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# **Manipulations and Transformations: Orange County's Evolution Through Water**

## **Practices**

By  
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## **Introduction**

Water is possibly the most valuable resource on Earth. It is crucial for human existence and the formation of societies throughout history. Very little life can thrive in areas without water; thus, the presence of vast societies in historically dry and arid locations, such as Southern California, is rather surprising. Today, Southern California is home to millions of people yet, given the yearly rainfall and the lack of natural water sources, this metropolis theoretically should not exist. Despite this, the area is one of the most populated regions on Earth. Southern California is able to maintain its existence through the exploitation of its natural waterways and the major efforts made to import water from other larger sources. However, not all of Southern California lacked a natural water source.

For centuries, the Santa Ana River had been supporting life including an indigenous population, in the region which would eventually become Orange County. Over time, this area underwent several drastic changes, all linked to one key factor—water. In this historical essay, I argue that changes in the philosophies surrounding water and how its management played a crucial role in the multiple transformations within Orange County. In order to achieve this, I provide an analysis of three major developments in the ideology surrounding water, as well as the consequential social and economic impact each development had on the continuously growing society. This includes an exploration of the ties between irrigation communities and the

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<sup>1</sup> The author, being also an editor, recused himself from the editing process regarding this article. It received no special treatment and was required to conform to all standard requirements.

ranchero system, the privatization of water's relationship with an agrarian economy, and the limiting effect of flood control on a growing suburban population.

### **Origins and Early Orange County**

Prior to the Spanish settlement of California, the land was completely controlled by the numerous indigenous tribes residing in the area. These tribes were very cautious in how they manipulated the environment. This often required them to live a nomadic lifestyle which forbade agricultural practices and the development of irrigation.<sup>2</sup> A key necessity for the survival of these nomadic communities was access to water, which was demonstrated by their tendency to travel along water sources. The harmony forged between indigenous societies and nature was disrupted once the Spanish began to take power in 1769. Gaspar de Portola, a Spanish colonist, led an expedition, which began in present-day San Diego and continued up the coast. In this expedition, he and his men established various settlements, including missions, throughout the state.<sup>3</sup> Similar to the indigenous tribes, every Spanish settlement was established along water sources, especially in Southern California's desert-like conditions. Changes in the power dynamics of the region brought about significant shifts in the ideology surrounding water and its use.

The Spanish adopted a philosophy around water which differed from their indigenous societies predecessors. These settlers imported their beliefs of water rights directly from Spanish society and implemented them on their new surroundings. They formed irrigation communities, with water rights falling solely on the monarch, who granted everyone fair and just amounts of water.<sup>4</sup> This marked a major shift in the history of Southern California, as this new system of water rights allowed for the growth in settlements and the sustainment of a growing sedentary

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<sup>2</sup> Norris Hundley, *The Great Thirst: Californians and Water, 1770s-1990s* (Berkeley: University of California Press, 1992), 3.

<sup>3</sup> Hundley, *The Great Thirst*, 30.

<sup>4</sup> Hundley, *The Great Thirst*, 28.

population. For the first time, water was manipulated in a way that disrupted its natural course to directly benefit the survival of man-made societies. The mission system was a direct product of this shift because water was channeled to these sites and used for various practices, including the introduction of agriculture.<sup>5</sup> Over time, the population continued to grow, and larger settlements, such as the City of Los Angeles, were established. However, water sources in this region remained limited and finite, which placed a limit on the amount of development and agriculture that was achieved.

Settlements continued to be fixed to these water sources for years. In the 1800s, construction of the adobe mansions small labor hamlets, and even the San Juan Capistrano Mission remained tied to the creeks of the region and the Santa Ana River banks.<sup>6</sup> The Santa Ana River was the only major water source in the region, which became Orange County. This river originates from the snowmelt in the San Bernardino mountain range, flows through Riverside County, into Orange County, and ultimately ends at the Pacific Ocean.<sup>7</sup> Landowners throughout the area had control over vast stretches of terrain and practiced small scale forms of irrigation. The economy of early Orange County was locally based and self-sufficient due to the rise in the *ranchero* system. This system consisted of individuals or families owning enough land to satisfy their own agricultural needs, as well as forming small communities with skilled tradesmen.<sup>8</sup> Because the Spanish had introduced a new ideology of the use of water, landowners were able to physically manipulate the course of these natural waterways through minor forms of irrigation.

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<sup>5</sup> Colegio Apostólico de Propoganda Fide de San Fernando, *Account of the Discoveries Made From 1769 to 1776*, Manuscript, from UCLA, Clark Memorial Library, 15.

<sup>6</sup> Gilbert G. Gonzalez, *Labor and Community: Mexican Citrus Worker Villages in a Southern California County, 1900-1950* (Chicago: University of Illinois Press, 1994), 43.

<sup>7</sup> Division of Engineering and Irrigation of California, *Santa Ana Investigation. Flood Control and Conservation, Map 12*, Map, Santa Ana Valley: California State Printing Office, 1928. From Honnold Mudd Library, Special Collections.

<sup>8</sup> Gonzalez, *Labor and Community*, 44.

The rancharo system thrived under the Mexican government, which took power after the Mexican War of Independence, and continued after California was surrendered to the United States in 1848. During this time, the economy flourished due to the rise of one defining factor—cattle.

The rancharo system lent itself to the development of a cattle industry to support the local economy. Cows were introduced to the region by the Spanish, and the rancheros used their land to raise them alongside their farms. An 1889 report found there to be a total of 39,800 cattle in Los Angeles County, which at the time included Orange County and stretched all the way across the San Fernando Valley.<sup>9</sup> The cattle industry was crucial to the economy of Southern California and warranted thousands of articles printed in newspapers throughout the late nineteenth century. Once Orange County was officially established in 1889, its economy was almost completely cattle dependent because of the rancharo system. By 1910, there were over 18,220 cattle solely on ranches in Orange County.<sup>10</sup> This made the region one of the most profitable in Southern California relative to its size. However, the domination of the cattle industry came to an end soon after, and the number of cattle ranches throughout the county began to diminish. The rancharo system started to slowly erode away at the turn of the century, as the spread of irrigation completely changed the landscape and economy of Orange County.

### **The Spread of Irrigation and Rise of Agriculture**

By the time Orange County was officially separated from Los Angeles County, the philosophy of water rights had already begun to change from Spanish irrigation communities. Once the United States took control of California, water laws and rights became more privatized

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<sup>9</sup> “Statistics of the County,” *Los Angeles Star* (Los Angeles, CA), Mar. 17, 1860.

<sup>10</sup> United States Department of Agriculture, 1910 Census: Reports by States, generated by E. Dana Durand, from Census of Agriculture Historical Archive.

and capitalistic due to the implementation of riparian and prior appropriation rights. These rights gave individuals possession over water sources based on land ownership and were intertwined with the belief that land needed to be worked to be beneficial and reach its maximum potential. Conflicts continuously occurred between right holders and were only further intensified as the state of California actively honored both forms of water rights. As a solution to this issue, irrigation districts were formed to assist in water management and handle the selling of water.<sup>11</sup> These districts took charge of the water from the Santa Ana River, along with other local water sources, and worked alongside landowners for the promotion of agriculture throughout the county. Even though these irrigation districts relieved the tension between landowners, there were then disputes that developed between rival districts that were situated upstream from each other. For example, there were two water companies, the Serrano and John T. Carpenter Water Companies, which both laid claim to Santiago Creek in Orange, CA.<sup>12</sup> Nonetheless, this version of water management became the norm in Orange County and led to drastic changes.

The late nineteenth and early twentieth centuries also brought in the decline of the rancho system and changes in land ownership. As the population of Orange County continued to increase, the land was slowly consolidated under the control of fewer individuals. Ranches became larger as owners continued to acquire more land and eventually the entire county was divided among ten major ranches.<sup>13</sup> As time went on, wealthy individuals from Los Angeles County moved in and bought large stretches of family-owned ranches, particularly land with an abundant water supply.<sup>14</sup> They came in with new ideas on how the land should be managed and

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<sup>11</sup> "(Orange County) Irrigation Company Directors' Meeting," *Los Angeles Herald* (Los Angeles, CA), Jul. 3, 1901.

<sup>12</sup> "Orange County," *Los Angeles Herald* (Los Angeles, CA), Sept. 15, 1893.

<sup>13</sup> S. H. Finley, *Map of Orange County, California*, Map, (San Francisco: H.S. Crocker & Co., 1889), from Library of Congress.

<sup>14</sup> "Bought 500 Acres in Orange County," *Los Angeles Herald* (Los Angeles, CA), Jan. 9, 1910.

were strong advocates for irrigation and agriculture. Influenced by the newcomers, owners slowly transformed their cattle ranches into large scale agricultural fields. A massive irrigation system was constructed across the entire county in order to provide the required infrastructure to produce an agrarian society.<sup>15</sup> However, early efforts in agriculture were not substantially profitable, as the rather warm and dry climate did not lend itself well to their crops. A series of boom and bust seasons marked the beginning of this agricultural era until a new crop came in and redefined the region.

During the late 1800s, a new crop was implemented on farms in the hope to replace the failing vineyards and nut trees. Orange trees were first planted in the 1880s and produced only two carloads worth of fruit a year, yet by the 1920s, they were the backbone of the county's booming economy.<sup>16</sup> Many crops did not do well in this region and after landowners reassessed the potential which oranges had, they shifted to citrus orchards. By 1910, there were 478,272 orange trees throughout Orange County, however that paled in comparison to the over 2,837,581 fruit bearing orange trees in 1925.<sup>17</sup> In a matter of fifteen years, Orange County farmers had increased the number of orange trees by over 593% and made it the most profitable crop in its history.

Orange County lived up to its namesake and became the largest producer of oranges in the entire United States, with orange groves continuing to expand throughout the county well into the 1940s. This citrus boom was due to the heightened importance placed on irrigation and allowed for this land to be suitable for growing oranges. At its peak in 1950, there were 5,354,880 trees which produced a total of 17,349, 927 field boxes of oranges, which gave the

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<sup>15</sup> Division of Engineering and Irrigation of California, *Santa Ana Investigation, Map 12*.

<sup>16</sup> Gonzalez, *Labor and Community*, 20.

<sup>17</sup> United States Department of Agriculture, 1925 Census, generated by E. Dana Durand, from Census of Agriculture Historical Archive.

impression that oranges would remain a central part of the local economy for years to come.<sup>18</sup> However, that was not the case and citrus production underwent a decline just as quickly as it rose. Orange County's agrarian economy became threatened by major changes in water management and was replaced relatively quickly.

### **Prado Dam and the Beginnings of Suburbanization**

Similar to the previous transformation that occurred in the Orange County region, water management and manipulation played a vital role in the decline of agriculture and the ultimate development of suburbs throughout the county. With long-term communities dependent on water, it is not surprising that most settlements were constructed near the few natural water sources. The major risk of waterside constructions is flooding. During years of heavy rainfall, flash flooding and overflowing rivers posed a major threat in Southern California, thus making flood plans necessary to minimize potential damage. Los Angeles County experienced several floods by the 1930s, including the devastating Crescentia Valley Flood in 1934, which caused major damage and killed over 39 people.<sup>19</sup> These events prompted Orange County to create a flood plan and construct the proper infrastructure to protect citizens from a major flood occurrence.

After major assessments, Orange County formulated a flood control plan which included the construction of a dam across the Santa Ana River. Prado Dam was proposed in 1935; it consisted of a 2,100-foot dam across the river with the main objective to regulate water flow, replenish its basin, and eliminate the danger of potential flooding<sup>20</sup> This plan proved ambitious, with the construction of the dam not universally accepted and facing much criticism.

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<sup>18</sup> United States Department of Agriculture, 1950 Census, from Census of Agriculture Historical Archive.

<sup>19</sup> "Federal Funds for Flood Aid," *Madera Tribune* (Madera, CA), Jan. 6, 1934.

<sup>20</sup> "2,100-Foot Prado Dam Planned by Orange County in Search of Water," *San Bernardino Sun* (San Bernardino, CA), Jun. 13, 1935.



Alongside the criticism, the plan also required that officials worked closely with Riverside County, as the proposed location of the dam did not fall within the borders of Orange County. The Prado basin was located in an area just before the Santa Ana River entered Orange County, and Riverside County was very hesitant to move forward with the dam's construction. Prado was also the location of a town, which made the possibility of submerging the basin and the displacement of people one of the largest criticisms of the project.<sup>21</sup> Apart from location, the proposal was also criticized for its cost and lack of necessity, which led to questions regarding Orange County's motives to construct the dam.

Riverside County remained unsure of the project for quite some time, out of fear that the water collected at the dam would be used to reap a major profit. In order to prevent Orange County from profiting from the dam, Riverside and San Bernardino Counties proposed taxes on the reservoir created; however, Justice Emerson J. Marks struck down this proposition in a lawsuit between Laguna Beach and Orange County. In this decision, the judge claimed that water districts and counties cannot be taxed for water which was used to perform a state function, specifically for flood control.<sup>22</sup> Because the proposal for the Prado Dam outlined that a major function of the dam was for flood protection, Riverside and San Bernardino counties would no longer be able to place taxes on the water supply in the reservoir. Riverside eventually refused to comply with the dam unless Orange County could ensure that no major economic gain would be pursued. Ultimately, Orange County agreed to revise its plan and ensured the dam would solely be used for water control and flood prevention, and not any economic gain.<sup>23</sup> This resolved criticism over the motives behind the project.

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<sup>21</sup> "Prado Dam Lake Will Submerge Townsite," *Desert Sun* (Palm Springs, CA), Sept. 30, 1938.

<sup>22</sup> *Laguna Beach Water District v. County of Orange*, 30 Cal.App.2d, 740, 1939.

<sup>23</sup> "For Flood Control," *Desert Sun* (Palm Springs, CA), Jul. 28, 1939.

The necessity of the project became clear in 1938 when a massive flood of the Santa Ana River caused major damage across Orange County. The flood occurred at the beginning of March and photographs from the event demonstrate that acres of farmland and residential areas were completely submerged.<sup>24</sup> The flood created mass destruction county-wide, and drastically impacted these communities. An estimated 200 casualties were reported, 10,000 people were left homeless, and the flood made \$25,000,000 worth of property damages.<sup>25</sup> After the Santa Ana River flood, overall support for the dam increased with the consequences of a major flood clear. Construction began soon after and the Prado Dam was completed in 1941. The dam limited the water entering Orange County and placed restraints on the total water available for use. Also, due to the agreement that was made with Riverside County, the amount of water from the Santa Ana River that was allotted for agriculture was also limited. Orange County shifted to place greater reliance on water imported through different means, such as through forged agreements with the Metropolitan Water District from Los Angeles, to maintain its agricultural economy.

As agriculture continued to decline, Orange County underwent a steady growth in population. There was a 63.7% increase in the population living in the county by 1950, which only continued to grow in the subsequent decades.<sup>26</sup> This constant increase in residence along with a highly regulated and declining water supply placed tremendous pressure on the orange industry. Between 1950 and 1960, the population more than tripled while the orange industry saw a removal of more than 3 million orange trees, essentially cutting it in half.<sup>27</sup> During this time, oranges were effectively dethroned as the chief economic export, and landowners believed

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<sup>24</sup> Paul Prejza, *Aerial View of Flood Damage to a Housing Area in Stanton or Buena Park*, 1938, California Historical Society Collection, University of Southern California, Los Angeles.

<sup>25</sup> "Death Toll Near 200, Waters Receding to Rivers After Inflicting Heavy Loss," *Madera Tribune* (Madera, CA.), Mar. 4, 1938.

<sup>26</sup> U.S. Census Bureau, "Population of California by County," 1950.

<sup>27</sup> United States Department of Agriculture, 1960 Census, from Census of Agriculture Historical Archive.

it was more profitable to sell their lands to development companies to make room for Orange County's current phase—suburbanization.

The development of suburbs away from major cities gained popularity in the 1950s and greatly influenced Orange County. During the 1950s, suburbs were marketed as the perfect escape from primarily industrial and urban cities, with planned suburbs becoming the model for urban living.<sup>28</sup> Orange County found itself perfectly situated for the implementation of suburbs, as it is just south the growing megacity that is Los Angeles. It did not take long for the huge plot of land with paved cul-de-sac aligned with identical houses to take over what was once vast orange groves.<sup>29</sup>

### **Conclusion**

The methods in which water was owned, controlled, and used had a tremendous impact on the economic and social composition of Orange County. Orange County's history can be categorized into three major stages: 1) the ranchero phase, defined by communal irrigated communities, 2) the agricultural phase, distinguished by privatized irrigation systems, and 3) its current suburban phase, characterized by a highly regulated water system and a reliance on imported water sources. Water continues to be a highly valued resource in the modern world and its importance only increases as its scarcity grows. This is especially true in Southern California. Water continues to be imported into this region at large rates as it lacks the resources to sustain itself. This analysis of the relationship between water's use and the overall effects it has on communities is critical in understanding the current water issues that California faces. Comprehending the major role that water continues to play could lead to possible solutions or

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<sup>28</sup> Mark Clapson and Ray Hutchinson, *Suburbanization in Global Society* (West Yorkshire: Emerald Group Publishing Limited, 2010), 3.

<sup>29</sup> *Lakewood Development, View 2*, 1953, Los Angeles Public Library Photo Collection, Los Angeles Public Library, Lakewood.

changes that need to be made to the current form of water management for a more sustainable and water-efficient future. It is also important to understand how changes in water policy lead to major changes for a society as demonstrated here, especially as water crises continue to occur throughout the modern world.

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