaquin Delta collection contains 97 photographic prints taken primarily by Charles A. Bishop circa 1904-1907 documenting various aspects of the reclamation, irrigation, and cultivation processes undertaken in the Middle River area of the San Joaquin Valley. Activities featured in the collection include dredging, pumping, transport by barge of freight and heavy field machinery, field cultivation and harvesting. The collection includes photographs of the Santa Fe Railroad depot area of Middle River; various waterways, canals, marshlands and fields of the vicinity; local residences; immigrant farm laborers; and samples of the yield from the farms. Also included are two photographs of Charles A. Bishop and a reproduction of a magazine article extolling the successes of the land reclamation efforts in the San Joaquin Valley.</td>
</tr>
<tr>
<td>The Settlement Geography of the Sacramento-San Joaquin Delta, California</td>
<td>Thompson, John</td>
<td></td>
<td>Stanford University</td>
<td>UC Davis; San Joaquin County Historical Museum</td>
<td>1957</td>
<td>Dissertation</td>
<td><a href="https://watershed.ucdavis.edu/bonhampton">https://watershed.ucdavis.edu/bonhampton</a>; dissertations%20smart.pdf</td>
<td>The Settlement Geography of the Sacramento-San Joaquin Delta, California contains information about the history and development of the California Delta and its use in the Delta, Central Valley, and San Francisco Bay. Lots of great photographs.</td>
</tr>
<tr>
<td>Title (The name given to the resource by the CREATOR or PUBLISHER.)</td>
<td>Creator (The person(s) or organization(s) primarily responsible for the intellectual content of the resource; the author.)</td>
<td>Subjects (Use sparingly. If desired, use topic headings specific to this project: Communication/Transportation, Communities, Writing and Visual Arts, and Reclamation/Restoration)</td>
<td>Description</td>
<td>Publisher</td>
<td>Contributor (place or places that this resource can be found)</td>
<td>Date</td>
<td>Format (book, manuscript collection, object)</td>
<td>Identifier (local call number, and/or URL)</td>
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<tr>
<td>University of California Agricultural Cooperative Extension, San Joaquin County, Collection</td>
<td>U.C. Cooperative Exetension</td>
<td></td>
<td>Documentation of various kinds—administrative reports, project descriptions, published research, and photographs—that offer insights into agriculture in San Joaquin County during the first half of the twentieth century.</td>
<td>San Joaquin County Historical Museum</td>
<td>1914-1994 (bulk 1914-1952)</td>
<td>manuscript collection (11.3 linear feet)</td>
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<td>Verna Johnston Collection</td>
<td>Johnston, Verna</td>
<td>Writing and Visual Arts</td>
<td>Verna Johnston's papers contain her notes, writings, clippings, correspondence and photographs pertaining to California</td>
<td>University of the Pacific, Holt-Atherton Special Collections</td>
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<td>manuscript and photograph collection (39 feet)</td>
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<td>Walnut Grove Chinese Historic District</td>
<td>National Parks Service</td>
<td>Communities</td>
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<td>Walnut Grove Japanese-American Historic District</td>
<td>National Parks Service</td>
<td>Communities</td>
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<td>National Parks Service</td>
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<td>Water: Our History and Our Future</td>
<td>Sacramento County Historical Society</td>
<td>Communities/Reclamation/Flooding/Transportation/Agriculture</td>
<td>Issue of Sacramento History journal focusing on water issues in the county, notably reclamation, agriculture, and flooding. MOST IMAGES FROM THE CENTER’S COLLECTIONS.</td>
<td>Sacramento County Historical Society</td>
<td>Center for Sacramento History</td>
<td>2006</td>
<td>journal</td>
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<td>Wind Chimes In My Apple Tree</td>
<td>Josiphine B. Korth</td>
<td>Communities</td>
<td>A memoir of a Portuguese family from the Azores and their history in the Sacramento River Delta area.</td>
<td>Portuguese Historical and Cultural Society</td>
<td>Center for Sacramento History</td>
<td>1978</td>
<td>book</td>
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<td>San Joaquin Historian</td>
<td></td>
<td></td>
<td>History articles about San Joaquin County</td>
<td>San Joaquin County Historical Society and Museum</td>
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